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2015 Advanced Site Investigation and Monitoring Report Riverton, Wyoming, Processing Site

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Abbreviations

AR	activity ratio
AWSS	alternate water supply system
bgs	below ground surface
cfs	cubic feet per second
CMT	continuous multichannel tubing
COPC	contaminant of potential concern
CSM	conceptual site model
δ	delta
D	deuterium
DOE	U.S. Department of Energy
DOECAP	Department of Energy Consolidated Audit Program
EPA	U.S. Environmental Protection Agency
ft	foot
GMWL	Global Meteoric Water Line
IC	institutional control
LM	Office of Legacy Management
MCL	maximum concentration limit (in Table 1 to Subpart A of 40 CFR 192)
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NRC	U.S. Nuclear Regulatory Commission
NRZ	naturally reduced zone
ORP	Oxidation reduction potential
pCi/L	picocuries per liter
PD	percent difference
SAP	Sampling and Analysis Plan
SLAC	Stanford Linear Accelerator Center
SMCL	secondary maximum contaminant level
TIC	Total inorganic carbon
TOC	Total organic carbon
UMTRA	Uranium Mill Tailings Remedial Action (Project)
USGS	U.S. Geological Survey

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Executive Summary

The U.S. Department of Energy conducted initial groundwater characterization of the Riverton, Wyoming, Processing Site in the 1990s. The characterization culminated in a Site Observational Work Plan in 1998 that recommended a natural flushing compliance strategy. Results of verification monitoring indicated that natural flushing was generally progressing as expected until June 2010, when significant increases in contaminant concentrations were measured in several monitoring wells downgradient of the site after the area flooded. In response to the unexpected results following the flood, an enhanced characterization of the surficial aquifer was conducted in 2012, which included installation of 103 boreholes along nine transects with a Geoprobe, collection of 103 water samples and 65 soil samples, laboratory tests on the soil samples, and additional groundwater modeling.

This advanced site investigation report summarizes additional investigation in 2015 through the use of backhoe trenching, sonic drilling, multilevel monitoring wells, direct-push drilling, and temporary well points to collect soil and groundwater samples. Additional surface water measurements were made included the installation of a stilling well and the measurement of stream elevation along the Wind River to approximate upgradient groundwater heads. Groundwater sampling included the addition of geochemical constituents and isotopes that have not been sampled in the past to better understand post-flood conditions and the possibility of additional or ongoing contaminant sources. This sampling was performed to (1) better define the contaminant plumes, (2) verify the occurrence of persistent secondary contaminant sources, (3) better understand the reason for the contaminant spikes after a 2010 flood, and (4) assess contaminant plume stagnation near the Little Wind River. This report provides data analyses and interpretations for the 2015 site investigation that addresses these issues and provides recommendations for future efforts.

Observations from trenches and sonic drilling indicate the general lithology of the shallow, unconsolidated sediments consists of a silt zone at the surface that ranges from 2.5 to 4.8 feet below ground surface, underlain by sand and gravel, underlain by the top of the weathered bedrock (Wind River Formation). Soil data from trenches and sonic drilling indicate (1) elevated concentrations of several constituents in the silt zone, likely due to the formation of evaporites, (2) uranium is the only measured element that appears to be concentrated in the silt over the groundwater contaminant plume, (3) in the former tailings impoundment area, there may be a thin unsaturated zone with elevated uranium in the native material just below the fill, (4) in the former tailings impoundment area, slightly higher uranium concentrations occur in the underlying saturated sand and gravel, and (5) several bedrock samples have a unique geochemical signature, generally related to a higher silt content.

Assessment of groundwater flow included measuring river elevations along the Wind River and installing the temporary well points adjacent to the Little Wind River that provided additional data points to refine contours for water table elevations. These data confirm past interpretations of groundwater flow to the southeast across the site toward the Little Wind River. Hydraulic head elevations between paired surficial and semiconfined aquifer wells indicate variable vertical gradients across the site with the potential for upward and downward flow.

Additional direct-push drilling and groundwater sampling confirmed the contaminant plume configuration, but it also revealed a low-sulfate-concentration zone at the edge of the former

tailings impoundment. Temporary well points provided better definition of plume concentrations at the bank of the Little Wind River, and data from these wells indicate plume discharge to the river. Additional sampling in an area southwest of the plume that had elevated uranium groundwater concentrations in the past did not have any uranium concentrations above the U.S. Environmental Protection Agency maximum concentration limit for uranium. Results from multilevel monitoring wells indicate some geochemical differences with depth, but overall concentrations are similar to those in nearby conventional monitoring wells in the long-term monitoring program. Geochemistry data from these multilevel monitoring wells confirm the general increase in contaminant concentrations toward the river and toward the plume centerline for chloride, sulfate, and uranium but highlight geochemical controls on calcium. Iron data indicate slightly reducing conditions, especially near water table and bedrock surfaces, with more oxidizing conditions in the middle of the sand and gravel.

Uranium activity ratios ($^{234}U/^{238}U$) confirm the uranium plume in the surficial aquifer as being mill related, and the area to the southwest outside the plume as natural, non-mill related. In the semiconfined aquifer, evidence of aquifer connection and impacts from the mill is inconclusive. Values of δD and $\delta^{18}O$ suggest water is derived from different sources and tritium data confirm that the semiconfined aquifer water is generally older than the surficial aquifer water. However, these data do indicate some groundwater communication from the surficial aquifer into the semiconfined aquifer, which resulted in δD and $\delta^{18}O$ and tritium values in the semiconfined aquifer that are more similar to those in the surficial aquifer. Values of $\delta^{34}S_{sulfate}$ in the semiconfined aquifer combined with sulfate concentrations indicate the potential for some mill-related sulfate in the semiconfined aquifer, albeit limited to an area near and beneath the former tailings impoundment. Uranium and molybdenum concentrations in the semiconfined aquifer are below groundwater standards in all wells. However, the elevated molybdenum concentrations at one semiconfined aquifer well underneath the former tailings impoundment suggests a mill-derived source for the uranium and molybdenum in that well. It is possible that aquifer cross-communication occurred when the tailings impoundment was active and created a higher head. Current cross-communication appears unlikely given the large differences in tritium values and an upward hydraulic head at this location.

Nine domestic wells are located within the institutional control boundary (eight in the confined aquifer and one in the semiconfined aquifer). Uranium and molybdenum concentrations in all samples collected from these wells were one or two orders of magnitude below the groundwater standards.

Surface water flow in the Little Wind River in September 2015 was low compared to historical averages for that time of year. As a result, the uranium concentration measured in the Little Wind River was at a historical maximum at the sampling location upstream of the site. However, the impact of uranium discharge from the groundwater plume into the Little Wind River was not measureable. Elevated sulfate concentrations were observed in an outfall ditch related to an active sulfuric acid plant. Uranium concentrations in the oxbow lake remain at concentrations above the groundwater standard.

Plume contaminant concentrations had returned to levels found prior to the 2010 flood by the end of 2015. However, these concentrations still exceed model predictions for natural flushing, and the current data indicate that natural flushing to achieve remediation goals within the 100-year time period is not likely, especially with the high potential for additional floods in the

future. As an update to the conceptual site model (CSM), soil data indicate additional contaminant sources, specifically uranium, in evaporites within the silt layer over the uranium plume and in naturally reduced zones (NRZs). Additional zones of slightly elevated uranium concentration are in the native sediments just above the water table but below the fill layer in the former tailings impoundment area. This area also has slightly elevated uranium in the sand and gravel below the water table. Mass balance calculations indicate that small amounts of dissolution in any of these zones with increased uranium in the solid phase can produce groundwater uranium concentrations above the groundwater standard and could account for the post-flood uranium spike.

The additional uranium near the former tailings impoundment provides a mechanism for a continuing source for the uranium plume that was not considered in earlier natural flushing models. In addition, uranium released from the silt layer or the NRZs seasonally and during flooding may add uranium to the groundwater plume near the Little Wind River. These mechanisms provide a possible explanation for plume persistence, along with spikes in concentrations during floods, that creates the current plume configuration. Additional updates to the CSM include (1) chloride flushes more rapidly than uranium beneath the former mill site, (2) chloride in the silt layer provides a scenario in which chloride cannot be used as a conservative tracer (especially in areas prone to flooding), (3) uranium concentrations with depth can be variable (especially below NRZs), and (4) calcite and gypsum solubility limits appear to provide important geochemical controls on groundwater geochemistry.

The conclusion of this study provides several recommendations for additional work to refine the CSM and continue assessment of the natural flushing compliance strategy. Recommendations for additional work include targeted soil and groundwater sampling to assess geochemical conditions, distribution of contaminants, and groundwater/surface water interaction; additional column tests to provide data for geochemical modeling; and development of an updated groundwater flow model, which will be used in conjunction with a geochemical model to assess the viability of the natural flushing compliance strategy.

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1.0 Introduction

A uranium and vanadium ore processing mill operated from 1958 to 1963 at the Riverton, Wyoming, Processing Site (Riverton site). A tailings pile covered about 72 acres of the 140-acre site. The tailings and associated slurry water were the primary, original source of groundwater contamination of the surficial aquifer. In 1988 and 1989, the tailings pile was excavated down to an average depth of 4 feet (ft) below ground surface (bgs) based on a radium (^{226}Ra) soil standard in Title 40 *Code of Federal Regulations* Part 192 (40 CFR 192). Surface remediation activities resulted in removal of about 1.8 million cubic yards of tailings and associated materials from the site, which were encapsulated at the Gas Hills East, Wyoming, Disposal Site (DOE 1998a). Soils at and below the water table with elevated thorium (^{230}Th) concentrations were left in place (DOE 1991) on portions of the former mill site as permitted by the supplemental standards provision of 40 CFR 192. Additional details about the Riverton site, along with links to site documents and data, can be found at http://www.lm.doe.gov/riverton/Sites.aspx. All water quality data for the Riverton site are archived in the U.S. Department of Energy (DOE) Office of Legacy Management (LM) environmental database in Grand Junction, Colorado. Water quality data also are available for viewing with dynamic mapping via the Geospatial Environmental Mapping System (GEMS) website at http://gems.lm.doe.gov/#site=RVT.

DOE conducted initial groundwater characterization of the Riverton site in the 1990s. The characterization culminated in a Site Observational Work Plan (DOE 1998a) that recommended a natural flushing compliance strategy. The U.S. Nuclear Regulatory Commission (NRC) concurred with the natural flushing compliance strategy in the Ground Water Compliance Action Plan (DOE 1998b). DOE has conducted verification monitoring since 1998 to document site conditions and assess the progress of natural flushing; data collected during verification monitoring are reported annually in a Verification Monitoring Report. In addition, the Wind River Environmental Quality Commission and the Northern Arapaho Environmental Organization have conducted studies and provided verification monitoring support during the verification monitoring period.

Results of the verification monitoring indicated that natural flushing was generally progressing as expected until June 2010, when significant increases in contaminant concentrations were measured in several wells downgradient of the site after the area flooded. In response to the unexpected results following the flood, an enhanced characterization of the surficial aquifer was conducted in 2012, which included installation of 103 boreholes along nine transects with a Geoprobe, collection of 103 water samples and 65 soil samples, laboratory tests on the soil samples, and additional groundwater modeling. Results and analysis of the enhanced characterization were reported in the *Enhanced Characterization and Monitoring Report Riverton, Wyoming, Processing Site, Data Summary Report* (DOE 2013a).

The enhanced characterization work provided a better understanding of the Riverton site, including:

- A better definition of the size and shape of contaminant plumes.
- Verification that leachable uranium was present in the unsaturated zone soils.
- An indication that the groundwater compliance strategy of natural flushing may not be viable.

The enhanced characterization also raised additional questions related to the conceptual site model (CSM). These included the following:

- The concentration of uranium leached from unsaturated zone samples (0 to 5 ft bgs) alone did not appear to be consistently high enough to have caused the spikes observed in the groundwater after the 2010 flood. Where was the contamination coming from to cause the observed concentration spikes in groundwater after the flood?
- Are there secondary sources (redistributed from the primary source) of contamination, and if so, where are they?
- What was the mechanism that caused contaminant concentrations in the groundwater to spike?
- Why do high uranium concentrations remain in the groundwater beneath the former mill site?
- Why is there uranium in groundwater above the standard at the farthest southwest portion of the characterized area and away from the contaminant plume? What is the extent of this anomalous uranium concentration?
- Why do contaminant plumes appear to stagnate adjacent to the Little Wind River?

2.0 Purpose and Scope

Rationale for and details of the fieldwork for this advanced site investigation were specified in the *2015 Work Plan for Advanced Site Investigation of the Riverton, Wyoming, Processing Site* (work plan) (DOE 2015). This advanced site investigation had the following objectives:

- Assess the viability of the natural flushing compliance strategy.
- Obtain a better understanding of groundwater flow conditions and geochemical processes that control contaminant transport.
- Review the technical approach to the site and continue to refine a comprehensive CSM with alternative CSMs, if needed.

The scope of this report includes:

- Describing field-investigation activities conducted in 2015.
- Evaluating and interpreting data collected during the field investigation.
- Providing an update on the natural flushing compliance strategy.
- Updating the CSM.
- Providing recommendations for future work.

3.0 Site Summary

3.1 Hydrogeology

The Riverton site is located on an alluvial terrace between the Wind River and the Little Wind River approximately 2.3 miles southwest of the town of Riverton, Wyoming (Figure 1). Groundwater is in three aquifers beneath the site: (1) a surficial unconfined aquifer (surficial aquifer), (2) a middle semiconfined aquifer, and (3) a deeper confined aquifer (DOE 1998a). The surficial aquifer consists of approximately 15 to 20 ft of unconsolidated alluvial material, and the semiconfined aquifer is a 15 to 30 ft thick sandstone unit of the Wind River Formation separated from the unconsolidated alluvial material by a 5 to 10 ft thick semiconfining layer (finer-grained Wind River Formation). The deeper confined aquifer is composed of shales and sandstones of the upper units of the Eocene Wind River Formation, which is over 500 ft thick in the vicinity of the site. The confining unit between the semiconfined aquifer and the confined aquifer is a 10 to 25 ft thick shale unit. Depth to groundwater in the surficial aquifer is generally less than 10 ft bgs. For compliance purposes, the uppermost aquifer is comprised of the surficial aquifer and semiconfined aquifer and is the aquifer for which compliance with groundwater standards is assessed. Groundwater in the uppermost aquifer flows to the southeast.

Because the Riverton site is located on an alluvial terrace between the Wind River and the Little Wind River, site conditions have been influenced by periodic flooding of these rivers. Influence of river flooding on site conditions includes the following: formation of an oxbow lake in 1995; post-flooding spikes in groundwater contaminant concentrations; high groundwater levels leaving contaminants in the unsaturated zone; and high groundwater levels that leached contaminants from the former tailings pile (White et al. 1984).). Contaminant distributions at the site are likely affected when the Little Wind River or the Wind River exceeds 8000 cubic feet per second (cfs). Such floods occurred for the Little Wind River in 1963, 1965, 1967, 1983, 1991, 1995, and 2010 (USGS 2015a) and for the Wind River in 1963, 1967, 1971, 1991, 1997, 1999, and 2011 (USGS 2015b). Section 5.2.3.1 presents discharge data and flood data from the Little Wind River.

3.2 Water Quality

Shallow groundwater beneath and downgradient from the site was contaminated as a result of uranium-processing activities from 1958 through 1963 (DOE 1998a). Contaminants of potential concern (COPCs) in the groundwater beneath the Riverton site are manganese, molybdenum, sulfate, and uranium. COPCs were selected using a screening process that compared contaminant concentrations with the maximum concentration limits (MCLs) in 40 CFR 192, as appropriate, and evaluated potential human health risks and ecological risks. (**Note:** The MCLs discussed in this document are not the same as the maximum contaminant levels that the U.S. Environmental Protection Agency [EPA] sets as drinking water standards.) The COPC selection process is detailed in the *Environmental Assessment of Ground Water Compliance at the Riverton, Wyoming, Uranium Mill Tailings Site* (DOE 1998c). Molybdenum and uranium were selected as indicator contaminants for compliance monitoring in the *Final Ground Water Compliance Action Plan for the Riverton, Wyoming, Title I UMTRA Project Site* (DOE 1998b). These contaminants were selected as indicator contaminants because they are the most widely

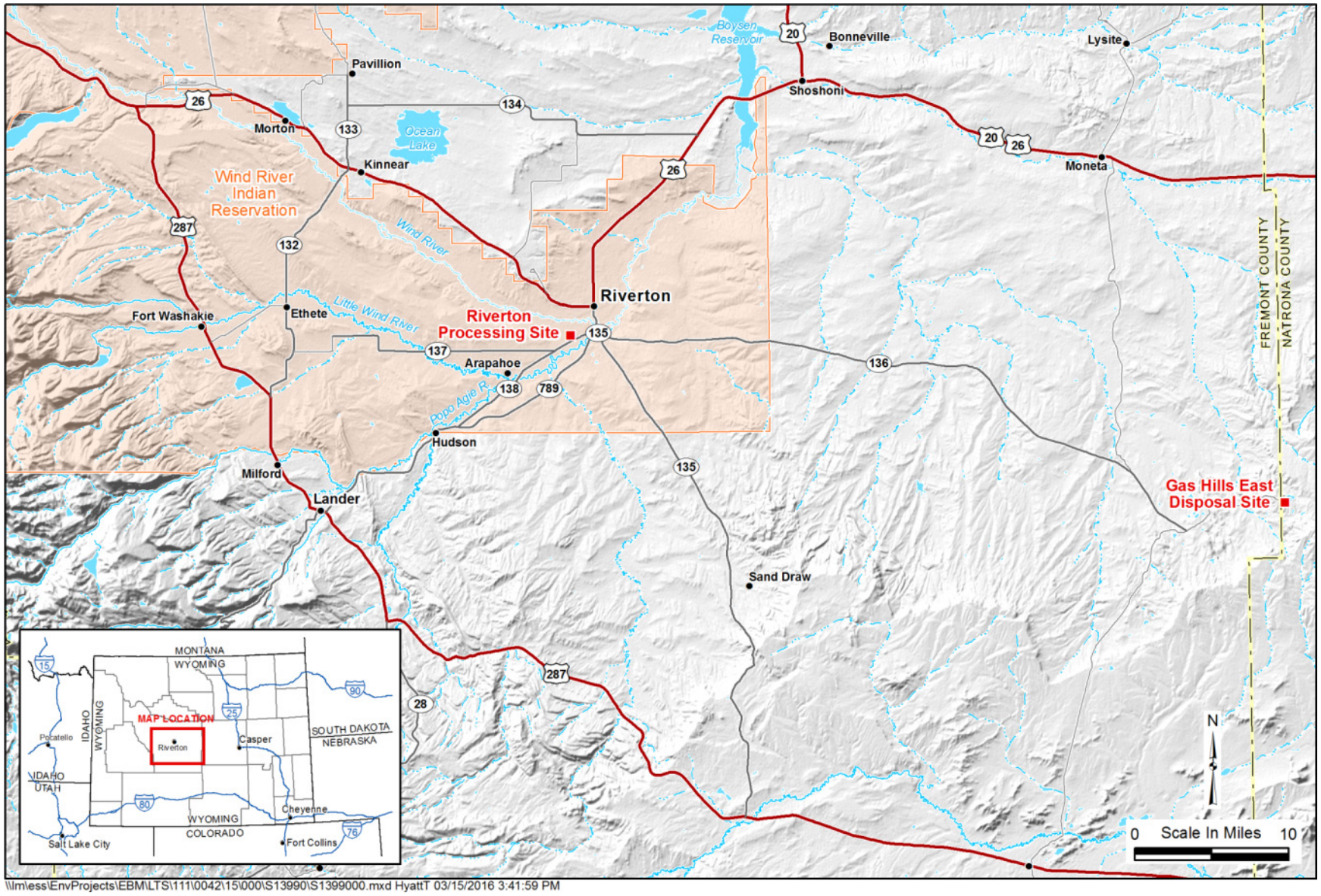

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Figure 1. Site Location Map

distributed and because they form significant aqueous plumes in the uppermost aquifer in the vicinity of the site. The MCLs for molybdenum and uranium are 0.10 milligram per liter (mg/L) and 30 picocuries per liter (pCi/L), respectively.

To provide a consistent comparison with historical data, uranium concentrations continue to be measured in milligrams per liter; therefore, the uranium standard referenced in this report has been converted from 30 pCi/L to 0.044 mg/L (which assumes secular equilibrium of uranium isotopes) to allow direct comparison of uranium data to the standard.

3.2.1 Site Institutional Controls

To protect human health and the environment during the natural flushing period, institutional controls (ICs) are required to prevent exposure to contaminated groundwater. An IC boundary has been established at the Riverton site (Plate 1), delineating the area that requires protection. The IC boundary was set to encompass the area of current groundwater contamination and a surrounding buffer zone to account for potential future plume migration.

ICs at the Riverton site include the following components:

- An alternate water supply system (AWSS), funded by DOE and currently operated by the Northern Arapaho Water and Sewer, supplies potable water to residents within the IC boundary to minimize use of groundwater.
- Warning signs installed around the oxbow lake (Figure 2) explain that the contaminated water is not safe for human consumption, with instructions not to drink from, fish in, or swim in the lake.
- A tribal ordinance places restrictions on well installation, prohibits surface impoundments, authorizes access to inspect and sample new wells, and provides notification to drilling contractors of the groundwater contamination within the IC boundary. Restrictions on well installation include a minimum depth of 150 ft bgs (approximately 50 ft below the top of the confined aquifer) and installation of surface casing through the contaminated upper aquifer.
- A State of Wyoming Department of Environmental Quality notification of existing groundwater contamination will be provided to persons on privately owned land who apply for a gravel pit permit within the IC boundary.
- A U.S. Bureau of Indian Affairs notification of existing groundwater contamination will be provided to persons on tribal land applying for a surface impoundment within or adjacent to the IC boundary.
- The State of Wyoming State Engineer's Office will inform DOE when permit applications are received for wells or surface impoundments within or adjacent to the IC boundary, provide DOE with a copy of the application (so that DOE may comment on it), and incorporate DOE's comments on the permit, if approved.
- An easement and covenant to restrict land use and well drilling on the former mill site property was finalized on June 29, 2009, and the former mill site was purchased by Chemtrade.

Figure 2. Warning Sign at the Oxbow Lake

3.2.2 Institutional Control Monitoring

The long-term management plan (DOE 2009) specifies ongoing ICs monitoring to verify that ICs are in place and working, in order to ensure that potential exposure to contaminated groundwater is minimized. ICs monitoring consists of two components: (1) sampling and (2) land and water use verification. The sampling component consists of sampling domestic wells and the AWSS. The land and water use verification consists of periodic inspection of lands within the IC boundary to verify and document that no additional land or water uses expose or involve shallow groundwater, such as new wells, gravel pits, and recreational ponds.

All known domestic wells used as a potable water source within the IC boundary were sampled during September 2015, and the results are presented in Section 5.2.2 and Appendix A. During the September sampling event, Northern Arapaho environmental personnel indicated that there was an additional existing domestic well within the IC boundary that was used as a potable water source. This well (0878, Plate 1) was sampled and added to the long-term monitoring network.

The Northern Arapaho Water and Sewer organization is responsible for ensuring that the quality, safety, and quantity of the water in the AWSS are adequate. The organization is also required to maintain compliance with EPA standards that regulate community water systems. To assist in this effort and to maintain the AWSS as a viable IC, DOE has worked cooperatively with the Northern Arapaho Tribe to ensure ongoing maintenance, flushing, and sampling of the AWSS.

Field personnel inspected areas within the IC boundary during each field event conducted during 2015 and found no evidence of new land or water use that would expose groundwater.

4.0 Field Investigation Summary

Field investigation activities in 2015 were conducted in three events: Backhoe trenching and soil sampling in May; sonic drilling, direct-push drilling, soil and water sampling, and well installation in August; and groundwater and surface water sampling in September. Field investigation activities and the associated objectives are summarized in Table 1. Trip Reports detailing each of the three field investigation events are found in Appendix B.

Prior to fieldwork, two cultural resources surveys were conducted in the project area to identify any cultural resources that need to be protected during field activities. The first survey, which was documented in *A Class III Cultural Resources Survey of 143 Acres of Private Land near the Former Riverton Processing Site, Fremont County, Wyoming* (ACR 2014), was conducted on land owned by St. Stephens Mission in an area that covered backhoe trenching (BHT-01 through -05), sonic boreholes/multilevel monitoring wells 0852 through 858 and 0877, and hand-driven temporary well points 0866 through 0875. The second survey, which was documented in *A Class III Cultural Resources Survey of Six Proposed Boreholes near the Former Riverton Processing Site, Fremont County, Wyoming* (ACR 2015), was conducted in an area that covered Geoprobe boreholes T03-03 through T03-07 and 0844. Neither survey found any cultural resources sites, isolated resources, or isolated artifacts within the surveyed areas.

Table 1. Summary of Field Investigation Activities and Objectives

Activity	Data Collected	Data Use	Questions Answered	Objective/Use
Backhoe Trenching—Soil Sampling	COPCs and other constituent concentrations in soil	Estimate inventory and distribution of contaminants in soils	Is there sufficient source remaining in soils to affect groundwater concentrations?	CSM; viability of natural flushing strategy; guide sonic drilling
		Determine contaminant transfer rates and factors that control contaminant transfer from soil to groundwater	What are the mechanisms and rates of contaminant transfer from soil to groundwater?	CSM; viability of natural flushing strategy; guide sonic drilling
	Lithologic descriptions	Better understanding of alluvial aquifer	How does geology affect transport of site contaminants?	CSM
Direct-Push Drilling—Borehole Installation	COPCs and other constituent concentrations in groundwater	Configuration of groundwater plumes	What is the extent of contamination, and do ICs address the areas with contamination?	Assess risk to human health and the environment
	COPCs and other constituent concentrations in groundwater south of the river	Evaluate groundwater quality south of the river	Do plumes migrate south of the river?	CSM; viability of natural flushing strategy; assess risk to human health and the environment
Sonic Drilling—Soil Sampling and Well Installation	COPCs and other constituent concentrations in soil	Estimate inventory and distribution of contaminants in soils	Is there sufficient source remaining in soils to affect groundwater concentrations?	CSM; viability of natural flushing strategy
		Determine contaminant transfer rates and factors that control contaminant transfer from soil to groundwater	What are the mechanisms and rates of contaminant transfer from soil to groundwater?	CSM; viability of natural flushing strategy
	Lithologic descriptions	Better understanding of alluvial aquifer	How does geology affect transport of site contaminants?	CSM
	Groundwater chemistry at multiple levels via multilevel monitoring wells	Evaluate vertical stratification of the surficial aquifer and water/rock interaction	Is there vertical variation in the surficial aquifer under typical or flood conditions? How is any vertical variation in groundwater chemistry influenced by water/rock interaction, which may influence plume stagnation?	CSM; viability of natural flushing strategy
	Groundwater elevations from multilevel monitoring wells	Groundwater flow direction and gradient	What is the groundwater flow direction and gradient in the area near the Little Wind River where plumes have stagnated?	CSM; viability of natural flushing strategy
	COPC and other constituent concentrations in groundwater (multilevel monitoring wells)	Improve evaluation of the groundwater plumes	Are COPC concentrations declining in areas of concern?	CSM; viability of natural flushing strategy

Table 1 (continued). Summary of Field Investigation Activities and Objectives

Activity	Data Collected	Data Use	Questions Answered	Objective/Use
Hand-Driven Temporary Well Points	COPCs and other constituent concentrations, temperature	Groundwater discharge to river and evaluation of plume stagnation	Is there geochemical evidence that groundwater discharges to the Little Wind River? Why are contaminant plumes stagnated in the area by the river?	CSM; viability of natural flushing strategy
Continuous Groundwater Elevation Monitoring	Continuous groundwater elevations via pressure transducer data loggers	Groundwater flow direction and gradient, groundwater model input	Does groundwater flow direction, gradient, or both change with river stage?	CSM; viability of natural flushing strategy; assess risk to human health and the environment
Surface Water Measurements	Discharge rates of ditches and canals and volumes of irrigation water used	Infiltration rates for groundwater flow model input	Is irrigation in the vicinity of the site affecting groundwater flow and contaminant plume configurations?	CSM; viability of natural flushing strategy
	Continuous river elevations from a stilling well	River gradient for groundwater flow model input	What is the interaction between the surficial aquifer and the Little Wind River?	
	Survey of river elevations on the Wind River	Groundwater-surface water interaction and groundwater flow model input	What are the boundary conditions for that groundwater flow model?	
Analytical Program—Groundwater Analyses	Calcium, chloride, magnesium, potassium, and silica	Geochemical evidence of flow connections	Are site-related contaminants affecting the semiconfined aquifer?	CSM; viability of natural flushing strategy
	^{18}O and deuterium			
	Sulfur isotopes ($^{34}S_{sulfate}$)	Differentiation of sulfate sources		
	Tritium	Differentiation of groundwater ages		
	$^{234/238}U$	Identify source of uranium	Is the elevated uranium concentration in groundwater outside the primary plume naturally occurring?	
	Ferrous/ferric iron pairs and nitrate/nitrite	Redox state of the surficial aquifer	What are the geochemical processes controlling contaminant transport and what is the rate of contaminant transport?	
	Manganese, molybdenum, sulfate, and uranium	Distribution of COPCs	What is the horizontal and vertical distribution of COPCs?	

Abbreviations:
^{18}O = oxygen-18
^{34}S = sulfur-34 of sulfate
$^{234/238}U$ = uranium-234 and uranium-238

4.1 Backhoe Trenching

A backhoe trenching and sampling event was conducted in May 2015 in collaboration with Stanford Linear Accelerator Center (SLAC) personnel (Figure 3). Twenty-three soil samples were collected from five trench locations as shown in Plate 1. Backhoe trenches allowed a quick, easy, and cost-effective approach for getting visual descriptions of the subsurface lithology and for identifying and sampling naturally reduced zones (NRZs) and evaporites. The NRZs are potential controls for plume persistence, as they can act as sources or sinks for uranium in groundwater.

Figure 3. Backhoe Trenching at the Riverton Site

The backhoe trenching was also used to guide drilling of sonic boreholes. Soil sample collection was based on visual identification of NRZs, evaporites, or changes in geology. Sample collection targeted a zone of about 3 inches in thickness to provide a sufficient sample volume. That material was collected with a stainless steel spoon and placed in a stainless steel pan. The sample material was thoroughly mixed in the pan to homogenize the sample. Samples for laboratory analysis were placed in plastic bottles, and the remaining pan material was saved in a plastic bag for archiving. Any duplicate samples were taken at the same time from the same homogenized material in the pan. Soil samples were analyzed by a Department of Energy Consolidated Audit Program (DOECAP)–approved laboratory for NRC-approved COPCs (manganese, molybdenum, sulfate, and uranium), major cations (calcium, magnesium, potassium, and sodium), iron, chloride, total organic carbon, and total inorganic carbon. EPA SW-846 methods were used for digestion and analyses of soil samples (EPA 2014a). A total acid-digestion using EPA method SW-846 3050B was used for the metals and major cations, and an ASTM deionized water leach was used for the chloride and sulfate analyses. Analytical methods used for metals

and major cations were EPA methods SW-846 6010B and SW-846 6020; the analytical method used for chloride and sulfate was EPA method SW-846 9056, and the preparation and analytical method for inorganic and total organic carbon analyses was EPA method SW-846 9060.

The soil sample logs, lithologic descriptions of the trenches, and photographs of trenching activities and trench soils are included in the Backhoe Trenching Trip Report in Appendix B, and analytical results for soils are included in Appendix C. All trench samples were labeled with a BHT (backhoe trench) designation.

4.2 Geoprobe Boreholes

Boreholes were installed with a Geoprobe Model 7720DT to further evaluate groundwater conditions in areas where boreholes were planned during the 2012 field investigation (reported in DOE 2013a) but not installed because of access issues. Temporary boreholes T03-03 through T03-07 (Plate 1) were installed to complete a transect southwest of the former mill site to better define contaminant plumes and to further delineate the extent of groundwater contamination. In addition to boreholes T03-03 through T03-07, boreholes T03-08 and T03-09 were re-drilled and sampled during this site investigation to confirm the high uranium concentration measured in 2012 and to provide a basis for comparison to data from locations T03-03 to T03-07.

Temporary borehole 0844 (Plate 1) was installed with the Geoprobe to assess water quality on the south side of the Little Wind River.

Groundwater in all temporary boreholes was sampled by driving hollow steel rods into the ground with the Geoprobe to create a borehole for access to groundwater (Figure 4). Samples were collected through the Geoprobe rods, and holes were abandoned after samples were collected. Groundwater samples were collected from the same depth at each location to facilitate a consistent and reproducible approach, which was consistent with the 2012 field investigation (described in DOE 2013a). Geoprobe rods were driven down to 12 ft bgs with a 3 ft slotted rod installed at the lower end. Polyethylene tubing and a peristaltic pump were used to collect samples through the rods, with the tubing intake placed at the top of the water column. The midpoint of the slotted rod approximates the average midpoint of the screened intervals of surficial aquifer wells in the groundwater monitoring network prior to this investigation.

Figure 4. Groundwater Sampling of Geoprobe Boreholes

Groundwater samples from the temporary boreholes were collected according to the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites* (SAP) (LMS/PRO/S04351), with the following exceptions. Tubing intake was placed at the top of the water column during purging. Purging consisted of pumping 8 liters of water from each rod prior to sample collection. The purge volume represented approximately three casing (steel rod) volumes (1.5-inch inside diameter rods with 8 ft of water in the rod). Geoprobe rods were decontaminated by physically removing all visible soils from the exterior of the rods and rinsing the interior and exterior of the rods with tap water from a known source before moving to the next location. Sample tubing was reused and decontaminated between locations as specified in the SAP (i.e., a detergent/deionized water rinse followed by a deionized water rinse). After completion of sampling, steel rods were pulled, and boreholes were abandoned by slowly filling the hole with bentonite pellets or chips to the ground surface.

Samples were collected from each borehole and analyzed by a DOECAP-approved laboratory for NRC-approved COPCs (manganese, molybdenum, sulfate, and uranium), major cations (calcium, magnesium, potassium, and sodium), and chloride. In addition, field measurements of pH, specific conductance, temperature, oxidation-reduction potential (ORP), total alkalinity, turbidity, and dissolved oxygen were taken at the time of sampling.

Temporary boreholes were also installed at and around location T06-01(Plate 1) to provide data to define the extent of anomalous groundwater uranium concentrations measured in that borehole from the 2012 field investigation (reported in DOE 2013a). A total of eight boreholes were installed to define the uranium concentration in the general area. A mobile laboratory was used to provide real-time uranium analyses to guide the fieldwork. Groundwater samples collected from boreholes around T06-01 were analyzed for uranium in the mobile laboratory using a kinetic phosphorescence analyzer method in accordance with *Environmental Sciences Laboratory Procedures Manual* (LMS/PRO/S04343) procedure AP (U-2), “Uranium

Determination by Chemchek." In addition to samples for uranium, samples were collected from each borehole and analyzed for sulfate and chloride to further evaluate the groundwater geochemistry in this area that may differ from that of the main uranium plume; these samples were analyzed by a DOECAP-audited subcontracted laboratory.

4.3 Sonic Drilling and Soil Sampling

Previous work sampled the unsaturated zone with a Geoprobe rig down to approximately 5 ft, with samples homogenized at 0 to 2.5 ft and 2.5 to 5 ft (DOE 2013a). This work identified some labile uranium, but mass balance calculations did not appear to account for all of the uranium that was added to the groundwater after the June 2010 flooding event. Due to the small coring diameter and percussion hammering approach, the core recovery from the Geoprobe rig was sometimes limited, especially in more gravelly sediments. Therefore, sonic drilling, which is capable of collecting high-quality core samples in unconsolidated sediments, was used in this site investigation (Figure 5). The sonic drilling method allowed collection of representative samples to better characterize the distribution and concentration of COPCs in the subsurface. Six-inch continuous core from ground surface to the top of the first confining zone was obtained at 10 locations (Plate 1), resulting in 148 samples.

Figure 5. Sonic Drill Rig at the Riverton Site

Following is the rationale for the 10 sonic drilling locations:

1. Location 0852 near the borehole T06-01 investigation area where uranium was slightly above the 0.044 mg/L MCL but outside of the main plume. This sonic borehole was drilled in the location with the highest uranium concentration measured during the direct-push drilling to provide information on uranium concentrations, source, and mobility that may or may not be related to the main plume.
2. Location 0853 on the lateral side of the plume and near monitoring well 0788 that showed an increase in uranium after the June 2010 flooding event. This sonic borehole was drilled to identify any potential uranium sources at the lateral edge of the plume and will be compared with analytical results from boreholes 0855, 0856, and 0857 for differences in uranium concentrations and sorption potential.
3. Location 0854 on the lateral side of the plume near well 0826 that showed a slight increase in uranium after the June 2010 flooding event. This sonic borehole was drilled to identify any potential uranium sources at the lateral edge of the plume and will be compared with results from boreholes 0855, 0856, and 0857 for differences in uranium concentrations and sorption potential.
4. Location 0855 near the plume centerline was drilled in an area where the highest uranium concentrations have been measured. This location is close to the river and southwest of well 0789 and provides information on carbon content, uranium concentration, and sorption potential near the river that is critical. This location is important for modeling input to predict future flushing along the center of the plume.
5. Location 0856 was drilled upgradient of 0855 along the centerline of the plume. This sonic borehole was installed to obtain sorption and uranium concentration data that will be used for modeling inputs along the groundwater flow line to predict future uranium flushing in the central plume area.
6. Location 0857 was drilled upgradient of 0856 along the plume center line. This sonic borehole was installed to obtain sorption and uranium concentration data that will be used for modeling inputs along the groundwater flow line to predict future uranium flushing in the central plume area.
7. Location 0858 was drilled near well 0707 in the area with plume persistence that showed an increase in uranium after the June 2010 flooding event. COPC concentrations and sorption information from this location will be used in modeling future uranium transport.
8. Location 0859 was drilled on the former mill site in an area of elevated sulfate concentrations, but uranium concentrations were near background levels. This borehole was installed to provide information on the sulfate signature from the sulfuric acid plant. Sorption and uranium concentration data at this location will be used for modeling inputs upgradient along the groundwater flow line to predict future uranium flushing.
9. Location 0860 was drilled on the former mill site near the potential remaining source area and the plume retardation area in the vicinity of borehole T03-06 where additional Geoprobe boreholes T03-03 through T03-07 were installed. This location will provide information on whether a uranium source still exists below the former tailings impoundment area and whether uranium is still desorbing from the solid phase.
10. Location 0877 was drilled in an area of a well-developed NRZ that was discovered during hand augering by SLAC personnel. This borehole was installed to characterize the NRZ

and the potential controls on plume persistence by acting as sources or sinks for uranium in groundwater.

Core from the sonic drilling was placed in a plastic core sleeve as the core is extruded from the drilling barrel. Sonic drilling provided almost continuous core with a 6-inch diameter. Occasional recovery losses occurred but were generally minimal. Any significant recovery losses are noted in the borehole logs in Appendix D. The plastic core sleeve for each core was cut open to allow for visual logging with a lithologic description (Appendix D) and photographed. As specified in the work plan, soil samples were collected from approximately each 1 ft interval to obtain a detailed vertical inventory of COPCs and geochemical parameters. Within each 1 ft interval, the soil was selectively sampled for NRZs or evaporite minerals based on visual observations by the onsite geologist and geochemist. Small adjustments to sample intervals were made by the onsite geologist based on core recovery and lithology changes. Although the sonic drilling process does disturbs the core upon removal of the core from the core barrel, most lithologic changes were preserved. Loose sand and gravel with minimal structure had the most lithologic disturbance. Special handling of some of the core material was initiated by SLAC personnel as part of their regional study of NRZs. Appendix C presents the final list of solid-phase samples with dates, times, depths, and a brief sample description.

Sample collection targeted a zone of about 3 inches of the core to provide a sufficient sample volume. That material was collected with a stainless steel spoon and placed in a stainless steel pan. The core material was thoroughly mixed in the pan to homogenize the sample. Samples for lab analyses were placed in plastic bottles, and the remaining pan material was saved in a plastic bag. Any duplicate samples were taken at the same time from the same homogenized material in the pan. Another one-quarter of the core was saved as an archive sample on intervals of approximately 1 to 3 ft based on core recovery. This archive core was placed in a plastic bag using a stainless-steel trowel, and the exact interval was based on not crossing any lithology changes as identified by the onsite geologist. Archived core was labeled and dried for future laboratory testing.

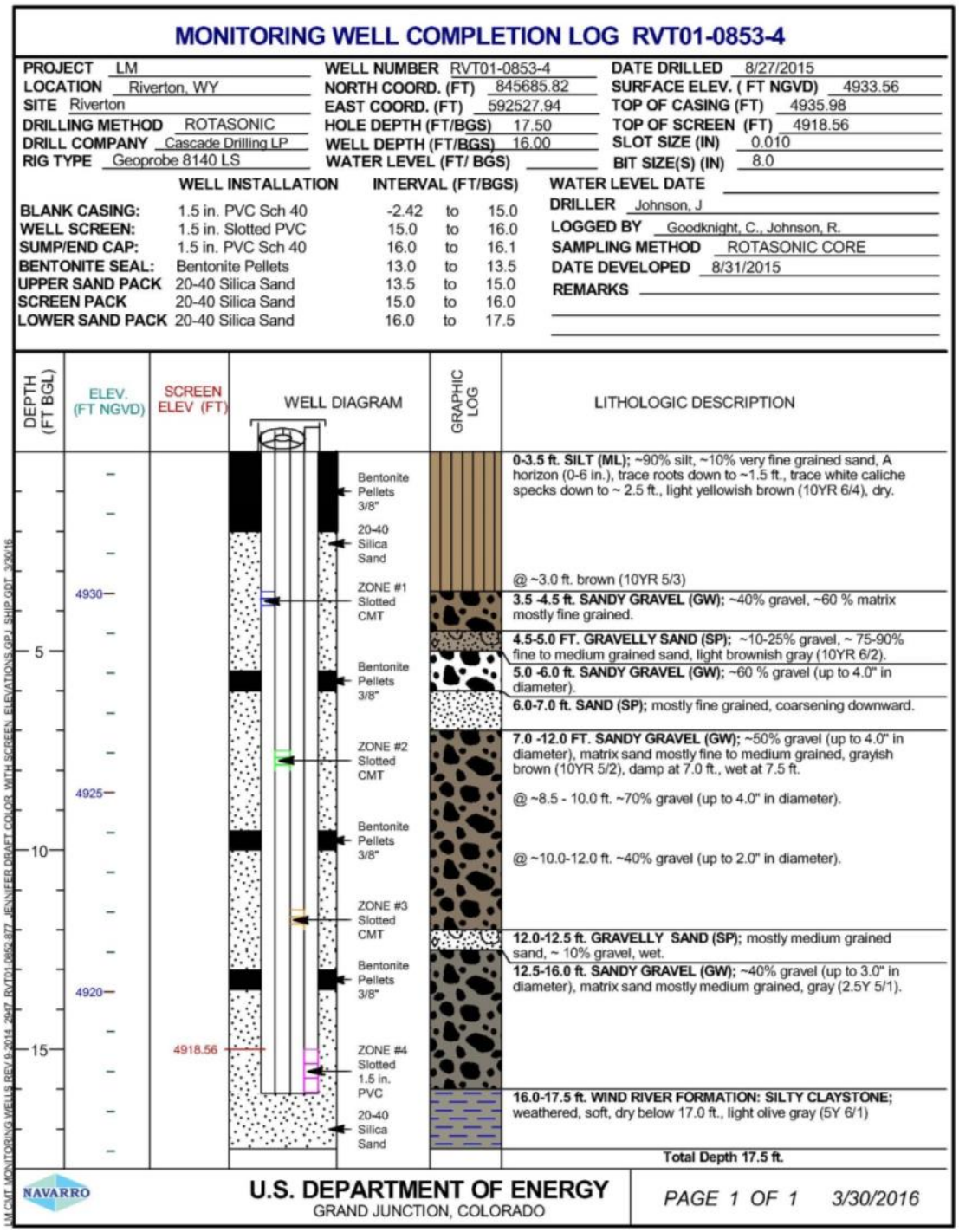
Soils samples were analyzed by a DOECAP-approved laboratory for NRC-approved COPCs (manganese, molybdenum, sulfate, and uranium), major cations (calcium, magnesium, potassium, and sodium), and additional major anions (chloride). Additional analyses included iron, total organic carbon, and total inorganic carbon. These analyses were conducted to provide information for potential uranium sorption on iron and organic carbon along with water/rock interaction through similar analyses on the solid-phase material in conjunction with groundwater samples. EPA SW-846 methods were used for digestion and analyses of soil samples (EPA 2014a). A total acid-digestion using EPA method SW-846 3050B was used for the metals and major cations, and an ASTM deionized water leach was used for the chloride and sulfate analyses. Analytical methods used for metals and major cations analyses were EPA methods SW-846 6010B and SW-846 6020; the analytical method used for chloride and sulfate was EPA method SW-846 9056, and the preparation and analytical method for inorganic and total organic carbon analyses was EPA method SW-846 9060.

4.4 Multilevel Monitoring Well Installation

Discrete zone multilevel groundwater monitoring wells were installed in nine of the sonic boreholes (0852 through 0860). Each well was constructed by combining a 1.5-inch PVC well

with a 3-channel continuous multichannel tubing (CMT) well to make a 4-port multilevel monitoring well (Figure 6). The CMT material was secured to a 1.5-inch schedule 40 PVC pipe to allow vertical installation of the CMT material and to provide an additional monitoring port. The four zones were (1) in the area of the aquifer that is only saturated during high water (typically less than 4 ft bgs), (2) near the top of the saturated zone during low water, (3) at the approximate mid-point of the typical saturated thickness, and (4) the base of the surficial aquifer (with the 1.5-inch PVC and a 1 ft screened interval). CMT screen intervals were 0.5 ft and were custom cut in the field based on the lithology determined by the onsite geologist. Figure 7 displays an example of the multilevel monitoring well construction. Appendix D shows well completion logs for all wells. All multilevel monitoring wells were developed by alternately surging and pumping after installation, with the following exceptions: the top port (1) of all multilevel monitoring wells was not developed because the port was dry (by design) at the time of installation. Groundwater sampling of the multilevel monitoring wells was conducted according to the SAP and Program Directive RVT-2015-01, which is appended to the SAP.

Figure 6. Multilevel Monitoring Well Assembly



MONITORING WELL COMPLETION LOG RVT01-0853-4

PROJECT	LM	WELL NUMBER	RVT01-0853-4	DATE DRILLED	8/27/2015
LOCATION	Riverton, WY	NORTH COORD. (FT)	845685.82	SURFACE ELEV. (FT NGVD)	4933.56
SITE	Riverton	EAST COORD. (FT)	592527.94	TOP OF CASING (FT)	4935.98
DRILLING METHOD	ROTASONIC	HOLE DEPTH (FT/BGS)	17.50	TOP OF SCREEN (FT)	4918.56
DRILL COMPANY	Cascade Drilling LP	WELL DEPTH (FT/BGS)	16.00	SLOT SIZE (IN)	0.010
RIG TYPE	Geoprobe 8140 LS	WATER LEVEL (FT/ BGS)		BIT SIZE(S) (IN)	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.42	to	15.0
WELL SCREEN:	1.5 in. Slotted PVC	15.0	to	16.0
SUMP/END CAP:	1.5 in. PVC Sch 40	16.0	to	16.1
BENTONITE SEAL:	Bentonite Pellets	13.0	to	13.5
UPPER SAND PACK	20-40 Silica Sand	13.5	to	15.0
SCREEN PACK	20-40 Silica Sand	15.0	to	16.0
LOWER SAND PACK	20-40 Silica Sand	16.0	to	17.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS

Figure 7. Well Completion Log for Multilevel Monitoring Well 0853-4

4.5 Temporary Well-Points

Temporary well points were installed at 10 locations (0866 to 0875) into the dry side-channel of the river bed in the vicinity of monitoring well 0789 (Plate 1). These well points were hand-driven into groundwater to a depth of 3 to 6 ft bgs (Figure 8) to obtain geochemistry and temperature data to confirm areas of groundwater discharge to the Little Wind River, and to evaluate plume stagnation in this area that is based on differences from nearby monitoring wells. In addition, this information will be used to target high-concentration areas for additional biota sampling to support the human health and ecological risk assessments.

Figure 8. Temporary Well-Point

All temporary well points were developed after installation. Groundwater was sampled according to the SAP, with the following exceptions as specified in the work plan (DOE 2015). Tubing intake was placed at the top of the water column during purging, and water levels were not measured during the purging process because of the small diameter of the temporary well point. Purging continued until field parameters of purge volume, flow rate, pH, specific conductance, and turbidity met stabilization criteria specified in the SAP.

Temporary well points were installed in August and sampled during the September sampling event. All temporary well points were removed after the September sampling event, and each hole collapsed upon pulling the well point, with no backfill required.

4.6 Continuous Groundwater Elevation Monitoring

The continuous groundwater elevation monitoring was expanded in 2015 with the installation of pressure transducers in four additional monitoring wells (0729, 0724, 0824, and 0826). Currently, pressure transducers are installed and logging data in nine monitoring wells (0101, 0707, 0710, 0789, 0722R, 0724, 0729, 0824, and 0826) at the Riverton site. Data will be used to evaluate flow direction, gradient changes, or both throughout the year and also will function as input into the groundwater flow model.

4.7 Surface Water Discharge Measurements

Surface water discharge was measured at five locations (Plate 1), including the Chemtrade effluent ditch and irrigation ditches. Discharge data will be used to develop future groundwater flow, contaminant transport, and reactive transport models. Measurements were made according to the *Environmental Procedures Catalog* (LMS/POL/S04325) Section 26.0, "ASTM D3858-95 (Reapproved 2008)—Standard Test Method for Open-Channel Flow Measurement of Water by Velocity-Area Method." The velocity/area method was implemented by dividing each ditch into cross-sectional areas and measuring the representative current velocity in each of the multiple cross-sections traversing the width of the flow channel. Total discharge at a given location was calculated as the sum of the area/velocity products of the individual cross-sections. Table 2 displays the discharge data.

Table 2. Surface Water Discharge Measurement Results

Location	Discharge (cfs)
0861	4.99
0862	4.83
0863	0.27
0864	0.74
0865	0.60

Abbreviation:
cfs = cubic feet per second

4.8 Surveying

All new and existing monitoring wells, temporary well points, discharge measurement locations, the stilling well, and Wind River locations were surveyed with survey-grade GPS instrumentation. The survey-grade GPS instrument provides horizontal accuracy within ±0.08 ft of the actual location and elevation accuracy within ±0.20 ft of the true elevation, each with a 95% confidence interval. Elevations of new monitoring wells, temporary well points, and the stilling well were further refined by several level-loop surveys using a laser-level, which refined the accuracy to a minimum of ±0.016 ft of the true elevation with 95% confidence interval. Vertical accuracy for some of the level-loop surveys was as high as ±0.004 ft of the true elevation.

A survey of the Wind River was conducted along a stretch of the river north of the Riverton site to establish the gradient of the river and correlate river elevations with the U.S. Geological Survey (USGS) gaging station. This data will be used to create a groundwater contour map and update the groundwater flow model. The river was surveyed at 22 locations (Plate 1), which were used to construct groundwater elevation contours to the north of the Riverton site.

4.9 Stilling Well

A stilling well was installed at location 0849 (Plate 1) on the Little Wind River to measure river elevations for assessment of groundwater and surface water interaction and to provide data to develop a groundwater flow model with transient river stages. The measuring point of the stilling

well and elevation of the Little Wind River were surveyed, and a pressure transducer was installed and calibrated in the stilling well to relate the river elevation to the pressure read by the transducer. A picture of the stilling well is shown in Figure 9. Data will be downloaded periodically and will be used to develop future groundwater flow, contaminant transport, and reactive transport models.

Figure 9. Stilling Well on the Little Wind River

4.10 Groundwater and Surface Water Sampling

Water samples were collected from 73 locations in September 2015, including existing monitoring wells, new multilevel monitoring wells, temporary well points, domestic wells, and surface water. Table 3 lists the locations sampled during the September event. The top ports of all of the multilevel monitoring wells were dry. These ports were designed to be saturated only during flood conditions, so the dry condition was expected. In addition, multilevel monitoring wells 0852-2 and 0857-2 were dry because of low groundwater levels.

Water samples were collected according to the SAP and associated Program Directive, and the work plan. A peristaltic pump with dedicated tubing was used to purge and sample all monitoring wells, including multilevel monitoring wells and temporary well points. Samples were filtered only if the sample turbidity measurement was greater than 10 nepholometric turbidity units. As part of the routine, long-term monitoring program, water samples were analyzed by a DOECAP-approved laboratory for NRC-approved COPCs (manganese, molybdenum, sulfate, and uranium), major cations (calcium, magnesium, potassium, and sodium), and chloride. In addition, measurements of pH, specific conductance, temperature, ORP, total alkalinity, turbidity, and dissolved oxygen were made in the field. Analytical methods used for metals and major cations analyses were EPA methods SW-846 6010B and SW-846 6020, and the analytical method used for chloride and sulfate was EPA method SW-846 9056 (EPA 2014a). A number of additional analyses for groundwater sampling were added to the routine groundwater sampling events as specified in Table 4, with detailed

descriptions on the purpose of each addition. All analyses specified in Table 4 were analyzed by a DOECAP-approved laboratory (most analyses) or a USGS laboratory (stable isotopes) except for ferrous iron and nitrite, which were measured in the field with a portable colorimeter.

Table 3. September 2015 Sampling Network at the Riverton Site

Location ID	Location Description	Monitoring Rationale	Comments
DOE Monitoring Wells			
0705	Semiconfined aquifer	Monitor semiconfined aquifer	Monitoring well
0707	Surficial aquifer	Monitor centroid of plume	Monitoring well
0710	Surficial aquifer	Background location	Monitoring well
0716	Surficial aquifer	Monitor upgradient portion of plume	Monitoring well
0717	Semiconfined aquifer	Monitor semiconfined aquifer	Monitoring well
0718	Surficial aquifer	Monitor lateral plume movement	Monitoring well
0719	Semiconfined aquifer	Monitor semiconfined aquifer	Monitoring well
0720	Surficial aquifer	Monitor lateral plume movement	Monitoring well
0721	Semiconfined aquifer	Monitor semiconfined aquifer	Monitoring well
0722R	Surficial aquifer	Monitor centroid of plume	Monitoring well
0723	Semiconfined aquifer	Monitor semiconfined aquifer	Monitoring well
0727	Semiconfined aquifer	Geochemical evidence of connection with surficial aquifer	Monitoring well
0729	Surficial aquifer	Monitor lateral plume movement	Monitoring well
0730	Semiconfined aquifer	Monitor semiconfined aquifer	Monitoring well
0732	Semiconfined aquifer	Geochemical evidence of connection with surficial aquifer	Monitoring well
0784	Surficial aquifer	Monitor lateral plume movement	Monitoring well
0788	Surficial aquifer	Monitor lateral plume movement	Monitoring well
0789	Surficial aquifer	Monitor centroid of plume	Monitoring well
0824	Surficial aquifer	Monitor lateral plume movement	Monitoring well
0826	Surficial aquifer	Monitor lateral plume movement	Monitoring well
852 (1-4)	Surficial aquifer	Monitor vertical variation in the surficial aquifer	Multilevel monitoring well
853 (1-4)	Surficial aquifer	Monitor vertical variation in the surficial aquifer	Multilevel monitoring well
854 (1-4)	Surficial aquifer	Monitor vertical variation in the surficial aquifer	Multilevel monitoring well
855 (1-4)	Surficial aquifer	Monitor vertical variation in the surficial aquifer	Multilevel monitoring well
856 (1-4)	Surficial aquifer	Monitor vertical variation in the surficial aquifer	Multilevel monitoring well
857 (1-4)	Surficial aquifer	Monitor vertical variation in the surficial aquifer	Multilevel monitoring well
858 (1-4)	Surficial aquifer	Monitor vertical variation in the surficial aquifer	Multilevel monitoring well
859 (1-4)	Surficial aquifer	Monitor vertical variation in the surficial aquifer	Multilevel monitoring well
860 (1-4)	Surficial aquifer	Monitor vertical variation in the surficial aquifer	Multilevel monitoring well
0866	Surficial aquifer	Assess geochemical conditions adjacent to the river	Temporary well point
0867	Surficial aquifer	Assess geochemical conditions adjacent to the river	Temporary well point
0868	Surficial aquifer	Assess geochemical conditions adjacent to the river	Temporary well point
0869	Surficial aquifer	Assess geochemical conditions adjacent to the river	Temporary well point
0870	Surficial aquifer	Assess geochemical conditions adjacent to the river	Temporary well point
0871	Surficial aquifer	Assess geochemical conditions adjacent to the river	Temporary well point
0872	Surficial aquifer	Assess geochemical conditions adjacent to the river	Temporary well point

Table 3 (continued). September 2015 Sampling Network at the Riverton Site

Location ID	Location Description	Monitoring Rationale	Comments
0873	Surficial aquifer	Assess geochemical conditions adjacent to the river	Temporary well point
0874	Surficial aquifer	Assess geochemical conditions adjacent to the river	Temporary well point
0875	Surficial aquifer	Assess geochemical conditions adjacent to the river	Temporary well point
Domestic Wells			
0405	Confined aquifer	Potential point of exposure	Private residence
0430	Confined aquifer	Potential point of exposure	Private residence
0436	Confined aquifer	Potential point of exposure	St. Stephens Mission
0460	Confined aquifer	Potential point of exposure	Chemtrade Refinery
0828	Confined aquifer	Potential point of exposure	St. Stephens Mission
0841	Semiconfined aquifer	Potential point of exposure	Private residence
0842	Confined aquifer	Potential point of exposure	Private residence
0876	Confined aquifer	Potential point of exposure	Private residence
0878	Confined aquifer	Potential point of exposure	Private residence
Surface Water			
0747	Pond	Impacted by groundwater discharge	Oxbow lake
0749	Ditch	Monitor effluent from sulfuric acid plant	Chemtrade refinery discharge
0794	River	Upstream of predicted plume discharge	Little Wind River
0796	River	Downstream of predicted plume discharge	Little Wind river
0810	Pond	Potential for impact—within IC boundary	Former gravel pit
0811	River	Within area of predicted plume discharge	Little Wind River
0812	River	Within area of predicted plume discharge	Little Wind River
0822	Ditch	Potential for impact—within IC boundary	West side ditch
0823	Pond	Upgradient of plume—within IC area	Former gravel pit

Table 4. Additional Groundwater Monitoring Details

Analyses	Locations	Frequency	Data Use
Chloride and silica	All monitoring wells in the long-term sampling network, plus wells 0727 and 0732	Ongoing	Geochemical evidence of flow connections; geochemical and reactive transport modeling
^{18}O and deuterium	All monitoring wells in the long-term sampling network, plus wells 0727 and 0732	Once	Geochemical evidence of flow connections; evapotranspiration
$^{34}S_{sulfate}$	0705, 0707, 0710, 0716, 0717, 0718, 0719, 0720, 0721, 0722R, 0723, 0727 0729, 0730, 0732, 0784	Once	Differentiation of sulfate sources
Tritium	0705, 0707, 0710, 0716, 0717, 0718, 0719, 0720, 0721, 0722R, 0723, 0727 0729, 0730, 0732, 0784	Once	Differentiation of groundwater ages
$^{234/238}U$	All monitoring wells in the long-term sampling network	Once	Identify uranium sources
Ferrous iron and total iron	All monitoring wells in the long-term sampling network	Ongoing	Redox state of the surficial aquifer
Nitrate/nitrite	All monitoring wells in the long-term sampling network	Ongoing	

5.0 Results and Interpretation

5.1 Soils

For all of the measured constituents, all 10 boreholes and the 5 trenches are plotted in Appendix C. Given the importance of uranium at the site, uranium concentrations in the solid-phase samples with depth are graphed separately for each borehole and each trench in Appendix C along with labeling of the general lithology. These figures provide information on the overall concentration ranges for each measured constituent with some general trends. However, since there are 10 boreholes and 5 trenches, it became necessary to group the borehole and trench data for better visualization and interpretation. A logical grouping is the repeated use of borehole 0852 (Plate 1), which is outside of the main plume area, in comparison with conceptual zones that may have different controlling process on contaminant movement. The selected zones with borehole and trench numbers and associated figure numbers for uranium and chloride, respectively, are listed below, and graphs for all other constituents grouped by the same zones are provided in Appendix C.

- Source zone: borehole 0852 compared to boreholes 0859 and 0860 (Figure 10 and Figure 11),
- Plume zone: borehole 0852 compared to boreholes 0856 and 0858 and trenches BHT-02, -03, and -05 (Figure 12 and Figure 13),
- Naturally reduced zone: borehole 0852 compared to boreholes 0855 and 0877 and trench BHT-01 (Figure 14 and Figure 15),
- Plume edge zone, borehole 0852 compared to boreholes 0853 and 0854 and trench BHT-04 (Figure 16 and Figure 17),
- Silty gravel at the surface zone: borehole 0852 compared to borehole 0857 (Figure 18 and Figure 19).

Plate 1 shows all of the borehole and trench locations. The source zone compares borehole 0852 with the two boreholes (0859 and 0860) that are completed in an area that was underneath the former tailings impoundment. These two boreholes were installed to see if any continuing sources of uranium are present. The plume zone compares borehole 0852 with the boreholes and trenches that were completed in the main groundwater contaminant plume that still exists close to the Little Wind River (see Section 5.2.1.3). The plume zone does not include a comparison with boreholes 0855 and 0877 and trench BHT-01; this comparison is done separately because these locations contained an NRZ in addition to being over the main groundwater plume. Borehole 0852 is compared to two boreholes (0853 and 0854) that are at the edge of the main groundwater plume where uranium concentrations in the groundwater are much lower. The last zone with silty gravel at the surface for borehole 0857 was selected separately because this was the only location where gravel continued to the surface without several feet of pure silt (Figure 18 and Figure 19 and borehole logs in Appendix D).

For the main text, only the graphs of uranium and chloride with depth are repeated from the full set of graphs in Appendix C. Uranium was selected because it is the main element of concern, and chloride was selected because it highlights the process of evaporative concentration and has trends similar to those of other constituents. Uranium trends are discussed in Section 5.1.2, and all the other measured constituent trends are discussed in Section 5.1.3.

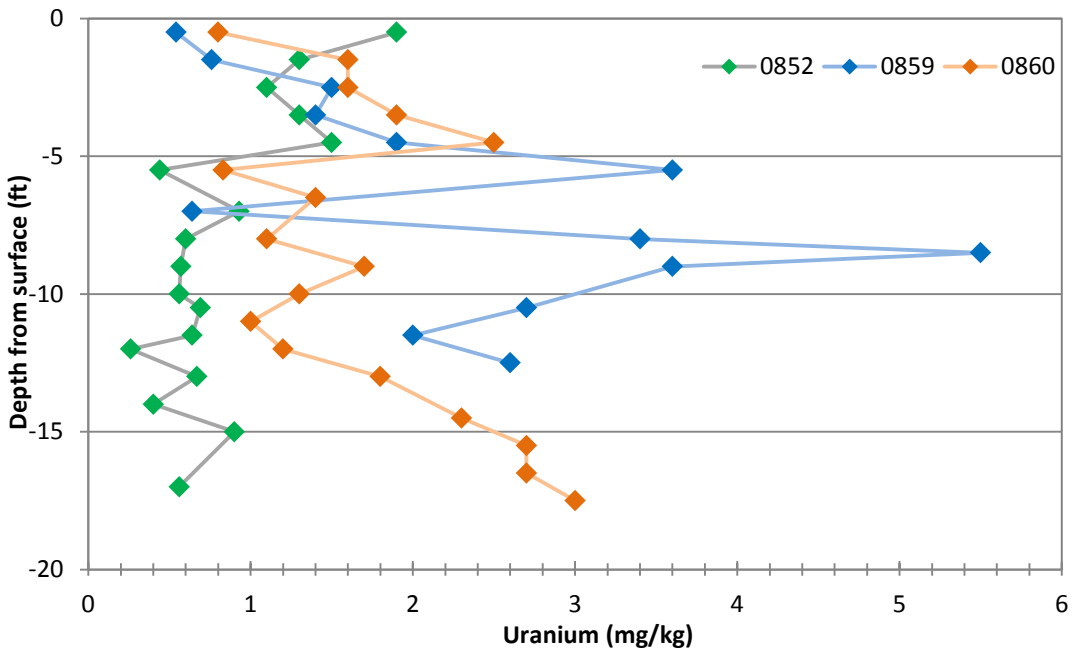


Figure 10. Uranium Concentrations with Depth for the Source Zone

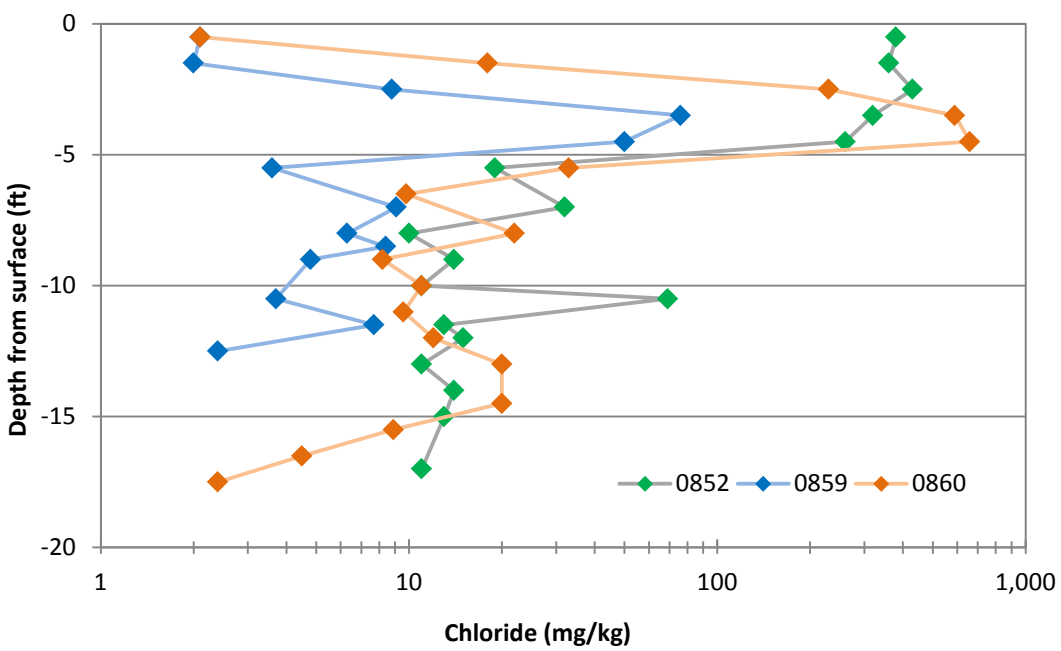


Figure 11. Chloride Concentrations with Depth for the Source Zone

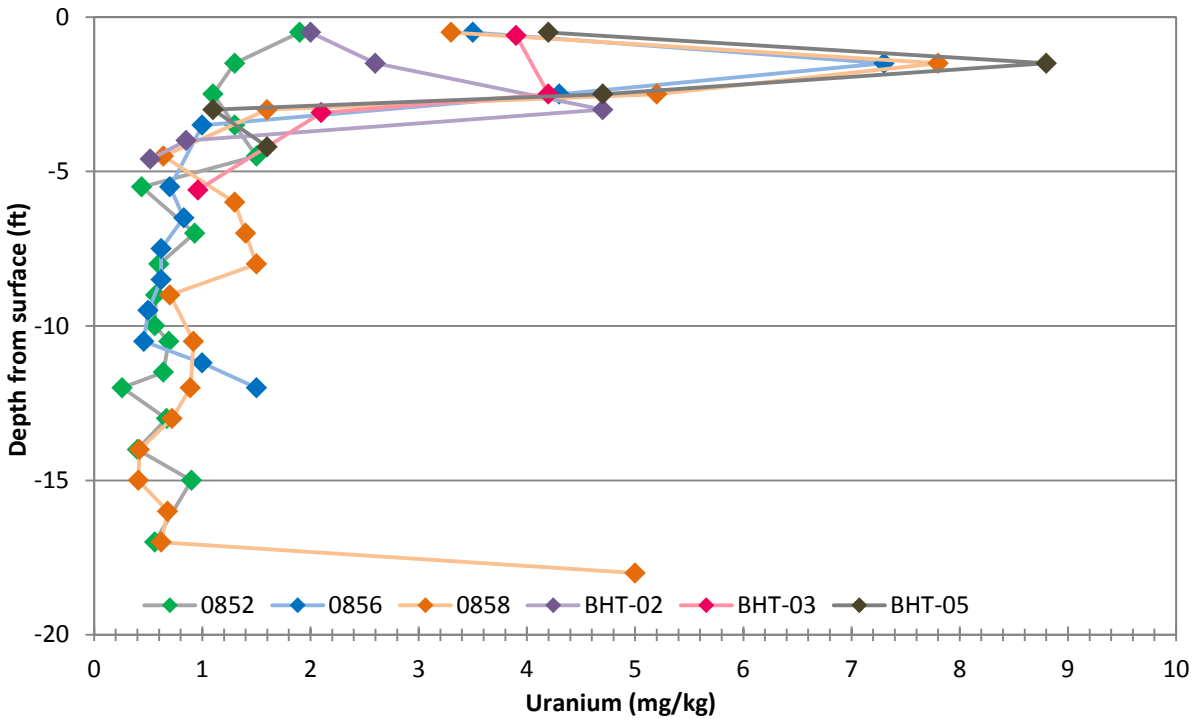


Figure 12. Uranium Concentrations with Depth for the Plume Zone

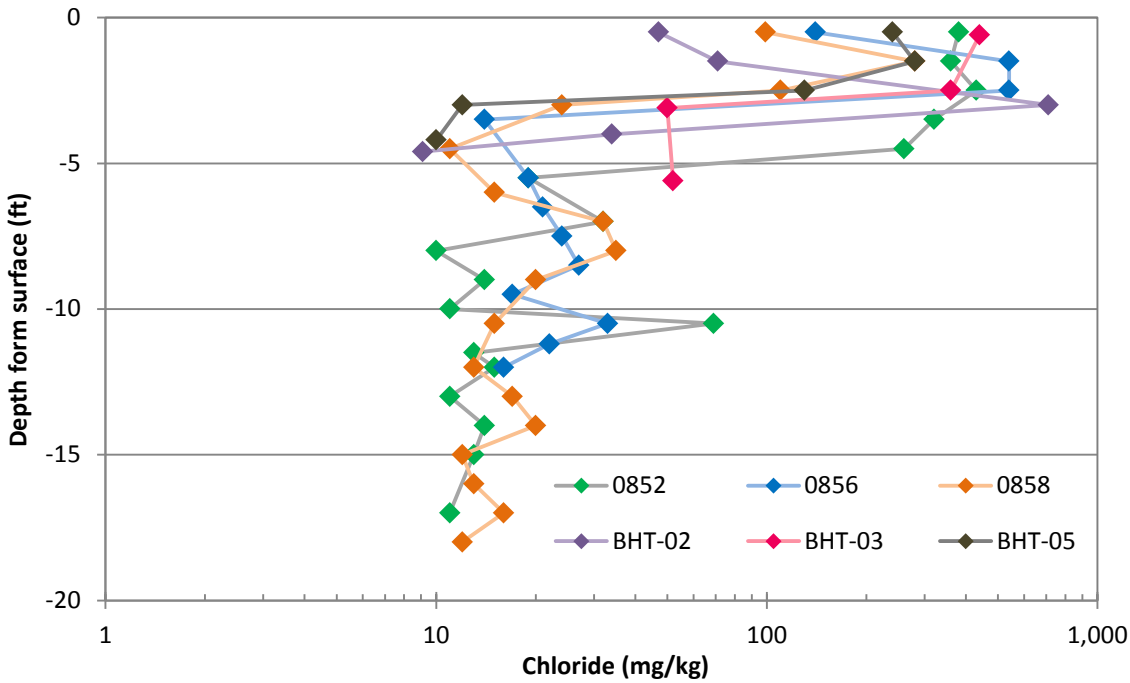


Figure 13. Chloride Concentrations with Depth for the Plume Zone

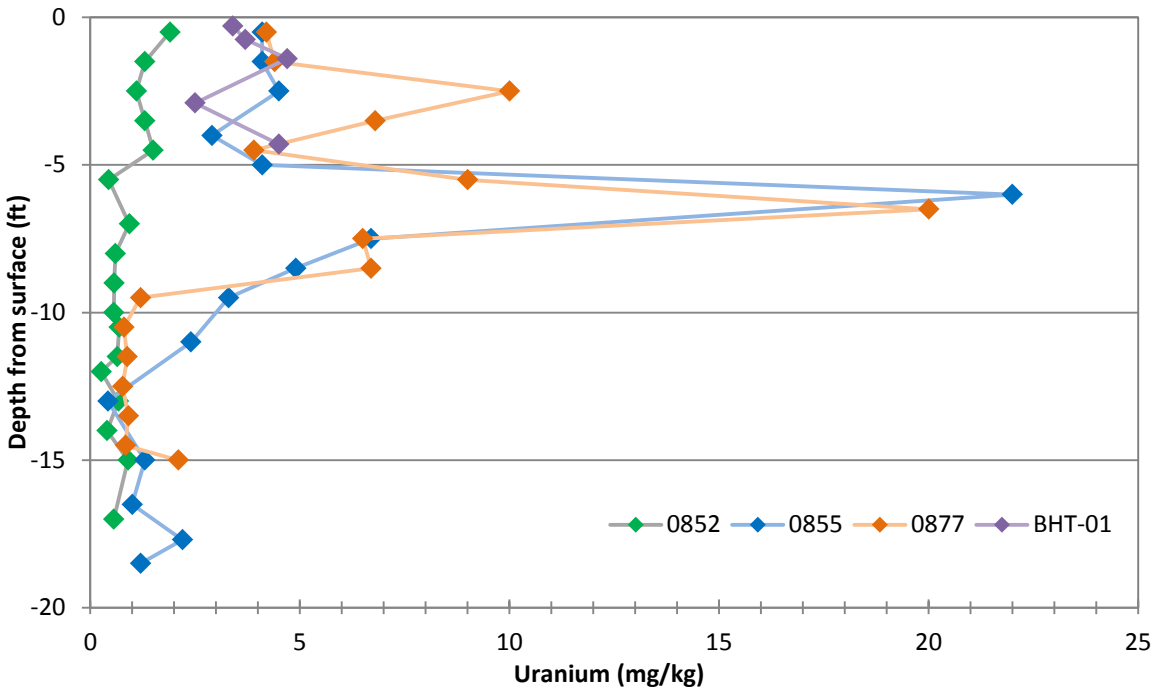


Figure 14. Uranium Concentrations with Depth for the NRZ Zone

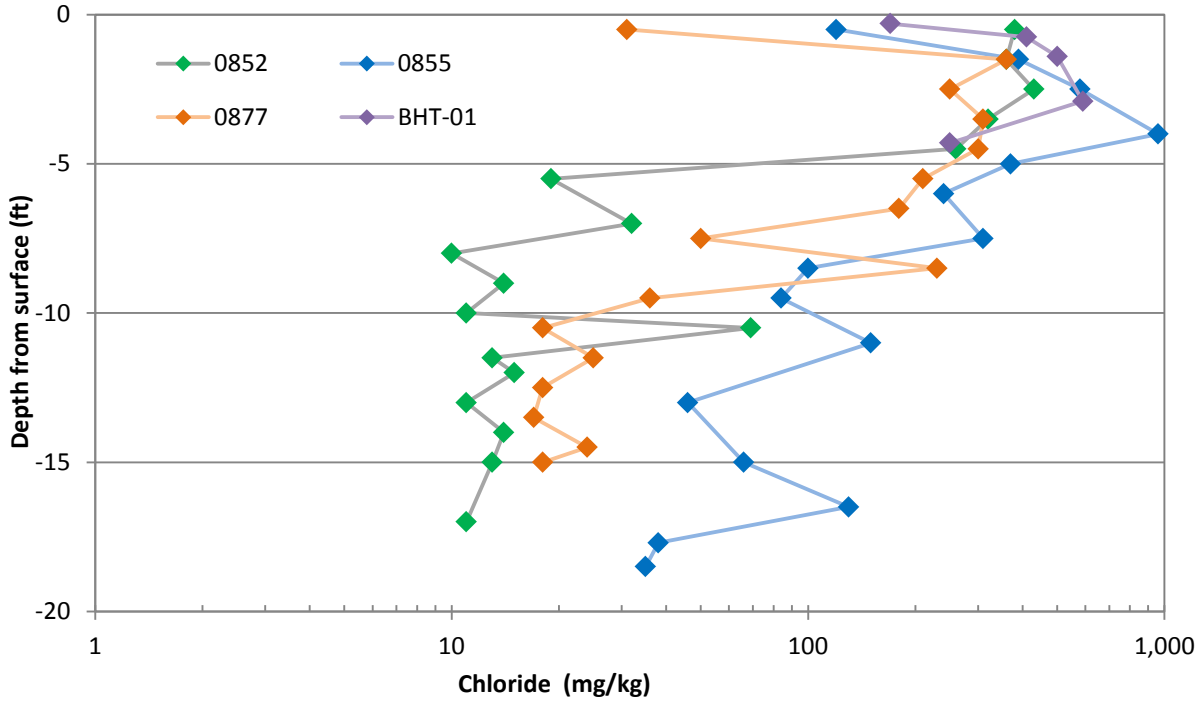


Figure 15. Chloride Concentrations with Depth for the NRZ Zone

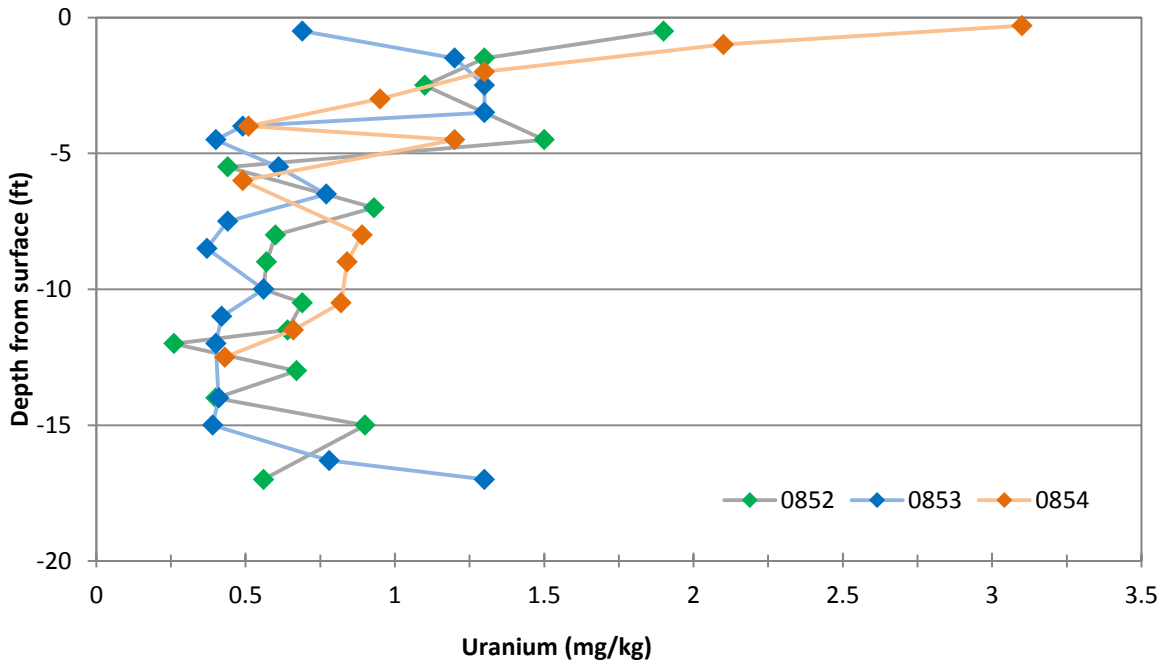


Figure 16. Uranium Concentrations with Depth for the Plume Edge Zone

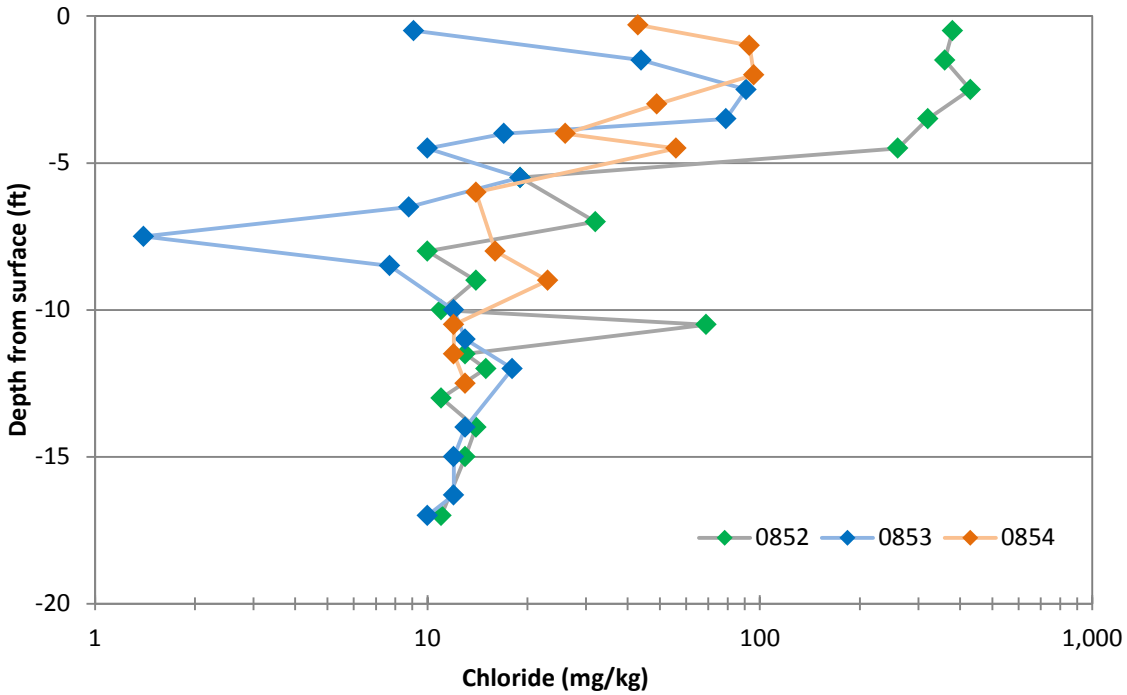


Figure 17. Chloride Concentrations with Depth for the Plume Edge Zone

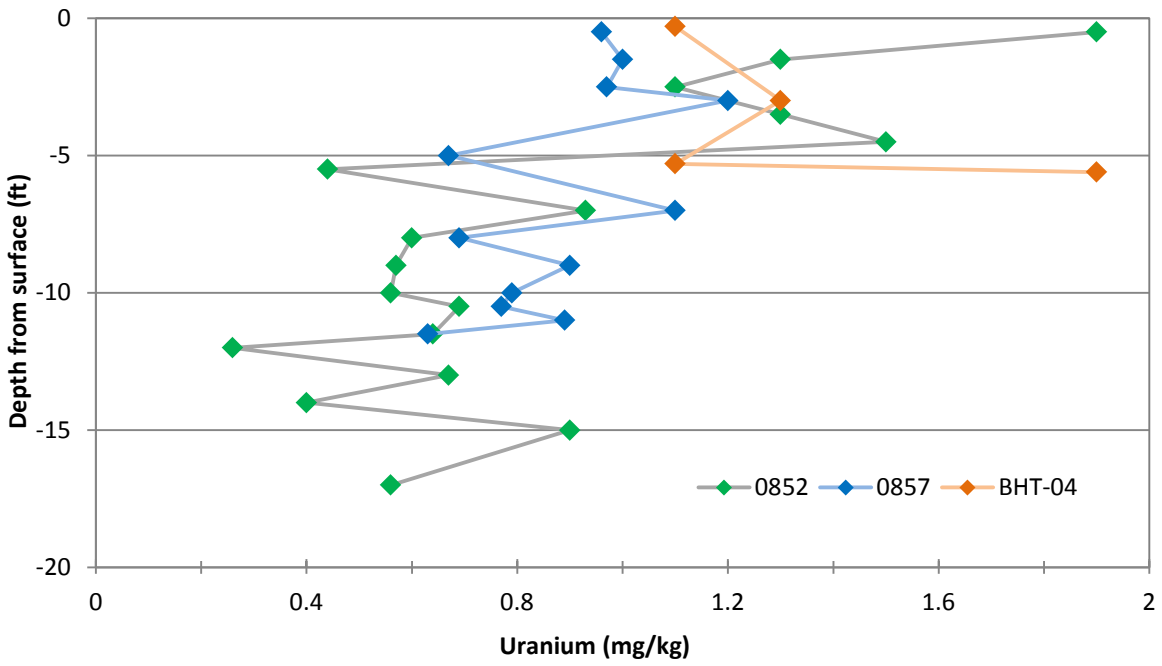


Figure 18. Uranium Concentrations with Depth for the Silty Gravel at the Surface Zone

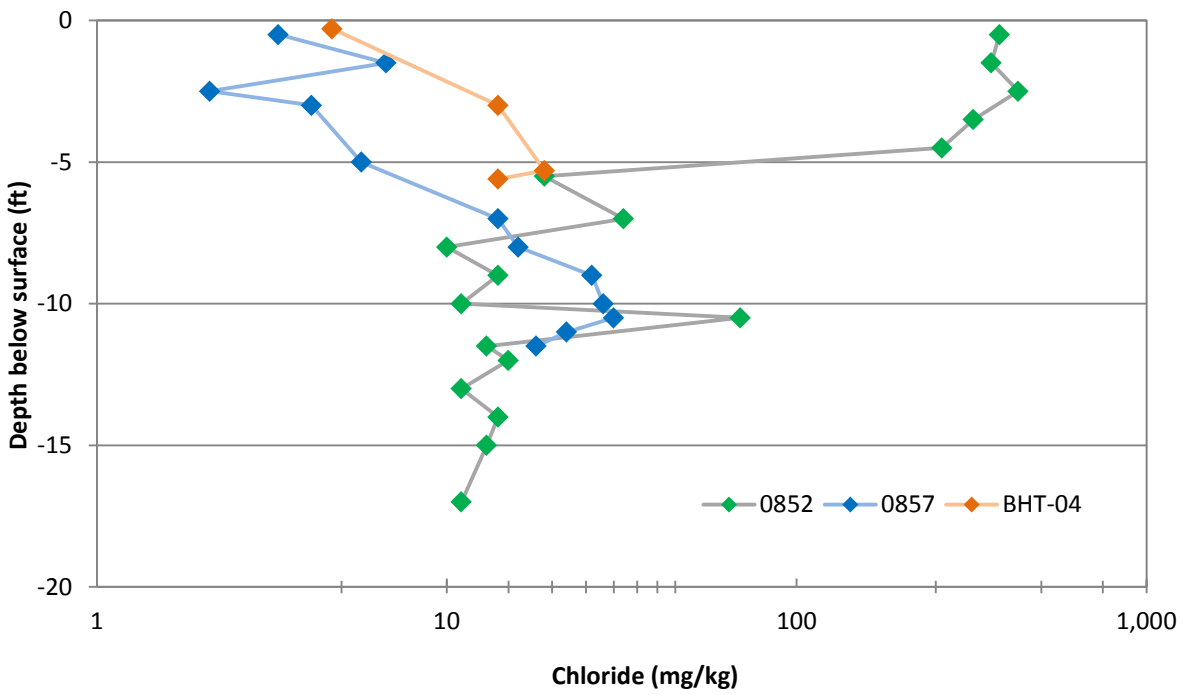


Figure 19. Chloride Concentrations with Depth for the Silty Gravel at the Surface Zone

5.1.1 General Lithologic Description

Borehole logs in Appendix D provide detailed lithology descriptions from the 10 boreholes and the 5 trenches, and the general lithology for each location is indicated on the graphs of uranium concentrations with depth (Appendix C). The general lithology is silt, underlain by sand and gravel, underlain by the top of the weathered bedrock (Wind River Formation). The depth of the silt ranges from 2.5 to 4.8 ft bgs. A notable exception is borehole 0857 with gravel occurring all the way to the surface, albeit with a higher silt content at the 2 to 2.5 ft depth. For boreholes 0859 and 0860, the full silt depth is indicated as fill material after the tailings were removed. However, fill material could not be distinguished from naturally occurring silt visually.

In boreholes 0855 and 0877 the silt is underlain by clayey silt from 4 to 7 ft in 0855 and from 4 to 6.5 ft in 0877. The upper portions of the clayey silt are brown with mottled iron staining that grade into clayey silt with a dark-gray color. The clayey silt zones in boreholes 0855 and 0877 are NRZs that likely have higher concentrations of reduced carbon along with precipitated sulfides. The mottled iron staining is likely a result of the oxidation of these sulfides during times of lower water table.

The distribution of the sand and gravel aquifer below the silt layer is consistent across all of the boreholes and trenches, albeit with slightly different depth intervals. The sand and gravel layer is relatively clay free.

The top of the weathered bedrock of the Wind River Formation is identified as sandstone, siltstone, or silty claystone depending on the borehole. Out of the 10 boreholes, bedrock was identified as sandstone at three locations, siltstone at five locations, and silty claystone at two locations. Bedrock color varies from greenish gray to olive gray with more silt content and a light olive gray with more sand content. A trace of pyrite was often identified in hand samples.

5.1.2 Distribution of Uranium

Solid-phase uranium concentrations from the boreholes and trench samples range from 0.26 to 22 mg/kg uranium (Appendix C). Except for boreholes 0859 and 0860 in the former tailings area, the uranium concentrations in the sand and gravel are generally less than 1 mg/kg. In addition, uranium concentrations in the sand and gravel in borehole 0858 range from 1.3 to 1.5 mg/kg at a depth of 6 to 8 ft bgs. These samples straddle the water table and may be related to a small NRZ that was seen in the nearby trench (BHT-05), but was not seen in borehole 0858 (possibly due to core disturbance during sonic drilling). In addition, the 5 mg/kg uranium concentration at the bottom of borehole 0858 was in a bedrock sample.

Increased solid-phase uranium concentrations occur in the silt across the site but appear to have the highest concentrations over the main uranium plume where the silt is present. At borehole 0852, which is outside of the main uranium plume, uranium concentrations in the silt range from 1.1 to 1.9 mg/kg (Figure 10 and Appendix C). By comparison, boreholes 0853 and 0854 at the edge of the uranium plume have a uranium concentration range of 0.69 to 3.1 mg/kg (Figure 16). At the two boreholes over the uranium plume (0856 and 0858), the uranium concentration of the silt (top three samples) ranges from 3.3 to 7.8 mg/kg, with similar concentration ranges in samples collected from nearby trenches, and the highest uranium concentrations occur at 1.5 ft depths for both boreholes (Figure 12). In the silt that occurs above the NRZs in boreholes 0855 and 0877 the uranium concentrations range from 2.9 to 10 mg/kg (Figure 14). The uranium concentrations in the darker colored NRZ material at a depth of 6 ft in

0855 and 5.5 ft in 0877 were 22 and 20 mg/kg, respectively (Figure 14). In both 0855 and 0877, several sand and gravel samples (0855-7 through 0855-11 from 7.5 to 11 ft and 0877-8 at 7.5 ft) below the main NRZ sample still have uranium concentrations greater than those in the deeper sand and gravels in those same boreholes (Figure 14).

In borehole 0857 there is no consistent silt layer, just a thin dry silty zone near 2.5 ft, which is well above the water table. As a result, there is very little to no capillary fringe and no mechanism to concentrate uranium in the unsaturated zone. The highest solid-phase uranium concentration in borehole 0857 is 1.2 mg/kg.

In boreholes 0859 and 0860 within the footprint of the old tailings impoundment, the uranium concentration trend with depth is much different (Figure 10). Uranium concentrations increase with depth in the silt, likely due to that material being clean backfill that was placed after the tailings were removed. However, the uranium concentration increases to 3.6 mg/kg at a depth of 5.5 ft in borehole 0859, just above the water table. Likewise, the uranium concentration in borehole 0860 is 2.5 mg/kg at a depth of 4.5 ft in a clayey lens just above a damp sandy gravel. With depth in boreholes 0859 and 0860 in the saturated sand and gravels, the solid-phase uranium concentrations range up to 5.5 mg/kg and are consistently above the typical <1 mg/kg for sand and gravel in other boreholes (Figure 10). These concentrations may indicate an ongoing source of uranium from the solid phase to the groundwater contaminant plume.

5.1.3 Distribution of Other Constituents

5.1.3.1 Chloride, Sodium, and Sulfate

Across the site, chloride, sodium, and sulfate all have higher concentrations in the silt layer than in the underlying sand and gravel (Appendix C). Graphs for chloride shown in Appendix C are also shown in Section 5.1. Sodium and sulfate trends are similar to those of chloride and are not repeated here. The sodium spikes at the bottom of 0857, 0859, and 0877, and the sulfate spike at the bottom of 0856 are from bedrock samples. The higher concentrations for chloride, sodium, and sulfate in the silt layer do not appear to be directly related to the mill-derived plume, but appear to be mainly related to evaporative concentration of these elements in the silt zone above the water table. This interpretation is based on the chloride, sodium, and sulfate trends for boreholes 0852 and 0857 (chloride is shown in Figure 19). Borehole 0852 is located outside of the main mill-derived plumes and has large increases in chloride, sodium, and sulfate in the silt layer compared to the lack of an increase for these constituents in borehole 0857 with gravel to the surface (Figure 19 and Appendix C). The sulfate increase in 0857 at a depth of 2.5 ft is within a thin silt layer, and this sulfate content may be due to the geochemical makeup of the silt (Appendix C).

In boreholes 0855 and 0877, chloride, sodium, and sulfate concentrations in the clayey silt zone of the NRZ are lower than in the overlying silt but greater than in the underlying sand and gravel (Figure 14 and Appendix C). In both of these boreholes, the chloride, sodium, and sulfate concentrations appear to be grain-size related, with higher concentrations in smaller grain sizes. Likewise, for borehole 0852 the slight increase in chloride and sulfate at 10.5 ft is a zone with higher clay content.

The exceptions to the above discussions are slightly increased sulfate concentrations in boreholes 0858 and 0859 at approximately 8 ft bgs, which also corresponds to the approximate

top of the water table. It is possible that the sulfate in 0858 is related to oxidizing sulfides near the water table interface; whereas, the sulfate in 0859 is potentially related to gypsum ($CaSO_4 \cdot 2(H_2O)$) precipitation in an area that was below the former tailings impoundment.

5.1.3.2 Total Organic Carbon (TOC)

Across the site, the TOC concentrations are typically higher near the surface and in the silt layer (Appendix C). Samples below the water table occasionally have higher TOC concentrations, but no real trends are apparent. Surprisingly, the NRZs in 0855 and 0877 do not have an apparent trend related to TOC; rather, the highest TOC contents in those boreholes occur in samples collected near the ground surface. This lack of trends in deeper sediments may be due to the relatively high detection limit of 1700 mg/kg for TOC.

5.1.3.3 Calcium and Total Inorganic Carbon (TIC)

In general, higher concentrations of calcium and TIC are an indicator of greater calcite ($CaCO_3$) content. Across the site, the silt layer appears to have higher concentrations of calcium and TIC (Appendix C) and thus likely a greater calcite content. All of the boreholes, except for 0857 with less silt content, have greater concentrations of calcium and TIC in the unsaturated silt layer than the underlying sand and gravel. Notable exceptions are as follows:

1. High calcium and TIC in 0857 at a depth of around 11 ft, which is a bedrock sample (clayey, silty sandstone).
2. High calcium and TIC in 0856 at a depth of 12 ft, which is a bedrock sample (siltstone).
3. High calcium in 0859 at a depth of 5.5 ft. This high concentration was not confirmed in a duplicate sample.
4. High calcium and TIC in 0855 at a depth of 17.7 ft in a sand and gravel sample with higher clay content.

5.1.3.4 Iron, Magnesium, and Potassium

Iron, magnesium, and potassium (Appendix C) are grouped together because the concentrations of these elements with depth and lithology all show similar trends. As with chloride, sodium, and sulfate, the concentrations of iron, magnesium, and potassium all appear to have evaporative concentrations in the silt layer in the unsaturated zone or are related to the silt itself. Variations of iron, magnesium, and potassium with grain size in the saturated zone are not pronounced. However, increased concentrations of these constituents are quite pronounced in the deepest samples, which are Wind River Formation bedrock, especially samples visually identified with greater silt and clay content.

5.1.3.5 Manganese and Molybdenum

Overall, manganese and molybdenum concentrations are relative low, and trends are difficult to determine (Appendix C). In general, the silt layer appears to be slightly higher in manganese concentrations. The molybdenum concentrations are higher in boreholes 0858, 0859, and 0860, which are all in alignment with the molybdenum plume in groundwater (see Section 5.2.1.3). The maximum molybdenum concentrations are 6 mg/kg in 0858, 4.6 mg/kg in 0859, and 3.3 mg/kg in 0860 compared to an average crustal abundance concentration of 1.5 mg/kg

(O'Leary and Meier 1986). Molybdenum concentrations are less than 2 mg/kg in all other boreholes.

5.1.4 Summary of Soils Results

A variety of constituents appear to be concentrated in the silt layer due to the different lithology and evapotranspiration. These constituents include uranium, calcium, TIC, chloride, sodium, sulfate, iron, magnesium, and potassium. Of these, only uranium seems to concentrate in subsurface evaporites due to its presence in the underlying mill-related groundwater plume. Evaporative concentration in borehole 0857 is limited (Figure 18 and Figure 19) because of the occurrence of sand and gravel that extends to the surface, except for a thin silt zone at a depth of 2.5 ft.

The highest solid-phase uranium concentrations of 20 and 22 mg/kg occur in NRZs composed of clayey silt in boreholes 0855 and 0877 (Figure 14). In boreholes 0859 and 0860 beneath the former tailings impoundment footprint, uranium concentrations in the sand and gravel below the water table are slightly higher than in any other boreholes except 0855 and 0877 (Figure 10).

5.2 Water

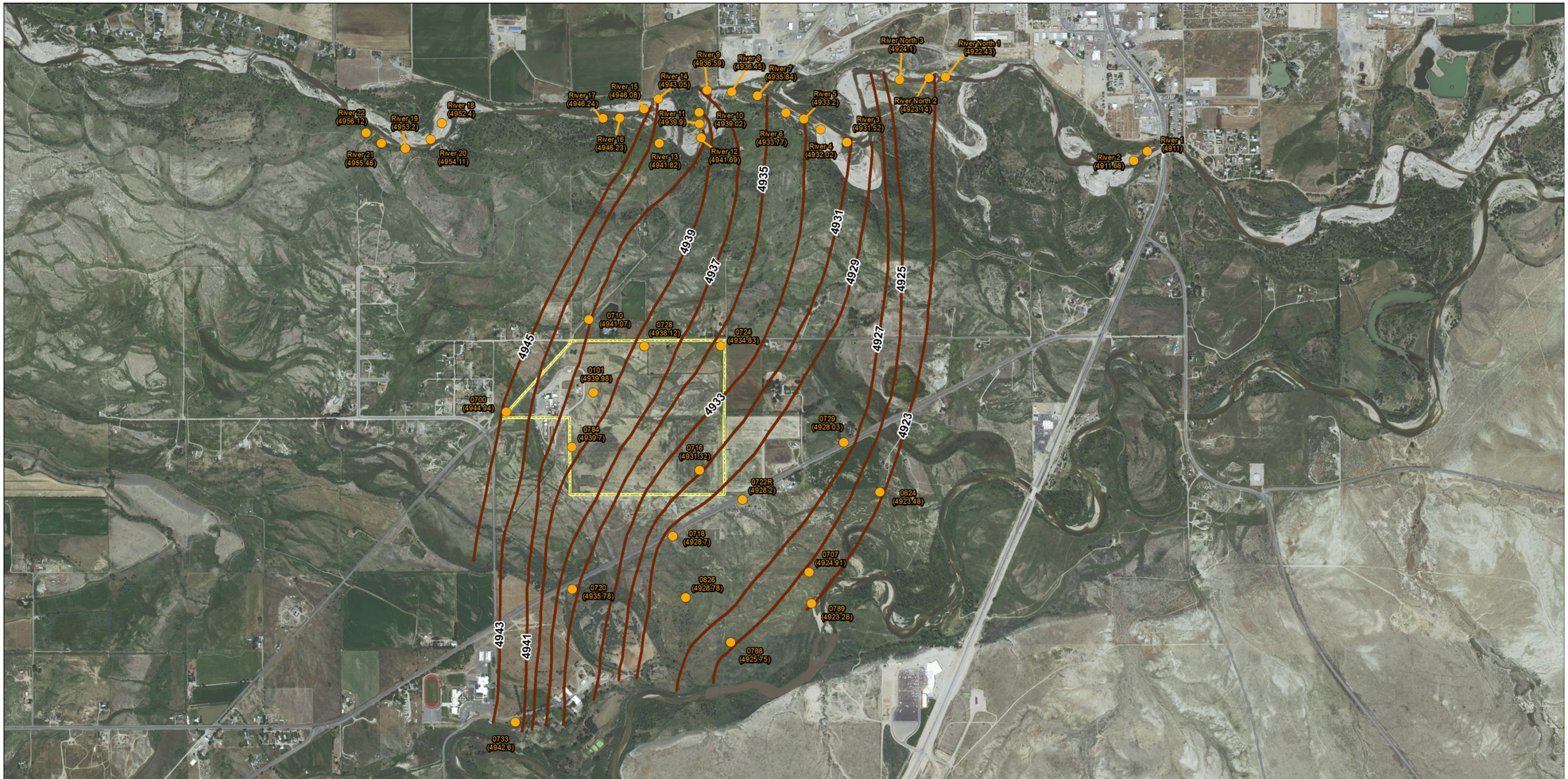
5.2.1 Groundwater

5.2.1.1 Groundwater Flow

Water levels were measured at all wells in the monitoring network in August and September. Water level data are included in Appendix E. In addition, elevations along the Wind River were measured in August and were used in assessing groundwater elevations in the surficial aquifer. Measurement and assessment of groundwater elevations in the surficial aquifer are required to assess horizontal flow direction and vertical gradient, to provide data for groundwater modeling, to ensure that the monitoring network is adequate for assessing contaminant plume movement, and to ensure that the IC boundary provides a sufficient buffer to prevent access to contaminated groundwater.

Groundwater elevations measured in August included surficial aquifer wells at the site along with Wind River elevations to the north, as shown in Figure 20. Because the surface of the Wind River represents the intersection of river water and surficial aquifer groundwater, elevations of the Wind River were included in the contours of the surficial aquifer groundwater to provide an expanded view of the groundwater elevations in the surficial aquifer. Groundwater contours in Figure 20 indicate a general flow direction to the southeast on and downgradient of the former mill site, which is consistent with the historical flow direction and contaminant plume configuration. The regional view with groundwater contours expanded to the Wind River indicates a general flow direction to the east-southeast (Figure 20) following the down-valley topography and flow direction of the Wind River and Little Wind River.

Groundwater elevations measured in September 2015 included new multilevel monitoring wells (elevations are shown for port 4 for consistency) and temporary well points as shown in Figure 21. Groundwater contours in this figure also indicate a flow direction to the southeast on and downgradient of the former mill site. Groundwater elevations continue to decrease immediately adjacent to the river to the transect of temporary well points (Figure 21 inset), indicating groundwater flow toward the river.



Legend

- Surficial Aquifer Well
- Approximate Groundwater Level Contour (ft above mean sea level)
- Institutional Control Boundary / Riverton, WY

N

0 0.125 0.25 0.5 0.75 1 Miles

Note: Water levels are in feet above mean sea level and are shown in parentheses for each sample location.

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U.S. DEPARTMENT OF ENERGY
OFFICE OF LEGACY MANAGEMENT

Work Performed by
Navarro Research & Engineering, Inc.
Under DOE Contract Number DE-LM0000421

August 2015 Groundwater Elevations
Advanced Site Investigation
Riverton, WY, Processing Site

DATE PREPARED: May 18, 2016

FILE NAME: S1399100

Figure 20. August 2015 Groundwater Elevations in the Surficial Aquifer at the Riverton Site

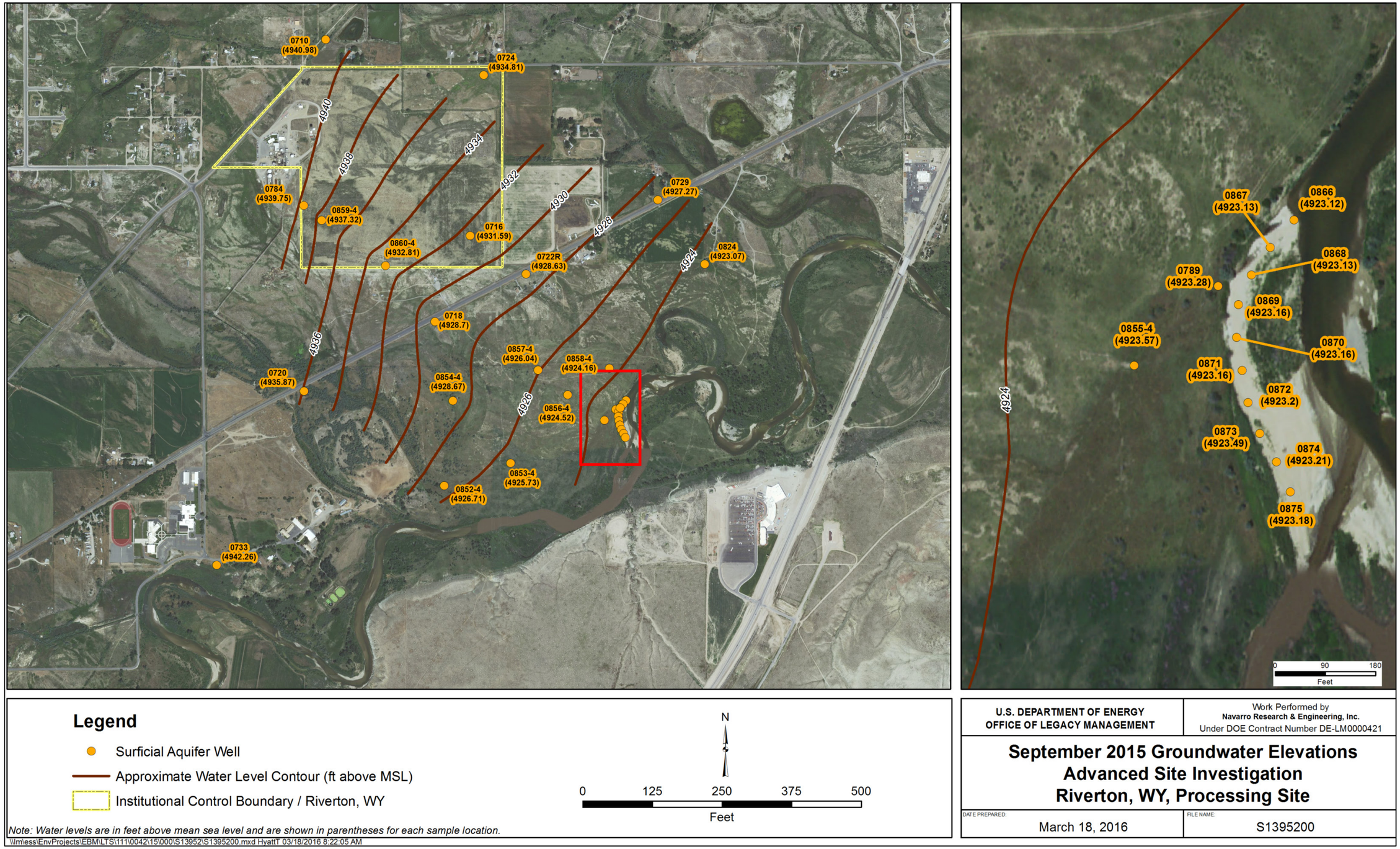

Figure 21. September 2015 Groundwater Elevations in the Surficial Aquifer at the Riverton Site

Vertical gradients are used to assess the direction that groundwater will flow vertically. A negative gradient indicates potential for upward groundwater flow, and a positive gradient indicates potential for downward groundwater flow. Regardless of the direction indicated by gradient, vertical migration of groundwater between the Riverton site aquifers is expected to be relatively minor because of the low vertical hydraulic conductivities of the confining layers separating aquifers. Vertical gradients are calculated from monitoring wells in an upper aquifer ($aquifer_1$) and lower aquifer ($aquifer_2$) using the following formula $(GE_1 - GE_2)/(SE_1 - SE_2)$, where GE is groundwater elevation and SE is screen elevation at the midpoint of the screen. Table 5 shows vertical gradients calculated from September 2015 data from grouped monitoring wells. General observations from Table 5 include the following:

- Vertical gradients in the confined aquifer are downward at all three well clusters. The well cluster adjacent to the sulfuric acid plant (0101, 0111, and 0110) typically shows downward vertical gradient between the confined aquifer and surficial aquifer, which is likely a reflection of continuous, long-term pumping of the confined aquifer from the acid-plant production well.
- Vertical gradients between the surficial and semiconfined aquifer vary but tend to be downward near surface water features, and upward away from surface water features. Surface water is likely recharging the surficial aquifer, causing a localized increase in heads in the surficial aquifer and a resulting downward vertical gradient. Only two well pairs indicated an upward vertical gradient (0716/0717 and 0718/0719); these wells are not near a surface water feature.

Table 5. Riverton Vertical Gradients

Well ID	Aquifer	Groundwater Elevation September 2015	Vertical Gradient September 2015
0724	Surficial	4934.81	
0725	Semiconfined	4934.80	0.001
0726	Confined	4934.00	0.007
0101	Surficial	4939.90	
0111	Semiconfined	4938.46	0.054
0110	Confined	4936.48	0.066
0784	Surficial	4939.75	
0732	Semiconfined	4937.98	0.067
0716	Surficial	4931.59	
0717	Semiconfined	4931.69	−0.003
0707	Surficial	4925.00	
0705	Semiconfined	4924.78	0.008
0709	Confined	4924.42	0.008
0718	Surficial	4928.70	
0719	Semiconfined	4929.12	−0.021

Table 5 (continued). Riverton Vertical Gradients

Well ID	Aquifer	Groundwater Elevation September 2015	Vertical Gradient September 2015
0722R	Surficial	4928.63	
0723	Semiconfined	4928.11	0.017
0720	Surficial	4935.87	
0721	Semiconfined	4932.36	0.098
0729	Surficial	4927.27	
0730	Semiconfined	4927.08	0.008
0733	Surficial	4942.26	
0734	Semiconfined	4940.10	0.095

Notes:
The vertical gradient from the semiconfined aquifer is between the semiconfined aquifer and the surficial aquifer, and the vertical gradient from the confined aquifer is between the confined aquifer and the surficial aquifer. A negative value indicates an upward vertical gradient.

5.2.1.2 Groundwater Quality

Molybdenum and uranium concentrations exceeded the MCLs in samples collected from 26 and 33 surficial aquifer monitoring wells, respectively, at the Riverton site as shown in Table 6. The highest concentrations of these COPCs in the surficial aquifer continue to be near the Little Wind River; the highest molybdenum concentration (0.96 mg/L) was measured in the sample collected from monitoring well 0707, and the highest uranium concentration (1.7 mg/L) was measured in the sample collected from temporary well-point 0869. No primary MCLs were exceeded in any semiconfined aquifer monitoring wells.

Table 6. Riverton Wells with Samples That Exceeded MCLs in September 2015

Location	Molybdenum Concentration (mg/L)	Location	Uranium Concentration (mg/L)
0707	0.96	0707	0.78
0716	0.13	0716	0.21
0722R	0.11	0718	0.11
0789	0.57	0722R	0.66
0855-2	0.34	0789	1.6
0855-3	0.32	0854-2	0.059
0855-4	0.25	0855-2	1.4
0856-2	0.29	0855-3	1.3
0856-3	0.34	0855-4	0.86
0856-4	0.30	0856-2	0.47
0857-3	0.60	0856-3	1.1
0857-4	0.55	0856-4	1.1

Table 6 (continued). Riverton Wells with Samples That Exceeded MCLs in September 2015

Location	Molybdenum Concentration (mg/L)	Location	Uranium Concentration (mg/L)
0858-2	0.90	0857-3	1.3
0858-3	0.85	0857-4	0.99
0858-4	0.79	0858-2	0.31
0860-2	0.20	0858-3	0.61
0860-3	0.27	0858-4	0.52
0860-4	0.29	0859-2	0.078
0866	0.86	0859-3	0.11
0867	0.64	0859-4	0.91
0868	0.55	0860-2	0.75
0869	0.43	0860-3	0.76
0870	0.31	0860-4	0.88
0871	0.19	0866	1.0
0872	0.17	0867	0.98
0873	0.16	0868	1.5
		0869	1.7
		0870	1.6
		0871	1.2
		0872	0.89
		0873	0.85
		0874	0.38
		0875	0.28

Notes:
MCLs: molybdenum = 0.01 mg/L, uranium = 0.044 mg/L (40 CFR 192.02).

5.2.1.3 Configuration of Contaminant Plumes

Contaminant plumes in the surficial aquifer were further delineated in 2015 with additional Geoprobe boreholes installed in areas where boreholes were planned during the 2012 field investigation (described in DOE 2013a) but not installed because of access issues. Temporary boreholes T03-03 through T03-07 were installed to complete the T03 transect southwest of the former mill site (Plate 1). Results of groundwater sampling of these boreholes were plotted with results from the 2012 field investigation. Figure 22 through Figure 25 shows the configuration of chloride, molybdenum, sulfate, and uranium, respectively. Chloride was included because it provides a view of the distribution of a mill-related constituent that is geochemically conservative.

Boreholes T03-08 and T03-09 were sampled again in 2015 to provide a basis for comparison to the 2012 results. Paired results from 2012 and 2015 are shown in Figure 22 through Figure 25. All paired results were within 20% difference (PD) (Table 7), indicating good correlation

(EPA guidance for laboratory duplicates is less than 20 relative percent difference [EPA 2014b]) between investigations and minimal temporal influence.

Table 7. Comparison of 2012 and 2015 Concentrations from Geoprobe Boreholes T03-08 and T03-09

Geoprobe Borehole Location	Cl 2012	Cl 2015	PD	Mo 2012	Mo 2015	PD	SO_4 2012	SO_4 2015	PD	U 2012	U 2015	PD
T03-08	55	63	−6.8	0.35	0.32	4.4	2600	2200	8.3	1.1	1.1	0
T03-09	38	43	−6.2	0.94	0.98	−2.1	2600	2800	−3.7	0.43	0.62	−18.1

Notes:
Units are mg/L. Percent difference (PD) was calculated as $(a - b)/[(a + b)/2] \times 100$, where a = 2012 concentration value and b = 2015 concentration value. Cl = chloride, Mo = molybdenum, SO_4 = sulfate, U = uranium.

The completion of transect T03 resulted in better delineation of the contaminant plumes. In addition to updated contaminant distributions for chloride, molybdenum, sulfate, and uranium (Figure 22 through Figure 25), Figure 26 shows the plumes superimposed. Observations of each plume in Figures 22 through 26 include:

- Chloride (Figure 22). The axis of the chloride plume shifted to the southwest with the addition of the 2015 data.
- Molybdenum (Figure 23). The configuration of the molybdenum plume was not altered with the addition of the 2015 data.
- Sulfate (Figure 24). The addition of 2015 data changed the configuration of the sulfate plume, resulting in lower-than-expected sulfate concentration compared to other contaminant plumes in an area just south of the former mill site. Interpretation of sulfate distribution is problematic because of numerous years of high-sulfate water (1800 mg/L to 3000 mg/L) input into the surficial aquifer via the unlined discharge ditch from the sulfuric acid plant.
- Uranium (Figure 25). The configuration of the uranium plume was not altered with the addition of the 2015 data. The unexpectedly high uranium concentration of 1.1 mg/L from the 2012 field investigation at location T03-08 remained unchanged in 2015.
- All plumes (Figure 26). The axes of all plumes correlate with the general groundwater flow direction to the southeast; however, the axes of sulfate and chloride plumes are shifted to the southwest relative to the molybdenum and uranium plumes.

Boreholes were installed with the Geoprobe in additional areas of the Riverton site to assess the extent of groundwater contamination. Boreholes T06-01, T06-01-01, T06-01-02, T06-01-03, and T06-01-04 were installed in an area southwest of the main contaminant plume (Plate 1). These boreholes were installed and sampled to investigate a uranium concentration measured in the sample from T06-01 that was above the MCL during the 2012 field investigation.

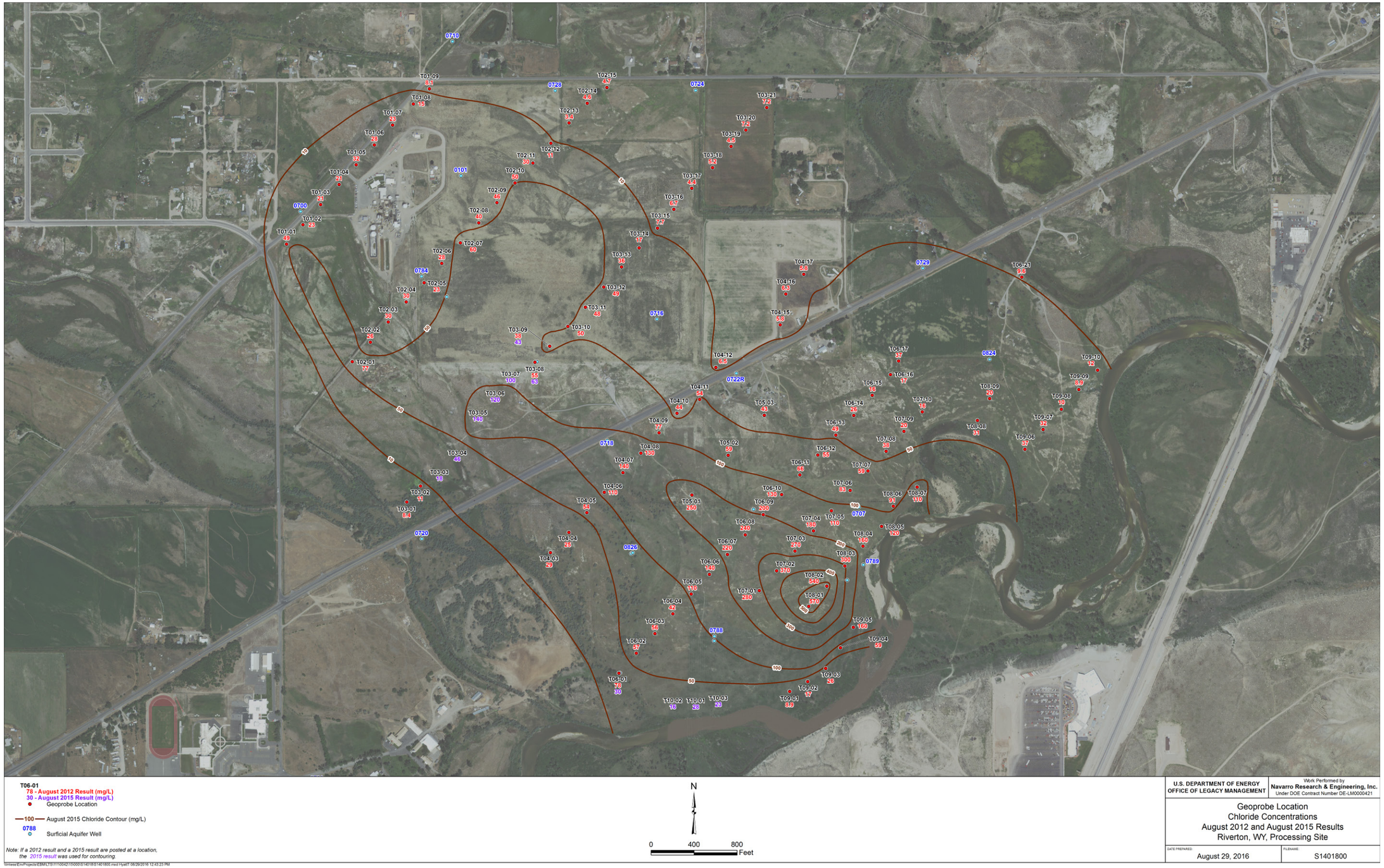

Figure 22. Contour Map for Chloride Concentrations from Geoprobe Locations, August 2012 and August 2015

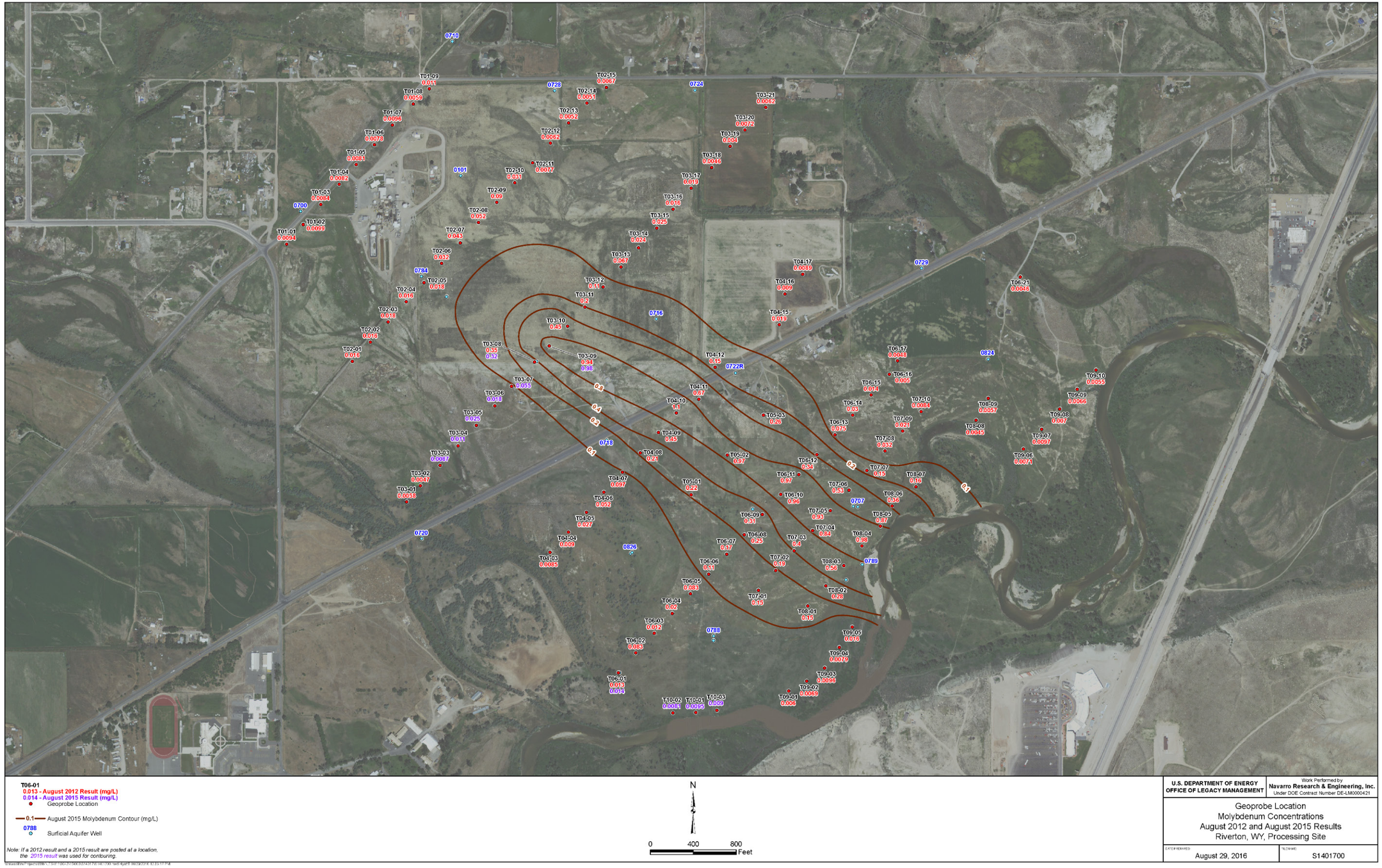

Figure 23. Contour Map for Molybdenum Concentrations from Geoprobe Locations, August 2012 and August 2015

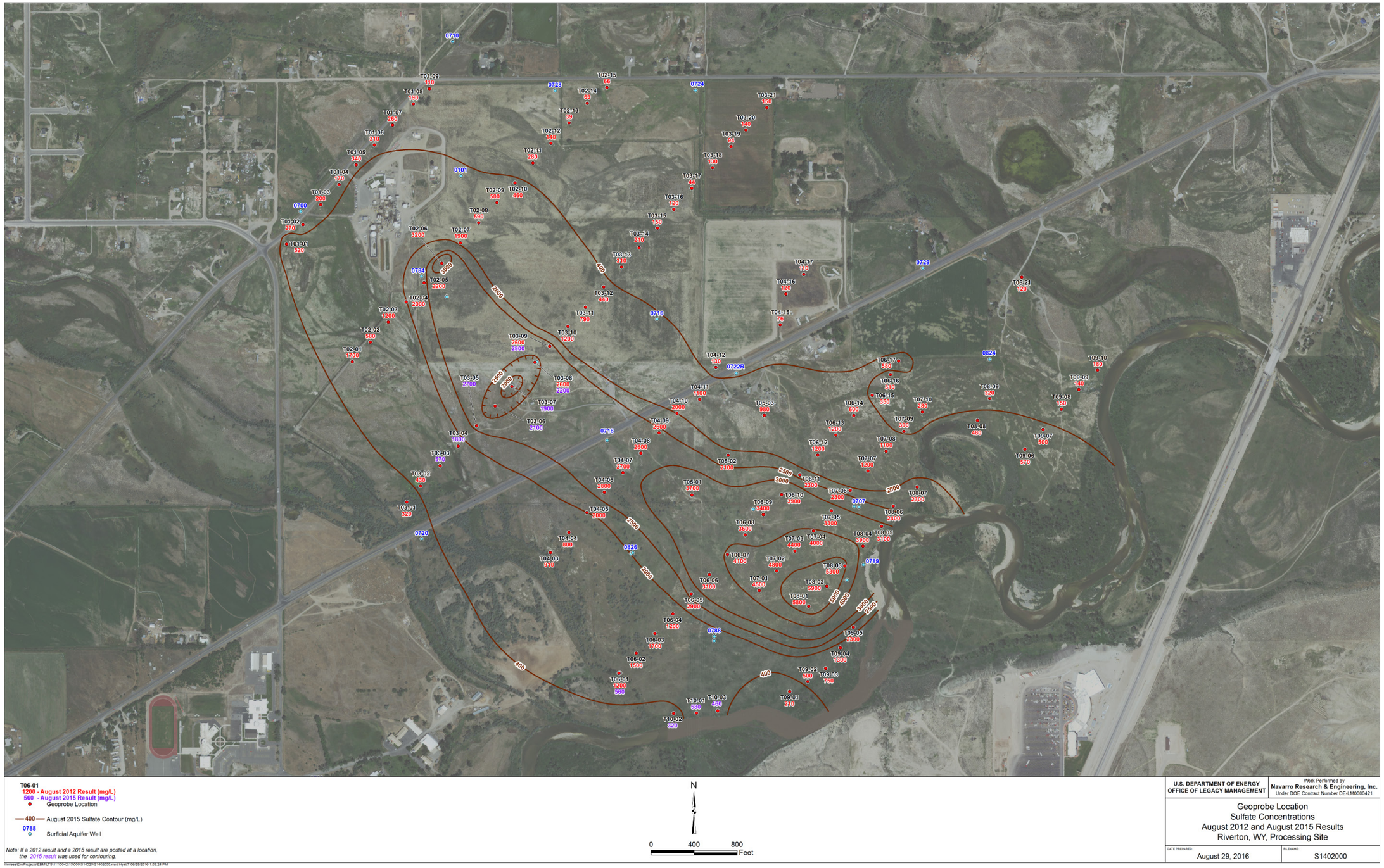

Figure 24. Contour Map for Sulfate Concentrations from Geoprobe Locations, August 2012 and August 2015

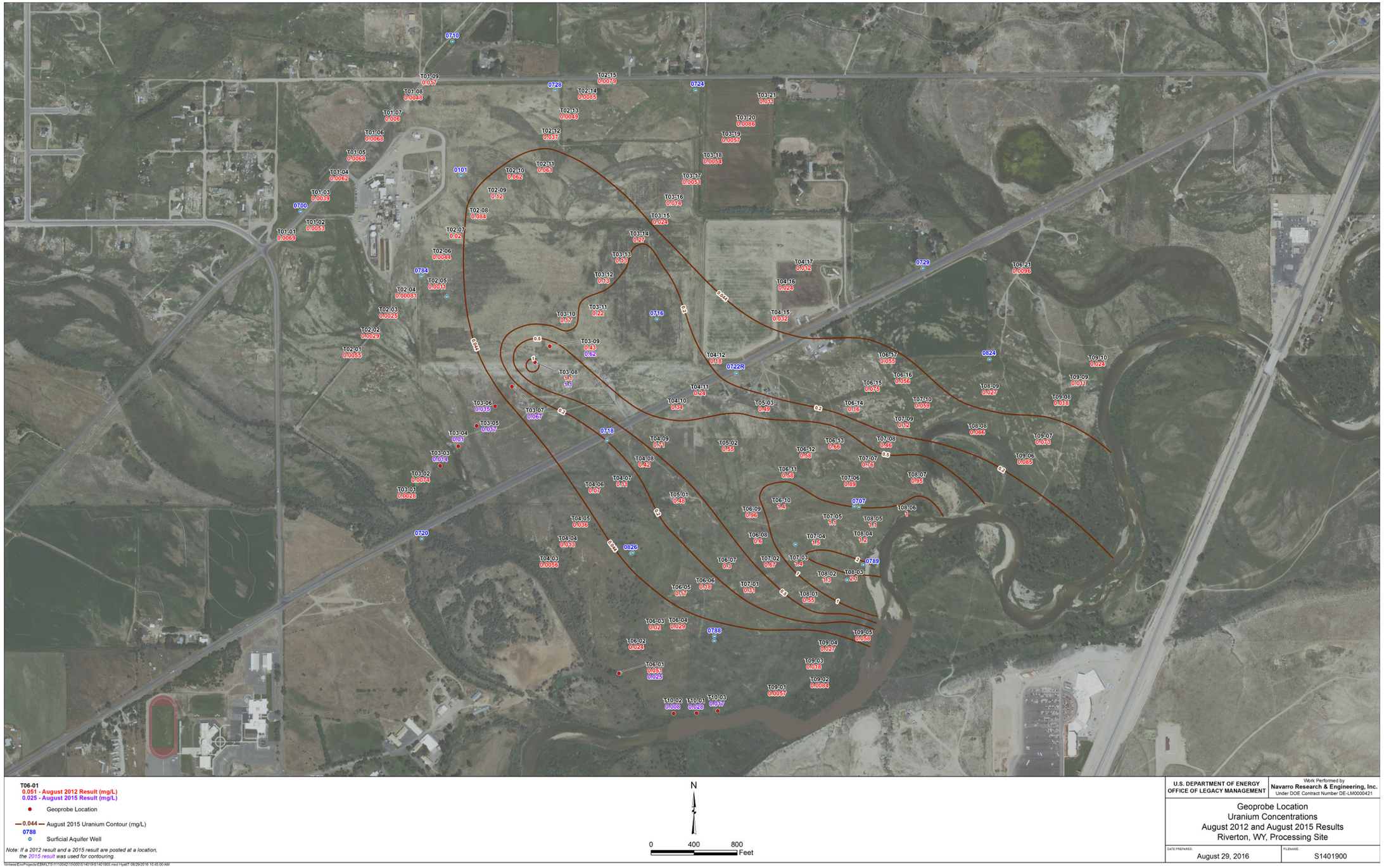

Figure 25. Contour Map for Uranium Concentrations from Geoprobe Locations, August 2012 and August 2015

Borehole T06-01 was re-drilled and resampled, and additional locations were set in a grid around T06-01 to assess the general area. As samples were collected from these boreholes, uranium concentrations were measured in the field using a mobile laboratory with a kinetic phosphorescence analyzer, and if uranium was measured above the MCL, then the work plan specified a lateral expansion of the grid to delineate the extent of contamination. Uranium concentrations in the samples collected from all of these boreholes were below the MCL and ranged from 0.019 mg/L to 0.024 mg/L, which indicates this area is not joined with the uranium plume. Additional boreholes T10-01, T10-02, and T10-03 (Plate 1) were installed between T06-01 and the uranium plume to verify there was no connection to the uranium plume; uranium concentrations in the samples collected from these boreholes ranged from 0.008 mg/L to 0.028 mg/L, indicating no connection.

One additional Geoprobe borehole (0844, Plate 1) was installed south of the Little Wind River to verify that the uranium plume has not migrated beneath the river. The uranium concentration in the sample collected from this borehole was 0.012 mg/L, which indicates the uranium plume has not migrated south of the Little Wind River at this location.

The horizontal distribution of chloride, molybdenum, sulfate, and uranium based on the September 2015 sampling event is shown in Figure 27 through Figure 30, respectively. For consistency, only the bottom port (4) of the multilevel monitoring wells was used for contouring. Temporary well points installed in a side channel of the Little Wind River were also used for contouring. As shown in the figures, the axes of the plumes are to the southeast, and the plume configuration is consistent with plumes in Figure 22 through Figure 26.

Data from the temporary well points provide a higher resolution of contaminant plume configuration—they are strategically located such that they delineate the center of the chloride, sulfate, and uranium plumes. The highest concentrations of chloride (630 mg/L at 0873), sulfate (6300 mg/L at 0873), and uranium (1.7 mg/L at 0869) were measured in samples collected from the temporary well points. The highest molybdenum concentration measured in samples collected from the temporary well points was in the northernmost well point (0.86 mg/L in 0866), and the highest molybdenum concentration in the monitoring network was measured in the sample from monitoring well 0707 (0.96 mg/L). This indicates the axis of the molybdenum plume is farther northeast than the axes of the other plumes, which is consistent with contaminant distributions observed in Figure 26.

In addition to higher resolution of contaminant plumes, the temporary well points provide evidence of groundwater discharge to the river. The highest concentrations of uranium in the monitoring network were measured in samples collected from temporary well points located on the site side of the river, and a low (less than the MCL) uranium concentration (0.012 mg/L) was measured in the sample collected from Geoprobe borehole 0844 located on the other side of the river (Plate 1), which indicates groundwater is not migrating under the river and is likely discharging into the river. Appendix F provides groundwater quality data by parameter for monitoring wells in the monitoring network sampled during 2015.

5.2.1.4 Multilevel Monitoring Well Results

In Appendix F, the multilevel groundwater sampling results are presented in two series of graphs for all measured analytes. The first series goes down the center of the plume from well 0859 to

0860 to 0857 to 0856 to 0855, and the second series goes across the plume from well 0852 to 0853/0854 to 0857/0856/0855 to 0858 (see borehole/multilevel monitoring well locations on Plate 1). Wells 0853 and 0854 are indicated together in the order as they are separated in space, but both represent the edge of the plume from a cross-section perspective going from 0852 to 0858 in a northeastern direction. Likewise, wells 0857, 0856, and 0855 represent the core of the plume and have similar uranium concentrations, while 0858 is on the other side of the plume, again from a cross-section perspective.

For the groundwater results in the multilevel monitoring wells, trends and interpretations are discussed only for specific analytes . The contaminant plume is best defined by chloride (Figure 27) and sulfate (Figure 29) with the addition of uranium (Figure 30) and molybdenum (Figure 28). However, each contaminant has a slightly different configuration in terms of width and plume centerline location (Figure 26). The following discussion focuses on chloride, sulfate, and uranium as main plume constituents with the addition of sodium, specific conductance, calcium, iron, manganese, and ORP. Comparatively, molybdenum occurs at lower concentrations and is best visualized in map view (Figure 28) but is included briefly in the discussion below. Figures for chloride, sulfate, uranium, calcium, and iron (Figure 31 to Figure 35 for down the plume and Figure 36 through Figure 40 for across the plume) have been duplicated from Appendix F for easier reference.

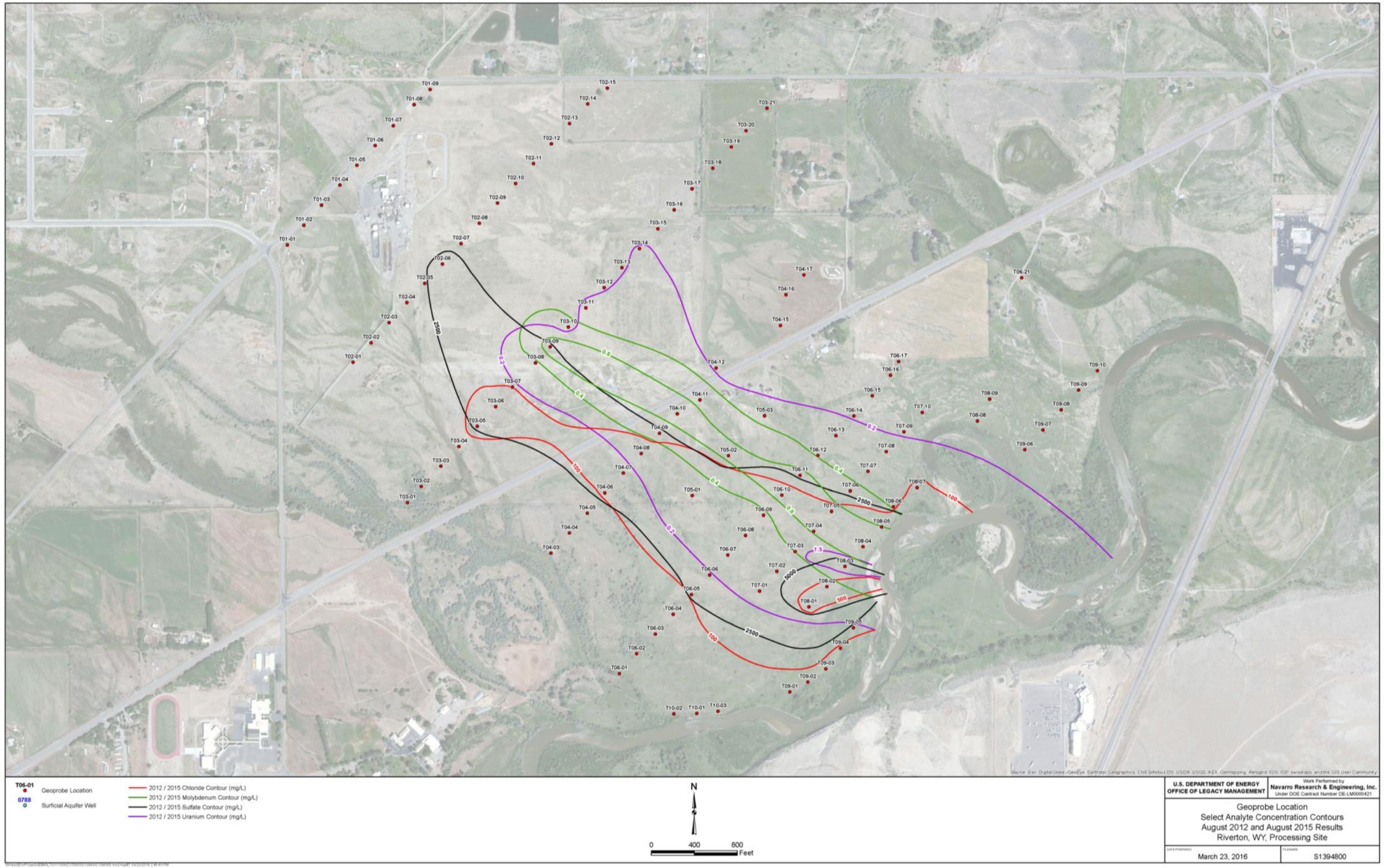

Figure 26. Contour Map for Chloride, Molybdenum, Sulfate, and Uranium Concentrations from Geoprobe Locations, August 2012 and August 2015

Legend

- Sample Locations
- Approximate Chloride Concentration Contour (mg/L)
- Institutional Control Boundary / Riverton, WY

Note: Chloride concentration in mg/L is shown in parentheses for each sample location.

N

0 125 250 375 500
Feet

U.S. DEPARTMENT OF ENERGY OFFICE OF LEGACY MANAGEMENT	Work Performed by Navarro Research & Engineering, Inc. Under DOE Contract Number DE-LM0000421
Chloride Distribution 2015 Advanced Site Investigation Riverton, WY, Processing Site	
DATE PREPARED: March 24, 2016	FILE NAME: S1402100

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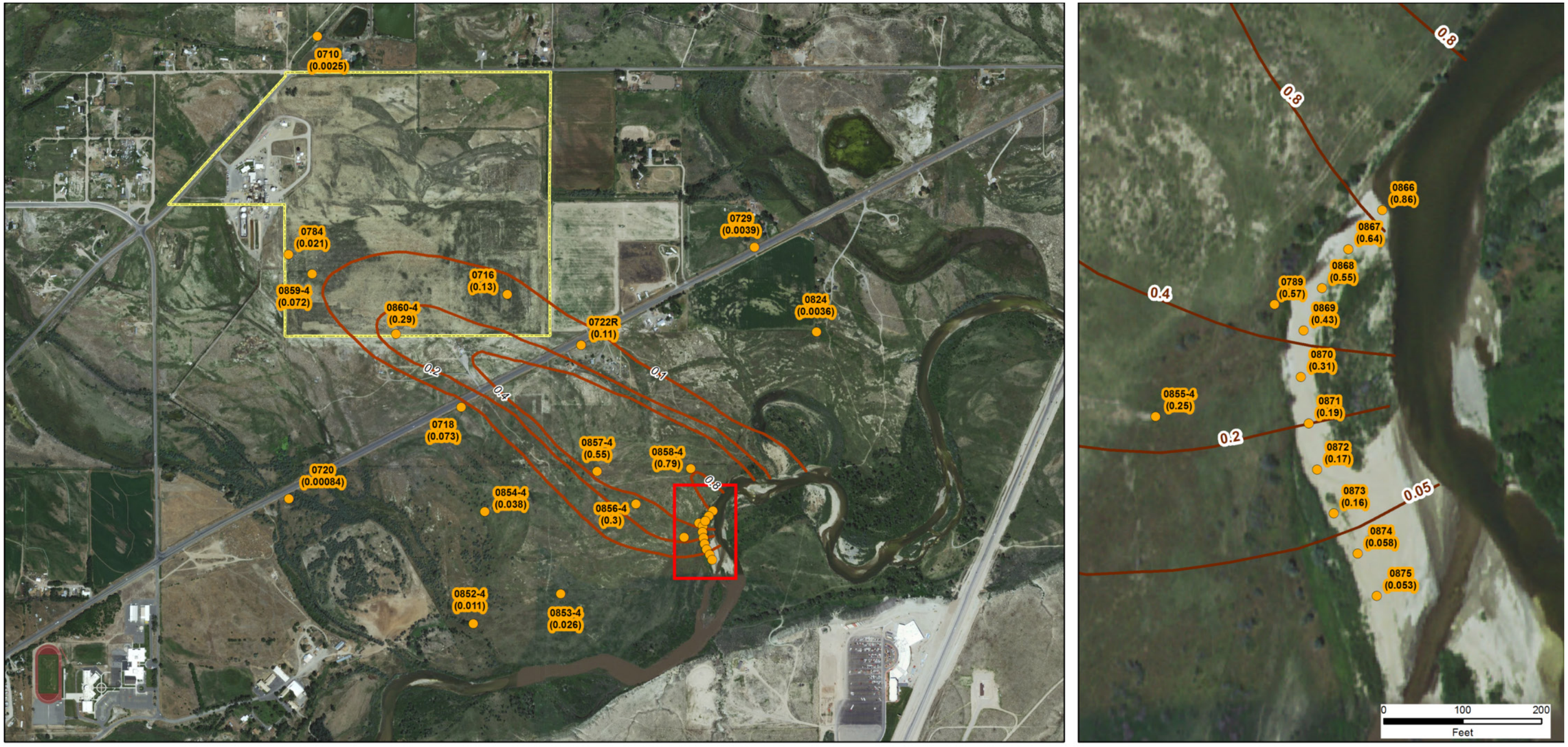
Figure 27. September 2015 Chloride Distribution in the Surficial Aquifer



Legend

- Sample Locations
- Approximate Molybdenum Concentration Contour (mg/L)
- Institutional Control Boundary / Riverton, WY

Note: Molybdenum concentration in mg/L is shown in parentheses for each sample location.

N

0 125 250 375 500
Feet

U.S. DEPARTMENT OF ENERGY OFFICE OF LEGACY MANAGEMENT	Work Performed by Navarro Research & Engineering, Inc. Under DOE Contract Number DE-LM0000421
Molybdenum Distribution 2015 Advanced Site Investigation Riverton, WY, Processing Site	
DATE PREPARED: March 21, 2016	FILE NAME: S1394900

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Figure 28. September 2015 Molybdenum Distribution in the Surficial Aquifer

Legend

- Sample Locations
- Approximate Sulfate Concentration Contour (mg/L)
- Institutional Control Boundary / Riverton, WY

Note: Sulfate concentration in mg/L is shown in parentheses for each sample location.

N

0 125 250 375 500
Feet

U.S. DEPARTMENT OF ENERGY OFFICE OF LEGACY MANAGEMENT	Work Performed by Navarro Research & Engineering, Inc. Under DOE Contract Number DE-LM0000421
Sulfate Distribution 2015 Advanced Site Investigation Riverton, WY, Processing Site	
DATE PREPARED: March 21, 2016	FILE NAME: S1395000

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Figure 29. September 2015 Sulfate Distribution in the Surficial Aquifer

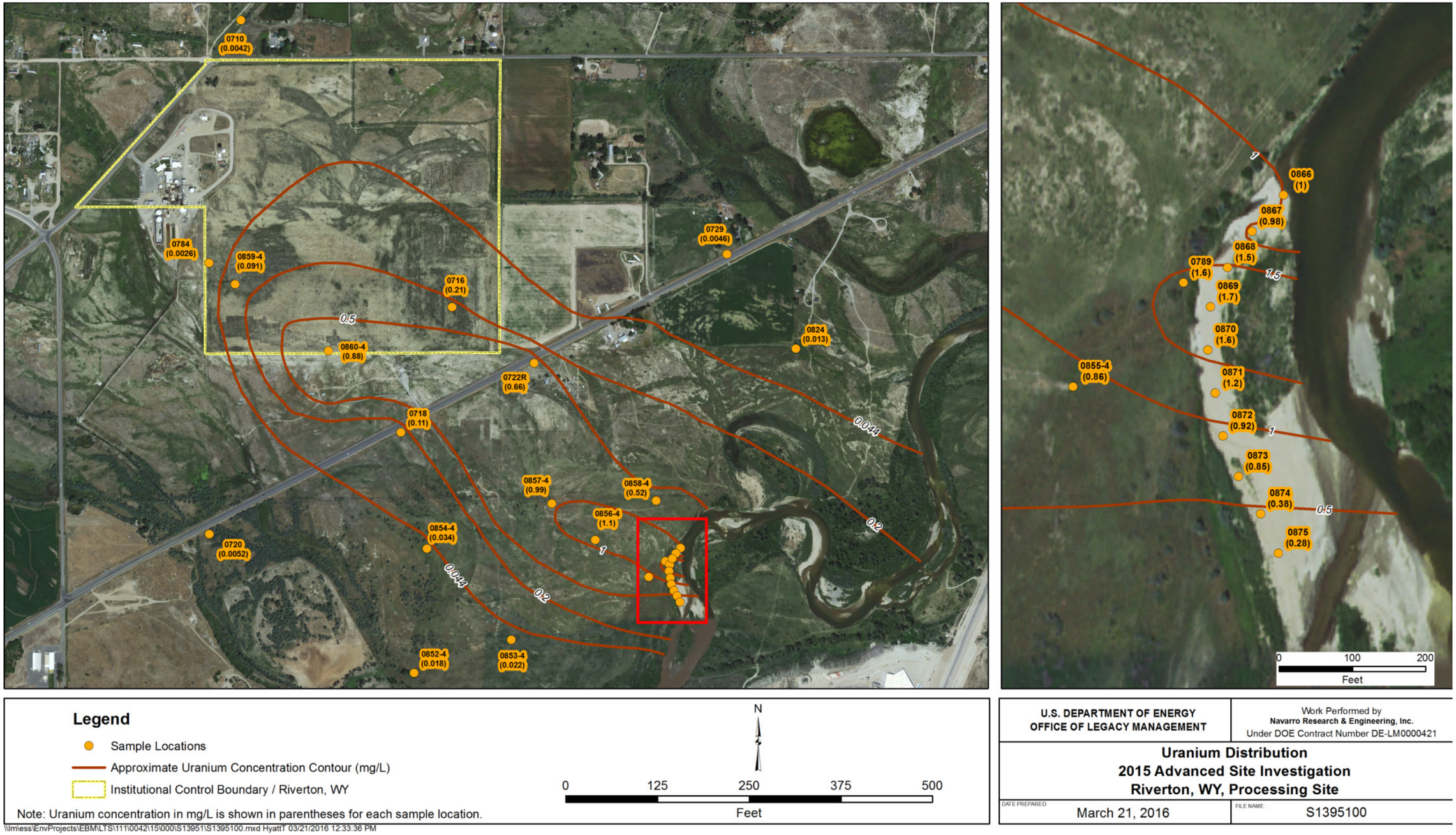

Figure 30. September 2015 Uranium Distribution in the Surficial Aquifer

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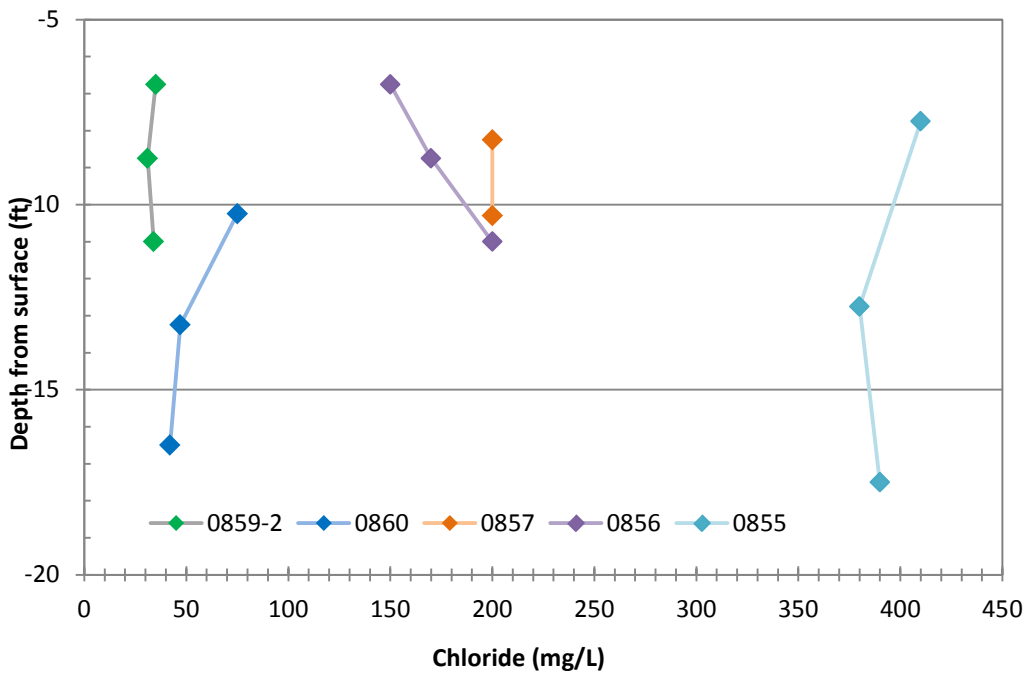

Figure 31. September 2015 Chloride Concentrations with Depth in Multilevel Monitoring Wells Going Down the Plume Axis

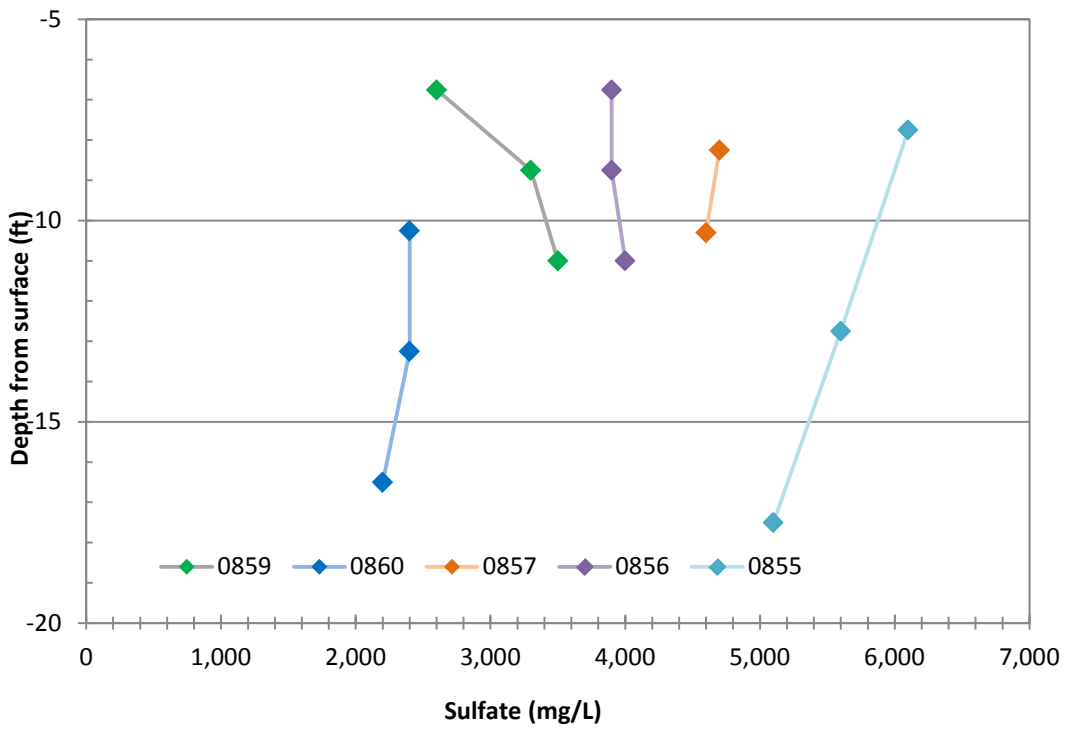

Figure 32. September 2015 Sulfate Concentrations with Depth in Multilevel Monitoring Wells Going Down the Plume Axis

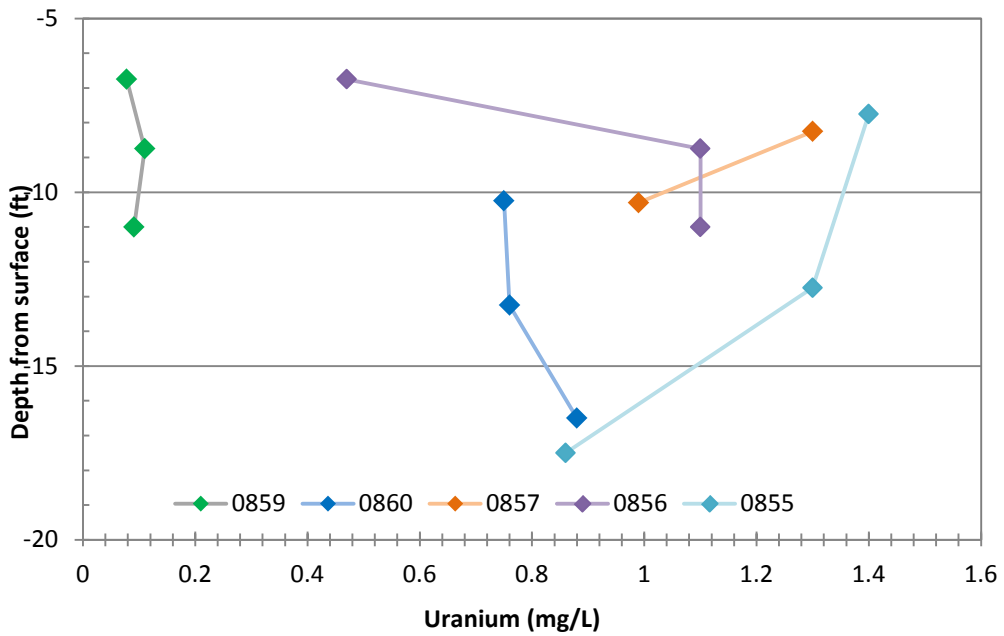

Figure 33. September 2015 Uranium Concentrations with Depth in Multilevel Monitoring Wells Going Down the Plume Axis

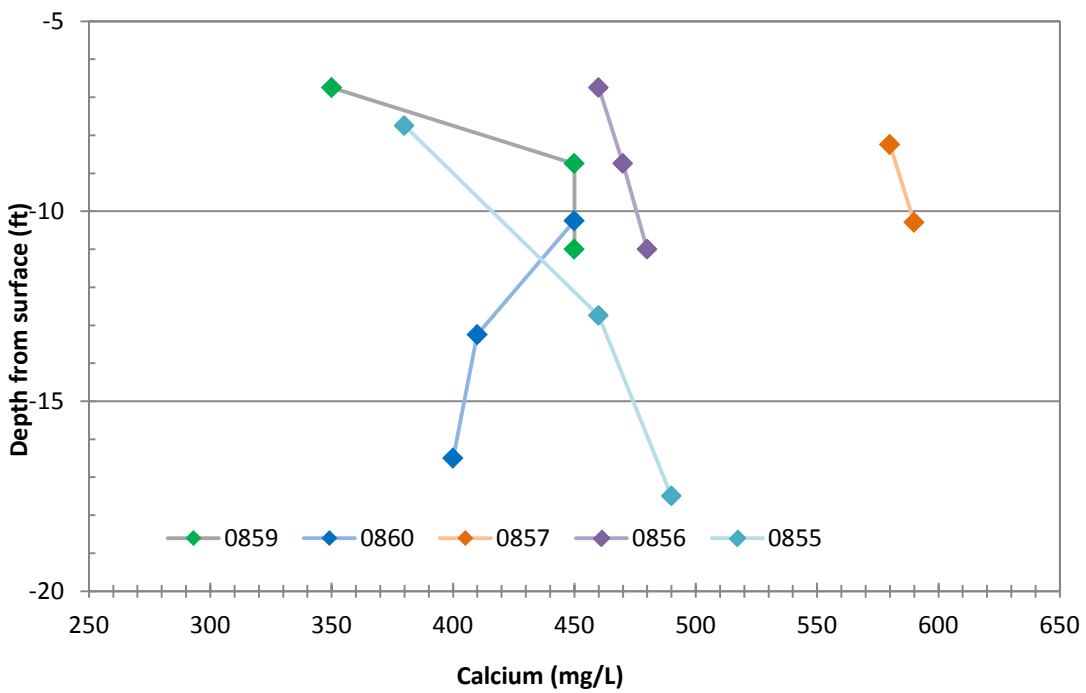

Figure 34. September 2015 Calcium Concentrations with Depth in Multilevel Monitoring Wells Going Down the Plume Axis

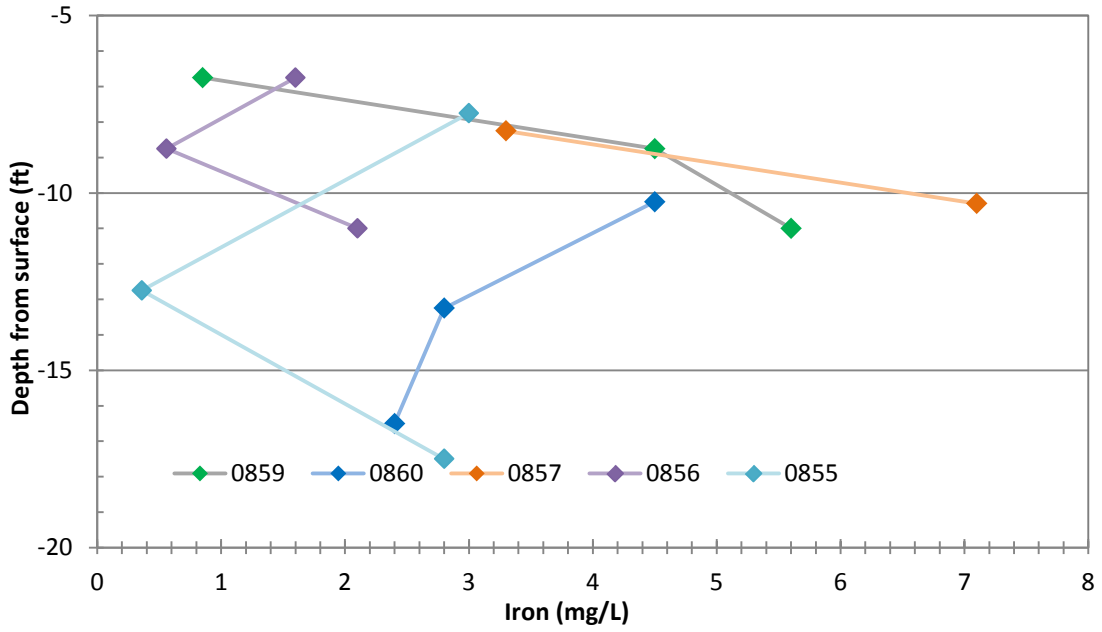

Figure 35. September 2015 Iron Concentrations with Depth in Multilevel Monitoring Wells Going Down the Plume Axis

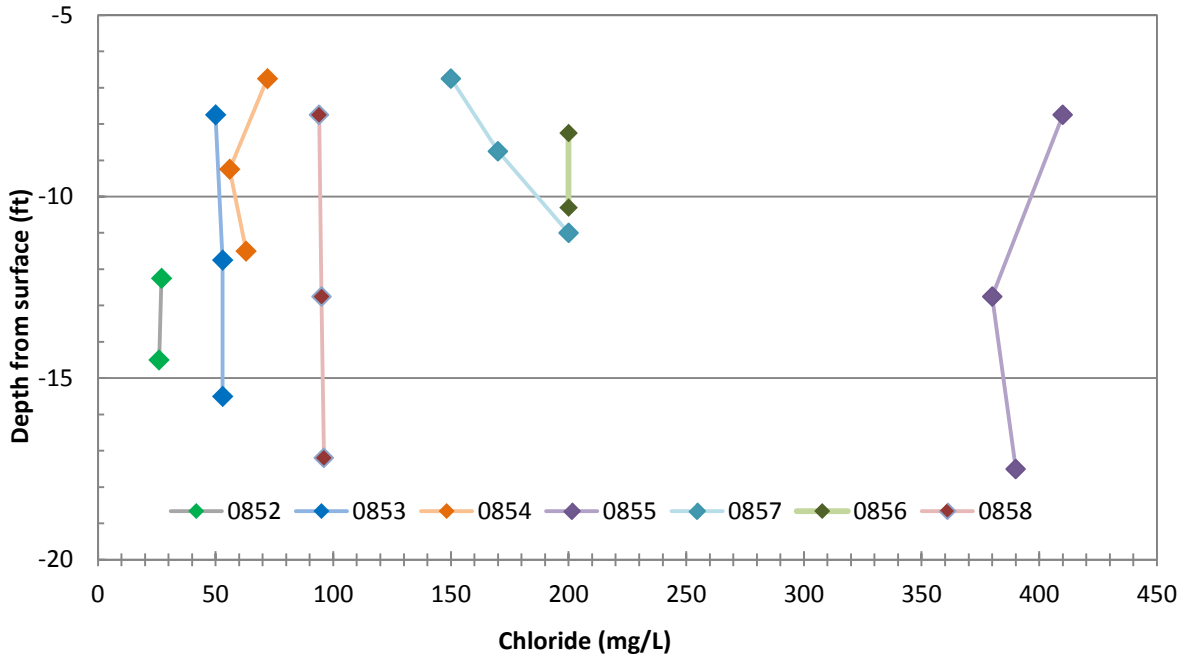

Figure 36. September 2015 Chloride Concentrations with Depth in Multilevel Monitoring Wells Going Across the Plume Axis

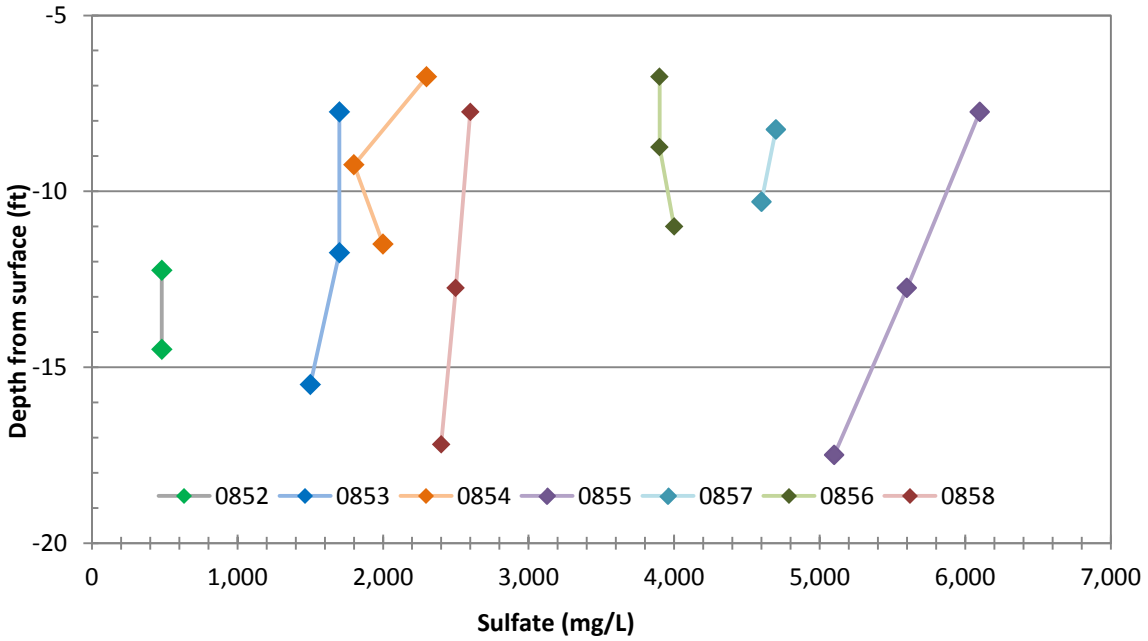

Figure 37. September 2015 Sulfate Concentrations with Depth in Multilevel Monitoring Wells Going Across the Plume Axis

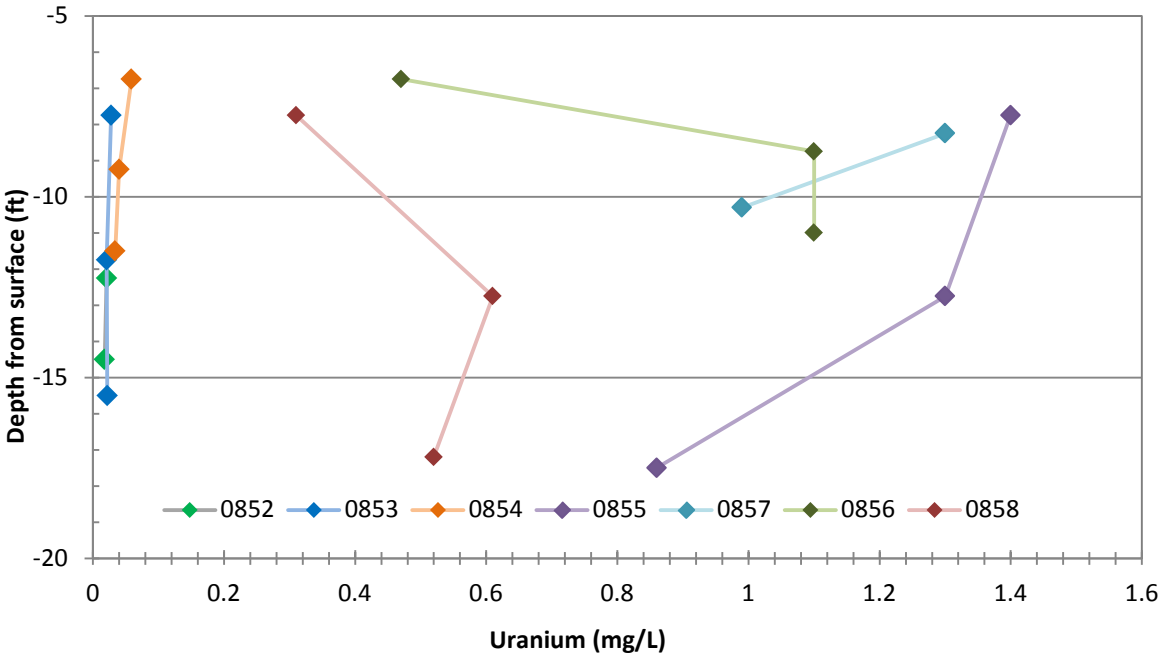

Figure 38. September 2015 Uranium Concentrations with Depth in Multilevel Monitoring Wells Going Across the Plume Axis

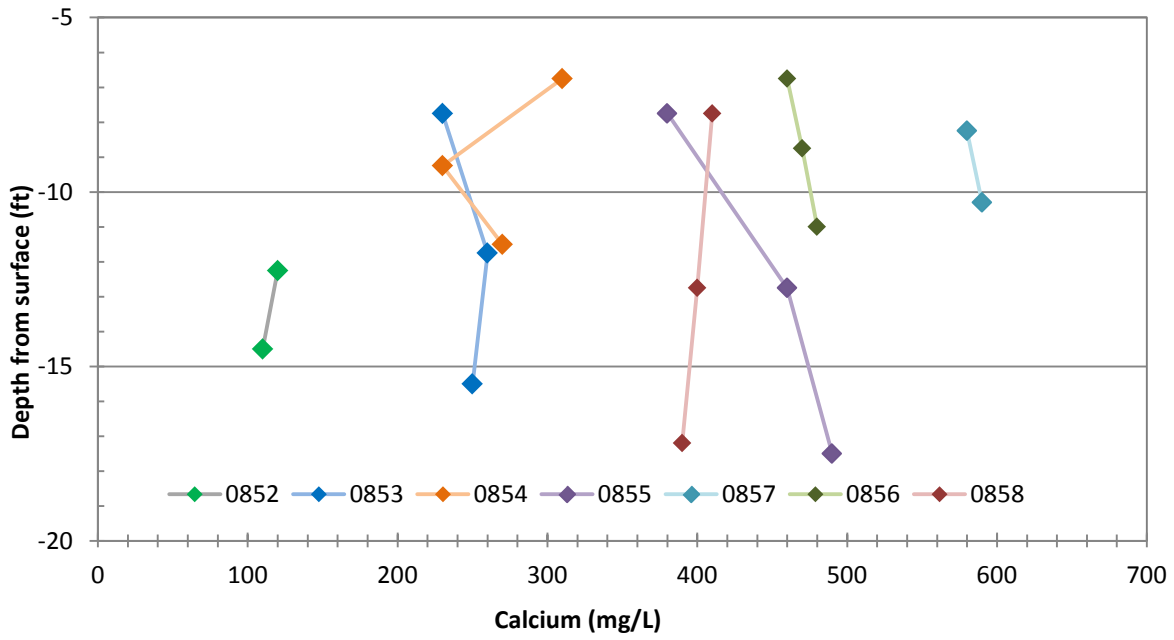

Figure 39. September 2015 Calcium Concentrations with Depth in Multilevel Monitoring Wells Going Across the Plume Axis

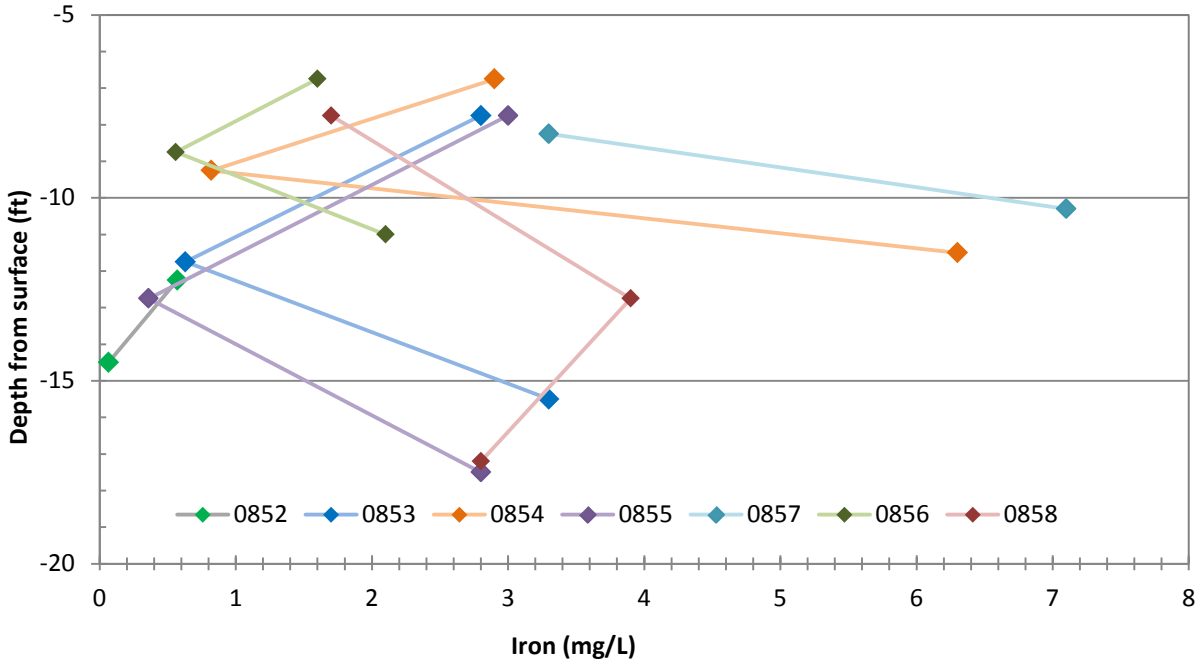

Figure 40. September 2015 Iron Concentrations with Depth in Multilevel Monitoring Wells Going Across the Plume Axis

Down the Plume Axis

Chloride, Sulfate, Specific Conductance, and Sodium

Chloride concentration (Figure 31) generally increases down the plume axis toward the Little Wind River, as the plume map in Figure 27 shows. This trend may be indicative of natural flushing, where the highest chloride concentrations are no longer near the source area. Chloride concentrations in wells 0859 and 0860 are similar (30–75 mg/L range), and concentrations in wells 0857 and 0856 are similar (150–200 mg/L range). Chloride concentrations in well 0855 near the river are much higher (380–410 mg/L). The chloride concentration in 0860 is slightly higher in the 10.5 ft depth port, and the chloride concentration in 0856 increases with depth until it matches the chloride concentration in 0857 (Figure 31).

The sulfate concentration distribution (Figure 32) down the axis of the plume is different from that of chloride. Most notably, sulfate concentrations in the first downgradient well (0860) are lower (2200 to 2400 mg/L) than in well 0859 (2600 to 3500 mg/L), the reverse of the chloride trend. This trend indicates the loss of sulfate or source heterogeneities along the flow path. Well 0860 corresponds to the edge of a low sulfate zone shown in the Geoprobe sulfate plume (well 0860 is adjacent to Geoprobe borehole T03-08) (Figure 24). In addition, well 0857, which is upgradient of well 0856, has higher sulfate concentration (4600 to 4700 mg/L) than well 0856 (3900 to 4000 mg/L). The sulfate concentration in 0855 decreases with depth (Figure 32; 6100 to 5100 mg/L) and is possibly related to the NRZ located just above the top port. The sulfate concentration trend (Figure 32) is the reverse in well 0859, in which concentrations increase with depth, from 2600 to 3500 mg/L.

In general, sodium concentration trends (Appendix F) are similar to sulfate trends, and the specific conductance trends (Appendix F) closely resemble those of sulfate. These data confirm that the plume waters are dominantly of a sodium–sulfate composition.

Uranium and Molybdenum

The uranium trend is somewhat increasing down the plume axis (Figure 33), with a large increase in uranium concentration going from well 0859 to 0860 (average of 0.093 to 0.75 mg/L) compared to the increase for chloride (average of 33 to 57 mg/L). This may be due to uranium sorbing onto the solid phase, whereas chloride tends to move in the groundwater more conservatively. Higher uranium concentrations were detected in the solid-phase material below the water table at boreholes 0859 and 0860 (Figure 10). Uranium can vary with depth (Figure 33), with lower concentrations in the top port of 0856 at 0.47 mg/L and higher concentrations in the two bottom ports at 1.1 mg/L. Uranium concentrations decrease with depth in well 0855, from 1.4 mg/L to 0.86 mg/L. The decreasing uranium trend at 0855 may be related to uranium release from the NRZ just above the top port.

Molybdenum trends are better seen in its plume map (Figure 28), since the plume centerline is slightly offset from those of uranium and sulfate (Figure 26). Molybdenum has a higher concentration in well 0857 than in any other well in the “down the plume axis” series. The molybdenum plume axis is offset slightly from the uranium and sulfate plume axes.

Calcium

Calcium concentration trends (Figure 34) differ from chloride and sulfate trends and tend to be variable with depth. Calcium is not a contaminant of concern, but it is present in the overall contaminant plume above background concentrations due to the neutralization of the tailings impoundment fluids. These fluids had lower pH values in the former impoundment but were buffered to a neutral pH along the flow path through the dissolution of naturally occurring calcite below the impoundment. This buffering reaction dissolved calcium, but in combination with the high sulfate concentrations coming from the impoundment fluids, it can subsequently precipitate gypsum. Thus, high calcium concentrations are related to the contaminant plume but cannot be considered directly correlated to plume movement, since calcium is controlled by the solubility limits of calcite and gypsum. Calcium concentrations in well 0857 are close to 585 mg/L, which is much greater than in any other well (maximum of 490 mg/L in 0855 [Figure 34]), and is likely controlled by gypsum dissolution/precipitation reactions. Calcium concentrations vary with depth between 350 mg/L and 450 mg/L in 0859 and increase from 380 mg/L to 490 mg/L in 0855.

Total Iron, Field Ferrous Iron, Manganese, and ORP

Total iron concentration trends (Figure 35) are similar to field ferrous iron trends and manganese trends (Appendix F). ORP values (Appendix F) show reversed trends from total iron, field ferrous iron, and manganese. This reflects the likelihood that higher total iron, manganese, and field ferrous iron all represent more-reducing conditions, which is then seen in lower values for ORP. Reducing conditions can potentially influence uranium mobility, but this will be examined in more detail with geochemical modeling in a subsequent report.

Total iron concentrations reach a maximum of 7.1 mg/L in 0857, and consistent trends between wells are not clearly apparent. However, both 0855 and 0856 show a pattern with lower total iron concentration in the middle port, possibly indicating more-oxidizing conditions in the center of the sand and gravel aquifer.

Across the Plume Axis

Chloride, Sulfate, Specific Conductance, and Sodium

The trends going across the plume for chloride (Figure 36), sulfate (Figure 37), sodium (Appendix F), and specific conductance (Appendix F) are all similar. For these constituents, the greatest concentrations are in well 0855, followed by wells 0857 and 0856. Wells 0853, 0854, and 0858 are more on the outer edges of the plume, with well 0858 having slightly higher concentrations than wells 0853 and 0854. Again, sodium concentration trends are similar to sulfate trends, and the specific conductance trends mirror those of sulfate almost exactly, as is typical of the sodium–sulfate composition of these groundwaters. As discussed in the previous section, the main variations with depth are an increasing chloride concentration in well 0856 with depth and a decreasing concentration of sulfate and sodium along with associated specific conductance with depth for well 0855.

Uranium and Molybdenum

The uranium trend shows the plume core with wells 0855 through 0858 (Figure 38). Uranium in well 0852 is below the MCL at 0.021 mg/L, and wells 0853 and 0854 are on the edge of the uranium plume, where the maximum concentration was 0.059 mg/L in well 0853-2. As discussed in the previous section, uranium can be quite variable with depth. Again, the increasing uranium trend at 0855 might be related to uranium release from the NRZ just above the top port.

Molybdenum trends are better seen in its plume map (Figure 28) since the plume centerline is slightly offset from those of uranium and sulfate. Well 0858 has the highest molybdenum concentration in this well series, since it is in the core of the molybdenum plume, whereas it is on the more northern edge of the uranium plume.

Calcium

Calcium concentration trends (Figure 39) are again somewhat different from those of chloride and sulfate because calcium concentrations are likely being controlled by calcite and gypsum. Contaminant concentrations measured across the plume create a series similar to the sulfate and chloride series, although well 0855 is an exception (Figure 39). Well 0855 contains an NRZ and likely has some additional calcite and gypsum controls on geochemistry. In well 0852, it is likely that calcium concentrations near 100 mg/L are typical of groundwater with no or only minimal tailings impoundment influence, compared to up to 590 mg/L calcium in well 0857-4.

Total Iron, Field Ferrous Iron, Manganese, and ORP

Similar to the "down the plume axis" series, total iron concentration trends (Figure 40) are very similar to field ferrous iron trends and manganese trends (Appendix F). ORP values (Appendix F) show reversed trends from total iron, field ferrous iron, and manganese. Again, this reflects the likelihood that higher total iron, manganese, and field ferrous iron all represent more-reducing conditions, which is then seen in lower values for ORP. The trend for a higher oxidation state in the middle of the sand and gravel aquifer is also seen in wells 0853 and 0854 in addition to wells 0856 and 0855.

Summary for Multilevel Groundwater Sampling

Groundwater samples from the multilevel monitoring wells match the overall plume configuration. However, certain locations vary with depth. Notable are an increasing chloride trend with depth for 0856, an increasing sulfate trend with depth at 0859, and a decreasing sulfate concentration trend with depth for 0855. In general, significant variations in uranium and calcium can occur with depth.

Sodium concentration trends are similar to sulfate trends and specific conductance trends, which is typical for sodium-sulfate-dominated groundwaters. Total iron, field ferrous iron, and manganese all show similar trends with a reverse trend for ORP, all of which indicate variations in redox conditions. Some wells show higher oxidation states in the middle of the sand and gravel aquifer, but this trend does not occur at all locations.

5.2.1.5 Groundwater Isotopes

This section evaluates $^{234}U/^{238}U$ activity ratio (AR), tritium, per mil values for sulfur ($\delta^{34}S_{sulfate}$), deuterium (δD), and oxygen-18 ($\delta^{18}O$) of water in conjunction with the concentrations of uranium, sulfate, and molybdenum collected from various groundwater wells at the Riverton site in September 2015. These isotopic data were collected for selected wells (Table 4), and the results for ARs, tritium, $\delta^{34}S_{sulfate}$, and uranium and sulfate concentrations for the sampled semiconfined aquifer wells are summarized in Table 8 and plotted on Figure 41. The main purpose of this evaluation is to use isotopic data to better determine if uranium and sulfate in the semiconfined bedrock aquifer are derived from mill operations and from known contamination in the surficial aquifer. Molybdenum is also examined in detail, as it appears to be a relatively mobile constituent that is mill derived and does not occur naturally in the Riverton site. A brief description of how the different isotopes can be used and interpreted is provided below.

The AR data are used in determining the source of uranium in a groundwater sample by plotting the AR as a function of the inverse of uranium concentration (Zielinski et al. 1997). The Zielinski et al. (1997) study demonstrated that the AR can distinguish between uranium derived from weathering of local aquifer minerals and uranium derived from uranium ore processing mills. They state that most natural groundwater has an AR greater than 1.0, with typical values in the range of 1 to 3, but values in excess of 10 can occur. In contrast, uranium in raffinate contains residual amounts of uranium originally brought into solution by reacting the uranium ore with strong oxidizing solutions of acid or alkali. This uranium is derived from a mixture of materials with ARs above and below 1.0, which presumably has not been exposed to oxidizing conditions. With these considerations, uranium ores that are processed in a mill should have an estimated time-integrated average AR of 1.0 ± 0.2. The raffinate should retain the U-isotope composition of the processed ore because neither the rapid, nearly complete dissolution of uranium from crushed ore nor further chemical processing of the leachate will promote any isotopic fractionation (Zielinski et al. 1997). When the AR is plotted as a function of the inverse of uranium concentration, a horizontal trend indicates straight dilution without any additional uranium source, whereas a diagonal trend indicates mixing between two end-member waters, often one being a mill-related source with high uranium concentrations and the other being background groundwaters with low, but detectable, uranium concentrations.

In groundwater, the sulfur ($\delta^{34}S_{sulfate}$) and oxygen ($\delta^{18}O_{sulfate}$) isotopes in sulfate (SO_4^{2-}) result from the source elements and the isotopic fractionation from chemical and biological processes. Faure (1986) states, "The most important cause for variations in the isotopic composition of sulfur in nature is the reduction of sulfate ions by anaerobic bacteria such as *Desulfovibrio desulfuricans* which live in sediment deposited in the oceans and in lakes. These bacteria split oxygen from sulfate ions and excrete H_2S which is enriched in ^{32}S relative to the sulfate." Under reducing conditions the H_2S can react with elements such as iron to form metallic sulfides, which precipitate from solution. When subsequently exposed to the atmosphere during erosion, these metallic sulfides are oxidized to sulfate, and the sulfur atom retains the isotopic signature it had in the metallic sulfide. Therefore, negative values indicate that the source of the sulfate is from the dissolution of a sulfide mineral in which the sulfate was reduced by anaerobic bacteria. In comparison, $\delta^{34}S_{sulfate}$ values in sulfate derived from gypsum tend to have positive values (Clark and Fritz 1997).

Table 8. Summary of Results Related to the Hydraulic Connection Between the Surficial and Semiconfined Aquifers

Well Pairs	**COPC Concentrations (mg/L)**			**Evidence for Aquifer Connection? (Yes/No/Inconclusive)**							**Within Contaminant Plume Footprint?**
Surficial/ Semiconfined	U	Mo	SO_4	COPCs	$^{234}U/^{238}U$	$\delta^{34}S_{sulfate}$	δD and $\delta^{18}O$	Tritium	Thin Confining Layer[a]?	Vertical downward gradient?	
0784/0732	0.0026/0.0057	0.021/0.029	1100/1700	Yes—SO_4 and Mo	I[b]	Yes	Yes	I	No	Yes	Yes
0716/0717	0.21/0.00011	0.13/0.0096	450/760	I—SO_4	I	I	No	No	No	No	Yes
0722R/0723	0.66/0.00018	0.11/<0.00032	1100/1900	Yes—SO_4	I	Yes	No	Yes	Yes	No	Yes
0718/0719	0.11/0.00034	0.073/0.010	2500/490	No	I	No	No	No	Yes	No	Yes
0729/0730	0.0046/0.0051	0.0039/0.0043	88/140	No	I	Yes	Yes	Yes	No	Yes	No
0720/0721	0.0052/0.00009	0.00084/0.0024	150/300	No	I	Yes	No	No	Yes	Yes	No
0707/0705	0.78/0.00018	0.96/0.0025	2700/450	No	I	I	No	No	Yes	Yes	Yes

Notes:
[a] For this table, a confining layer is defined as clay, shale, or siltstone without sand, and thin is defined as less than 4 feet thick.
[b] I = inconclusive.

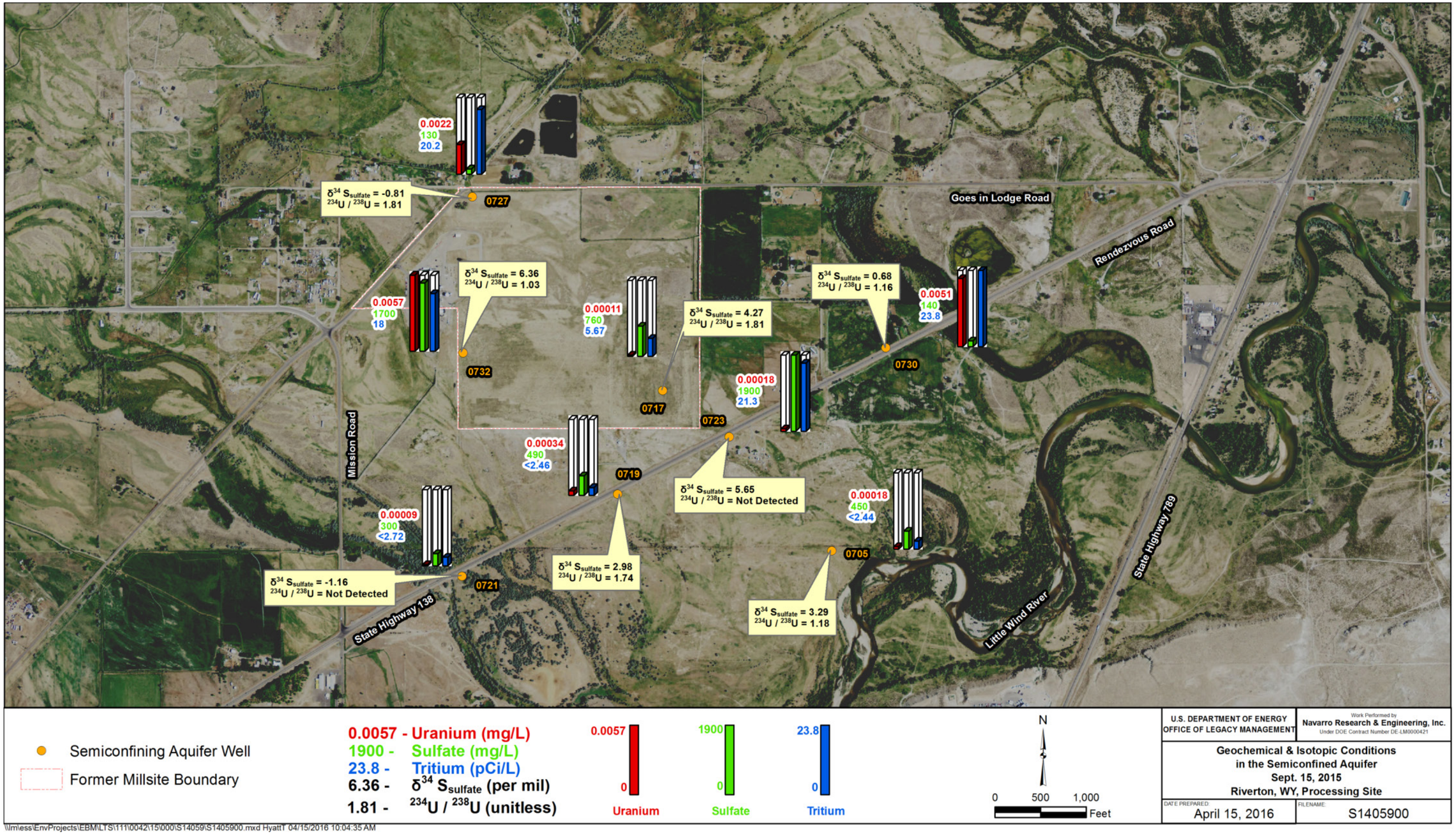

Figure 41. Geochemical and Isotopic Conditions in the Semiconfined Aquifer

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A comparison of the $\delta^{34}S_{sulfate}$ and $\delta^{18}O_{sulfate}$ values in groundwater with those in sulfuric acid can assist in identifying the source of sulfate in groundwater. Since sulfuric acid was used in ore processing at most uranium mills, $\delta^{34}S_{sulfate}$ values can provide a unique fingerprint of the groundwater derived from mill sources. Sulfuric acid is usually produced from hydrogen sulfide gas (H_2S) recovered from oil and gas production (http://www.sulphurinstitute.org/learnmore/faq.cfm). Faure (1986) states that the $\delta^{34}S_{sulfate}$ values of sulfur in H_2S gas range from −8‰ to +32‰. Although the $\delta^{34}S_{sulfate}$ values for sulfuric acid used in the Riverton mill process are not available, groundwater collected from wells with similar $\delta^{34}S_{sulfate}$ values can provide evidence for similar sources of sulfate.

The variation in the isotopic composition of precipitation (δD and $\delta^{18}O$) may help identify the source of groundwater recharge because of the fractionation of the isotopes of hydrogen and oxygen in the water molecule that occurs as a result of the differences in the vapor pressures of the isotopes. As water evaporates, ^{16}O and H preferably enter the vapor phase, while ^{18}O and D are concentrated in the liquid phase. Therefore, precipitation associated with warmer temperatures contains a greater amount of heavier isotopes (less negative δD and $\delta^{18}O$ values) than precipitation associated with cooler temperatures. More enriched δD and $\delta^{18}O$ values are often associated with recharge at lower elevations with warmer temperatures. In addition, water that is left after evaporation occurs will contain a larger number of heavier isotopes with a slightly greater enrichment in $\delta^{18}O$. As a result, evaporated waters do not plot on the Global Meteoric Water Line (GMWL, Craig 1961).

Oxygen and Deuterium Isotope Data

The δD and δ18O values were compared to the GMWL (Craig 1961), which establishes a slope between δD and δ18O values based on worldwide precipitation data. At Riverton, two distinct groupings of groundwater samples were identified (Figure 42). Wells in Group 1 include wells screened in the surficial aquifer and three wells (0727, 0730 and 0732) that are screened in the semiconfined aquifer. Wells in Group 2 all include wells screened in the semiconfined aquifer. The δD and δ18O values for the Wind River are from White et al. (1984).

The δD and δ18O values for Group 1 plot below the GMWL. Slight deviations from the global meteoric water line, but generally with a similar slope, are expected as a result of evaporation as localized precipitation infiltrates into the ground and percolates to the water table. Any preferential isotopic enrichment of δD and δ18O through evaporation from a source other than precipitation, such as water from the Wind River, will be evident as a slightly lower slope of the δD and δ18O line (Welch and Preissler 1986). The position of the δD and δ18O values of the Group 1 wells relative to those of the Wind River potentially indicates isotopic enrichment through evaporation of Wind River water (Figure 42). The Site Observational Work Plan for the Riverton site (DOE 1998a) indicates that the surficial aquifer and the semiconfined aquifer are recharged primarily by inflow from the Wind River to the northwest and from excess irrigation water. Water from the Wind River is used for irrigation in this area, so it is plausible that irrigation water is a source of recharge to the unconfined surficial aquifer and undergoes evaporation as it percolates to the water table.

The δD and $\delta^{18}O$ values for Group 2 wells also plot below the GMWL but are isotopically lighter than the Group 1 wells and Wind River water. This indicates that the water in these wells is recharged from a source area at a lower temperature than that of the Riverton site, perhaps a

higher elevation source, such as the area to the west where the Wind River Formation crops out at a slightly higher elevation, just before the Wind River Range.

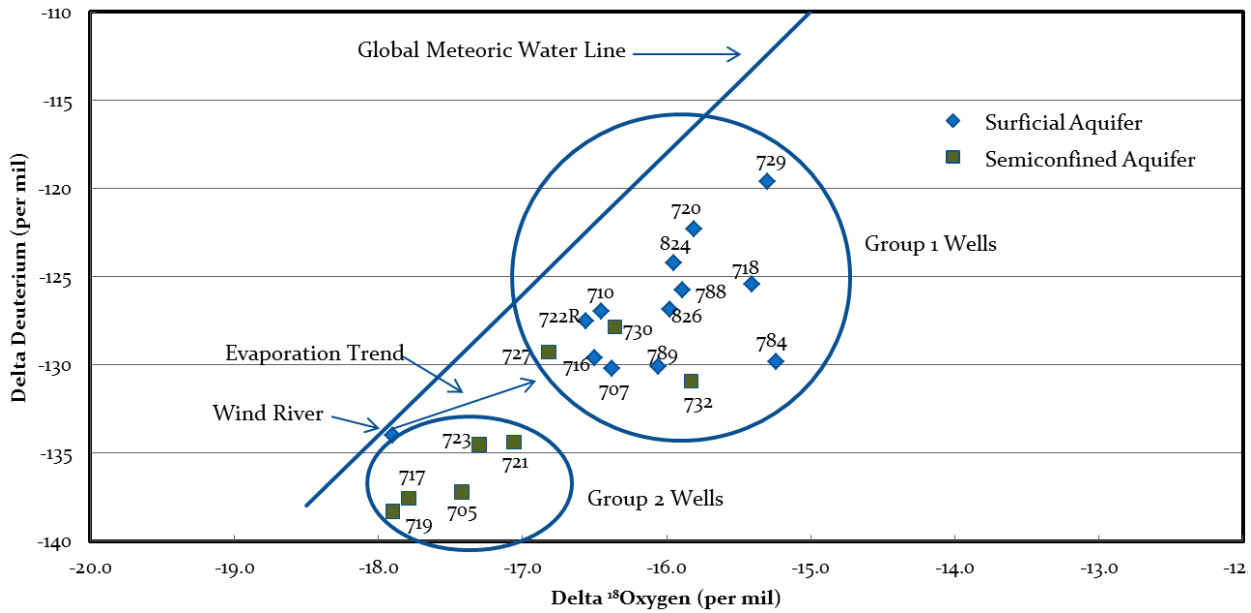

Figure 42. Values of δD and $\delta^{18}O$ for Riverton Groundwater

Isotope and Chemical Results by Well Locations or Well Pairs

The isotope data; the concentrations of uranium, sulfate, and molybdenum; and information in Ranalli and Naftz (2014) are used to determine the potential for mill-derived COPCs to have migrated down into the semiconfined aquifer and to infer the degree of hydraulic connection between the surficial and semiconfined aquifer (Table 8). Ranalli and Naftz (2014) discuss the nature and extent of the confining layer between the two aquifers and provide a comparison of major ion chemistry and water levels between pairs of wells. The isotope values and COPC concentrations in known background locations are compared to those in locations downgradient from the former mill. A brief discussion of these data in wells known to be representative of background water quality and of wells in the contaminant plume is presented below.

Although ARs for the semiconfined aquifer are plotted on Figure 41, all the ARs are listed as "I" (inconclusive) in the "Evidence for Aquifer Connection" column of Table 8. The ratios are inconclusive for the semiconfined aquifer because the low ^{234}U and ^{238}U activities (near or below the detection limit) with high relative uncertainties (Appendix F) allows the potential for the AR to vary to the degree the interpretation can also vary. For this reason, the AR (as well as other isotopic data) should be used with other lines of evidence as presented in Table 8 to assess aquifer connection.

Wells 0460, 0710, 0727, 0788, and 0789

Well 0460 is screened in the confined aquifer and is included in this analysis because it was the source of water for the mill and is currently the source of water for the Chemtrade sulfuric acid plant. Well 0727 is upgradient of the former mill site and is screened in the semiconfined aquifer

and is considered representative of background water quality in this aquifer. Well 0710 is screened in the surficial aquifer north of well 0727 and is representative of background groundwater quality in this aquifer. Well 0789 is located adjacent to the north bank of the Little Wind River within the center of the uranium plume, and well 0788 is located to the west of well 0789, away from the river and on the southeastern edge of the uranium plume (Figure 30). Both wells 0788 and 0789 are screened in the surficial aquifer and are considered representative of groundwater with contaminants derived from the mill, albeit with lower concentrations in well 0788. These five wells are considered together to show the contrast in quality between background groundwater and groundwater with mill-derived contaminants.

The low concentration of uranium in wells 0727 and 0460 (0.0022 mg/L and 0.00005 mg/L, respectively) and the AR in well 0727 near 1.8 (Figure 43) indicate that the uranium in the groundwater in the semiconfined aquifer and the confined aquifer at these locations is derived from naturally occurring uranium in the Wind River Formation and is not a result of mill operations. Uranium and sulfur isotopes were not measured in groundwater collected from well 460 in September 2015. Similarly, in well 0710, the low uranium concentration (0.0042 mg/L) and the AR near 1.4 (Figure 43) indicate that the uranium in the groundwater in the surficial aquifer at this location is derived from naturally occurring uranium and is not a result of mill operations. Conversely, in wells 0788 and 0789, the higher uranium concentrations (0.038 and 1.6 mg/L, respectively) and the ARs (1.2 and 0.88, respectively, Figure 43) indicate that the majority of uranium in the groundwater in the surficial aquifer at these locations is derived from mill operations. The concentration of uranium exceeds the 0.044 mg/L MCL in well 789 but is less than the MCL in well 0788.

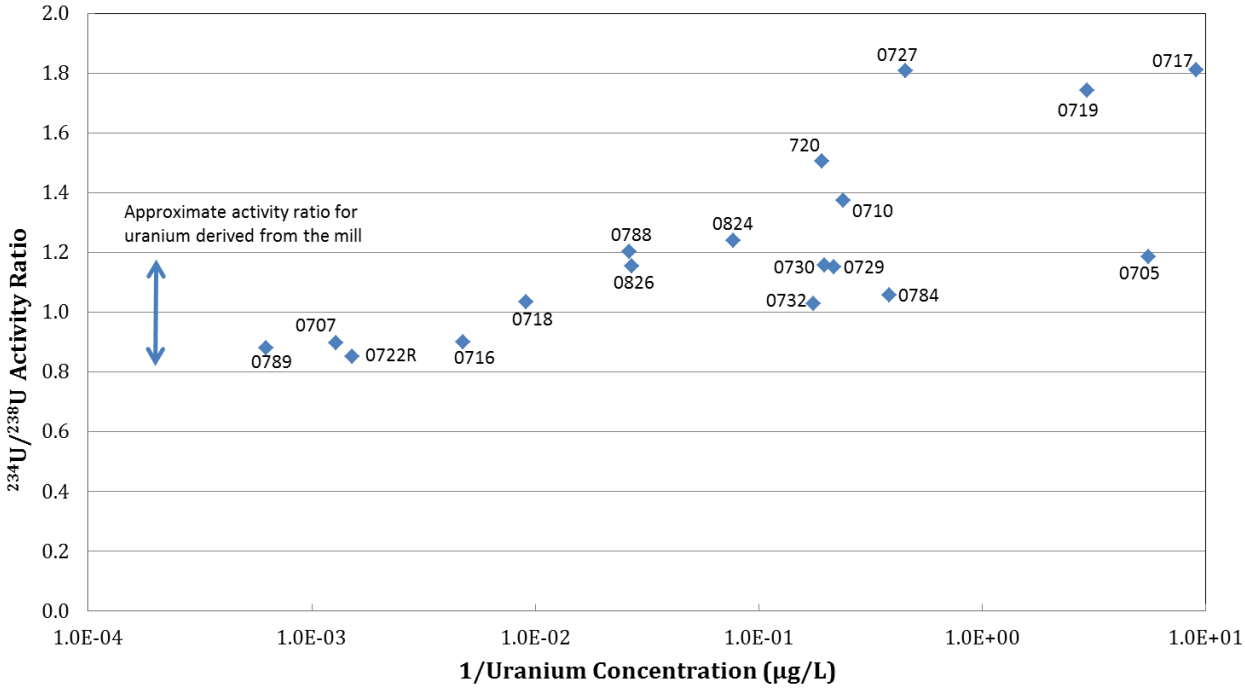

Figure 43. AR–Concentration Plot for Riverton Groundwater

Sulfate concentrations are similar and relatively low in wells 0460, 0710, and 0727 (180, 140, and 130 mg/L, respectively). The $\delta^{34}S_{sulfate}$ values can indicate if the sulfate dissolved in

groundwater at two or more wells is from the same source, but because the $\delta^{34}S_{sulfate}$ values of the acid used when the mill was in operation are not available, they cannot be used to determine if the mill was a source of sulfate. The negative $\delta^{34}S_{sulfate}$ values of wells 0710 and 0727 (Figure 44) and the fact that both wells are upgradient of the former mill site suggest that the sulfate in both wells is derived from the dissolution of a metallic sulfide mineral and not from mill operations. Values of $\delta^{34}S_{sulfate}$ were not measured in wells 0788 and 0789, but the relatively high concentrations of sulfate in both wells (1400 and 4700 mg/L, respectively) suggest a mill-related source of sulfate. The concentration of sulfate exceeds the secondary maximum contaminant level (SMCL; a nonenforceable EPA guideline in the National Secondary Drinking Water Regulations) at these two wells but is less than the SMCL at wells 0460, 0710, and 0727.

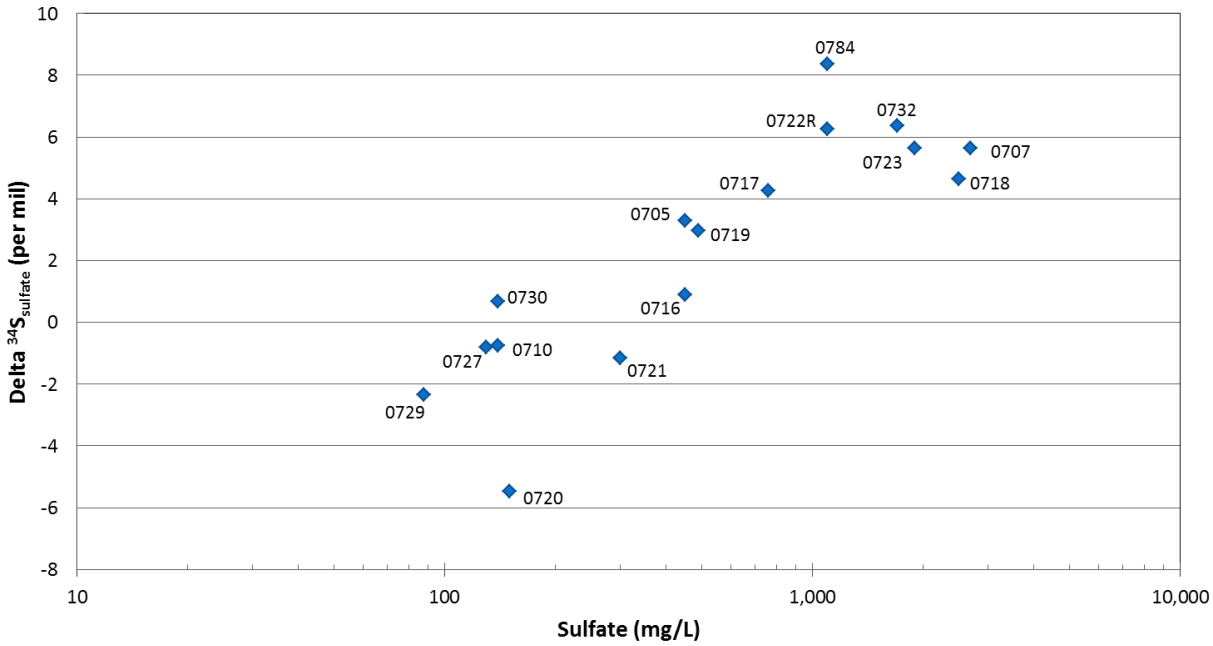

Figure 44. Sulfate Concentration and $\delta^{34}S_{sulfate}$ Plot for Riverton Groundwater

The concentration of molybdenum is relatively low in wells 0460, 0710, and 0727 (0.0025, 0.0025, and 0.0038 mg/L, respectively). The concentration of molybdenum at well 0789 is 0.57 mg/L, which indicates a mill-related source. The concentration of molybdenum in well 0788 (0.020 mg/L) is less than that in well 0789 but greater than in wells 0460, 0710, and 0727, suggesting that the molybdenum at well 788 is derived from the mill, given the lack of any other identified source of molybdenum, and its location on the edge of the contaminant plume.

The δD and $\delta^{18}O$ values of water for wells 0710 and 0727 are similar and plot with other values from the surficial aquifer (Figure 42). This indicates a possible hydraulic connection between the surficial aquifer and the semiconfined aquifer at this location. Groundwater exchange is further supported by the similar values of $\delta^{34}S_{sulfate}$ in both wells and the presence of only 4 ft of highly weathered clay/shale that separates the surficial aquifer from the semiconfined aquifer. In addition, tritium values indicate a similar younger age of groundwater in both wells. The δD and $\delta^{18}O$ values of groundwater in wells 0788 and 0789 plot in the same region as 0710 and 0727 and the other wells screened in the surficial aquifer.

Other Well Pairs

The above discussion provides a basis for interpreting the different isotope and concentration data. Table 8 provides isotope and concentration data for seven surficial and semiconfined aquifer well pairs. This table provides interpretations of possible aquifer interconnection based on COPC concentrations, isotopic data, confining layer thickness, well locations in relation to the contaminant plume, and vertical gradients. In addition, Figure 41 provides a map view of the isotopic data measured in all of the semiconfined aquifer wells. These data are not necessarily conclusive on whether a semiconfined aquifer well has mill-derived contaminants or whether an aquifer connection exists. However, the COPC concentrations do suggest a mill-related source of sulfate and molybdenum in well 0732 and mill-related sulfate in well 0723 (Table 8 and Figure 41). The sulfate concentration and isotope data for well 0717 indicate an inconclusive interpretation of sulfate being mill derived. Overall, the COPC data for all other semiconfined aquifer wells appear to indicate naturally occurring concentrations of uranium, sulfate, and molybdenum. However, the isotope data indicate the possibility of aquifer connections at some locations. In summary, at individual well pairs, the evidence of aquifer connection is not necessarily an indicator of cross contamination, and likewise, evidence of mill-related COPCs is not always an indicator of aquifer connection at specific locations.

Wells 0824 and 0826

Wells 0824 and 0826 are both screened in the surficial aquifer and are on the eastern and western sides of the contaminant plume, respectively, and do not have a corresponding semiconfined aquifer well pair. Well 0824 is located downgradient from well 0729, and well 0826 is located downgradient from wells 0718 (Plate 1). Uranium concentrations exceed background concentrations in both wells (0.013 mg/L for 0824 and 0.037 mg/L for 0826). The ARs indicate a possible mill-related source of uranium at well 826, as the AR of 1.15 is within the range reported by Zielinski et al. (1997) for uranium derived from ore (1.0 ± 0.2) (Figure 43). The AR for well 824 of 1.24 is just above the range reported by Zielinski et al. (1997) for uranium derived from ore.

Sulfate concentrations are much greater at well 0826 (1300 mg/L) than at well 0824 (130 mg/L), but $\delta^{34}S_{sulfate}$ values were not measured at either well. The sulfate concentration is below the SMCL at well 0824 but above it at well 0826. These sulfate concentrations would suggest a natural source of sulfate at well 0824 and a mill or sulfuric acid plant derived source at 0826.

The concentration of molybdenum is 0.0036 mg/L in well 0824 and 0.018 mg/L in well 0826. The concentration of molybdenum is similar to background in well 0824, suggesting a natural source. The concentration of molybdenum is greater than background in well 0826, which may be a mill-related source. Values of δD and $\delta^{18}O$ plot within Group 1 (Figure 42), and tritium values were not measured.

The overall weight of evidence appears to indicate that well 0824 is outside of the mill-related contaminant plume, whereas well 0826 does appear to have mill-related contaminants.

Temporary Well Points

Wells 0866 through 0875 are temporary well points installed in a sand bar in the side channel of the Little Wind River. Uranium concentrations range from 0.28 to 1.7 mg/L (Figure 30). The ARs indicate an ore source of uranium at all wells (Figure 45). That the uranium is derived from the mill is further supported by the fact that the average concentration of uranium in the Little Wind River at Riverton based on 18 samples collected by the U.S. Geological Survey (USGS) between 1985 and 1992 was 0.0059 mg/L. Sulfate concentrations range from 3700 to 6300 mg/L (Figure 29), but $\delta^{34}S_{sulfate}$ values were not measured. The average concentration of sulfate in the Little Wind River at Riverton based on 312 samples collected by the USGS from 1953 to 2006 was 271 mg/L and also indicates that sulfate in the temporary well points is derived from the mill. The concentration of molybdenum ranges from 0.053 to 0.86 mg/L (Figure 28), which exceeds the molybdenum standard of 0.10 mg/L in all wells except for wells 0874 and 0875. The molybdenum concentration at these two wells is still greater than background concentrations in groundwater. Three values of molybdenum measured in the Little Wind River above Arapahoe, Wyoming, by the USGS on 4/4/1988, 10/18/1988, and 6/27/1989 were each <0.010 mg/L and indicate that molybdenum in the temporary well points is derived from the mill. Values of δD and $\delta^{18}O$ are similar among the temporary well points and among all wells in the surficial aquifer (Appendix F).

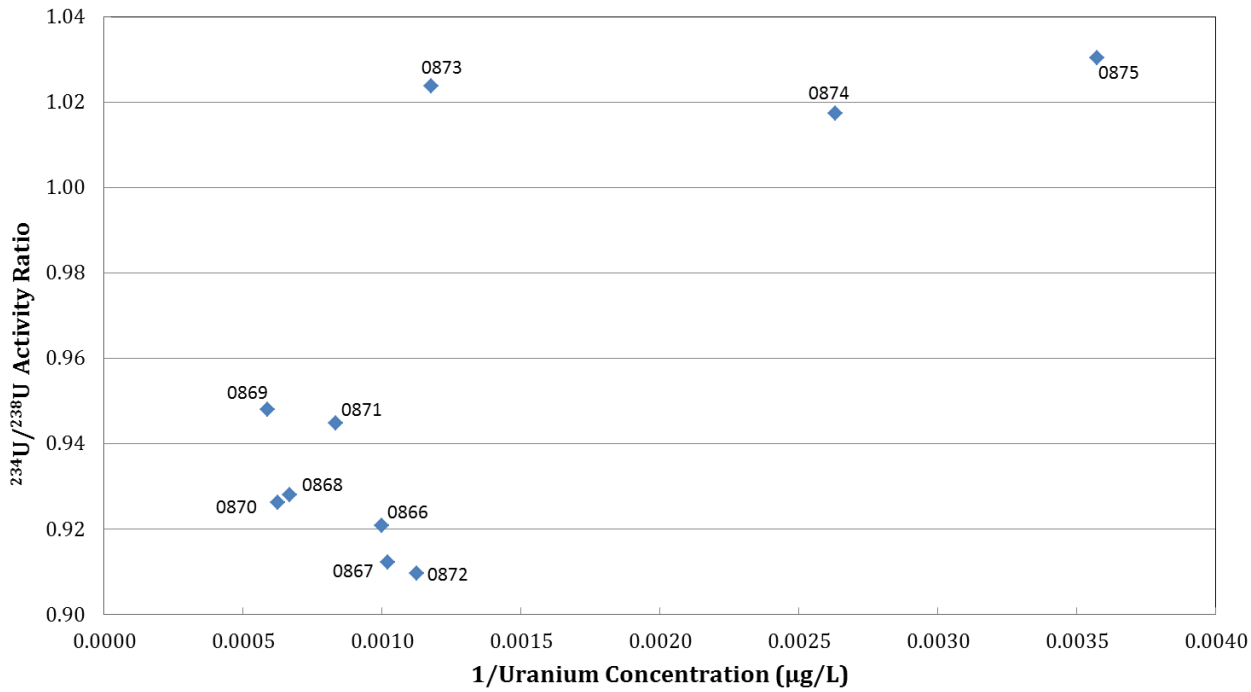

Figure 45. AR–Concentration Plot for Temporary Well Points

Multilevel Monitoring Wells

Geochemistry data from the multilevel monitoring wells are presented in Section 5.2.1.4. The uranium, sulfate, and molybdenum values in these wells match the overall plume maps with some concentration differences with depth. Similar to the other surficial aquifer wells within the plume boundaries, multilevel monitoring wells 0854 through 0860 all have ARs near 1.0 with a

range from 0.85 to 1.1 (Figure 46) and indicate uranium from a mill-derived source. ARs of multilevel monitoring wells 0852 and 0853 are greater than 1.2. These ratios match with COPC data in these wells and their locations near the contaminant plumes (Figure 27 through Figure 30), with well 0852 being outside of the uranium plume but on the edge of the sulfate plume. The ARs in well 0852 near 1.45 indicate a natural uranium source. Well 0853 is at the southwestern side of all the contaminant plumes, and the ARs at this well are less than the ARs at 0852 but still greater than 1.2. These ratios are likely due to mixing of uranium from mill-related and natural sources. The δD and $\delta^{18}O$ values for all of the multilevel monitoring wells fall in Group 1, similar to the majority of other surficial aquifer wells and the temporary well points (Appendix F). Values of $\delta^{34}S_{sulfate}$ and tritium were not measured for the multilevel monitoring wells.

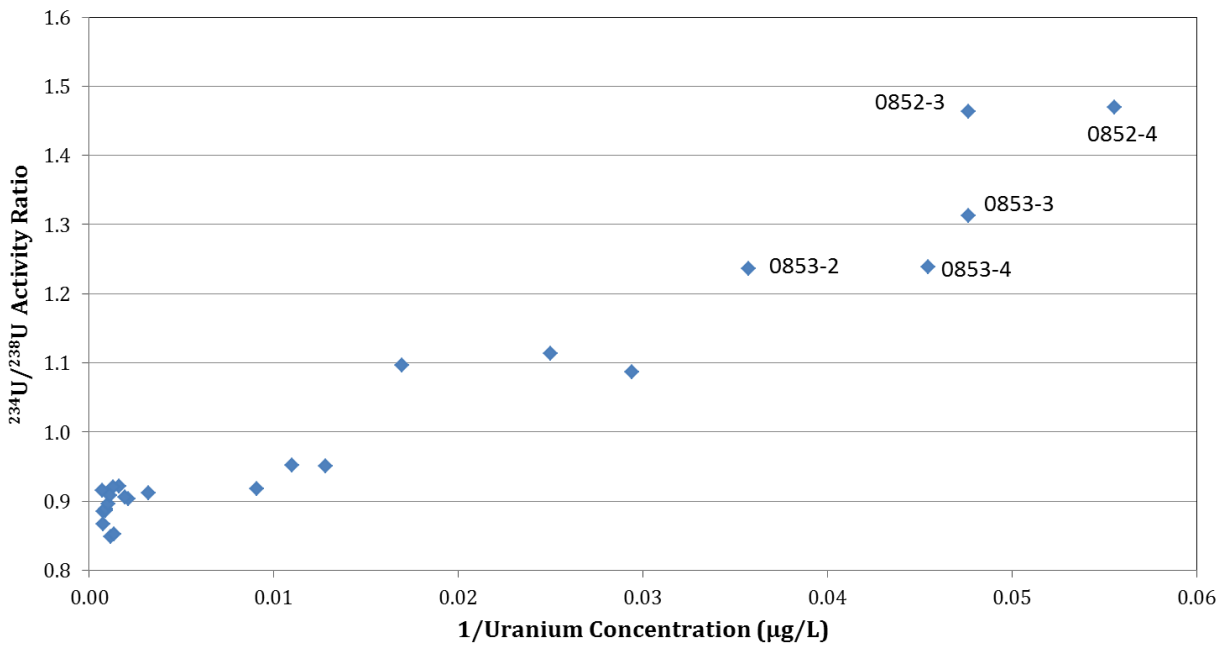

Figure 46. AR–Concentration Plot for Multilevel Monitoring Wells 0854–0860 (Unlabeled) and Multilevel Monitoring Wells 0852 and 0853 (Labeled)

Summary of Groundwater Isotopic Data

The uranium, sulfate, and molybdenum plumes in the surficial aquifer are relatively well defined (Figure 26). In general, the ARs indicate that the uranium in the surficial aquifer is mill related, and the δD and $\delta^{18}O$ isotopes fall in Group 1 as a different water source than the semiconfined aquifer. As expected, the tritium data generally indicate a young age for the surficial aquifer, except for well 0784, which may be receiving sulfuric acid plant process water from a nearby ditch. The Chemtrade plant gets process water from a deep well in the confined aquifer (0460—no measured tritium data). Future sampling for tritium in well 0460 is recommended to confirm this anomaly in well 0784.

In the semiconfined aquifer, the determination of whether mill-related contaminants are present in groundwater was based on the data presented in Table 8. These data indicate the potential for groundwater in the surficial aquifer to migrate down into the semiconfined aquifer at several

areas across the site. However, aquifer connections at specific locations are difficult to determine.

COPC concentrations and $\delta^{34}S_{sulfate}$ values do suggest a mill-related source of sulfate and molybdenum in well 0732 and mill-related sulfate in well 0723 (Table 8 and Figure 41). The sulfate concentration and $\delta^{34}S_{sulfate}$ data for well 0717 indicate an inconclusive interpretation of sulfate being mill derived. Overall, the COPC data for all other semiconfined aquifer wells appear to indicate naturally occurring concentrations of uranium, sulfate, and molybdenum.

The concentrations of uranium, sulfate, and molybdenum in the temporary well points greatly exceed the concentrations of these constituents in the Little Wind River and background in the surficial aquifer and are similar to the concentrations measured in wells 0707 and 0789 (Figure 28 through Figure 30). The similar values of ARs and δD and $\delta^{18}O$ in the temporary well points and groundwater in the surficial aquifer indicate that groundwater in the surficial aquifer is hydraulically connected to shallow groundwater in the sand bar where these temporary well points were installed.

COPC data and isotopic data for the multilevel wells are consistent with the plume maps. These data indicate that well 0852 has naturally occurring uranium and is on the southwestern side of the sulfate plume.

5.2.2 Domestic Wells

Nine domestic wells at residences within the IC boundary are used as a potable water source and were sampled in September of 2015. Most of these wells are completed in the confined aquifer with the exception of well 0841, which is likely completed in the semiconfined aquifer. Domestic well 0878 (Plate 1) was sampled for the first time in September and was added to the long-term monitoring program. Results from domestic wells did not indicate any impacts from the Riverton site. Concentrations of molybdenum in samples collected from domestic wells were two orders of magnitude below the 40 CFR 192 MCL of 0.10 mg/L, and concentrations of uranium in samples collected from domestic wells were one to two orders of magnitude below the maximum contaminant level of 0.03 mg/L (Table 9) established in EPA's National Primary Drinking Water Regulations. Appendix A provides data obtained from sampling of domestic wells in 2015.

Table 9. Concentrations of Molybdenum and Uranium in Samples from Domestic Wells

Location	Molybdenum Concentration (mg/L)	Uranium Concentration (mg/L)
0405	0.003	0.0004
0430	0.002	0.0001
0436	0.003	0.0001
0460	0.003	0.0001
0828	0.003	0.0001
0841	0.003	0.0019
0842	0.002	0.0004
0876	0.005	0.0037
0878	0.002	0.00024

5.2.3 Surface Water

5.2.3.1 Surface Water Flow

The 2010 flood of the Little Wind River demonstrated a direct correlation between high discharge in the Little Wind River and increased contaminant concentrations in the surficial aquifer; therefore, it is likely that pre-2010 flooding of the river affected the concentration and configuration of contaminants in the saturated and unsaturated zones of the surficial aquifer. Figure 47 shows the highest peak discharges recorded since the start of milling operations (1958) at the U.S. Geological Survey gaging station (USGS 2015a) located approximately 1.6 miles east of the former mill site. In 2015, the highest discharge for the year was measured on June 4 at 4240 cfs and at a river stage of 0.99 ft below flood stage. Discharge in the Little Wind River is statistically the highest in June, which reflects spring runoff from the Wind River Range. Most of the recharge of the alluvial aquifer likely occurs during these higher flows in the river. Spring runoff/flow in the river was near normal in 2015, after being below normal for the previous 3 years (Table 10). During the September sampling event, flow in the Little Wind River was 75 cfs, which is low compared to historical discharge in September. Mean monthly discharge in September since 1941 is 237 cfs with a historical minimum of 33 cfs recorded in 2001 (USGS 2015a).

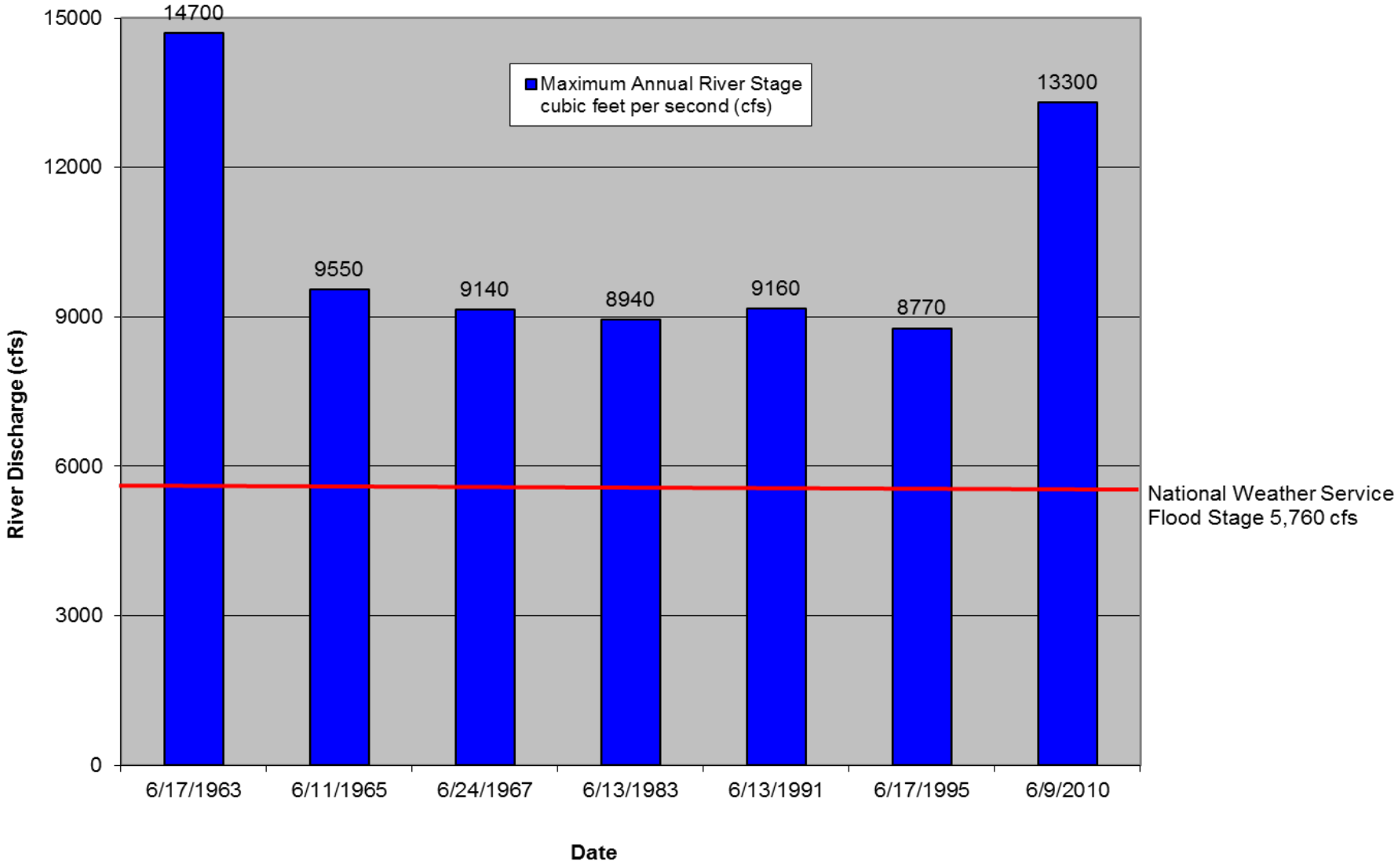

Figure 47. Historical Maximum Stages of the Little Wind River

Table 10. Discharge Statistics from the Little Wind River

Year[a]	Mean June Discharge (cfs)	Deviation from Normal[b] June Discharge (cfs)	Maximum Discharge (cfs)
2000	1089	−1201	2720
2001	233.2	−2057	2090
2002	740.6	−1549	1930
2003	861.7	−1428	2490
2004	1591	−699	4120
2005	2272	−18	4520
2006	642.4	−1648	1710
2007	738.9	−1551	1910
2008	2175	−115	3730
2009	3012	722	4190
2010	5829	3539	13,300
2011	2861	571	7210
2012	594	−1696	1610
2013	587	−1703	1640
2014	1333	−957	3140
2015	2538	248	4240

Notes:
[a] U.S. Geological Survey gaging station statistics.
[b] Based on a mean June discharge of 2290 cfs since 1941.

5.2.3.2 Surface Water Quality

Appendix G provides data obtained from surface water sampling in 2015. Samples were collected at four locations on the Little Wind River (Plate 1), which flows generally to the northeast adjacent to the site. At the time of sampling, flow in the Little Wind River was very low (75 cfs) compared to historical September discharge statistics. The low flow in the Little Wind River resulted in a historical maximum uranium concentration of 0.011 mg/L in the sample collected from upstream location 0794. Contaminated groundwater likely discharges to the Little Wind River, as demonstrated by high concentrations of COPCs in the temporary well points located in a side channel of the river (Section 5.2.1.3), but there is no evidence that it adversely impacts surface water quality in the river, even during extremely low flow in the river. Uranium concentrations measured in samples collected from river locations adjacent to and downstream of the groundwater plume (locations 0811, 0812, and 0796) are comparable (Figure 48) to concentrations from river samples collected upstream of the groundwater plume (location 0794), which indicates no discernable impacts from the site in the Little Wind River.

Two ponds (locations 0810 and 0823) formed from groundwater discharge into former gravel pits were sampled as part of the long-term monitoring network. These ponds are primarily used for fishing and swimming. Samples collected from the ponds had concentrations of uranium that were below the groundwater MCL of 0.044 mg/L and comparable to background groundwater concentration (0.0042 mg/L in background monitoring well 0710 in September), which indicates no discernible impacts from the site. Figure 49 shows uranium concentrations over time in these pond locations.

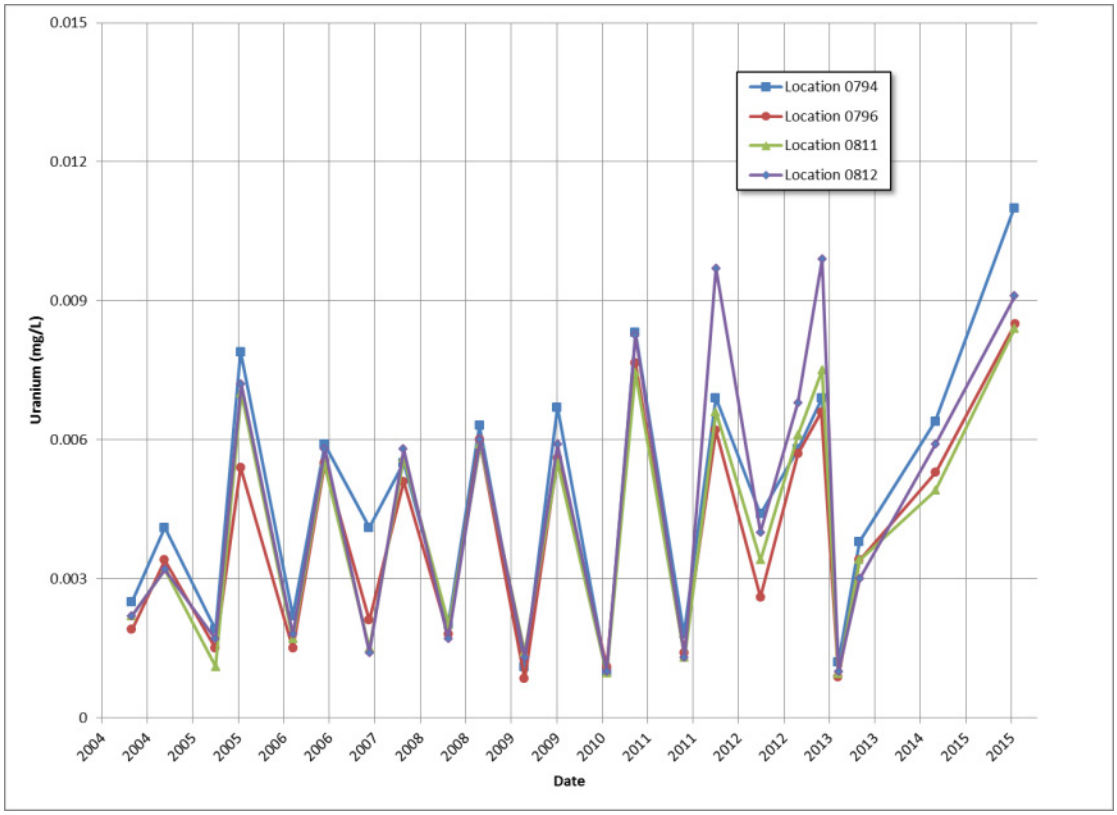

Figure 48. Time versus Uranium Concentrations at Little Wind River Locations

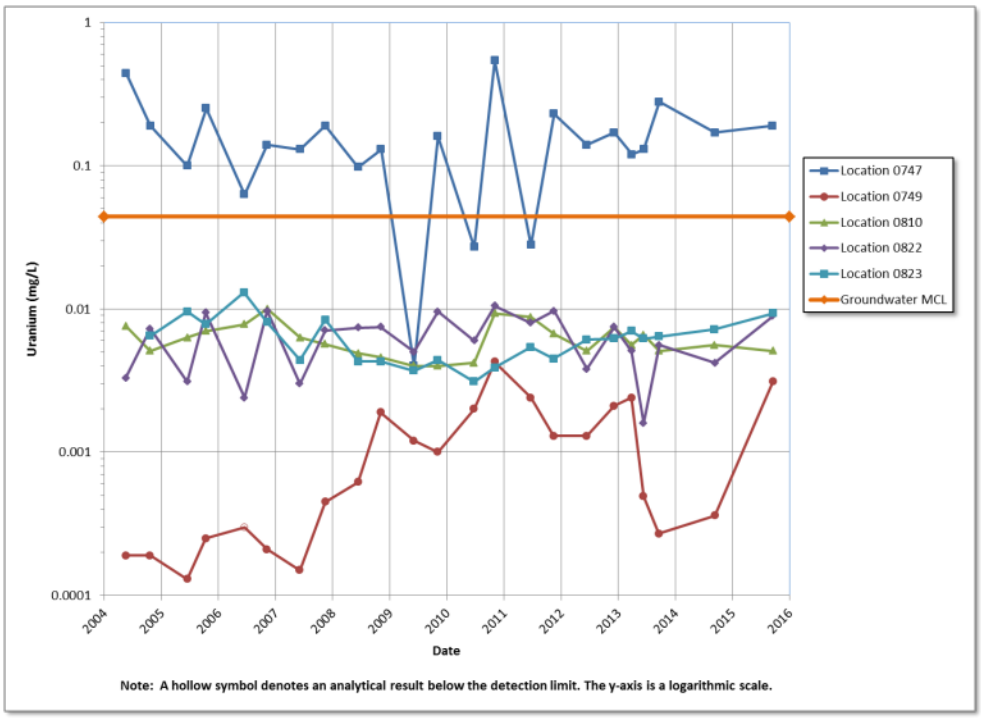

Figure 49. Time versus Uranium Concentrations in Ponds and Ditches

The sample collected at the ditch that carries discharge water from the Chemtrade sulfuric acid refinery (location 0749) has had elevated concentrations of sulfate that have been in the 1800 to 3000 mg/L range from 2004 to March of 2013. In June of 2013, however, concentrations were significantly reduced (550 mg/L at location 0749) because of a change in plant processes that reduced sulfate in the water discharge and in the air emissions. Discharge from the ditch is regulated through a National Pollutant Discharge Elimination System permit issued to Chemtrade and administered by EPA. The sulfate concentration measured in September 2015 (1900 mg/L at location 0749) was elevated and comparable to pre-2013 concentrations. The concentration of uranium in the sample collected from the ditch was low (0.0031 mg/L) but elevated compared to concentrations of the process water used at the plant (0.00005 mg/L).

Downstream of the Chemtrade ditch, a sample was collected from the west side irrigation ditch (0822). The sulfate concentration (530 mg/L) was lower and uranium concentration slightly higher (0.0089) in the west side irrigation ditch sample compared to the Chemtrade ditch sample, which reflects a mixing with background water upstream of the site and possibly some cross-gradient water. This uranium concentration indicates no site impacts to the water quality in the ditch at location 0822.

Uranium concentrations in the oxbow lake (location 0747) have varied over time (Figure 49). This variability is attributed to surface inflow (this does not occur every year; it depends on the river stage) to the lake from the Little Wind River during a high river stage, which causes a dilution of uranium concentrations. Hydraulic and water quality data indicate that the oxbow lake is fed by the discharge of contaminated groundwater; therefore, elevated concentrations are expected. The uranium concentration measured in the sample collected from the oxbow lake sampling location (0.190 mg/L) is elevated compared to the background pond samples at 0810 and 0823 (Figure 49), which confirms discharge of contaminated groundwater to the oxbow lake.

In 2015, the Little Wind River was not flowing into the oxbow lake during the September sampling event when low-flow conditions were observed. Field observations since 2002 indicate the oxbow lake is gradually filling with sediment and vegetation over time, as expected. Numerous abandoned meanders (oxbows) of the Wind and Little Wind Rivers are evident from aerial photographs. Eventually, the oxbow lake will fill in like the other abandoned channels and not be an expression of surface water at the Riverton site. Figure 50 and Figure 51 show photographs of the oxbow lake in May of 2002 and May of 2014, respectively, which illustrates the progress of the vegetation and sedimentation filling in the ponded water.

Figure 50. Oxbow Lake in May 2002

Figure 51. Oxbow Lake in May 2014

6.0 Compliance Strategy Assessment

After surface remediation was completed, groundwater numerical modeling in 1998 predicted that the alluvial aquifer will naturally flush contaminants to levels below applicable standards within the 100-year regulatory time frame in 40 CFR 192. This modeling formed the basis for the natural flushing strategy that was approved in the *Final Ground Water Compliance Action Plan for the Riverton, Wyoming, Title I UMTRA Project Site* (DOE 1998b) in 1998. In previous years, the progress of natural flushing was assessed using three tools: comparison to hydrogeologic modeling predictions, trend analysis, and curve matching and interpolation techniques applied to temporal plots of contaminant concentrations at individual locations. These techniques were based on a CSM of gradually declining contaminant concentrations after surface remediation of source material on the former mill site. Prior to 2010, these techniques indicated that natural flushing of the surficial aquifer was progressing toward applicable standards.

However, observations made in 2010 in context with historical data indicated that the CSM and groundwater modeling were insufficiently developed to account for the spikes in contaminant concentrations in the surficial aquifer groundwater. Spikes in contaminant concentrations are attributed to flooding of the Little Wind River in June 2010, which mobilized contaminants into the saturated zone of the surficial aquifer. Cross correlation of flood events in the Little Wind River with monitoring data reveal that uranium concentrations spiked in monitoring well 0707 in 1991, 1995, and 2010, which followed floods of the Little Wind River.

Although the 2010 flood of the Little Wind River caused significant spikes in contaminant concentrations in the surficial aquifer, post-flood contaminant concentrations continue to decline and are near pre-flood levels, as shown in Table 11. Figure 52 shows the combined average uranium concentration in surficial aquifer wells (0707, 0716, 0718, and 0722/0722R) with a long history, where uranium has always been above the MCL. As shown in Figure 52, the average uranium concentration declined steadily after the completion of surface remediation, started to level off in 2006, spiked after the 2010 flood, and is currently near pre-flood levels. These data indicate that the effects of 2010 flood are relatively short-lived in the context of the 100-year regulatory time frame.

Table 11. Comparison of Pre-Flood, 2010 Flood, and 2015 Results

Well	Molybdenum[a]			Uranium[a]			Sulfate[a]		
	Pre-Flood[b]	2010 Flood[c]	2015[d]	Pre-Flood	2010 Flood	2015	Pre-Flood	2010 Flood	2015
0707	0.68	1.6	0.96	0.84	2.7	0.78	1900	7000	2700
0788	0.024	0.023	0.02	0.034	0.1	0.038	630	4500	1400
0789	0.56	0.51	0.57	1.5	2.5	1.6	3900	9400	4700
0826	0.023	0.046	0.018	0.041	0.08	0.037	580	2400	1300

Notes:
[a] Units are in mg/L.
[b] Pre-flood results are from the November 2009 sampling event.
[c] 2010 flood results from the June 2010 sampling event.
[d] 2015 results are from the September 2014 sampling event.

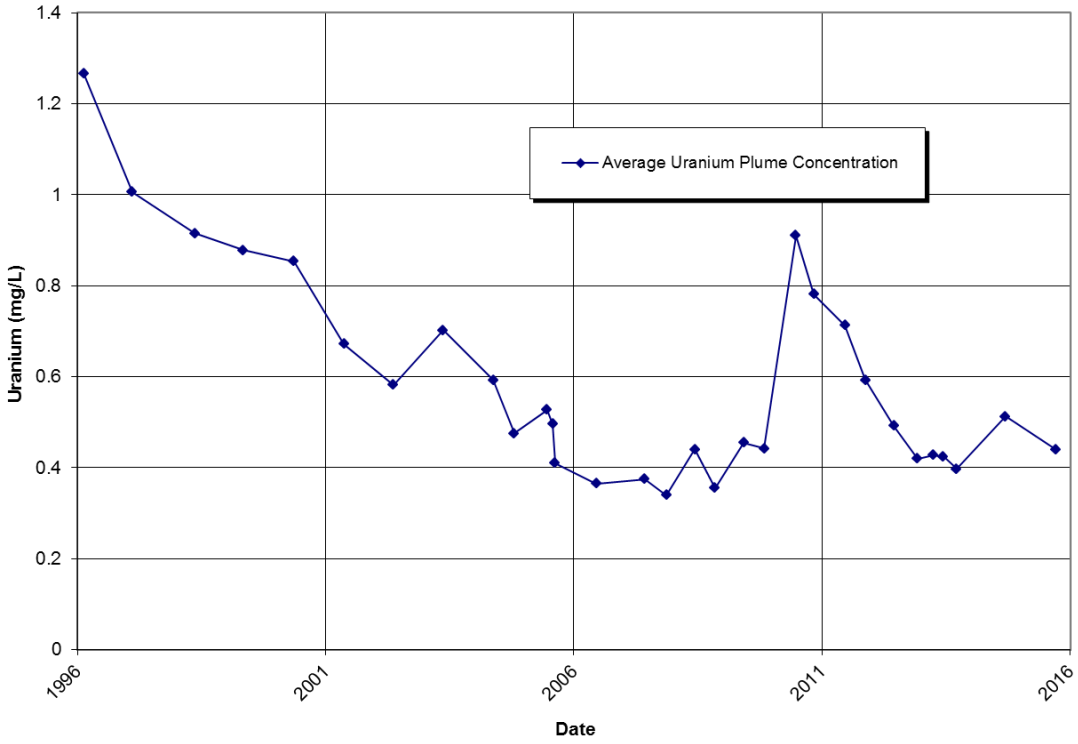

Figure 52. Average Uranium Concentrations in Surficial Aquifer Wells 0707, 0716, 0718, and 0722/0722R

Overall, natural flushing (contaminant movement and removal via groundwater flow) in the surficial aquifer is occurring; however, the rate of flushing does not currently appear to be fast enough to restore the aquifer within the 100-year regulatory time requirement. Several lines of evidence indicate that the natural flushing compliance strategy may not meet the 2098 target date. These include:

- Current plume configurations and magnitude.
  - A uranium concentration of 1.1 mg/L was measured on the former mill site in August 2015, which indicates that contaminant plume movement is retarded by aquifer properties or is influenced by additional sources, or both.
  - Uranium concentrations in the center of the plume adjacent to the Little Wind River are greater than 1.5 mg/L, which is high compared to the uranium standard of 0.044 mg/L.
- Groundwater concentrations of molybdenum and uranium are outside the predicted error range generated from the initial groundwater modeling (Figure 53 and Figure 54).
- At other Uranium Mill Tailings Radiation Control Act sites with similar geology and contaminants, concentrations of groundwater COPCs are not attenuating as quickly as predicted by groundwater modeling.

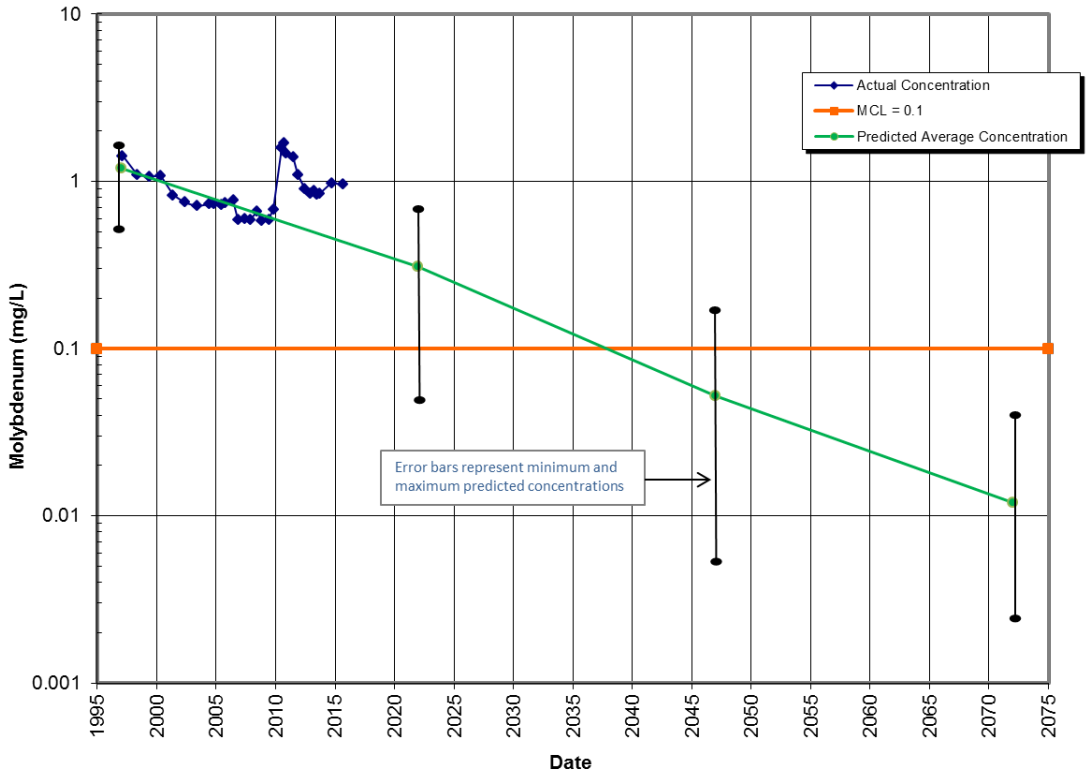

Figure 53. Predicted Versus Actual Molybdenum Concentrations in Well 0707

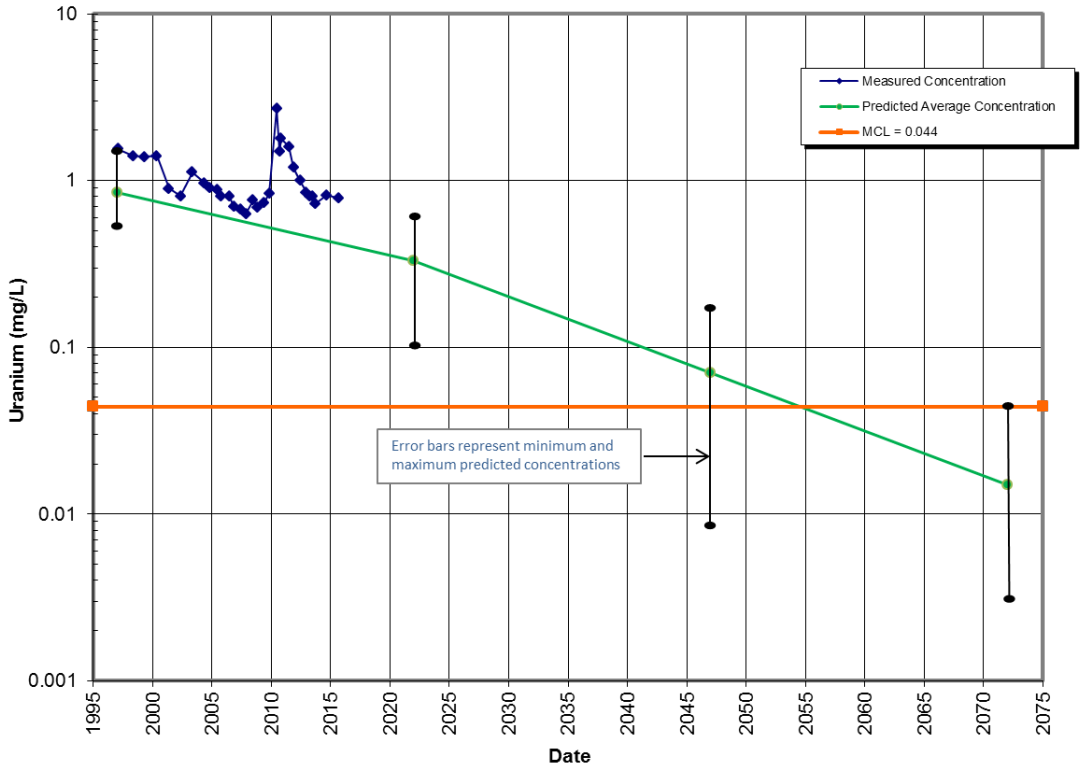

Figure 54. Predicated Versus Actual Uranium Concentrations in Well 0707

- Future flooding of the Little Wind River will likely cause an increase in contaminant concentrations in groundwater, even if the increase is relatively short-lived, which will prolong the time required for natural flushing.
- NRZs and evaporites identified and sampled in 2015 may be acting as persistent secondary contaminant sources.

Although the completion of natural flushing within the 100-year regulatory time frame is uncertain, continued investigation, geochemical modeling, and refining of the CSM will help inform the decision-making process on the natural flushing compliance strategy. Section 8.0 provides recommendations for additional work.

7.0 CSM Update

7.1 CSM Overview

This advanced site investigation was developed to answer the 18 questions that were posed in Table 1 with the objective of updating the CSM for the Riverton site. This section presents those questions along with some answers obtained from this investigation to update the CSM. Some questions remain unanswered or partially answered, and Section 8.0 presents recommendations for future work. Questions from Table 1 along with a brief answer are provided below. Section 7.2 provides additional detail.

- Is there sufficient source remaining in soils to affect groundwater concentrations?

  Yes. Mass balance calculations show that uranium inventory in the solid phase is sufficient to cause the spikes in groundwater concentrations observed after the 2010 flood (see Section 7.2).

- What are the mechanisms and rates of contaminant transfer from soil to groundwater?

  Additional column tests on soils will be conducted with full geochemistry to determine COPC mechanisms, release rates, and amounts.

- How does geology affect transport of site contaminants?

  There is a surficial silt layer present over most of the site that concentrates uranium in areas above the contaminant plume. Uranium can be released from this layer during flood events. NRZs can also function as sources of uranium that can be released during seasonal water table fluctuations and flood events.

- Do plumes migrate south of the river?

  No. the uranium concentration in the borehole installed south of the Little Wind River was below the MCL.

- Is there vertical variation in the surficial aquifer under typical or flood conditions?

  Yes. Uranium and sulfate concentrations vary vertically in the surficial aquifer under typical conditions.

- How is any vertical variation in groundwater chemistry influenced by water/rock interaction, which may influence plume stagnation?

  Multilevel monitoring wells are configured to assess vertical variation during flood conditions. DOE plans to sample these wells to assess vertical variation of contaminants immediately after the next flood event. Vertical variation in groundwater chemistry is influenced by NRZ, evaporite, and silt deposits in the surficial aquifer.

- What is the groundwater flow direction and gradient in the area near the Little Wind River where plumes have stagnated?

  Temporary well points installed in a side channel of the Little Wind River indicate that groundwater flow direction and gradient continue southeast and downward toward the river. The highest concentrations of uranium and sulfate are immediately adjacent to the river in the temporary well points.

- Are COPC concentrations declining in areas of concern?

  Uranium concentrations in an area of concern southwest of the main contaminant plume declined to levels below the MCL. However, the high uranium concentration (1.1 mg/L) measured at the former mill site in 2012 was also measured at 1.1 mg/L at the same location during the 2015 site investigation.

- Is there geochemical evidence that groundwater discharges to the Little Wind River?

  Yes. The highest uranium measured in the surficial aquifer was in the temporary well points in the side channel of the river, and the concentration measured on the other side of the river was two orders of magnitude lower.

- Why are contaminant plumes stagnated in the area by the river?

  NRZs and subsurface evaporites near the river may be contributing to uranium plume stagnation near the river. Additional work is needed to resolve this question.

- Does groundwater flow direction, gradient, or both change with river stage?

  A stilling well was installed on the Little Wind River, and pressure transducers were installed in numerous wells that are currently collecting data. These data will provide a more definitive answer.

- Is irrigation in the vicinity of the site affecting groundwater flow and contaminant plume configurations?

  The data currently being collected will be input into future groundwater models to answer this question.

- What is the interaction between the surficial aquifer and the Little Wind River?

  A stilling well was installed next to the Little Wind River, and pressure transducers installed in numerous wells are currently collecting data. The additional data and additional groundwater modeling will provide a definitive answer.

- What are the boundary conditions for that groundwater flow model?

  River elevations on the Wind River were surveyed to better define the northern boundary of a future groundwater flow model.

- Are site-related contaminants affecting the semiconfined aquifer?

  The evidence is mixed; geochemical, isotopic, and geologic data collected during this investigation do not provide a definitive answer. However, hydraulic communication between the aquifers appears likely in some areas, and sulfate and molybdenum from the surficial aquifer may have affected the semiconfined aquifer.

- Is the elevated uranium in groundwater outside the primary plume naturally occurring?

  Yes. Uranium concentrations in the area of monitoring well 0852 were below the MCL in 2015, and ARs indicate the uranium is not mill-related.

- What are the geochemical processes controlling contaminant transport and what is the rate of contaminant transport?

  Future work will be conducted to address these questions.

- What is the horizontal and vertical distribution of COPCs?

  Results of this investigation refined the horizontal distribution of COPCs with the completion of a 2012 borehole transect with the Geoprobe and with installation of temporary well points in the side channel of the Little Wind River. Vertical distribution of contaminants was further defined with borehole installation and soil sampling at 10 locations and with installation of nine multilevel monitoring wells. Distribution of COPCs is discussed in Sections 5.1 and 5.2.

7.2 Persistent Secondary Contaminant Sources

Data collected at the Riverton site and other LM sites provide additional evidence that the complexity of the sites is greater than originally conceptualized and that additional data are needed to make informed decisions regarding aquifer restoration and viable compliance strategies (Shafer et al. 2014). This site investigation reflects a changing view of LM sites—from a relatively simple groundwater-aquifer matrix interaction to a more complex, multimedia and process-driven approach—by laying the foundation to develop a new CSM for the Riverton site.

Groundwater modeling predicted that natural flushing of the surficial aquifer would achieve compliance with applicable groundwater protection standards by the year 2097 (DOE 1998a). Initial data from 1989 to 2009 indicated that, overall, contaminant concentrations beneath the former mill site and downgradient of it were declining steadily. However, local flooding in 2010 mobilized stored contaminants in the downgradient floodplain and resulted in an increase in groundwater contaminant concentrations, including uranium. These stored contaminants or persistent secondary contaminant sources were not considered in the original CSM and groundwater modeling predictions with natural flushing (Dam et al. 2015), resulting in the need for new investigations of soil/water interactions to determine additional contaminant sources that could influence compliance strategy decisions.

Higher solid-phase uranium concentrations measured in evaporites and NRZs provide potential secondary contaminant sources that can delay natural flushing at the Riverton site. A shallow water table and arid conditions at the site produce high evapotranspiration rates, and the underlying uranium-rich plume waters provide a mechanism to form overlying uranium-rich evaporites (with or without NRZs). The reducing conditions produced by NRZs provide a mechanism to concentrate uranium; however, subsequent oxidation of the NRZs provides a

release mechanism for uranium to the overlying unsaturated zone pore waters and the underlying groundwater.

This report provides new information that leads to the following updates in the CSM:

- Compared to uranium concentrations in the typical silt layer (1.4 mg/kg) and the underlying sand and gravel (<1 mg/kg), solid-phase uranium concentrations are higher in the following areas:
  - The silt layer over the uranium plume (up to 10 mg/kg)
  - NRZs (up to 22 mg/kg)
  - Just above and below the water table underneath the former tailings impoundment area (up to 3.6 mg/kg above the water table and up to 5.5 mg/kg below the water table)
- Groundwater data indicate that chloride concentrations may be beginning to flush naturally under the former tailings impoundment, whereas uranium sources are still present in the same area and provide a continuing uranium plume.
- Due to the concentration of chloride in the silt layer, it cannot be used as a truly conservative tracer in areas prone to flooding.
- Groundwater data indicate that soluble uranium concentrations can vary with depth.
- Calcite and gypsum solubility limits may influence groundwater geochemistry.

Simple mass calculations were completed using the zones with elevated uranium concentrations. These zones are the silt layer over the plume (approximately 4 ft thick, Appendix C), the NRZ that occurs in 0855 and 0877 (Figure 14; approximately 2 ft thick), and the source zone area at 0859 and 0860 with slightly elevated uranium in the saturated sand and gravel (approximately 7 ft thick, Appendix C). These calculations assume a soil bulk density of 1.7 grams per cubic centimeter and an aquifer porosity of 0.35. The excess uranium in the sediment over a 1 ft square representative area multiplied by the thickness indicated in Table 12 is dissolved into a 1 ft square column of saturated aquifer with a 7 ft thickness (approximate thickness of the contaminated aquifer). The excess uranium that is presumed to be due to a mill-related source is compared to groundwater concentrations of 0.044, 0.5, and 1.0 mg/L of uranium, expressed as a percent of the solid-phase excess that is needed to reach those concentrations in groundwater (Table 12).

Table 12. Mass Calculations for Percentage of Excess Solid-Phase Uranium Required to Produce Selected Groundwater Uranium Concentrations

Material	Uranium in Material (A) (mg/kg)	Uranium in 0852[a] (B) (mg/kg)	Excess Uranium (A − B) (mg/kg)	Thickness of Material (ft)	Percent of Excess Uranium Required to Increase the Groundwater Concentration to:		
					0.044 (mg/L)	0.5 (mg/L)	1.0 (mg/L)
Silt	5	1.4	3.6	4	0.44	5	10
NRZ	20	1.4	18.6	2	0.17	1.9	3.9
Source zone sand and gravel	3	0.8	2.2	7	0.41	4.7	9.4

Note:
[a] Both uranium concentrations of 1.4 mg/kg are from the silt at 0852, and the uranium concentration of 0.8 mg/kg is from the sand and gravel at 0852.

The above points and mass balance calculations provide information on the presence and understanding of persistent secondary contaminant sources and how they can contribute to plume persistence issues. However, additional details on the reasons for uranium concentration variation with depth and geochemical controls provided by calcite and gypsum in conjunction with the evaporites and NRZs will require additional efforts. A companion report with geochemical modeling will pursue these additional details and highlight additional revisions to the site CSM. The overall goal of continued revisions to the Riverton CSM is to provide the necessary data and interpretations for more informed management of the Riverton site.

8.0 Conclusions

As part of the Riverton advanced site investigation, additional groundwater and soil sampling data were collected in 2015 using backhoe trenching, sonic drilling, direct-push drilling, and the installation of temporary well points. Groundwater sampling included geochemical constituents and isotopes to better understand post-flood conditions and the possibility of additional contaminant sources (Table 1). Additional surface water measurements included installing a stilling well and measuring stream elevation along the Wind River to approximate upgradient groundwater heads and to establish boundary conditions for future groundwater modeling. This report summarizes all the additional data collected in 2015 with initial interpretations. Additional sampling will include the continued sampling of specific geochemical parameters (Table 4), stilling well measurements, groundwater elevations, and seasonal sampling of the new multilevel monitoring wells. This ongoing sampling will be used to update the interpretations for the CSM, as needed.

Soil data from trenches and sonic drilling indicate (1) a concentration of several constituents in the silt zone, likely due to evapotranspiration, (2) uranium is the only measured element that appears to be concentrated in the silt over the groundwater contaminant plume, (3) in the former tailings impoundment area, there may be a thin, unsaturated zone with elevated uranium in the native material just below the fill, (4) in the former tailings impoundment area, uranium concentrations are slightly higher in the underlying saturated sand and gravel, and (5) several bedrock samples have a unique geochemical signature, generally related to a higher silt content.

Analysis of additional silt samples can confirm background concentrations of uranium. Past column tests have indicated the potential for uranium release from the silt layer (DOE 2013b). However, those tests did not have a comparison with the underlying sand and gravel and did not measure other constituents besides uranium. Additional column tests on the samples collected in 2015 can provide a better comparison across samples and result in improvements to the column test design.

In terms of groundwater flow, additional data from surveying elevations along the Wind River and installing the temporary well points provide a refinement of contours for water table elevations from a larger scale and a smaller scale (Figure 20 and Figure 21, respectively). These data confirm past interpretations of groundwater flow toward the southeast across the site with groundwater flow towards the Little Wind River. Because each port of the multilevel monitoring wells was installed in sand and gravel, the multilevel monitoring wells did not show any vertical gradients but did confirm the water table elevations of nearby preexisting wells. Hydraulic head elevations between paired surficial and semiconfined aquifer wells indicate variable vertical gradients across the site (Table 5) with the potential for upward and downward flow. This potential for groundwater flow between the surficial and semiconfined aquifers has also been measured in the past.

For groundwater quality data, additional direct-push drilling and groundwater sampling confirmed the plume configuration for transect T03 (Figure 22 through Figure 25), and the concentration comparison from 2012 data at two locations was very good (Table 7). Sulfate along transect T03 shows a low concentration zone along that line in what is otherwise part of the main sulfate plume (Figure 24). Temporary well points assisted in better defining plume concentrations at the bank of the Little Wind River (Figure 27 through Figure 30), and these data indicate plume discharge to the river. Additional sampling in the T06 series around well 0852 did not find any uranium in groundwater above the MCL of 0.044 mg/L. Multilevel monitoring wells indicate some geochemical differences with depth, but overall, concentrations are similar to those in nearby wells. Thus, the use of port 4 for sampling the multilevel monitoring wells in Figure 27 through Figure 30 creates plume configurations that are similar to those in past reports using nearby pre-existing wells. Graphic views of the multilevel monitoring well geochemistry data (Figure 31 through Figure 40) confirm the general increase in concentrations toward the river and toward the plume centerline for chloride, sulfate, and uranium but highlight the geochemical controls on calcium. Iron data indicate slightly reducing conditions, especially near water table and bedrock surfaces, with more oxidizing conditions in the middle of the sand and gravel. Seasonal and longer-term sampling at the multilevel monitoring wells will be necessary to confirm these trends. Seasonal sampling and any future post-flood sampling of the multilevel monitoring wells near known evaporites and NRZs will assist in determining the potential for these zones to be long-term contaminant sources.

The measurement of ARs confirms the uranium plume in the surficial aquifer as being mill related. In the semiconfined aquifer, δD and $\delta^{18}O$ and tritium values confirm that the semiconfined aquifer water is generally older and derived from different source water than the surficial aquifer. However, these data do suggest some groundwater communication from the surficial aquifer into the semiconfined aquifer, resulting in δD and $\delta^{18}O$ and tritium values in the semiconfined aquifer that are more similar to values in the surficial aquifer. Values of $\delta^{34}S_{sulfate}$ in the semiconfined aquifer were inconclusive, but sulfur isotopes combined with sulfate concentrations (Figure 44) appear to indicate the potential for some mill-related sulfate in the

semiconfined aquifer, albeit limited to an area near and beneath the former tailings impoundment. Uranium and molybdenum concentrations in the semiconfined aquifer are below the MCLs in all wells. However, the ARs and slightly elevated molybdenum concentrations at well 0732 suggest a mill-derived source for the measured uranium and molybdenum in that well. Given the thin shale confining layer at this location, it is likely that aquifer cross communication occurred when the tailings impoundment was active and created a higher head. Current cross communication at the surficial and semiconfined aquifer well pairs (0784 and 0732, respectively) appears unlikely given the large differences in tritium values and an upward hydraulic head.

In the nine domestic wells located within the IC boundary (eight in the confined aquifer and one in the semiconfined aquifer), uranium and molybdenum concentrations in all samples were one or two orders of magnitude below the 40 CFR 192 standards.

Surface water flow in the Little Wind River in September 2015 was low compared to historical averages for this time of year. As a result, the uranium concentrations measured in the Little Wind River were at a historical maximum for site measurements since 2004 (Figure 48). However, the impact of uranium discharge from the groundwater plume into the Little Wind River was not measureable (downstream samples actually had less uranium than the upstream sample). In the Chemtrade ditch, elevated sulfate concentrations continue to be detected along with slightly elevated uranium compared to concentrations in their process-water well. Uranium concentrations in the oxbow lake still persist at concentrations above the groundwater standard (Figure 49).

Overall, plume contaminant concentrations have returned to levels near the pre-flood conditions (Table 11 and Figure 52). However, these concentrations still exceed model predictions for natural flushing (Figure 53 and Figure 54). Current data indicate that natural flushing within the 100-year time period is not likely, especially with the high potential for additional floods in the future.

One purpose of this advanced investigation report is to update the CSM. Soil data indicates secondary contaminant sources, specifically uranium, are held in evaporites within the silt layer and in NRZs within the footprint of the uranium plume. Additional zones of slightly elevated uranium concentration occur in native sediments just above the water table but below the fill layer in the former tailings impoundment area. This area also has slightly elevated uranium in the sand and gravel below the water table. Mass balance calculations indicate that less than 0.5% dissolution of any of these zones with increased uranium in the solid phase can produce groundwater uranium concentrations above the 0.044 mg/L standard. Similarly, 10% or less dissolution of these zones can produce 1 mg/L uranium in the groundwater. As a CSM update, the additional uranium near the former tailings impoundment provides a mechanism for a continuing source for the uranium plume that was not considered in the original natural flushing model. In addition, continued release of uranium from the silt layer and the NRZs during seasonal changes and flooding may release uranium to the plume area near the Little Wind River. These mechanisms provide a possible explanation for plume persistence, along with spikes in concentrations during floods, that creates the current plume configuration. Additional updates to the CSM include (1) chloride flushes more rapidly than uranium in the source zone area, (2) chloride in the silt layer provides a scenario in which chloride cannot be used as a conservative tracer (especially in areas prone to flooding), (3) uranium concentrations with depth can be variable (especially below NRZs), and (4) calcite and gypsum solubility limits appear to

provide important geochemical controls on groundwater geochemistry. A companion report with geochemical modeling will discuss these four points in additional detail and highlight additional revisions to the CSM.

9.0 Recommendations

Section 8.0 mentioned several recommendations for additional work. This section provides further discussion of the recommendations.

- Analyze samples from well 0460 and Chemtrade effluent ditch water for tritium.

  Surficial aquifer well 0784 may be receiving water from the nearby Chemtrade ditch. The plant uses process water from confined aquifer well 0460, and anomalously low tritium values for well 0784 may indicate a connection to the ditch. Low tritium in well 0460 should be confirmed along with the potential for low tritium in the Chemtrade ditch water.

- Collect and analyze background (not over the uranium plume) silt samples for uranium.

  Additional silt samples should be collected using a hand auger in an area outside of the uranium plume. Additional samples would provide confirmation of the uranium content of the silt in background areas and allow for better confirmation of concentration differences and improve mass balance calculations. Silt samples can be collected in the same manner and for the same analytes as discussed in this report for the trench and sonic drilling samples.

- Conduct column tests with full geochemistry for uranium release rates, amounts, and mechanisms along with AR.

  Column tests were completed previously from direct-push drilling samples (DOE 2013b) where the 0–2.5 ft intervals and the 2.5–5.0 ft intervals were homogenized and used in column tests. These samples did not account for any lithologic changes. In any case, these tests did find uranium release up to 1.5 mg/L in the effluent water from silt samples overlying the uranium plume compared to <0.08 mg/L in effluent water from background silt samples. The column test used lab-prepared water with constituent concentrations similar to those in the Little Wind River and only measured uranium in the effluent. The additional column tests from the 2015 sampling would compare column test results from the silt, sand and gravel, NRZ, and bedrock samples. In addition, the effluent would be sampled for a full suite of geochemical elements to do geochemical modeling. The AR of the effluent water would also be analyzed to identify the solid-phase uranium as mill related or naturally occurring. Some columns could be linked in a series to reproduce geochemical reactions through the silt and into the underlying sand and gravel. These additional column tests would be designed to better understand the uranium release rates and amounts based on the lithology and sample locations at the site (i.e., within or outside of the groundwater plume). The full geochemical sampling and geochemical modeling would allow for better understanding of geochemical controls, including sorption and calcite and gypsum dissolution, on uranium transport.

- Seasonal and longer-term sampling of the new multilevel monitoring wells.

  Monthly sampling of multilevel monitoring wells 0855, 0856, 0857, and 0858 has already begun (parameters include pH, temperature, alkalinity, dissolved oxygen, and specific conductance along with analyses for dissolved concentrations of Cl, SO_4, Ca, Na, Mg, K, U,

Fe, Mn, and Mo). This sampling will confirm geochemistry differences with depth, along with any seasonal changes. Multilevel monitoring wells should also be sampled immediately after flooding, once accessible. In the longer-term, multilevel monitoring wells and ports should be selected for trend confirmation as part of the Riverton annual sampling events.

- Update the groundwater flow model.

  The groundwater flow model will be used in conjunction with geochemical modeling to assess contaminant transport and the viability of the natural flushing compliance strategy.

- Coring with one or more additional wells in the low-sulfate area south of the former tailings impoundment.

  Direct-push groundwater sampling along line T03 in point T03-03 through T03-09 identified a zone with lower sulfate (Figure 24) just south of the former tailings impoundment. This area is also where the uranium plume has maintained a 1.1 mg/L concentration (Figure 25) and is where the chloride plume starts (Figure 22). It is unclear if this area contains a continuing source, has low hydraulic conductivity sediments, or has unique geochemical conditions. This area warrants additional investigation to assist with understanding the natural flushing mechanisms near the former tailings impoundment.

10.0 References

40 CFR 192. U.S. Environmental Protection Agency, "Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings," *Code of Federal Regulations*.

ACR Consultants Inc., 2014. *A Class III Cultural Resources Survey of 143 Acres of Private Land near the Former Riverton Processing Site, Fremont County, Wyoming*, ACR Report No. 963, Sheridan, Wyoming, December.

ACR Consultants Inc., 2015. *A Class III Cultural Resources Survey of Six Proposed Boreholes near the Former Riverton Processing Site, Fremont County, Wyoming*, ACR Report No. 1001, Sheridan, Wyoming, July.

Clark, I.D., and P. Fritz, 1997. *Environmental Isotopes in Hydrogeology*, CRC Press LLC, Boca Raton, FL.

Craig, Harmon, 1961. "Isotopic Variations in Meteoric Waters," *Science* 133: 1702–1703.

Dam, W.L., S. Campbell, R.H. Johnson, B.B. Looney, M.E. Denham, C.A. Eddy-Dilek, and S.J. Babits, 2015. "Refining the site conceptual model at a former uranium mill site in Riverton, Wyoming," USA, *Environ Earth Sci*, DOI 10.1007/S12665-015-4706-y, 74(10): 7255–7265.

DOE (U.S. Department of Energy), 1991. *Riverton Wyoming Final Completion Report*, Albuquerque Operations Office, Albuquerque, New Mexico, December.

DOE (U.S. Department of Energy), 1998a. *Final Site Observational Work Plan for the UMTRA Project Site at Riverton, Wyoming*, U0013801, Grand Junction Office, February.

DOE (U.S. Department of Energy), 1998b. *Final Ground Water Compliance Action Plan for the Riverton, Wyoming, Title I UMTRA Project Site*, attached to letter from DOE to NRC, DOE Grand Junction Office, September 22.

DOE (U.S. Department of Energy), 1998c. *Environmental Assessment of Ground Water Compliance at the Riverton, Wyoming, Uranium Mill Tailings Site*, DOE/EA–1261, Rev 0, Grand Junction Office, September.

DOE (U.S. Department of Energy), 2009. *Long-Term Management Plan for the Riverton, Wyoming, Processing Site*, LMS/RVT/S01187, Office of Legacy Management, September.

DOE (U.S. Department of Energy), 2013a. *Enhanced Characterization of the Surficial Aquifer, Riverton, Wyoming, Processing Site, Data Summary Report*, LMS/RVT/S09545, Office of Legacy Management, January.

DOE (U.S. Department of Energy), 2013b. *Laboratory Analysis of Shallow Sediment near a Former Uranium Mill: Riverton, Wyoming, Site*, LMS/RVT/S10066, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2015. *2015 Work Plan for Advanced Site Investigation of the Riverton, Wyoming, Processing Site*, LMS/RVT/S12697, Office of Legacy Management, April.

Environmental Procedures Catalog, LMS/POL/S04325, continually updated, prepared by Navarro Research and Engineering for the U.S. Department of Energy Office of Legacy Management.

Environmental Sciences Laboratory Procedures Manual, LMS/PRO/S04343, continually updated, prepared by Navarro Research and Engineering, Inc. for the U.S. Department of Energy Office of Legacy Management.

EPA (U.S. Environmental Protection Agency), 2014a. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*, SW-846 Update 5, Washington, DC, July.

EPA (U.S. Environmental Protection Agency), 2014b. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*, EPA-540-R-013-001, Washington, DC, August.

Faure, G., 1986. *Principles of Isotope Geology*, 2nd edition, New York, NY, John Wiley & Sons.

O'Leary R.M. and A.L. Meier, 1986. *Analytical Methods Used in Geochemical Exploration*, U.S. Geological Survey Circular 948.

Ranalli, A.J. and D.L. Naftz, 2014. *Assessment of the quality of groundwater and the Little Wind River in the area of a former uranium processing facility on the Wind River Reservation, Wyoming, 1987 through 2010*, U.S. Geological Survey Scientific Investigations Report 2013-5218, http://dx.doi.org/10.3133/sir20135218.

Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites, LMS/PRO/S04351, continually updated, prepared by Navarro Research and Engineering for the U.S. Department of Energy Office of Legacy Management.

Shafer, D., R. Bush, W. Dam, and T. Pauling, 2014. *The Future is Now: Experience with Remediating and Managing Groundwater Contamination at Uranium Mill Tailings Sites – 14587*, Waste Management 2014 Conference, Phoenix, Arizona, March.

USGS (U.S. Geological Survey), 2015a. Gaging station 06235500 Little Wind River near Riverton, Wyoming, http://waterdata.usgs.gov/usa/nwis/uv?site_no=06235500.

USGS (U.S. Geological Survey), 2015b. Gaging station 06228000 Wind River at Riverton, Wyoming, http://nwis.waterdata.usgs.gov/wy/nwis/peak?site_no=06228000&agency_cd=USGS&format=html.

Welch, A.H., and A.M. Preissler, 1986. "Aqueous geochemistry of the Bradys Hot Spring geothermal area, Churchill County, Nevada," *in* Subitzky, S., ed., *Selected papers in the Hydrologic Sciences*, U.S. Geological Survey Water Supply Paper 2290.

White, A.F., J.M. Delany, T.N. Narasimhan, and A. Smith, 1984. "Groundwater Contamination from an Inactive Mill Tailings Pile: 1. Application of a Chemical Mixing Model," *Water Resources Research* 20(11): 1743–1752.

Zielinski, R.A., D.T. Chafin, E.R. Banta, and B.J. Szabo, 1997. "Use of ^{234}U and ^{238}U isotopes to evaluate contamination of near-surface groundwater with uranium-mill effluent: a case study in south-central Colorado, U.S.A," *Environmental Geology* 32(2): 124–136.

- Domestic Well
- Geoprobe Borehole
- Temporary Well Point
- Monitoring Well
- Surface-Water Discharge - Measurement Location
- Sonic Borehole
- Sonic Borehole & CMT Monitoring Well
- Stilling Well
- Surface-Water Sampling
- River Survey
- Backhoe Trench Location
- Site Boundary
- Institutional Control Boundary
- Supplemental Standards Area
- Former Tailings Pile

N

0 0.125 0.25 0.5 0.75 1 Miles

U.S. DEPARTMENT OF ENERGY
OFFICE OF LEGACY MANAGEMENT

Work Performed by
Navarro Research & Engineering, Inc.
Under DOE Contract Number DE-LM0000421

2015 Advanced Site Investigation Sample Locations

DATE PREPARED: March 31, 2016

FILE NAME: S1394700

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Appendix A

Domestic Well Data

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CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:53 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3)	mg/L	0405	WL	09/17/2015	N001	NR	N	99			#	-	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	63		J	#	-	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	116			#	-	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	150			#	-	-
	mg/L	0828	WL	09/14/2015	N001		O	129			#	-	-
	mg/L	0841	WL	09/17/2015	N001			200			#	-	-
	mg/L	0842	WL	09/17/2015	N001			169			#	-	-
	mg/L	0876	WL	09/17/2015	N001			32			#	-	-
	mg/L	0878	WL	09/17/2015	N001			125			#	-	-
Calcium	mg/L	0405	WL	09/17/2015	N001	NR	N	7.100			#	0.024	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	4.200			#	0.024	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	3.800			#	0.024	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	3.600			#	0.024	-
	mg/L	0828	WL	09/14/2015	N001		O	3.500			#	0.024	-
	mg/L	0841	WL	09/17/2015	N001			85.000			#	0.024	-
	mg/L	0842	WL	09/17/2015	N001			57.000			#	0.024	-
	mg/L	0876	WL	09/17/2015	N001			4.900			#	0.024	-
	mg/L	0878	WL	09/17/2015	N001			4.900			#	0.024	-
Chloride	mg/L	0405	WL	09/17/2015	N001	NR	N	21			#	0.8	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	10			#	0.4	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	14			#	0.8	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	11			#	0.4	-
	mg/L	0828	WL	09/14/2015	N001		O	14			#	0.8	-
	mg/L	0841	WL	09/17/2015	N001			26			#	0.8	-
	mg/L	0842	WL	09/17/2015	N001			15			#	0.4	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:53 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/L	0876	WL	09/17/2015	N001			38			#	0.8	-
	mg/L	0878	WL	09/17/2015	N001			10			#	0.8	-
Dissolved Oxygen	mg/L	0405	WL	09/17/2015	N001	NR	N	4.55			#	-	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	4.51			#	-	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	4.12			#	-	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	2.14			#	-	-
	mg/L	0828	WL	09/14/2015	N001		O	5.31			#	-	-
	mg/L	0841	WL	09/17/2015	N001			2.84			#	-	-
	mg/L	0842	WL	09/17/2015	N001			4.66			#	-	-
	mg/L	0876	WL	09/17/2015	N001			7.42			#	-	-
Magnesium	mg/L	0405	WL	09/17/2015	N001	NR	N	0.063	J		#	0.03	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.042	J		#	0.03	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.049	J		#	0.03	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.050	J		#	0.03	-
	mg/L	0828	WL	09/14/2015	N001		O	0.082	J		#	0.03	-
	mg/L	0841	WL	09/17/2015	N001			14.000			#	0.03	-
	mg/L	0842	WL	09/17/2015	N001			6.500			#	0.03	-
	mg/L	0876	WL	09/17/2015	N001			0.030	U		#	0.03	-
	mg/L	0878	WL	09/17/2015	N001			0.030	U		#	0.03	-
Manganese	mg/L	0405	WL	09/17/2015	N001	NR	N	0.0044	J		#	0.00024	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.0034	J		#	0.00024	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.0035	J		#	0.00024	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.00084	J		#	0.00024	-
	mg/L	0828	WL	09/14/2015	N001		O	0.0023	J		#	0.00024	-
	mg/L	0841	WL	09/17/2015	N001			0.100			#	0.00024	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:53 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/L	0842	WL	09/17/2015	N001			0.058			#	0.00024	-
	mg/L	0876	WL	09/17/2015	N001			0.00077	J		#	0.00024	-
	mg/L	0878	WL	09/17/2015	N001			0.0035	J		#	0.00024	-
Molybdenum	mg/L	0405	WL	09/17/2015	N001	NR	N	0.0032			#	0.00032	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.0021			#	0.00032	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.0034			#	0.00032	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.0025			#	0.00032	-
	mg/L	0828	WL	09/14/2015	N001		O	0.0029			#	0.00032	-
	mg/L	0841	WL	09/17/2015	N001			0.003			#	0.00032	-
	mg/L	0842	WL	09/17/2015	N001			0.0022			#	0.00032	-
	mg/L	0876	WL	09/17/2015	N001			0.0049			#	0.00032	-
	mg/L	0878	WL	09/17/2015	N001			0.002			#	0.00032	-
Oxidation Reduction Potential	mV	0405	WL	09/17/2015	N001	NR	N	155.5			#	-	-
	mV	0430	WL	09/17/2015	N001	NR	N	72.2		J	#	-	-
	mV	0436	WL	09/14/2015	N001	NR	N	172.2			#	-	-
	mV	0460	WL	09/17/2015	N001	NR	N	-5.1			#	-	-
	mV	0828	WL	09/14/2015	N001		O	175.8			#	-	-
	mV	0841	WL	09/17/2015	N001			129.2			#	-	-
	mV	0842	WL	09/17/2015	N001			37.6			#	-	-
	mV	0876	WL	09/17/2015	N001			68.6			#	-	-
	mV	0878	WL	09/17/2015	N001			140.1			#	-	-
pH	s.u.	0405	WL	09/17/2015	N001	NR	N	8.92			#	-	-
	s.u.	0430	WL	09/17/2015	N001	NR	N	8.83			#	-	-
	s.u.	0436	WL	09/14/2015	N001	NR	N	8.54			#	-	-
	s.u.	0460	WL	09/17/2015	N001	NR	N	8.94			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:53 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	0828	WL	09/14/2015	N001		O	8.7			#	-	-
	s.u.	0841	WL	09/17/2015	N001			7.59			#	-	-
	s.u.	0842	WL	09/17/2015	N001			7.95			#	-	-
	s.u.	0876	WL	09/17/2015	N001			9.63			#	-	-
	s.u.	0878	WL	09/17/2015	N001			8.95			#	-	-
Potassium	mg/L	0405	WL	09/17/2015	N001	NR	N	0.420	J		#	0.052	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.350	J		#	0.052	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.410	J		#	0.052	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.360	J		#	0.052	-
	mg/L	0828	WL	09/14/2015	N001		O	0.420	J		#	0.052	-
	mg/L	0841	WL	09/17/2015	N001			2.400			#	0.052	-
	mg/L	0842	WL	09/17/2015	N001			0.650	J		#	0.052	-
	mg/L	0876	WL	09/17/2015	N001			0.330	J		#	0.052	-
	mg/L	0878	WL	09/17/2015	N001			0.430	J		#	0.052	-
Sodium	mg/L	0405	WL	09/17/2015	N001	NR	N	190.000			#	0.047	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	160.000			#	0.047	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	170.000			#	0.047	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	160.000			#	0.047	-
	mg/L	0828	WL	09/14/2015	N001		O	180.000			#	0.047	-
	mg/L	0841	WL	09/17/2015	N001			96.000			#	0.047	-
	mg/L	0842	WL	09/17/2015	N001			82.000			#	0.047	-
	mg/L	0876	WL	09/17/2015	N001			170.000			#	0.047	-
	mg/L	0878	WL	09/17/2015	N001			180.000			#	0.047	-
Specific Conductance	umhos/cm	0405	WL	09/17/2015	N001	NR	N	950			#	-	-
	umhos/cm	0430	WL	09/17/2015	N001	NR	N	767			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:53 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0436	WL	09/14/2015	N001	NR	N	834			#	-	-
	umhos/cm	0460	WL	09/17/2015	N001	NR	N	740			#	-	-
	umhos/cm	0828	WL	09/14/2015	N001		O	824			#	-	-
	umhos/cm	0841	WL	09/17/2015	N001			895			#	-	-
	umhos/cm	0842	WL	09/17/2015	N001			665			#	-	-
	umhos/cm	0876	WL	09/17/2015	N001			816			#	-	-
	umhos/cm	0878	WL	09/17/2015	N001			844			#	-	-
Sulfate	mg/L	0405	WL	09/17/2015	N001	NR	N	310			#	2	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	190			#	1	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	220	N		#	2	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	180			#	1	-
	mg/L	0828	WL	09/14/2015	N001		O	220			#	2	-
	mg/L	0841	WL	09/17/2015	N001			240			#	2	-
	mg/L	0842	WL	09/17/2015	N001			160			#	1	-
	mg/L	0876	WL	09/17/2015	N001			270			#	2	-
	mg/L	0878	WL	09/17/2015	N001			250			#	2	-
Temperature	C	0405	WL	09/17/2015	N001	NR	N	11.36			#	-	-
	C	0430	WL	09/17/2015	N001	NR	N	12.26			#	-	-
	C	0436	WL	09/14/2015	N001	NR	N	22.86			#	-	-
	C	0460	WL	09/17/2015	N001	NR	N	15.36			#	-	-
	C	0828	WL	09/14/2015	N001		O	18.75			#	-	-
	C	0841	WL	09/17/2015	N001			16.64			#	-	-
	C	0842	WL	09/17/2015	N001			10.93			#	-	-
	C	0876	WL	09/17/2015	N001			15.26			#	-	-
	C	0878	WL	09/17/2015	N001			10.45			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:53 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Turbidity	NTU	0405	WL	09/17/2015	N001	NR	N	3.37			#	-	-
	NTU	0430	WL	09/17/2015	N001	NR	N	1.62			#	-	-
	NTU	0436	WL	09/14/2015	N001	NR	N	1.83		J	#	-	-
	NTU	0460	WL	09/17/2015	N001	NR	N	0.96			#	-	-
	NTU	0828	WL	09/14/2015	N001		O	3.79		J	#	-	-
	NTU	0841	WL	09/17/2015	N001			1.81			#	-	-
	NTU	0842	WL	09/17/2015	N001			2.27			#	-	-
	NTU	0876	WL	09/17/2015	N001			2.41			#	-	-
	NTU	0878	WL	09/17/2015	N001			1.66			#	-	-
Uranium	mg/L	0405	WL	09/17/2015	N001	NR	N	0.00039			#	2.9E-05	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.00005	J		#	2.9E-05	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.0001			#	2.9E-05	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.00005	J		#	2.9E-05	-
	mg/L	0828	WL	09/14/2015	N001		O	0.00008	J		#	2.9E-05	-
	mg/L	0841	WL	09/17/2015	N001			0.0019			#	2.9E-05	-
	mg/L	0842	WL	09/17/2015	N001			0.0004			#	2.9E-05	-
	mg/L	0876	WL	09/17/2015	N001			0.0037			#	2.9E-05	-
	mg/L	0878	WL	09/17/2015	N001			0.00024			#	2.9E-05	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:53 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY

RECORDS: SELECTED FROM USEE200 WHERE site_code='RVT01' AND location_code in('0405','0430','0436','0460','0828','0841','0842','0876','0878') AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND DATE_SAMPLED between #9/1/2015# and #9/30/2015#

SAMPLE ID CODES: 000X = Filtered sample. N00X = Unfiltered sample. X = replicate number.

LOCATION TYPES: WL WELL

ZONES OF COMPLETION: a zone of completion with a "-" is cross-screened and, therefore, has two zones of completion (1st zone - 2nd zone).

NR NO RECOVERY OF DATA FOR CLASSIFYING

FLOW CODES: N UNKNOWN O ON-SITE

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compund (TIC).
- P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

- F Low flow sampling method used.
- G Possible grout contamination, pH > 9.
- J Estimated value.
- L Less than 3 bore volumes purged prior to sampling.
- N Presumptive evidence that analyte is present. The analyte is "tentatively identified".
- Q Qualitative result due to sampling technique
- R Unusable result.
- U Parameter analyzed for but was not detected.
- X Location is undefined.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

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Appendix B

Trip Reports

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Stoller Newport News Nuclear

Memorandum

DATE: May 19, 2015

TO: Sam Campbell

FROM: Ray Johnson

SUBJECT: Trip Report

Site: Riverton, Wyoming, Processing Site

Dates of Sampling Event: May 4 to May 8, 2015

Team Members: Sam Campbell, Craig Goodknight, Ray Johnson, Anthony Martinez, Jeff Price, Rob Rice, and Kyle Turley (SN3); Bill Dam and Terry Petrosky (DOE); John Barger, Megan Dustin, Pierre Lefebvre, and Vincent Noel (Stanford/SLAC); and Steve Babits and Ryan Ortiz (Northern Arapaho Environmental).

Number of Locations Sampled: 23 soil samples were collected from 5 trench locations as shown in Figure 1. Monitoring well redevelopment was completed at thirteen locations and data loggers were downloaded at three locations.

Locations Not Sampled/Reason: Transducer downloads and monitoring well redevelopment were limited due to muddy conditions on the former mill site.

Quality Control Sample Cross Reference: The false identifications assigned to the quality control samples are shown in Table 1.

Table 1. Quality Control Samples.

False ID	Ticket Number	True ID	Sample Type	Associated Matrix
2707	NFZ 295	BHT-02-01	Duplicate	Soil
2708	NFZ 296	BHT-01-05	Duplicate	Soil

Location Specific Information: The soil sampling log is shown in Table 2, lithologic descriptions of each trench are displayed in Attachment 1, and detailed photos of each trench are displayed in Attachment 2.

Monitoring wells 0705, 0707, 0718, 0719, 0720, 0721, 0722, 0723, 0729, 0730, 0788, 0789, and 0826 were redeveloped.

Requisition Index Number (RIN) Assigned: Samples were assigned to RIN 15046989 for TestAmerica and RIN 15057038 for the Environmental Sciences Laboratory.

Sample Shipment: Samples were shipped overnight via FedEx from Grand Junction to TestAmerica Laboratory in Denver on May 12, 2015, and splits of the samples were hand-delivered to the Environmental Sciences Laboratory on May 11, 2015.

Water Level Measurements: Water levels were measured in monitoring wells that were redeveloped and in monitoring wells where the data loggers were downloaded.

Well Inspection Summary: No issues were identified.

Sampling Method: Samples were collected according to the *2015 Work Plan for Advanced Site Investigation of the Riverton, Wyoming, Processing Site* (LMS/RVT/S12697, 2015) and the *Sampling and Analysis Plan (SAP) for the U. S. Department of Energy Office of Legacy Management Sites* (LMS/PRO/S04351, continually updated).

Field Variance: None.

Equipment: All equipment functioned properly.

Dataloggers: Dataloggers were downloaded and checked for accuracy at the following locations: 0707, 0710, and 0789.

Stakeholder/Regulatory/DOE: Bill Dam and Terry Petrosky of DOE were onsite to observe trenching and sampling activities. Owen Goggles contacted DOE regarding building a house south of Rendezvous Road within the Institutional Control boundary and getting connected to the alternate water supply system.

Institutional Controls:

Fences, Gates, and Locks: Gates on private land were left as found (open or closed).
Signs: Signs around the oxbow lake were not inspected during this sampling event.
Trespassing/Site Disturbances: None observed.
Disposal Cell/Drainage Structure Integrity: N/A.

Safety Issues: Safety meetings were held each morning prior to starting work. All trench locations were cleared for utilities prior to digging. Anthony Martinez (Health and Safety) was on-site to inspect and guide excavations to ensure the safety of the trenches prior to entry.

Access Issues: None.

Immediate Actions Taken: None.

Future Actions Required or Suggested: An additional field trip will be required to complete data logger downloads, data logger installation and monitoring well redevelopment.

General Information: Daily notes of activities conducted during the week are listed below:

May 4, 2015

The rented backhoe was delivered and driven to the site by Kyle Turley.
Backhoe trench locations BHT-01 through BHT-05 were marked with pin flags.

May 5, 2015

0700: safety meeting at Hampton Inn with SN3, Stanford, and DOE personnel to review backhoe JSA, pre-job briefing, and plan of the day. An initial planning decision was made to open all five trenches for an initial visual look and then to revisit each trench for more detailed sampling, final deepening, and trench closure. Four to five samples were collected in each trench by SN3 (Ray Johnson and Sam Campbell). All trenches were also observed, logged, and sampled by SN3 and the Stanford/SLAC team.

0815: On site, locations were cleared by Rob Rice, and the penetration permit was reviewed and signed. Backhoe inspection was completed. Some trench locations were moved slightly. If outside of the 30 ft radius already cleared by Rob, utility clearance was conducted at the new locations. No evidence of underground interference was detected at any location. The summary below includes general trench observations and photos for comparison (see the attached photo log that corresponds with sediment sampling, and the attached Excel spreadsheet with sample IDs).

0830: Started trench BHT-05, near the well 0707 cluster. The location was moved slightly to dig on west side of well cluster near a bush. Evaporite mottling was observed near the surface. Lithologic logging was at all trenches was conducted by Craig Goodnight (see attached log).

0915: Started trench BHT-02, near Little Wind River and close to well 0789. Evaporite mottling was observed near the surface.

0950: Started trench BHT-01. Moved location slightly to be in what appeared to be an old oxbow area with a ground-surface depression area with greener grass. Strong evaporite mottling near the surface with an NRZ at depth.

1050: Started trench BHT-03 in a middle open area with no good landmarks. Moved the location near a bush to look for evaporites in the root zone. Less evaporite mottling near the surface and a shallower gravel layer.

1125: Started trench BHT-04, which was close to the fence line at the original location. Cobbly right at the surface. Cobbles appear to be evaporite coated with white color on one side.

Preparations for trench BHT-05 near 0707 well cluster.

Trench BHT-05 – clump of soil with subsurface evaporite mottling.

Trench BHT-05

Starting trench BHT-02

Trench BHT-02 progress

Starting trench BHT-01

Trench BHT-01 with strong evaporite mottling in near surface soils.

Trench 1, NRZ at depth, with strong black and iron stain mottling.

Starting Trench BHT-03

Trench BHT-03

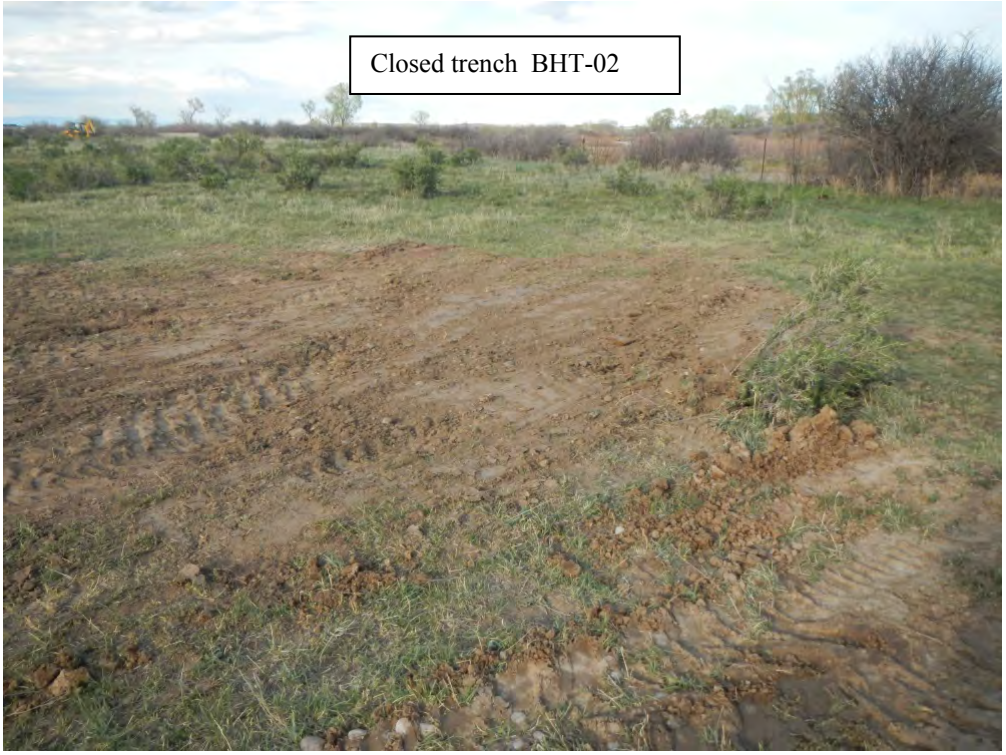
Preparations for trench BHT-01 near the fence line.

Starting trench BHT-01.

~1400: Closed trench 3 (photo taken at 1841)

Closed trench BHT-04

Closed trench BHT-05


Closed trench BHT-02

Closed trench BHT-01

May 6, 2015

0730: A decision was made to delay hand augering work by SLAC because of rain. Instead, SLAC personnel spent the morning preparing samples for shipping.

1100: Met with Steve Babits at the Hampton Inn to review Riverton journal article and 2015 work plan (Ray Johnson, Sam Campbell, Bill Dam, and Terry Petrosky).

1400: Met up with SLAC personnel at the site and assisted with hand augering.

May 7, 2015

0730: SN3 Safety meeting at Hampton Inn with Sam Campbell, Ray Johnson, Jeff Price, and Rob Rice. All day – continue to assist SLAC folks with hand augering. Selected a potential location for a stilling well along the Little Wind River (Price, Johnson, and Campbell).

1700: SLAC hand augering and sampling completed.

May 8, 2015

0700: Travel back to Grand Junction.

(RJ/lcg)

cc: (electronic)
Bill Dam, DOE
Terry Petrosky, DOE
John Bargar, SLAC
Sam Campbell, SN3
Steve Donivan, SN3
Craig Goodknight, SN3
Ray Johnson, SN3
Kyle Turley, SN3
EDD Delivery

Table 2. Soil Sample Log

Sample ID	Date	Time	Depth (ft)	Comments
BHT-01-01	5/5/2015	1710	0.30	Top soil zone, no visible evaporites
BHT-01-02	5/5/2015	1720	0.75	Darker organic layer
BHT-01-03	5/5/2015	1725	1.40	Evaporite-mottled silt; some darker organic layers
BHT-01-04	5/5/2015	1730	2.90	Silt, less-to-no-visible evaporites
BHT-01-05	5/5/2015	1735	4.30	Black/red mottled NRZ zone, duplicate sample 2708 taken at 1740. At 1745 dug below NRZ to gray sandy gravel below.
BHT-02-01	5/5/2015	1620	0.50	Top soil zone, evaporite mottled, duplicate sample 2707 taken at 1625.
BHT-02-02	5/5/2015	1630	1.50	Silt, less visible evaporite mottling, but evaporites forming on dried surfaces.
BHT-02-03	5/5/2015	1635	3.00	Damp silt
BHT-02-04	5/5/2015	1640	4.00	Clean sand
BHT-02-05	5/5/2015	1645	4.60	Bottom gravel. At 1650 dug deeper, gray sand layer with thin dark streaks at 6.5-7.0 ft.
BHT-03-01	5/5/2015	1320	0.60	Top soil zone
BHT-03-02	5/5/2015	1330	2.50	Silt, trace of evaporite flecks, slightly damp, sandy in the middle
BHT-03-03	5/5/2015	1340	3.10	Top of gravel, lots of roots
BHT-03-04	5/5/2015	1345	5.60	Wet gravel, darker color, some dark organic zones, and cemented milkly white areas on bottom of gravel
BHT-04-01	5/5/2015	1405	0.30	Top soil zone, silt
BHT-04-02	5/5/2015	1415	3.00	Dry gravel
BHT-04-03	5/5/2015	1420	5.30	Clean sand, damp, some organics
BHT-04-04	5/5/2015	1425	5.60	Gravel with organic zones, and milky white cement under the gravel.
BHT-05-01	5/5/2015	1445	0.50	Top soil zone, evaporite mottled
BHT-05-02	5/5/2015	1455	1.50	Middle silt zone, evaporite mottled
BHT-05-03	5/5/2015	1500	2.50	Bottom silt zone, less evaporite mottling, sandier
BHT-05-04	5/5/2015	1505	3.00	On top of dry gravel, sampled thin clean sand zone with iron stain mottling.
BHT-05-05	5/5/2015	1510	4.20	Damp gravel with dark stained organic layer. Evaporites on both sides of trench, not just the bush side. Sand layer at 3 ft is not present all around the trench, but does thicken to the northeast. At 1520 cut deeper into underlying gray sandy gravel.

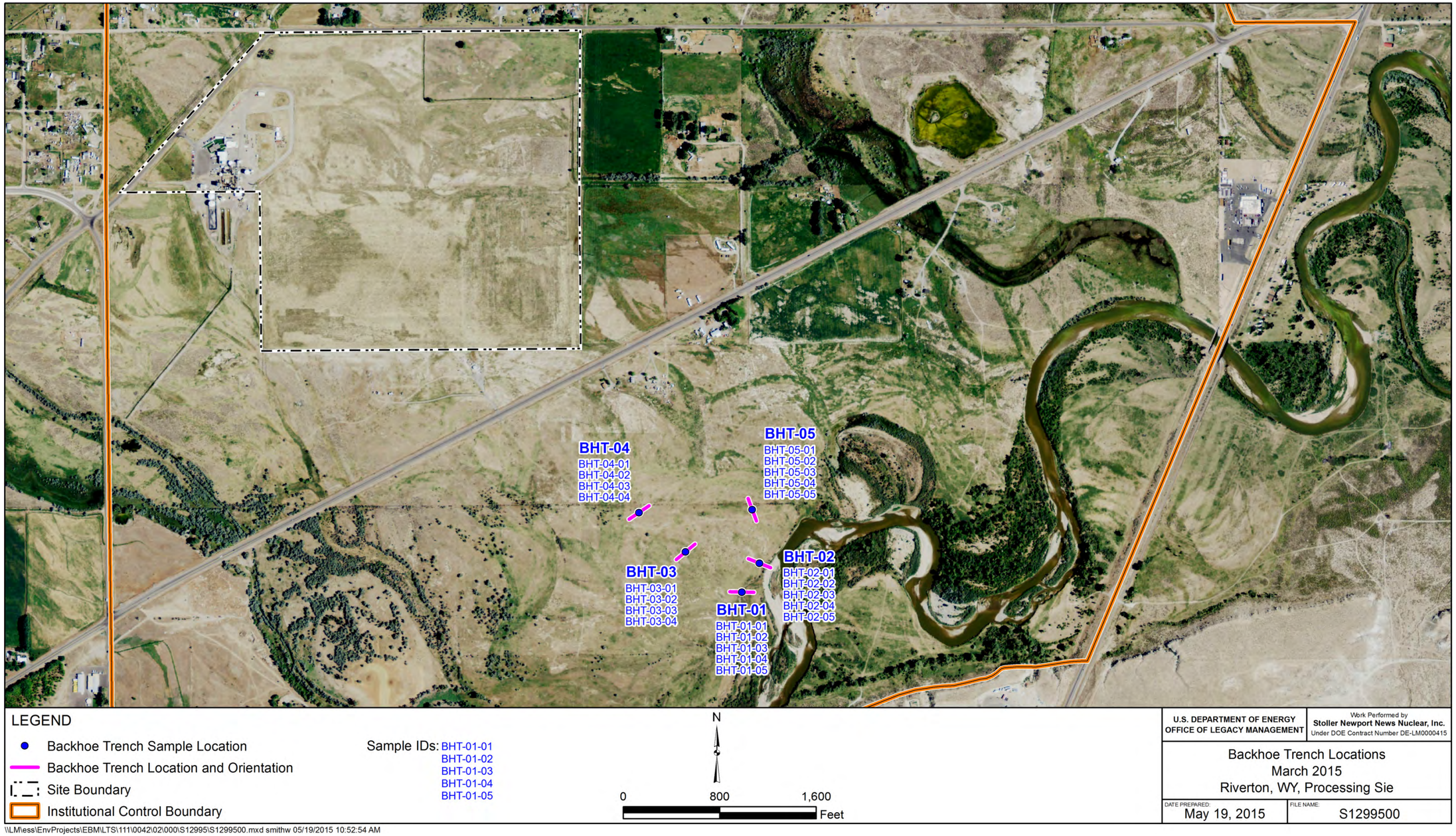


Figure 1. Riverton Backhoe Trench Locations

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Attachment 1

Trench Lithologic Descriptions

U.S. Department of Energy Office of Legacy Management

Well Completion Log/~~Borehole~~ Trench Log

Date: May 5, 2015 Well Number: BHT-1
Site Name: Riverton State: WY
Rig Type: Bit/Auger Size (in.):
Drilling Company: SN3 ~~Drill~~ Backhoe Operator: K. Turley
Drilling Start Date: May 5, 2015 Drilling End Date:
Drilling Method: Sampling Method:

Ground Elevation (ft):
Hole Depth (bgs-ft): 8
Well Depth (bgs-ft):
Stick-Up Height (ft):
Slot Size:

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing			0 to
Well Screen			to
Sump/End Cap			to
Grout			to
Bentonite Seal			to
Upper Sand Pack			to
Lower Sand Pack			to

Location Sketch: in swale area (old meander) about 1.5-2 ft below surface of rest of FP.

Developed Date: Water Date: Water Level:
Geologist/Sampler(s):
Comments:

Depth[a] (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-3 ML Color varies from very dark gray (10YR3/1) to brown (10YR5/3) dry. Heavy mottling (~2-5%) at ~1-2', reaction w/HCl mostly outside of white mottles. ~1.5 ft becomes damp to moist. less mottling below 2 ft. Brown (10YR5/3), damp/moist color @ 1.5-2 ft are darker organic streaks, black (10YR3/1)
1						
2						
3						3-6.2 SM Sandy silt, ~60% silt, 30% vf-gr sand, 10% clay. roots down to ~4'. Brown (10YR5/3) ~3.5 ft as mottling - dark yellowish brown (10YR4/4) to very dark bluish gray (Gley 2 10B3/1)
4						mottling characterized by strong brown (7.5YR4/6) and very dark bluish gray (Gley 2 10B3/1) main matrix is gray (10YR5/1). moist at 4.5'
5						tr. black organic material (woody stems) mostly associated with the mottled areas (dark gray and strong brown). Sat'd ~5.8 ft
6						One large woody stick at ~6 ft
7						6.2-8.0 Sandy Gravel, GM, Matrix sand mostly fn-med gr dark gray (10YR4/1) ~20% gravel w/pebbles as large as 3" dia. reduced, sulfur smell. some silt (~20%)
8						8' TD

[a] all depths measured from ground level

Completed By: C. Goodknight Verified By:

LMS 1800
07/12/2011

A SUBSIDIARY OF HUNTINGTON INGALLS INDUSTRIES
2597 Legacy Way • Grand Junction, CO 81503-1789 • Telephone (970) 248-6000 • Fax (970) 248-6040

U.S. Department of Energy Office of Legacy Management

Well Completion Log/~~Borehole~~ Trench Log

Date: May 5, 2015 Well Number: BHT-2
Site Name: Riverton State: WY
Rig Type: Bit/Auger Size (in.):
Drilling Company: SN3 ~~Drill~~ Backhoe Operator: K. Turley
Drilling Start Date: May 5, 2015 Drilling End Date:
Drilling Method: Sampling Method:

Ground Elevation (ft):
Hole Depth (bgs-ft): 7
Well Depth (bgs-ft):
Stick-Up Height (ft):
Slot Size:

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing			0 to
Well Screen			to
Sump/End Cap			to
Grout			to
Bentonite Seal			to
Upper Sand Pack			to
Lower Sand Pack			to

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s):
Comments:

Depth[a] (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						
1						0-3.8 ML, Silt slight plasticity, damp. moderate HCl reaction mottling ~10% to ~1ft, Some dark organic areas in 0-1ft, very dark gray (5YR3/1) surface A horizon. Brown (7.5YR4/3) damp color. Some more clayey alluvium ~1.5-2ft moderate plasticity Brown (10YR4/3)
2						
3						Brown (7.5YR4/3) Brown (10YR4/3)
4						3.8-4.3' Sand, SP, mostly fn gr. damp to dry Grayish brown (10YR5/2)
5						4.3-6.2 Sandy Gravel, GW damp to dry matrix sand mostly fn gr., but becomes mostly med gr at ~4.8 ft. Matrix is light brownish gray (10YR6/2)
6						
7						6.2-7 Sand, SP, mostly med gr sand ~10% pebbles as large as 2in dia. saturated ~6.8 ft Some darker organic streaks in sand ~6.2-6.4 ft matrix sand, brown (7.5YR5/2) TD-7ft

[a] all depths measured from ground level

Completed By: C. Goodknight Verified By:

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U.S. Department of Energy Office of Legacy Management

Well Completion Log/~~Borehole~~ Trench Log

Date: May 5, 2015 Well Number: BHT-3 Ground Elevation (ft):
Site Name: Riverton State: WY Hole Depth (bgs-ft): 7.5
Rig Type: Bit/Auger Size (in.): Well Depth (bgs-ft):
Drilling Company: SN3 ~~Drill~~ Backhoe Operator: K. Turley Stick-Up Height (ft):
Drilling Start Date: May 5, 2015 Drilling End Date: Slot Size:
Drilling Method: Sampling Method:

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing			0 to
Well Screen			to
Sump/End Cap			to
Grout			to
Bentonite Seal			to
Upper Sand Pack			to
Lower Sand Pack			to

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s):
Comments:

Depth[a] (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-2.7' ML, Silt, brown (10YR4/3) damp color Tr. mottling and tr yellowish red (5YR4/6) color all the way down to 2.7 ft From 1.5-2.7 ft increasing amount of v fn gr sand Color at ~2ft is grayish brown (10YR5/2) Roots go all way down to 2.7'
1						
2						damp 2.7-5.5 Sandy Gravel, GW, ~30% gravel - pebbles & cobbles as large as 6" Sand matrix is ~70% sand mostly med gr, some fn gr sand (~20%) dark grayish brown (10YR4/2).
3						
4						4-5.3 Cobbles as large as 8" dia moist at 4.5'
5						
6						5.3-6 Some tt yellowish coating on pebbles Sand, SW, fine to med gr sand Sat'd at 5.6'
7						6-7.5 - Sandy Gravel, GW, ~30-40% gravel & cobbles as large as 8" dia ~10% pebbles as large as 2" dia Tr. green grains (epidote?) Dark grayish brown (10YR4/2) to dark brown (10YR3/3) Brown (7.5YR5/2) Matrix sand mostly med gr. Grains mostly qtz, angular to subrounded TD 7.5'

[a] all depths measured from ground level

Completed By: C Goodknight Verified By:

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U.S. Department of Energy Office of Legacy Management

Well Completion Log/~~Borehole~~ Trench Log

Date: May 5, 2015 Well Number: BHT-4 Ground Elevation (ft):
Site Name: Riverton State: WY Hole Depth (bgs-ft): 7.5
Rig Type: Bit/Auger Size (in.): Well Depth (bgs-ft):
Drilling Company: SN3 Drill Operator: K. Turley Stick-Up Height (ft):
Drilling Start Date: May 5, 2015 Drilling End Date: Slot Size:
Drilling Method: Backhoe Sampling Method:

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing			0 to
Well Screen			to
Sump/End Cap			to
Grout			to
Bentonite Seal			to
Upper Sand Pack			to
Lower Sand Pack			to

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s):
Comments:

Depth[a] (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-0.5 Silt, ML Brown (10YR5/3) damp
1						0.5-4.7 Sandy Gravel, GW ~50-60% gravel + cobbles dry. Cobbles as large as 10" dia. Sand matrix ~40% is very fn gr sand and some silt, brown (10YR5/3) dry. roots down to ~2 ft
2						Many cobbles have white caliche coatings. Clast-supported
3						sand grains mostly subrounded and quartz. matrix sand mostly med gr at 3.5-4 ft, damp. dry to ~3.5'
4						some fn gr sand Brown (7.5YR5/2)
5						4.7-5.6 Sand, SP Dark grayish brown (10YR4/2) mostly medium grained, some fn gr. ~10% dark organic-looking material - very dark grayish brown (10YR3/2) ~5.3-5.6'. ~5% pebbles as large as 1" dia. tr of what appears to be fine pyrite
6				moist ~5.0'		5.6-7.5 ~~Sandy Gravel, GP~~, ~30-40% gravel + cobbles as large as 8 in dia. Cream-colored coating on some pebbles 5.3-5.6 ft is pink (7.5YR7/4). Matrix sand mostly med gr, dark grayish brown (10YR4/2)
7						Matrix sand mostly med-fn gr, brown (10YR4/3). saturated at ~7 ft
8						TD at 7.5 ft

[a] all depths measured from ground level

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Page 1 of 2

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Well Completion Log/~~Borehole~~ Trench Log

Date: May 5, 2015 Well Number: BHT-5 Ground Elevation (ft):
Site Name: Riverton State: WY Hole Depth (bgs-ft): 7
Rig Type: Bit/Auger Size (in.): Well Depth (bgs-ft):
Drilling Company: SN3 ~~Drill~~ Backhoe Operator: K. Turley Stick-Up Height (ft):
Drilling Start Date: May 5, 2015 Drilling End Date: Slot Size:
Drilling Method: Sampling Method:

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing			0 to
Well Screen			to
Sump/End Cap			to
Grout			to
Bentonite Seal			to
Upper Sand Pack			to
Lower Sand Pack			to

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s):
Comments:

Depth[a] (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-3' ML, Silt ~4" "A"-Horizon soil slight plasticity damp mottling - slight reaction to HCL in white splotches Roots down to ~3ft mottling seems to be random, not following roots brown 10YR (4/3) damp color
1						
2						At NE end of pit, ~2.5-3' is sand lens thickening to N, SP, mostly fn gr sand, light brown gray (10YR 6/2) Dry
3						3-7 GM Sandy, silty Gravel some roots expand into sand ~1ft ~30-40% Gravel + cobbles ~~Cobbles as large as 8 in dia~~
4						Matrix sand is very fine to fine gr. ~3-4ft and sand becomes mostly med gr ~4-5ft
5						Below ~5ft, nearly 50% gravel + cobbles as large as 8" dia water at 5.7' BGS ~~matrix sand mostly med gr, some fn gr sand + silt~~ dark grayish brown (10YR 4/2)
6						
7						7' TD

[a] all depths measured from ground level

Completed By: C. Goodknight Verified By:

LMS 1800
07/12/2011

Page 1 of 2

Attachment 2

Trench Sampling Photos

Riverton, WY, May 5th, 2015, sediment sampling photo log

Backhoe Trench 1

BHT-01-01 at 0.3 ft.
Top of soil zone, lot of plant growth, no apparent evaporites.

Extra photo of BHT-01-01 at 0.3 ft. zone with plant roots.

BHT-01-02 at 0.75 ft.
Darker organic layer, evaporites above and below.

BHT-01-03 at 1.4 ft.
Evaporite mottled silt, some darker organic layers.

Additional photo of silt with evaporites, no additional sample.

BHT-01-04 at 2.9 ft.
Silt zone, less to no evaporites.

BHT-01-05 at 4.3 ft.
NRZ – black and red mottled clay.

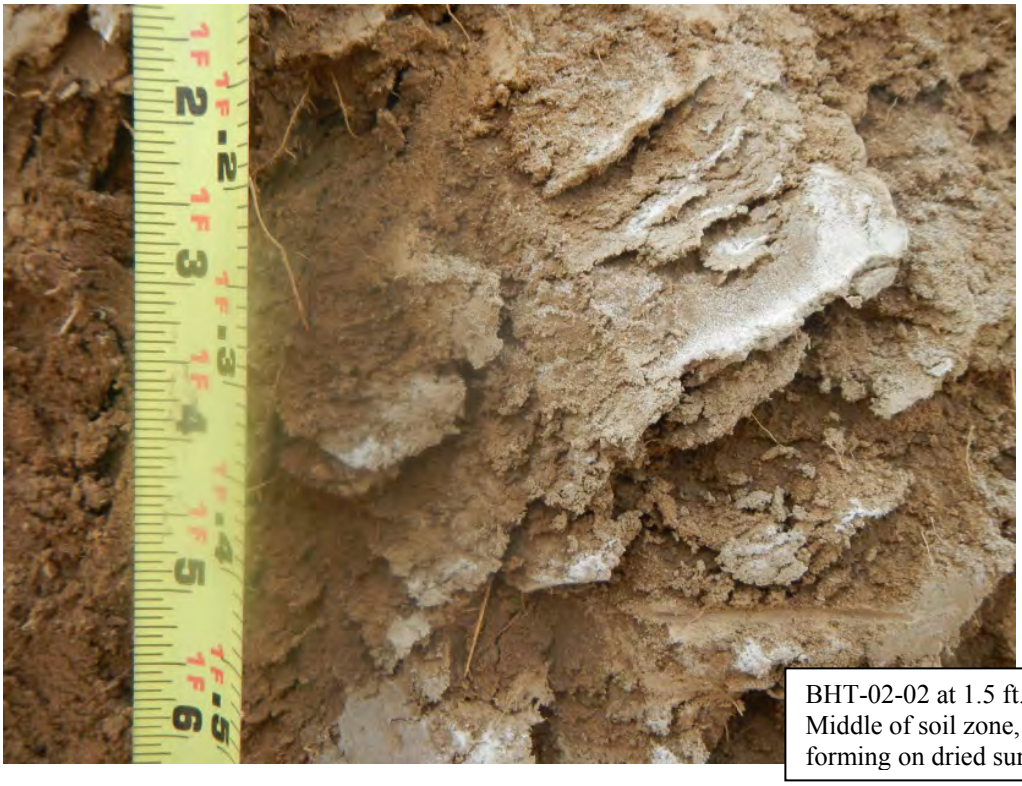
Additional photo of BHT-01-05 at 4.3 ft.
NRZ – black and red mottled clay.

Additional photo of top of Trench 5 with roots, evaporites, and black organic layers.

Additional photo of deeper material from Trench 5, dark organics, clay rich to 6.2 ft. before gray sand/gravel.

Backhoe Trench 2

BHT-02-01 at 0.5 ft.
Top of soil zone, some evaporite mottling.



BHT-02-02 at 1.5 ft.
Middle of soil zone, evaporite forming on dried surfaces.

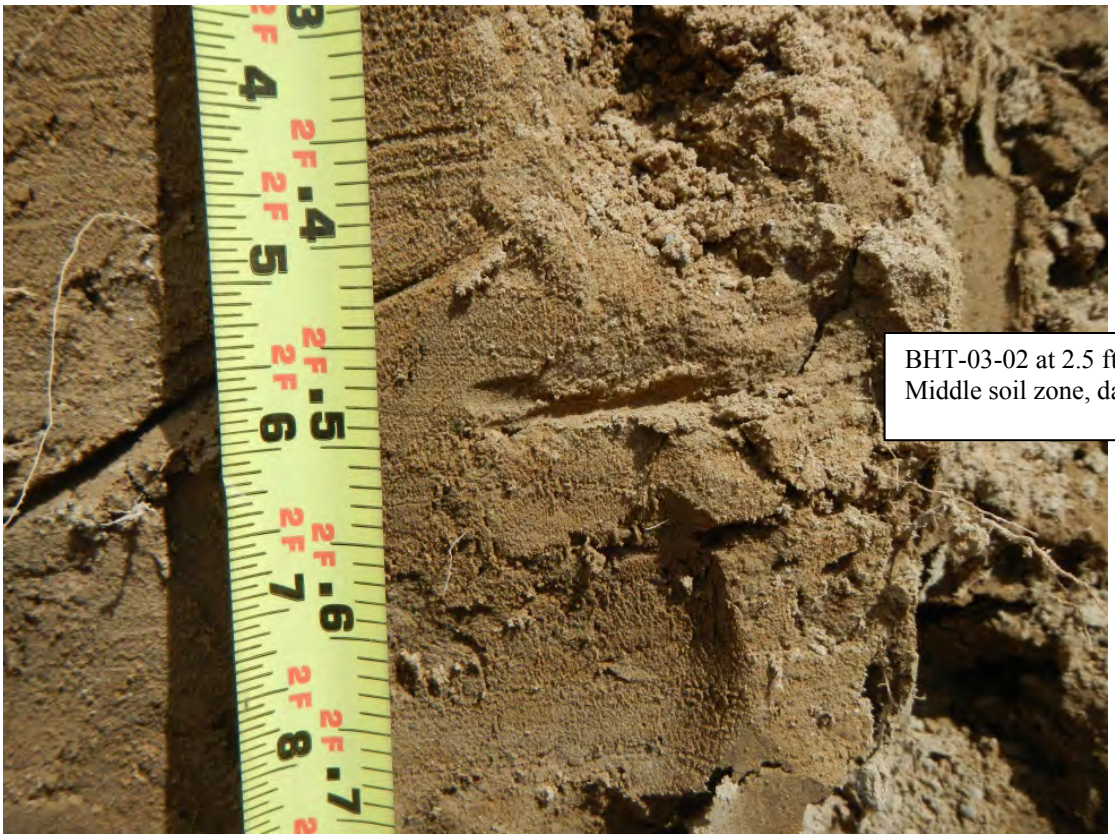
BHT-02-03 at 3.0 ft.
Damp silt, bottom of soil zone.

BHT-02-04 at 4.0 ft.
Clean damp sand just above gravels.

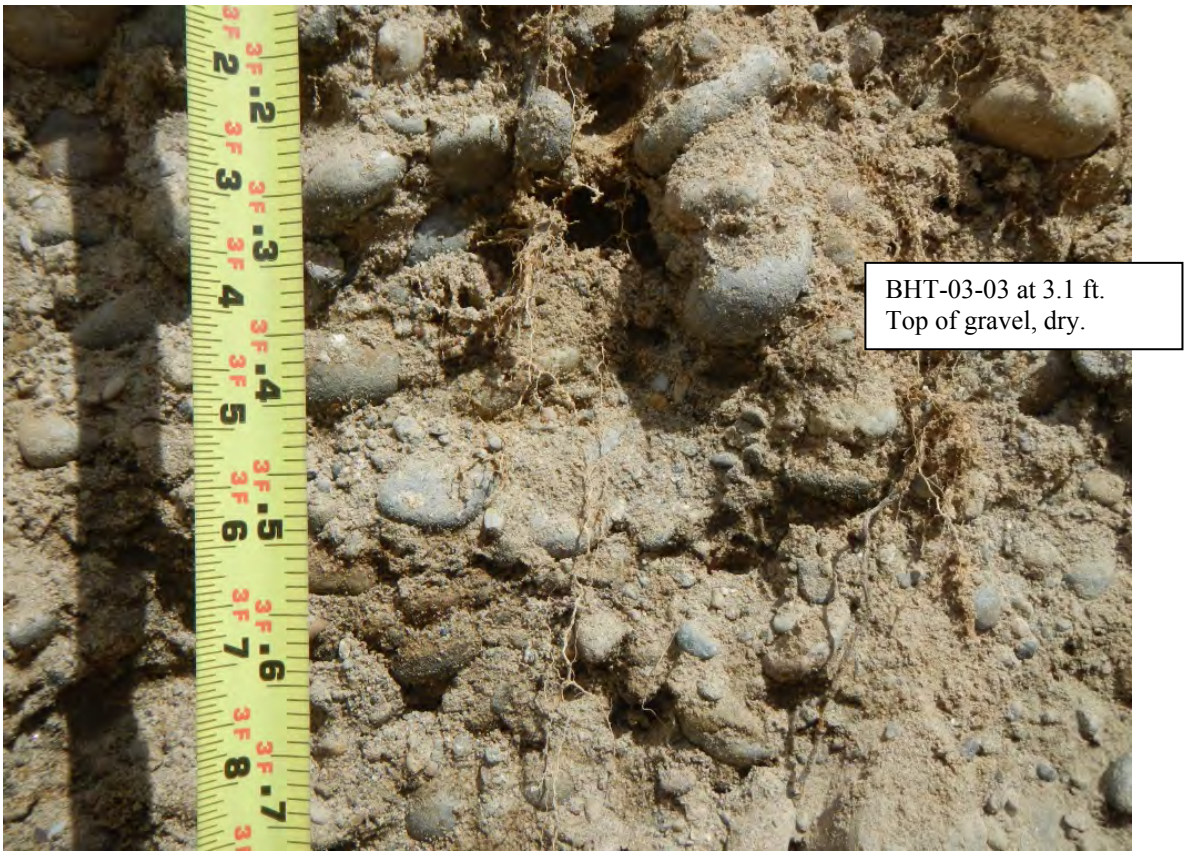
BHT-02-05 at 4.6 ft.
Gravel, wet/damp.

Backhoe Trench 3

BHT-03-01 at 0.6 ft.
Top of soil zone, silt.



BHT-03-02 at 2.5 ft.
Middle soil zone, damp, silty.


BHT-03-03 at 3.1 ft.
Top of gravel, dry.

BHT-03-04 at 5.6 ft.
Wet gravel.

Backhoe Trench 4

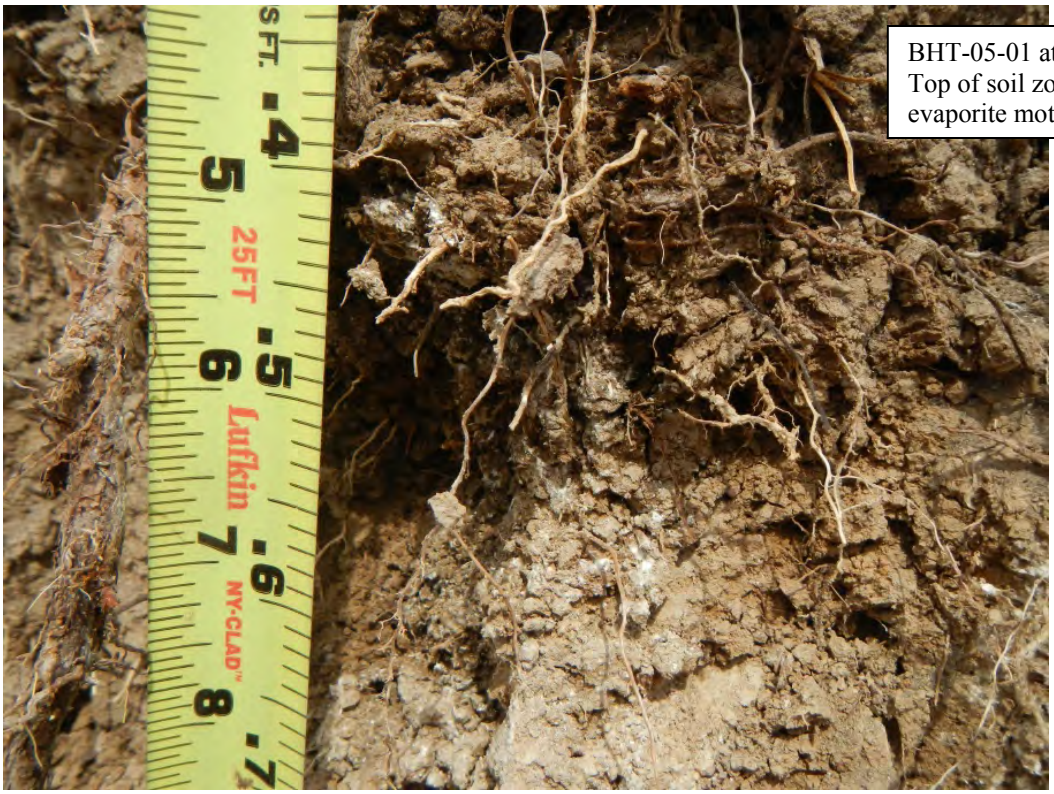
BHT-04-01 at 0.3 ft.
Top of soil zone, silt.

BHT-04-02 at 3.0 ft.
Dry gravel.

BHT-04-03 at 5.3 ft.
Clean sand with organics, damp.

BHT-04-04 at 5.6 ft.
Damp gravel with dark organics and iron staining.

Backhoe Trench 5



BHT-05-01 at 0.5 ft.
Top of soil zone, silt, evaporite mottled.

Extra top of soil zone photo, opposite side of trench from bush. Strong evaporite mottling.

BHT-05-02 at 1.5 ft.
Middle of soil zone, silt, evaporite mottled.

BHT-05-03 at 2.5 ft.
Bottom of soil zone, silt, less evaporite mottling, sandier.

BHT-05-04 at 3.0 ft.
Thin sand zone on top of gravels with iron staining.

Extra photo of BHT-05-04 zone at 3.0 ft. Thin sand zone on top of gravels with iron staining. Thicker in this photo at NE corner of trench. Same sand is not present on west side of trench.

BHT-05-05 at 4.2 ft.
Damp gravel with dark organic (?) staining.

BHT-05-05 going deeper
Wet gravels.

BHT-05-05 going deeper
Wet gravels.

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Stoller Newport News Nuclear

Memorandum

DATE: September 30, 2015

TO: Distribution

FROM: Sam Campbell

SUBJECT: Field Investigation Trip Report

Site: Riverton, Wyoming, Processing Site

Dates of Sampling Event: August 25 to September 1, 2015

Personnel: Personnel involved in the field investigation included: David Atkinson, Gretchen Baer, Sam Campbell, Craig Goodknight, Jennifer Graham, Ray Johnson, Anthony Martinez, Jeff Price, Rob Rice, Eric Szabelski, Samantha Tigar, and Sarah Morris from SN3; Bill Dam and Terry Petrosky from DOE; John Bargar and Sharon Bone from Stanford Linear Accelerator Center (SLAC); Kristin Boye, Emily Cardarelli, Megan Dustin, and Juan Salvador from Stanford University; Steve Babits and Ryan Ortiz from the Northern Arapaho Environmental Office; and Jeffrey Johnson, Aaron Bradley, and Jonathon Layton from Cascade Drilling.

Other personnel who participated in project activities included: Bob Darr from SN3; Paul Reimus from Los Alamos National Laboratory; and Jim Campbell and Jarod Wheeler from the USGS.

Sampling Summary

Geoprobe – Groundwater Sampling

Boreholes were installed with the Geoprobe down to 12 feet below ground surface; groundwater samples were collected from each borehole. Boreholes were installed and samples were collected at 13 of the 18 locations identified in the *2015 Work Plan for Advanced Site Investigation of the Riverton, Wyoming, Processing Site* (LMS/RVT/S12697, 2015) (Work Plan). Locations T06-16, T06-17, T06-18, T06-19, and T06-20 were not sampled because the hay field was inaccessible due to flood irrigation. Boreholes T10-01, T10-02, and T10-03 were not on the original list of locations to be sampled but were added by Bill Dam (DOE) during the sampling event to obtain additional data in an area of interest. Locations T06-01 and T06-01-02 were off-set due to rod refusals at a depth of 5 feet. GPS coordinates were collected at all completed boreholes, and Geoprobe borehole locations are shown in Figure 1.

Splits from eight locations were tested for uranium by the ESL analyst on site. Uranium analysis was done by KPA following ESL procedure AP (U-2). Results from the area around T06-01 indicated uranium concentrations were below the maximum concentration limit (MCL) of 0.044 mg/L; therefore, additional sampling in this area was not required per the work plan. Results of the on-site uranium analyses are listed in Table 1.

Groundwater samples were collected according to the Work Plan and the *Sampling and Analysis Plan (SAP) for the U. S. Department of Energy Office of Legacy Management Sites* (LMS/PRO/S04351, continually updated) with no field variances noted.

Each Geoprobe borehole was abandoned after sampling by filling the hole with bentonite. Depth of the boreholehole (after collapse) and the amount of bentonite used to backfill the hole are listed in Table 2.

Table 1. Uranium Field-Test Results

Location ID	Uranium Concentration (µg/L)
T06-01	23.6
2771 (T06-01 Duplicate)	24.2
T06-01-01	14.4
T06-01-02	21.7
T06-01-03	24.0
T06-01-04	23.1
T10-01	26.2
T10-02	7.1
T10-03	16.6

Table 2. Bentonite Backfill in Geoprobe Boreholes

Location IDs	Abandonment Date	Depth of Hole (Ft)	Amount of Bentonite Used (lbs)
0844	8/26/15	8.9	17.8
T03-03	8/27/15	1.1	2.2
T03-04	8/27/15	4.9	9.8
T03-05	8/27/15	0.8	1.6
T03-06	8/27/15	2.2	4.4
T03-07	8/27/15	~5	10
T03-08	8/27/15	7.9	15.8
T03-09	8/27/15	5.0	10
1st rod refusal at T06-01	8/25/15	5.0	10
2nd rod refusal at T06-01	8/25/15	5.0	10
T06-01	8/25/15	12.0	24
T06-01-01	8/25/15	8.1	16.2
Rod refusal at T06-01-02	8/25/15	5.0	10
T06-01-02	8/25/15	8.0	16
T06-01-03	8/25/15	5.8	11.6
T06-01-04	8/26/15	8.2	16.4
T10-01	8/26/15	3.2	6.4
T10-02	8/26/15	8.8	17.6
T10-03	8/26/15	8.9	17.8

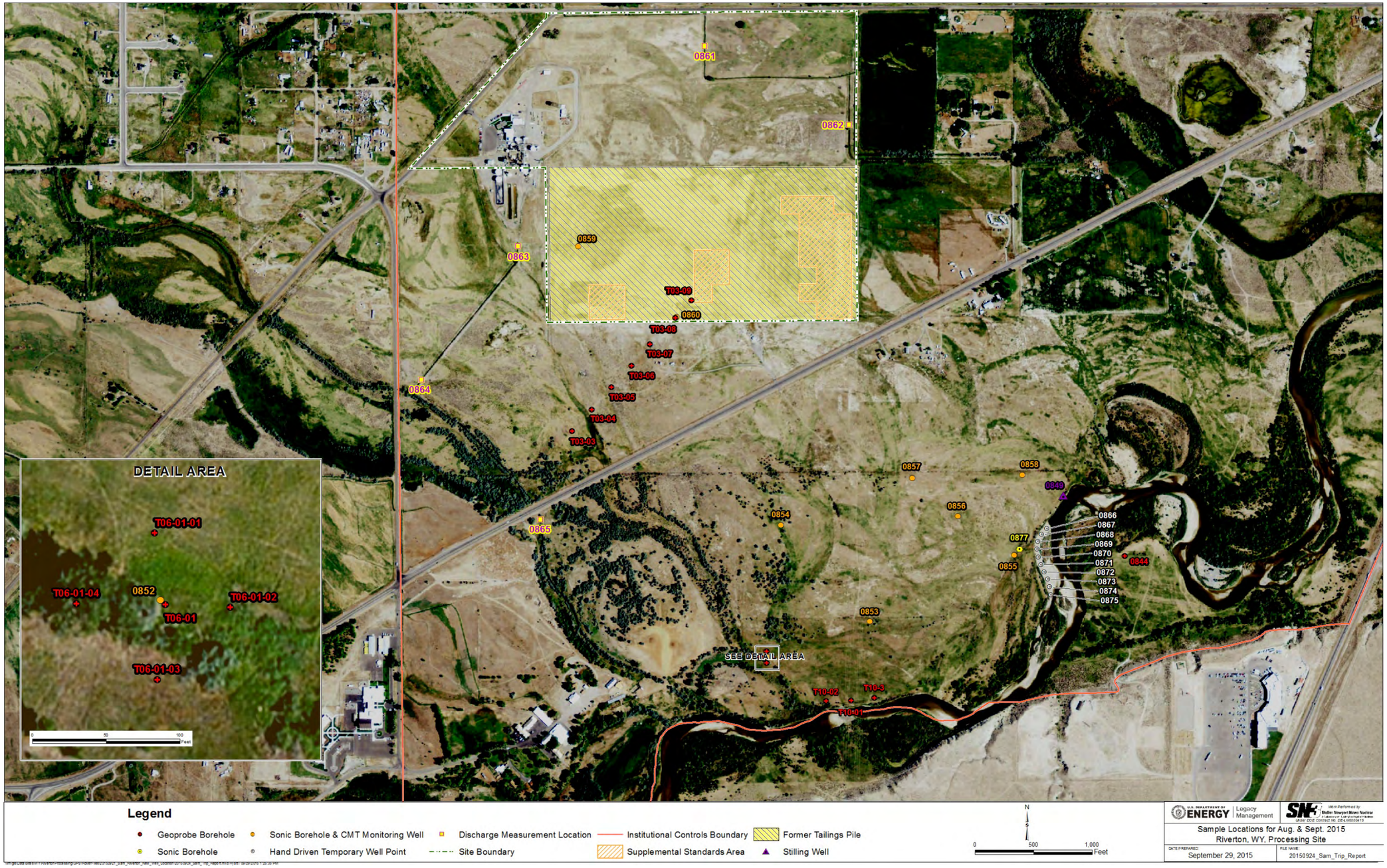

Figure 1. Field Investigation Sampling Locations

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Rotosonic Drilling – Soil Sampling

Boreholes were drilled at 10 locations using the rotosonic drill rig (Figure 2). Soil samples were collected approximately every one-foot interval of the borehole resulting in 148 soil samples (Figure 3). Approximately one-quarter of the core was archived. Samples were preferentially collected within each one-foot interval to obtain organic material, evaporite minerals, and iron staining, if present. Soil sample logs are included in Attachment 1, and photos taken of the sonic core are located at \\lm\gis\Sites_Prod\Sites\WY\RIVERTONPROCESSING\Images\2015\20150826-20150901_Johnson_Drilling

Figure 2. Rotosonic Drill Rig

Figure 3. Soil Core from Borehole 0854

SLAC and Stanford University personnel were on-site to collect and analyze soil samples from selected rotosonic-borehole locations with a focus on naturally-reduced sediments. They also hand-augered numerous boreholes prospecting for naturally-reduced sediments. Soil was collected, and pore-water samplers were installed in several of the boreholes.

Rotosonic Drilling – Well Installation

Three-port CMT monitoring wells coupled with a 1.5-inch PVC well were installed at nine locations as shown in Figure 1. Well Completion Log/Borehole Log forms showing well construction and lithologic descriptions are included in Attachment 2. Photos of a monitoring well construction and a completed monitoring well are shown in Figures 4 and 5, respectively.

Figure 4. CMT and 1.5-inch Well Construction

Figure 5. Completed CMT/1.5-inch Monitoring Well.

Temporary Well-Point Installation

Temporary hand-driven well points were installed at 10 locations shown in Figure 1. All well points were driven to refusal and total depth ranged from 4 to 6 feet below ground surface. A temporary well point is shown in Figure 6.

Figure 6. Hand-Driven Temporary Well Point

Surveying

All new and existing monitoring wells, temporary well-points, discharge measurement locations, a new stilling well, and Wind River locations were surveyed with survey-grade GPS instrumentation. Using the survey-grade GPS instrument, accuracy of the horizontal coordinates was within ± 0.08 feet of the actual location, and the accuracy of the elevations was within ± 0.20 feet of the true elevation, each with a 95 percent confidence interval. Elevations of new monitoring wells, temporary well-points, and the stilling well were further refined by several level-loop surveys using a laser-level, which refined the accuracy to a minimum of ± .016 feet of the true elevation with 95 percent confidence interval. Vertical accuracy for some of the level-loop surveys was as high as ± 0.004 feet of the true elevation. All survey data is displayed in Figure 7 and has been loaded into the environmental database.

Discharge Measurements

Discharge was measured at five locations shown in Figure 1. Discharge measurements were made using the area-velocity method outlined in ASTM procedure D 3858 – 95. Results of the discharge measurements are shown in Table 3.

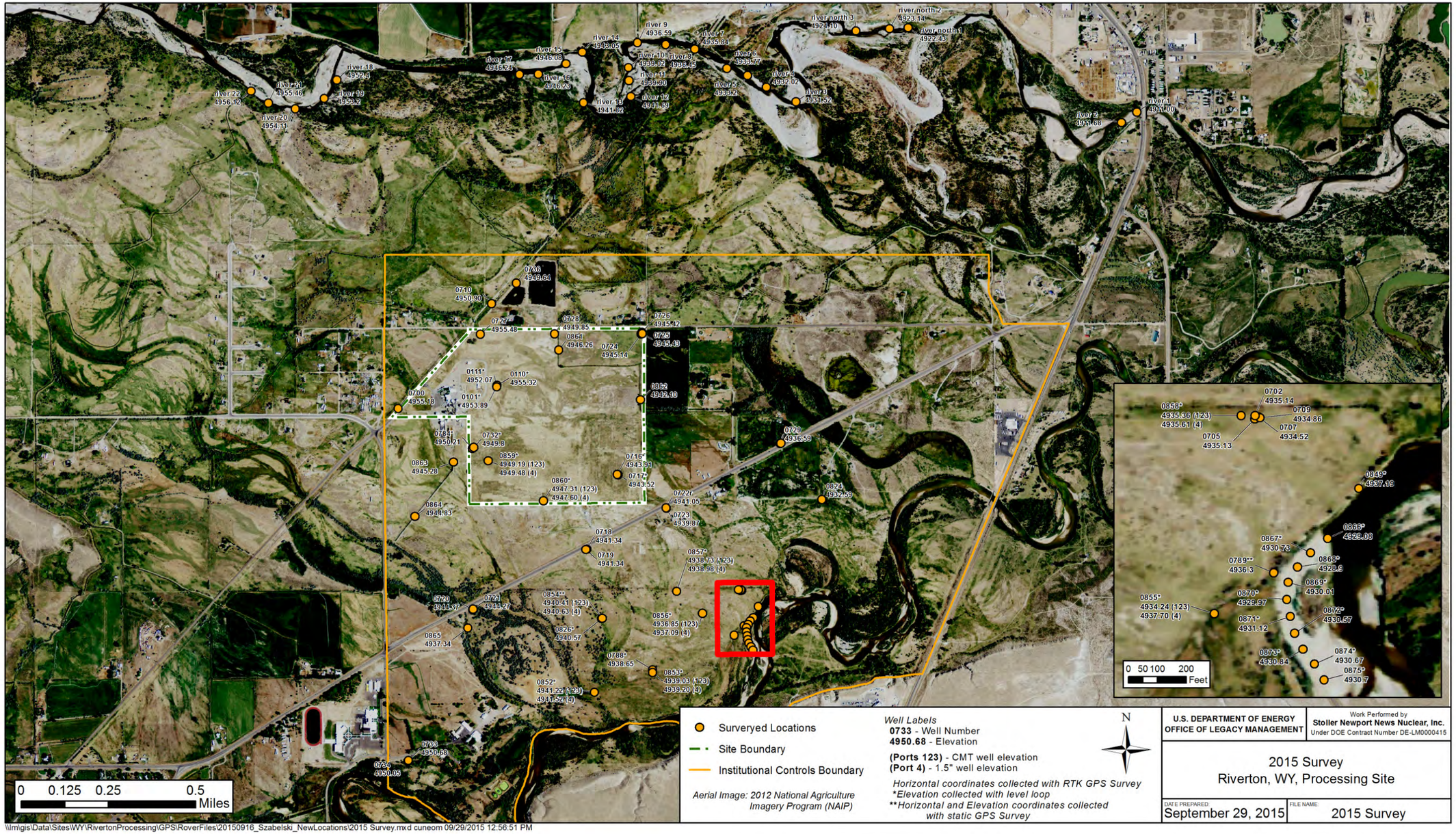

Figure 7. Riverton Survey Data

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Table 3. Discharge Measurement Results

Location ID	Discharge (ft^3/sec)
0861	4.99
0862	4.83
0863	0.27
0864	0.74
0865	0.60

Stilling Well Installation

A stilling well (0849) was installed on the Little Wind River. The location of the stilling well is shown in Figure 1, and a photo of the stilling well is shown in Figure 8. USGS personnel Jim Campbell and Jared Wheeler were onsite to inspect the stilling well installation and concurred with the design.

Figure 8. Meeting at the Stilling Well

Well Development

All new wells were developed by surging and pumping until discharge water was visibly clear.

Quality Control Sample Cross Reference: False identifications assigned to the quality control samples are shown in Table 4.

Table 4. Quality Control Sample Cross-Reference

False ID	Ticket Number	True ID	Sample Type	Associated Matrix	Associated Samples
2771	NJS 600	T06-01	Duplicate	Groundwater	N/A
2772	NJS 601	0999	Equipment Blank	Groundwater	All Geoprobe locations except T06-01
2761	NJS 557	0853-13	Duplicate	Soil	N/A
2762	NJS 558	0853-17	Duplicate	Soil	N/A
2763	NJS 559	0855-02	Duplicate	Soil	N/A
2764	NJS 560	0858-12	Duplicate	Soil	N/A
2765	NJS 561	0877-06	Duplicate	Soil	N/A
2766	NJS 562	0860-02	Duplicate	Soil	N/A
2767	NJS 563	0860-10	Duplicate	Soil	N/A
2768	NJS 564	0859-06	Duplicate	Soil	N/A

Requisition Index Number (RIN) Assigned: Groundwater samples were assigned to RIN 15087311, and soil samples were assigned to RIN 15087309. Field data sheets for groundwater sampling can be found in \\crow\SMS\15087311\FieldData.

Sample Shipment: Groundwater samples were shipped overnight via FedEx from Grand Junction, Colorado, to ALS Laboratory on August 31, 2015. All split samples were hand delivered to the ESL field analyst on the day they were collected. Soil samples were shipped overnight via FedEx from Grand Junction, Colorado, to Test America Denver on September 8, 2015. All additional split soil-samples and archived soil-samples were hand delivered to the ESL on September 3, 2015.

Water Level Measurements: Water levels were measured in all Geoprobe boreholes. These water levels were recorded in the comments section of the field notes in FDCS as depth below ground surface. Water levels were also measured at all existing wells in the monitoring network and will be loaded into the environmental database.

Equipment: All equipment functioned properly, with the exception of the dissolved oxygen (DO) probe. The DO charge was out of the accepted range and the probe was changed on August 26, 2015, after not passing the calibration check. All DO data from August 25, 2015 were affected by the malfunctioning DO probe.

Safety Issues: All drilling locations were cleared for utilities prior to drilling. Anthony Martinez (Health and Safety) inspected and cleared the geoprobe rods after drilling near the supplemental standards area. An odor was noted during drilling, sampling, and development activities at well 0859. No staining of soils or sheen on the water was observed, and subsequent PID readings indicated no significant volatile organic vapors, with maximum readings around 1 ppm. A groundwater sample was provided to ChemTrade personnel, which was analyzed for sulfur reducing bacteria; no sulfur reducing bacteria were detected in the sample.

Stakeholders/Public/Media/DOE: Doe personnel (Bill Dam and Terry Petrosky) were on-site during the entire field investigation to provide oversight of field activities and coordination/integration of the numerous activities and personnel.

Northern Arapaho Environmental Office personnel were on-site during most of the field investigation to provide independent oversight of field activities.
A public meeting hosted by the Northern Arapaho Environmental Office on August 25, 2015, was attended by SN3 and DOE personnel. DOE staffed a table with posters related to the Riverton site and provided information to the public.

KCY13 News did a story on the field investigation, which can be viewed at http://www.kcwy13.com/home/headlines/Organizations-Testing-Groundwater-on-Reservation-for-Contamination-322968031.html

DOE organized a technical meeting on August 29, 2015, to discuss technical project issues, integrate site activities, and to discuss preliminary findings of the field activities. The meeting was attended by numerous personnel including DOE, SN3, SLAC, Stanford University, Los Alamos National Laboratory, and the Northern Arapaho Environmental Office.

(SC/lcg)

cc: (electronic)
Bill Dam, DOE
Terry Petrosky, DOE
John Bargar, SLAC
David Atkinson, SN3
Gretchen Baer, SN3
Sam Campbell, SN3
Steve Donivan, SN3
Craig Goodknight, SN3
Jennifer Graham, SN3
Ray Johnson, SN3
Anthony Martinez, SN3
Sarah Morris, SN3
Jeff Price, SN3
Rob Rice, SN3
Samantha Tigar, SN3
EDD Delivery
rc-grand.junction
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ATTACHMENT 1
Soil Log

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Hole ID	Depth Interval	Date	Time	Description
0852-01	0.5	8/30/2015	1645	Slightly clayey silt, evaporite mottled, some roots
0852-02	1.5	8/30/2015	1647	Silt, very slight evaporite mottling, some roots, slightly damp
0852-03	2.5	8/30/2015	1659	Silt, some clay
0852-04	3.5	8/30/2015	1702	Silt
0852-05	4.5	8/30/2015	1705	Brown clay with cobbles just below sample point
0852-06	5.5	8/30/2015	1710	Silty/sandy gravel, dry, caliche coating on pebbles
0852-07	7.0	8/30/2015	1716	Sandy gravel, dry
0852-08	8.0	8/30/2015	1727	Sandy gravel, damp to wet
0852-09	9.0	8/30/2015	1732	Sandy gravel, wet
0852-10	10.0	8/30/2015	1735	Sandy gravel, wet
0852-11	10.5	8/30/2015	1741	Sandy gravel with some clay
0852-12	11.5	8/30/2015	1746	Sandy gravel with minor clay, less than above
0852-13	12.0	8/30/2015	1751	Sandy gravel, wet, no clay
0852-14	13.0	8/30/2015	1755	Coarse sandy gravel, coarsens downward
0852-15	14.0	8/30/2015	1803	Sandy gravel
0852-16	15.0	8/30/2015	1805	Sandy gravel, very wet, more clay
0852-17	17.0	8/30/2015	1810	Bedrock, weathered sandstone, more clay at top

Hole ID	Depth Interval	Date	Time	Description	Dup #	Dup Time
0853-01	0.5	8/27/2015	1320	Silt, dry, very slight evaporite mottling		
0853-02	1.5	8/27/2015	1322	Silt, dry, very slight evaporite mottling		
0853-03	2.5	8/27/2015	1324	Silt, slightly more evaporite mottling, very slightly damp		
0853-04	3.5	8/27/2015	1332	Silt, slightly more evaporite mottling, very slightly damp, cobbles at bottom		
0853-05	4.0	8/27/2015	1340	Sandy gravel, dry		
0853-06	4.5	8/27/2015	1344	Clean sand lens, gravel again below sample		
0853-07	5.5	8/27/2015	1354	Sandy gravel, slightly damp		
0853-08	6.5	8/27/2015	1356	Sandy gravel, slightly damp, water table around 7 feet		
0853-09	7.5	8/27/2015	1405	Sandy gravel, wet		
0853-10	8.5	8/27/2015	1412	Clean gravel, no sand matrix, wet		
0853-11	10.0	8/27/2015	1415	Clean gravel, no sand matrix, large cobbles		
0853-12	11.0	8/27/2015	1425	Sandy gravel		
0853-13	12.0	8/27/2015	1430	Sandy gravel, more sand at 12.5 ft.	2761	1200
0853-14	14.0	8/27/2015	1440	Sandy gravel		
0853-15	15.0	8/27/2015	1445	Sandy gravel (goes to 16.2 ft.)		
0853-16	16.3	8/27/2015	1450	Gravelly sand for about 2 inches, just at bedrock contract		
0853-17	17.0	8/27/2015	1456	Bedrock	2762	1305

Hole ID	Depth Interval	Date	Time	Description
0854-01	0-0.5	8/26/2015	1613	Silt, slight evaporite mottled, roots
0854-02	0.7-1.2	8/26/2015	1618	Silt, more evaporite mottled, less roots
0854-03	2.0	8/26/2015	1622	Silt, damp, no mottling
0854-04	3.0	8/26/2015	1628	Fine sand, slightyly damp, some roots
0854-05	4.0	8/26/2015	1635	Clean sand, slight iron/organic mottling
0854-06	4.5	8/26/2015	1640	Silty sand with roots
0854-07	6.0	8/26/2015	1650	Clean sand, slight iron/organic mottling, separate photo
0854-08	8.0	8/26/2015	1755	Sandy gravel, wet
0854-09	9.0	8/26/2015	1758	Sandy gravel, wet
0854-10	10.5	8/26/2015	1700	Sandy gravel, wet
0854-11	11.5	8/26/2015	1703	Sandy gravel, wet
0854-12	12.5	8/26/2015	1707	Bedrock, silty sandstone, olive grey

Hole ID	Depth Interval	Date	Time	Description	Dup #	Dup Time
0855-01	0.5	8/28/2015	1030	Silt, dry, roots, evaporite mottled		
0855-02	1.5	8/28/2015	1033	Silt, slightly darker color, more evaporites, less roots	2763	1608
0855-03	2.5	8/28/2015	1038	Clayey silt, lighter color than above, no roots, less evaporites		
0855-04	4.0	8/28/2015	1250	Clayey silt, damp, no evaporites (evaporites to 3.5 ft.)		
0855-05	5.0	8/28/2015	1254	Silty clay, NRZ zone, evaporite mottled at top then red/black mottling		
0855-06	6.0	8/28/2015	1335	Silty clay, NRZ zone, black organics, no mottling		
0855-07	7.5	8/28/2015	1435	Gravelly sand with clay zones		
0855-08	8.5	8/28/2015	1440	Sandy gravel, large cobbles		
0855-09	9.5	8/28/2015	1445	Sandy gravel, slightly smaller cobbles		
0855-10	11.0	8/28/2015	1750	Sandy gravel, more sand in matrix than above		
0855-11	13.0	8/28/2015	1753	Sandy gravel		
0855-12	15.0	8/28/2015	1755	Sandy gravel, more clay than above		
0855-13	16.5	8/28/2015	1500	Sandy gravel, jumbled core interval		
0855-14	17.7	8/28/2015	1800	Sandy gravel, some clay		
0855-15	18.5	8/28/2015	1805	Bedrock, silty sandstone		

Hole ID	Depth Interval	Date	Time	Description
0856-01	0.5	8/28/2015	1625	Silt, dry
0856-02	1.5	8/28/2015	1628	Silt, minor clay, very slightly damp
0856-03	2.5	8/28/2015	1635	Silt, slightly damp, very slight evaporite mottling
0856-04	3.5	8/28/2015	1640	Sandy gravel, dry to very slightly damp
0856-05	5.5	8/28/2015	1645	Sandy gravel, damp, no 4/5 ft. sample due to poor recovery
0856-06	6.5	8/28/2015	1650	Sandy gravel, wet
0856-07	7.5	8/28/2015	1652	Sandy gravel, wet
0856-08	8.5	8/28/2015	1654	Sandy gravel, wet
0856-09	9.5	8/28/2015	1700	Sandy gravel, wet
0856-10	10.5	8/28/2015	1703	Sandy gravel, slighlty smaller cobbles
0856-11	11.2	8/28/2015	1710	Sandy gravel, slighlty smaller cobbles
0856-12	12.0	8/28/2015	1715	Bedrock, siltstone

Hole ID	Depth Interval	Date	Time	Description
0857-01	0.5	8/30/2015	1124	Sandy/silty gravel, dry, caliche coating on gravel
0857-02	1.5	8/30/2015	1130	Sandy/silty gravel, dry, caliche coating on gravel
0857-03	2.5	8/30/2015	1133	Gravelly silt, slight evaporite mottling color change from gray to brown at 2 ft.
0857-04	3.0	8/30/2015	1140	Sandy gravel, very slightly damp
0857-05	5.0	8/30/2015	1143	Sandy gravel, damp
0857-06	7.0	8/30/2015	1145	Sandy gravel, damp
0857-07	8.0	8/30/2015	1157	Sandy gravel, wet
0857-08	9.0	8/30/2015	1200	Sandy gravel, wet
0857-09	10.0	8/30/2015	1205	Sandy gravel, slight bits of silt (bedrock chunks?)
0857-10	10.5	8/30/2015	1215	Sandy gravel, slight bits of silt (bedrock chunks?)
0857-11	11.0	8/30/2015	1225	Bedrock, clayey/silty sandstone, gray
0857-12	11.5	8/30/2015	1230	Bedrock, lighter gray, cleaner sandstone

Hole ID	Depth Interval	Date	Time	Description	Dup #	Dup Time
0858-01	0.5	8/29/2015	1410	Silt, roots, evaporite mottling		
0858-02	1.5	8/29/2015	1415	Silt, some roots, some evaporite mottling		
0858-03	2.5	8/29/2015	1418	Silt, some roots, some evaporite mottling		
0858-04	3.0	8/29/2015	1428	Sandy gravel		
0858-05	4.5	8/29/2015	1432	Sandy gravel, slightly coarser sand than above and more sand, damp		
0858-06	6.0	8/29/2015	1445	Sandy gravel, same as 4.5 ft.		
0858-07	7.0	8/29/2015	1450	Sandy gravel, same as 4.5 ft., wet		
0858-08	8.0	8/29/2015	1452	Sandy gravel, wet		
0858-09	9.0	8/29/2015	1455	Sandy gravel, wet		
0858-10	10.5	8/29/2015	1503	Sandy gravel, wet		
0858-11	12.0	8/29/2015	1505	Sandy gravel, wet		
0858-12	13.0	8/29/2015	1512	Clean coarse sand	2764	1430
0858-13	14.0	8/29/2015	1515	Gravelly sand (more gravel than 13 ft.)		
0858-14	15.0	8/29/2015	1520	Sandy gravel		
0858-15	16.0	8/29/2015	1533	Sandy gravel, bedrock silt chunks mixed in		
0858-16	17.0	8/29/2015	1535	Sandy gravel, bedrock silt chunks mixed in		
0858-17	18.0	8/29/2015	1540	Bedrock, gray siltstone		

Hole ID	Depth Interval	Date	Time	Description	Dup #	Dup Time
0859-01	0.5	9/1/2015	920	Silt, dry, very slight evaporite mottling, some roots		
0859-02	1.5	9/1/2015	922	Very fine sand, dry		
0859-03	2.5	9/1/2015	925	Tight clay, white layering/coatins, some slight Fe staining, took separate sample		
0859-04	3.5	9/1/2015	940	Fine sand, brown, slighlty damp, fill?		
0859-05	4.5	9/1/2015	945	Silty clay, just above sandy gravel, slight evaporite layering and Fe stain layering, bottom of fill?		
0859-06	5.5	9/1/2015	950	Sandy gravel, damp	2768	805
0859-07	7.0	9/1/2015	1000	Sandy gravel, wet, start of slight chemical smell		
0859-08	8.0	9/1/2015	1005	Coarse sand, cleaner fine sand below (not sampled),		
0859-09	8.5	9/1/2015	1007	Clean fine sand, very wet, chemical smell		
0859-10	9.0	9/1/2015	1022	Sandy gravel, some chemical smell		
0859-11	10.5	9/1/2015	1035	Sandy gravel, slight clay, chemical smell		
0859-12	11.5	9/1/2015	1041	Gravel in weathered bedrock, slight chemical smell		
0859-13	12.5	9/1/2015	1045	Clayey siltstone bedrock, slight chemical smell, pyritic and evaporite layer, more gray and drier below		

Hole ID	Depth Interval	Date	Time	Description	Dup #	Dup Time
0860-01	0.5	8/31/2015	1450	Silty fill		
0860-02	1.5	8/31/2015	1455	Silt, evaporite coatings	2766	730
0860-03	2.5	8/31/2015	1500	Tight clay, some silt, some evaporite coating, separate photo		
0860-04	3.5	8/31/2015	1515	Silt, damp, very slight evaporite mottling		
0860-05	4.5	8/31/2015	1518	Clayey silt, damp, some evaporite coatings, took separate sample at 5 ft. with pyrite (?) and evaporite coatings, cobble 5 ft. plus		
0860-06	5.5	8/31/2015	1530	Silty/sandy gravel, very slightly damp, sandier at 5.7-6 ft (archived only no sample)		
0860-07	6.5	8/31/2015	1540	Sandy gravel, slightly damp		
0860-08	8.0	8/31/2015	1546	Sandy gravel, slightly damp		
0860-09	9.0	8/31/2015	1552	Sandy gravel, wet		
0860-10	10.0	8/31/2015	1555	Sandy gravel, wet	2767	900
0860-11	11.0	8/31/2015	1600	Sandy gravel, wet		
0860-12	12.0	8/31/2015	1605	Clean med/coarse sand, wet		
0860-13	13.0	8/31/2015	1610	Sand with some cobbles		
0860-14	14.5	8/31/2015	1615	Sand with some cobbles		
0860-15	15.5	8/31/2015	1620	Clean coarse sand		
0860-16	16.5	8/31/2015	1625	Sandy gravel		
0860-17	17.5	8/31/2015	1630	Bedrock, clayey siltstone		

Hole ID	Depth Interval	Date	Time	Description	Dup #	Dup Time
0877-01	0.5	8/30/2015	1435	Silt, slight evaporite mottling, roots		
0877-02	1.5	8/30/2015	1440	Silt, strong evaporite mottling, some roots		
0877-03	2.5	8/30/2015	1445	Silt, organic rich with evaporites, took separate sample		
0877-04	3.5	8/30/2015	1545	Silt, evaporite mottling		
0877-05	4.5	8/30/2015	1550	Clayey silt, red/black mottling, NRZ, sulfide oxidation smell		
0877-06	5.5	8/30/2015	1450	Silty clay, red/black mottling, NRZ	2765	1330
0877-07	6.5	8/30/2015	1455	Silty gravel, mixed with some NRZ like clayey silt		
0877-08	7.5	8/30/2015	1500	Sandy gravel, wet, some clay/silt		
0877-09	8.5	8/30/2015	1510	Silt, brown, with gravel (slough from above ?)		
0877-10	9.5	8/30/2015	1520	Sandy gravel		
0877-11	10.5	8/30/2015	1522	Sandy gravel		
0877-12	11.5	8/30/2015	1525	Sandy gravel		
0877-13	12.5	8/30/2015	1530	Sandy gravel		
0877-14	13.5	8/30/2015	1533	Sandy gravel		
0877-15	14.5	8/30/2015	1535	Silty/sandy gravel, with bits of bedrock (?)		
0877-16	15.0	8/30/2015	1540	Bedrock, silty claystone		

ATTACHMENT 2
Well Completion Log/Borehole Log

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U.S. Department of Energy Office of Legacy Management

Well Completion Log/Borehole Log

Date: Aug 30, 2015 Well Number: 852
Site Name: Riverton Processing State: WY
Rig Type: Geoprobe 8140 LS Bit/Auger Size (in.): 8
Drilling Company: Cascade Drilling Drill Operator: Jeffrey Johnson
Drilling Start Date: 8/30/15 Drilling End Date: 8/30/15
Drilling Method: Rotasonic Sampling Method: Grab / Hand

Ground Elevation (ft):
Hole Depth (bgs-ft): 18.0
Well Depth (bgs-ft): 15.0
Stick-Up Height (ft):
Slot Size: 0.01 in

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing	Sch 40 PVC	1.5 in.	0 to 14.0
Well Screen	Sch 40 PVC	1.5 in., 0.01 in. slot	14.0 to 15.0
Sump/End Cap	Sch 40 PVC	1.5 in.	15.0 to 15.1
Grout			to
Bentonite Seal		3/8 in. pellets	7 to 8
Upper Sand Pack	Colorado Silica	20-40 mesh	2 to 7
Lower Sand Pack	Colorado Silica	20-40 mesh	8 to 18

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s): C. Goodknight / R. Johnson
Comments: Well CMT Sample ports at 1: 5-5.5 ft; 2: 9.5-10 ft; and 3: 12-12.5 ft
CMT and PVC well string installed early on 8/31.

Depth* (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-4.5 Silt, ML, 0-1 ft is brown (10YR 5/3) tr. roots down to ~2 ft; grayish brown (10YR 5/2) at ~1 ft; white flecks (caliche) mottling ~1-2 ft; pale brown (10YR 6/3) at ~2 ft; @ ~4 ft, brown (10YR 5/3)
5						4.5-6 Silty Gravel, GM, ~30% gravel w/ clasts as large as 2 in. dia., fn-med gr sand matrix, gray (10YR 5/1); damp at ~4.5'
						6-15 Sandy Gravel, GW, ~30-40% gravel w/ clasts as large as 3 in. dia. 4-5 in. clasts @ 6.5-7.5 ft; dry; Sand matrix mostly med. gr. ~7-8 ft, brown (7.5YR 5/2); mean Sat'd. 8-8.5
10						~50% gravel w/ clasts as large as 5 in. dia. Sat'd ~9.5 ft; matrix is grayish brown (10YR 5/2); Sandy gravel, as above; Coarse sand matrix ~12-13 ft; Gravel clasts as large as 4 in. dia., med. gr. sand matrix, grayish brown (10YR 5/2); wet
15						15-18 Wind River Formation, weathered fn. gr. sandstone, soft, friable, light olive gray (5Y 5/2). TD - 18.0 ft
20						

* all depths measured from ground level

Completed By: C. Goodknight Verified By: [signature]

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Well Completion Log/Borehole Log

Date: 8/27/15 Well Number: 853
Site Name: Riverton Processing Site State: WY
Rig Type: Geoprobe 8140 LS Bit/Auger Size (in.): 8
Drilling Company: Cascade Drilling Drill Operator: Jeffrey Johnson
Drilling Start Date: 8/27/15 Drilling End Date: 8/27/15
Drilling Method: Rotasonic Sampling Method: Grab/Hand

Ground Elevation (ft):
Hole Depth (bgs-ft): 17.5
Well Depth (bgs-ft): 16.0
Stick-Up Height (ft):
Slot Size: 0.01 in

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing	Sch 40 PVC	1.5 in.	0 to 15
Well Screen	Sch 40 PVC	1.5 in., 0.01 in. slot	15 to 16
Sump/End Cap	Sch 40 PVC	1.5 in	16.0 to 16.1
Grout			to
Bentonite Seal		3/8 in. pellets	to
Upper Sand Pack			to
Lower Sand Pack			to

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s): C Goodknight / R. Johnson
Comments: CMT sample ports at 1: 3.5-4ft; 2: 7.5-8ft; and 3: 11.5-12 ft
Well is about 40 ft S of Well 778

Depth* (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-3.5 Silt, ML, light yellowish brown (10YR6/4) 0-6 in is A horizon; tr roots down to ~1.5 ft; tr white specks of caliche to 2.5 ft; ~10% very fine gr sand; ~3' brown (10YR5/3) dry
						3.5-4.5 Sandy Gravel, GW, gravel ~40%, matrix sand mostly fine gr
5						4.5-5 Gravelly Sand, SP, ~10% gravel, light brownish gray (10YR6/1), mostly fn-med gr sand ~75%
						5-6 Sandy Gravel, GW, ~60% gravel as large as 4 in dia
						6-7 Sand, SP, mostly fine grained, consisting of quartz
						7-12 Sandy Gravel, GW, ~50% gravel as large as 4 in dia, matrix sand mostly fn-med gr, grayish brown (10YR5/2), dry at 7 ft, wet @ 7.5 ft; 8.5-10 ~70% gravel as large as 4 in dia
10						10-12 ~40% gravel as large as 2 in. dia
						12-12.5 Gravelly Sand, SP, sand is mostly med gr, ~10% gravel, wet
						12.5-16 Sandy Gravel, GW, ~40% gravel as large as 3 in dia, matrix sand mostly med gr and gray (7.5YR5/1)
15						
						16-17.5 Wind River Formation, silty claystone, weathered, soft, dry below 17 ft, light olive gray (5Y6/1)
					TD	TD: 17.5 ft
20						

* All depths measured from ground level

Completed By: C Goodknight Verified By:

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Well Completion Log/Borehole Log

Date: 8/26/15 Well Number: 854 Ground Elevation (ft):
Site Name: Riverton Processing Site State: WY Hole Depth (bgs-ft): 12.5
Rig Type: Geoprobe 8140LS Bit/Auger Size (in.): 8 Well Depth (bgs-ft): 12.0
Drilling Company: Cascade Drilling Drill Operator: Jeffrey Johnson Stick-Up Height (ft):
Drilling Start Date: 8/26/15 Drilling End Date: 8/26/15 Slot Size: 0.01 in
Drilling Method: Rotasonic Sampling Method: Grab/hand

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing	Sch 40 PVC	1.5 in.	0 to 11
Well Screen	Sch 40 PVC	1.5 in., 0.01 in. slot	11 to 12
Sump/End Cap	Sch 40 PVC	1.5 in.	12 to 12.1
Grout			to
Bentonite Seal		3/8 in. pellets	4.5 to 5.5
Upper Sand Pack	Colorado Silica	20-40 mesh	2.0 to 4.5
Lower Sand Pack	Colorado Silica	20-40 mesh	5.5 to 12.5

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s): C. Goodknight / R. Johnson
Comments: Well and CMT installed early in 8/27. CMT sample ports at 1: 3-3.5 ft; 2: 6.5-7 ft; and 3: 9-9.5 ft. Well is about 16 ft E of Well 826.

Depth* (ft)	Blows Per 6"	PID ppm	Sample No.: Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-3 ML, Silt, pale brown (10YR6/3). A horizon at 0-1 ft. Trace white specks of caliche 0-1.5 ft. Trace roots 0-2 ft. Dry 0-2 ft. Slightly damp just below 2 ft. Increasing amount of very fine gr sand from 6.5-9.5 ft and color is gray (7.5YR 5/1).
5						3-6.5 Sand, SP, mostly fn gr. damp
					lost	@ ~6 ft, gray (10YR 5/1) lost 6.5-7.5 ft due to cobble. damp wet @ 6.5 ft
10						7.5-12.5 Sandy Gravel, GW, ~50% gravel as large as 2 in. diam, Sand matrix mostly med-fn gr, gray (7.5YR 5/1). ~11 ft cobbles as large as 4 in. diam.
						12-12.5 Wind River Formation, weathered fine grained sandstone, light olive gray (5Y6/1), soft, friable.
15						TD-12.5 ft
20						

*All depths measured from ground level

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Well Completion Log/Borehole Log

Date: 8/28/15 Well Number: 855 Ground Elevation (ft):
Site Name: Riverton Processing Site State: WY Hole Depth (bgs-ft): 19.0
Rig Type: Geoprobe 8140 LS Bit/Auger Size (in.): 8 Well Depth (bgs-ft): 18.0
Drilling Company: Cascade Drilling Drill Operator: Jeffrey Johnson Stick-Up Height (ft):
Drilling Start Date: 8/28/15 Drilling End Date: 8/28/15 Slot Size: 0.01 in.
Drilling Method: Rotasonic Sampling Method: Grab/Hand

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing	Sch 40 PVC	1.5 in.	0 to 17
Well Screen	Sch 40 PVC	1.5 in., 0.01 in. slot	17 to 18
Sump/End Cap	Sch 40 PVC	1.5 in.	18.0 to 18.1
Grout			to
Bentonite Seal		3/8 in. pellets	to
Upper Sand Pack			to
Lower Sand Pack			to

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s): C. Goodknight and R. Johnson
Comments: CMT sample ports at 1: 3-3.5 ft; 2: 7.5-8 ft; and 3: 12.5-13 ft
Final well string (PVC and CMT) was set about 0.25 ft lower than shown in well diagram
Well about 10 ft NW of Backhoe Trench BHT-1

Depth* (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-4 Silt, ML, A horizon 0-6 in. w/roots, brown (7.5YR 4/2) 1-3 ft, Mottling w/white calcareous flecks. Tr. roots down to 2.5 ft 0.5-4 ft, Brown (7.5YR 5/3). Damp at 2 ft
5						4-7.0 Clayey Silt, ML, brown (7.5YR 4/3) ~10% very fine sand ~10-20% clay 4-5 ft is mottled w/ root brown to black color tr. mica flecks Wet ~4.5 ft dark gray (7.5YR 4/1) ~4.5-7 ft
						7-18 Sandy Gravel, GW, ~50% gravel w/clasts as large as 3 in dia, matrix sand mostly med gr, gray (7.5YR 5/1) dark gray (10YR 4/1) fn color of interior of NR2 area tr. mica flecks Wet
10						From ~13-15 ft, gravel coarsens downward wet
15						Very coarse gravel, as large as 4-5 in dia, ~60% gravel, sand matrix mostly med gr and grayish brown (10YR 5/2).
20						18-19 Wind River Formation, siltstone, weathered, soft, greenish gray (5GY 6/1), tr. fine pyrite TD-19.0 ft

* all depths measured from ground level

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Well Completion Log/Borehole Log

Date: 8/28/15 Well Number: 856 Ground Elevation (ft):
Site Name: Riverton Processing Site State: WY Hole Depth (bgs-ft): 12.5
Rig Type: Geoprobe 8140 LS Bit/Auger Size (in.): 8 Well Depth (bgs-ft): 11.5
Drilling Company: Cascade Drilling Drill Operator: Jeffrey Johnson Stick-Up Height (ft):
Drilling Start Date: 8/28/15 Drilling End Date: 8/28/15 Slot Size: 0.01 in.
Drilling Method: Rotasonic Sampling Method: Grab/hand

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing	Sch 40 PVC	1.5in.	0 to 10.5
Well Screen	Sch 40 PVC	1.5in. 0.01in. slot	10.5 to 11.5
Sump/End Cap	Sch 40 PVC	1.5 in.	11.5 to 11.6
Grout			to
Bentonite Seal		3/8 in. pellets	4.5 to 5.5
Upper Sand Pack	Colorado Silica	20-40 Mesh	2.0 to 4.5
Lower Sand Pack	Colorado Silica	20-40 Mesh	5.5 to 12.5

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s): C. Goodknight and R. Johnson
Comments: CMT Sample ports at 1: 3-3.5 ft; 2: 6.5-7 ft; and 3: 8.5-9 ft
Well about 10 ft NW of Backhoe Trench BHT-3
CMT and PVC well string installed early on 8/29.

Depth* (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-3 Silt, ML, brown (7.5YR5/3) tr roots down to ~3 ft tr mottling w/ white calcite specks
						3-5 Sandy Gravel, GW, ~30% gravel as large as 4 in dia, sand matrix mostly fn gr and grayish brown (10YR5/2)
5						5-6 Gravelly Sand, SP, ~10-15% gravel as large as 2 in dia matrix sand mostly fn-med gr and grayish brown (10YR5/2)
						6-11.5 Sandy Gravel, GW, ~40% gravel as large as 4 in. dia. Matrix sand mostly med gr, brown (7.5YR4/2) Wet Wet ~6.5 ft
10						Very coarse gravel, as large as 6 in dia, coarse at 10.5-11 ft
						11.5-12.5 Wind River Formation, weathered siltstone, light olive gray (5Y6/2), soft, becomes dry and harder at 12-12.5 ft
						TD - 12.5 ft
15						
20						

* all depths measured from ground level

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Well Completion Log/Borehole Log

Date: Aug 30, 2015 Well Number: 857
Site Name: Riverton Processing State: WY
Rig Type: Geoprobe 8140 LS Bit/Auger Size (in.): 8
Drilling Company: Cascade Drilling Drill Operator: Jeffrey Johnson
Drilling Start Date: 8/30/15 Drilling End Date: 8/30/15
Drilling Method: Rotasonic Sampling Method: Grab/Hand

Ground Elevation (ft):
Hole Depth (bgs-ft): 11.5
Well Depth (bgs-ft): 10.8
Stick-Up Height (ft):
Slot Size: 0.01 in.

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing	Sch 40 PVC	1.5 in.	0 to 9.8
Well Screen	Sch 40 PVC	1.5 in., 0.01 in. slot	9.8 to 10.8
Sump/End Cap	Sch 40 PVC	1.5 in.	10.8 to 10.9
Grout			to
Bentonite Seal		3/8 in. pellets	5 to 5.5
Upper Sand Pack	Colorado silica	20-40 mesh	2 to 5
Lower Sand Pack	Colorado silica	20-40 mesh	5.5 to 11.5

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s): C Goodknight / R. Johnson
Comments: CMT Sample Ports at 1: 3.5-4.0 ft; 2: 6.5-7 ft; and 3: 8-8.5 ft

Well about 10 ft NW of BHT-4

Depth* (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-2.5 Silty Gravel, GM, ~50% gravel w/ clasts as large as 3 in dia, silt matrix - distinct silty layer 2-2.5 ft is light yellowish brown (10YR6/6)
						0-2 matrix color is light gray (10YR7/1) Tr roots down to 2 ft.
						2.5-10.8 Sandy Gravel, GW, ~50% gravel sand matrix mostly med-fn gr., brown (10YR5/3) damp at 5 ft
5						@6 ft, fn. sand matrix is light gray (10YR 7/1) dry
						Saturated ~7.5 ft
						matrix sand is dark grayish brown (10YR4/2) pebbles/cobbles as large as 3 in. dia.
10						10.8-11.5 Wind River Formation, sandstone, weathered, friable to competent, light olive gray (5Y6/1), some hard sandstone layers, tr. pyrite
						TD-11.5 ft
15						
20						

* All depths measured from ground level

Completed By: C. Goodknight Verified By: [signature]

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Well Completion Log/Borehole Log

Date: Aug 29, 2015 Well Number: 858
Site Name: Riverton, WY, Processing State: WY
Rig Type: Geoprobe 8140 LS Bit/Auger Size (in.): 8
Drilling Company: Cascade Drilling Drill Operator: Jeffrey Johnson
Drilling Start Date: 8/29/15 Drilling End Date: 8/29/15
Drilling Method: Rotasonic Sampling Method: Hand/Grab

Ground Elevation (ft):
Hole Depth (bgs-ft): 18.0
Well Depth (bgs-ft): 17.7
Stick-Up Height (ft):
Slot Size: 0.01 in.

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing	Sch 40 PVC	1.5 in.	0 to 16.7
Well Screen	Sch 40 PVC	1.5 in, 0.01 in. slot	16.7 to 17.7
Sump/End Cap	Sch 40 PVC	1.5 in.	17.7 to 17.8
Grout			to
Bentonite Seal		3/8 in. pellets	to
Upper Sand Pack			to
Lower Sand Pack			to

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s): C Goodknight, R Johnson
Comments: CMT Sample ports at 1: 3-3.5 ft; 2: 7.5-8 ft; and 3: 12.5-13 ft
Well about 10 ft NW of Backhoe Trench BHT-5
Final well string (PVC and CMT) was set about 0.2 ft lower than shown in well diagram

Depth* (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-2.5 Silt, ML 0-6 in. is A horizon, grayish brown (10YR5/2) dry Tr roots down to ~2 ft 2.5-12.5 Sandy Gravel, GM, ~40% gravel w/clasts as large as 4 in. dia.
5						wet at 7 ft Matrix sand is med-fn grained dark grayish brown (10YR4/2) Clasts as large as 5 in. dia.
10						12.5-17.7 Gravelly Sand, SP, ~75% sand, 15-20% gravel w/clasts as large as 3 in. dia. ~90% sand at 13 ft, gravel % increases downward Sand mostly med gr., gray (7.5YR 5/1). At 15 ft, cobbles as large as 5 in. dia.
15						From 15-17.7 ft is Gravelly sand to sandy gravel ~20% gravel w/clasts ~2 in. dia. 17.7-18.0 Wind River Formation, weathered silty claystone, soft, med dark gray (N4) to olive gray (5Y 3/2) TD ~ 18.0 ft
20						

*All depths measured from ground level.

Completed By: C. Goodknight Verified By: Sam Campbell

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Well Completion Log/Borehole Log

Date: Sept. 1, 2015 Well Number: 859
Site Name: Riverton Processing State: WY
Rig Type: Geoprobe 8140 LS Bit/Auger Size (in.): 8
Drilling Company: Cascade Drilling Drill Operator: Jeffrey Johnson
Drilling Start Date: 9/1/15 Drilling End Date: 9/1/15
Drilling Method: Rotasonic Sampling Method: Grab/Hand

Ground Elevation (ft):
Hole Depth (bgs-ft): 12.5
Well Depth (bgs-ft): 11.5
Stick-Up Height (ft):
Slot Size: 0.01 in.

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing	Sch 40 PVC	1.5 in.	0 to 10.5
Well Screen	Sch 40 PVC	1.5 in., 0.01 in. slot	10.5 to 11.5
Sump/End Cap	Sch 40 PVC	1.5 in.	11.5 to 11.6
Grout			to
Bentonite Seal			to
Upper Sand Pack			to
Lower Sand Pack	Colorado Silica	20-40 mesh	2 to 12.5

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s): C. Goodknight / R. Johnson
Comments: Well CMT sample ports at 1: 4.5-5 ft; 2: 6.5-7 ft; and 3: 8.5-9 ft. In former tailings pile area; accessed through ChemTrade property. Screened interval at 10.5 to 11.5 ft straddles the alluvium/bedrock contact at 11 ft.

Depth[a] (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-4.7 Silt, ML, tr. roots down to ~1.5 ft. 0-1 ft pale brown (10YR 6/3) tr. mottling. dry. 1-4.7 ft, yellowish brown (10YR 5/4). ~20% clay at ~4-4.7 ft. Base of fill ~ 9.7 ft
5						4.7-11 Sandy Gravel, GW, ~50% gravel, clasts as large as 1 in. dia.; sand matrix is mostly med gr. and grayish brown (10YR 5/2). damp ~5.5 ft. saturated @ 7 ft
10						Petrochemical odor at ~8.5 ft, possibly associated w/a more clayey lens in the gravel. wet. ~~Large clasts at ~10-10.5 ft as large as 5 in. dia.~~
						11-12.5 Wind River Formation, siltstone, unweathered, soft, mixed gravel and clayey siltstone at 11-11.5 ft. More competent siltstone from 11.5-12.5 ft, olive gray (5Y 4/1), tr disseminated fine pyrite. (This interval is greenish gray (5GY 6/1) to light olive gray (5Y 6/1))
15						TD 12.5 ft
20						

[a]All depths measured from ground level

Completed By: C. Goodknight Verified By: [signature]

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Well Completion Log/Borehole Log

Date: Aug 31, 2015 Well Number: 860
Site Name: Riverton Processing State: WY
Rig Type: Geoprobe 8140 LS Bit/Auger Size (in.): 8
Drilling Company: Cascade Drilling Drill Operator: Jeffrey Johnson
Drilling Start Date: 8/30/15 Drilling End Date: 8/30/15
Drilling Method: Rotasonic Sampling Method: Grab/Hand

Ground Elevation (ft):
Hole Depth (bgs-ft): 18.0
Well Depth (bgs-ft): 17.0
Stick-Up Height (ft):
Slot Size: 0.01 in.

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing	Sch 40 PVC	1.5 in.	0 to 16
Well Screen	Sch 40 PVC	1.5 in., 0.01 in. slot	16.0 to 17.0
Sump/End Cap	Sch 40 PVC	1.5 in.	17.0 to 17.1
Grout			to
Bentonite Seal			to
Upper Sand Pack			to
Lower Sand Pack	Colorado Silica	20-40 mesh	2 to 18

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s): C Goodknight / R. Johnson
Comments: Well CMT Sample ports at 1: 7-7.5 ft; 2: 10-10.5 ft; and 3: 13-13.5 ft. In former tailings pile area; accessed through ChemTrade property.

Depth[a] (ft)	Blows Per 6"	PID ppm	Sample No.; Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-4.8 Silt, ML, light brownish gray (10YR6/2) dry Fill tr. roots down to ~1.5 ft ~10% vfn gr sand damp ~2.5 to 4.8 ft ~3 ft, color is a grayish brown (10YR5/2) Base of fill ~4.8 ft
5						4.8-6 Silty Gravel, GM, ~30% gravel w/clasts as large as 2 in dia, silt matrix is pale brown (10YR6/3). dry 6-10.2 Sandy Gravel, GW, ~40-50% gravel w/clasts as large as 3 in. dia. damp @ ~8.3 ft Sand matrix is mostly fine to med gr and grayish brown (10YR5/2).
10						Saturated @ 10 ft 10.2-12.5 Sand, SP, ~90% sand, mostly med-fn gr and brown (7.5YR5/2). ~10% pebbles as large as 1 in dia 12.5-17 Sandy Gravel, GW, ~50-60% gravel w/clasts as large as 4 in dia, fn to med gr matrix sand is grayish brown (10YR5/2).
15						~15-17 ft, matrix sand mostly med gr and gray (10YR5/1). Very coarse cobbles near base of alluvium (~5-6 in dia) 17.0-18.0 Wind River Formation, siltstone, @17-17.5 ft is weathered and greenish gray (5GY6/1) and @17.5-18 ft is slightly weathered and medium gray (N5). TD - 18 ft
20						

[a] All depths measured from ground level

Completed By: C. Goodknight Verified By: [signature]

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Well Completion Log/Borehole Log

Date: Aug 30, 2015 borehole Well Number: 877
Site Name: Riverton Processing State: WY
Rig Type: Geoprobe 8140 LS Bit/Auger Size (in.): 8
Drilling Company: Cascade Drilling Drill Operator: Jeffrey Johnson
Drilling Start Date: 8/30/15 Drilling End Date: 8/30/15
Drilling Method: Rotasonic Sampling Method: Grab/Hand

Ground Elevation (ft):
Hole Depth (bgs-ft): 15.0
Well Depth (bgs-ft):
Stick-Up Height (ft):
Slot Size:

	Well Material Type	Size	Interval (bgs-ft)
Surface Casing			to
Blank Well Casing			0 to
Well Screen			to
Sump/End Cap			to
Grout			to
Bentonite Seal			to
Upper Sand Pack			to
Lower Sand Pack			to

Location Sketch

Developed Date: Water Date: Water Level:
Geologist/Sampler(s): C. Goodknight, R. Johnson
Comments: Borehole only, no well or CMT installation

Depth* (ft)	Blows Per 6"	PID ppm	Sample No./ Interval	Well Construction	Graphic Log	Description: Typical name; Unified Soil Classification; Munsell soil color; Rock Color Chart; percentage sand and gravel; sorting (poor to well); grain angularity; induration or plasticity; moisture content (moist to saturated)
0						0-4 Silt, ML, A horizon is 0-6in. 0-2 ft is grayish brown (10YR 5/2) 2-4 ft is dark gray (10YR 4/1) Mottling @ 1-2.5 ft w/white calcareous flecks.
5						4-6.5 Clayey Silt, ML ~4 ft is brown (10YR 5/2) ~4.5 ft is dark gray (7.5YR 4/1) wet ~4.5 ft ~10% very fn gr. sand.
						6.5-14.5 Sandy Gravel, GW, ~50% gravel w/clasts as large as 4 in dia. Brown (7.5YR 5/2). Matrix sand mostly med gr., gray (7.5YR 5/1) wet
10						Coarse gravel, as above Matrix is gray, (7.5YR 5/1) ~50-60% gravel Coarsening downward to ~13 ft
						13-14.5 ft ~50% gravel w/clasts as large as 3 in dia. med. gr sand matrix
15						14.5-15.0 Wind River Formation, siltstone, weathered, soft, greenish gray (5GY 6/1)
						TD 15.0 ft
20						

*All depths measured from ground level.

Completed By: C. Goodknight Verified By: Sam Campbell

LMS 1800

Page 1 of 2

Stoller Newport News Nuclear

Memorandum

DATE: September 30, 2015

TO: Distribution

FROM: Sam Campbell

SUBJECT: Trip Report

Site: Riverton, Wyoming, Processing Site

Dates of Sampling Event: September 14 to September 18, 2015

Team Members: Sam Campbell, Jennifer Graham, Rob Rice, Eric Szabelski, and Samantha Tigar.

Number of Locations Sampled: Samples were collected from 73 of the 84 locations identified on the sampling notification letter. In addition, a new domestic well (0877) within the IC boundary was identified by the Northern Arapaho Environmental Office, sampled, and included into the long-term monitoring program.

Locations Not Sampled/Reason: The following locations were not sampled:

- The top ports of all of the CMT monitoring wells were dry. These ports were designed to be saturated only during flood conditions, so the dry condition was expected. These include wells 0852-1 through 0860-1.
- CMT monitoring wells 0852-2 and 0857-2 were dry.
- Domestic well 0422 was not sampled because the modular home on the property had been removed.

Location Specific Information:

- Additional field measurements of ferrous iron and nitrite were made at each monitoring well (no measurements were made at surface water or domestic well locations). Ferrous iron measurements were uploaded to the database when the field computers were synced; however, FDCS does not accommodate nitrate measurements, which were recorded in the comments section of FDCS.
- New downhole and pump-head tubing was installed in all CMT monitoring well 2, 3, and 4 ports; some tubing is still needed in some -1 ports.
- Depth information on the temporary well-points is displayed in Table 1. All temporary well-points were removed, cleaned, and stored for use on future projects.
- The Little Wind River was not flowing into the oxbow lake at the time of sampling. According to USGS personnel, the river was near all-time record low-flows during the sampling event.
- Water was not obtained from the SLAC pore water samplers and samples were not collected as planned – the problem was likely from stealthy terminal caps that allow syringe access but were not removed.

Table 1. Temporary Well-Point Depth Information

Well-Point Location	Rod Length (ft.)	Stick-Up Height (ft.)	Depth BGS (ft.)	Sampling Interval (ft. BGS)
0866	7	1.45	5.55	4.55-5.55
0867	7	3.04	3.96	2.96-3.96
0868	4	0.79	3.21	2.21-3.21
0869	7	1.7	5.3	4.3-5.3
0870	7	1.91	5.09	4.09-5.09
0871	7	2.71	4.29	3.29-4.29
0872	7	2.17	4.83	3.83-4.83
0873	7	1.25	5.75	4.75-5.75
0874	7	1.42	5.58	4.58-5.58
0875	7	1.25	5.75	4.75-5.75

Quality Control Sample Cross Reference: False identifications assigned to the quality control samples are shown in Table 2.

Table 2. Quality Control Sample Cross-Reference

False ID	Ticket Number	True ID	Sample Type	Associated Matrix	Associated Samples
2776	NKT 880	0858-4	Duplicate	Groundwater	N/A
2777	NKT 881	0860-3	Duplicate	Groundwater	N/A
2778	NKT 882	0796	Duplicate	Surface Water	N/A
2779	NKT 883	0999	Equipment Blank	Surface Water	0747, 0796, 0822, and 0823
2780	NKT 884	0872	Duplicate	Groundwater	N/A

Requisition Index Number (RIN) Assigned: Samples were assigned to RINs 15097345, 5097346, 5097347. Field data sheets can be found in \\crow\RAApps\SMS\5097345\FieldData.

Sample Shipment: Samples for sulfide analyses (well 0855 ports) were shipped from Riverton mid-week of the sampling event (9/16/2015) to the ALS Laboratory Group because of the short holding time (7 days). All other samples were shipped overnight via FedEx from the Grand Junction office to three different laboratories on 9/22/2015: ALS Laboratory Group in Fort Collins, Colorado; GEL Laboratories in Charleston, South Carolina; and the Reston Stable Isotope Laboratory in Reston, Virginia.

Water Level Measurements: Water levels were measured in all sampled wells and in 13 additional wells.

Well Inspection Summary: No issues were identified. All new wells were labeled in the concrete pad, and protective casing, and on each port in the interior.

Sampling Method: Samples were collected according to the *Sampling and Analysis Plan (SAP) for the U. S. Department of Energy Office of Legacy Management Sites* (LMS/PRO/S04351, continually updated) (SAP) and Program Directive RVT-2015-01, which specifies protocols for sampling CMT wells.

Field Variance: Several daily operational checks on the dissolved oxygen probes did not meet criteria. The probes were recalibrated and measurements were made during the day. In addition, one of the dissolved oxygen probes malfunctioned during operation; the membrane was changed and the probe was recalibrated and used in subsequent measurements. An assessment of the validity of the dissolved oxygen measurements will be made during the data validation process.

Equipment: The internal battery of one of the peristaltic pumps would not hold a charge – the pump was run off the vehicle battery during the sampling event. The other peristaltic pump had an issue with the DC cord connection; the connection was repaired in the field and the pump continued to operate. One of the water level indicators audible function was intermittent.

Dataloggers: Dataloggers were installed and started in the stilling well (0849) and monitoring well 0722R.

The stilling well datalogger was started with an initial depth to river level (10.90 ft.) obtained with the laser level. The stilling well angle (degrees below horizontal) was calculated to be 35.13 based on the vertical distance from the measuring point to the water surface (10.90 ft.) using the laser level and the distance from the measuring point to the water surface inside the pipe (18.94 ft.) using the water level indicator. This angle will be used in conjunction with the depth to water measurement in the pipe during future downloads of the stilling well to determine the vertical depth to water.

Surveying: New monitoring wells 0852, 0853, 0854, 0859, and 0860 were surveyed with a combination of the survey-grade GPS and laser-level instruments. Stick-up heights of all new monitoring wells were measured and placed in the comments section in FDCS. Stick-up heights are also listed in Table 3.

Table 3. Stick-up Heights of CMT Monitoring Wells

Well ID	Stick-Up Height Above Ground Surface (ft.)	
	CMT Ports 1, 2, and 3	Port 4 – 1.5-inch well
0852	2.25	2.78
0853	2.33	2.42
0854	2.23	2.54
0855	2.09	2.54
0856	2.17	2.50
0857	2.50	2.82
0858	1.94	2.19
0859	2.28	2.59
0860	2.39	2.65

Stakeholder/Regulatory/DOE: Steve Babits of the Northern Arapaho Environmental Office was on-site to provide oversight of sampling activities. Jim Campbell of USGS was on-site to observe sampling of temporary well-points and to discuss sampling protocols for the CMT monitoring wells.

Institutional Controls:

Signs: Warning signs around the oxbow lake were in place and in good shape.
Trespassing/Site Disturbances: No unauthorized land use or new domestic well installations was observed.

Safety Issues: Organic vapors were measured with a PID at monitoring well 0859; all readings, including the initial reading at the well head, were less than 1 ppm. The highest reading measured was 1.1 ppm in the one of the sample bottles.

Access Issues: All team members had received ChemTrade access training during the previous field investigation event, and all team members signed in and out of ChemTrade, as required.

General Information: Nothing to note

Immediate Actions Taken: New domestic well location 0877 was established in the environmental database by Data Management personnel. GPS coordinates of the new domestic well and survey coordinates and elevations of the new monitoring wells were forwarded to the Data Management group for inclusion in the environmental database.

Future Actions Required or Suggested: Actions required include:

- Nitrate data hand-entered into the environmental database by Data Management personnel.
- Deficient equipment tagged out of service and repaired.
- Domestic well 0877 added to the long-term sampling table in the Riverton section of the SAP.
- Samantha Tigar added to the sampler list in FDCS.
- Alkalinity results at monitoring wells 0705 and 0852-4 corrected in FDCS and the environmental database. Actual values should be 330 mg/L at 0852-4 and 40 mg/L at well 0705. These corrections are based on notes that the test was performed on a reduced sample volume.

Appendix C

Soils Data

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Hole ID	Depth Interval	Date	Time	Description
0852-01	0.5	8/30/2015	1645	Slightly clayey silt, evaporite mottled, some roots
0852-02	1.5	8/30/2015	1647	Silt, very slight evaporite mottling, some roots, slightly damp
0852-03	2.5	8/30/2015	1659	Silt, some clay
0852-04	3.5	8/30/2015	1702	Silt
0852-05	4.5	8/30/2015	1705	Brown clay with cobbles just below sample point
0852-06	5.5	8/30/2015	1710	Silty/sandy gravel, dry, caliche coating on pebbles
0852-07	7.0	8/30/2015	1716	Sandy gravel, dry
0852-08	8.0	8/30/2015	1727	Sandy gravel, damp to wet
0852-09	9.0	8/30/2015	1732	Sandy gravel, wet
0852-10	10.0	8/30/2015	1735	Sandy gravel, wet
0852-11	10.5	8/30/2015	1741	Sandy gravel with some clay
0852-12	11.5	8/30/2015	1746	Sandy gravel with minor clay, less than above
0852-13	12.0	8/30/2015	1751	Sandy gravel, wet, no clay
0852-14	13.0	8/30/2015	1755	Coarse sandy gravel, coarsens downward
0852-15	14.0	8/30/2015	1803	Sandy gravel
0852-16	15.0	8/30/2015	1805	Sandy gravel, very wet, more clay
0852-17	17.0	8/30/2015	1810	Bedrock, weathered sandstone, more clay at top

Hole ID	Depth Interval	Date	Time	Description	Dup #	Dup Time
0853-01	0.5	8/27/2015	1320	Silt, dry, very slight evaporite mottling		
0853-02	1.5	8/27/2015	1322	Silt, dry, very slight evaporite mottling		
0853-03	2.5	8/27/2015	1324	Silt, slightly more evaporite mottling, very slightly damp		
0853-04	3.5	8/27/2015	1332	Silt, slightly more evaporite mottling, very slightly damp, cobbles at bottom		
0853-05	4.0	8/27/2015	1340	Sandy gravel, dry		
0853-06	4.5	8/27/2015	1344	Clean sand lens, gravel again below sample		
0853-07	5.5	8/27/2015	1354	Sandy gravel, slightly damp		
0853-08	6.5	8/27/2015	1356	Sandy gravel, slightly damp, water table around 7 feet		
0853-09	7.5	8/27/2015	1405	Sandy gravel, wet		
0853-10	8.5	8/27/2015	1412	Clean gravel, no sand matrix, wet		
0853-11	10.0	8/27/2015	1415	Clean gravel, no sand matrix, large cobbles		
0853-12	11.0	8/27/2015	1425	Sandy gravel		
0853-13	12.0	8/27/2015	1430	Sandy gravel, more sand at 12.5 ft.	2761	1200
0853-14	14.0	8/27/2015	1440	Sandy gravel		
0853-15	15.0	8/27/2015	1445	Sandy gravel (goes to 16.2 ft.)		
0853-16	16.3	8/27/2015	1450	Gravelly sand for about 2 inches, just at bedrock contract		
0853-17	17.0	8/27/2015	1456	Bedrock	2762	1305

Hole ID	Depth Interval	Date	Time	Description
0854-01	0-0.5	8/26/2015	1613	Silt, slight evaporite mottled, roots
0854-02	0.7-1.2	8/26/2015	1618	Silt, more evaporite mottled, less roots
0854-03	2.0	8/26/2015	1622	Silt, damp, no mottling
0854-04	3.0	8/26/2015	1628	Fine sand, slightyly damp, some roots
0854-05	4.0	8/26/2015	1635	Clean sand, slight iron/organic mottling
0854-06	4.5	8/26/2015	1640	Silty sand with roots
0854-07	6.0	8/26/2015	1650	Clean sand, slight iron/organic mottling, separate photo
0854-08	8.0	8/26/2015	1755	Sandy gravel, wet
0854-09	9.0	8/26/2015	1758	Sandy gravel, wet
0854-10	10.5	8/26/2015	1700	Sandy gravel, wet
0854-11	11.5	8/26/2015	1703	Sandy gravel, wet
0854-12	12.5	8/26/2015	1707	Bedrock, silty sandstone, olive grey

Hole ID	Depth Interval	Date	Time	Description	Dup #	Dup Time
0855-01	0.5	8/28/2015	1030	Silt, dry, roots, evaporite mottled		
0855-02	1.5	8/28/2015	1033	Silt, slightly darker color, more evaporites, less roots	2763	1608
0855-03	2.5	8/28/2015	1038	Clayey silt, lighter color than above, no roots, less evaporites		
0855-04	4.0	8/28/2015	1250	Clayey silt, damp, no evaporites (evaporites to 3.5 ft.)		
0855-05	5.0	8/28/2015	1254	Silty clay, NRZ zone, evaporite mottled at top then red/black mottling		
0855-06	6.0	8/28/2015	1335	Silty clay, NRZ zone, black organics, no mottling		
0855-07	7.5	8/28/2015	1435	Gravelly sand with clay zones		
0855-08	8.5	8/28/2015	1440	Sandy gravel, large cobbles		
0855-09	9.5	8/28/2015	1445	Sandy gravel, slightly smaller cobbles		
0855-10	11.0	8/28/2015	1750	Sandy gravel, more sand in matrix than above		
0855-11	13.0	8/28/2015	1753	Sandy gravel		
0855-12	15.0	8/28/2015	1755	Sandy gravel, more clay than above		
0855-13	16.5	8/28/2015	1500	Sandy gravel, jumbled core interval		
0855-14	17.7	8/28/2015	1800	Sandy gravel, some clay		
0855-15	18.5	8/28/2015	1805	Bedrock, silty sandstone		

Hole ID	Depth Interval	Date	Time	Description
0856-01	0.5	8/28/2015	1625	Silt, dry
0856-02	1.5	8/28/2015	1628	Silt, minor clay, very slightly damp
0856-03	2.5	8/28/2015	1635	Silt, slightly damp, very slight evaporite mottling
0856-04	3.5	8/28/2015	1640	Sandy gravel, dry to very slightly damp
0856-05	5.5	8/28/2015	1645	Sandy gravel, damp, no 4/5 ft. sample due to poor recovery
0856-06	6.5	8/28/2015	1650	Sandy gravel, wet
0856-07	7.5	8/28/2015	1652	Sandy gravel, wet
0856-08	8.5	8/28/2015	1654	Sandy gravel, wet
0856-09	9.5	8/28/2015	1700	Sandy gravel, wet
0856-10	10.5	8/28/2015	1703	Sandy gravel, slighlty smaller cobbles
0856-11	11.2	8/28/2015	1710	Sandy gravel, slighlty smaller cobbles
0856-12	12.0	8/28/2015	1715	Bedrock, siltstone

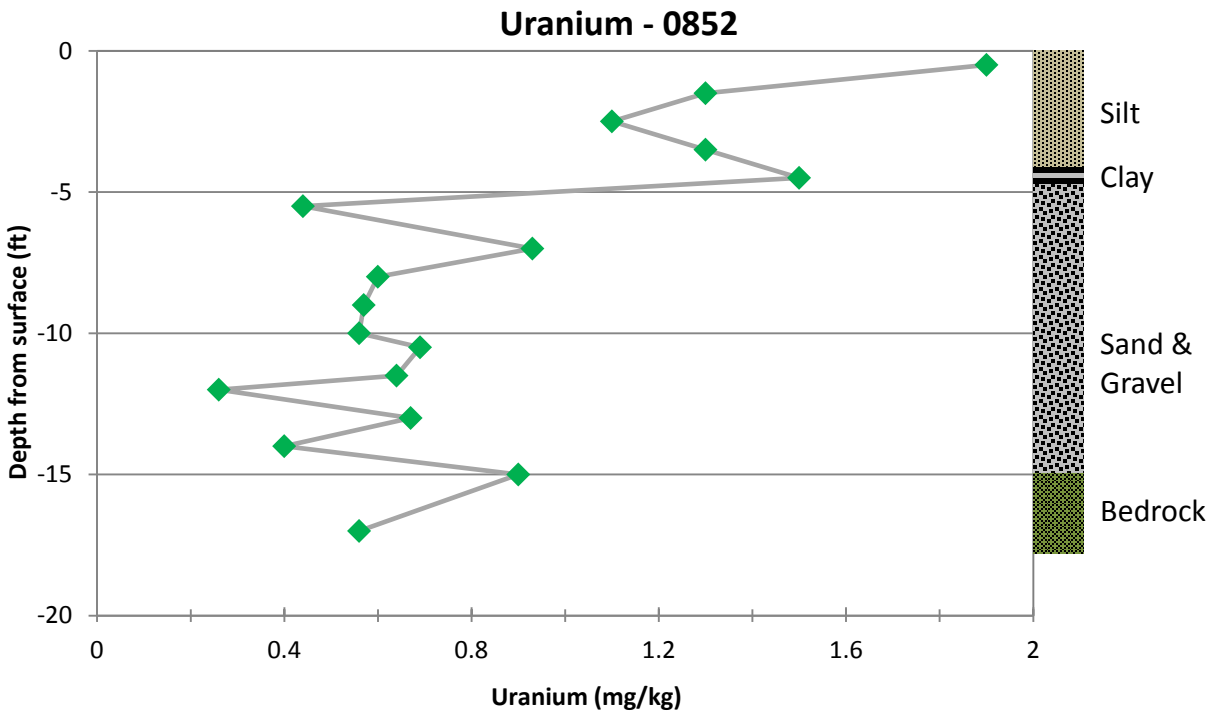
Hole ID	Depth Interval	Date	Time	Description
0857-01	0.5	8/30/2015	1124	Sandy/silty gravel, dry, caliche coating on gravel
0857-02	1.5	8/30/2015	1130	Sandy/silty gravel, dry, caliche coating on gravel
0857-03	2.5	8/30/2015	1133	Gravelly silt, slight evaporite mottling color change from gray to brown at 2 ft.
0857-04	3.0	8/30/2015	1140	Sandy gravel, very slightly damp
0857-05	5.0	8/30/2015	1143	Sandy gravel, damp
0857-06	7.0	8/30/2015	1145	Sandy gravel, damp
0857-07	8.0	8/30/2015	1157	Sandy gravel, wet
0857-08	9.0	8/30/2015	1200	Sandy gravel, wet
0857-09	10.0	8/30/2015	1205	Sandy gravel, slight bits of silt (bedrock chunks?)
0857-10	10.5	8/30/2015	1215	Sandy gravel, slight bits of silt (bedrock chunks?)
0857-11	11.0	8/30/2015	1225	Bedrock, clayey/silty sandstone, gray
0857-12	11.5	8/30/2015	1230	Bedrock, lighter gray, cleaner sandstone

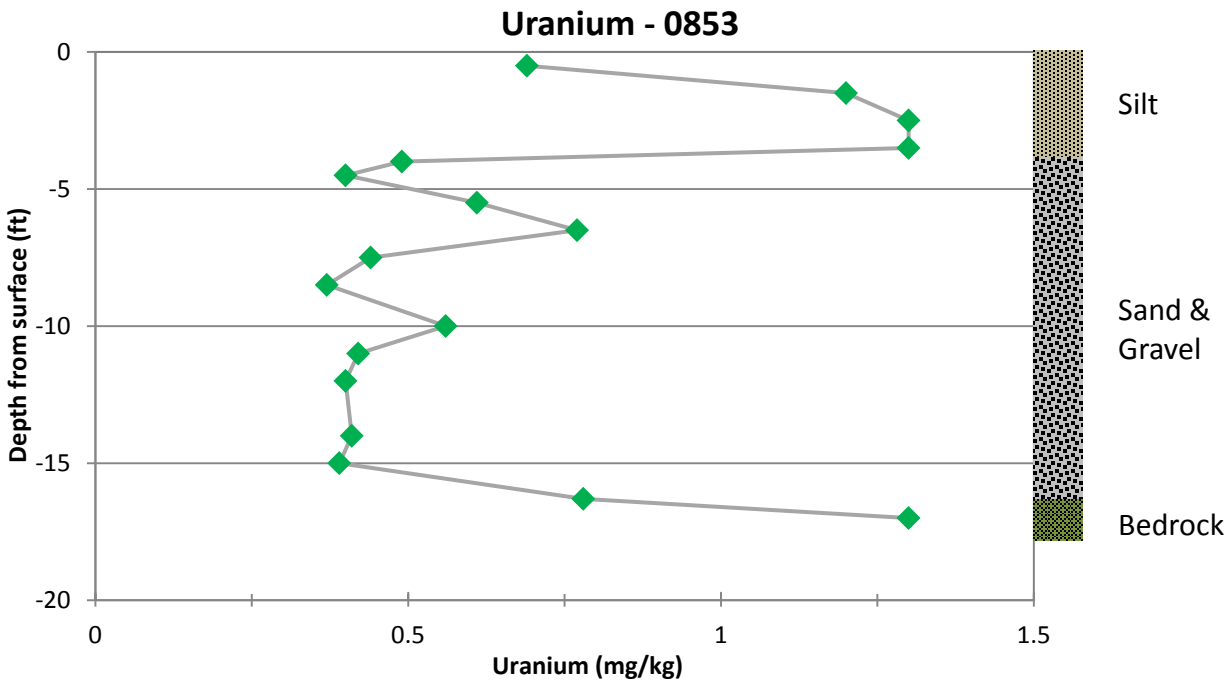
Hole ID	Depth Interval	Date	Time	Description	Dup #	Dup Time
0858-01	0.5	8/29/2015	1410	Silt, roots, evaporite mottling		
0858-02	1.5	8/29/2015	1415	Silt, some roots, some evaporite mottling		
0858-03	2.5	8/29/2015	1418	Silt, some roots, some evaporite mottling		
0858-04	3.0	8/29/2015	1428	Sandy gravel		
0858-05	4.5	8/29/2015	1432	Sandy gravel, slightly coarser sand than above and more sand, damp		
0858-06	6.0	8/29/2015	1445	Sandy gravel, same as 4.5 ft.		
0858-07	7.0	8/29/2015	1450	Sandy gravel, same as 4.5 ft., wet		
0858-08	8.0	8/29/2015	1452	Sandy gravel, wet		
0858-09	9.0	8/29/2015	1455	Sandy gravel, wet		
0858-10	10.5	8/29/2015	1503	Sandy gravel, wet		
0858-11	12.0	8/29/2015	1505	Sandy gravel, wet		
0858-12	13.0	8/29/2015	1512	Clean coarse sand	2764	1430
0858-13	14.0	8/29/2015	1515	Gravelly sand (more gravel than 13 ft.)		
0858-14	15.0	8/29/2015	1520	Sandy gravel		
0858-15	16.0	8/29/2015	1533	Sandy gravel, bedrock silt chunks mixed in		
0858-16	17.0	8/29/2015	1535	Sandy gravel, bedrock silt chunks mixed in		
0858-17	18.0	8/29/2015	1540	Bedrock, gray siltstone		

Hole ID	Depth Interval	Date	Time	Description	Dup #	Dup Time
0859-01	0.5	9/1/2015	920	Silt, dry, very slight evaporite mottling, some roots		
0859-02	1.5	9/1/2015	922	Very fine sand, dry		
0859-03	2.5	9/1/2015	925	Tight clay, white layering/coatings, some slight Fe staining, took separate sample		
0859-04	3.5	9/1/2015	940	Fine sand, brown, slighlty damp, fill?		
0859-05	4.5	9/1/2015	945	Silty clay, just above sandy gravel, slight evaporite layering and Fe stain layering, bottom of fill?		
0859-06	5.5	9/1/2015	950	Sandy gravel, damp	2768	805
0859-07	7.0	9/1/2015	1000	Sandy gravel, wet, start of slight chemical smell		
0859-08	8.0	9/1/2015	1005	Coarse sand, cleaner fine sand below (not sampled)		
0859-09	8.5	9/1/2015	1007	Clean fine sand, very wet, chemical smell		
0859-10	9.0	9/1/2015	1022	Sandy gravel, some chemical smell		
0859-11	10.5	9/1/2015	1035	Sandy gravel, slight clay, chemical smell		
0859-12	11.5	9/1/2015	1041	Gravel in weathered bedrock, slight chemical smell		
0859-13	12.5	9/1/2015	1045	Clayey siltstone bedrock, slight chemical smell, pyritic and evaporite layer, more gray and drier below		

Hole ID	Depth Interval	Date	Time	Description	Dup #	Dup Time
0860-01	0.5	8/31/2015	1450	Silty fill		
0860-02	1.5	8/31/2015	1455	Silt, evaporite coatings	2766	730
0860-03	2.5	8/31/2015	1500	Tight clay, some silt, some evaporite coating, separate photo		
0860-04	3.5	8/31/2015	1515	Silt, damp, very slight evaporite mottling		
0860-05	4.5	8/31/2015	1518	Clayey silt, damp, some evaporite coatings, took separate sample at 5 ft. with pyrite (?) and evaporite coatings, cobbles 5 ft. plus		
0860-06	5.5	8/31/2015	1530	Silty/sandy gravel, very slightly damp, sandier at 5.7-6 ft (archived only, no sample)		
0860-07	6.5	8/31/2015	1540	Sandy gravel, slightly damp		
0860-08	8.0	8/31/2015	1546	Sandy gravel, slightly damp		
0860-09	9.0	8/31/2015	1552	Sandy gravel, wet		
0860-10	10.0	8/31/2015	1555	Sandy gravel, wet	2767	900
0860-11	11.0	8/31/2015	1600	Sandy gravel, wet		
0860-12	12.0	8/31/2015	1605	Clean med/coarse sand, wet		
0860-13	13.0	8/31/2015	1610	Sand with some cobbles		
0860-14	14.5	8/31/2015	1615	Sand with some cobbles		
0860-15	15.5	8/31/2015	1620	Clean coarse sand		
0860-16	16.5	8/31/2015	1625	Sandy gravel		
0860-17	17.5	8/31/2015	1630	Bedrock, clayey siltstone		

Hole ID	Depth Interval	Date	Time	Description	Dup #	Dup Time
0877-01	0.5	8/30/2015	1435	Silt, slight evaporite mottling, roots		
0877-02	1.5	8/30/2015	1440	Silt, strong evaporite mottling, some roots		
0877-03	2.5	8/30/2015	1445	Silt, organic rich with evaporites, took separate sample		
0877-04	3.5	8/30/2015	1545	Silt, evaporite mottling		
0877-05	4.5	8/30/2015	1550	Clayey silt, red/black mottling, NRZ, sulfide oxidation smell		
0877-06	5.5	8/30/2015	1450	Silty clay, red/black mottling, NRZ	2765	1330
0877-07	6.5	8/30/2015	1455	Silty gravel, mixed with some NRZ like clayey silt		
0877-08	7.5	8/30/2015	1500	Sandy gravel, wet, some clay/silt		
0877-09	8.5	8/30/2015	1510	Silt, brown, with gravel (slough from above ?)		
0877-10	9.5	8/30/2015	1520	Sandy gravel		
0877-11	10.5	8/30/2015	1522	Sandy gravel		
0877-12	11.5	8/30/2015	1525	Sandy gravel		
0877-13	12.5	8/30/2015	1530	Sandy gravel		
0877-14	13.5	8/30/2015	1533	Sandy gravel		
0877-15	14.5	8/30/2015	1535	Silty/sandy gravel, with bits of bedrock (?)		
0877-16	15.0	8/30/2015	1540	Bedrock, silty claystone		


Uranium - 0852
0
-5
-10
-15
-20
Depth from surface (ft)
0
0.4
0.8
1.2
1.6
2
Uranium (mg/kg)
Silt
Clay
Sand &
Gravel
Bedrock


Uranium - 0853
0
-5
-10
-15
-20
Depth from surface (ft)
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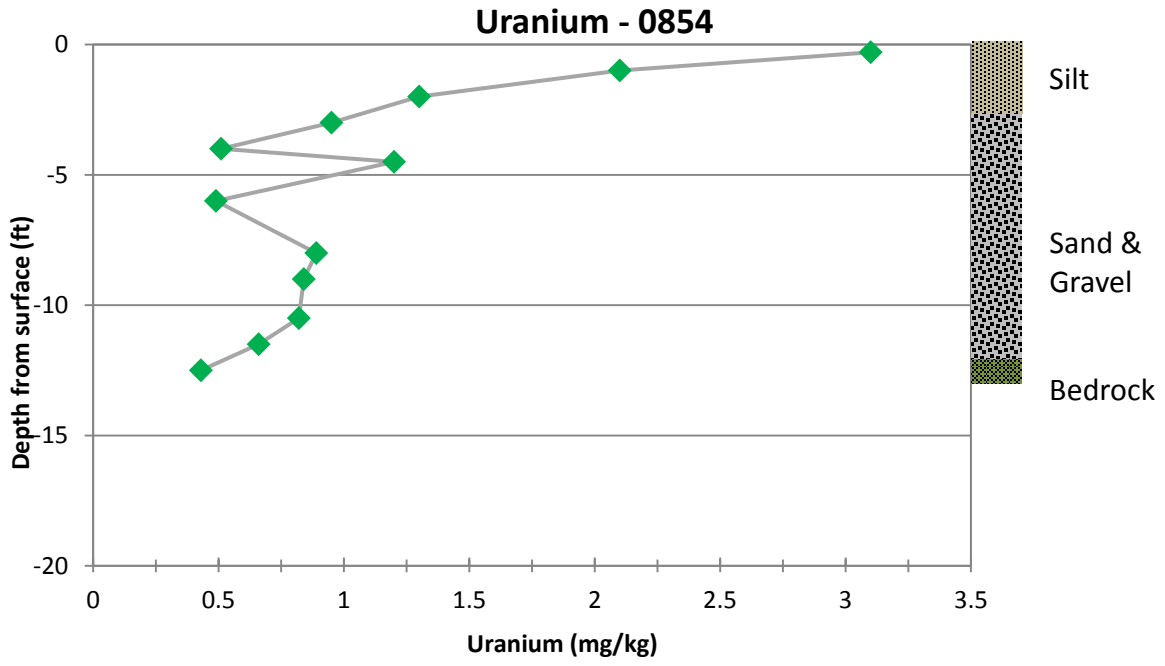
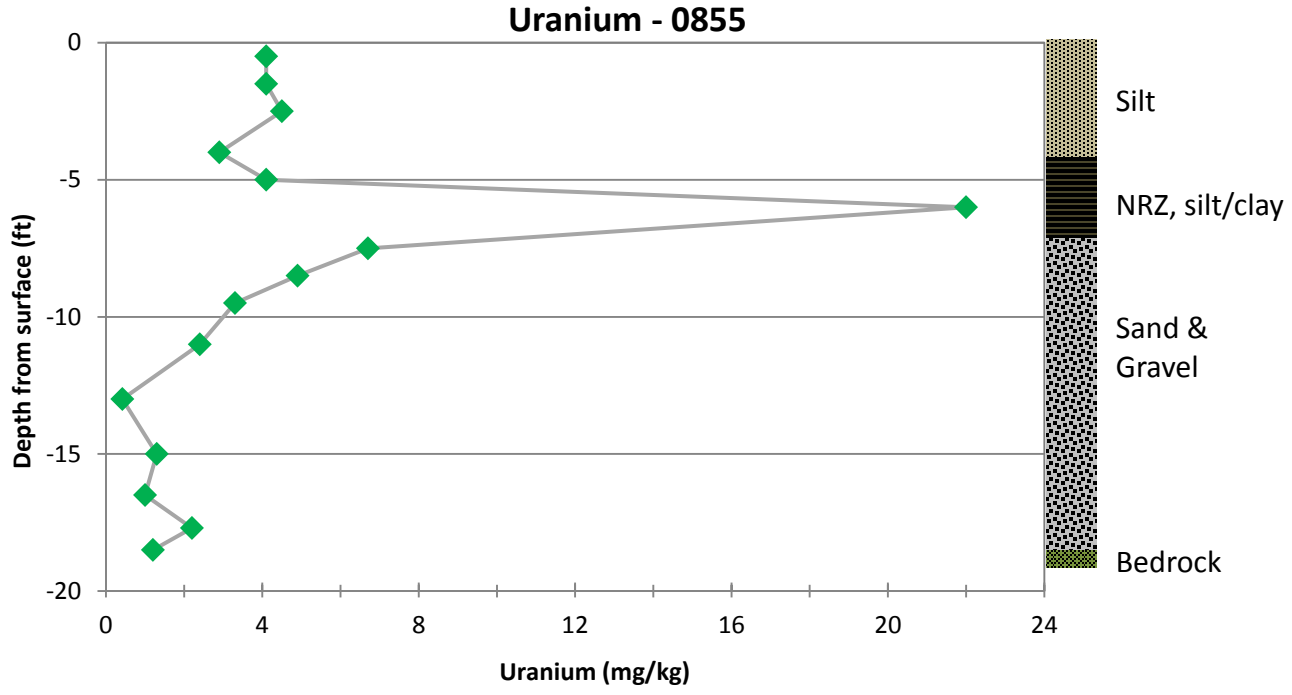
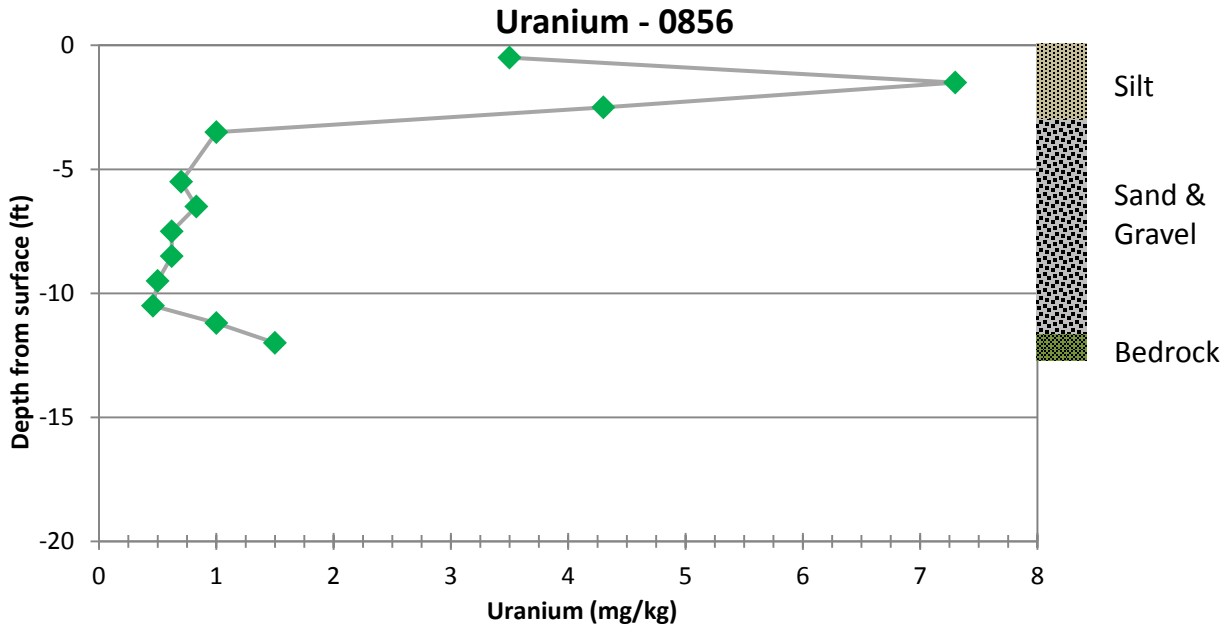
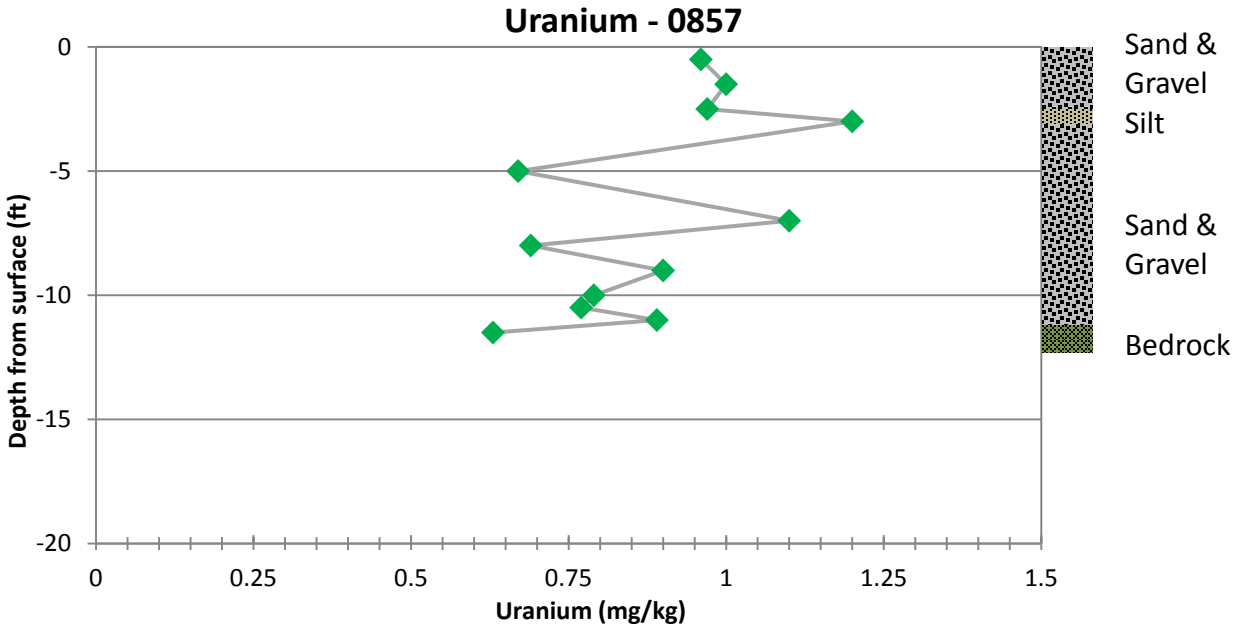
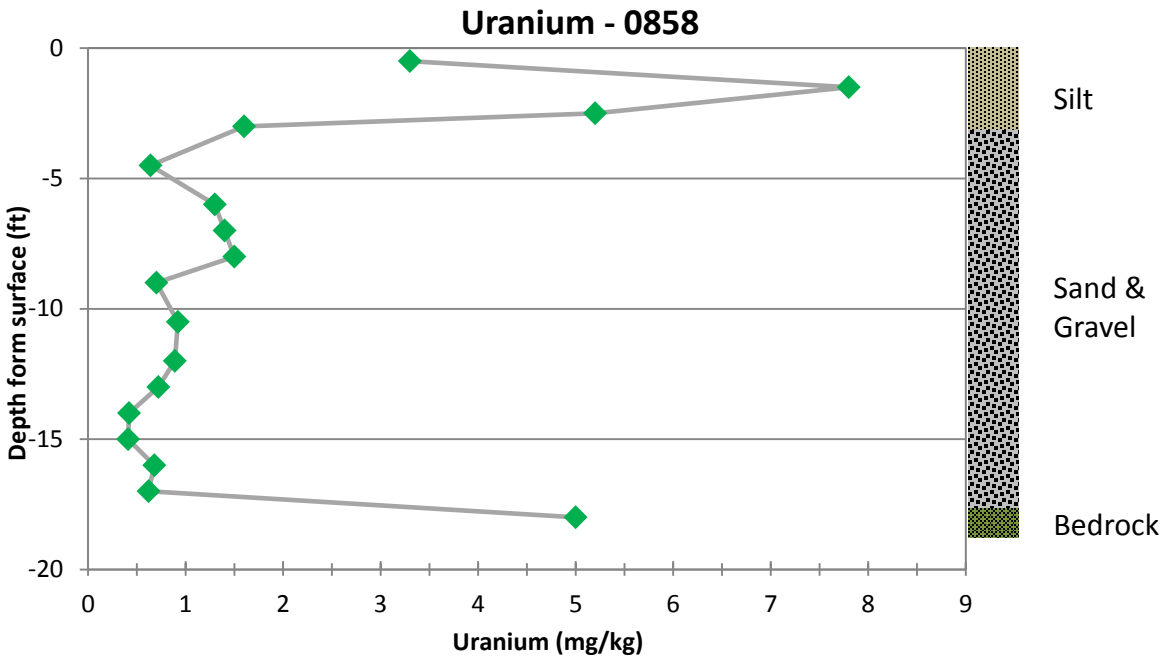
0.5
1
1.5
Uranium (mg/kg)
Silt
Sand &
Gravel
Bedrock

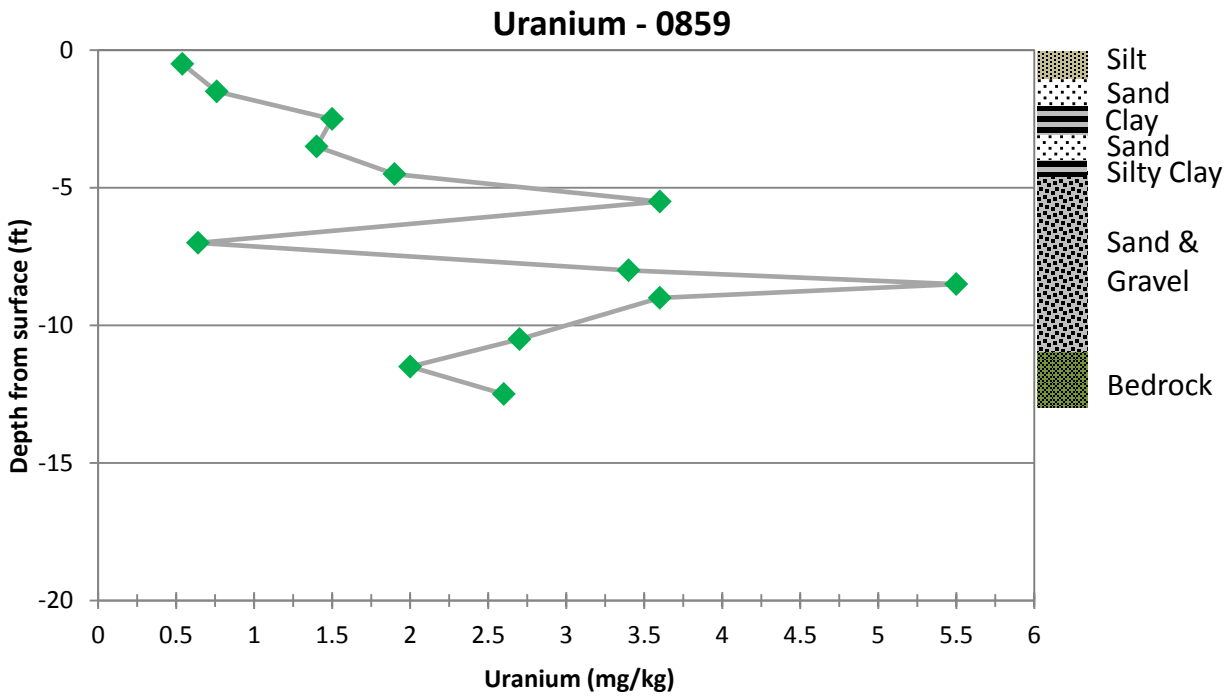

Uranium - 0854
0
-5
-10
-15
-20
Depth from surface (ft)
0
0.5
1
1.5
2
2.5
3
3.5
Uranium (mg/kg)
Silt
Sand &
Gravel
Bedrock

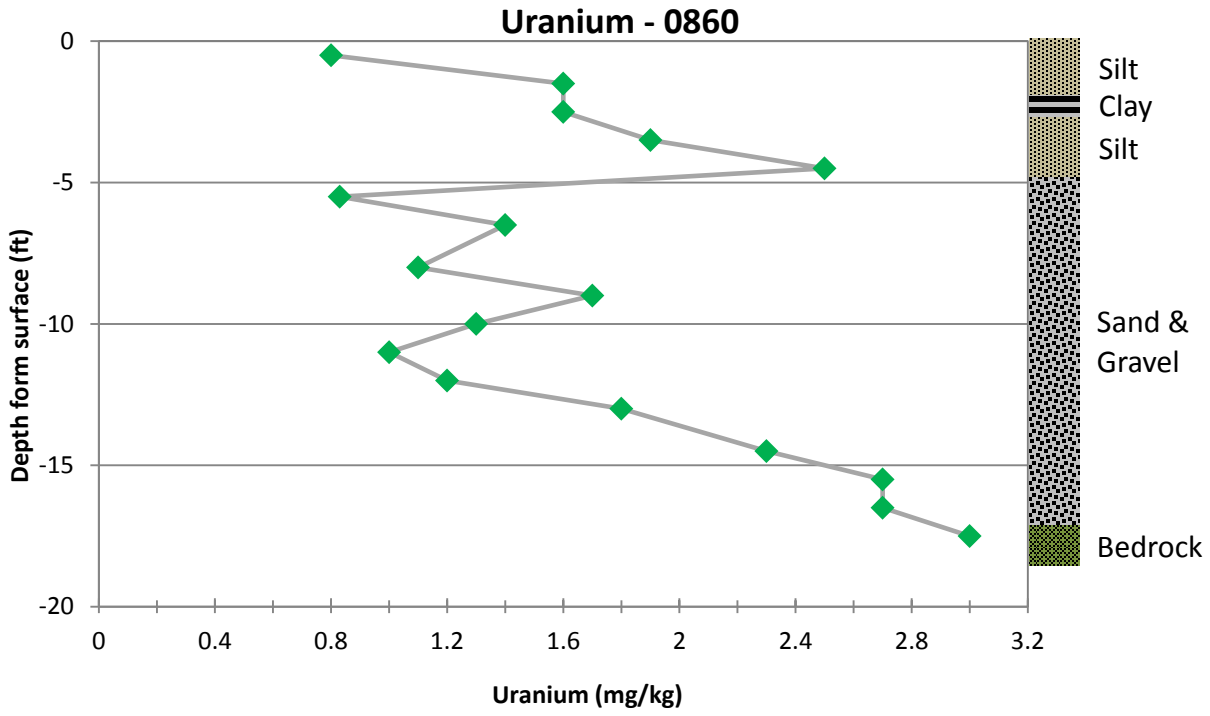

Uranium - 0855
0
-5
-10
-15
-20
Depth from surface (ft)
0
4
8
12
16
20
24
Uranium (mg/kg)
Silt
NRZ, silt/clay
Sand &
Gravel
Bedrock

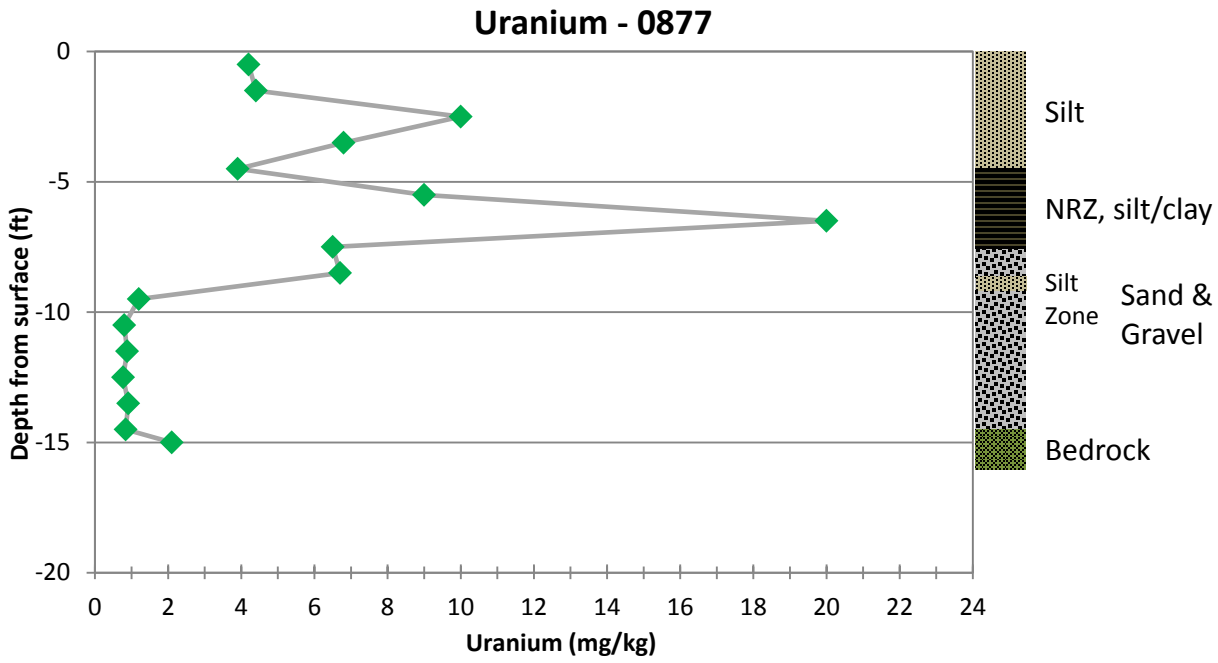

Uranium - 0856
Depth from surface (ft)
0
-5
-10
-15
-20
0
1
2
3
4
5
6
7
8
Uranium (mg/kg)
Silt
Sand &
Gravel
Bedrock

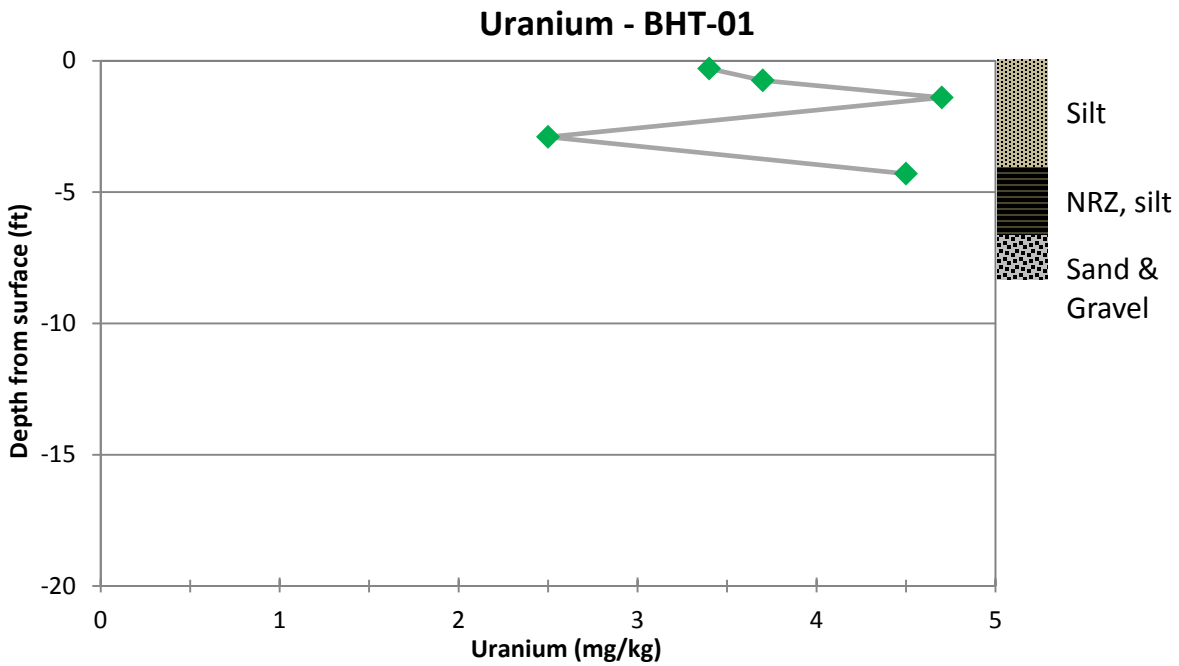

Uranium - 0857
Depth from surface (ft)
0
-5
-10
-15
-20
0
0.25
0.5
0.75
1
1.25
1.5
Uranium (mg/kg)
Sand &
Gravel
Silt
Sand &
Gravel
Bedrock

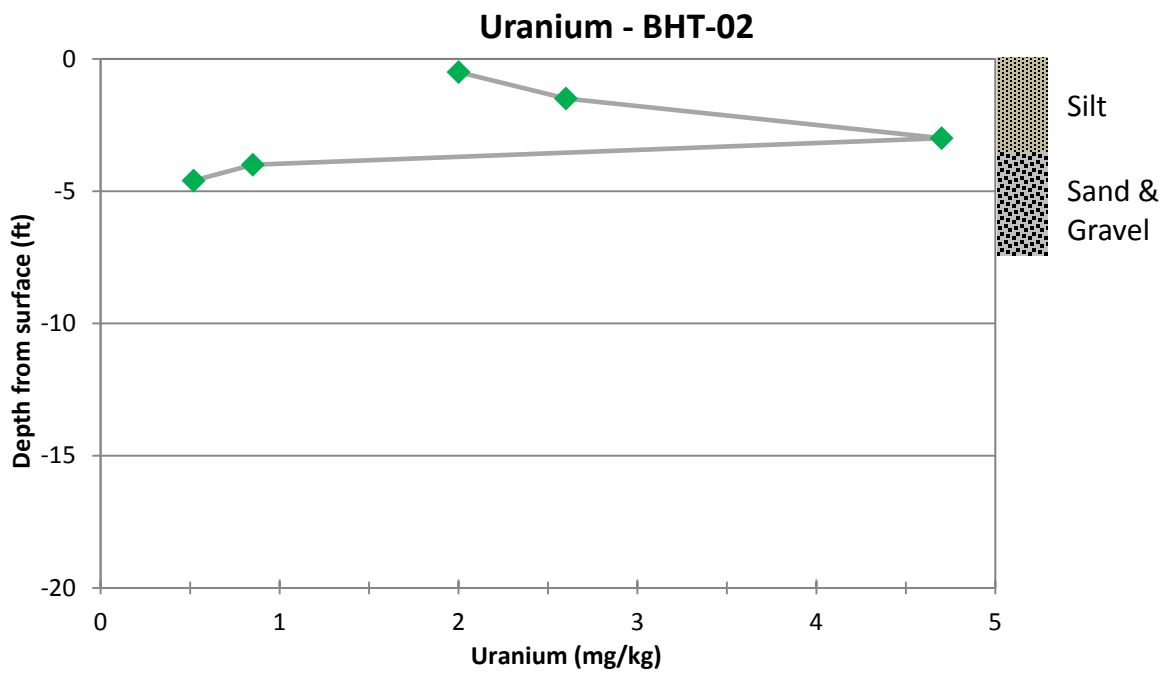

Uranium - 0858
Depth form surface (ft)
0
-5
-10
-15
-20
0
1
2
3
4
5
6
7
8
9
Uranium (mg/kg)
Silt
Sand &
Gravel
Bedrock

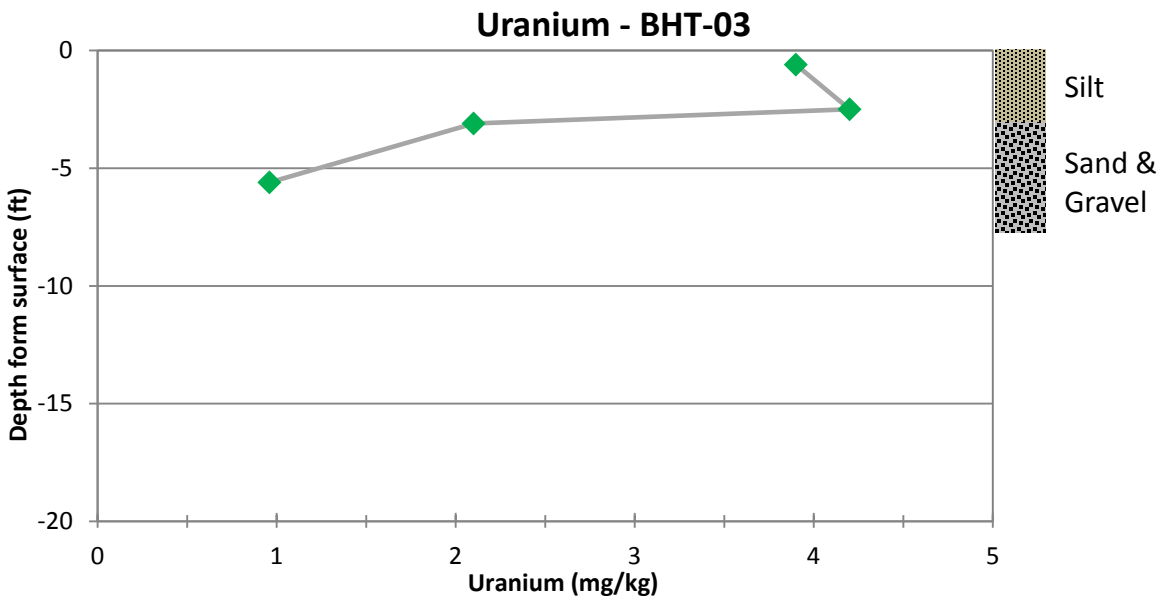

Uranium - 0859
Depth from surface (ft)
0
-5
-10
-15
-20
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
5.5
6
Uranium (mg/kg)
Silt
Sand
Clay
Sand
Silty Clay
Sand &
Gravel
Bedrock

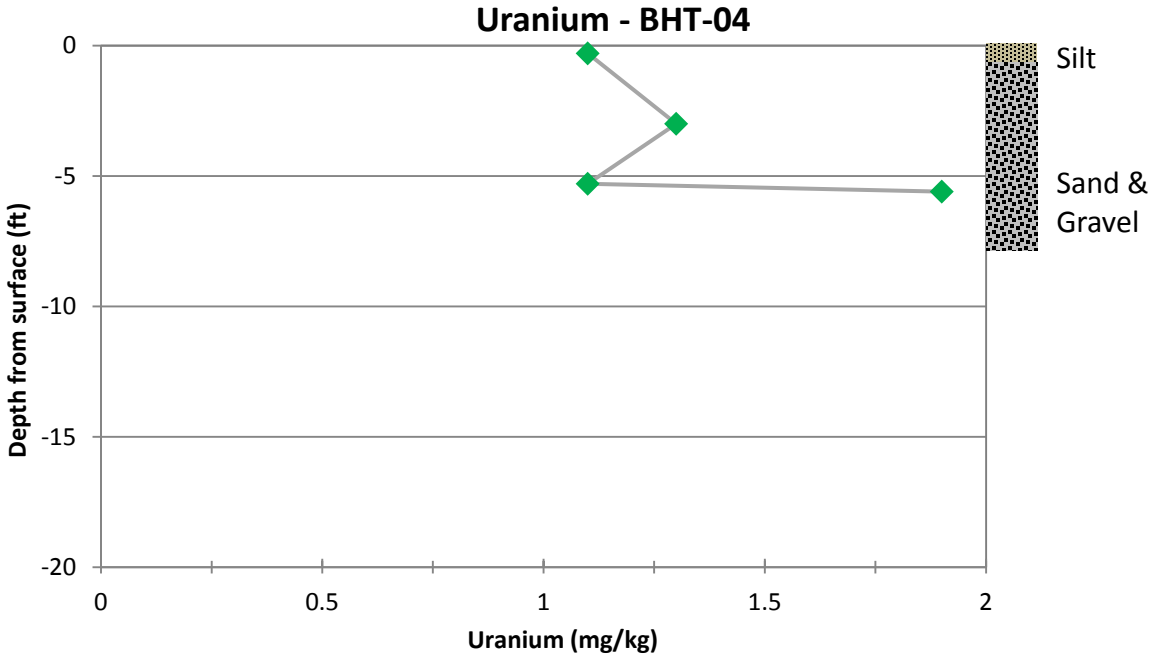

Uranium - 0860
Depth form surface (ft)
0
-5
-10
-15
-20
0
0.4
0.8
1.2
1.6
2
2.4
2.8
3.2
Uranium (mg/kg)
Silt
Clay
Silt
Sand &
Gravel
Bedrock

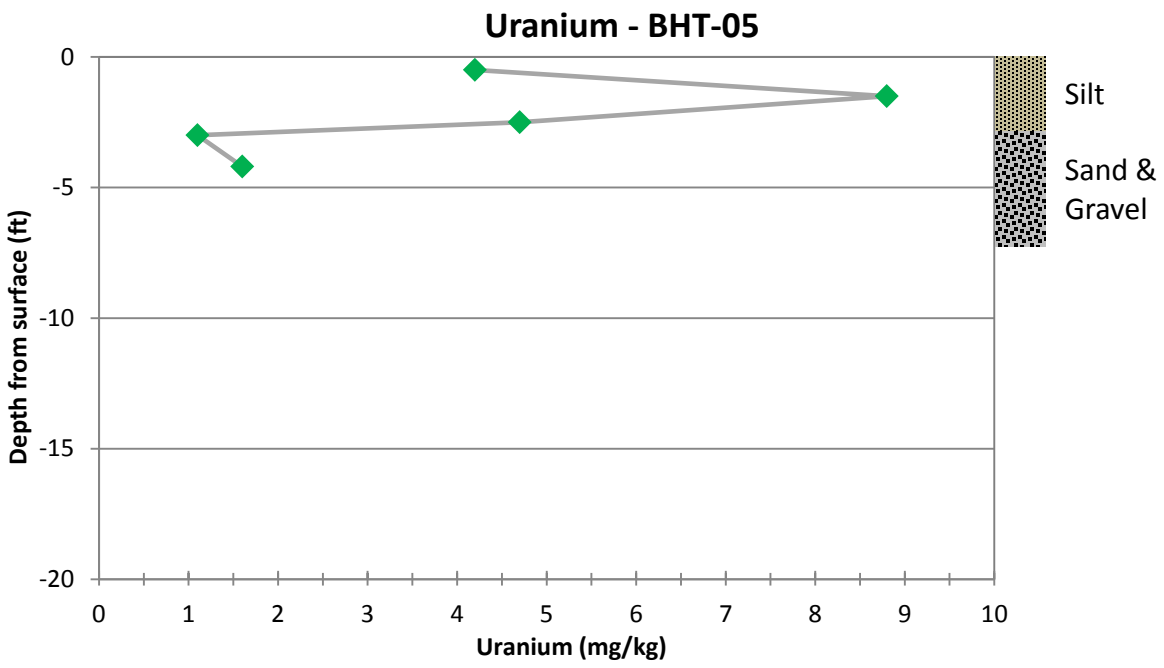

Uranium - 0877
Depth from surface (ft)
0
-5
-10
-15
-20
0
2
4
6
8
10
12
14
16
18
20
22
24
Uranium (mg/kg)
Silt
NRZ, silt/clay
Silt
Zone
Sand &
Gravel
Bedrock

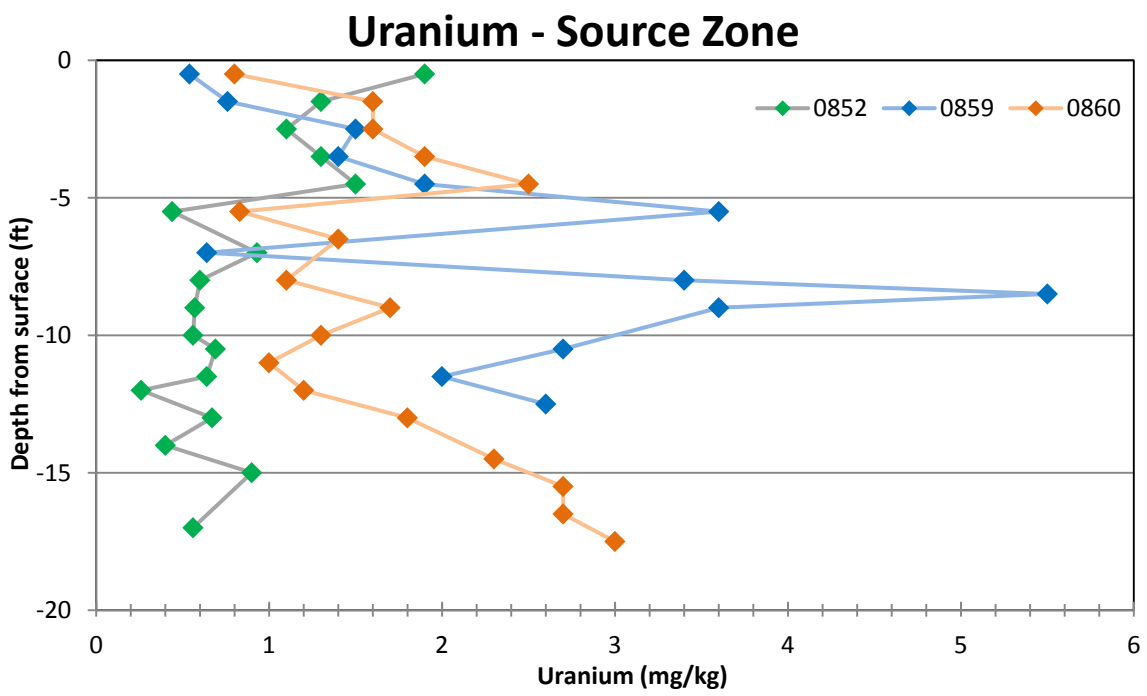

Uranium - BHT-01
0
-5
-10
-15
-20
Depth from surface (ft)
0
1
2
3
4
5
Uranium (mg/kg)
Silt
NRZ, silt
Sand &
Gravel

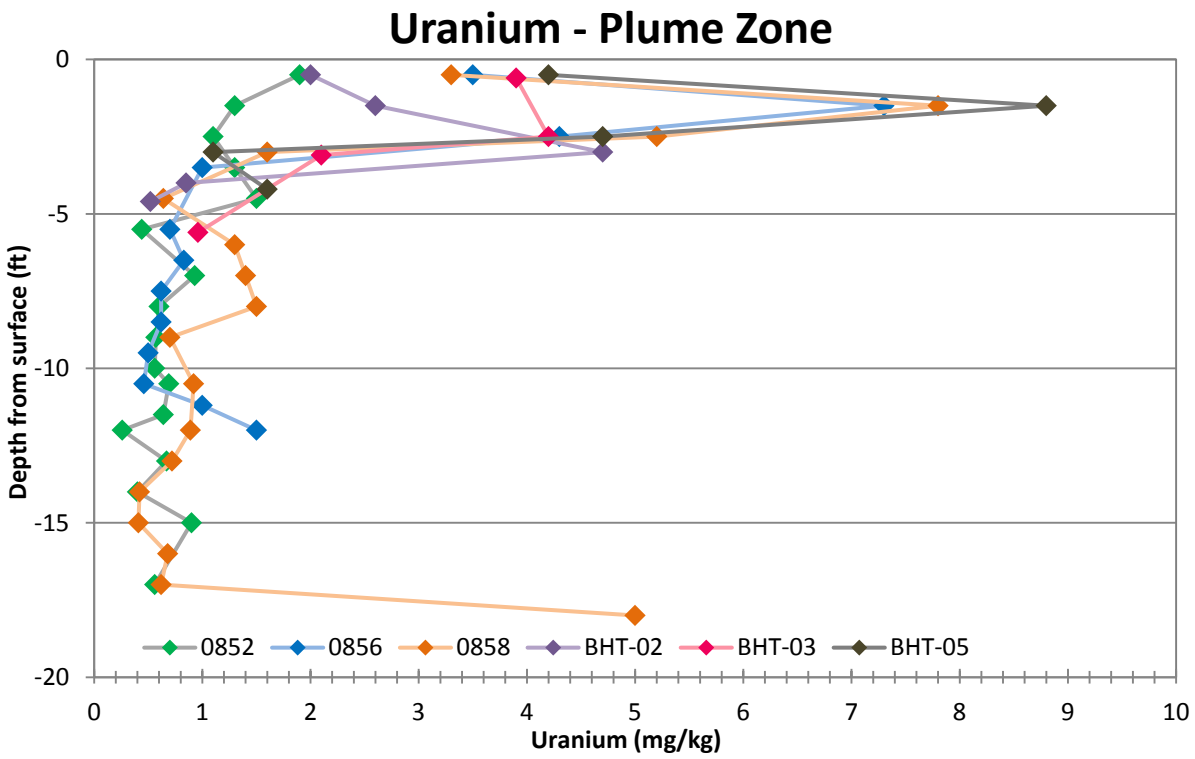

Uranium - BHT-02
0
-5
-10
-15
-20
Depth from surface (ft)
0
1
2
3
4
5
Uranium (mg/kg)
Silt
Sand &
Gravel

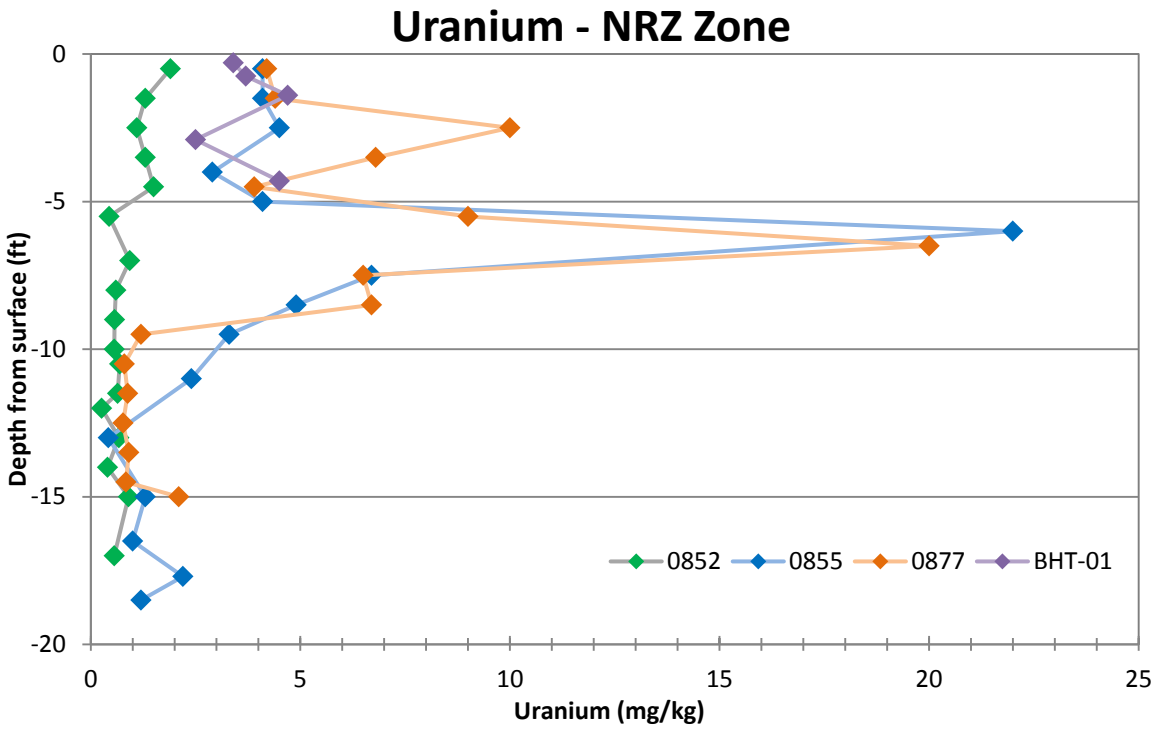

Uranium - BHT-03
0
-5
-10
-15
-20
Depth form surface (ft)
0
1
2
3
4
5
Uranium (mg/kg)
Silt
Sand &
Gravel

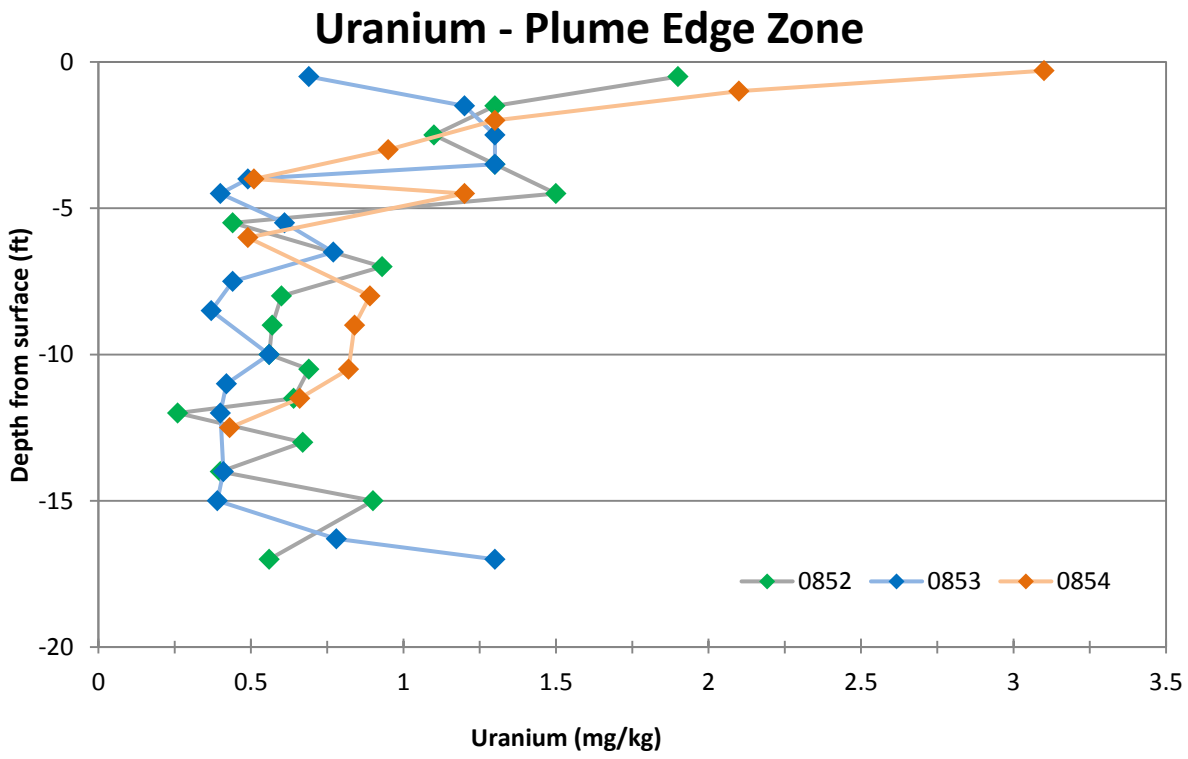

Uranium - BHT-04
0
-5
-10
-15
-20
Depth from surface (ft)
0
0.5
1
1.5
2
Uranium (mg/kg)
Silt
Sand &
Gravel

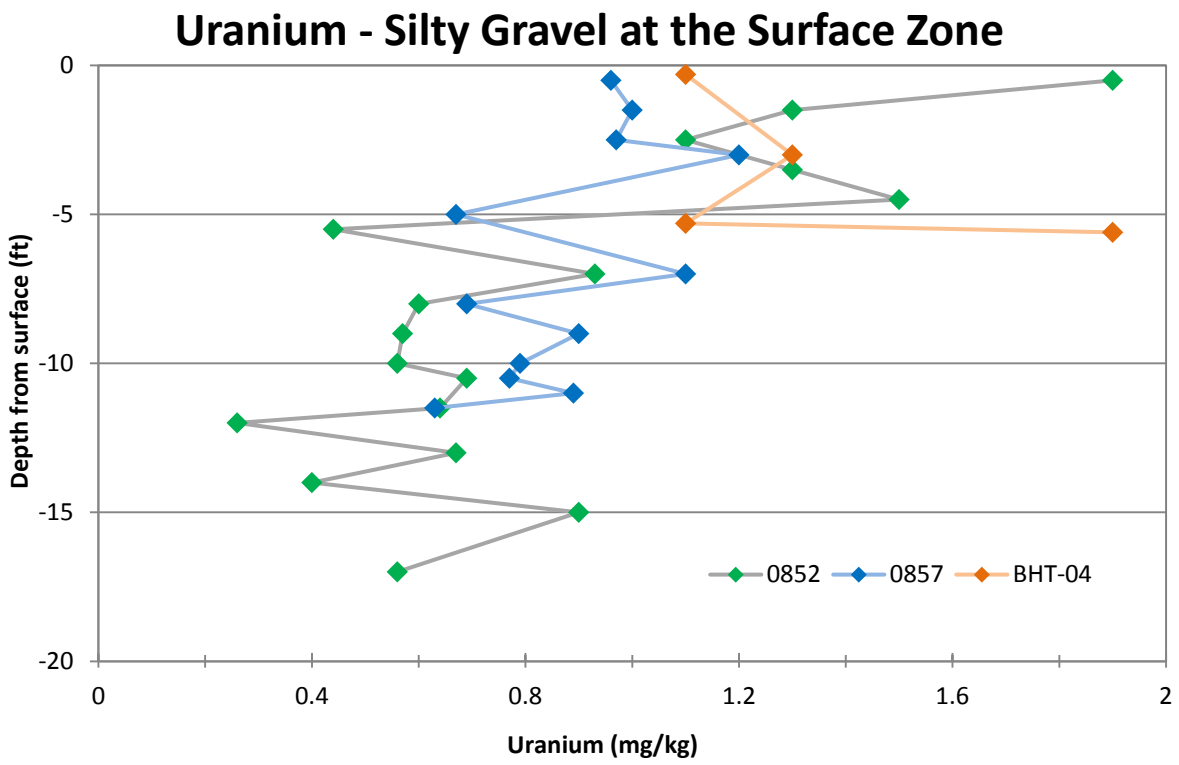

Uranium - BHT-05
Depth from surface (ft)
0
-5
-10
-15
-20
0
1
2
3
4
5
6
7
8
9
10
Uranium (mg/kg)
Silt
Sand &
Gravel

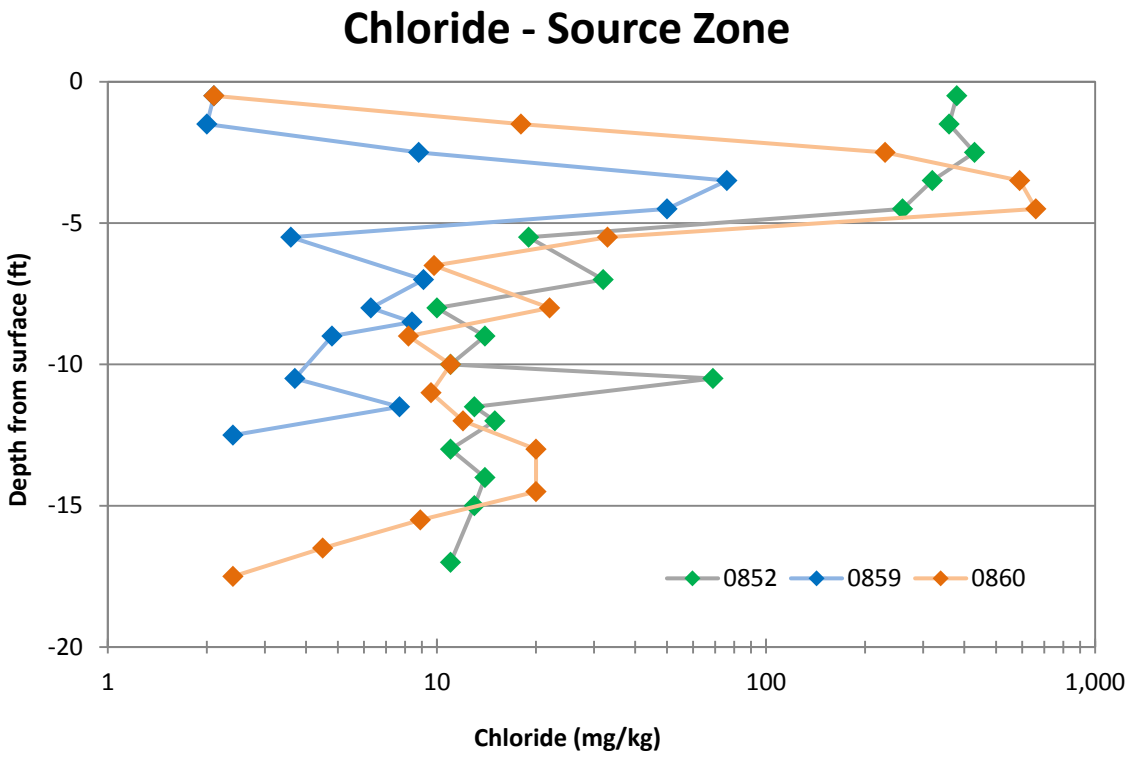

Uranium - Source Zone
Depth from surface (ft)
0
-5
-10
-15
-20
0
1
2
3
4
5
6
Uranium (mg/kg)
0852
0859
0860

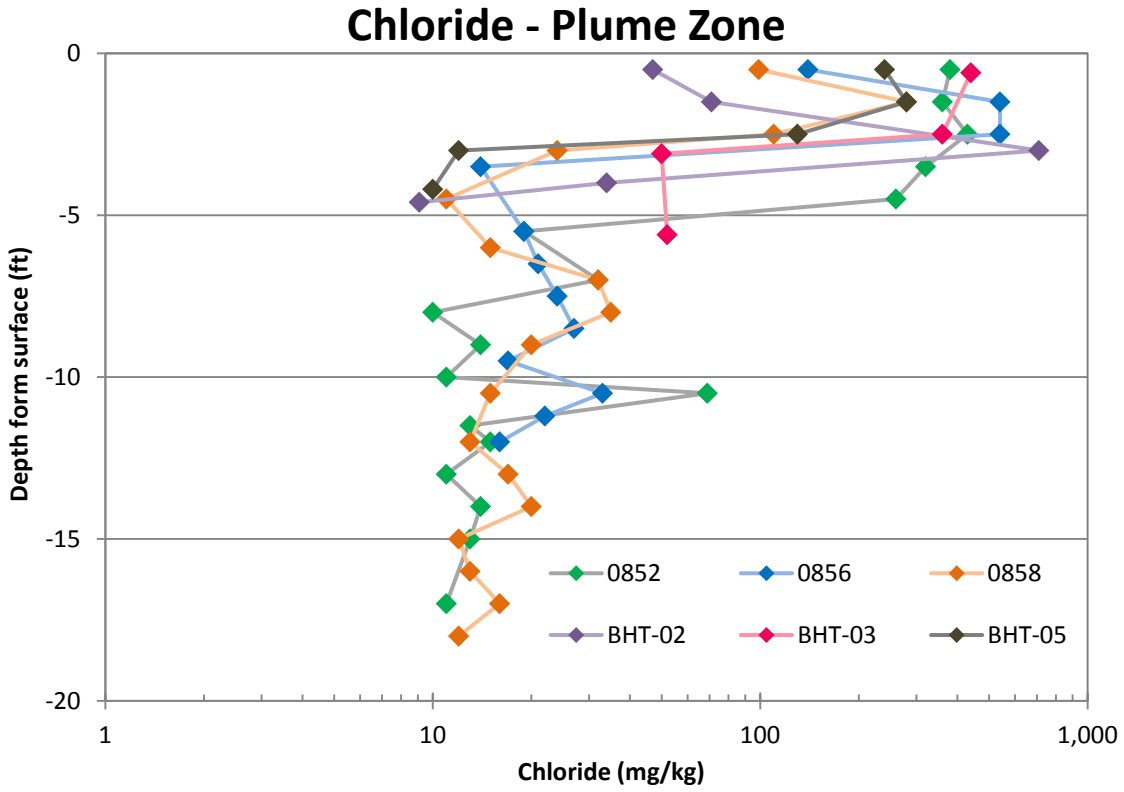

Uranium - Plume Zone
Depth from surface (ft)
0
-5
-10
-15
-20
0
1
2
3
4
5
6
7
8
9
10
Uranium (mg/kg)
0852
0856
0858
BHT-02
BHT-03
BHT-05

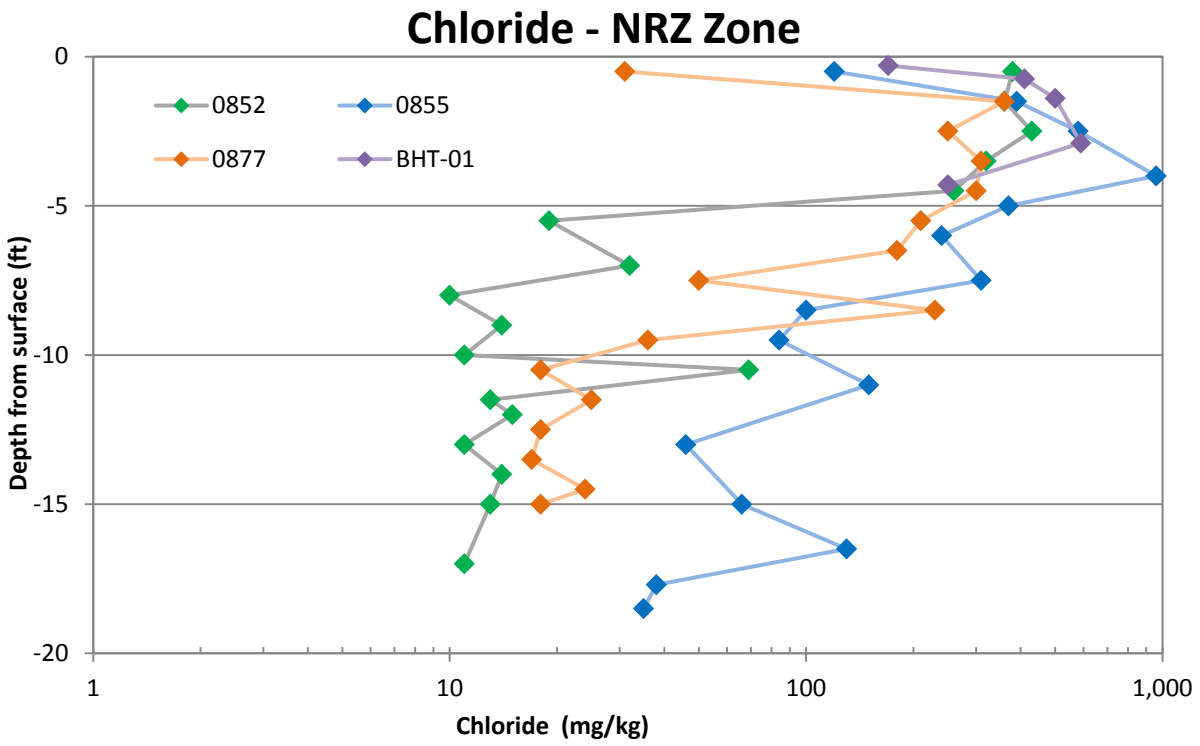

Uranium - NRZ Zone
Depth from surface (ft)
0
-5
-10
-15
-20
0
5
10
15
20
25
Uranium (mg/kg)
0852
0855
0877
BHT-01

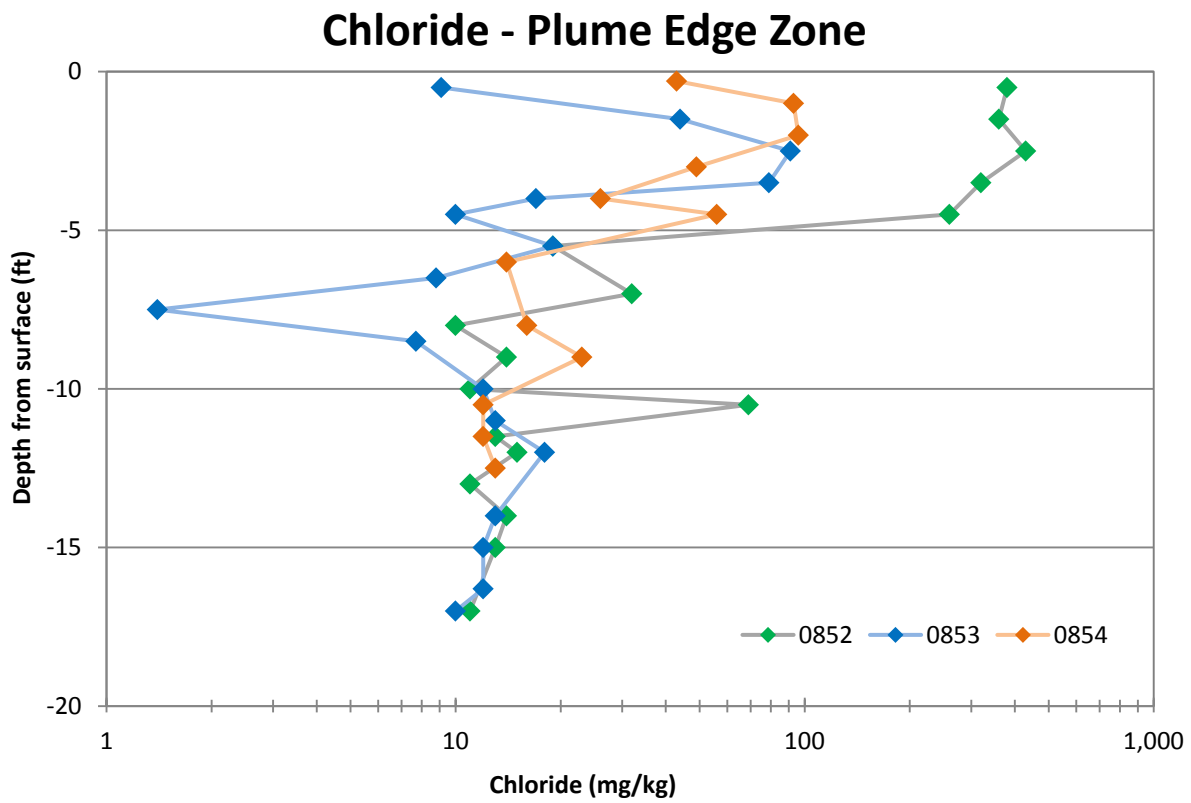

Uranium - Plume Edge Zone
Depth from surface (ft)
0
-5
-10
-15
-20
0
0.5
1
1.5
2
2.5
3
3.5
Uranium (mg/kg)
0852
0853
0854

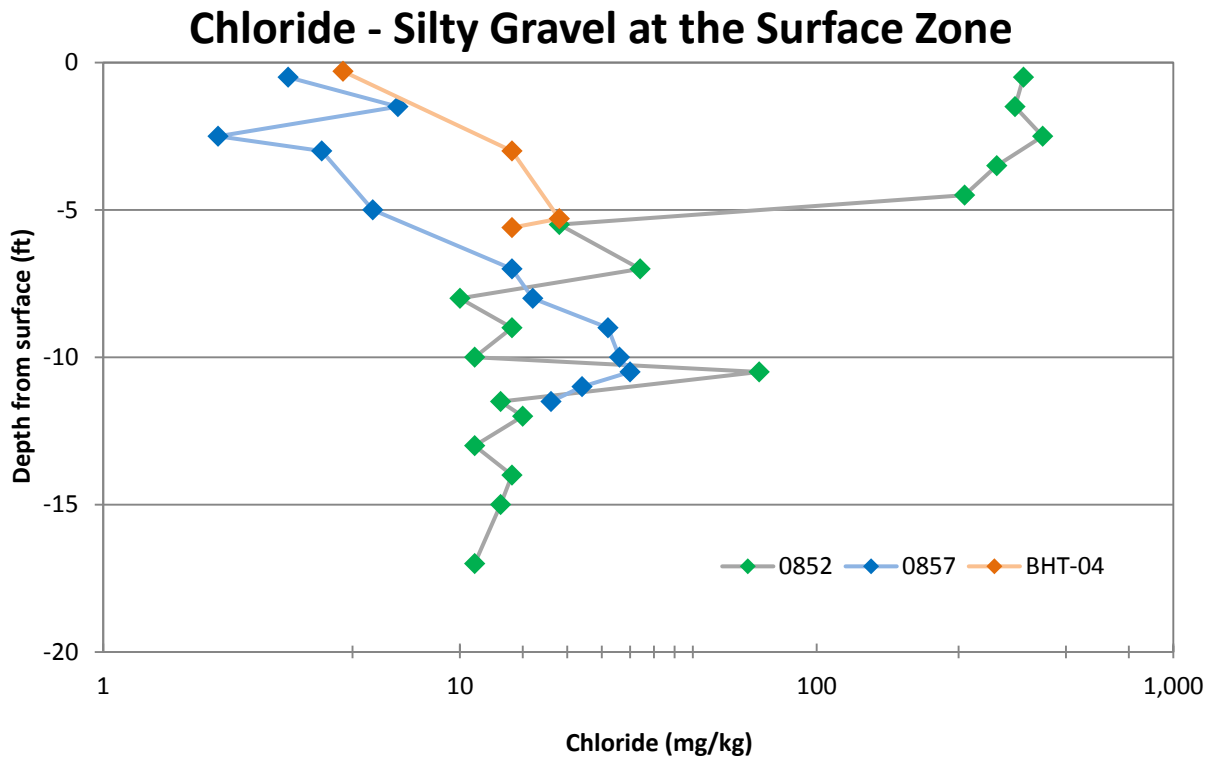

Uranium - Silty Gravel at the Surface Zone
Depth from surface (ft)
0
-5
-10
-15
-20
0
0.4
0.8
1.2
1.6
2
Uranium (mg/kg)
0852
0857
BHT-04

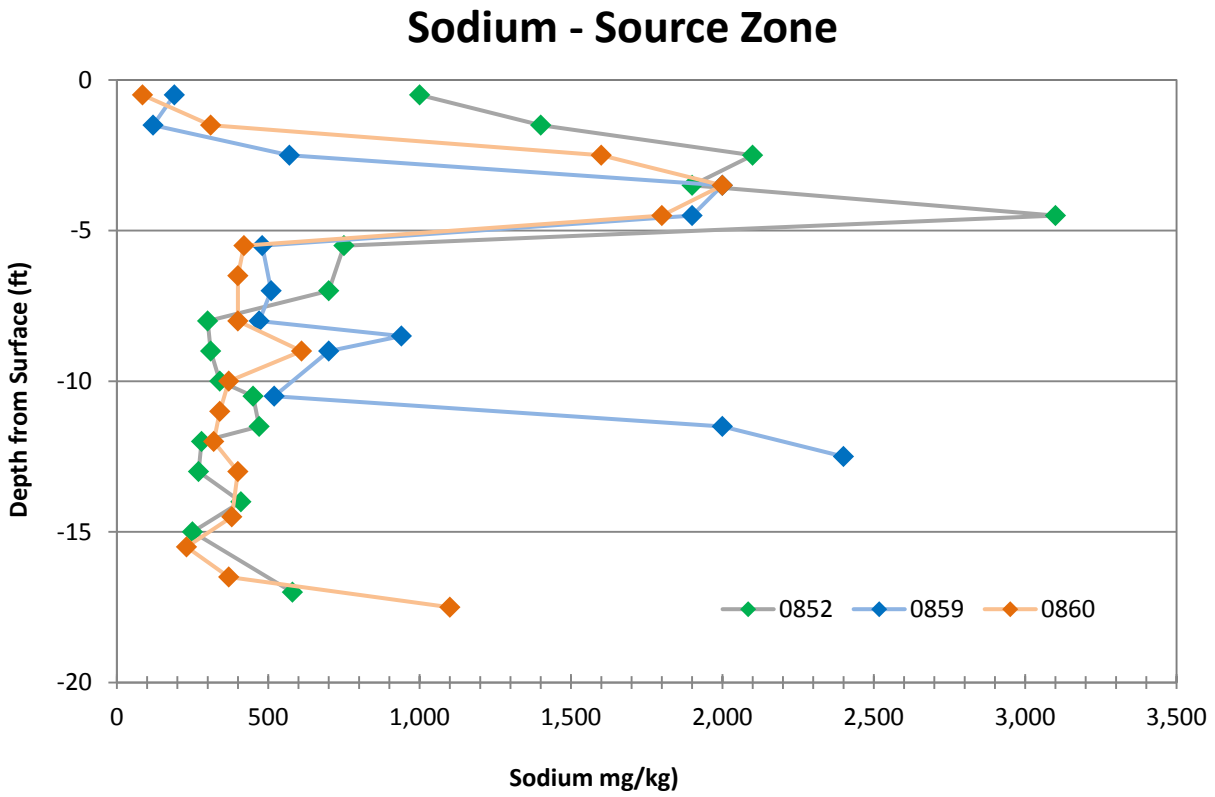

Chloride - Source Zone
Depth from surface (ft)
0
-5
-10
-15
-20
1
10
100
1,000
Chloride (mg/kg)
0852
0859
0860

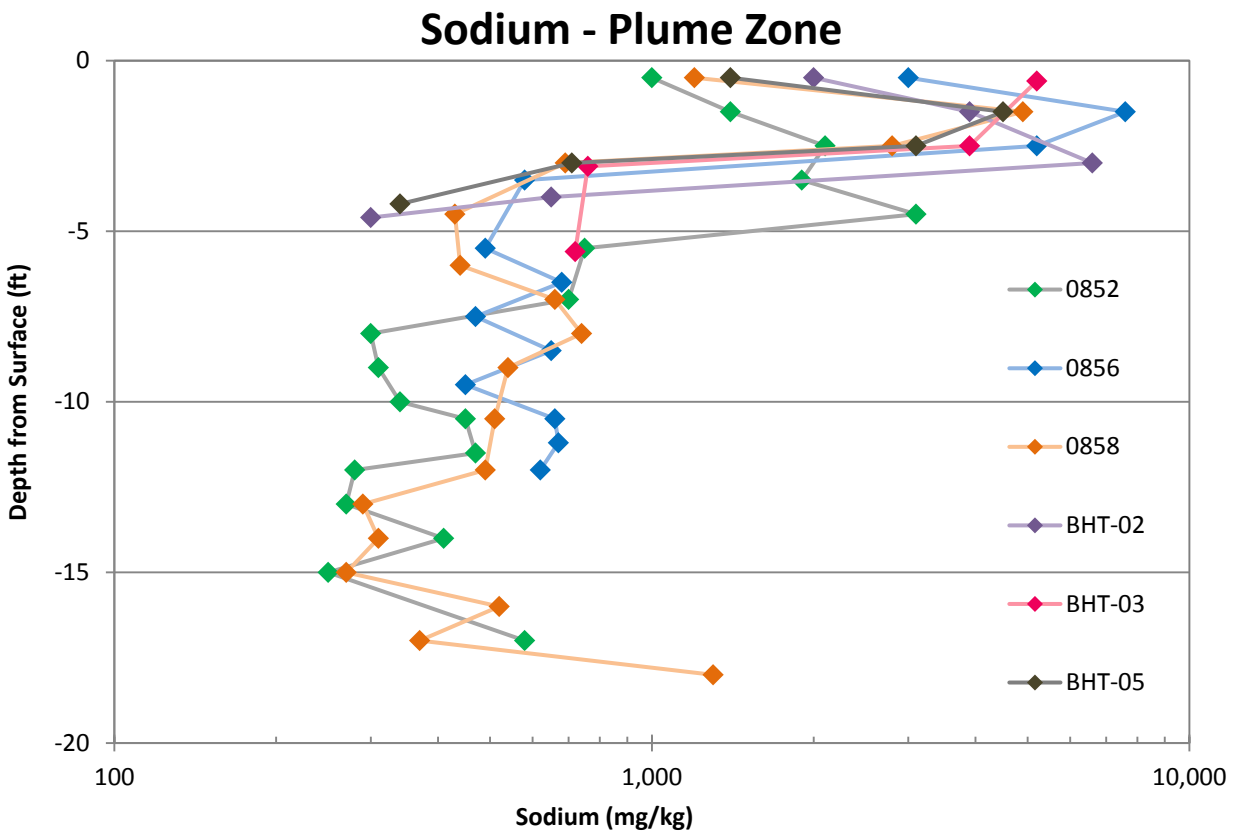

Chloride - Plume Zone
Depth form surface (ft)
0
-5
-10
-15
-20
1
10
100
1,000
Chloride (mg/kg)
0852
0856
0858
BHT-02
BHT-03
BHT-05

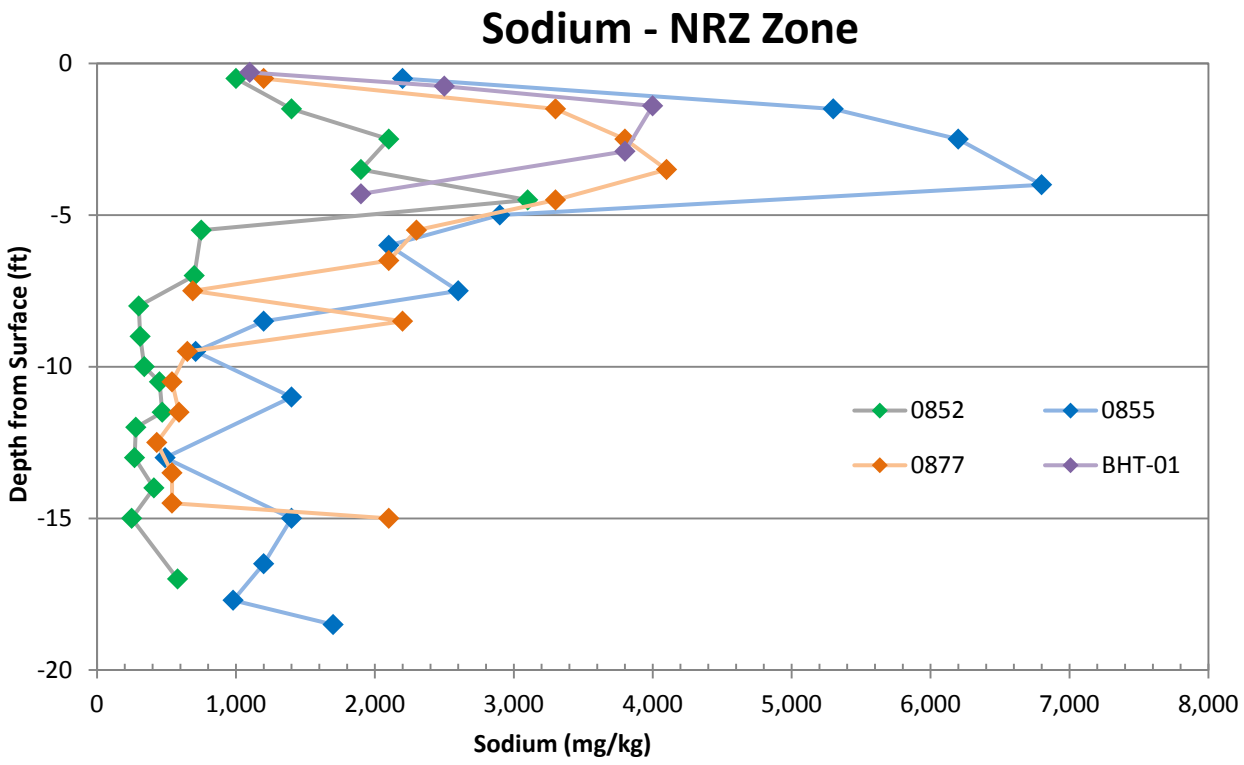

Chloride - NRZ Zone
0852
0855
0877
BHT-01
Depth from surface (ft)
0
-5
-10
-15
-20
1
10
100
1,000
Chloride (mg/kg)

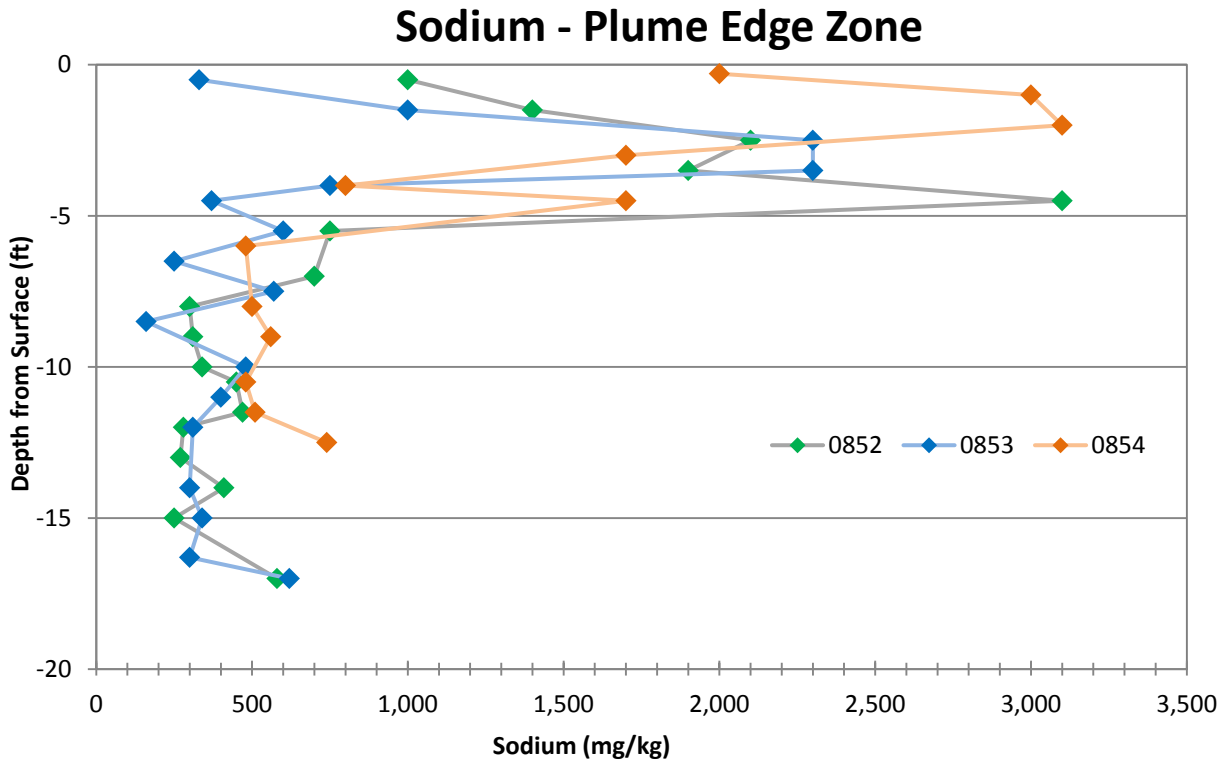

Chloride - Plume Edge Zone
0852
0853
0854
Depth from surface (ft)
0
-5
-10
-15
-20
1
10
100
1,000
Chloride (mg/kg)

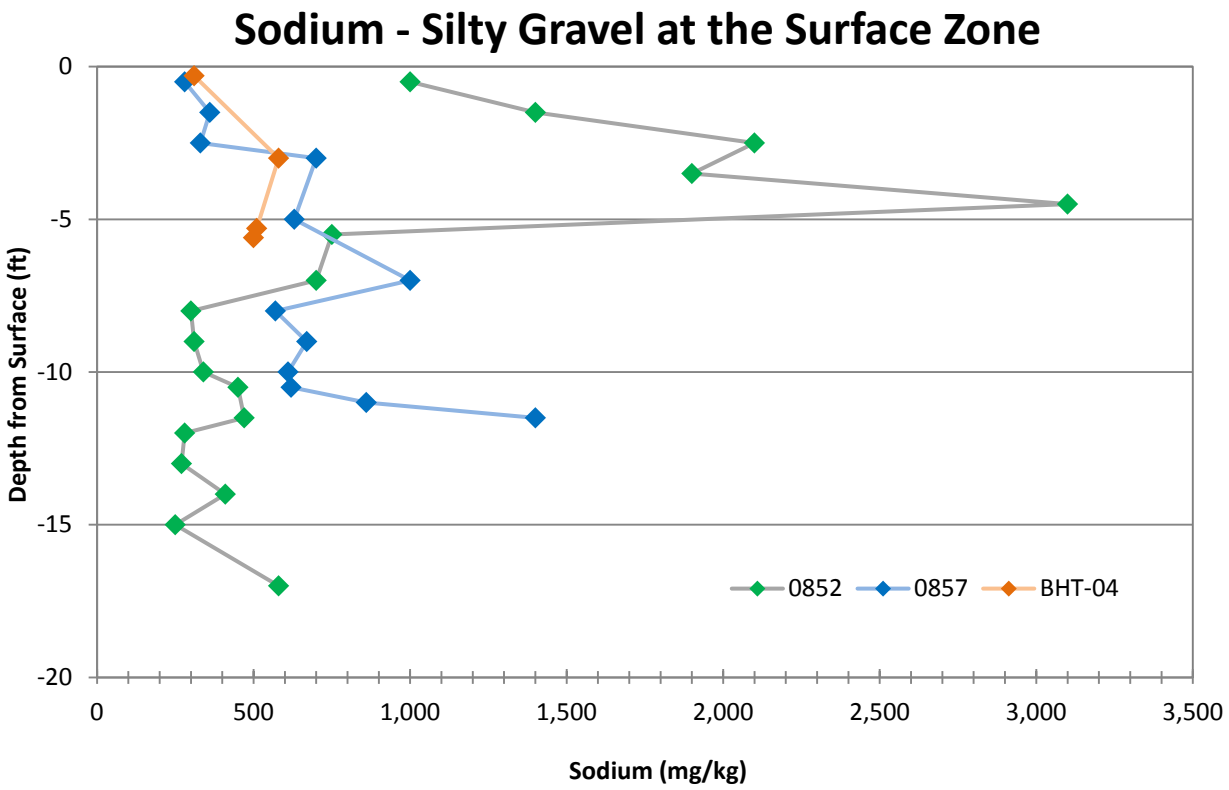

Chloride - Silty Gravel at the Surface Zone
Depth from surface (ft)
0
-5
-10
-15
-20
1
10
100
1,000
Chloride (mg/kg)
0852
0857
BHT-04

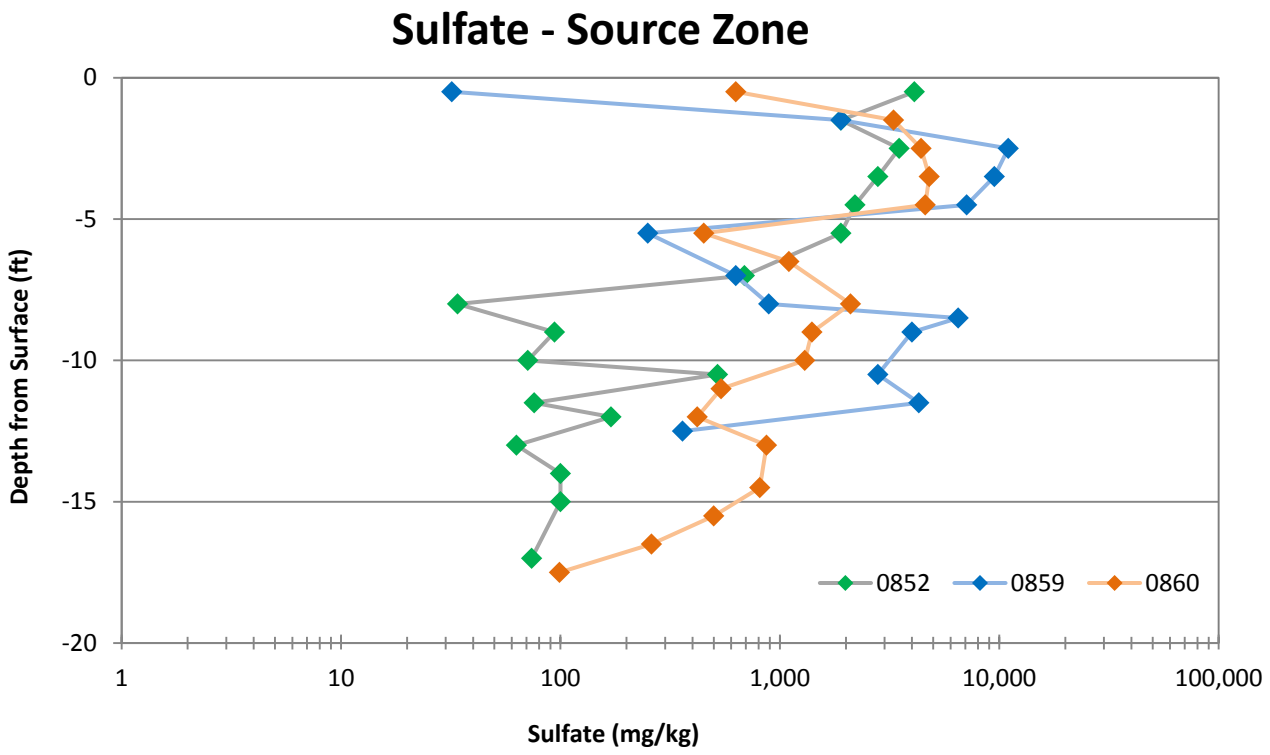

Sodium - Source Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
500
1,000
1,500
2,000
2,500
3,000
3,500
Sodium mg/kg)
0852
0859
0860

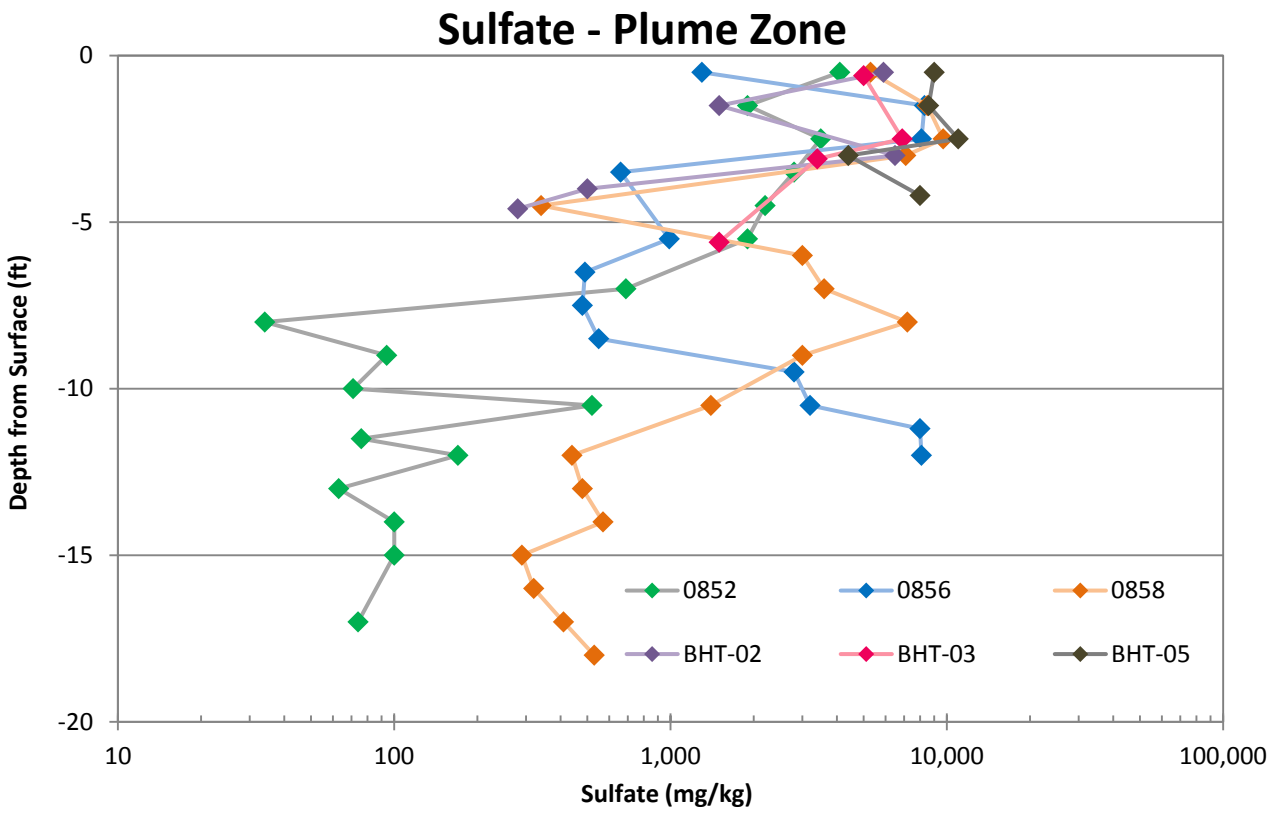

Sodium - Plume Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
100
1,000
10,000
Sodium (mg/kg)
0852
0856
0858
BHT-02
BHT-03
BHT-05

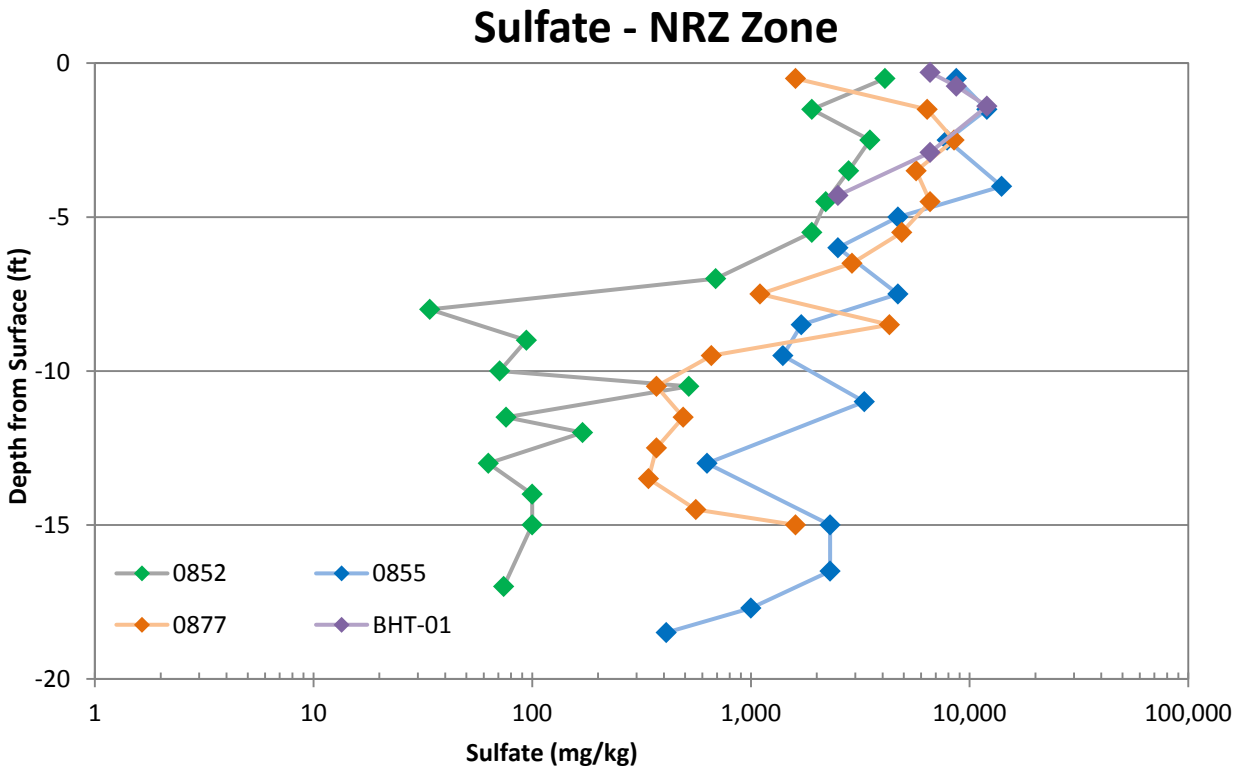

Sodium - NRZ Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
Sodium (mg/kg)
0852
0855
0877
BHT-01

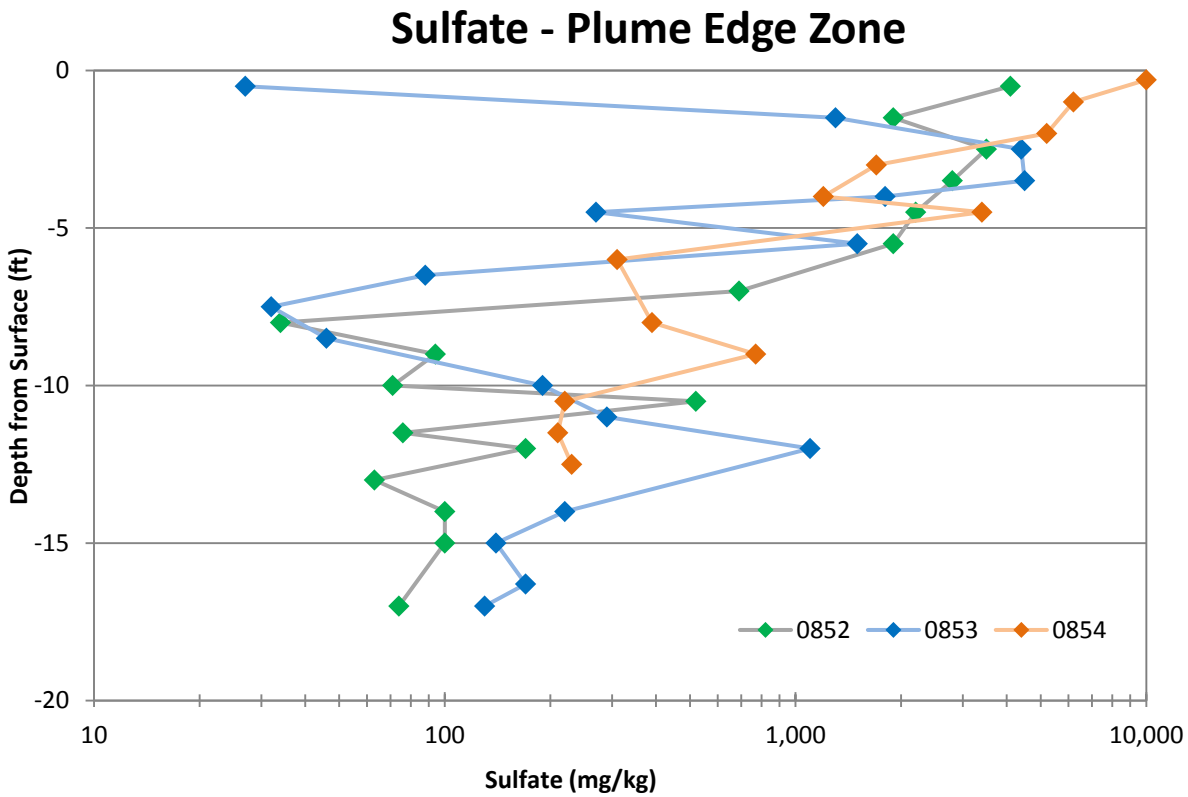

Sodium - Plume Edge Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
500
1,000
1,500
2,000
2,500
3,000
3,500
Sodium (mg/kg)
0852
0853
0854

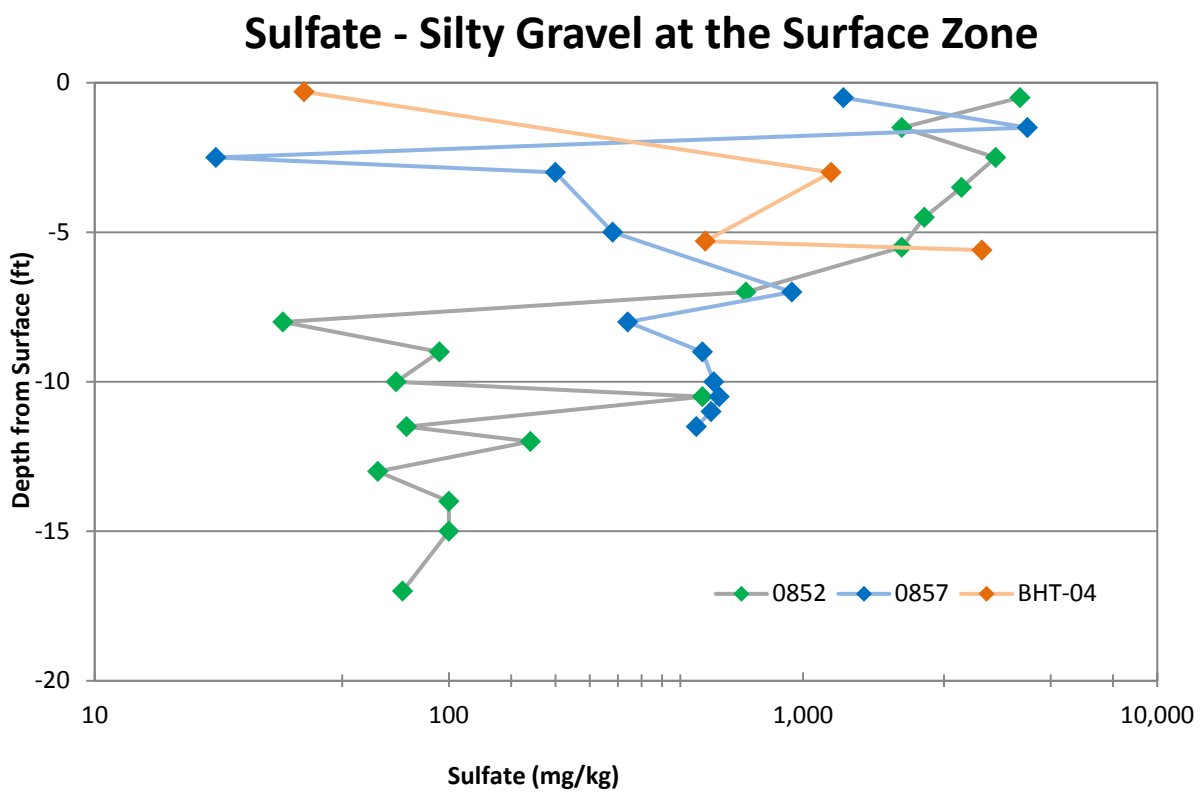

Sodium - Silty Gravel at the Surface Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
500
1,000
1,500
2,000
2,500
3,000
3,500
Sodium (mg/kg)
0852
0857
BHT-04

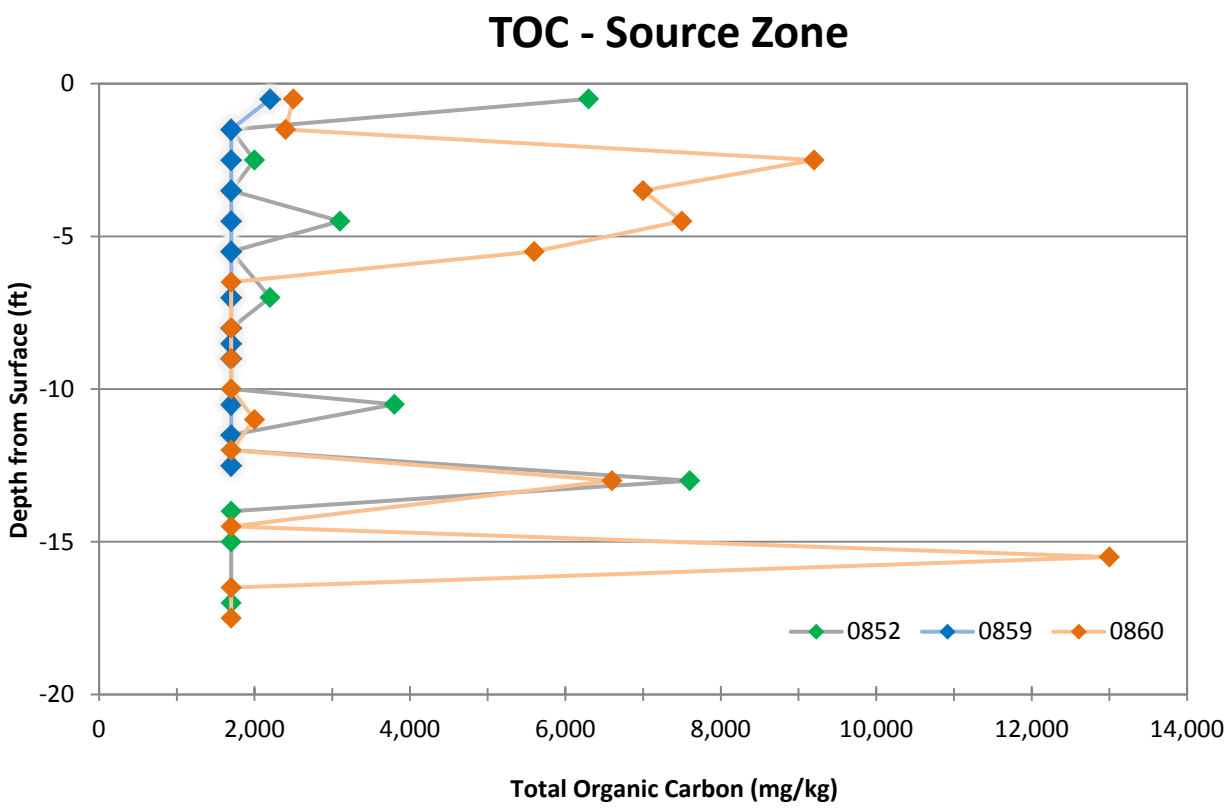

Sulfate - Source Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
1
10
100
1,000
10,000
100,000
Sulfate (mg/kg)
0852
0859
0860

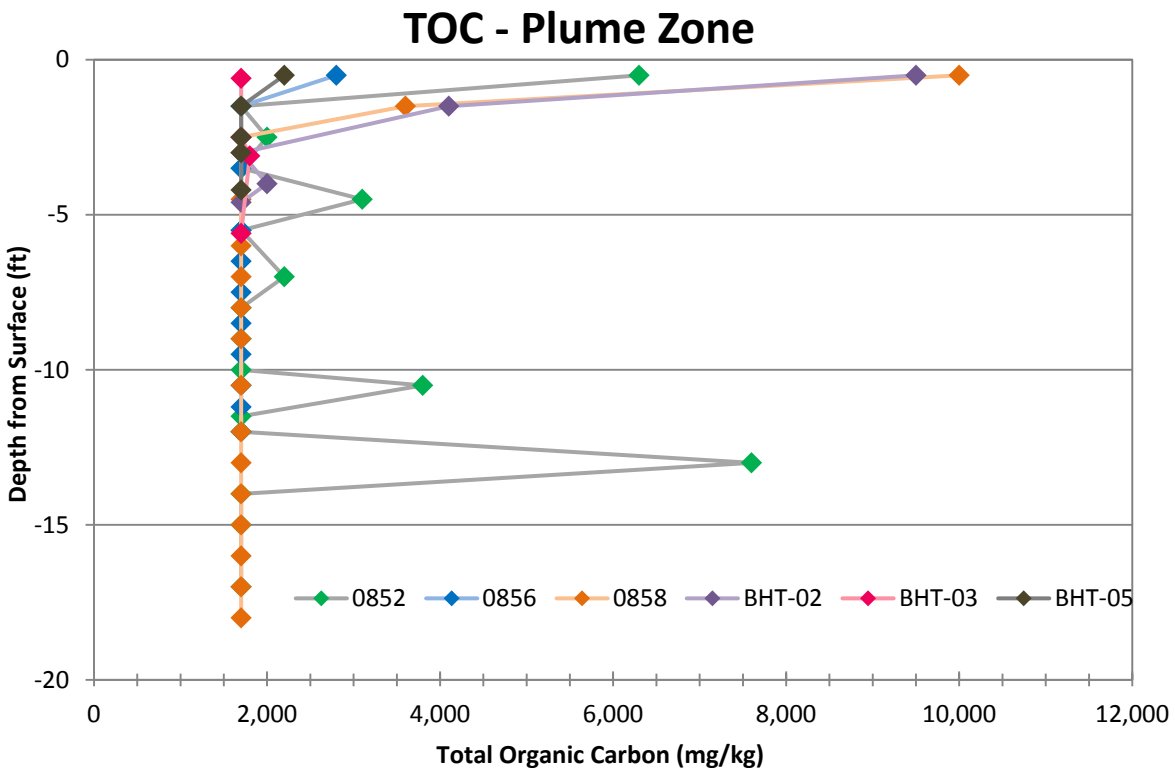

Sulfate - Plume Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
10
100
1,000
10,000
100,000
Sulfate (mg/kg)
0852
0856
0858
BHT-02
BHT-03
BHT-05

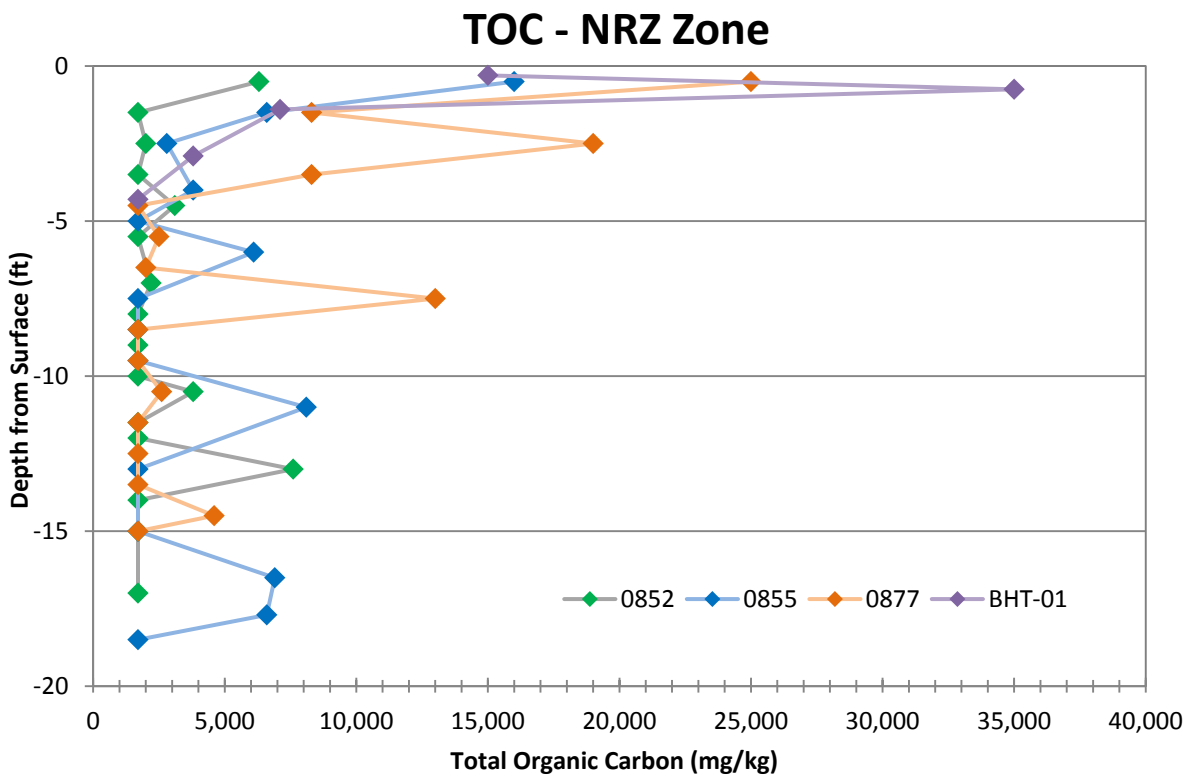

Sulfate - NRZ Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
1
10
100
1,000
10,000
100,000
Sulfate (mg/kg)
0852
0855
0877
BHT-01

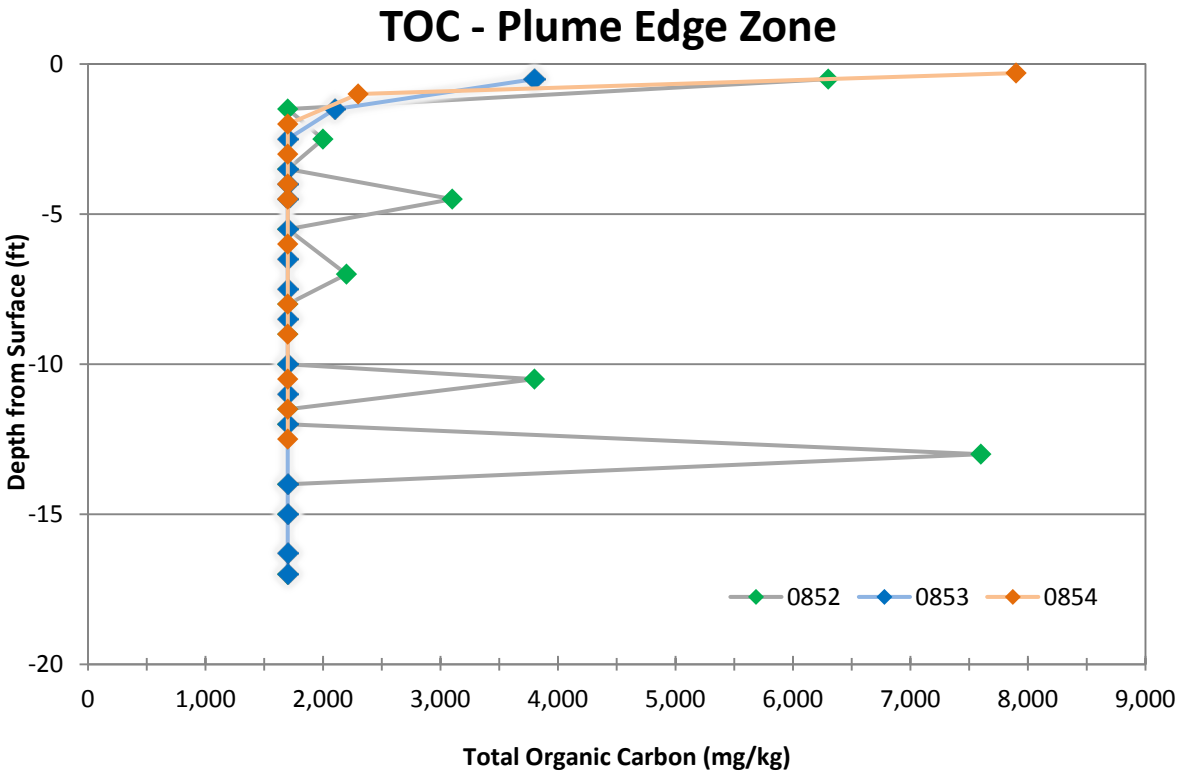

Sulfate - Plume Edge Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
10
100
1,000
10,000
Sulfate (mg/kg)
0852
0853
0854

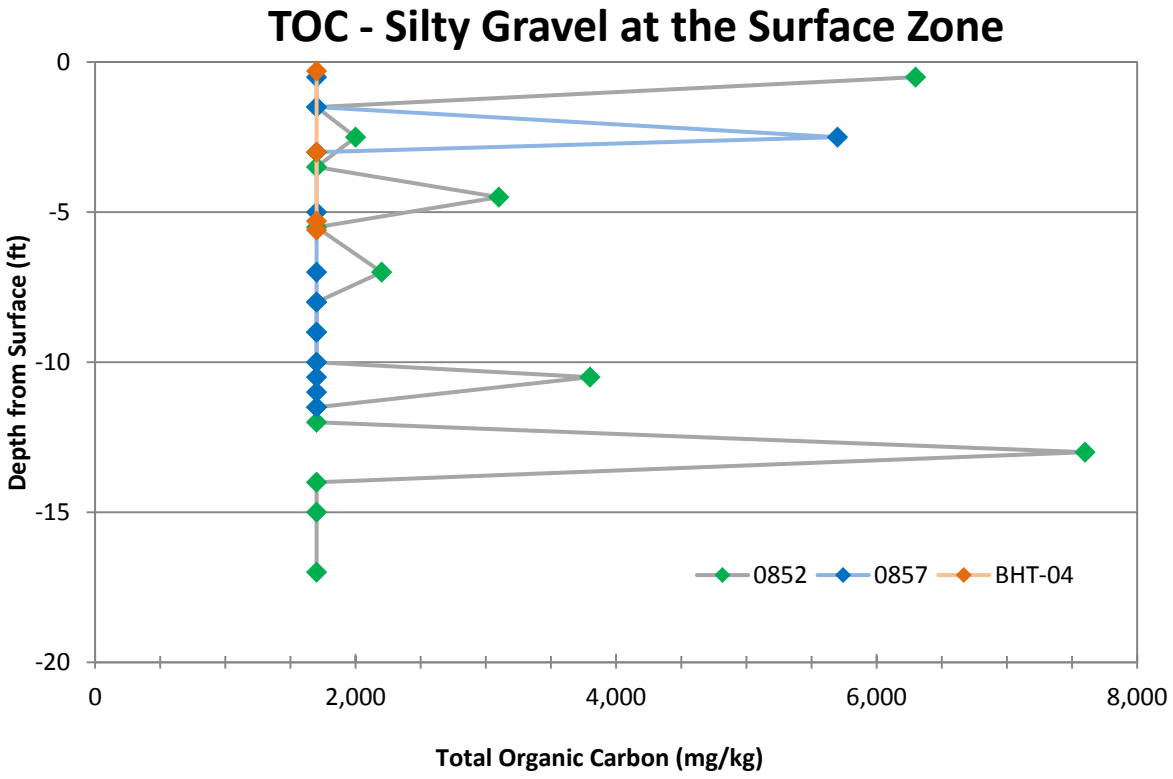

Sulfate - Silty Gravel at the Surface Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
10
100
1,000
10,000
Sulfate (mg/kg)
0852
0857
BHT-04

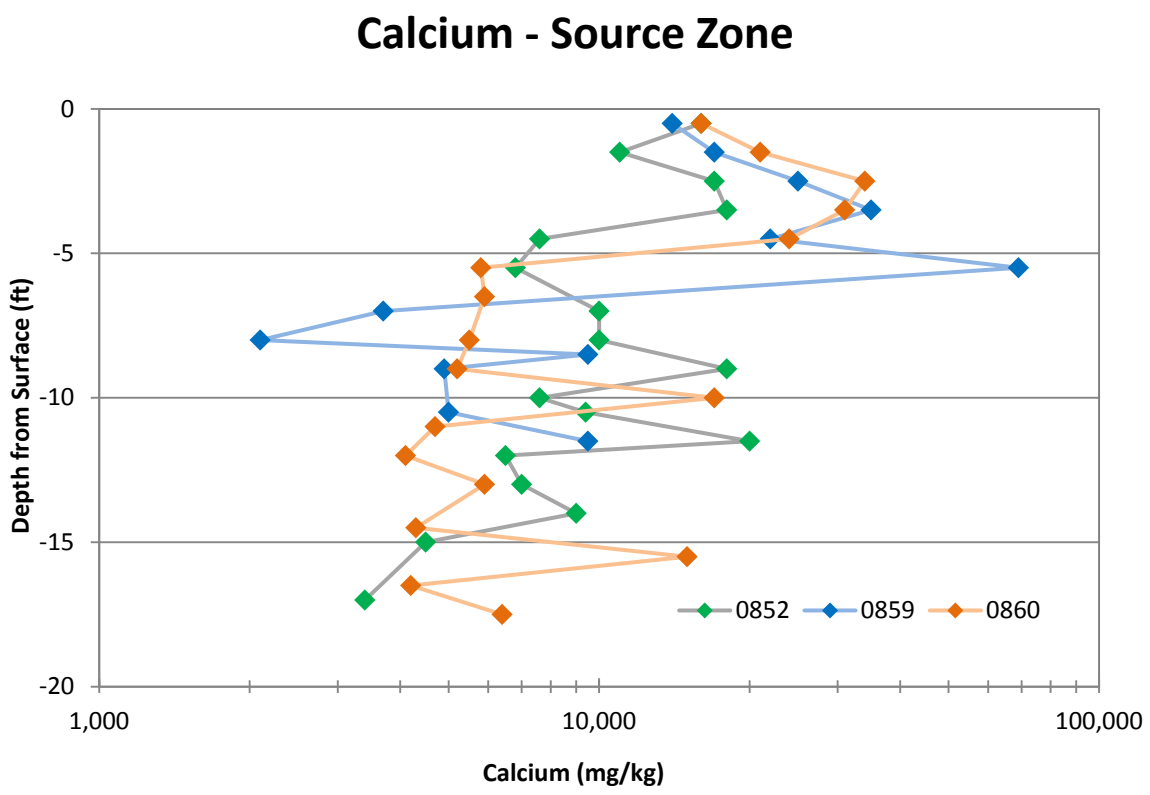

TOC - Source Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
2,000
4,000
6,000
8,000
10,000
12,000
14,000
Total Organic Carbon (mg/kg)
0852
0859
0860

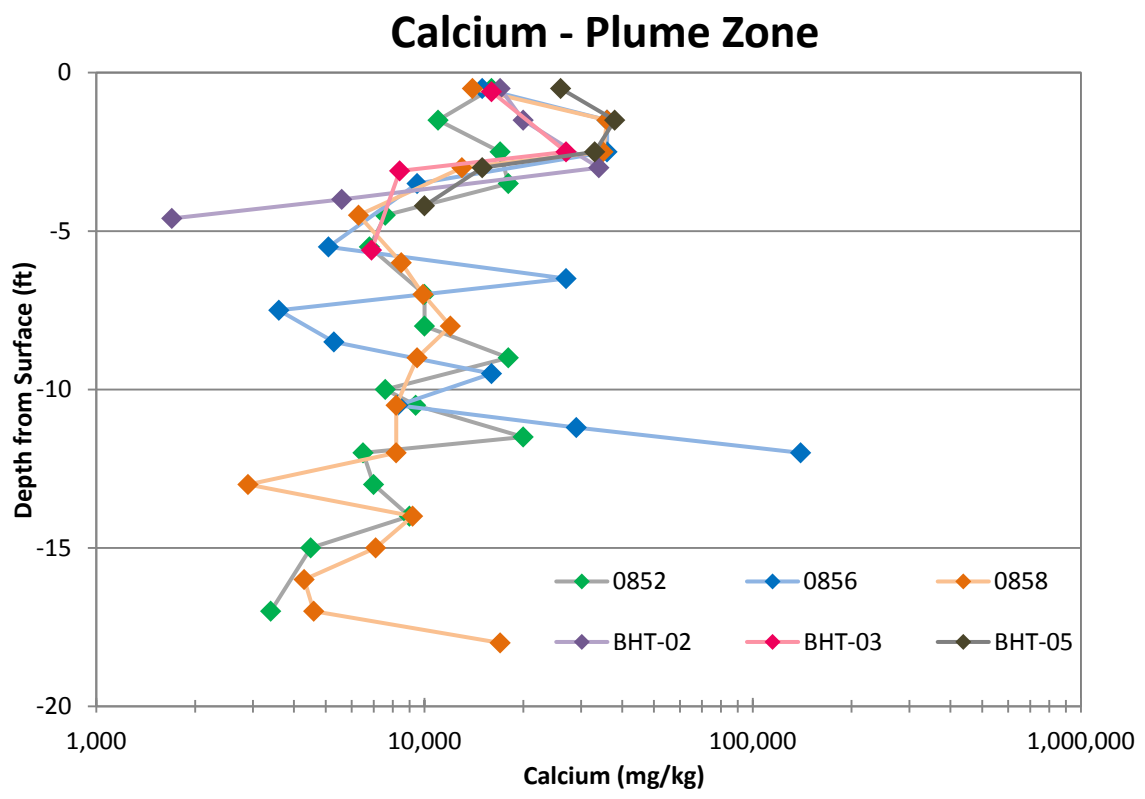

TOC - Plume Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
2,000
4,000
6,000
8,000
10,000
12,000
Total Organic Carbon (mg/kg)
0852
0856
0858
BHT-02
BHT-03
BHT-05

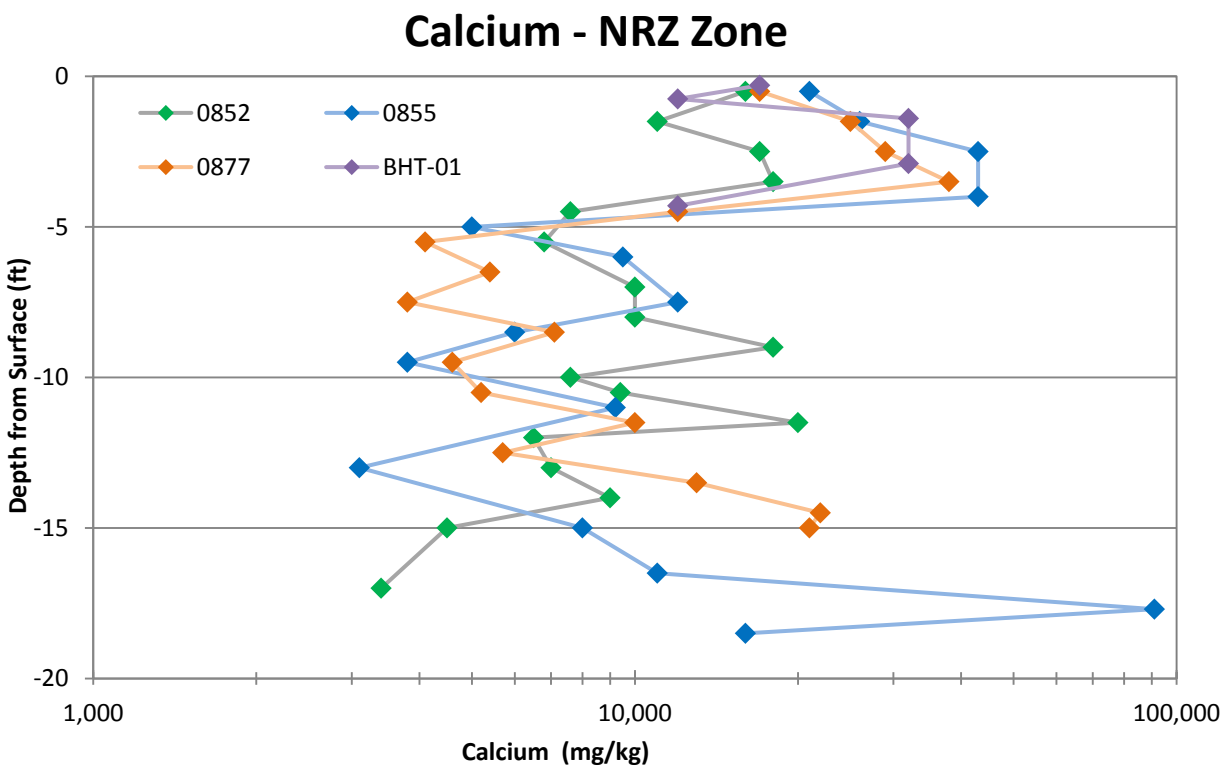

TOC - NRZ Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
Total Organic Carbon (mg/kg)
0852
0855
0877
BHT-01

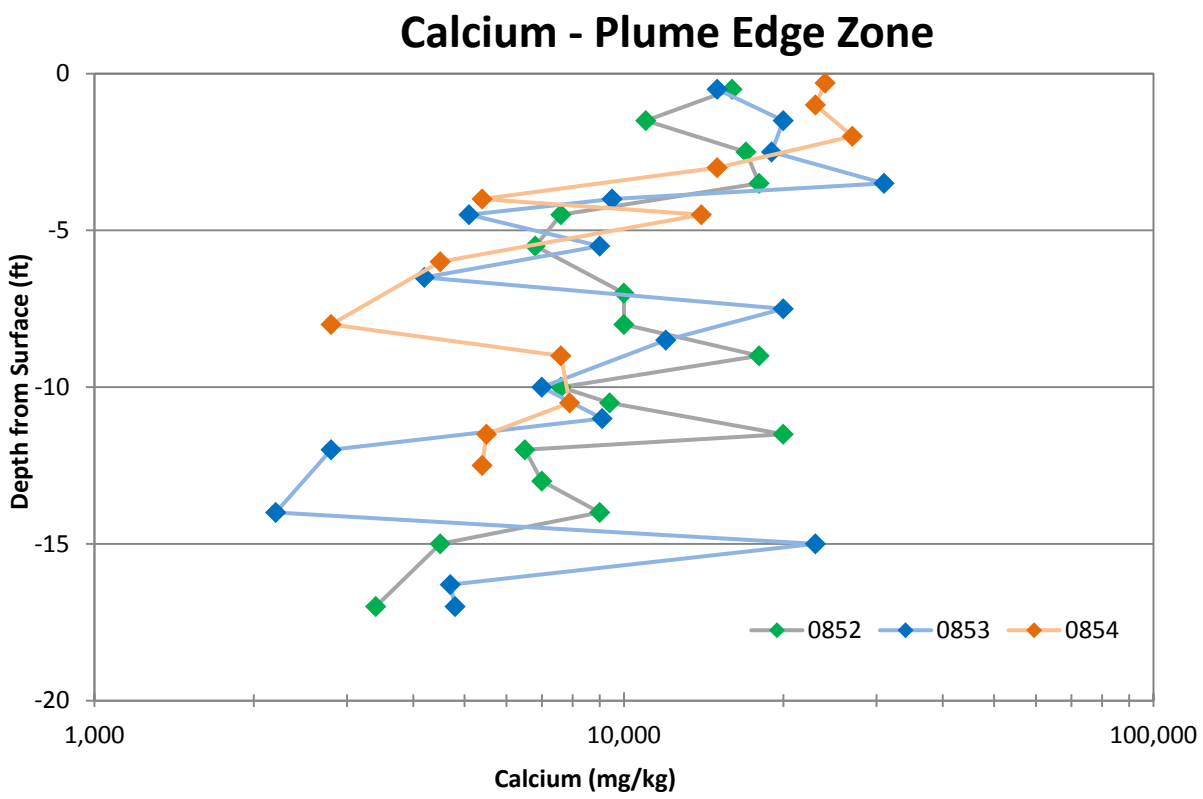

TOC - Plume Edge Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
9,000
Total Organic Carbon (mg/kg)
0852
0853
0854

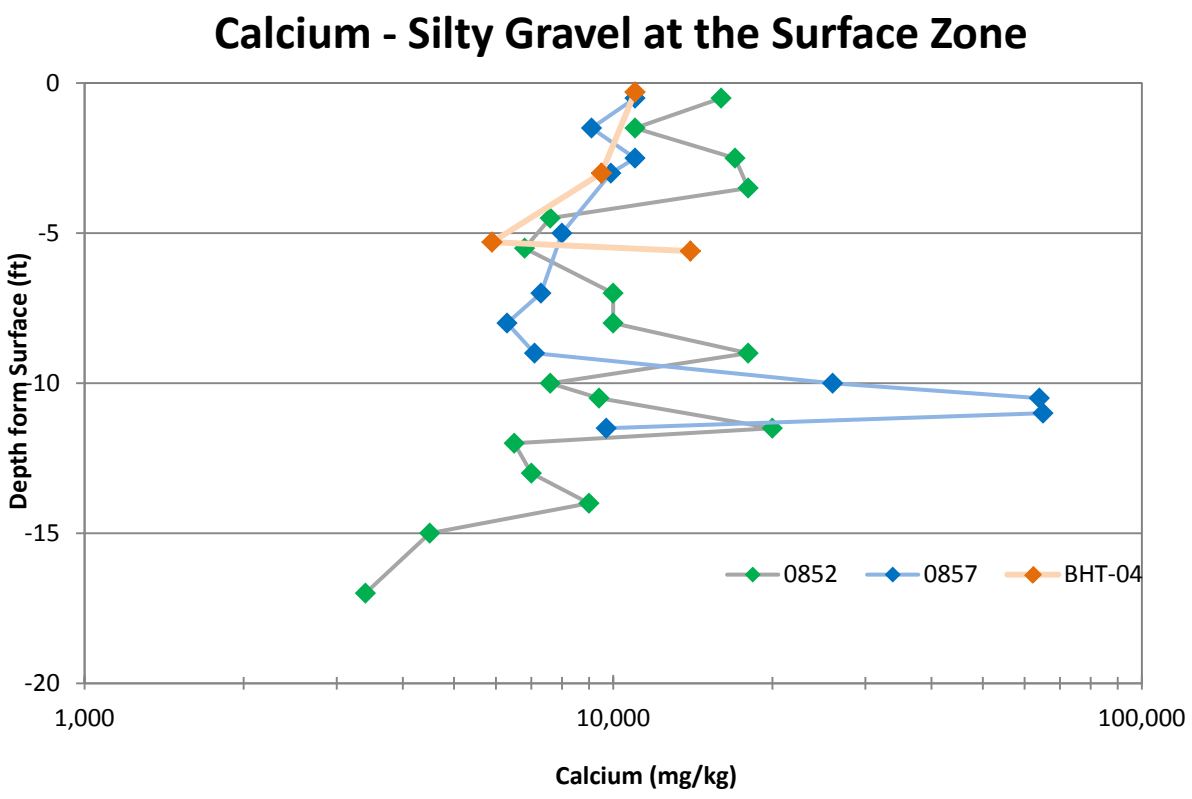

TOC - Silty Gravel at the Surface Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
2,000
4,000
6,000
8,000
Total Organic Carbon (mg/kg)
0852
0857
BHT-04

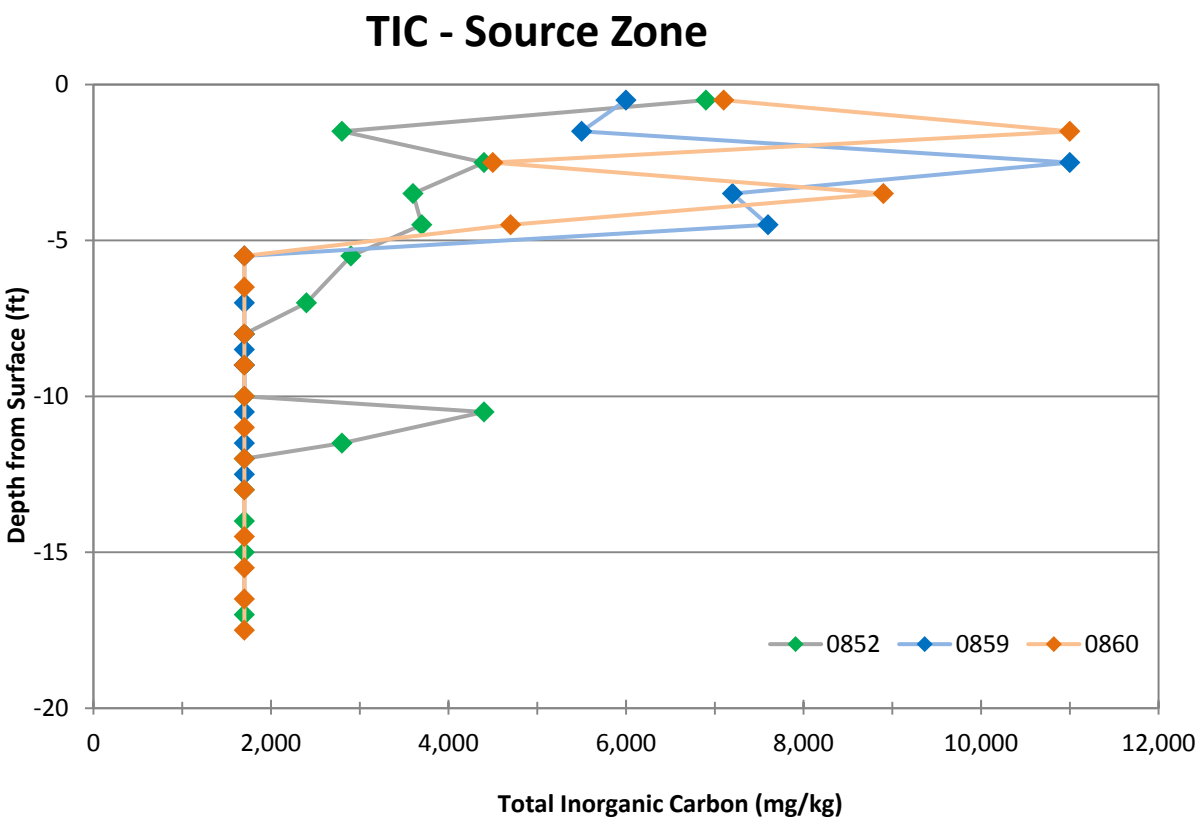

Calcium - Source Zone
0
-5
-10
-15
-20
Depth from Surface (ft)
1,000
10,000
100,000
Calcium (mg/kg)
0852
0859
0860

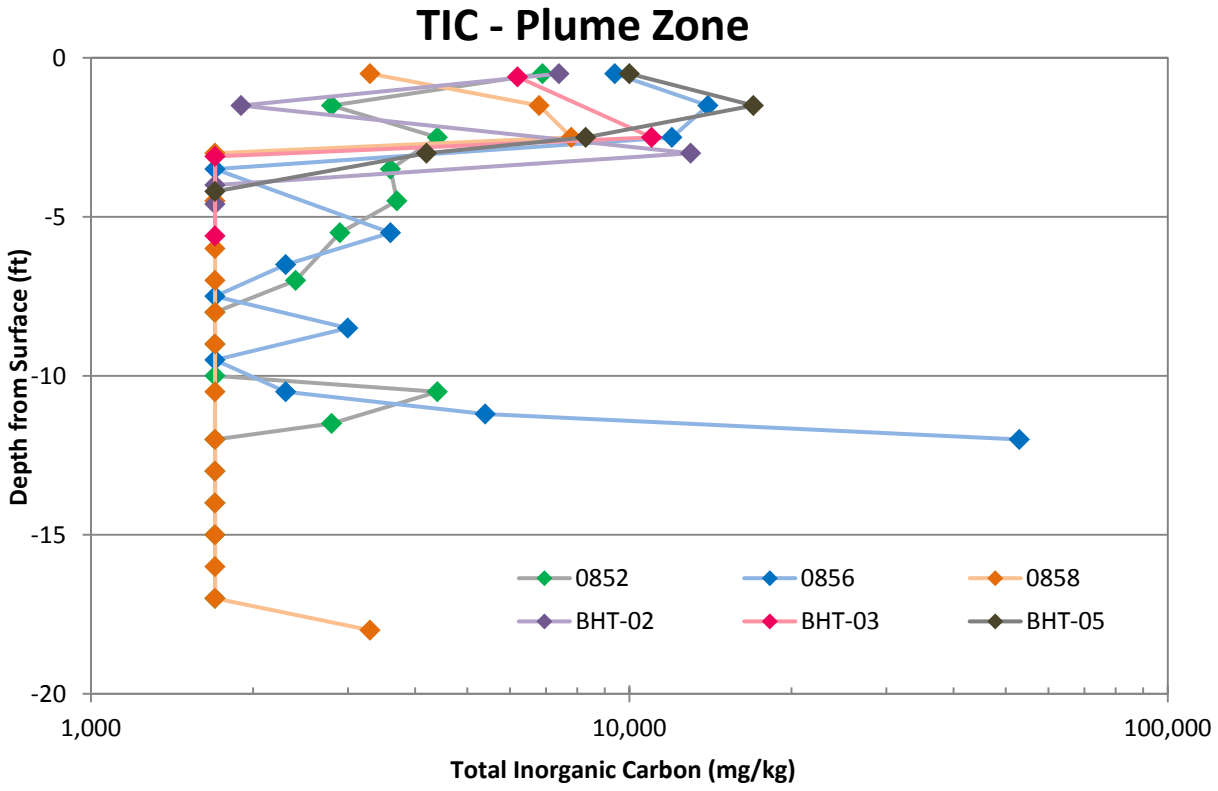

Calcium - Plume Zone
0
-5
-10
-15
-20
Depth from Surface (ft)
1,000
10,000
100,000
1,000,000
Calcium (mg/kg)
0852
0856
0858
BHT-02
BHT-03
BHT-05

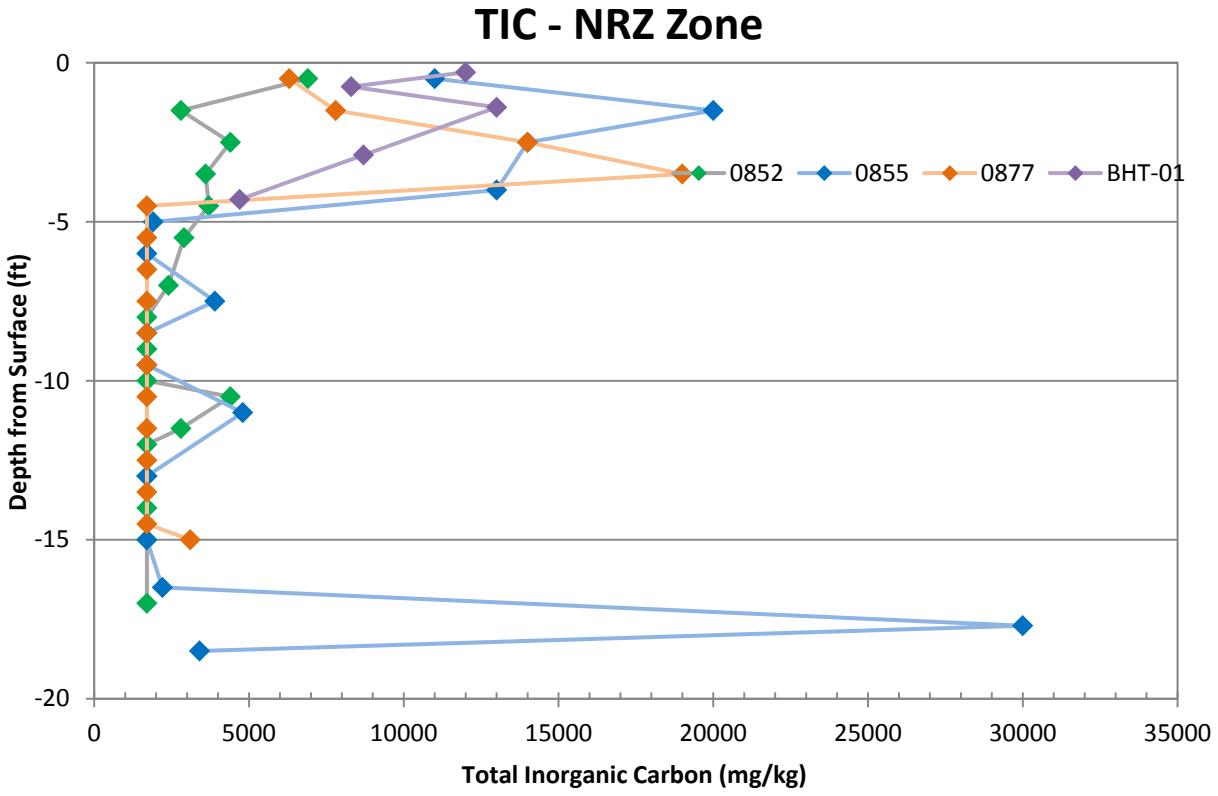

Calcium - NRZ Zone
0852
0855
0877
BHT-01
Depth from Surface (ft)
0
-5
-10
-15
-20
1,000
10,000
100,000
Calcium (mg/kg)

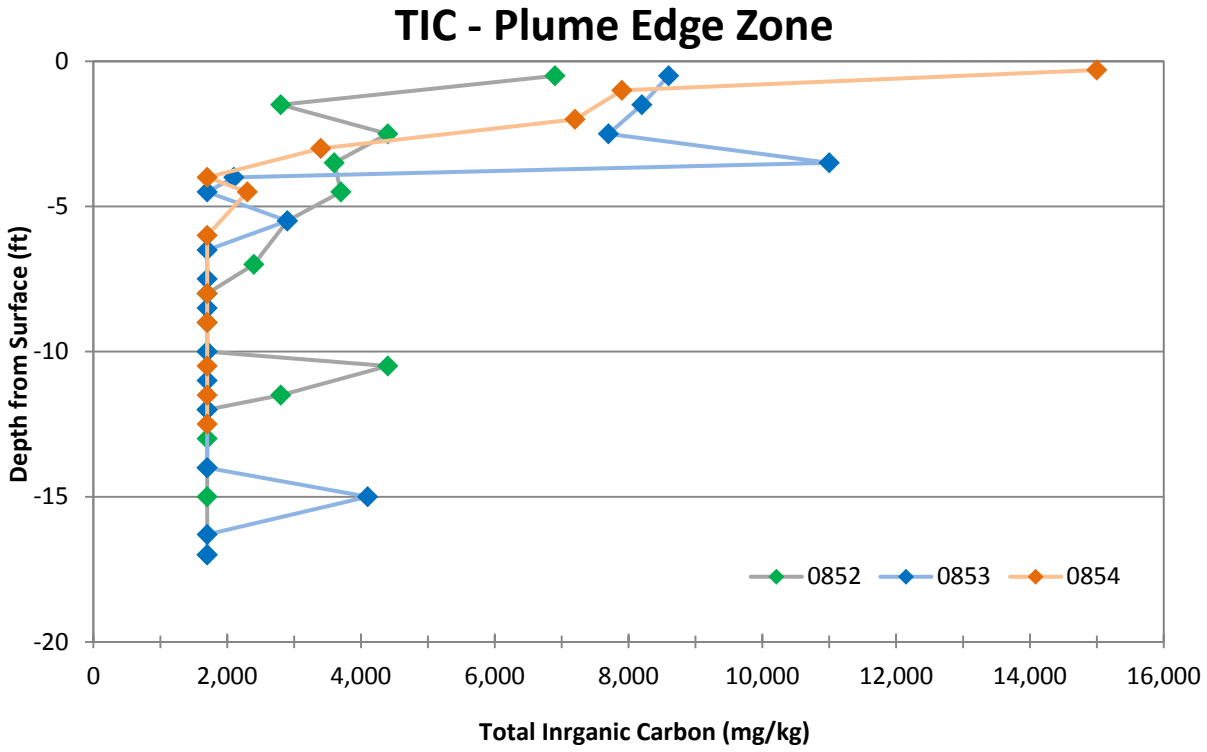

Calcium - Plume Edge Zone
0852
0853
0854
Depth from Surface (ft)
0
-5
-10
-15
-20
1,000
10,000
100,000
Calcium (mg/kg)

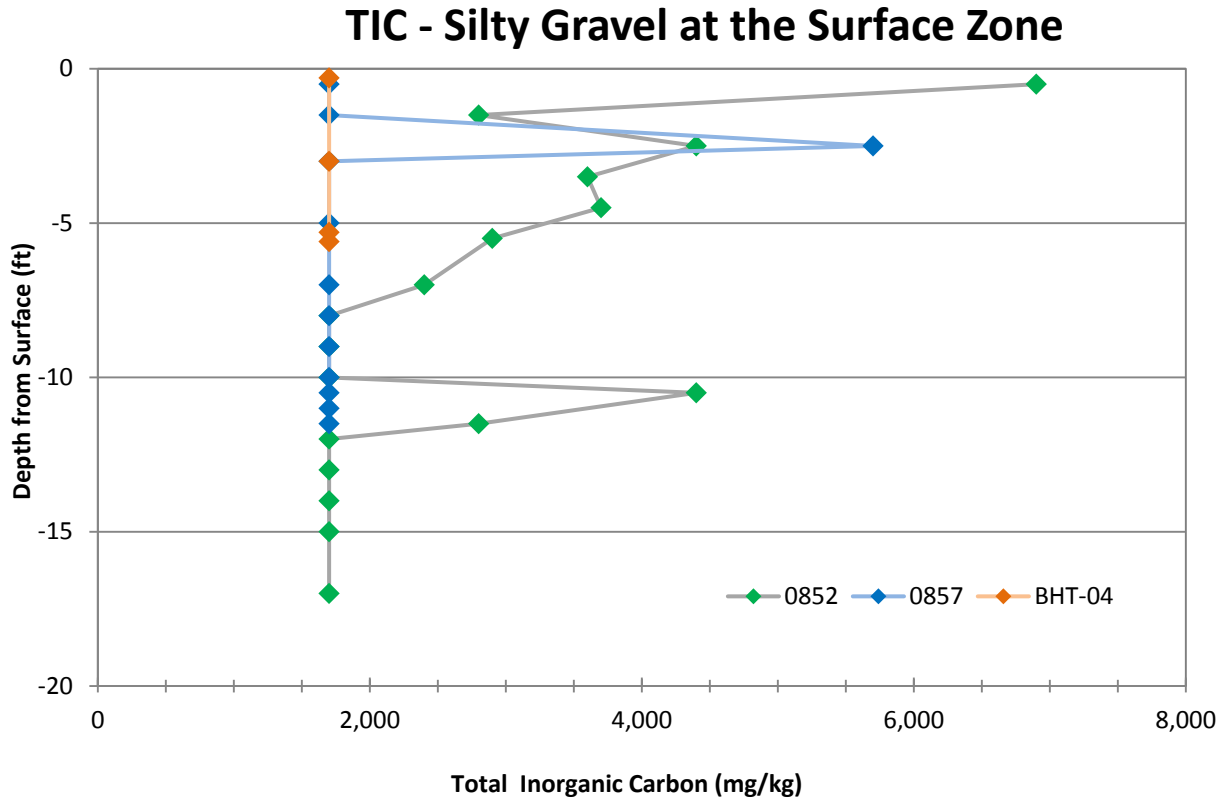

Calcium - Silty Gravel at the Surface Zone
Depth form Surface (ft)
0
-5
-10
-15
-20
1,000
10,000
100,000
Calcium (mg/kg)
0852
0857
BHT-04

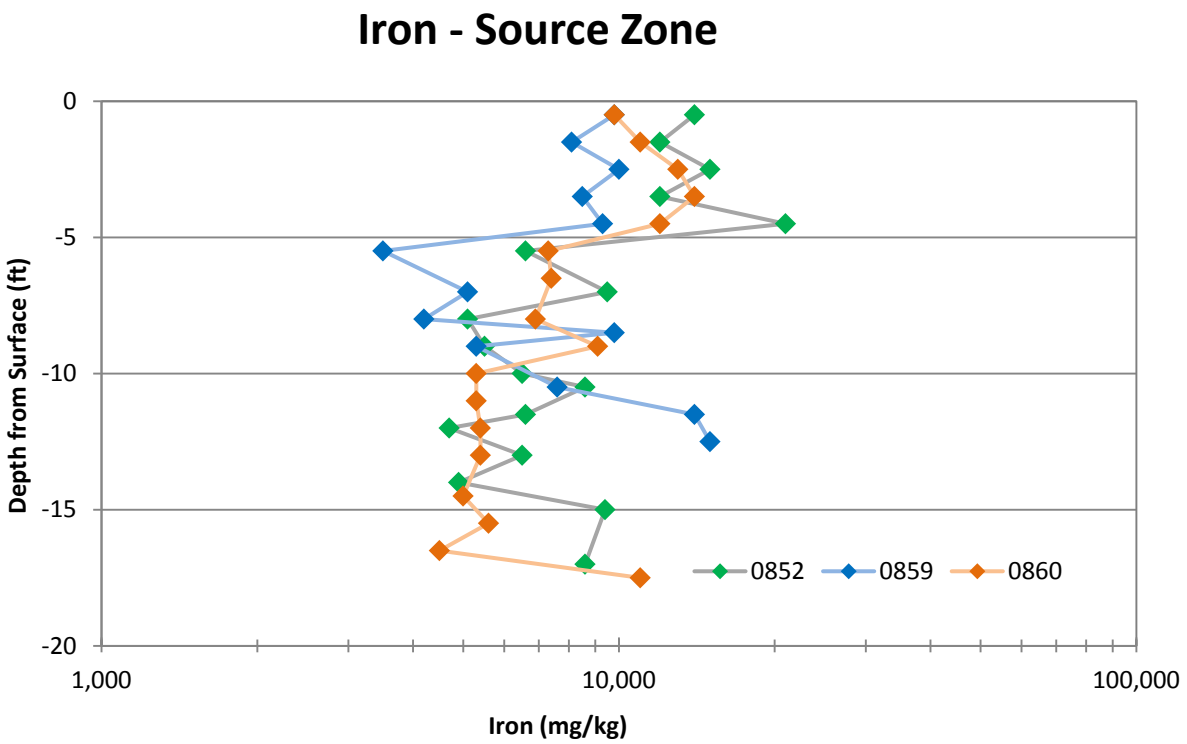

TIC - Source Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
2,000
4,000
6,000
8,000
10,000
12,000
Total Inorganic Carbon (mg/kg)
0852
0859
0860

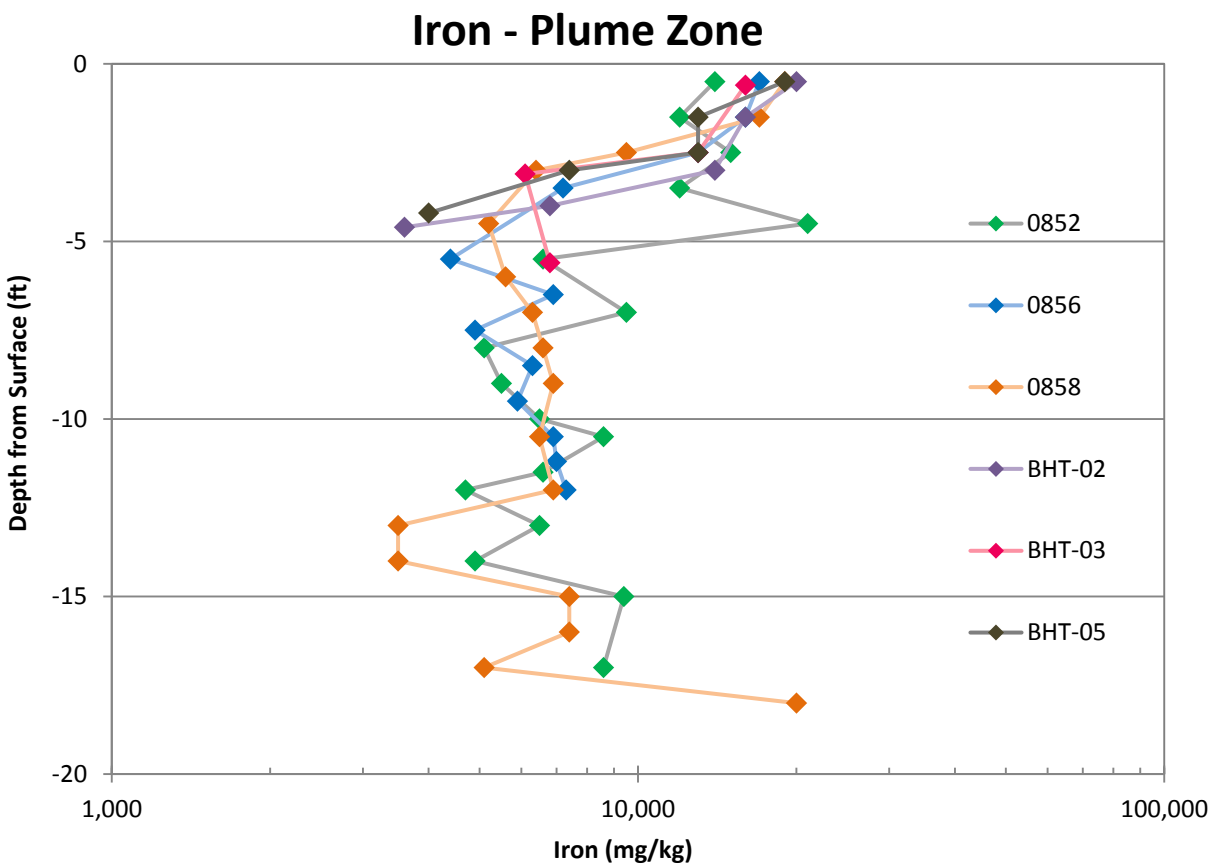

TIC - Plume Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
1,000
10,000
100,000
Total Inorganic Carbon (mg/kg)
0852
0856
0858
BHT-02
BHT-03
BHT-05

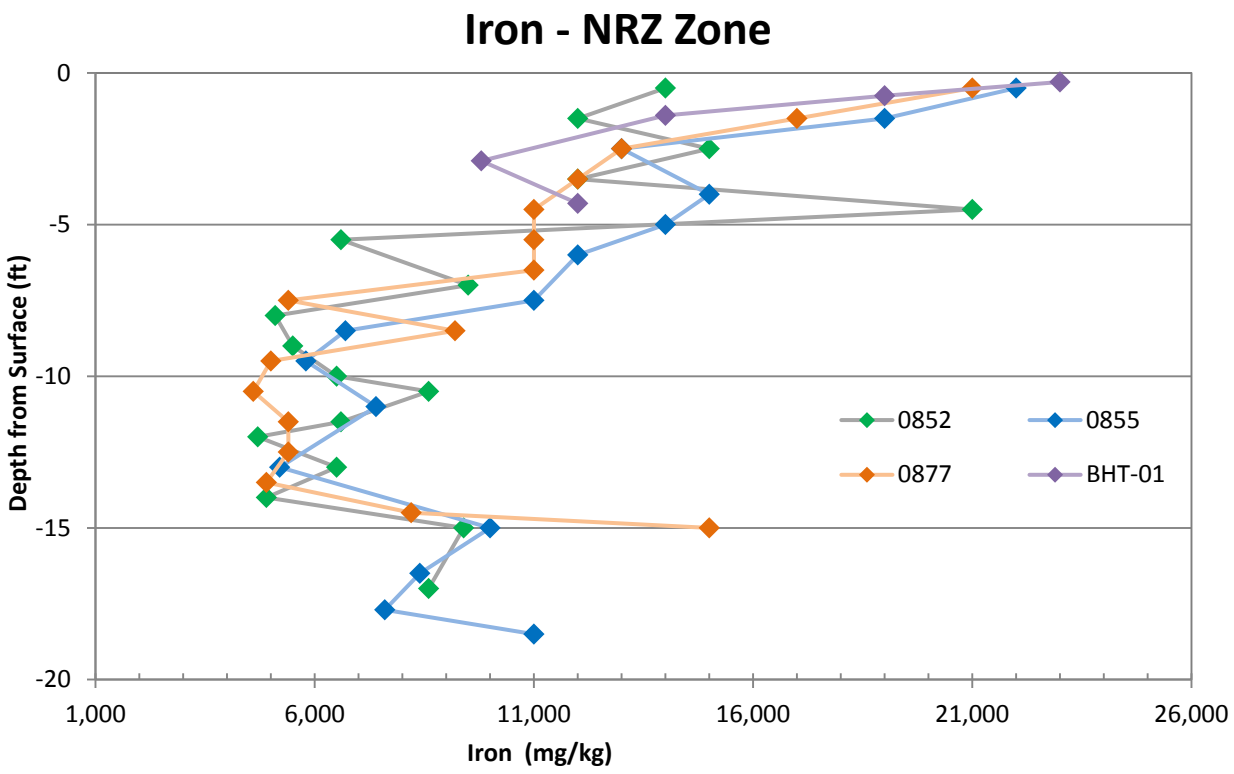

TIC - NRZ Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
5000
10000
15000
20000
25000
30000
35000
Total Inorganic Carbon (mg/kg)
0852
0855
0877
BHT-01

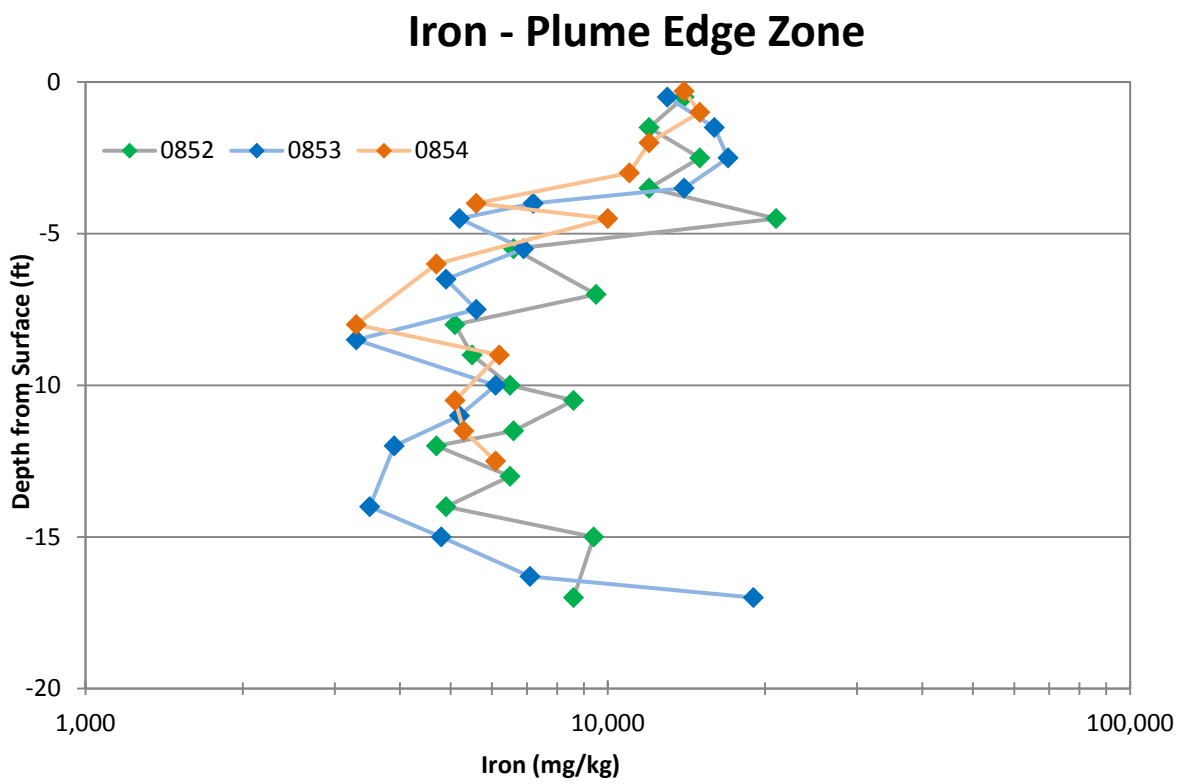

TIC - Plume Edge Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
2,000
4,000
6,000
8,000
10,000
12,000
14,000
16,000
Total Inrganic Carbon (mg/kg)
0852
0853
0854

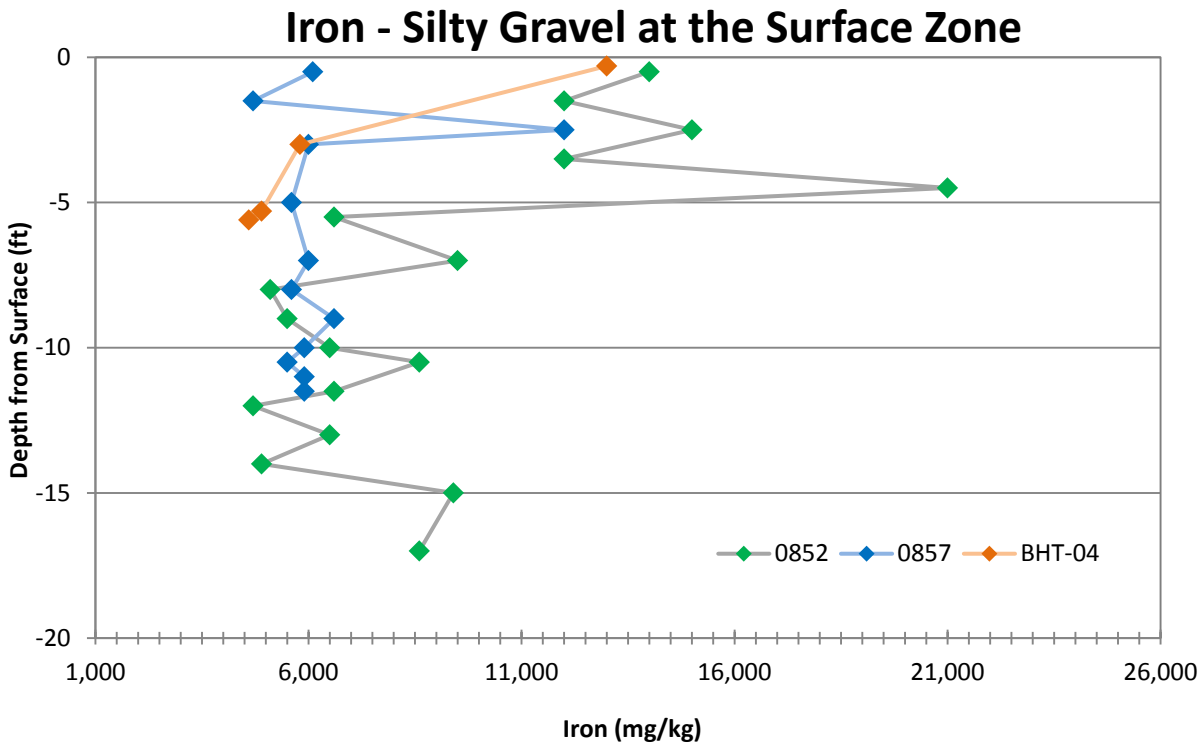

TIC - Silty Gravel at the Surface Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
2,000
4,000
6,000
8,000
Total Inorganic Carbon (mg/kg)
0852
0857
BHT-04

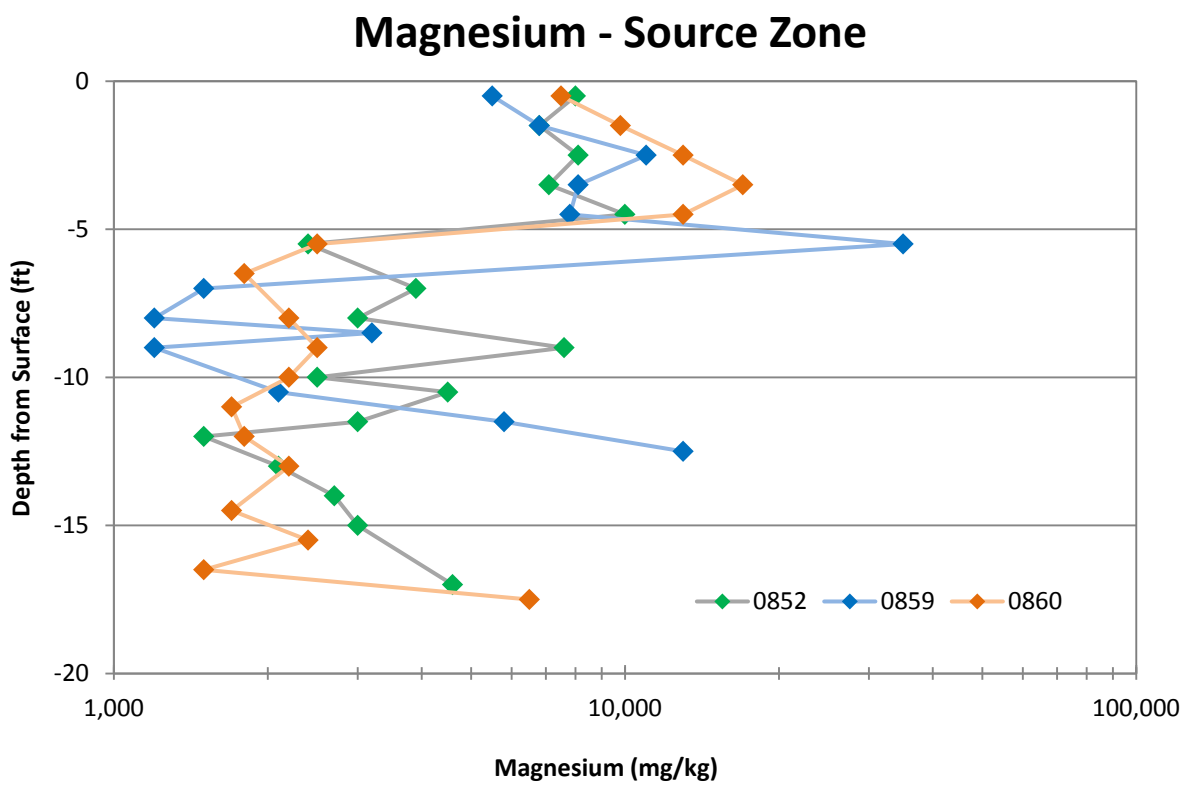

Iron - Source Zone
0
-5
-10
-15
-20
Depth from Surface (ft)
1,000
10,000
100,000
Iron (mg/kg)
0852
0859
0860

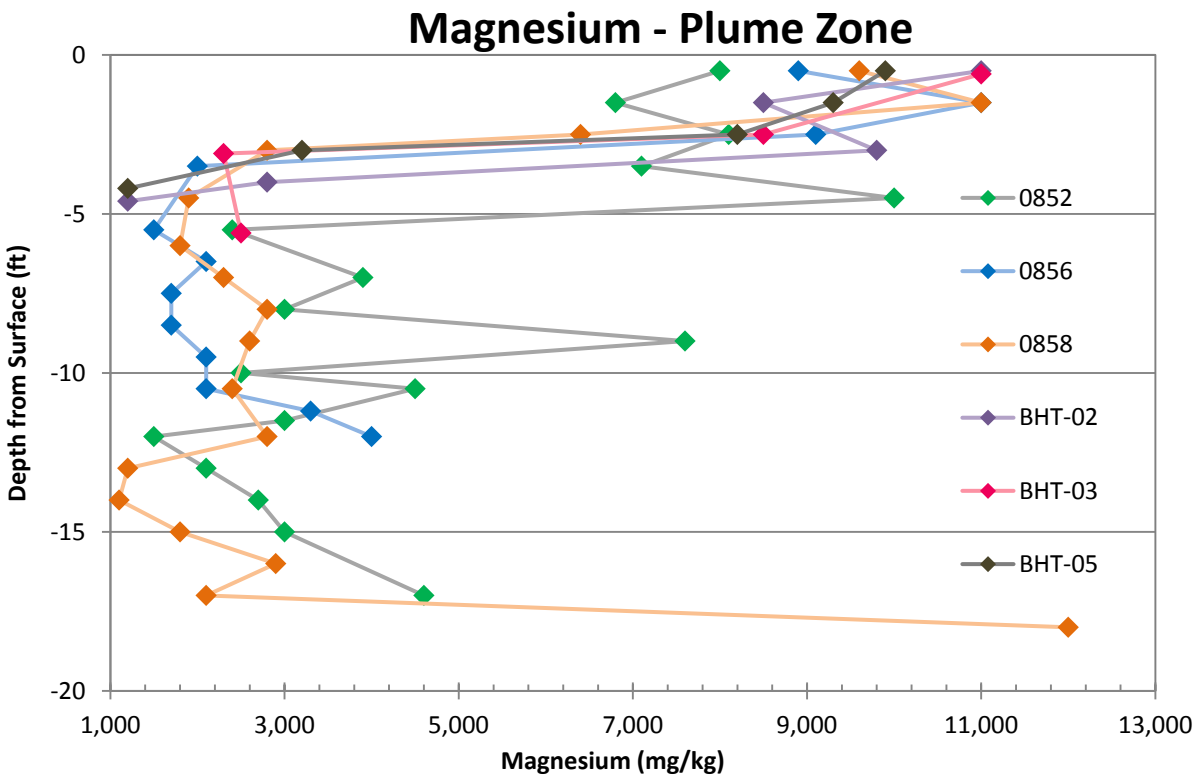

Iron - Plume Zone
0
-5
-10
-15
-20
Depth from Surface (ft)
1,000
10,000
100,000
Iron (mg/kg)
0852
0856
0858
BHT-02
BHT-03
BHT-05

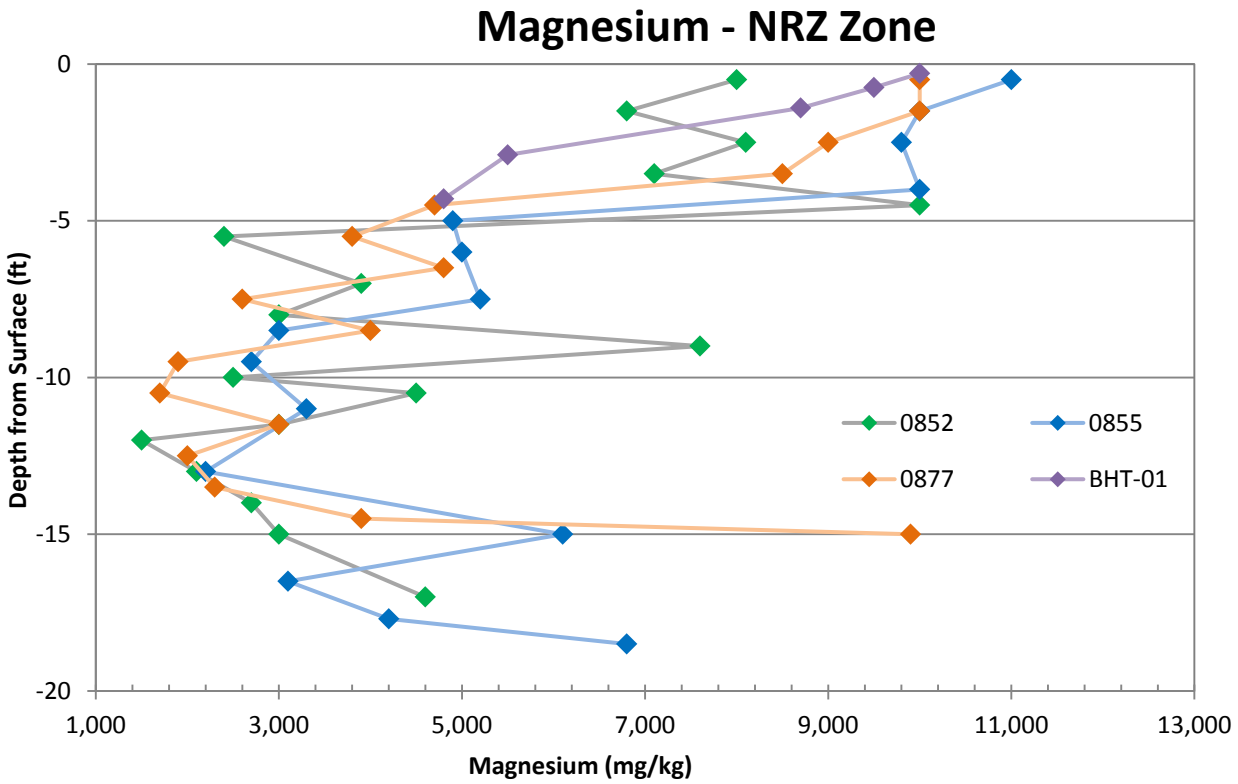

Iron - NRZ Zone
0
-5
-10
-15
-20
Depth from Surface (ft)
1,000
6,000
11,000
16,000
21,000
26,000
Iron (mg/kg)
0852
0855
0877
BHT-01

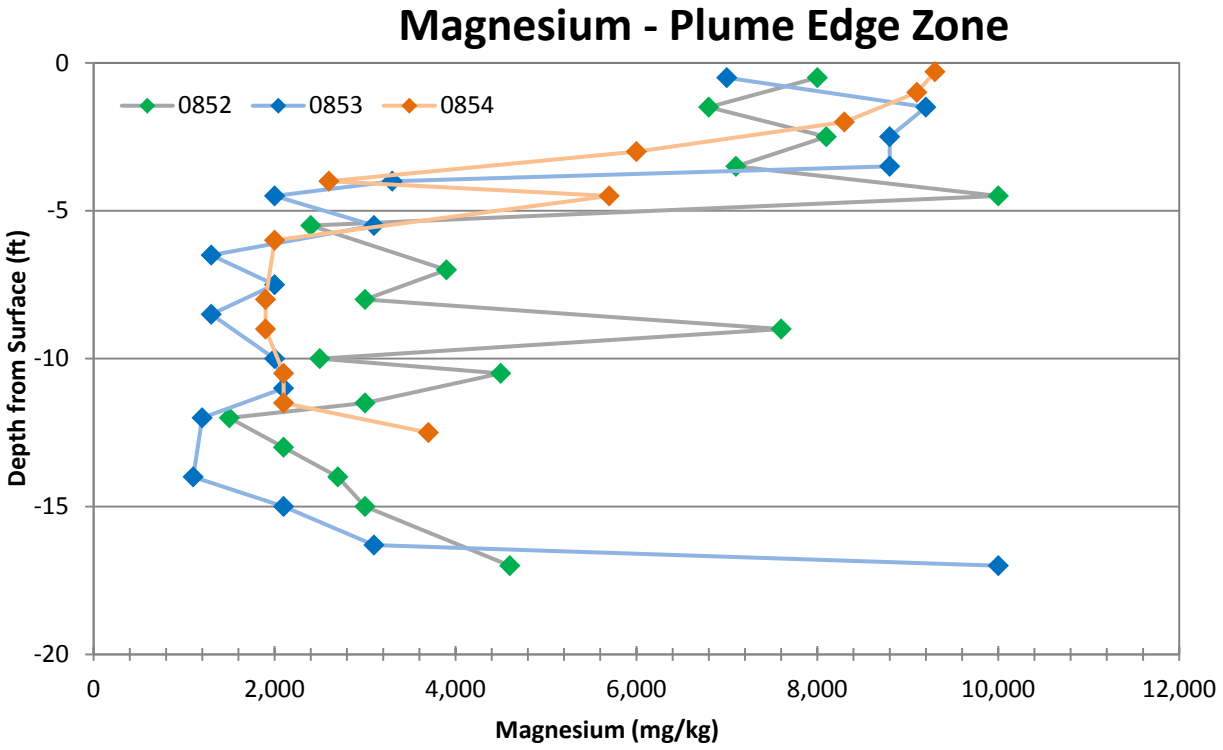

Iron - Plume Edge Zone
0
-5
-10
-15
-20
Depth from Surface (ft)
1,000
10,000
100,000
Iron (mg/kg)
0852
0853
0854

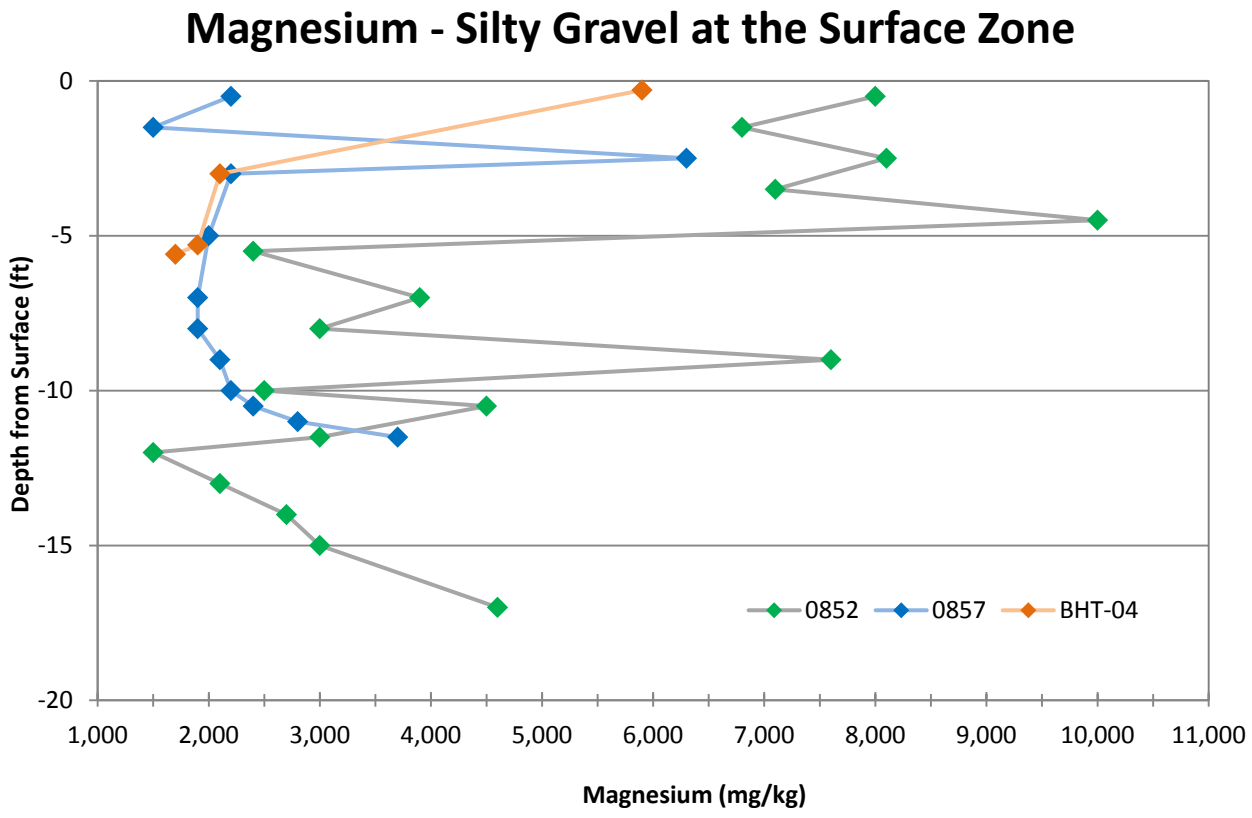

Iron - Silty Gravel at the Surface Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
1,000
6,000
11,000
16,000
21,000
26,000
Iron (mg/kg)
0852
0857
BHT-04

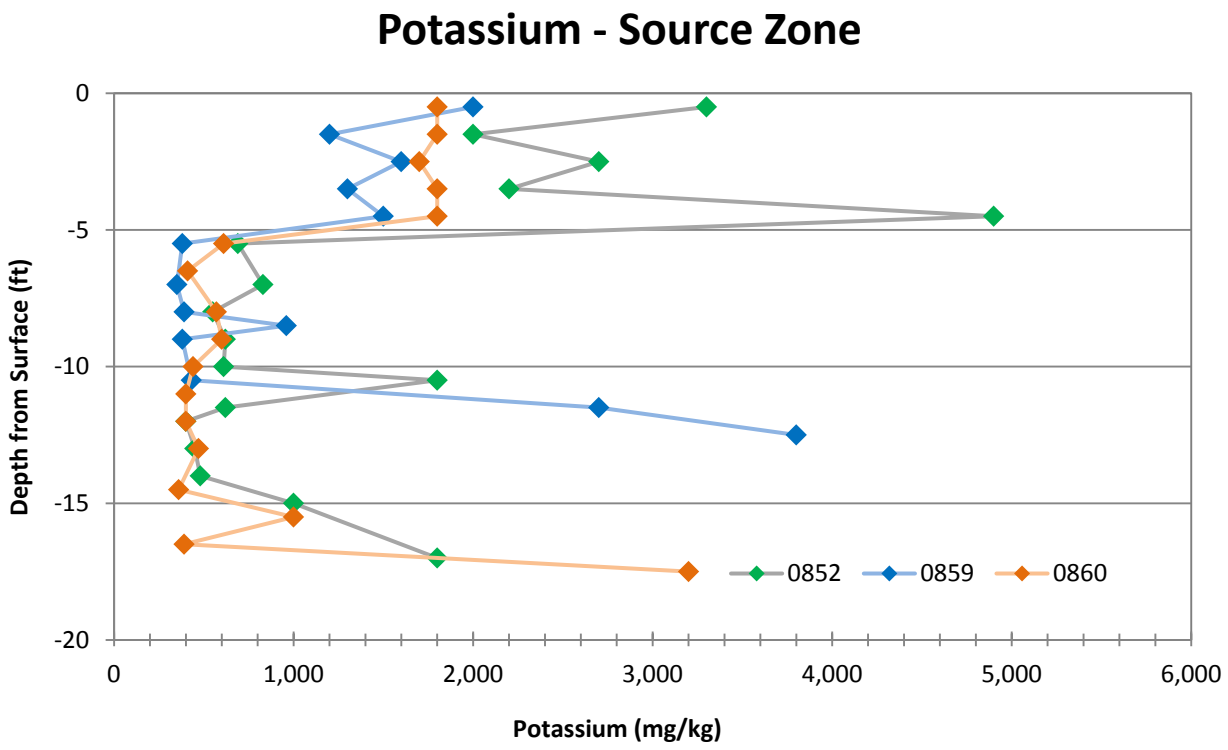

Magnesium - Source Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
1,000
10,000
100,000
Magnesium (mg/kg)
0852
0859
0860

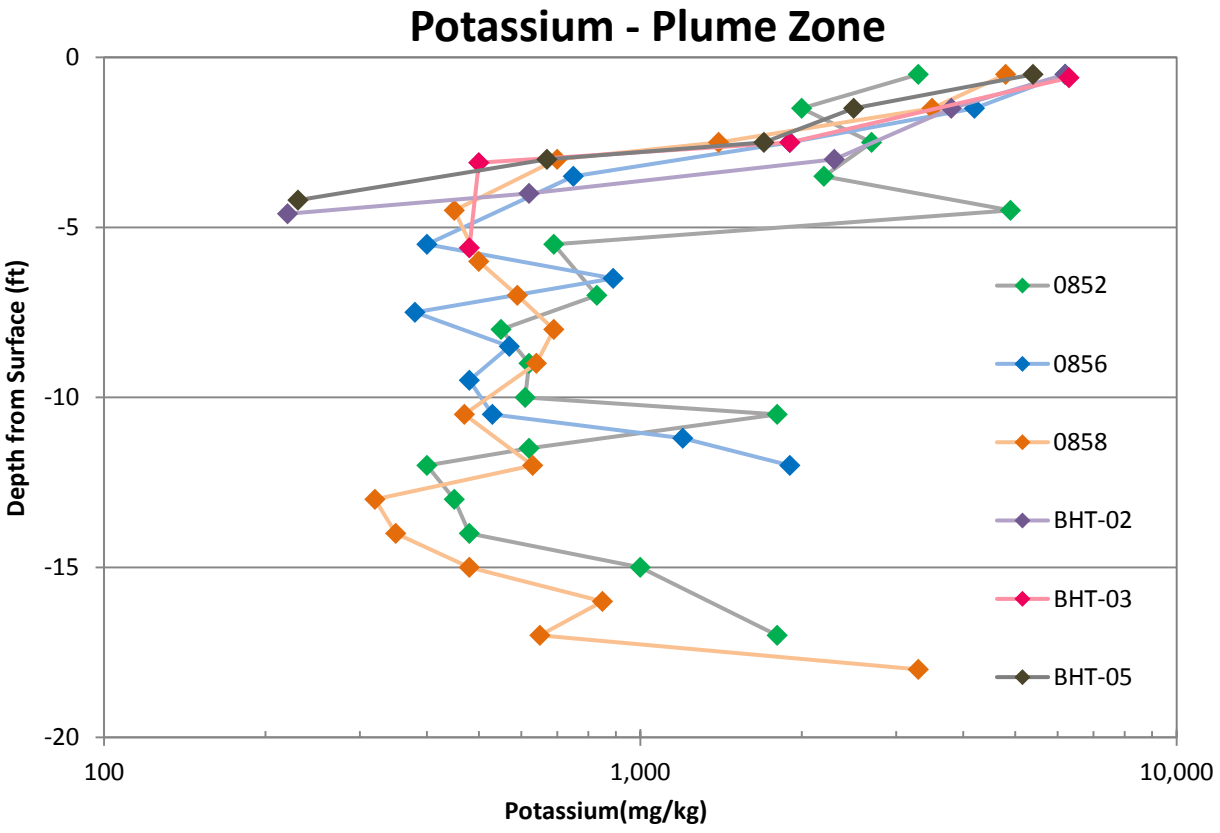

Magnesium - Plume Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
1,000
3,000
5,000
7,000
9,000
11,000
13,000
Magnesium (mg/kg)
0852
0856
0858
BHT-02
BHT-03
BHT-05

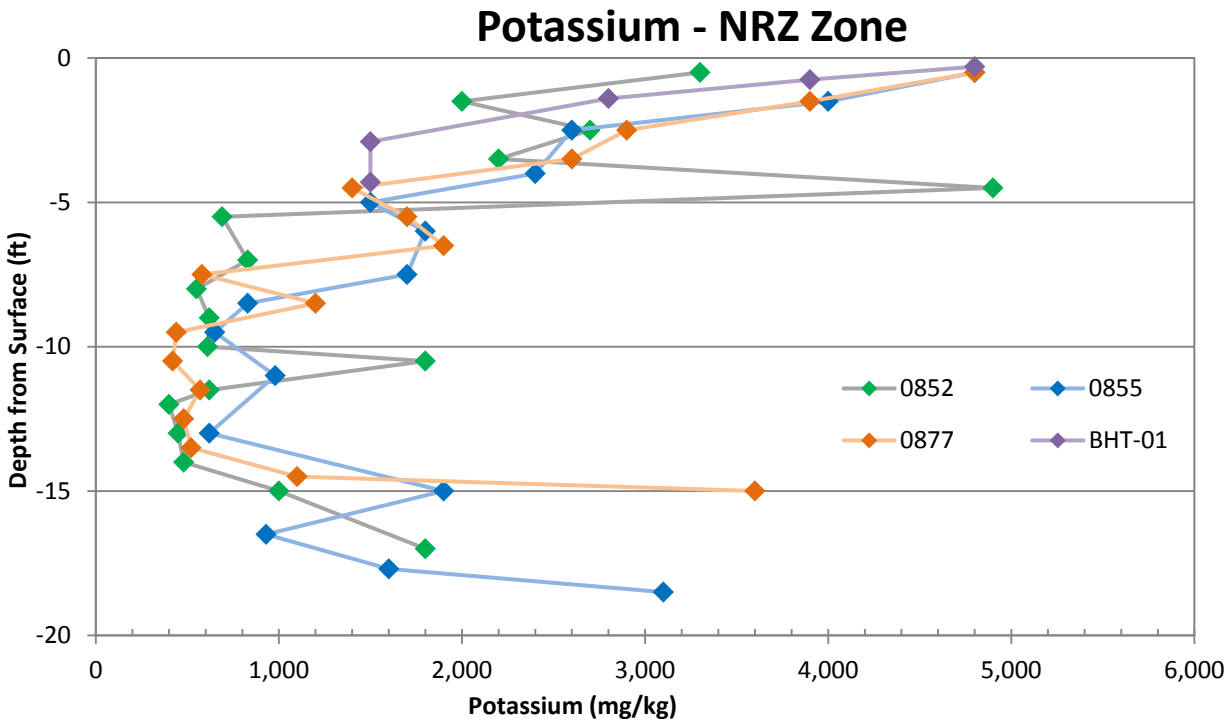

Magnesium - NRZ Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
1,000
3,000
5,000
7,000
9,000
11,000
13,000
Magnesium (mg/kg)
0852
0855
0877
BHT-01

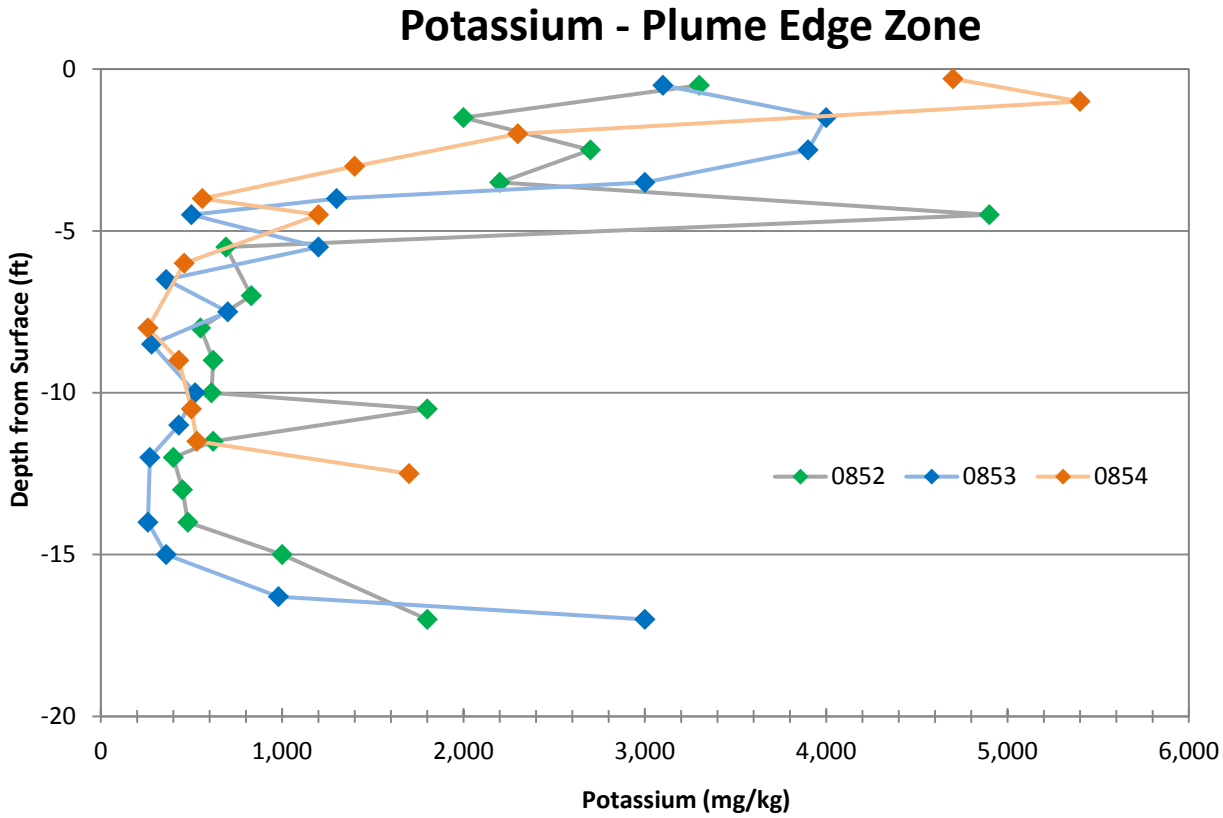

Magnesium - Plume Edge Zone
0852
0853
0854
Depth from Surface (ft)
0
-5
-10
-15
-20
0
2,000
4,000
6,000
8,000
10,000
12,000
Magnesium (mg/kg)

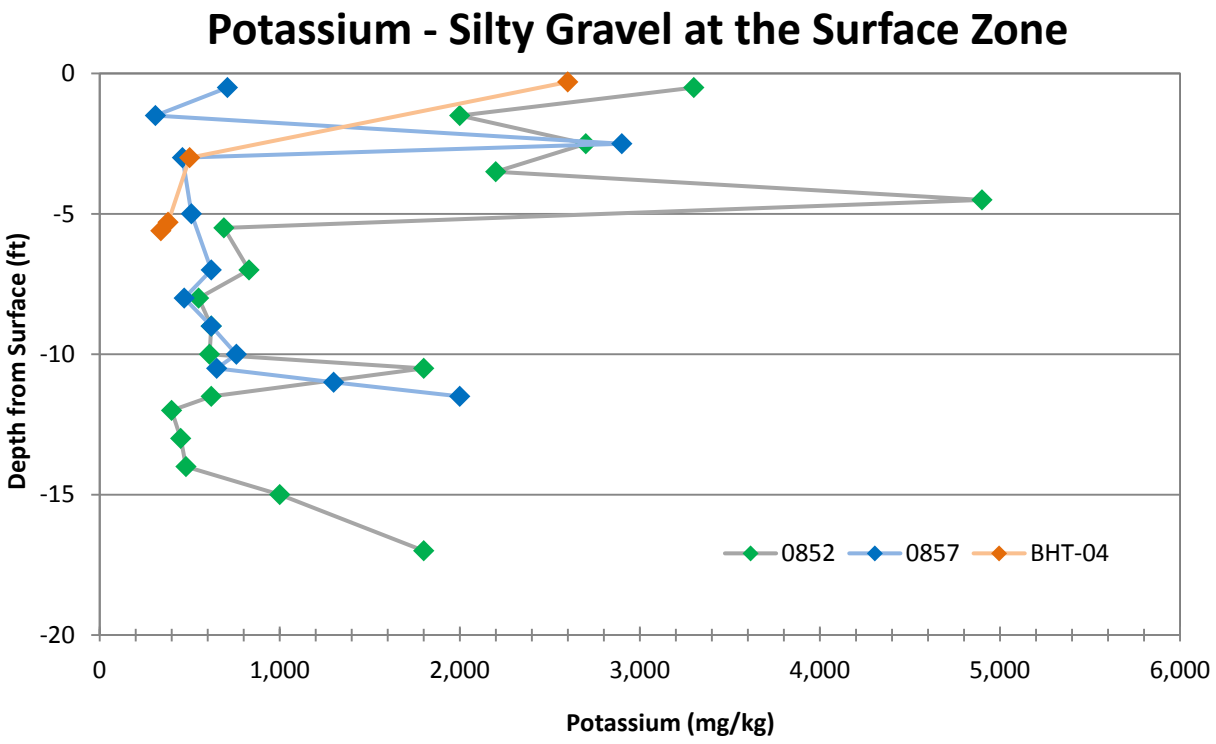

Magnesium - Silty Gravel at the Surface Zone
0852
0857
BHT-04
Depth from Surface (ft)
0
-5
-10
-15
-20
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
9,000
10,000
11,000
Magnesium (mg/kg)

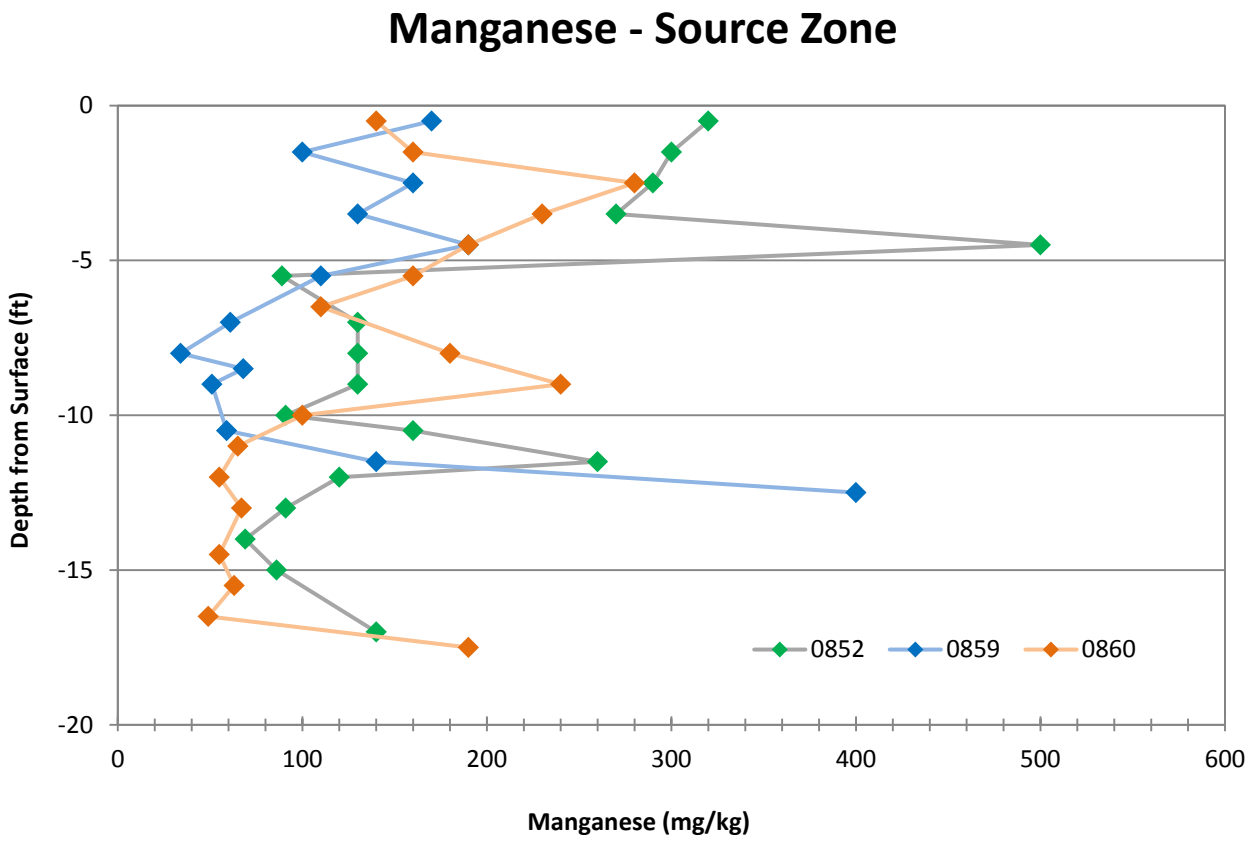

Potassium - Source Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
1,000
2,000
3,000
4,000
5,000
6,000
Potassium (mg/kg)
0852
0859
0860

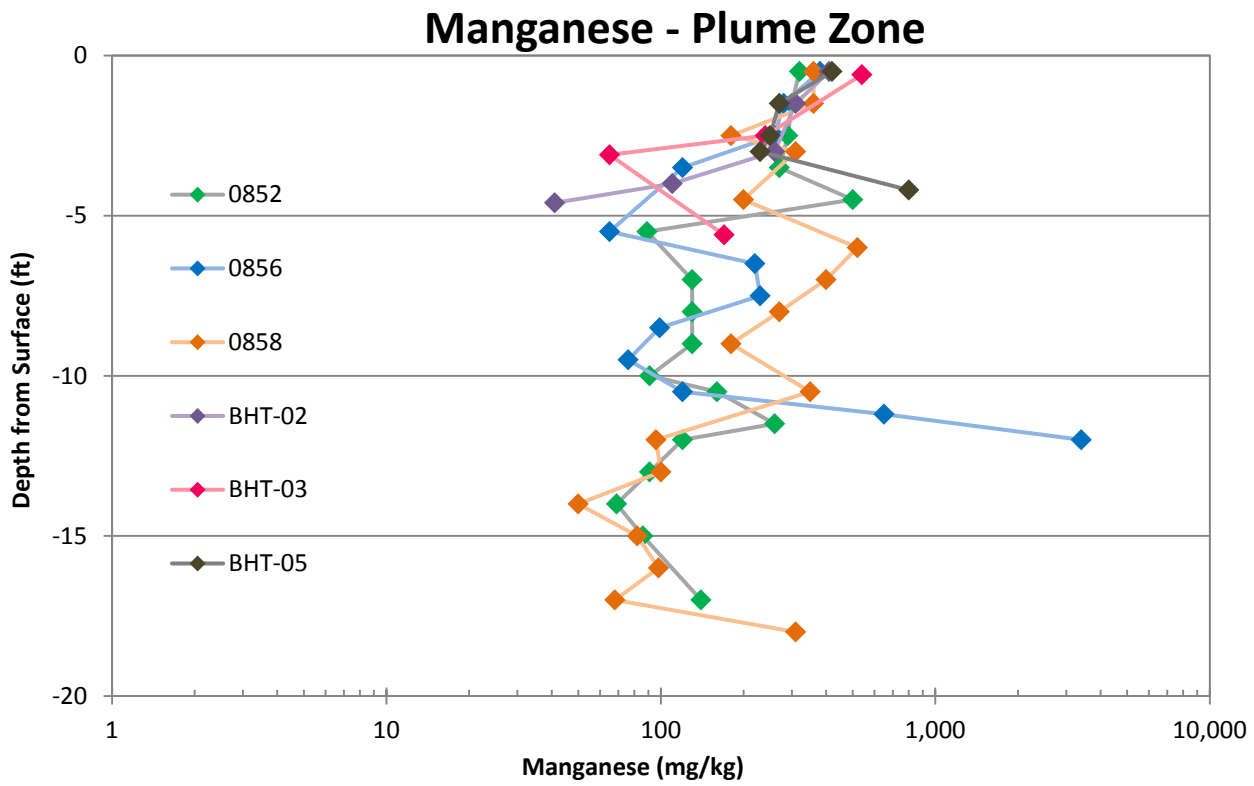

Potassium - Plume Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
100
1,000
10,000
Potassium(mg/kg)
0852
0856
0858
BHT-02
BHT-03
BHT-05

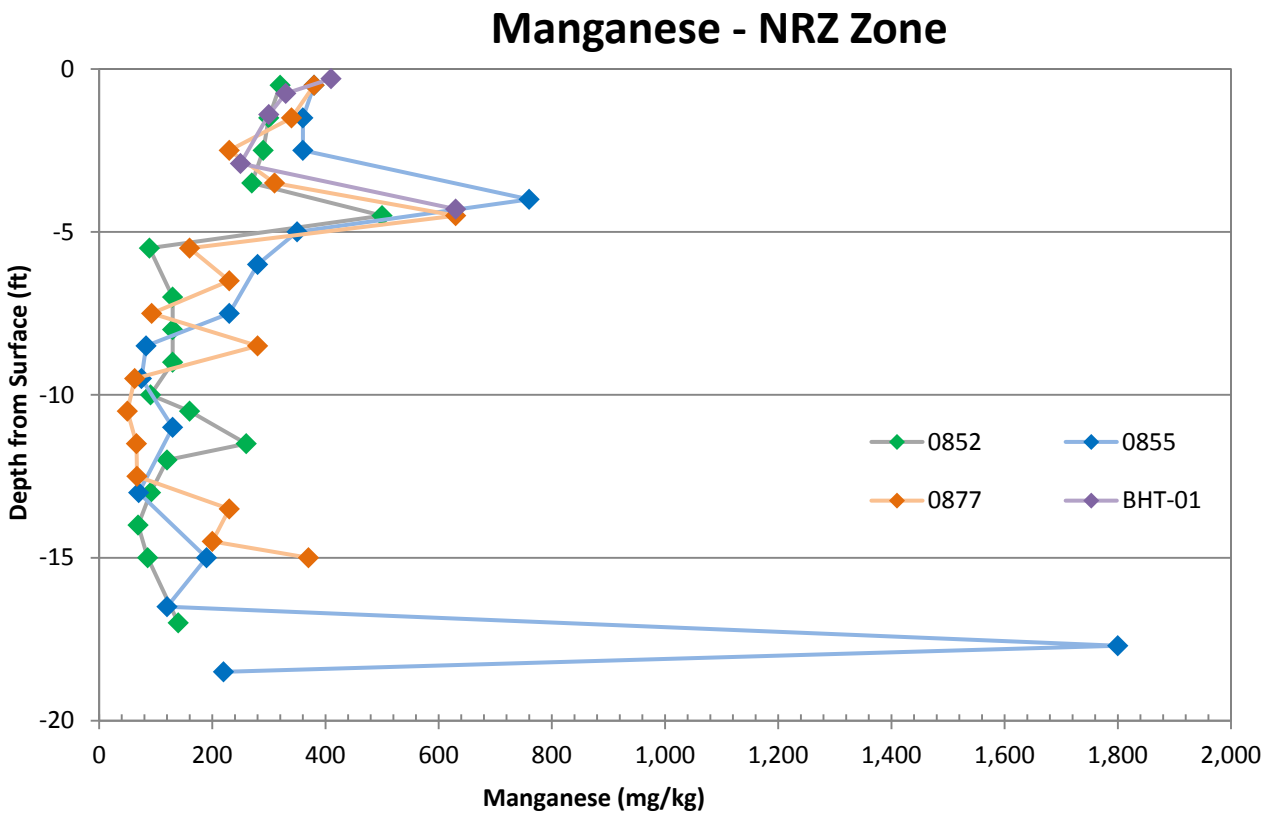

Potassium - NRZ Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
1,000
2,000
3,000
4,000
5,000
6,000
Potassium (mg/kg)
0852
0855
0877
BHT-01

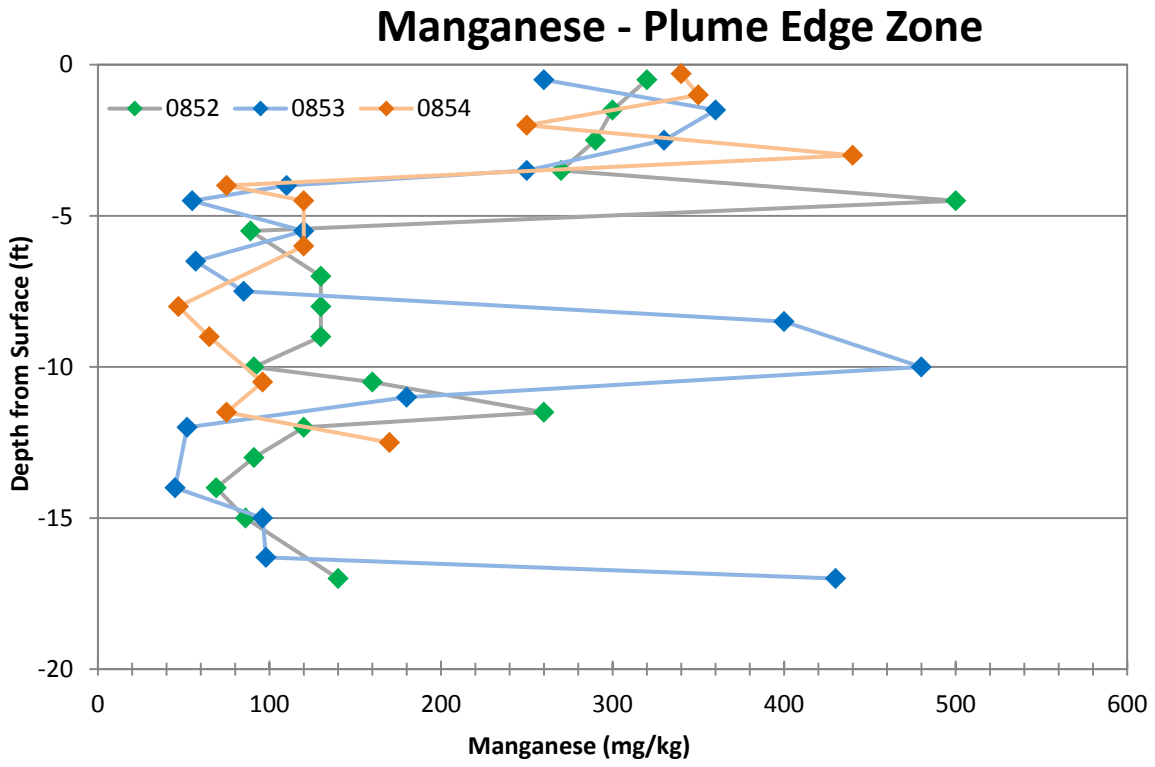

Potassium - Plume Edge Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
1,000
2,000
3,000
4,000
5,000
6,000
Potassium (mg/kg)
0852
0853
0854

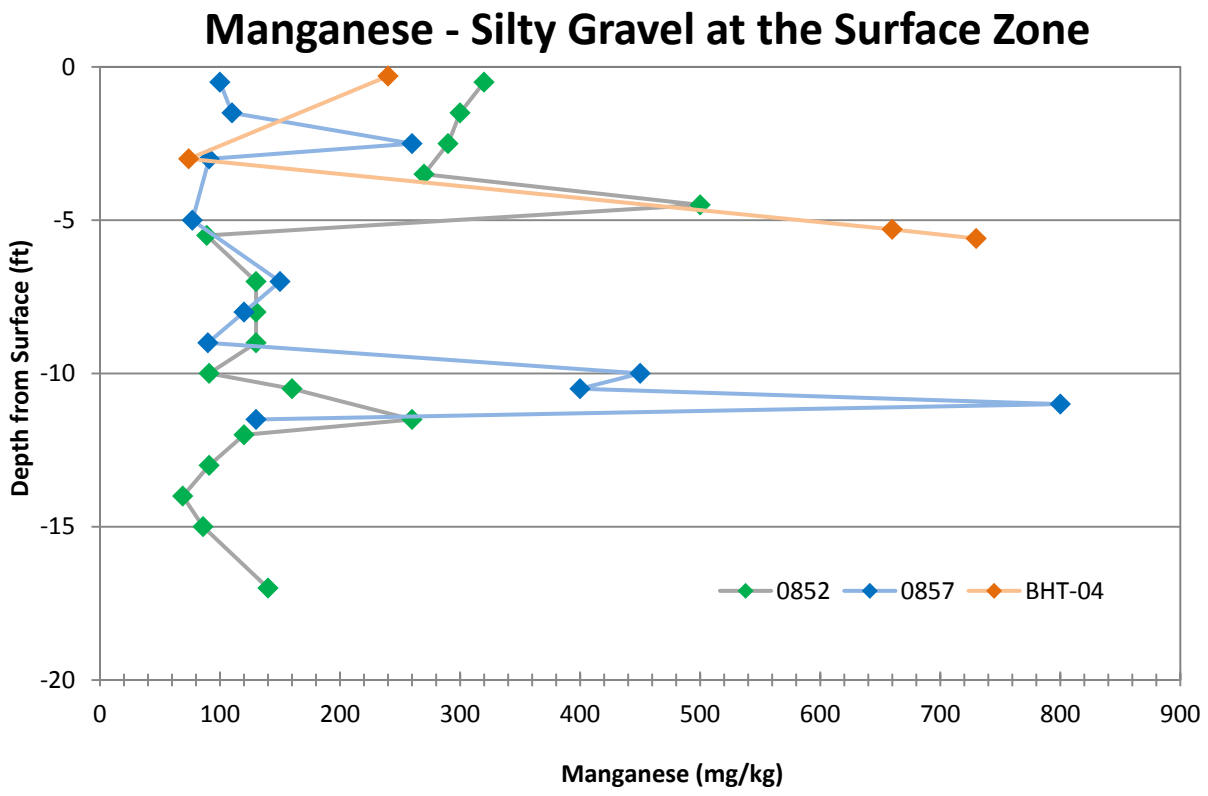

Potassium - Silty Gravel at the Surface Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
1,000
2,000
3,000
4,000
5,000
6,000
Potassium (mg/kg)
0852
0857
BHT-04

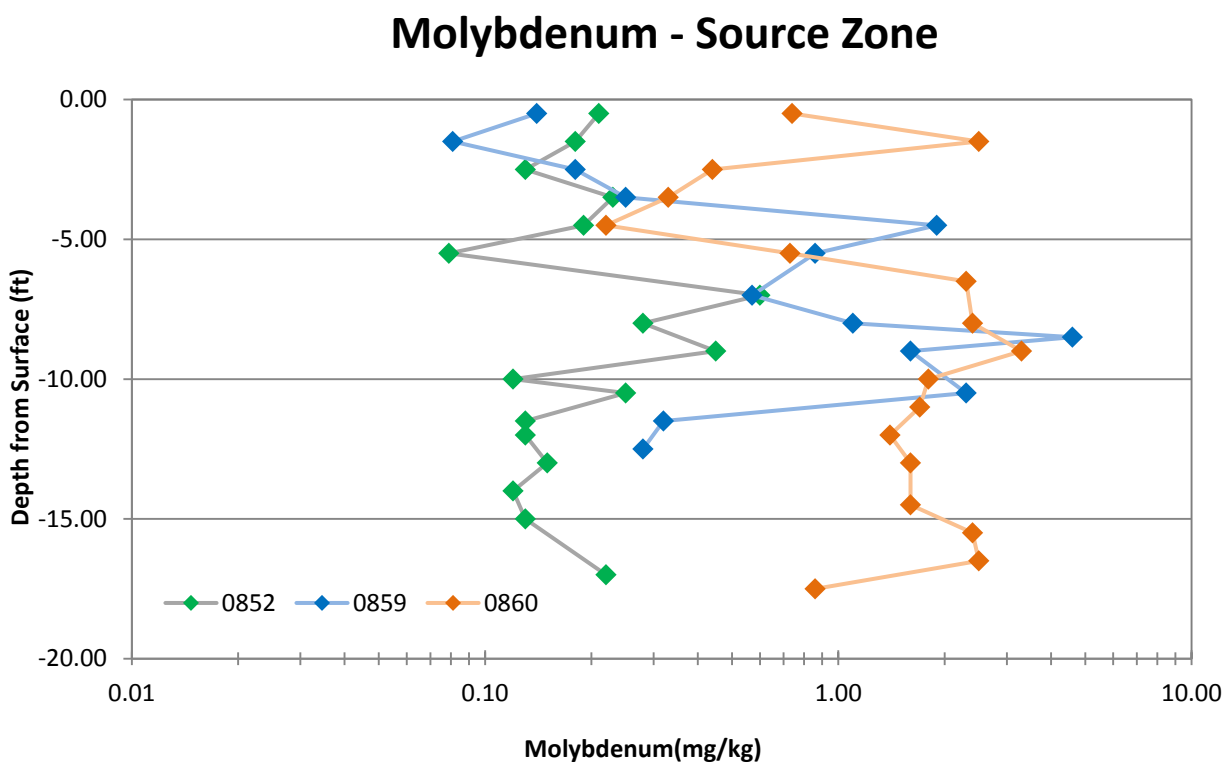

Manganese - Source Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0
100
200
300
400
500
600
Manganese (mg/kg)
0852
0859
0860

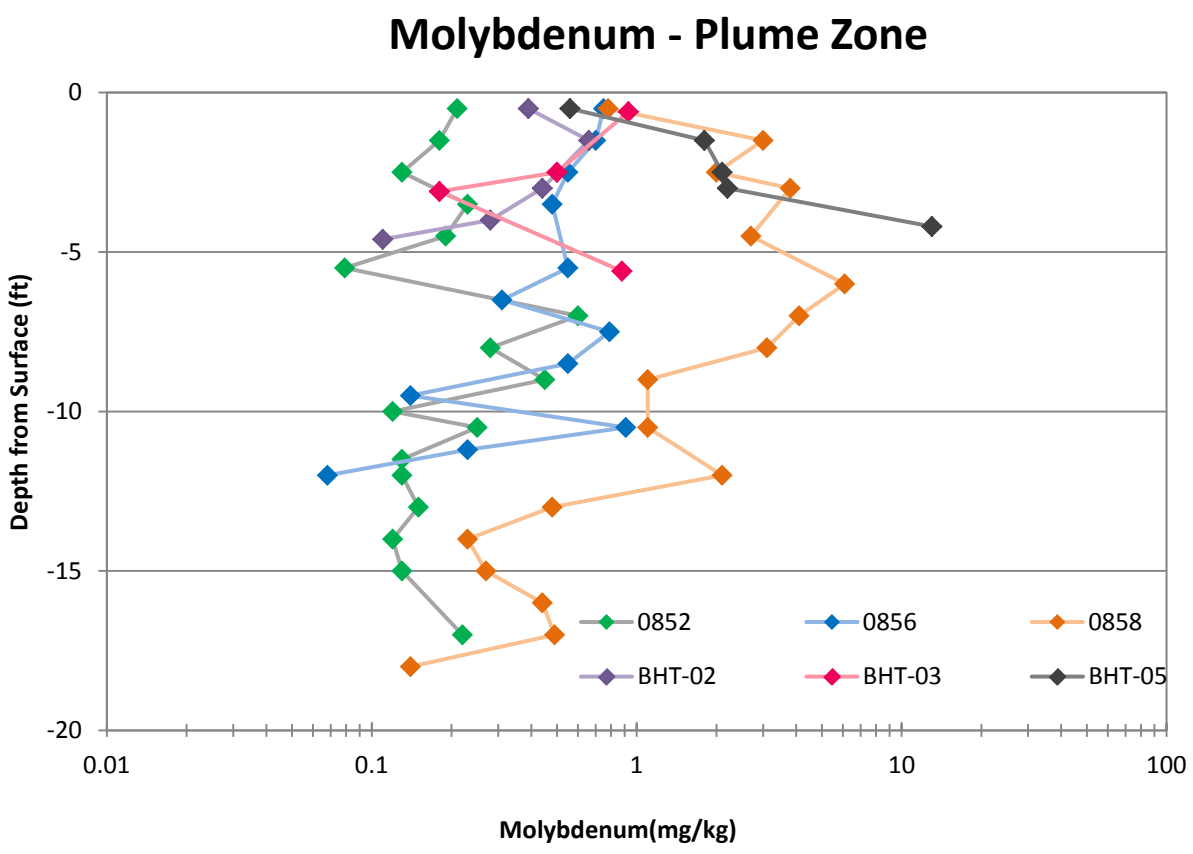

Manganese - Plume Zone
0
-5
-10
-15
-20
Depth from Surface (ft)
0852
0856
0858
BHT-02
BHT-03
BHT-05
1
10
100
1,000
10,000
Manganese (mg/kg)

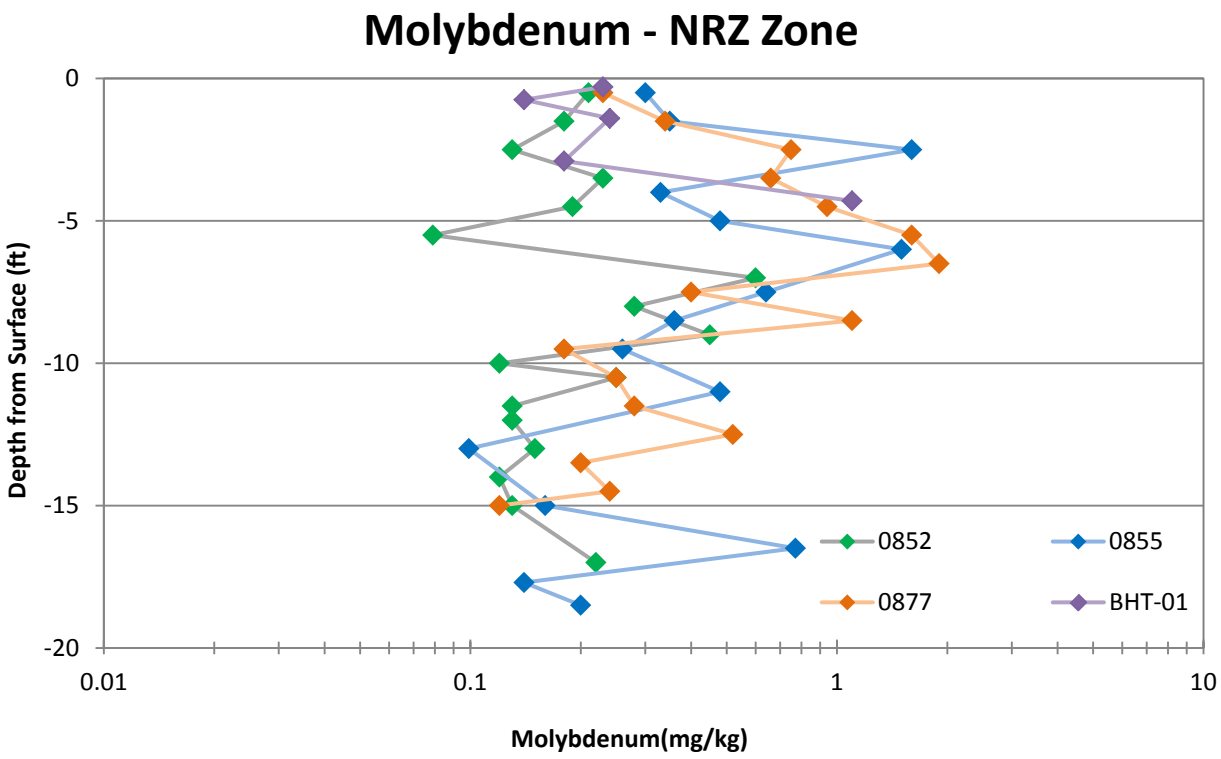

Manganese - NRZ Zone
0
-5
-10
-15
-20
Depth from Surface (ft)
0852
0855
0877
BHT-01
0
200
400
600
800
1,000
1,200
1,400
1,600
1,800
2,000
Manganese (mg/kg)

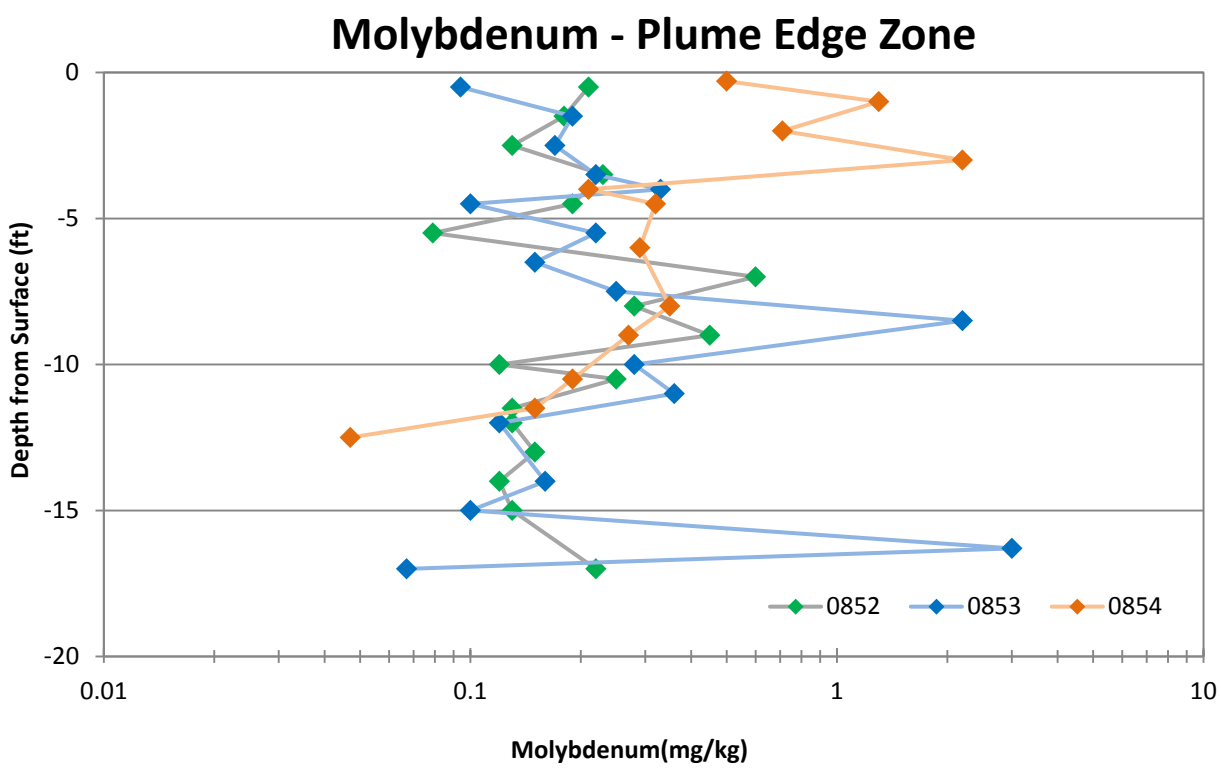

Manganese - Plume Edge Zone
0852
0853
0854
Depth from Surface (ft)
0
-5
-10
-15
-20
0
100
200
300
400
500
600
Manganese (mg/kg)

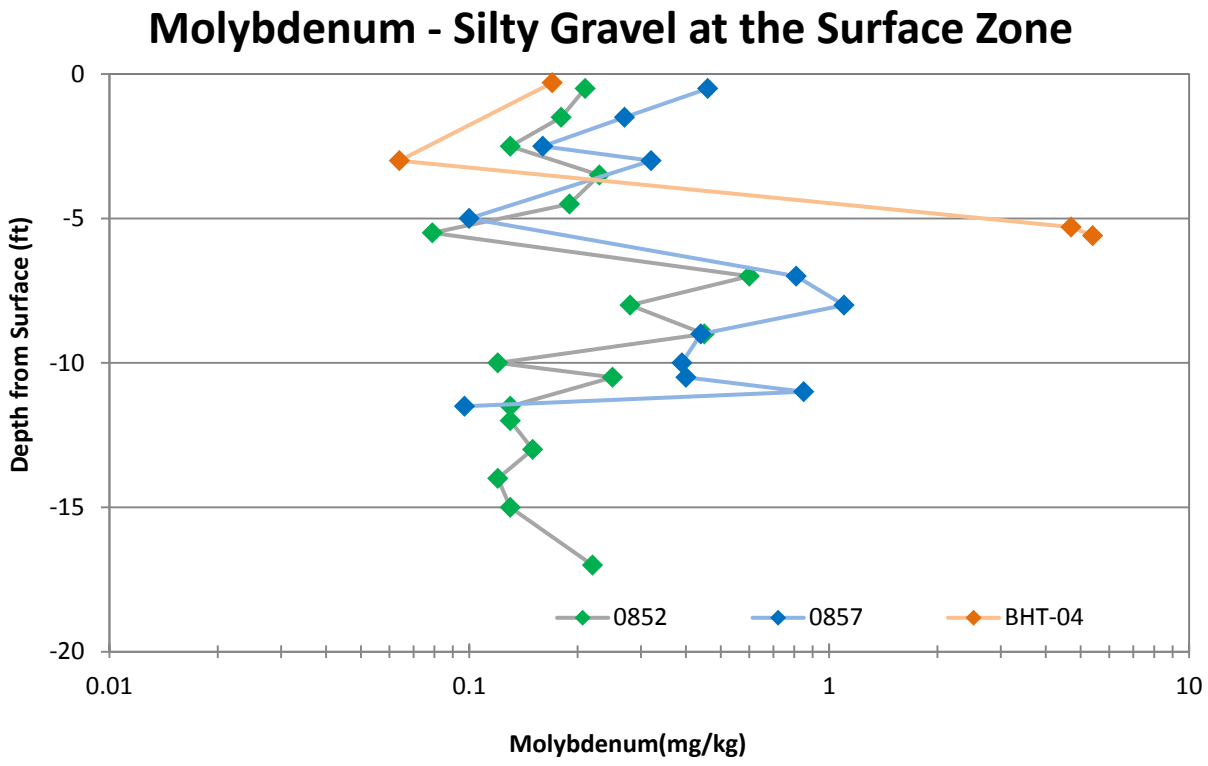

Manganese - Silty Gravel at the Surface Zone
0852
0857
BHT-04
Depth from Surface (ft)
0
-5
-10
-15
-20
0
100
200
300
400
500
600
700
800
900
Manganese (mg/kg)


Molybdenum - Source Zone
0.00
-5.00
-10.00
-15.00
-20.00
Depth from Surface (ft)
0852
0859
0860
0.01
0.10
1.00
10.00
Molybdenum(mg/kg)


Molybdenum - Plume Zone
0
-5
-10
-15
-20
Depth from Surface (ft)
0852
0856
0858
BHT-02
BHT-03
BHT-05
0.01
0.1
1
10
100
Molybdenum(mg/kg)


Molybdenum - NRZ Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0.01
0.1
1
10
Molybdenum(mg/kg)
0852
0855
0877
BHT-01


Molybdenum - Plume Edge Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0.01
0.1
1
10
Molybdenum(mg/kg)
0852
0853
0854


Molybdenum - Silty Gravel at the Surface Zone
Depth from Surface (ft)
0
-5
-10
-15
-20
0.01
0.1
1
10
Molybdenum(mg/kg)
0852
0857
BHT-04

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/kg	0852	08/30/2015	0001	-0.5 - -.5			16000	B		#	14	-
	mg/kg	0852	08/30/2015	0002	-1.5 - -1.5			11000	B		#	14	-
	mg/kg	0852	08/30/2015	0003	-2.5 - -2.5			17000	B		#	15	-
	mg/kg	0852	08/30/2015	0004	-3.5 - -3.5			18000	B		#	15	-
	mg/kg	0852	08/30/2015	0005	-4.5 - -4.5			7600	B		#	15	-
	mg/kg	0852	08/30/2015	0006	-5.5 - -5.5			6800	B		#	13	-
	mg/kg	0852	08/30/2015	0007	-7 - -7			10000	B		#	14	-
	mg/kg	0852	08/30/2015	0008	-8 - -8			10000	B		#	13	-
	mg/kg	0852	08/30/2015	0009	-9 - -9			18000	B		#	15	-
	mg/kg	0852	08/30/2015	0010	-10 - -10			7600	B		#	14	-
	mg/kg	0852	08/30/2015	0011	-10.5 - -10.5			9400	B		#	14	-
	mg/kg	0852	08/30/2015	0012	-11.5 - -11.5			20000	B		#	15	-
	mg/kg	0852	08/30/2015	0013	-12 - -12			6500	B		#	14	-
	mg/kg	0852	08/30/2015	0014	-13 - -13			7000	B	J	#	13	-
	mg/kg	0852	08/30/2015	0015	-14 - -14			9000	B		#	14	-
	mg/kg	0852	08/30/2015	0016	-15 - -15			4500	B		#	15	-
	mg/kg	0852	08/30/2015	0017	-17 - -17			3400	B		#	15	-
	mg/kg	0853	08/27/2015	0001	-0.5 - -.5			15000	B		#	14	-
	mg/kg	0853	08/27/2015	0002	-1.5 - -1.5			20000	B		#	13	-
	mg/kg	0853	08/27/2015	0003	-2.5 - -2.5			19000	B		#	14	-
	mg/kg	0853	08/27/2015	0004	-3.5 - -3.5			31000	B		#	14	-
	mg/kg	0853	08/27/2015	0005	-4 - -4			9500	B		#	13	-
	mg/kg	0853	08/27/2015	0006	-4.5 - -4.5			5100	B		#	14	-
	mg/kg	0853	08/27/2015	0007	-5.5 - -5.5			9000	B		#	13	-
	mg/kg	0853	08/27/2015	0008	-6.5 - -6.5			4200	B		#	14	-
	mg/kg	0853	08/27/2015	0009	-7.5 - -7.5			20000	B		#	15	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/kg	0853	08/27/2015	0010	-8.5 - -8.5			12000		J	#	13	-
	mg/kg	0853	08/27/2015	0011	-10 - -10			7000			#	14	-
	mg/kg	0853	08/27/2015	0012	-11 - -11			9100			#	13	-
	mg/kg	0853	08/27/2015	0013	-12 - -12			2800		J	#	15	-
	mg/kg	0853	08/27/2015	0014	-14 - -14			2200			#	15	-
	mg/kg	0853	08/27/2015	0015	-15 - -15			23000			#	15	-
	mg/kg	0853	08/27/2015	0016	-16.3 - -16.3			4700			#	15	-
	mg/kg	0853	08/27/2015	0017	-17 - -17			4800			#	16	-
	mg/kg	0853	08/27/2015	0018	-17 - -17			4700	B		#	14	-
	mg/kg	0853	08/27/2015	0018	-12 - -12			4100	B	J	#	15	-
	mg/kg	0854	08/26/2015	0001	-0.3 - -.3			24000			#	15	-
	mg/kg	0854	08/26/2015	0002	-1 - -1			23000			#	16	-
	mg/kg	0854	08/26/2015	0003	-2 - -2			27000			#	15	-
	mg/kg	0854	08/26/2015	0004	-3 - -3			15000			#	15	-
	mg/kg	0854	08/26/2015	0005	-4 - -4			5400			#	14	-
	mg/kg	0854	08/26/2015	0006	-4.5 - -4.5			14000	B		#	17	-
	mg/kg	0854	08/26/2015	0007	-6 - -6			4500	B		#	13	-
	mg/kg	0854	08/26/2015	0008	-8 - -8			2800	B		#	15	-
	mg/kg	0854	08/26/2015	0009	-9 - -9			7600	B		#	18	-
	mg/kg	0854	08/26/2015	0010	-10.5 - -10.5			7900	B		#	15	-
	mg/kg	0854	08/26/2015	0011	-11.5 - -11.5			5500	B		#	15	-
	mg/kg	0854	08/26/2015	0012	-12.5 - -12.5			5400	B		#	14	-
	mg/kg	0855	08/28/2015	0001	-0.5 - -.5			21000	B		#	15	-
	mg/kg	0855	08/28/2015	0002	-1.5 - -1.5			26000	B		#	16	-
	mg/kg	0855	08/28/2015	0003	-2.5 - -2.5			43000	B		#	16	-
	mg/kg	0855	08/28/2015	0004	-4 - -4			43000	B		#	16	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/kg	0855	08/28/2015	0005	-5 - -5			5000	B		#	15	-
	mg/kg	0855	08/28/2015	0006	-6 - -6			9500	B		#	19	-
	mg/kg	0855	08/28/2015	0007	-7.5 - -7.5			12000	B		#	16	-
	mg/kg	0855	08/28/2015	0008	-8.5 - -8.5			6000	B		#	15	-
	mg/kg	0855	08/28/2015	0009	-9.5 - -9.5			3800	B		#	16	-
	mg/kg	0855	08/28/2015	0010	-11 - -11			9200	B		#	16	-
	mg/kg	0855	08/28/2015	0011	-13 - -13			3100	B		#	13	-
	mg/kg	0855	08/28/2015	0012	-15 - -15			8000	B		#	15	-
	mg/kg	0855	08/28/2015	0013	-16.5 - -16.5			11000	B		#	15	-
	mg/kg	0855	08/28/2015	0014	-17.7 - -17.7			91000	B		#	14	-
	mg/kg	0855	08/28/2015	0015	-18.5 - -18.5			16000	B		#	15	-
	mg/kg	0855	08/28/2015	0018	-1.5 - -1.5			26000	B		#	16	-
	mg/kg	0856	08/28/2015	0001	-0.5 - -.5			15000	B		#	15	-
	mg/kg	0856	08/28/2015	0002	-1.5 - -1.5			36000	B		#	15	-
	mg/kg	0856	08/28/2015	0003	-2.5 - -2.5			36000	B		#	14	-
	mg/kg	0856	08/28/2015	0004	-3.5 - -3.5			9500	B		#	14	-
	mg/kg	0856	08/28/2015	0005	-5.5 - -5.5			5100	B		#	15	-
	mg/kg	0856	08/28/2015	0006	-6.5 - -6.5			27000	B		#	14	-
	mg/kg	0856	08/28/2015	0007	-7.5 - -7.5			3600	B		#	14	-
	mg/kg	0856	08/28/2015	0008	-8.5 - -8.5			5300	B		#	16	-
	mg/kg	0856	08/28/2015	0009	-9.5 - -9.5			16000	B		#	16	-
	mg/kg	0856	08/28/2015	0010	-10.5 - -10.5			8300	B		#	15	-
	mg/kg	0856	08/28/2015	0011	-11.2 - -11.2			29000	B		#	14	-
	mg/kg	0856	08/28/2015	0012	-12 - -12			140000	B		#	31	-
	mg/kg	0857	08/30/2015	0001	-0.5 - -.5			11000	B		#	13	-
	mg/kg	0857	08/30/2015	0002	-1.5 - -1.5			9100	B		#	15	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/kg	0857	08/30/2015	0003	-2.5 - -2.5			11000	B		#	13	-
	mg/kg	0857	08/30/2015	0004	-3 - -3			9900	B		#	13	-
	mg/kg	0857	08/30/2015	0005	-5 - -5			8000	B		#	13	-
	mg/kg	0857	08/30/2015	0006	-7 - -7			7300	B		#	13	-
	mg/kg	0857	08/30/2015	0007	-8 - -8			6300	B		#	15	-
	mg/kg	0857	08/30/2015	0008	-9 - -9			7100	B		#	15	-
	mg/kg	0857	08/30/2015	0009	-10 - -10			26000	B		#	16	-
	mg/kg	0857	08/30/2015	0010	-10.5 - -10.5			64000	B		#	15	-
	mg/kg	0857	08/30/2015	0011	-11 - -11			65000	B		#	15	-
	mg/kg	0857	08/30/2015	0012	-11.5 - -11.5			9700	B		#	15	-
	mg/kg	0858	08/29/2015	0001	-0.5 - -.5			14000	B		#	16	-
	mg/kg	0858	08/29/2015	0002	-1.5 - -1.5			36000	B		#	19	-
	mg/kg	0858	08/29/2015	0003	-2.5 - -2.5			35000	B		#	14	-
	mg/kg	0858	08/29/2015	0004	-3 - -3			13000	B		#	14	-
	mg/kg	0858	08/29/2015	0005	-4.5 - -4.5			6300	B		#	14	-
	mg/kg	0858	08/29/2015	0006	-6 - -6			8500	B		#	13	-
	mg/kg	0858	08/29/2015	0007	-7 - -7			9900	B		#	15	-
	mg/kg	0858	08/29/2015	0008	-8 - -8			12000	B		#	14	-
	mg/kg	0858	08/29/2015	0009	-9 - -9			9500	B		#	13	-
	mg/kg	0858	08/29/2015	0010	-10.5 - -10.5			8200	B		#	14	-
	mg/kg	0858	08/29/2015	0011	-12 - -12			8200	B		#	14	-
	mg/kg	0858	08/29/2015	0012	-13 - -13			2900	B		#	16	-
	mg/kg	0858	08/29/2015	0013	-14 - -14			9200	B		#	15	-
	mg/kg	0858	08/29/2015	0014	-15 - -15			7100	B		#	13	-
	mg/kg	0858	08/29/2015	0015	-16 - -16			4300	B		#	13	-
	mg/kg	0858	08/29/2015	0016	-17 - -17			4600	B		#	13	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/kg	0858	08/29/2015	0017	-18 - -18			17000	B		#	17	-
	mg/kg	0858	08/29/2015	0018	-13 - -13			2500	B		#	15	-
	mg/kg	0859	09/01/2015	0001	-0.5 - -.5			14000	B		#	14	-
	mg/kg	0859	09/01/2015	0002	-1.5 - -1.5			17000	B		#	13	-
	mg/kg	0859	09/01/2015	0003	-2.5 - -2.5			25000	B		#	13	-
	mg/kg	0859	09/01/2015	0004	-3.5 - -3.5			35000	B		#	14	-
	mg/kg	0859	09/01/2015	0005	-4.5 - -4.5			22000	B		#	15	-
	mg/kg	0859	09/01/2015	0006	-5.5 - -5.5			69000	B	J	#	13	-
	mg/kg	0859	09/01/2015	0007	-7 - -7			3700	B		#	14	-
	mg/kg	0859	09/01/2015	0008	-8 - -8			2100	B		#	14	-
	mg/kg	0859	09/01/2015	0009	-8.5 - -8.5			9500	B		#	16	-
	mg/kg	0859	09/01/2015	0010	-9 - -9			4900	B		#	14	-
	mg/kg	0859	09/01/2015	0011	-10.5 - -10.5			5000	B		#	13	-
	mg/kg	0859	09/01/2015	0012	-11.5 - -11.5			9500	B		#	15	-
	mg/kg	0859	09/01/2015	0013	-12.5 - -12.5			17000	B		#	14	-
	mg/kg	0859	09/01/2015	0018	-5.5 - -5.5			5400	B	J	#	15	-
	mg/kg	0860	08/31/2015	0001	-0.5 - -.5			16000	B		#	15	-
	mg/kg	0860	08/31/2015	0002	-1.5 - -1.5			21000	B		#	14	-
	mg/kg	0860	08/31/2015	0003	-2.5 - -2.5			34000	B		#	14	-
	mg/kg	0860	08/31/2015	0004	-3.5 - -3.5			31000	B		#	14	-
	mg/kg	0860	08/31/2015	0005	-4.5 - -4.5			24000	B		#	15	-
	mg/kg	0860	08/31/2015	0006	-5.5 - -5.5			5800	B		#	13	-
	mg/kg	0860	08/31/2015	0007	-6.5 - -6.5			5900	B		#	12	-
	mg/kg	0860	08/31/2015	0008	-8 - -8			5500	B		#	13	-
	mg/kg	0860	08/31/2015	0009	-9 - -9			5200	B		#	15	-
	mg/kg	0860	08/31/2015	0010	-10 - -10			17000	B		#	14	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/kg	0860	08/31/2015	0011	-11 - -11			4700	B		#	15	-
	mg/kg	0860	08/31/2015	0012	-12 - -12			4100	B		#	17	-
	mg/kg	0860	08/31/2015	0013	-13 - -13			5900	B		#	15	-
	mg/kg	0860	08/31/2015	0014	-14.5 - -14.5			4300	B		#	15	-
	mg/kg	0860	08/31/2015	0015	-15.5 - -15.5			15000	B		#	15	-
	mg/kg	0860	08/31/2015	0016	-16.5 - -16.5			4200	B		#	14	-
	mg/kg	0860	08/31/2015	0017	-17.5 - -17.5			6400	B		#	14	-
	mg/kg	0860	08/31/2015	0018	-10 - -10			8000	B	J	#	14	-
	mg/kg	0860	08/31/2015	0018	-1.5 - -1.5			24000	B		#	13	-
	mg/kg	0877	08/30/2015	0001	-0.5 - -.5			17000	B		#	14	-
	mg/kg	0877	08/30/2015	0002	-1.5 - -1.5			25000	B		#	14	-
	mg/kg	0877	08/30/2015	0003	-2.5 - -2.5			29000	B		#	14	-
	mg/kg	0877	08/30/2015	0004	-3.5 - -3.5			38000	B		#	15	-
	mg/kg	0877	08/30/2015	0005	-4.5 - -4.5			12000	B		#	14	-
	mg/kg	0877	08/30/2015	0006	-5.5 - -5.5			4100	B		#	16	-
	mg/kg	0877	08/30/2015	0007	-6.5 - -6.5			5400	B		#	16	-
	mg/kg	0877	08/30/2015	0008	-7.5 - -7.5			3800	B		#	14	-
	mg/kg	0877	08/30/2015	0009	-8.5 - -8.5			7100	B		#	15	-
	mg/kg	0877	08/30/2015	0010	-9.5 - -9.5			4600	B		#	14	-
	mg/kg	0877	08/30/2015	0011	-10.5 - -10.5			5200	B		#	15	-
	mg/kg	0877	08/30/2015	0012	-11.5 - -11.5			10000	B	J	#	15	-
	mg/kg	0877	08/30/2015	0013	-12.5 - -12.5			5700	B		#	13	-
	mg/kg	0877	08/30/2015	0014	-13.5 - -13.5			13000	B		#	14	-
	mg/kg	0877	08/30/2015	0015	-14.5 - -14.5			22000	B		#	15	-
	mg/kg	0877	08/30/2015	0016	-15 - -15			21000	B		#	15	-
	mg/kg	0877	08/30/2015	0018	-5.5 - -5.5			4200	B		#	16	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/kg	BHT-01	05/05/2015	0001	-0.3 - -.3			17000	B		#	16	-
	mg/kg	BHT-01	05/05/2015	0002	-0.75 - -.75			12000	B		#	17	-
	mg/kg	BHT-01	05/05/2015	0003	-1.4 - -1.4			32000	B		#	17	-
	mg/kg	BHT-01	05/05/2015	0004	-2.9 - -2.9			32000	B		#	16	-
	mg/kg	BHT-01	05/05/2015	0005	-4.3 - -4.3			12000	B		#	16	-
	mg/kg	BHT-01	05/05/2015	0006	-4.3 - -4.3			10000	B		#	16	-
	mg/kg	BHT-02	05/05/2015	0001	-0.5 - -.5			17000	B	J	#	17	-
	mg/kg	BHT-02	05/05/2015	0002	-1.5 - -1.5			20000	B		#	15	-
	mg/kg	BHT-02	05/05/2015	0003	-3 - -3			34000	B		#	16	-
	mg/kg	BHT-02	05/05/2015	0004	-4 - -4			5600	B		#	14	-
	mg/kg	BHT-02	05/05/2015	0005	-4.6 - -4.6			1700	B		#	13	-
	mg/kg	BHT-02	05/05/2015	0006	-0.5 - -.5			16000	B	J	#	17	-
	mg/kg	BHT-03	05/05/2015	0001	-0.6 - -.6			16000	B		#	16	-
	mg/kg	BHT-03	05/05/2015	0002	-2.5 - -2.5			27000	B		#	16	-
	mg/kg	BHT-03	05/05/2015	0003	-3.1 - -3.1			8400	B		#	14	-
	mg/kg	BHT-03	05/05/2015	0004	-5.6 - -5.6			6900	B		#	18	-
	mg/kg	BHT-04	05/05/2015	0001	-0.3 - -.3			11000	B		#	15	-
	mg/kg	BHT-04	05/05/2015	0002	-3 - -3			9500	B		#	14	-
	mg/kg	BHT-04	05/05/2015	0003	-5.3 - -5.3			5900	B		#	15	-
	mg/kg	BHT-04	05/05/2015	0004	-5.6 - -5.6			14000	B		#	13	-
	mg/kg	BHT-05	05/05/2015	0001	-0.5 - -.5			26000	B		#	13	-
	mg/kg	BHT-05	05/05/2015	0002	-1.5 - -1.5			38000	B		#	15	-
	mg/kg	BHT-05	05/05/2015	0003	-2.5 - -2.5			33000	B		#	16	-
	mg/kg	BHT-05	05/05/2015	0004	-3 - -3			15000	B		#	12	-
	mg/kg	BHT-05	05/05/2015	0005	-4.2 - -4.2			10000	B		#	12	-
Chloride	mg/kg	0852	08/30/2015	0001	-0.5 - -.5			380			#	2.1	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/kg	0852	08/30/2015	0002	-1.5 - -1.5			360			#	2.1	-
	mg/kg	0852	08/30/2015	0003	-2.5 - -2.5			430			#	2.1	-
	mg/kg	0852	08/30/2015	0004	-3.5 - -3.5			320			#	2.1	-
	mg/kg	0852	08/30/2015	0005	-4.5 - -4.5			260			#	2.2	-
	mg/kg	0852	08/30/2015	0006	-5.5 - -5.5			19	J		#	2	-
	mg/kg	0852	08/30/2015	0007	-7 - -7			32			#	1.9	-
	mg/kg	0852	08/30/2015	0008	-8 - -8			10	J		#	2.1	-
	mg/kg	0852	08/30/2015	0009	-9 - -9			14	J		#	2.2	-
	mg/kg	0852	08/30/2015	0010	-10 - -10			11	J		#	2.2	-
	mg/kg	0852	08/30/2015	0011	-10.5 - -10.5			69			#	2.2	-
	mg/kg	0852	08/30/2015	0012	-11.5 - -11.5			13	J		#	2.1	-
	mg/kg	0852	08/30/2015	0013	-12 - -12			15	J		#	2.2	-
	mg/kg	0852	08/30/2015	0014	-13 - -13			11	J		#	2.1	-
	mg/kg	0852	08/30/2015	0015	-14 - -14			14	J		#	2.3	-
	mg/kg	0852	08/30/2015	0016	-15 - -15			13	J		#	2.3	-
	mg/kg	0852	08/30/2015	0017	-17 - -17			11	J		#	2.3	-
	mg/kg	0853	08/27/2015	0001	-0.5 - -.5			9.1	J		#	2.1	-
	mg/kg	0853	08/27/2015	0002	-1.5 - -1.5			44			#	2.1	-
	mg/kg	0853	08/27/2015	0003	-2.5 - -2.5			91			#	2.2	-
	mg/kg	0853	08/27/2015	0004	-3.5 - -3.5			79	B		#	2.2	-
	mg/kg	0853	08/27/2015	0005	-4 - -4			17	JB	U	#	2	-
	mg/kg	0853	08/27/2015	0006	-4.5 - -4.5			10	JB	U	#	2	-
	mg/kg	0853	08/27/2015	0007	-5.5 - -5.5			19	JB	U	#	1.9	-
	mg/kg	0853	08/27/2015	0008	-6.5 - -6.5			8.8	JB	U	#	2.1	-
	mg/kg	0853	08/27/2015	0009	-7.5 - -7.5			1.4	JB	U	#	0.22	-
	mg/kg	0853	08/27/2015	0010	-8.5 - -8.5			7.7	JB	U	#	2.1	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/kg	0853	08/27/2015	0011	-10 - -10			12	JB	U	#	2.2	-
	mg/kg	0853	08/27/2015	0012	-11 - -11			13	JB	U	#	2	-
	mg/kg	0853	08/27/2015	0013	-12 - -12			18	JB	U	#	2.3	-
	mg/kg	0853	08/27/2015	0014	-14 - -14			13	JB	U	#	2.3	-
	mg/kg	0853	08/27/2015	0015	-15 - -15			12	JB	U	#	2.2	-
	mg/kg	0853	08/27/2015	0016	-16.3 - -16.3			12	JB	U	#	2.2	-
	mg/kg	0853	08/27/2015	0017	-17 - -17			10	JB	U	#	2.3	-
	mg/kg	0853	08/27/2015	0018	-17 - -17			3.4	JB		#	2.1	-
	mg/kg	0853	08/27/2015	0018	-12 - -12			7.9	JB		#	2.3	-
	mg/kg	0854	08/26/2015	0001	-0.3 - -.3			43	B	U	#	2.2	-
	mg/kg	0854	08/26/2015	0002	-1 - -1			93	B		#	2.2	-
	mg/kg	0854	08/26/2015	0003	-2 - -2			96	B		#	2.3	-
	mg/kg	0854	08/26/2015	0004	-3 - -3			49	B		#	2.2	-
	mg/kg	0854	08/26/2015	0005	-4 - -4			26	JB	U	#	2	-
	mg/kg	0854	08/26/2015	0006	-4.5 - -4.5			56	B		#	2.5	-
	mg/kg	0854	08/26/2015	0007	-6 - -6			14	JB	U	#	2.2	-
	mg/kg	0854	08/26/2015	0008	-8 - -8			16	JB	U	#	2.3	-
	mg/kg	0854	08/26/2015	0009	-9 - -9			23	JB	U	#	2.3	-
	mg/kg	0854	08/26/2015	0010	-10.5 - -10.5			12	JB	U	#	2.2	-
	mg/kg	0854	08/26/2015	0011	-11.5 - -11.5			12	JB	U	#	2.1	-
	mg/kg	0854	08/26/2015	0012	-12.5 - -12.5			13	JB	U	#	2.3	-
	mg/kg	0855	08/28/2015	0001	-0.5 - -.5			120	B		#	2.3	-
	mg/kg	0855	08/28/2015	0002	-1.5 - -1.5			390	B		#	2.3	-
	mg/kg	0855	08/28/2015	0003	-2.5 - -2.5			580	B		#	2.4	-
	mg/kg	0855	08/28/2015	0004	-4 - -4			960	B		#	2.5	-
	mg/kg	0855	08/28/2015	0005	-5 - -5			370	B		#	2.4	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/kg	0855	08/28/2015	0006	-6 - -6			240	B		#	2.6	-
	mg/kg	0855	08/28/2015	0007	-7.5 - -7.5			310	B		#	2.7	-
	mg/kg	0855	08/28/2015	0008	-8.5 - -8.5			100	B		#	2.3	-
	mg/kg	0855	08/28/2015	0009	-9.5 - -9.5			84	B		#	2.3	-
	mg/kg	0855	08/28/2015	0010	-11 - -11			150	B		#	2.2	-
	mg/kg	0855	08/28/2015	0011	-13 - -13			46	B		#	2.2	-
	mg/kg	0855	08/28/2015	0012	-15 - -15			66	B		#	2.3	-
	mg/kg	0855	08/28/2015	0013	-16.5 - -16.5			130	B		#	2.3	-
	mg/kg	0855	08/28/2015	0014	-17.7 - -17.7			38	B	U	#	2.2	-
	mg/kg	0855	08/28/2015	0015	-18.5 - -18.5			35			#	2.2	-
	mg/kg	0855	08/28/2015	0018	-1.5 - -1.5			460			#	2.3	-
	mg/kg	0856	08/28/2015	0001	-0.5 - -.5			140			#	2.2	-
	mg/kg	0856	08/28/2015	0002	-1.5 - -1.5			540			#	2.2	-
	mg/kg	0856	08/28/2015	0003	-2.5 - -2.5			540			#	2.2	-
	mg/kg	0856	08/28/2015	0004	-3.5 - -3.5			14	J		#	1.9	-
	mg/kg	0856	08/28/2015	0005	-5.5 - -5.5			19	J		#	2.1	-
	mg/kg	0856	08/28/2015	0006	-6.5 - -6.5			21	J		#	2.1	-
	mg/kg	0856	08/28/2015	0007	-7.5 - -7.5			24	J		#	2.2	-
	mg/kg	0856	08/28/2015	0008	-8.5 - -8.5			27	J		#	2.2	-
	mg/kg	0856	08/28/2015	0009	-9.5 - -9.5			17	J		#	2.1	-
	mg/kg	0856	08/28/2015	0010	-10.5 - -10.5			33			#	2.2	-
	mg/kg	0856	08/28/2015	0011	-11.2 - -11.2			22	J		#	2.2	-
	mg/kg	0856	08/28/2015	0012	-12 - -12			16	J		#	2.2	-
	mg/kg	0857	08/30/2015	0001	-0.5 - -.5			3.3	J		#	2.1	-
	mg/kg	0857	08/30/2015	0002	-1.5 - -1.5			6.7	J		#	2.1	-
	mg/kg	0857	08/30/2015	0003	-2.5 - -2.5			2.1	U		#	2.1	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/kg	0857	08/30/2015	0004	-3 - -3			4.1	J		#	2.1	-
	mg/kg	0857	08/30/2015	0005	-5 - -5			5.7	J		#	1.9	-
	mg/kg	0857	08/30/2015	0006	-7 - -7			14	J		#	2	-
	mg/kg	0857	08/30/2015	0007	-8 - -8			16	J		#	2.1	-
	mg/kg	0857	08/30/2015	0008	-9 - -9			26	J		#	2.2	-
	mg/kg	0857	08/30/2015	0009	-10 - -10			28	J		#	2.3	-
	mg/kg	0857	08/30/2015	0010	-10.5 - -10.5			30	J		#	2.1	-
	mg/kg	0857	08/30/2015	0011	-11 - -11			22	J		#	2.2	-
	mg/kg	0857	08/30/2015	0012	-11.5 - -11.5			18	J		#	2.2	-
	mg/kg	0858	08/29/2015	0001	-0.5 - -.5			99			#	2.4	-
	mg/kg	0858	08/29/2015	0002	-1.5 - -1.5			280			#	3	-
	mg/kg	0858	08/29/2015	0003	-2.5 - -2.5			110			#	2.1	-
	mg/kg	0858	08/29/2015	0004	-3 - -3			24	J		#	2.1	-
	mg/kg	0858	08/29/2015	0005	-4.5 - -4.5			11	J		#	2.2	-
	mg/kg	0858	08/29/2015	0006	-6 - -6			15	J		#	2.2	-
	mg/kg	0858	08/29/2015	0007	-7 - -7			32	J		#	2.2	-
	mg/kg	0858	08/29/2015	0008	-8 - -8			35			#	2.1	-
	mg/kg	0858	08/29/2015	0009	-9 - -9			20	J		#	2.1	-
	mg/kg	0858	08/29/2015	0010	-10.5 - -10.5			15	J		#	2.1	-
	mg/kg	0858	08/29/2015	0011	-12 - -12			13	J		#	2.1	-
	mg/kg	0858	08/29/2015	0012	-13 - -13			17	J		#	2.4	-
	mg/kg	0858	08/29/2015	0013	-14 - -14			20	J		#	2.3	-
	mg/kg	0858	08/29/2015	0014	-15 - -15			12	J		#	2.2	-
	mg/kg	0858	08/29/2015	0015	-16 - -16			13	J		#	2.2	-
	mg/kg	0858	08/29/2015	0016	-17 - -17			16	J		#	2.2	-
	mg/kg	0858	08/29/2015	0017	-18 - -18			12	J		#	2.5	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/kg	0858	08/29/2015	0018	-13 - -13			16	J		#	2.2	-
	mg/kg	0859	09/01/2015	0001	-0.5 - -.5			2.1	U		#	2.1	-
	mg/kg	0859	09/01/2015	0002	-1.5 - -1.5			2.0	U		#	2	-
	mg/kg	0859	09/01/2015	0003	-2.5 - -2.5			8.8	J		#	2.1	-
	mg/kg	0859	09/01/2015	0004	-3.5 - -3.5			76			#	2.1	-
	mg/kg	0859	09/01/2015	0005	-4.5 - -4.5			50			#	2.3	-
	mg/kg	0859	09/01/2015	0006	-5.5 - -5.5			3.6	J		#	2.1	-
	mg/kg	0859	09/01/2015	0007	-7 - -7			9.1	J		#	2.4	-
	mg/kg	0859	09/01/2015	0008	-8 - -8			6.3	J		#	2.1	-
	mg/kg	0859	09/01/2015	0009	-8.5 - -8.5			8.4	JB	U	#	2.5	-
	mg/kg	0859	09/01/2015	0010	-9 - -9			4.8	JB	U	#	2.2	-
	mg/kg	0859	09/01/2015	0011	-10.5 - -10.5			3.7	JB	U	#	2	-
	mg/kg	0859	09/01/2015	0012	-11.5 - -11.5			7.7	JB	U	#	2.4	-
	mg/kg	0859	09/01/2015	0013	-12.5 - -12.5			2.4	U		#	2.4	-
	mg/kg	0859	09/01/2015	0018	-5.5 - -5.5			3.8	J		#	2.1	-
	mg/kg	0860	08/31/2015	0001	-0.5 - -.5			2.1	U		#	2.1	-
	mg/kg	0860	08/31/2015	0002	-1.5 - -1.5			18	JB	U	#	2	-
	mg/kg	0860	08/31/2015	0003	-2.5 - -2.5			230	B		#	2.1	-
	mg/kg	0860	08/31/2015	0004	-3.5 - -3.5			590	B		#	2.2	-
	mg/kg	0860	08/31/2015	0005	-4.5 - -4.5			660	B		#	2.2	-
	mg/kg	0860	08/31/2015	0006	-5.5 - -5.5			33	B		#	1.9	-
	mg/kg	0860	08/31/2015	0007	-6.5 - -6.5			9.8	JB	U	#	2	-
	mg/kg	0860	08/31/2015	0008	-8 - -8			22	JB		#	2	-
	mg/kg	0860	08/31/2015	0009	-9 - -9			8.2	JB	U	#	2.1	-
	mg/kg	0860	08/31/2015	0010	-10 - -10			11	JB	U	#	2.3	-
	mg/kg	0860	08/31/2015	0011	-11 - -11			9.6	JB	U	#	2.2	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/kg	0860	08/31/2015	0012	-12 - -12			12	JB	U	#	2.3	-
	mg/kg	0860	08/31/2015	0013	-13 - -13			20	JB		#	2.4	-
	mg/kg	0860	08/31/2015	0014	-14.5 - -14.5			20	JB		#	2.5	-
	mg/kg	0860	08/31/2015	0015	-15.5 - -15.5			8.9	JB	U	#	2.2	-
	mg/kg	0860	08/31/2015	0016	-16.5 - -16.5			4.5	JB	U	#	2.1	-
	mg/kg	0860	08/31/2015	0017	-17.5 - -17.5			2.4	U		#	2.4	-
	mg/kg	0860	08/31/2015	0018	-10 - -10			9.6	J		#	2.2	-
	mg/kg	0860	08/31/2015	0018	-1.5 - -1.5			16	J		#	2.1	-
	mg/kg	0877	08/30/2015	0001	-0.5 - -.5			31	JB		#	2.2	-
	mg/kg	0877	08/30/2015	0002	-1.5 - -1.5			360	B		#	2.1	-
	mg/kg	0877	08/30/2015	0003	-2.5 - -2.5			250	B		#	2.3	-
	mg/kg	0877	08/30/2015	0004	-3.5 - -3.5			310	B		#	2.3	-
	mg/kg	0877	08/30/2015	0005	-4.5 - -4.5			300	B		#	2.3	-
	mg/kg	0877	08/30/2015	0006	-5.5 - -5.5			210	B		#	2.5	-
	mg/kg	0877	08/30/2015	0007	-6.5 - -6.5			180	B		#	2.4	-
	mg/kg	0877	08/30/2015	0008	-7.5 - -7.5			50	B		#	2.1	-
	mg/kg	0877	08/30/2015	0009	-8.5 - -8.5			230	B		#	2.3	-
	mg/kg	0877	08/30/2015	0010	-9.5 - -9.5			36	B		#	2.1	-
	mg/kg	0877	08/30/2015	0011	-10.5 - -10.5			18	JB		#	2	-
	mg/kg	0877	08/30/2015	0012	-11.5 - -11.5			25	JB		#	2.1	-
	mg/kg	0877	08/30/2015	0013	-12.5 - -12.5			18	JB		#	2.1	-
	mg/kg	0877	08/30/2015	0014	-13.5 - -13.5			17	JB		#	2.1	-
	mg/kg	0877	08/30/2015	0015	-14.5 - -14.5			24	JB		#	2.1	-
	mg/kg	0877	08/30/2015	0016	-15 - -15			18	JB		#	2.2	-
	mg/kg	0877	08/30/2015	0018	-5.5 - -5.5			190			#	2.4	-
	mg/kg	BHT-01	05/05/2015	0001	-0.3 - -.3			170			#	2.3	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/kg	BHT-01	05/05/2015	0002	-0.75 - -.75			410			#	2.3	-
	mg/kg	BHT-01	05/05/2015	0003	-1.4 - -1.4			500	N		#	2.4	-
	mg/kg	BHT-01	05/05/2015	0004	-2.9 - -2.9			590			#	2.4	-
	mg/kg	BHT-01	05/05/2015	0005	-4.3 - -4.3			250			#	2.4	-
	mg/kg	BHT-01	05/05/2015	0006	-4.3 - -4.3			250			#	2.4	-
	mg/kg	BHT-02	05/05/2015	0001	-0.5 - -.5			47			#	2.4	-
	mg/kg	BHT-02	05/05/2015	0002	-1.5 - -1.5			71			#	2.3	-
	mg/kg	BHT-02	05/05/2015	0003	-3 - -3			710			#	2.3	-
	mg/kg	BHT-02	05/05/2015	0004	-4 - -4			34			#	2	-
	mg/kg	BHT-02	05/05/2015	0005	-4.6 - -4.6			9.1	J		#	2	-
	mg/kg	BHT-02	05/05/2015	0006	-0.5 - -.5			46			#	2.5	-
	mg/kg	BHT-03	05/05/2015	0001	-0.6 - -.6			440			#	2.3	-
	mg/kg	BHT-03	05/05/2015	0002	-2.5 - -2.5			360			#	2.2	-
	mg/kg	BHT-03	05/05/2015	0003	-3.1 - -3.1			50			#	2	-
	mg/kg	BHT-03	05/05/2015	0004	-5.6 - -5.6			52			#	2.6	-
	mg/kg	BHT-04	05/05/2015	0001	-0.3 - -.3			4.7	J		#	2	-
	mg/kg	BHT-04	05/05/2015	0002	-3 - -3			14	J		#	2	-
	mg/kg	BHT-04	05/05/2015	0003	-5.3 - -5.3			19	J		#	2.1	-
	mg/kg	BHT-04	05/05/2015	0004	-5.6 - -5.6			14	J		#	2.1	-
	mg/kg	BHT-05	05/05/2015	0001	-0.5 - -.5			240			#	2.1	-
	mg/kg	BHT-05	05/05/2015	0002	-1.5 - -1.5			280			#	2.2	-
	mg/kg	BHT-05	05/05/2015	0003	-2.5 - -2.5			130			#	2.2	-
	mg/kg	BHT-05	05/05/2015	0004	-3 - -3			12	J		#	2	-
	mg/kg	BHT-05	05/05/2015	0005	-4.2 - -4.2			10	J		#	2	-
Iron	mg/kg	0852	08/30/2015	0001	-0.5 - -.5			14000		J	#	3.9	-
	mg/kg	0852	08/30/2015	0002	-1.5 - -1.5			12000			#	3.9	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/kg	0852	08/30/2015	0003	-2.5 - -2.5			15000			#	3.9	-
	mg/kg	0852	08/30/2015	0004	-3.5 - -3.5			12000			#	4	-
	mg/kg	0852	08/30/2015	0005	-4.5 - -4.5			21000			#	4.1	-
	mg/kg	0852	08/30/2015	0006	-5.5 - -5.5			6600			#	3.5	-
	mg/kg	0852	08/30/2015	0007	-7 - -7			9500			#	3.7	-
	mg/kg	0852	08/30/2015	0008	-8 - -8			5100			#	3.4	-
	mg/kg	0852	08/30/2015	0009	-9 - -9			5500			#	4	-
	mg/kg	0852	08/30/2015	0010	-10 - -10			6500			#	3.7	-
	mg/kg	0852	08/30/2015	0011	-10.5 - -10.5			8600			#	3.8	-
	mg/kg	0852	08/30/2015	0012	-11.5 - -11.5			6600			#	4.1	-
	mg/kg	0852	08/30/2015	0013	-12 - -12			4700			#	3.8	-
	mg/kg	0852	08/30/2015	0014	-13 - -13			6500	B		#	3.6	-
	mg/kg	0852	08/30/2015	0015	-14 - -14			4900	B		#	3.9	-
	mg/kg	0852	08/30/2015	0016	-15 - -15			9400	B		#	4	-
	mg/kg	0852	08/30/2015	0017	-17 - -17			8600	B		#	4.1	-
	mg/kg	0853	08/27/2015	0001	-0.5 - -.5			13000	B		#	3.9	-
	mg/kg	0853	08/27/2015	0002	-1.5 - -1.5			16000	B		#	3.5	-
	mg/kg	0853	08/27/2015	0003	-2.5 - -2.5			17000	B		#	3.8	-
	mg/kg	0853	08/27/2015	0004	-3.5 - -3.5			14000	B		#	3.8	-
	mg/kg	0853	08/27/2015	0005	-4 - -4			7200	B		#	3.5	-
	mg/kg	0853	08/27/2015	0006	-4.5 - -4.5			5200	B		#	3.8	-
	mg/kg	0853	08/27/2015	0007	-5.5 - -5.5			6900	B		#	3.6	-
	mg/kg	0853	08/27/2015	0008	-6.5 - -6.5			4900	B		#	3.8	-
	mg/kg	0853	08/27/2015	0009	-7.5 - -7.5			5600	B		#	3.9	-
	mg/kg	0853	08/27/2015	0010	-8.5 - -8.5			3300			#	3.4	-
	mg/kg	0853	08/27/2015	0011	-10 - -10			6100			#	3.8	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/kg	0853	08/27/2015	0012	-11 - -11			5200			#	3.6	-
	mg/kg	0853	08/27/2015	0013	-12 - -12			3900			#	4.1	-
	mg/kg	0853	08/27/2015	0014	-14 - -14			3500			#	4	-
	mg/kg	0853	08/27/2015	0015	-15 - -15			4800			#	3.9	-
	mg/kg	0853	08/27/2015	0016	-16.3 - -16.3			7100			#	4.2	-
	mg/kg	0853	08/27/2015	0017	-17 - -17			19000			#	4.3	-
	mg/kg	0853	08/27/2015	0018	-17 - -17			18000			#	3.8	-
	mg/kg	0853	08/27/2015	0018	-12 - -12			5000			#	4.1	-
	mg/kg	0854	08/26/2015	0001	-0.3 - -.3			14000			#	4	-
	mg/kg	0854	08/26/2015	0002	-1 - -1			15000			#	4.2	-
	mg/kg	0854	08/26/2015	0003	-2 - -2			12000			#	4	-
	mg/kg	0854	08/26/2015	0004	-3 - -3			11000			#	4.1	-
	mg/kg	0854	08/26/2015	0005	-4 - -4			5600			#	3.7	-
	mg/kg	0854	08/26/2015	0006	-4.5 - -4.5			10000	B		#	4.5	-
	mg/kg	0854	08/26/2015	0007	-6 - -6			4700	B		#	3.6	-
	mg/kg	0854	08/26/2015	0008	-8 - -8			3300	B		#	4.1	-
	mg/kg	0854	08/26/2015	0009	-9 - -9			6200	B		#	4.8	-
	mg/kg	0854	08/26/2015	0010	-10.5 - -10.5			5100	B		#	4.1	-
	mg/kg	0854	08/26/2015	0011	-11.5 - -11.5			5300	B		#	4	-
	mg/kg	0854	08/26/2015	0012	-12.5 - -12.5			6100	B		#	3.8	-
	mg/kg	0855	08/28/2015	0001	-0.5 - -.5			22000	B		#	3.9	-
	mg/kg	0855	08/28/2015	0002	-1.5 - -1.5			19000	B		#	4.4	-
	mg/kg	0855	08/28/2015	0003	-2.5 - -2.5			13000	B		#	4.4	-
	mg/kg	0855	08/28/2015	0004	-4 - -4			15000	B		#	4.2	-
	mg/kg	0855	08/28/2015	0005	-5 - -5			14000	B		#	4.2	-
	mg/kg	0855	08/28/2015	0006	-6 - -6			12000	B		#	5.2	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/kg	0855	08/28/2015	0007	-7.5 - -7.5			11000	B		#	4.4	-
	mg/kg	0855	08/28/2015	0008	-8.5 - -8.5			6700	B		#	4.2	-
	mg/kg	0855	08/28/2015	0009	-9.5 - -9.5			5800	B		#	4.3	-
	mg/kg	0855	08/28/2015	0010	-11 - -11			7400	B		#	4.2	-
	mg/kg	0855	08/28/2015	0011	-13 - -13			5200	B		#	3.6	-
	mg/kg	0855	08/28/2015	0012	-15 - -15			10000	B		#	4.1	-
	mg/kg	0855	08/28/2015	0013	-16.5 - -16.5			8400	B		#	4	-
	mg/kg	0855	08/28/2015	0014	-17.7 - -17.7			7600	B		#	3.7	-
	mg/kg	0855	08/28/2015	0015	-18.5 - -18.5			11000	B		#	4	-
	mg/kg	0855	08/28/2015	0018	-1.5 - -1.5			19000			#	4.3	-
	mg/kg	0856	08/28/2015	0001	-0.5 - -.5			17000	B		#	4.2	-
	mg/kg	0856	08/28/2015	0002	-1.5 - -1.5			16000	B		#	4	-
	mg/kg	0856	08/28/2015	0003	-2.5 - -2.5			13000	B		#	3.8	-
	mg/kg	0856	08/28/2015	0004	-3.5 - -3.5			7200	B		#	3.7	-
	mg/kg	0856	08/28/2015	0005	-5.5 - -5.5			4400			#	3.9	-
	mg/kg	0856	08/28/2015	0006	-6.5 - -6.5			6900			#	3.8	-
	mg/kg	0856	08/28/2015	0007	-7.5 - -7.5			4900			#	3.9	-
	mg/kg	0856	08/28/2015	0008	-8.5 - -8.5			6300			#	4.2	-
	mg/kg	0856	08/28/2015	0009	-9.5 - -9.5			5900			#	4.2	-
	mg/kg	0856	08/28/2015	0010	-10.5 - -10.5			6900			#	4	-
	mg/kg	0856	08/28/2015	0011	-11.2 - -11.2			7000			#	3.6	-
	mg/kg	0856	08/28/2015	0012	-12 - -12			7300			#	4.2	-
	mg/kg	0857	08/30/2015	0001	-0.5 - -.5			6100			#	3.6	-
	mg/kg	0857	08/30/2015	0002	-1.5 - -1.5			4700			#	4	-
	mg/kg	0857	08/30/2015	0003	-2.5 - -2.5			12000			#	3.4	-
	mg/kg	0857	08/30/2015	0004	-3 - -3			6000			#	3.5	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/kg	0857	08/30/2015	0005	-5 - -5			5600			#	3.5	-
	mg/kg	0857	08/30/2015	0006	-7 - -7			6000	B	J	#	3.5	-
	mg/kg	0857	08/30/2015	0007	-8 - -8			5600	B		#	3.9	-
	mg/kg	0857	08/30/2015	0008	-9 - -9			6600	B		#	4	-
	mg/kg	0857	08/30/2015	0009	-10 - -10			5900	B		#	4.2	-
	mg/kg	0857	08/30/2015	0010	-10.5 - -10.5			5500	B		#	4	-
	mg/kg	0857	08/30/2015	0011	-11 - -11			5900	B		#	3.9	-
	mg/kg	0857	08/30/2015	0012	-11.5 - -11.5			5900	B		#	4.1	-
	mg/kg	0858	08/29/2015	0001	-0.5 - -.5			19000	B		#	4.3	-
	mg/kg	0858	08/29/2015	0002	-1.5 - -1.5			17000	B		#	5	-
	mg/kg	0858	08/29/2015	0003	-2.5 - -2.5			9500	B		#	3.8	-
	mg/kg	0858	08/29/2015	0004	-3 - -3			6400	B		#	3.7	-
	mg/kg	0858	08/29/2015	0005	-4.5 - -4.5			5200	B		#	3.7	-
	mg/kg	0858	08/29/2015	0006	-6 - -6			5600	B		#	3.6	-
	mg/kg	0858	08/29/2015	0007	-7 - -7			6300	B		#	4.1	-
	mg/kg	0858	08/29/2015	0008	-8 - -8			6600	B		#	3.7	-
	mg/kg	0858	08/29/2015	0009	-9 - -9			6900	B		#	3.6	-
	mg/kg	0858	08/29/2015	0010	-10.5 - -10.5			6500	B		#	3.7	-
	mg/kg	0858	08/29/2015	0011	-12 - -12			6900	B		#	3.7	-
	mg/kg	0858	08/29/2015	0012	-13 - -13			3500	B		#	4.4	-
	mg/kg	0858	08/29/2015	0013	-14 - -14			3500	B		#	4	-
	mg/kg	0858	08/29/2015	0014	-15 - -15			7400	B		#	3.6	-
	mg/kg	0858	08/29/2015	0015	-16 - -16			7400	B		#	3.6	-
	mg/kg	0858	08/29/2015	0016	-17 - -17			5100	B		#	3.6	-
	mg/kg	0858	08/29/2015	0017	-18 - -18			20000	B		#	4.6	-
	mg/kg	0858	08/29/2015	0018	-13 - -13			3700			#	4	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/kg	0859	09/01/2015	0001	-0.5 - -.5			9800	B		#	3.6	-
	mg/kg	0859	09/01/2015	0002	-1.5 - -1.5			8100	B		#	3.6	-
	mg/kg	0859	09/01/2015	0003	-2.5 - -2.5			10000	B		#	3.6	-
	mg/kg	0859	09/01/2015	0004	-3.5 - -3.5			8500	B		#	3.9	-
	mg/kg	0859	09/01/2015	0005	-4.5 - -4.5			9300	B		#	4.1	-
	mg/kg	0859	09/01/2015	0006	-5.5 - -5.5			3500	B		#	3.6	-
	mg/kg	0859	09/01/2015	0007	-7 - -7			5100	B		#	3.8	-
	mg/kg	0859	09/01/2015	0008	-8 - -8			4200	B		#	3.7	-
	mg/kg	0859	09/01/2015	0009	-8.5 - -8.5			9800	B		#	4.4	-
	mg/kg	0859	09/01/2015	0010	-9 - -9			5300	B		#	3.9	-
	mg/kg	0859	09/01/2015	0011	-10.5 - -10.5			7600	B		#	3.5	-
	mg/kg	0859	09/01/2015	0012	-11.5 - -11.5			14000	B		#	3.9	-
	mg/kg	0859	09/01/2015	0013	-12.5 - -12.5			15000	B		#	3.9	-
	mg/kg	0859	09/01/2015	0018	-5.5 - -5.5			4900			#	4	-
	mg/kg	0860	08/31/2015	0001	-0.5 - -.5			9800	B		#	4	-
	mg/kg	0860	08/31/2015	0002	-1.5 - -1.5			11000	B		#	3.7	-
	mg/kg	0860	08/31/2015	0003	-2.5 - -2.5			13000	B		#	3.7	-
	mg/kg	0860	08/31/2015	0004	-3.5 - -3.5			14000	B		#	3.8	-
	mg/kg	0860	08/31/2015	0005	-4.5 - -4.5			12000	B		#	3.9	-
	mg/kg	0860	08/31/2015	0006	-5.5 - -5.5			7300	B		#	3.6	-
	mg/kg	0860	08/31/2015	0007	-6.5 - -6.5			7400	B		#	3.4	-
	mg/kg	0860	08/31/2015	0008	-8 - -8			6900	B		#	3.6	-
	mg/kg	0860	08/31/2015	0009	-9 - -9			9100	B		#	3.9	-
	mg/kg	0860	08/31/2015	0010	-10 - -10			5300	B		#	3.8	-
	mg/kg	0860	08/31/2015	0011	-11 - -11			5300	B		#	4	-
	mg/kg	0860	08/31/2015	0012	-12 - -12			5400	B		#	4.5	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/kg	0860	08/31/2015	0013	-13 - -13			5400	B		#	4	-
	mg/kg	0860	08/31/2015	0014	-14.5 - -14.5			5000	B		#	4	-
	mg/kg	0860	08/31/2015	0015	-15.5 - -15.5			5600	B		#	4	-
	mg/kg	0860	08/31/2015	0016	-16.5 - -16.5			4500	B		#	3.8	-
	mg/kg	0860	08/31/2015	0017	-17.5 - -17.5			11000	B		#	3.8	-
	mg/kg	0860	08/31/2015	0018	-10 - -10			5600			#	3.8	-
	mg/kg	0860	08/31/2015	0018	-1.5 - -1.5			13000			#	3.6	-
	mg/kg	0877	08/30/2015	0001	-0.5 - -.5			21000	B		#	3.9	-
	mg/kg	0877	08/30/2015	0002	-1.5 - -1.5			17000	B		#	3.8	-
	mg/kg	0877	08/30/2015	0003	-2.5 - -2.5			13000	B		#	3.8	-
	mg/kg	0877	08/30/2015	0004	-3.5 - -3.5			12000	B		#	4.1	-
	mg/kg	0877	08/30/2015	0005	-4.5 - -4.5			11000	B		#	3.8	-
	mg/kg	0877	08/30/2015	0006	-5.5 - -5.5			11000	B		#	4.3	-
	mg/kg	0877	08/30/2015	0007	-6.5 - -6.5			11000	B		#	4.4	-
	mg/kg	0877	08/30/2015	0008	-7.5 - -7.5			5400	B		#	3.8	-
	mg/kg	0877	08/30/2015	0009	-8.5 - -8.5			9200	B		#	4.2	-
	mg/kg	0877	08/30/2015	0010	-9.5 - -9.5			5000	B		#	3.9	-
	mg/kg	0877	08/30/2015	0011	-10.5 - -10.5			4600	B		#	4	-
	mg/kg	0877	08/30/2015	0012	-11.5 - -11.5			5400			#	3.9	-
	mg/kg	0877	08/30/2015	0013	-12.5 - -12.5			5400			#	3.5	-
	mg/kg	0877	08/30/2015	0014	-13.5 - -13.5			4900			#	3.8	-
	mg/kg	0877	08/30/2015	0015	-14.5 - -14.5			8200			#	4	-
	mg/kg	0877	08/30/2015	0016	-15 - -15			15000			#	3.9	-
	mg/kg	0877	08/30/2015	0018	-5.5 - -5.5			10000			#	4.2	-
	mg/kg	BHT-01	05/05/2015	0001	-0.3 - -.3			23000	B		#	4.2	-
	mg/kg	BHT-01	05/05/2015	0002	-0.75 - -.75			19000	B		#	4.5	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/kg	BHT-01	05/05/2015	0003	-1.4 - -1.4			14000	B		#	4.6	-
	mg/kg	BHT-01	05/05/2015	0004	-2.9 - -2.9			9800	B		#	4.4	-
	mg/kg	BHT-01	05/05/2015	0005	-4.3 - -4.3			12000	B		#	4.2	-
	mg/kg	BHT-01	05/05/2015	0006	-4.3 - -4.3			11000	B		#	4.2	-
	mg/kg	BHT-02	05/05/2015	0001	-0.5 - -.5			20000	B	J	#	4.7	-
	mg/kg	BHT-02	05/05/2015	0002	-1.5 - -1.5			16000	B		#	4.1	-
	mg/kg	BHT-02	05/05/2015	0003	-3 - -3			14000	B		#	4.3	-
	mg/kg	BHT-02	05/05/2015	0004	-4 - -4			6800	B		#	3.9	-
	mg/kg	BHT-02	05/05/2015	0005	-4.6 - -4.6			3600	B		#	3.4	-
	mg/kg	BHT-02	05/05/2015	0006	-0.5 - -.5			21000	B	J	#	4.7	-
	mg/kg	BHT-03	05/05/2015	0001	-0.6 - -.6			16000	B		#	4.4	-
	mg/kg	BHT-03	05/05/2015	0002	-2.5 - -2.5			13000			#	4.3	-
	mg/kg	BHT-03	05/05/2015	0003	-3.1 - -3.1			6100			#	3.8	-
	mg/kg	BHT-03	05/05/2015	0004	-5.6 - -5.6			6800			#	4.9	-
	mg/kg	BHT-04	05/05/2015	0001	-0.3 - -.3			13000			#	4	-
	mg/kg	BHT-04	05/05/2015	0002	-3 - -3			5800			#	3.7	-
	mg/kg	BHT-04	05/05/2015	0003	-5.3 - -5.3			4900			#	4.1	-
	mg/kg	BHT-04	05/05/2015	0004	-5.6 - -5.6			4600			#	3.6	-
	mg/kg	BHT-05	05/05/2015	0001	-0.5 - -.5			19000			#	3.6	-
	mg/kg	BHT-05	05/05/2015	0002	-1.5 - -1.5			13000			#	4	-
	mg/kg	BHT-05	05/05/2015	0003	-2.5 - -2.5			13000			#	4.2	-
	mg/kg	BHT-05	05/05/2015	0004	-3 - -3			7400			#	3.3	-
	mg/kg	BHT-05	05/05/2015	0005	-4.2 - -4.2			4000			#	3.3	-
Magnesium	mg/kg	0852	08/30/2015	0001	-0.5 - -.5			8000	B		#	3.8	-
	mg/kg	0852	08/30/2015	0002	-1.5 - -1.5			6800	B		#	3.7	-
	mg/kg	0852	08/30/2015	0003	-2.5 - -2.5			8100	B		#	3.8	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/kg	0852	08/30/2015	0004	-3.5 - -3.5			7100	B		#	3.9	-
	mg/kg	0852	08/30/2015	0005	-4.5 - -4.5			10000	B		#	4	-
	mg/kg	0852	08/30/2015	0006	-5.5 - -5.5			2400	B		#	3.4	-
	mg/kg	0852	08/30/2015	0007	-7 - -7			3900	B		#	3.6	-
	mg/kg	0852	08/30/2015	0008	-8 - -8			3000	B		#	3.3	-
	mg/kg	0852	08/30/2015	0009	-9 - -9			7600	B		#	3.9	-
	mg/kg	0852	08/30/2015	0010	-10 - -10			2500	B		#	3.6	-
	mg/kg	0852	08/30/2015	0011	-10.5 - -10.5			4500	B		#	3.7	-
	mg/kg	0852	08/30/2015	0012	-11.5 - -11.5			3000	B		#	3.9	-
	mg/kg	0852	08/30/2015	0013	-12 - -12			1500	B		#	3.7	-
	mg/kg	0852	08/30/2015	0014	-13 - -13			2100	B		#	3.5	-
	mg/kg	0852	08/30/2015	0015	-14 - -14			2700	B		#	3.8	-
	mg/kg	0852	08/30/2015	0016	-15 - -15			3000	B		#	3.9	-
	mg/kg	0852	08/30/2015	0017	-17 - -17			4600	B		#	4	-
	mg/kg	0853	08/27/2015	0001	-0.5 - -.5			7000	B		#	3.8	-
	mg/kg	0853	08/27/2015	0002	-1.5 - -1.5			9200	B		#	3.4	-
	mg/kg	0853	08/27/2015	0003	-2.5 - -2.5			8800	B		#	3.7	-
	mg/kg	0853	08/27/2015	0004	-3.5 - -3.5			8800	B		#	3.7	-
	mg/kg	0853	08/27/2015	0005	-4 - -4			3300	B		#	3.4	-
	mg/kg	0853	08/27/2015	0006	-4.5 - -4.5			2000	B		#	3.7	-
	mg/kg	0853	08/27/2015	0007	-5.5 - -5.5			3100	B		#	3.5	-
	mg/kg	0853	08/27/2015	0008	-6.5 - -6.5			1300	B		#	3.7	-
	mg/kg	0853	08/27/2015	0009	-7.5 - -7.5			2000	B		#	3.8	-
	mg/kg	0853	08/27/2015	0010	-8.5 - -8.5			1300		J	#	3.3	-
	mg/kg	0853	08/27/2015	0011	-10 - -10			2000			#	3.7	-
	mg/kg	0853	08/27/2015	0012	-11 - -11			2100			#	3.5	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/kg	0853	08/27/2015	0013	-12 - -12			1200			#	4	-
	mg/kg	0853	08/27/2015	0014	-14 - -14			1100			#	3.9	-
	mg/kg	0853	08/27/2015	0015	-15 - -15			2100			#	3.8	-
	mg/kg	0853	08/27/2015	0016	-16.3 - -16.3			3100			#	4	-
	mg/kg	0853	08/27/2015	0017	-17 - -17			10000			#	4.2	-
	mg/kg	0853	08/27/2015	0018	-17 - -17			11000	B		#	3.7	-
	mg/kg	0853	08/27/2015	0018	-12 - -12			1600	B		#	4	-
	mg/kg	0854	08/26/2015	0001	-0.3 - -.3			9300			#	3.9	-
	mg/kg	0854	08/26/2015	0002	-1 - -1			9100			#	4.1	-
	mg/kg	0854	08/26/2015	0003	-2 - -2			8300			#	3.9	-
	mg/kg	0854	08/26/2015	0004	-3 - -3			6000			#	4	-
	mg/kg	0854	08/26/2015	0005	-4 - -4			2600			#	3.6	-
	mg/kg	0854	08/26/2015	0006	-4.5 - -4.5			5700	B		#	4.4	-
	mg/kg	0854	08/26/2015	0007	-6 - -6			2000	B		#	3.5	-
	mg/kg	0854	08/26/2015	0008	-8 - -8			1900	B		#	4	-
	mg/kg	0854	08/26/2015	0009	-9 - -9			1900	B		#	4.6	-
	mg/kg	0854	08/26/2015	0010	-10.5 - -10.5			2100	B		#	4	-
	mg/kg	0854	08/26/2015	0011	-11.5 - -11.5			2100	B		#	3.9	-
	mg/kg	0854	08/26/2015	0012	-12.5 - -12.5			3700	B		#	3.7	-
	mg/kg	0855	08/28/2015	0001	-0.5 - -.5			11000	B		#	3.8	-
	mg/kg	0855	08/28/2015	0002	-1.5 - -1.5			10000	B		#	4.2	-
	mg/kg	0855	08/28/2015	0003	-2.5 - -2.5			9800	B		#	4.3	-
	mg/kg	0855	08/28/2015	0004	-4 - -4			10000	B		#	4.1	-
	mg/kg	0855	08/28/2015	0005	-5 - -5			4900	B		#	4	-
	mg/kg	0855	08/28/2015	0006	-6 - -6			5000	B		#	5.1	-
	mg/kg	0855	08/28/2015	0007	-7.5 - -7.5			5200	B		#	4.3	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/kg	0855	08/28/2015	0008	-8.5 - -8.5			3000	B		#	4	-
	mg/kg	0855	08/28/2015	0009	-9.5 - -9.5			2700	B		#	4.2	-
	mg/kg	0855	08/28/2015	0010	-11 - -11			3300	B		#	4.1	-
	mg/kg	0855	08/28/2015	0011	-13 - -13			2200	B		#	3.5	-
	mg/kg	0855	08/28/2015	0012	-15 - -15			6100	B		#	4	-
	mg/kg	0855	08/28/2015	0013	-16.5 - -16.5			3100	B		#	3.9	-
	mg/kg	0855	08/28/2015	0014	-17.7 - -17.7			4200	B		#	7.2	-
	mg/kg	0855	08/28/2015	0015	-18.5 - -18.5			6800	B		#	3.9	-
	mg/kg	0855	08/28/2015	0018	-1.5 - -1.5			11000	B		#	4.2	-
	mg/kg	0856	08/28/2015	0001	-0.5 - -.5			8900	B		#	4.1	-
	mg/kg	0856	08/28/2015	0002	-1.5 - -1.5			11000	B		#	3.9	-
	mg/kg	0856	08/28/2015	0003	-2.5 - -2.5			9100	B		#	3.7	-
	mg/kg	0856	08/28/2015	0004	-3.5 - -3.5			2000	B		#	3.6	-
	mg/kg	0856	08/28/2015	0005	-5.5 - -5.5			1500	B		#	3.8	-
	mg/kg	0856	08/28/2015	0006	-6.5 - -6.5			2100	B		#	3.7	-
	mg/kg	0856	08/28/2015	0007	-7.5 - -7.5			1700	B		#	3.8	-
	mg/kg	0856	08/28/2015	0008	-8.5 - -8.5			1700	B		#	4.1	-
	mg/kg	0856	08/28/2015	0009	-9.5 - -9.5			2100	B		#	4.1	-
	mg/kg	0856	08/28/2015	0010	-10.5 - -10.5			2100	B		#	3.9	-
	mg/kg	0856	08/28/2015	0011	-11.2 - -11.2			3300	B		#	3.6	-
	mg/kg	0856	08/28/2015	0012	-12 - -12			4000	B		#	8.2	-
	mg/kg	0857	08/30/2015	0001	-0.5 - -.5			2200	B		#	3.5	-
	mg/kg	0857	08/30/2015	0002	-1.5 - -1.5			1500	B		#	3.9	-
	mg/kg	0857	08/30/2015	0003	-2.5 - -2.5			6300	B		#	3.4	-
	mg/kg	0857	08/30/2015	0004	-3 - -3			2200	B		#	3.4	-
	mg/kg	0857	08/30/2015	0005	-5 - -5			2000	B		#	3.4	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/kg	0857	08/30/2015	0006	-7 - -7			1900	B		#	3.4	-
	mg/kg	0857	08/30/2015	0007	-8 - -8			1900	B		#	3.8	-
	mg/kg	0857	08/30/2015	0008	-9 - -9			2100	B		#	3.9	-
	mg/kg	0857	08/30/2015	0009	-10 - -10			2200	B		#	4.1	-
	mg/kg	0857	08/30/2015	0010	-10.5 - -10.5			2400	B		#	3.9	-
	mg/kg	0857	08/30/2015	0011	-11 - -11			2800	B		#	3.8	-
	mg/kg	0857	08/30/2015	0012	-11.5 - -11.5			3700	B		#	4	-
	mg/kg	0858	08/29/2015	0001	-0.5 - -.5			9600	B		#	4.1	-
	mg/kg	0858	08/29/2015	0002	-1.5 - -1.5			11000	B		#	4.9	-
	mg/kg	0858	08/29/2015	0003	-2.5 - -2.5			6400	B		#	3.7	-
	mg/kg	0858	08/29/2015	0004	-3 - -3			2800	B		#	3.6	-
	mg/kg	0858	08/29/2015	0005	-4.5 - -4.5			1900	B		#	3.6	-
	mg/kg	0858	08/29/2015	0006	-6 - -6			1800	B		#	3.5	-
	mg/kg	0858	08/29/2015	0007	-7 - -7			2300	B		#	4	-
	mg/kg	0858	08/29/2015	0008	-8 - -8			2800	B		#	3.6	-
	mg/kg	0858	08/29/2015	0009	-9 - -9			2600	B		#	3.5	-
	mg/kg	0858	08/29/2015	0010	-10.5 - -10.5			2400	B		#	3.6	-
	mg/kg	0858	08/29/2015	0011	-12 - -12			2800	B		#	3.6	-
	mg/kg	0858	08/29/2015	0012	-13 - -13			1200	B		#	4.3	-
	mg/kg	0858	08/29/2015	0013	-14 - -14			1100	B		#	3.9	-
	mg/kg	0858	08/29/2015	0014	-15 - -15			1800	B		#	3.5	-
	mg/kg	0858	08/29/2015	0015	-16 - -16			2900	B		#	3.5	-
	mg/kg	0858	08/29/2015	0016	-17 - -17			2100	B		#	3.5	-
	mg/kg	0858	08/29/2015	0017	-18 - -18			12000	B		#	4.5	-
	mg/kg	0858	08/29/2015	0018	-13 - -13			1300	B		#	3.9	-
	mg/kg	0859	09/01/2015	0001	-0.5 - -.5			5500	B		#	3.5	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/kg	0859	09/01/2015	0002	-1.5 - -1.5			6800	B		#	3.5	-
	mg/kg	0859	09/01/2015	0003	-2.5 - -2.5			11000	B		#	3.5	-
	mg/kg	0859	09/01/2015	0004	-3.5 - -3.5			8100	B		#	3.8	-
	mg/kg	0859	09/01/2015	0005	-4.5 - -4.5			7800	B		#	3.9	-
	mg/kg	0859	09/01/2015	0006	-5.5 - -5.5			35000	B		#	3.5	-
	mg/kg	0859	09/01/2015	0007	-7 - -7			1500	B		#	3.7	-
	mg/kg	0859	09/01/2015	0008	-8 - -8			1200	B		#	3.6	-
	mg/kg	0859	09/01/2015	0009	-8.5 - -8.5			3200	B		#	4.2	-
	mg/kg	0859	09/01/2015	0010	-9 - -9			1200	B		#	3.8	-
	mg/kg	0859	09/01/2015	0011	-10.5 - -10.5			2100	B		#	3.4	-
	mg/kg	0859	09/01/2015	0012	-11.5 - -11.5			5800	B		#	3.8	-
	mg/kg	0859	09/01/2015	0013	-12.5 - -12.5			13000	B		#	3.8	-
	mg/kg	0859	09/01/2015	0018	-5.5 - -5.5			1700	B	J	#	3.9	-
	mg/kg	0860	08/31/2015	0001	-0.5 - -.5			7500	B		#	3.9	-
	mg/kg	0860	08/31/2015	0002	-1.5 - -1.5			9800	B		#	3.6	-
	mg/kg	0860	08/31/2015	0003	-2.5 - -2.5			13000	B		#	3.6	-
	mg/kg	0860	08/31/2015	0004	-3.5 - -3.5			17000	B		#	3.7	-
	mg/kg	0860	08/31/2015	0005	-4.5 - -4.5			13000	B		#	3.8	-
	mg/kg	0860	08/31/2015	0006	-5.5 - -5.5			2500	B		#	3.5	-
	mg/kg	0860	08/31/2015	0007	-6.5 - -6.5			1800	B		#	3.3	-
	mg/kg	0860	08/31/2015	0008	-8 - -8			2200	B		#	3.5	-
	mg/kg	0860	08/31/2015	0009	-9 - -9			2500	B		#	3.8	-
	mg/kg	0860	08/31/2015	0010	-10 - -10			2200	B		#	3.7	-
	mg/kg	0860	08/31/2015	0011	-11 - -11			1700	B		#	3.9	-
	mg/kg	0860	08/31/2015	0012	-12 - -12			1800	B		#	4.4	-
	mg/kg	0860	08/31/2015	0013	-13 - -13			2200	B		#	3.9	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/kg	0860	08/31/2015	0014	-14.5 - -14.5			1700	B		#	3.9	-
	mg/kg	0860	08/31/2015	0015	-15.5 - -15.5			2400	B		#	3.8	-
	mg/kg	0860	08/31/2015	0016	-16.5 - -16.5			1500	B		#	3.7	-
	mg/kg	0860	08/31/2015	0017	-17.5 - -17.5			6500	B		#	3.7	-
	mg/kg	0860	08/31/2015	0018	-10 - -10			2400	B		#	3.7	-
	mg/kg	0860	08/31/2015	0018	-1.5 - -1.5			12000	B		#	3.5	-
	mg/kg	0877	08/30/2015	0001	-0.5 - -.5			10000	B		#	3.8	-
	mg/kg	0877	08/30/2015	0002	-1.5 - -1.5			10000	B		#	3.7	-
	mg/kg	0877	08/30/2015	0003	-2.5 - -2.5			9000	B		#	3.7	-
	mg/kg	0877	08/30/2015	0004	-3.5 - -3.5			8500	B		#	4	-
	mg/kg	0877	08/30/2015	0005	-4.5 - -4.5			4700	B		#	3.7	-
	mg/kg	0877	08/30/2015	0006	-5.5 - -5.5			3800	B		#	4.2	-
	mg/kg	0877	08/30/2015	0007	-6.5 - -6.5			4800	B		#	4.3	-
	mg/kg	0877	08/30/2015	0008	-7.5 - -7.5			2600	B		#	3.7	-
	mg/kg	0877	08/30/2015	0009	-8.5 - -8.5			4000	B		#	4.1	-
	mg/kg	0877	08/30/2015	0010	-9.5 - -9.5			1900	B		#	3.8	-
	mg/kg	0877	08/30/2015	0011	-10.5 - -10.5			1700	B		#	3.9	-
	mg/kg	0877	08/30/2015	0012	-11.5 - -11.5			3000	B		#	3.8	-
	mg/kg	0877	08/30/2015	0013	-12.5 - -12.5			2000	B		#	3.4	-
	mg/kg	0877	08/30/2015	0014	-13.5 - -13.5			2300	B		#	3.7	-
	mg/kg	0877	08/30/2015	0015	-14.5 - -14.5			3900	B		#	3.9	-
	mg/kg	0877	08/30/2015	0016	-15 - -15			9900	B		#	3.8	-
	mg/kg	0877	08/30/2015	0018	-5.5 - -5.5			3300	B		#	4.1	-
	mg/kg	BHT-01	05/05/2015	0001	-0.3 - -.3			10000	B		#	4.1	-
	mg/kg	BHT-01	05/05/2015	0002	-0.75 - -.75			9500	B		#	4.4	-
	mg/kg	BHT-01	05/05/2015	0003	-1.4 - -1.4			8700	B		#	4.5	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/kg	BHT-01	05/05/2015	0004	-2.9 - -2.9			5500	B		#	4.3	-
	mg/kg	BHT-01	05/05/2015	0005	-4.3 - -4.3			4800	B		#	4.1	-
	mg/kg	BHT-01	05/05/2015	0006	-4.3 - -4.3			4700	B		#	4.1	-
	mg/kg	BHT-02	05/05/2015	0001	-0.5 - -.5			11000	B	J	#	4.5	-
	mg/kg	BHT-02	05/05/2015	0002	-1.5 - -1.5			8500	B		#	4	-
	mg/kg	BHT-02	05/05/2015	0003	-3 - -3			9800	B		#	4.1	-
	mg/kg	BHT-02	05/05/2015	0004	-4 - -4			2800	B		#	3.8	-
	mg/kg	BHT-02	05/05/2015	0005	-4.6 - -4.6			1200	B		#	3.3	-
	mg/kg	BHT-02	05/05/2015	0006	-0.5 - -.5			11000	B	J	#	4.5	-
	mg/kg	BHT-03	05/05/2015	0001	-0.6 - -.6			11000	B		#	4.3	-
	mg/kg	BHT-03	05/05/2015	0002	-2.5 - -2.5			8500	B		#	4.2	-
	mg/kg	BHT-03	05/05/2015	0003	-3.1 - -3.1			2300	B		#	3.7	-
	mg/kg	BHT-03	05/05/2015	0004	-5.6 - -5.6			2500	B		#	4.8	-
	mg/kg	BHT-04	05/05/2015	0001	-0.3 - -.3			5900	B		#	3.9	-
	mg/kg	BHT-04	05/05/2015	0002	-3 - -3			2100	B		#	3.6	-
	mg/kg	BHT-04	05/05/2015	0003	-5.3 - -5.3			1900	B		#	4	-
	mg/kg	BHT-04	05/05/2015	0004	-5.6 - -5.6			1700	B		#	3.5	-
	mg/kg	BHT-05	05/05/2015	0001	-0.5 - -.5			9900	B		#	3.5	-
	mg/kg	BHT-05	05/05/2015	0002	-1.5 - -1.5			9300	B		#	3.9	-
	mg/kg	BHT-05	05/05/2015	0003	-2.5 - -2.5			8200	B		#	4.1	-
	mg/kg	BHT-05	05/05/2015	0004	-3 - -3			3200	B		#	3.2	-
	mg/kg	BHT-05	05/05/2015	0005	-4.2 - -4.2			1200	B		#	3.3	-
Manganese	mg/kg	0852	08/30/2015	0001	-0.5 - -.5			320			#	0.1	-
	mg/kg	0852	08/30/2015	0002	-1.5 - -1.5			300			#	0.1	-
	mg/kg	0852	08/30/2015	0003	-2.5 - -2.5			290			#	0.1	-
	mg/kg	0852	08/30/2015	0004	-3.5 - -3.5			270			#	0.11	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/kg	0852	08/30/2015	0005	-4.5 - -4.5			500			#	0.11	-
	mg/kg	0852	08/30/2015	0006	-5.5 - -5.5			89			#	0.093	-
	mg/kg	0852	08/30/2015	0007	-7 - -7			130			#	0.096	-
	mg/kg	0852	08/30/2015	0008	-8 - -8			130			#	0.09	-
	mg/kg	0852	08/30/2015	0009	-9 - -9			130			#	0.1	-
	mg/kg	0852	08/30/2015	0010	-10 - -10			91			#	0.098	-
	mg/kg	0852	08/30/2015	0011	-10.5 - -10.5			160			#	0.1	-
	mg/kg	0852	08/30/2015	0012	-11.5 - -11.5			260			#	0.11	-
	mg/kg	0852	08/30/2015	0013	-12 - -12			120			#	0.099	-
	mg/kg	0852	08/30/2015	0014	-13 - -13			91			#	0.095	-
	mg/kg	0852	08/30/2015	0015	-14 - -14			69			#	0.1	-
	mg/kg	0852	08/30/2015	0016	-15 - -15			86			#	0.11	-
	mg/kg	0852	08/30/2015	0017	-17 - -17			140			#	0.11	-
	mg/kg	0853	08/27/2015	0001	-0.5 - -.5			260			#	0.1	-
	mg/kg	0853	08/27/2015	0002	-1.5 - -1.5			360			#	0.092	-
	mg/kg	0853	08/27/2015	0003	-2.5 - -2.5			330			#	0.099	-
	mg/kg	0853	08/27/2015	0004	-3.5 - -3.5			250			#	0.099	-
	mg/kg	0853	08/27/2015	0005	-4 - -4			110			#	0.091	-
	mg/kg	0853	08/27/2015	0006	-4.5 - -4.5			55			#	0.1	-
	mg/kg	0853	08/27/2015	0007	-5.5 - -5.5			120			#	0.094	-
	mg/kg	0853	08/27/2015	0008	-6.5 - -6.5			57			#	0.099	-
	mg/kg	0853	08/27/2015	0009	-7.5 - -7.5			85			#	0.1	-
	mg/kg	0853	08/27/2015	0010	-8.5 - -8.5			400			#	0.089	-
	mg/kg	0853	08/27/2015	0011	-10 - -10			480			#	0.099	-
	mg/kg	0853	08/27/2015	0012	-11 - -11			180			#	0.094	-
	mg/kg	0853	08/27/2015	0013	-12 - -12			52		J	#	0.11	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/kg	0853	08/27/2015	0014	-14 - -14			45			#	0.11	-
	mg/kg	0853	08/27/2015	0015	-15 - -15			96			#	0.1	-
	mg/kg	0853	08/27/2015	0016	-16.3 - -16.3			98			#	0.11	-
	mg/kg	0853	08/27/2015	0017	-17 - -17			430			#	0.11	-
	mg/kg	0853	08/27/2015	0018	-17 - -17			380			#	0.1	-
	mg/kg	0853	08/27/2015	0018	-12 - -12			100		J	#	0.11	-
	mg/kg	0854	08/26/2015	0001	-0.3 - -.3			340			#	0.11	-
	mg/kg	0854	08/26/2015	0002	-1 - -1			350			#	0.11	-
	mg/kg	0854	08/26/2015	0003	-2 - -2			250			#	0.11	-
	mg/kg	0854	08/26/2015	0004	-3 - -3			440			#	0.11	-
	mg/kg	0854	08/26/2015	0005	-4 - -4			75			#	0.096	-
	mg/kg	0854	08/26/2015	0006	-4.5 - -4.5			120			#	0.12	-
	mg/kg	0854	08/26/2015	0007	-6 - -6			120			#	0.095	-
	mg/kg	0854	08/26/2015	0008	-8 - -8			47			#	0.11	-
	mg/kg	0854	08/26/2015	0009	-9 - -9			65			#	0.13	-
	mg/kg	0854	08/26/2015	0010	-10.5 - -10.5			96			#	0.11	-
	mg/kg	0854	08/26/2015	0011	-11.5 - -11.5			75			#	0.1	-
	mg/kg	0854	08/26/2015	0012	-12.5 - -12.5			170			#	0.1	-
	mg/kg	0855	08/28/2015	0001	-0.5 - -.5			380			#	0.1	-
	mg/kg	0855	08/28/2015	0002	-1.5 - -1.5			360			#	0.11	-
	mg/kg	0855	08/28/2015	0003	-2.5 - -2.5			360			#	0.12	-
	mg/kg	0855	08/28/2015	0004	-4 - -4			760			#	0.11	-
	mg/kg	0855	08/28/2015	0005	-5 - -5			350			#	0.11	-
	mg/kg	0855	08/28/2015	0006	-6 - -6			280			#	0.14	-
	mg/kg	0855	08/28/2015	0007	-7.5 - -7.5			230			#	0.12	-
	mg/kg	0855	08/28/2015	0008	-8.5 - -8.5			83			#	0.11	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/kg	0855	08/28/2015	0009	-9.5 - -9.5			75			#	0.11	-
	mg/kg	0855	08/28/2015	0010	-11 - -11			130			#	0.11	-
	mg/kg	0855	08/28/2015	0011	-13 - -13			70			#	0.094	-
	mg/kg	0855	08/28/2015	0012	-15 - -15			190			#	0.11	-
	mg/kg	0855	08/28/2015	0013	-16.5 - -16.5			120			#	0.11	-
	mg/kg	0855	08/28/2015	0014	-17.7 - -17.7			1800			#	0.19	-
	mg/kg	0855	08/28/2015	0015	-18.5 - -18.5			220			#	0.1	-
	mg/kg	0855	08/28/2015	0018	-1.5 - -1.5			400			#	0.11	-
	mg/kg	0856	08/28/2015	0001	-0.5 - -.5			380			#	0.11	-
	mg/kg	0856	08/28/2015	0002	-1.5 - -1.5			280			#	0.1	-
	mg/kg	0856	08/28/2015	0003	-2.5 - -2.5			260			#	0.1	-
	mg/kg	0856	08/28/2015	0004	-3.5 - -3.5			120			#	0.098	-
	mg/kg	0856	08/28/2015	0005	-5.5 - -5.5			65			#	0.1	-
	mg/kg	0856	08/28/2015	0006	-6.5 - -6.5			220			#	0.1	-
	mg/kg	0856	08/28/2015	0007	-7.5 - -7.5			230			#	0.1	-
	mg/kg	0856	08/28/2015	0008	-8.5 - -8.5			99			#	0.11	-
	mg/kg	0856	08/28/2015	0009	-9.5 - -9.5			76			#	0.11	-
	mg/kg	0856	08/28/2015	0010	-10.5 - -10.5			120			#	0.1	-
	mg/kg	0856	08/28/2015	0011	-11.2 - -11.2			650			#	0.096	-
	mg/kg	0856	08/28/2015	0012	-12 - -12			3400			#	0.22	-
	mg/kg	0857	08/30/2015	0001	-0.5 - -.5			100			#	0.094	-
	mg/kg	0857	08/30/2015	0002	-1.5 - -1.5			110			#	0.11	-
	mg/kg	0857	08/30/2015	0003	-2.5 - -2.5			260			#	0.091	-
	mg/kg	0857	08/30/2015	0004	-3 - -3			91			#	0.093	-
	mg/kg	0857	08/30/2015	0005	-5 - -5			77			#	0.091	-
	mg/kg	0857	08/30/2015	0006	-7 - -7			150	B	J	#	0.093	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/kg	0857	08/30/2015	0007	-8 - -8			120	B		#	0.1	-
	mg/kg	0857	08/30/2015	0008	-9 - -9			90	B		#	0.11	-
	mg/kg	0857	08/30/2015	0009	-10 - -10			450	B		#	0.11	-
	mg/kg	0857	08/30/2015	0010	-10.5 - -10.5			400	B		#	0.1	-
	mg/kg	0857	08/30/2015	0011	-11 - -11			800	B		#	0.1	-
	mg/kg	0857	08/30/2015	0012	-11.5 - -11.5			130	B		#	0.11	-
	mg/kg	0858	08/29/2015	0001	-0.5 - -.5			360	B		#	0.11	-
	mg/kg	0858	08/29/2015	0002	-1.5 - -1.5			360	B		#	0.13	-
	mg/kg	0858	08/29/2015	0003	-2.5 - -2.5			180	B		#	0.099	-
	mg/kg	0858	08/29/2015	0004	-3 - -3			310	B		#	0.098	-
	mg/kg	0858	08/29/2015	0005	-4.5 - -4.5			200	B		#	0.098	-
	mg/kg	0858	08/29/2015	0006	-6 - -6			520	B		#	0.095	-
	mg/kg	0858	08/29/2015	0007	-7 - -7			400	B		#	0.11	-
	mg/kg	0858	08/29/2015	0008	-8 - -8			270	B		#	0.098	-
	mg/kg	0858	08/29/2015	0009	-9 - -9			180	B		#	0.096	-
	mg/kg	0858	08/29/2015	0010	-10.5 - -10.5			350	B		#	0.097	-
	mg/kg	0858	08/29/2015	0011	-12 - -12			96	B		#	0.097	-
	mg/kg	0858	08/29/2015	0012	-13 - -13			100	B		#	0.12	-
	mg/kg	0858	08/29/2015	0013	-14 - -14			50	B		#	0.1	-
	mg/kg	0858	08/29/2015	0014	-15 - -15			82	B		#	0.094	-
	mg/kg	0858	08/29/2015	0015	-16 - -16			98	B		#	0.094	-
	mg/kg	0858	08/29/2015	0016	-17 - -17			68	B		#	0.096	-
	mg/kg	0858	08/29/2015	0017	-18 - -18			310	B		#	0.12	-
	mg/kg	0858	08/29/2015	0018	-13 - -13			88			#	0.1	-
	mg/kg	0859	09/01/2015	0001	-0.5 - -.5			170	B		#	0.096	-
	mg/kg	0859	09/01/2015	0002	-1.5 - -1.5			100	B		#	0.095	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/kg	0859	09/01/2015	0003	-2.5 - -2.5			160		J	#	0.095	-
	mg/kg	0859	09/01/2015	0004	-3.5 - -3.5			130			#	0.1	-
	mg/kg	0859	09/01/2015	0005	-4.5 - -4.5			190			#	0.11	-
	mg/kg	0859	09/01/2015	0006	-5.5 - -5.5			110			#	0.096	-
	mg/kg	0859	09/01/2015	0007	-7 - -7			61			#	0.1	-
	mg/kg	0859	09/01/2015	0008	-8 - -8			34			#	0.098	-
	mg/kg	0859	09/01/2015	0009	-8.5 - -8.5			68			#	0.11	-
	mg/kg	0859	09/01/2015	0010	-9 - -9			51			#	0.1	-
	mg/kg	0859	09/01/2015	0011	-10.5 - -10.5			59			#	0.091	-
	mg/kg	0859	09/01/2015	0012	-11.5 - -11.5			140			#	0.1	-
	mg/kg	0859	09/01/2015	0013	-12.5 - -12.5			400			#	0.1	-
	mg/kg	0859	09/01/2015	0018	-5.5 - -5.5			89			#	0.11	-
	mg/kg	0860	08/31/2015	0001	-0.5 - -.5			140			#	0.1	-
	mg/kg	0860	08/31/2015	0002	-1.5 - -1.5			160			#	0.097	-
	mg/kg	0860	08/31/2015	0003	-2.5 - -2.5			280	B		#	0.098	-
	mg/kg	0860	08/31/2015	0004	-3.5 - -3.5			230	B		#	0.1	-
	mg/kg	0860	08/31/2015	0005	-4.5 - -4.5			190	B		#	0.1	-
	mg/kg	0860	08/31/2015	0006	-5.5 - -5.5			160	B		#	0.095	-
	mg/kg	0860	08/31/2015	0007	-6.5 - -6.5			110	B		#	0.088	-
	mg/kg	0860	08/31/2015	0008	-8 - -8			180	B		#	0.095	-
	mg/kg	0860	08/31/2015	0009	-9 - -9			240	B		#	0.1	-
	mg/kg	0860	08/31/2015	0010	-10 - -10			100	B		#	0.1	-
	mg/kg	0860	08/31/2015	0011	-11 - -11			65	B		#	0.11	-
	mg/kg	0860	08/31/2015	0012	-12 - -12			55	B		#	0.12	-
	mg/kg	0860	08/31/2015	0013	-13 - -13			67	B		#	0.11	-
	mg/kg	0860	08/31/2015	0014	-14.5 - -14.5			55	B		#	0.11	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/kg	0860	08/31/2015	0015	-15.5 - -15.5			63	B		#	0.1	-
	mg/kg	0860	08/31/2015	0016	-16.5 - -16.5			49			#	0.1	-
	mg/kg	0860	08/31/2015	0017	-17.5 - -17.5			190			#	0.1	-
	mg/kg	0860	08/31/2015	0018	-10 - -10			110			#	0.099	-
	mg/kg	0860	08/31/2015	0018	-1.5 - -1.5			160			#	0.093	-
	mg/kg	0877	08/30/2015	0001	-0.5 - -.5			380			#	0.1	-
	mg/kg	0877	08/30/2015	0002	-1.5 - -1.5			340			#	0.1	-
	mg/kg	0877	08/30/2015	0003	-2.5 - -2.5			230			#	0.1	-
	mg/kg	0877	08/30/2015	0004	-3.5 - -3.5			310			#	0.11	-
	mg/kg	0877	08/30/2015	0005	-4.5 - -4.5			630			#	0.1	-
	mg/kg	0877	08/30/2015	0006	-5.5 - -5.5			160			#	0.11	-
	mg/kg	0877	08/30/2015	0007	-6.5 - -6.5			230			#	0.12	-
	mg/kg	0877	08/30/2015	0008	-7.5 - -7.5			93			#	0.1	-
	mg/kg	0877	08/30/2015	0009	-8.5 - -8.5			280			#	0.11	-
	mg/kg	0877	08/30/2015	0010	-9.5 - -9.5			63			#	0.1	-
	mg/kg	0877	08/30/2015	0011	-10.5 - -10.5			50			#	0.11	-
	mg/kg	0877	08/30/2015	0012	-11.5 - -11.5			66			#	0.1	-
	mg/kg	0877	08/30/2015	0013	-12.5 - -12.5			67			#	0.092	-
	mg/kg	0877	08/30/2015	0014	-13.5 - -13.5			230			#	0.099	-
	mg/kg	0877	08/30/2015	0015	-14.5 - -14.5			200			#	0.11	-
	mg/kg	0877	08/30/2015	0016	-15 - -15			370			#	0.1	-
	mg/kg	0877	08/30/2015	0018	-5.5 - -5.5			170			#	0.11	-
	mg/kg	BHT-01	05/05/2015	0001	-0.3 - -.3			410			#	0.11	-
	mg/kg	BHT-01	05/05/2015	0002	-0.75 - -.75			330			#	0.12	-
	mg/kg	BHT-01	05/05/2015	0003	-1.4 - -1.4			300			#	0.12	-
	mg/kg	BHT-01	05/05/2015	0004	-2.9 - -2.9			250			#	0.12	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/kg	BHT-01	05/05/2015	0005	-4.3 - -4.3			630			#	0.11	-
	mg/kg	BHT-01	05/05/2015	0006	-4.3 - -4.3			340			#	0.11	-
	mg/kg	BHT-02	05/05/2015	0001	-0.5 - -.5			410		J	#	0.12	-
	mg/kg	BHT-02	05/05/2015	0002	-1.5 - -1.5			310			#	0.11	-
	mg/kg	BHT-02	05/05/2015	0003	-3 - -3			260			#	0.11	-
	mg/kg	BHT-02	05/05/2015	0004	-4 - -4			110			#	0.1	-
	mg/kg	BHT-02	05/05/2015	0005	-4.6 - -4.6			41			#	0.09	-
	mg/kg	BHT-02	05/05/2015	0006	-0.5 - -.5			470		J	#	0.12	-
	mg/kg	BHT-03	05/05/2015	0001	-0.6 - -.6			540			#	0.12	-
	mg/kg	BHT-03	05/05/2015	0002	-2.5 - -2.5			240			#	0.11	-
	mg/kg	BHT-03	05/05/2015	0003	-3.1 - -3.1			65			#	0.1	-
	mg/kg	BHT-03	05/05/2015	0004	-5.6 - -5.6			170			#	0.13	-
	mg/kg	BHT-04	05/05/2015	0001	-0.3 - -.3			240			#	0.1	-
	mg/kg	BHT-04	05/05/2015	0002	-3 - -3			74			#	0.098	-
	mg/kg	BHT-04	05/05/2015	0003	-5.3 - -5.3			660			#	0.11	-
	mg/kg	BHT-04	05/05/2015	0004	-5.6 - -5.6			730			#	0.095	-
	mg/kg	BHT-05	05/05/2015	0001	-0.5 - -.5			420			#	0.096	-
	mg/kg	BHT-05	05/05/2015	0002	-1.5 - -1.5			270			#	0.1	-
	mg/kg	BHT-05	05/05/2015	0003	-2.5 - -2.5			250			#	0.11	-
	mg/kg	BHT-05	05/05/2015	0004	-3 - -3			230			#	0.088	-
	mg/kg	BHT-05	05/05/2015	0005	-4.2 - -4.2			800			#	0.088	-
Molybdenum	mg/kg	0852	08/30/2015	0001	-0.5 - -.5			0.21	B	J	#	0.018	-
	mg/kg	0852	08/30/2015	0002	-1.5 - -1.5			0.18	JB		#	0.017	-
	mg/kg	0852	08/30/2015	0003	-2.5 - -2.5			0.13	JB		#	0.019	-
	mg/kg	0852	08/30/2015	0004	-3.5 - -3.5			0.23	B		#	0.019	-
	mg/kg	0852	08/30/2015	0005	-4.5 - -4.5			0.19	JB		#	0.021	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/kg	0852	08/30/2015	0006	-5.5 - -5.5			0.079	JB		#	0.016	-
	mg/kg	0852	08/30/2015	0007	-7 - -7			0.60	B		#	0.018	-
	mg/kg	0852	08/30/2015	0008	-8 - -8			0.28	B		#	0.016	-
	mg/kg	0852	08/30/2015	0009	-9 - -9			0.45	B		#	0.016	-
	mg/kg	0852	08/30/2015	0010	-10 - -10			0.12	JB		#	0.02	-
	mg/kg	0852	08/30/2015	0011	-10.5 - -10.5			0.25	B		#	0.019	-
	mg/kg	0852	08/30/2015	0012	-11.5 - -11.5			0.13	JB		#	0.018	-
	mg/kg	0852	08/30/2015	0013	-12 - -12			0.13	JB		#	0.018	-
	mg/kg	0852	08/30/2015	0014	-13 - -13			0.15	J		#	0.019	-
	mg/kg	0852	08/30/2015	0015	-14 - -14			0.12	J		#	0.019	-
	mg/kg	0852	08/30/2015	0016	-15 - -15			0.13	J		#	0.02	-
	mg/kg	0852	08/30/2015	0017	-17 - -17			0.22			#	0.02	-
	mg/kg	0853	08/27/2015	0001	-0.5 - -.5			0.094	J		#	0.018	-
	mg/kg	0853	08/27/2015	0002	-1.5 - -1.5			0.19	J		#	0.019	-
	mg/kg	0853	08/27/2015	0003	-2.5 - -2.5			0.17	J		#	0.019	-
	mg/kg	0853	08/27/2015	0004	-3.5 - -3.5			0.22			#	0.017	-
	mg/kg	0853	08/27/2015	0005	-4 - -4			0.33			#	0.016	-
	mg/kg	0853	08/27/2015	0006	-4.5 - -4.5			0.10	J		#	0.016	-
	mg/kg	0853	08/27/2015	0007	-5.5 - -5.5			0.22			#	0.015	-
	mg/kg	0853	08/27/2015	0008	-6.5 - -6.5			0.15	J		#	0.018	-
	mg/kg	0853	08/27/2015	0009	-7.5 - -7.5			0.25			#	0.019	-
	mg/kg	0853	08/27/2015	0010	-8.5 - -8.5			2.2			#	0.018	-
	mg/kg	0853	08/27/2015	0011	-10 - -10			0.28			#	0.02	-
	mg/kg	0853	08/27/2015	0012	-11 - -11			0.36			#	0.016	-
	mg/kg	0853	08/27/2015	0013	-12 - -12			0.12	J		#	0.02	-
	mg/kg	0853	08/27/2015	0014	-14 - -14			0.16	J		#	0.018	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/kg	0853	08/27/2015	0015	-15 - -15			0.10	J		#	0.019	-
	mg/kg	0853	08/27/2015	0016	-16.3 - -16.3			3.0			#	0.02	-
	mg/kg	0853	08/27/2015	0017	-17 - -17			0.067	J		#	0.017	-
	mg/kg	0853	08/27/2015	0018	-17 - -17			0.036	J		#	0.017	-
	mg/kg	0853	08/27/2015	0018	-12 - -12			0.13	J		#	0.019	-
	mg/kg	0854	08/26/2015	0001	-0.3 - -.3			0.50			#	0.017	-
	mg/kg	0854	08/26/2015	0002	-1 - -1			1.3			#	0.02	-
	mg/kg	0854	08/26/2015	0003	-2 - -2			0.71			#	0.018	-
	mg/kg	0854	08/26/2015	0004	-3 - -3			2.2			#	0.016	-
	mg/kg	0854	08/26/2015	0005	-4 - -4			0.21			#	0.017	-
	mg/kg	0854	08/26/2015	0006	-4.5 - -4.5			0.32			#	0.022	-
	mg/kg	0854	08/26/2015	0007	-6 - -6			0.29			#	0.018	-
	mg/kg	0854	08/26/2015	0008	-8 - -8			0.35			#	0.019	-
	mg/kg	0854	08/26/2015	0009	-9 - -9			0.27			#	0.019	-
	mg/kg	0854	08/26/2015	0010	-10.5 - -10.5			0.19	J		#	0.019	-
	mg/kg	0854	08/26/2015	0011	-11.5 - -11.5			0.15	J		#	0.017	-
	mg/kg	0854	08/26/2015	0012	-12.5 - -12.5			0.047	J		#	0.018	-
	mg/kg	0855	08/28/2015	0001	-0.5 - -.5			0.30			#	0.02	-
	mg/kg	0855	08/28/2015	0002	-1.5 - -1.5			0.35			#	0.019	-
	mg/kg	0855	08/28/2015	0003	-2.5 - -2.5			1.6			#	0.02	-
	mg/kg	0855	08/28/2015	0004	-4 - -4			0.33			#	0.023	-
	mg/kg	0855	08/28/2015	0005	-5 - -5			0.48			#	0.02	-
	mg/kg	0855	08/28/2015	0006	-6 - -6			1.5			#	0.023	-
	mg/kg	0855	08/28/2015	0007	-7.5 - -7.5			0.64			#	0.023	-
	mg/kg	0855	08/28/2015	0008	-8.5 - -8.5			0.36			#	0.02	-
	mg/kg	0855	08/28/2015	0009	-9.5 - -9.5			0.26			#	0.02	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/kg	0855	08/28/2015	0010	-11 - -11			0.48			#	0.02	-
	mg/kg	0855	08/28/2015	0011	-13 - -13			0.099	J		#	0.019	-
	mg/kg	0855	08/28/2015	0012	-15 - -15			0.16	J		#	0.02	-
	mg/kg	0855	08/28/2015	0013	-16.5 - -16.5			0.77			#	0.018	-
	mg/kg	0855	08/28/2015	0014	-17.7 - -17.7			0.14	J		#	0.018	-
	mg/kg	0855	08/28/2015	0015	-18.5 - -18.5			0.20			#	0.018	-
	mg/kg	0855	08/28/2015	0018	-1.5 - -1.5			0.24			#	0.019	-
	mg/kg	0856	08/28/2015	0001	-0.5 - -.5			0.75			#	0.019	-
	mg/kg	0856	08/28/2015	0002	-1.5 - -1.5			0.70			#	0.019	-
	mg/kg	0856	08/28/2015	0003	-2.5 - -2.5			0.55			#	0.019	-
	mg/kg	0856	08/28/2015	0004	-3.5 - -3.5			0.48			#	0.016	-
	mg/kg	0856	08/28/2015	0005	-5.5 - -5.5			0.55			#	0.018	-
	mg/kg	0856	08/28/2015	0006	-6.5 - -6.5			0.31			#	0.019	-
	mg/kg	0856	08/28/2015	0007	-7.5 - -7.5			0.79			#	0.018	-
	mg/kg	0856	08/28/2015	0008	-8.5 - -8.5			0.55			#	0.019	-
	mg/kg	0856	08/28/2015	0009	-9.5 - -9.5			0.14	J		#	0.018	-
	mg/kg	0856	08/28/2015	0010	-10.5 - -10.5			0.91			#	0.019	-
	mg/kg	0856	08/28/2015	0011	-11.2 - -11.2			0.23			#	0.018	-
	mg/kg	0856	08/28/2015	0012	-12 - -12			0.068	J		#	0.019	-
	mg/kg	0857	08/30/2015	0001	-0.5 - -.5			0.46			#	0.018	-
	mg/kg	0857	08/30/2015	0002	-1.5 - -1.5			0.27			#	0.017	-
	mg/kg	0857	08/30/2015	0003	-2.5 - -2.5			0.16	J		#	0.017	-
	mg/kg	0857	08/30/2015	0004	-3 - -3			0.32			#	0.017	-
	mg/kg	0857	08/30/2015	0005	-5 - -5			0.10	J		#	0.016	-
	mg/kg	0857	08/30/2015	0006	-7 - -7			0.81			#	0.017	-
	mg/kg	0857	08/30/2015	0007	-8 - -8			1.1			#	0.018	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/kg	0857	08/30/2015	0008	-9 - -9			0.44			#	0.018	-
	mg/kg	0857	08/30/2015	0009	-10 - -10			0.39			#	0.019	-
	mg/kg	0857	08/30/2015	0010	-10.5 - -10.5			0.40			#	0.017	-
	mg/kg	0857	08/30/2015	0011	-11 - -11			0.85			#	0.019	-
	mg/kg	0857	08/30/2015	0012	-11.5 - -11.5			0.097	J		#	0.017	-
	mg/kg	0858	08/29/2015	0001	-0.5 - -.5			0.78			#	0.019	-
	mg/kg	0858	08/29/2015	0002	-1.5 - -1.5			3.0			#	0.026	-
	mg/kg	0858	08/29/2015	0003	-2.5 - -2.5			2.0			#	0.019	-
	mg/kg	0858	08/29/2015	0004	-3 - -3			3.8			#	0.018	-
	mg/kg	0858	08/29/2015	0005	-4.5 - -4.5			2.7			#	0.019	-
	mg/kg	0858	08/29/2015	0006	-6 - -6			6.1			#	0.017	-
	mg/kg	0858	08/29/2015	0007	-7 - -7			4.1			#	0.019	-
	mg/kg	0858	08/29/2015	0008	-8 - -8			3.1			#	0.018	-
	mg/kg	0858	08/29/2015	0009	-9 - -9			1.1			#	0.017	-
	mg/kg	0858	08/29/2015	0010	-10.5 - -10.5			1.1			#	0.016	-
	mg/kg	0858	08/29/2015	0011	-12 - -12			2.1			#	0.017	-
	mg/kg	0858	08/29/2015	0012	-13 - -13			0.48			#	0.021	-
	mg/kg	0858	08/29/2015	0013	-14 - -14			0.23			#	0.019	-
	mg/kg	0858	08/29/2015	0014	-15 - -15			0.27			#	0.017	-
	mg/kg	0858	08/29/2015	0015	-16 - -16			0.44			#	0.018	-
	mg/kg	0858	08/29/2015	0016	-17 - -17			0.49			#	0.018	-
	mg/kg	0858	08/29/2015	0017	-18 - -18			0.14	J		#	0.021	-
	mg/kg	0858	08/29/2015	0018	-13 - -13			1.1			#	0.018	-
	mg/kg	0859	09/01/2015	0001	-0.5 - -.5			0.14	J		#	0.017	-
	mg/kg	0859	09/01/2015	0002	-1.5 - -1.5			0.081	J		#	0.018	-
	mg/kg	0859	09/01/2015	0003	-2.5 - -2.5			0.18	J		#	0.017	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/kg	0859	09/01/2015	0004	-3.5 - -3.5			0.25			#	0.016	-
	mg/kg	0859	09/01/2015	0005	-4.5 - -4.5			1.9			#	0.019	-
	mg/kg	0859	09/01/2015	0006	-5.5 - -5.5			0.86			#	0.017	-
	mg/kg	0859	09/01/2015	0007	-7 - -7			0.57			#	0.018	-
	mg/kg	0859	09/01/2015	0008	-8 - -8			1.1			#	0.018	-
	mg/kg	0859	09/01/2015	0009	-8.5 - -8.5			4.6			#	0.023	-
	mg/kg	0859	09/01/2015	0010	-9 - -9			1.6			#	0.018	-
	mg/kg	0859	09/01/2015	0011	-10.5 - -10.5			2.3			#	0.017	-
	mg/kg	0859	09/01/2015	0012	-11.5 - -11.5			0.32			#	0.019	-
	mg/kg	0859	09/01/2015	0013	-12.5 - -12.5			0.28			#	0.019	-
	mg/kg	0859	09/01/2015	0018	-5.5 - -5.5			0.64			#	0.017	-
	mg/kg	0860	08/31/2015	0001	-0.5 - -.5			0.74			#	0.015	-
	mg/kg	0860	08/31/2015	0002	-1.5 - -1.5			2.5			#	0.017	-
	mg/kg	0860	08/31/2015	0003	-2.5 - -2.5			0.44			#	0.017	-
	mg/kg	0860	08/31/2015	0004	-3.5 - -3.5			0.33			#	0.017	-
	mg/kg	0860	08/31/2015	0005	-4.5 - -4.5			0.22			#	0.017	-
	mg/kg	0860	08/31/2015	0006	-5.5 - -5.5			0.73			#	0.017	-
	mg/kg	0860	08/31/2015	0007	-6.5 - -6.5			2.3			#	0.016	-
	mg/kg	0860	08/31/2015	0008	-8 - -8			2.4			#	0.017	-
	mg/kg	0860	08/31/2015	0009	-9 - -9			3.3			#	0.017	-
	mg/kg	0860	08/31/2015	0010	-10 - -10			1.8			#	0.019	-
	mg/kg	0860	08/31/2015	0011	-11 - -11			1.7			#	0.018	-
	mg/kg	0860	08/31/2015	0012	-12 - -12			1.4			#	0.018	-
	mg/kg	0860	08/31/2015	0013	-13 - -13			1.6			#	0.022	-
	mg/kg	0860	08/31/2015	0014	-14.5 - -14.5			1.6			#	0.021	-
	mg/kg	0860	08/31/2015	0015	-15.5 - -15.5			2.4			#	0.017	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/kg	0860	08/31/2015	0016	-16.5 - -16.5			2.5	B		#	0.018	-
	mg/kg	0860	08/31/2015	0017	-17.5 - -17.5			0.86	B		#	0.019	-
	mg/kg	0860	08/31/2015	0018	-10 - -10			0.27			#	0.02	-
	mg/kg	0860	08/31/2015	0018	-1.5 - -1.5			2.3			#	0.019	-
	mg/kg	0877	08/30/2015	0001	-0.5 - -.5			0.23	B		#	0.019	-
	mg/kg	0877	08/30/2015	0002	-1.5 - -1.5			0.34	B		#	0.017	-
	mg/kg	0877	08/30/2015	0003	-2.5 - -2.5			0.75	B		#	0.018	-
	mg/kg	0877	08/30/2015	0004	-3.5 - -3.5			0.66	B		#	0.018	-
	mg/kg	0877	08/30/2015	0005	-4.5 - -4.5			0.94	B		#	0.02	-
	mg/kg	0877	08/30/2015	0006	-5.5 - -5.5			1.6	B		#	0.021	-
	mg/kg	0877	08/30/2015	0007	-6.5 - -6.5			1.9	B		#	0.021	-
	mg/kg	0877	08/30/2015	0008	-7.5 - -7.5			0.40	B		#	0.019	-
	mg/kg	0877	08/30/2015	0009	-8.5 - -8.5			1.1	B		#	0.019	-
	mg/kg	0877	08/30/2015	0010	-9.5 - -9.5			0.18	JB		#	0.019	-
	mg/kg	0877	08/30/2015	0011	-10.5 - -10.5			0.25	B		#	0.019	-
	mg/kg	0877	08/30/2015	0012	-11.5 - -11.5			0.28			#	0.017	-
	mg/kg	0877	08/30/2015	0013	-12.5 - -12.5			0.52			#	0.018	-
	mg/kg	0877	08/30/2015	0014	-13.5 - -13.5			0.20			#	0.017	-
	mg/kg	0877	08/30/2015	0015	-14.5 - -14.5			0.24			#	0.019	-
	mg/kg	0877	08/30/2015	0016	-15 - -15			0.12	J		#	0.018	-
	mg/kg	0877	08/30/2015	0018	-5.5 - -5.5			0.44			#	0.019	-
	mg/kg	BHT-01	05/05/2015	0001	-0.3 - -.3			0.23			#	0.02	-
	mg/kg	BHT-01	05/05/2015	0002	-0.75 - -.75			0.14	J		#	0.019	-
	mg/kg	BHT-01	05/05/2015	0003	-1.4 - -1.4			0.24			#	0.02	-
	mg/kg	BHT-01	05/05/2015	0004	-2.9 - -2.9			0.18	J		#	0.019	-
	mg/kg	BHT-01	05/05/2015	0005	-4.3 - -4.3			1.1			#	0.019	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/kg	BHT-01	05/05/2015	0006	-4.3 - -4.3			1.3			#	0.02	-
	mg/kg	BHT-02	05/05/2015	0001	-0.5 - -.5			0.39		J	#	0.021	-
	mg/kg	BHT-02	05/05/2015	0002	-1.5 - -1.5			0.66			#	0.018	-
	mg/kg	BHT-02	05/05/2015	0003	-3 - -3			0.44			#	0.02	-
	mg/kg	BHT-02	05/05/2015	0004	-4 - -4			0.28			#	0.017	-
	mg/kg	BHT-02	05/05/2015	0005	-4.6 - -4.6			0.11	J		#	0.017	-
	mg/kg	BHT-02	05/05/2015	0006	-0.5 - -.5			0.32	N	J	#	0.021	-
	mg/kg	BHT-03	05/05/2015	0001	-0.6 - -.6			0.93			#	0.018	-
	mg/kg	BHT-03	05/05/2015	0002	-2.5 - -2.5			0.50			#	0.02	-
	mg/kg	BHT-03	05/05/2015	0003	-3.1 - -3.1			0.18	J		#	0.017	-
	mg/kg	BHT-03	05/05/2015	0004	-5.6 - -5.6			0.88			#	0.022	-
	mg/kg	BHT-04	05/05/2015	0001	-0.3 - -.3			0.17	J		#	0.018	-
	mg/kg	BHT-04	05/05/2015	0002	-3 - -3			0.064	J		#	0.017	-
	mg/kg	BHT-04	05/05/2015	0003	-5.3 - -5.3			4.7			#	0.016	-
	mg/kg	BHT-04	05/05/2015	0004	-5.6 - -5.6			5.4			#	0.017	-
	mg/kg	BHT-05	05/05/2015	0001	-0.5 - -.5			0.56			#	0.019	-
	mg/kg	BHT-05	05/05/2015	0002	-1.5 - -1.5			1.8			#	0.019	-
	mg/kg	BHT-05	05/05/2015	0003	-2.5 - -2.5			2.1	N	J	#	0.019	-
	mg/kg	BHT-05	05/05/2015	0004	-3 - -3			2.2			#	0.017	-
	mg/kg	BHT-05	05/05/2015	0005	-4.2 - -4.2			13			#	0.015	-
Potassium	mg/kg	0852	08/30/2015	0001	-0.5 - -.5			3300			#	42	-
	mg/kg	0852	08/30/2015	0002	-1.5 - -1.5			2000			#	42	-
	mg/kg	0852	08/30/2015	0003	-2.5 - -2.5			2700			#	42	-
	mg/kg	0852	08/30/2015	0004	-3.5 - -3.5			2200			#	43	-
	mg/kg	0852	08/30/2015	0005	-4.5 - -4.5			4900			#	45	-
	mg/kg	0852	08/30/2015	0006	-5.5 - -5.5			690			#	38	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/kg	0852	08/30/2015	0007	-7 - -7			830			#	40	-
	mg/kg	0852	08/30/2015	0008	-8 - -8			550			#	37	-
	mg/kg	0852	08/30/2015	0009	-9 - -9			620			#	43	-
	mg/kg	0852	08/30/2015	0010	-10 - -10			610			#	40	-
	mg/kg	0852	08/30/2015	0011	-10.5 - -10.5			1800			#	41	-
	mg/kg	0852	08/30/2015	0012	-11.5 - -11.5			620			#	44	-
	mg/kg	0852	08/30/2015	0013	-12 - -12			400			#	41	-
	mg/kg	0852	08/30/2015	0014	-13 - -13			450			#	39	-
	mg/kg	0852	08/30/2015	0015	-14 - -14			480			#	42	-
	mg/kg	0852	08/30/2015	0016	-15 - -15			1000			#	44	-
	mg/kg	0852	08/30/2015	0017	-17 - -17			1800			#	45	-
	mg/kg	0853	08/27/2015	0001	-0.5 - -.5			3100			#	42	-
	mg/kg	0853	08/27/2015	0002	-1.5 - -1.5			4000			#	38	-
	mg/kg	0853	08/27/2015	0003	-2.5 - -2.5			3900			#	41	-
	mg/kg	0853	08/27/2015	0004	-3.5 - -3.5			3000			#	41	-
	mg/kg	0853	08/27/2015	0005	-4 - -4			1300			#	37	-
	mg/kg	0853	08/27/2015	0006	-4.5 - -4.5			500			#	41	-
	mg/kg	0853	08/27/2015	0007	-5.5 - -5.5			1200			#	39	-
	mg/kg	0853	08/27/2015	0008	-6.5 - -6.5			360			#	41	-
	mg/kg	0853	08/27/2015	0009	-7.5 - -7.5			700			#	42	-
	mg/kg	0853	08/27/2015	0010	-8.5 - -8.5			280			#	37	-
	mg/kg	0853	08/27/2015	0011	-10 - -10			520			#	41	-
	mg/kg	0853	08/27/2015	0012	-11 - -11			430			#	39	-
	mg/kg	0853	08/27/2015	0013	-12 - -12			270	J		#	44	-
	mg/kg	0853	08/27/2015	0014	-14 - -14			260	J		#	43	-
	mg/kg	0853	08/27/2015	0015	-15 - -15			360			#	42	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/kg	0853	08/27/2015	0016	-16.3 - -16.3			980			#	45	-
	mg/kg	0853	08/27/2015	0017	-17 - -17			3000			#	47	-
	mg/kg	0853	08/27/2015	0018	-17 - -17			3300			#	41	-
	mg/kg	0853	08/27/2015	0018	-12 - -12			380			#	44	-
	mg/kg	0854	08/26/2015	0001	-0.3 - -.3			4700			#	43	-
	mg/kg	0854	08/26/2015	0002	-1 - -1			5400			#	46	-
	mg/kg	0854	08/26/2015	0003	-2 - -2			2300			#	43	-
	mg/kg	0854	08/26/2015	0004	-3 - -3			1400			#	44	-
	mg/kg	0854	08/26/2015	0005	-4 - -4			560			#	39	-
	mg/kg	0854	08/26/2015	0006	-4.5 - -4.5			1200			#	48	-
	mg/kg	0854	08/26/2015	0007	-6 - -6			460			#	39	-
	mg/kg	0854	08/26/2015	0008	-8 - -8			260	J		#	44	-
	mg/kg	0854	08/26/2015	0009	-9 - -9			430			#	51	-
	mg/kg	0854	08/26/2015	0010	-10.5 - -10.5			500			#	44	-
	mg/kg	0854	08/26/2015	0011	-11.5 - -11.5			530			#	43	-
	mg/kg	0854	08/26/2015	0012	-12.5 - -12.5			1700			#	41	-
	mg/kg	0855	08/28/2015	0001	-0.5 - -.5			4800			#	43	-
	mg/kg	0855	08/28/2015	0002	-1.5 - -1.5			4000			#	47	-
	mg/kg	0855	08/28/2015	0003	-2.5 - -2.5			2600			#	47	-
	mg/kg	0855	08/28/2015	0004	-4 - -4			2400			#	45	-
	mg/kg	0855	08/28/2015	0005	-5 - -5			1500			#	45	-
	mg/kg	0855	08/28/2015	0006	-6 - -6			1800			#	56	-
	mg/kg	0855	08/28/2015	0007	-7.5 - -7.5			1700			#	48	-
	mg/kg	0855	08/28/2015	0008	-8.5 - -8.5			830			#	45	-
	mg/kg	0855	08/28/2015	0009	-9.5 - -9.5			650			#	47	-
	mg/kg	0855	08/28/2015	0010	-11 - -11			980			#	45	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/kg	0855	08/28/2015	0011	-13 - -13			620			#	39	-
	mg/kg	0855	08/28/2015	0012	-15 - -15			1900			#	44	-
	mg/kg	0855	08/28/2015	0013	-16.5 - -16.5			930			#	43	-
	mg/kg	0855	08/28/2015	0014	-17.7 - -17.7			1600			#	40	-
	mg/kg	0855	08/28/2015	0015	-18.5 - -18.5			3100			#	43	-
	mg/kg	0855	08/28/2015	0018	-1.5 - -1.5			4300			#	47	-
	mg/kg	0856	08/28/2015	0001	-0.5 - -.5			6200			#	45	-
	mg/kg	0856	08/28/2015	0002	-1.5 - -1.5			4200			#	43	-
	mg/kg	0856	08/28/2015	0003	-2.5 - -2.5			1900			#	41	-
	mg/kg	0856	08/28/2015	0004	-3.5 - -3.5			750			#	40	-
	mg/kg	0856	08/28/2015	0005	-5.5 - -5.5			400			#	42	-
	mg/kg	0856	08/28/2015	0006	-6.5 - -6.5			890			#	41	-
	mg/kg	0856	08/28/2015	0007	-7.5 - -7.5			380			#	42	-
	mg/kg	0856	08/28/2015	0008	-8.5 - -8.5			570			#	45	-
	mg/kg	0856	08/28/2015	0009	-9.5 - -9.5			480			#	46	-
	mg/kg	0856	08/28/2015	0010	-10.5 - -10.5			530			#	43	-
	mg/kg	0856	08/28/2015	0011	-11.2 - -11.2			1200			#	39	-
	mg/kg	0856	08/28/2015	0012	-12 - -12			1900			#	45	-
	mg/kg	0857	08/30/2015	0001	-0.5 - -.5			710			#	38	-
	mg/kg	0857	08/30/2015	0002	-1.5 - -1.5			310	J		#	44	-
	mg/kg	0857	08/30/2015	0003	-2.5 - -2.5			2900			#	37	-
	mg/kg	0857	08/30/2015	0004	-3 - -3			460			#	38	-
	mg/kg	0857	08/30/2015	0005	-5 - -5			510			#	37	-
	mg/kg	0857	08/30/2015	0006	-7 - -7			620			#	38	-
	mg/kg	0857	08/30/2015	0007	-8 - -8			470			#	42	-
	mg/kg	0857	08/30/2015	0008	-9 - -9			620			#	43	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/kg	0857	08/30/2015	0009	-10 - -10			760			#	46	-
	mg/kg	0857	08/30/2015	0010	-10.5 - -10.5			650			#	43	-
	mg/kg	0857	08/30/2015	0011	-11 - -11			1300			#	42	-
	mg/kg	0857	08/30/2015	0012	-11.5 - -11.5			2000			#	44	-
	mg/kg	0858	08/29/2015	0001	-0.5 - -.5			4800			#	46	-
	mg/kg	0858	08/29/2015	0002	-1.5 - -1.5			3500			#	54	-
	mg/kg	0858	08/29/2015	0003	-2.5 - -2.5			1400			#	41	-
	mg/kg	0858	08/29/2015	0004	-3 - -3			700			#	40	-
	mg/kg	0858	08/29/2015	0005	-4.5 - -4.5			450			#	40	-
	mg/kg	0858	08/29/2015	0006	-6 - -6			500			#	39	-
	mg/kg	0858	08/29/2015	0007	-7 - -7			590			#	44	-
	mg/kg	0858	08/29/2015	0008	-8 - -8			690			#	40	-
	mg/kg	0858	08/29/2015	0009	-9 - -9			640			#	39	-
	mg/kg	0858	08/29/2015	0010	-10.5 - -10.5			470			#	40	-
	mg/kg	0858	08/29/2015	0011	-12 - -12			630			#	40	-
	mg/kg	0858	08/29/2015	0012	-13 - -13			320	J		#	48	-
	mg/kg	0858	08/29/2015	0013	-14 - -14			350			#	43	-
	mg/kg	0858	08/29/2015	0014	-15 - -15			480			#	38	-
	mg/kg	0858	08/29/2015	0015	-16 - -16			850			#	39	-
	mg/kg	0858	08/29/2015	0016	-17 - -17			650			#	39	-
	mg/kg	0858	08/29/2015	0017	-18 - -18			3300			#	50	-
	mg/kg	0858	08/29/2015	0018	-13 - -13			440			#	43	-
	mg/kg	0859	09/01/2015	0001	-0.5 - -.5			2000			#	39	-
	mg/kg	0859	09/01/2015	0002	-1.5 - -1.5			1200			#	39	-
	mg/kg	0859	09/01/2015	0003	-2.5 - -2.5			1600			#	39	-
	mg/kg	0859	09/01/2015	0004	-3.5 - -3.5			1300			#	42	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/kg	0859	09/01/2015	0005	-4.5 - -4.5			1500			#	44	-
	mg/kg	0859	09/01/2015	0006	-5.5 - -5.5			380			#	39	-
	mg/kg	0859	09/01/2015	0007	-7 - -7			350			#	41	-
	mg/kg	0859	09/01/2015	0008	-8 - -8			390			#	40	-
	mg/kg	0859	09/01/2015	0009	-8.5 - -8.5			960			#	47	-
	mg/kg	0859	09/01/2015	0010	-9 - -9			380			#	42	-
	mg/kg	0859	09/01/2015	0011	-10.5 - -10.5			430			#	37	-
	mg/kg	0859	09/01/2015	0012	-11.5 - -11.5			2700			#	42	-
	mg/kg	0859	09/01/2015	0013	-12.5 - -12.5			3800			#	42	-
	mg/kg	0859	09/01/2015	0018	-5.5 - -5.5			410			#	44	-
	mg/kg	0860	08/31/2015	0001	-0.5 - -.5			1800			#	43	-
	mg/kg	0860	08/31/2015	0002	-1.5 - -1.5			1800			#	40	-
	mg/kg	0860	08/31/2015	0003	-2.5 - -2.5			1700			#	40	-
	mg/kg	0860	08/31/2015	0004	-3.5 - -3.5			1800			#	41	-
	mg/kg	0860	08/31/2015	0005	-4.5 - -4.5			1800			#	42	-
	mg/kg	0860	08/31/2015	0006	-5.5 - -5.5			610			#	39	-
	mg/kg	0860	08/31/2015	0007	-6.5 - -6.5			410			#	36	-
	mg/kg	0860	08/31/2015	0008	-8 - -8			570			#	39	-
	mg/kg	0860	08/31/2015	0009	-9 - -9			600			#	42	-
	mg/kg	0860	08/31/2015	0010	-10 - -10			440			#	41	-
	mg/kg	0860	08/31/2015	0011	-11 - -11			400			#	43	-
	mg/kg	0860	08/31/2015	0012	-12 - -12			400			#	48	-
	mg/kg	0860	08/31/2015	0013	-13 - -13			470			#	44	-
	mg/kg	0860	08/31/2015	0014	-14.5 - -14.5			360			#	43	-
	mg/kg	0860	08/31/2015	0015	-15.5 - -15.5			1000			#	43	-
	mg/kg	0860	08/31/2015	0016	-16.5 - -16.5			390			#	41	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/kg	0860	08/31/2015	0017	-17.5 - -17.5			3200			#	41	-
	mg/kg	0860	08/31/2015	0018	-10 - -10			520			#	41	-
	mg/kg	0860	08/31/2015	0018	-1.5 - -1.5			2100			#	38	-
	mg/kg	0877	08/30/2015	0001	-0.5 - -.5			4800			#	42	-
	mg/kg	0877	08/30/2015	0002	-1.5 - -1.5			3900			#	41	-
	mg/kg	0877	08/30/2015	0003	-2.5 - -2.5			2900			#	41	-
	mg/kg	0877	08/30/2015	0004	-3.5 - -3.5			2600			#	45	-
	mg/kg	0877	08/30/2015	0005	-4.5 - -4.5			1400			#	41	-
	mg/kg	0877	08/30/2015	0006	-5.5 - -5.5			1700			#	46	-
	mg/kg	0877	08/30/2015	0007	-6.5 - -6.5			1900			#	47	-
	mg/kg	0877	08/30/2015	0008	-7.5 - -7.5			580			#	41	-
	mg/kg	0877	08/30/2015	0009	-8.5 - -8.5			1200			#	45	-
	mg/kg	0877	08/30/2015	0010	-9.5 - -9.5			440			#	42	-
	mg/kg	0877	08/30/2015	0011	-10.5 - -10.5			420			#	43	-
	mg/kg	0877	08/30/2015	0012	-11.5 - -11.5			570			#	42	-
	mg/kg	0877	08/30/2015	0013	-12.5 - -12.5			480			#	38	-
	mg/kg	0877	08/30/2015	0014	-13.5 - -13.5			520			#	41	-
	mg/kg	0877	08/30/2015	0015	-14.5 - -14.5			1100			#	43	-
	mg/kg	0877	08/30/2015	0016	-15 - -15			3600			#	42	-
	mg/kg	0877	08/30/2015	0018	-5.5 - -5.5			1600			#	45	-
	mg/kg	BHT-01	05/05/2015	0001	-0.3 - -.3			4800			#	46	-
	mg/kg	BHT-01	05/05/2015	0002	-0.75 - -.75			3900			#	48	-
	mg/kg	BHT-01	05/05/2015	0003	-1.4 - -1.4			2800			#	50	-
	mg/kg	BHT-01	05/05/2015	0004	-2.9 - -2.9			1500			#	47	-
	mg/kg	BHT-01	05/05/2015	0005	-4.3 - -4.3			1500			#	45	-
	mg/kg	BHT-01	05/05/2015	0006	-4.3 - -4.3			1400			#	45	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/kg	BHT-02	05/05/2015	0001	-0.5 - -.5			6200		J	#	50	-
	mg/kg	BHT-02	05/05/2015	0002	-1.5 - -1.5			3800			#	44	-
	mg/kg	BHT-02	05/05/2015	0003	-3 - -3			2300			#	46	-
	mg/kg	BHT-02	05/05/2015	0004	-4 - -4			620			#	42	-
	mg/kg	BHT-02	05/05/2015	0005	-4.6 - -4.6			220	J		#	37	-
	mg/kg	BHT-02	05/05/2015	0006	-0.5 - -.5			6200		J	#	50	-
	mg/kg	BHT-03	05/05/2015	0001	-0.6 - -.6			6300			#	48	-
	mg/kg	BHT-03	05/05/2015	0002	-2.5 - -2.5			1900			#	46	-
	mg/kg	BHT-03	05/05/2015	0003	-3.1 - -3.1			500			#	41	-
	mg/kg	BHT-03	05/05/2015	0004	-5.6 - -5.6			480			#	53	-
	mg/kg	BHT-04	05/05/2015	0001	-0.3 - -.3			2600			#	43	-
	mg/kg	BHT-04	05/05/2015	0002	-3 - -3			500			#	40	-
	mg/kg	BHT-04	05/05/2015	0003	-5.3 - -5.3			380			#	44	-
	mg/kg	BHT-04	05/05/2015	0004	-5.6 - -5.6			340			#	39	-
	mg/kg	BHT-05	05/05/2015	0001	-0.5 - -.5			5400			#	39	-
	mg/kg	BHT-05	05/05/2015	0002	-1.5 - -1.5			2500			#	43	-
	mg/kg	BHT-05	05/05/2015	0003	-2.5 - -2.5			1700			#	45	-
	mg/kg	BHT-05	05/05/2015	0004	-3 - -3			670			#	36	-
	mg/kg	BHT-05	05/05/2015	0005	-4.2 - -4.2			230	J		#	36	-
Sodium	mg/kg	0852	08/30/2015	0001	-0.5 - -.5			1000			#	61	-
	mg/kg	0852	08/30/2015	0002	-1.5 - -1.5			1400			#	60	-
	mg/kg	0852	08/30/2015	0003	-2.5 - -2.5			2100			#	61	-
	mg/kg	0852	08/30/2015	0004	-3.5 - -3.5			1900			#	62	-
	mg/kg	0852	08/30/2015	0005	-4.5 - -4.5			3100			#	64	-
	mg/kg	0852	08/30/2015	0006	-5.5 - -5.5			750			#	55	-
	mg/kg	0852	08/30/2015	0007	-7 - -7			700			#	57	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/kg	0852	08/30/2015	0008	-8 - -8			300	J		#	53	-
	mg/kg	0852	08/30/2015	0009	-9 - -9			310	J		#	62	-
	mg/kg	0852	08/30/2015	0010	-10 - -10			340	J		#	58	-
	mg/kg	0852	08/30/2015	0011	-10.5 - -10.5			450	J		#	59	-
	mg/kg	0852	08/30/2015	0012	-11.5 - -11.5			470	J		#	63	-
	mg/kg	0852	08/30/2015	0013	-12 - -12			280	J		#	58	-
	mg/kg	0852	08/30/2015	0014	-13 - -13			270	J		#	56	-
	mg/kg	0852	08/30/2015	0015	-14 - -14			410	J		#	60	-
	mg/kg	0852	08/30/2015	0016	-15 - -15			250	J		#	63	-
	mg/kg	0852	08/30/2015	0017	-17 - -17			580			#	64	-
	mg/kg	0853	08/27/2015	0001	-0.5 - -.5			330	J		#	60	-
	mg/kg	0853	08/27/2015	0002	-1.5 - -1.5			1000			#	54	-
	mg/kg	0853	08/27/2015	0003	-2.5 - -2.5			2300			#	58	-
	mg/kg	0853	08/27/2015	0004	-3.5 - -3.5			2300			#	59	-
	mg/kg	0853	08/27/2015	0005	-4 - -4			750			#	54	-
	mg/kg	0853	08/27/2015	0006	-4.5 - -4.5			370	J		#	59	-
	mg/kg	0853	08/27/2015	0007	-5.5 - -5.5			600			#	56	-
	mg/kg	0853	08/27/2015	0008	-6.5 - -6.5			250	J		#	58	-
	mg/kg	0853	08/27/2015	0009	-7.5 - -7.5			570			#	61	-
	mg/kg	0853	08/27/2015	0010	-8.5 - -8.5			160	J		#	53	-
	mg/kg	0853	08/27/2015	0011	-10 - -10			480	J		#	58	-
	mg/kg	0853	08/27/2015	0012	-11 - -11			400	J		#	56	-
	mg/kg	0853	08/27/2015	0013	-12 - -12			310	J		#	63	-
	mg/kg	0853	08/27/2015	0014	-14 - -14			300	J		#	62	-
	mg/kg	0853	08/27/2015	0015	-15 - -15			340	J		#	61	-
	mg/kg	0853	08/27/2015	0016	-16.3 - -16.3			300	J		#	65	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/kg	0853	08/27/2015	0017	-17 - -17			620			#	67	-
	mg/kg	0853	08/27/2015	0018	-17 - -17			550			#	59	-
	mg/kg	0853	08/27/2015	0018	-12 - -12			350	J		#	64	-
	mg/kg	0854	08/26/2015	0001	-0.3 - -.3			2000			#	63	-
	mg/kg	0854	08/26/2015	0002	-1 - -1			3000			#	66	-
	mg/kg	0854	08/26/2015	0003	-2 - -2			3100			#	62	-
	mg/kg	0854	08/26/2015	0004	-3 - -3			1700			#	64	-
	mg/kg	0854	08/26/2015	0005	-4 - -4			800			#	57	-
	mg/kg	0854	08/26/2015	0006	-4.5 - -4.5			1700			#	70	-
	mg/kg	0854	08/26/2015	0007	-6 - -6			480			#	56	-
	mg/kg	0854	08/26/2015	0008	-8 - -8			500	J		#	63	-
	mg/kg	0854	08/26/2015	0009	-9 - -9			560	J		#	74	-
	mg/kg	0854	08/26/2015	0010	-10.5 - -10.5			480	J		#	63	-
	mg/kg	0854	08/26/2015	0011	-11.5 - -11.5			510	J		#	62	-
	mg/kg	0854	08/26/2015	0012	-12.5 - -12.5			740			#	59	-
	mg/kg	0855	08/28/2015	0001	-0.5 - -.5			2200			#	61	-
	mg/kg	0855	08/28/2015	0002	-1.5 - -1.5			5300			#	68	-
	mg/kg	0855	08/28/2015	0003	-2.5 - -2.5			6200			#	68	-
	mg/kg	0855	08/28/2015	0004	-4 - -4			6800			#	65	-
	mg/kg	0855	08/28/2015	0005	-5 - -5			2900			#	65	-
	mg/kg	0855	08/28/2015	0006	-6 - -6			2100			#	81	-
	mg/kg	0855	08/28/2015	0007	-7.5 - -7.5			2600			#	69	-
	mg/kg	0855	08/28/2015	0008	-8.5 - -8.5			1200			#	64	-
	mg/kg	0855	08/28/2015	0009	-9.5 - -9.5			710			#	67	-
	mg/kg	0855	08/28/2015	0010	-11 - -11			1400			#	65	-
	mg/kg	0855	08/28/2015	0011	-13 - -13			490			#	56	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/kg	0855	08/28/2015	0012	-15 - -15			1400			#	63	-
	mg/kg	0855	08/28/2015	0013	-16.5 - -16.5			1200			#	62	-
	mg/kg	0855	08/28/2015	0014	-17.7 - -17.7			980			#	57	-
	mg/kg	0855	08/28/2015	0015	-18.5 - -18.5			1700			#	62	-
	mg/kg	0855	08/28/2015	0018	-1.5 - -1.5			4800			#	67	-
	mg/kg	0856	08/28/2015	0001	-0.5 - -.5			3000			#	65	-
	mg/kg	0856	08/28/2015	0002	-1.5 - -1.5			7600			#	62	-
	mg/kg	0856	08/28/2015	0003	-2.5 - -2.5			5200			#	59	-
	mg/kg	0856	08/28/2015	0004	-3.5 - -3.5			580			#	58	-
	mg/kg	0856	08/28/2015	0005	-5.5 - -5.5			490	J		#	61	-
	mg/kg	0856	08/28/2015	0006	-6.5 - -6.5			680			#	59	-
	mg/kg	0856	08/28/2015	0007	-7.5 - -7.5			470	J		#	60	-
	mg/kg	0856	08/28/2015	0008	-8.5 - -8.5			650			#	65	-
	mg/kg	0856	08/28/2015	0009	-9.5 - -9.5			450	J		#	66	-
	mg/kg	0856	08/28/2015	0010	-10.5 - -10.5			660			#	62	-
	mg/kg	0856	08/28/2015	0011	-11.2 - -11.2			670			#	57	-
	mg/kg	0856	08/28/2015	0012	-12 - -12			620			#	65	-
	mg/kg	0857	08/30/2015	0001	-0.5 - -.5			280	J		#	55	-
	mg/kg	0857	08/30/2015	0002	-1.5 - -1.5			360	J		#	63	-
	mg/kg	0857	08/30/2015	0003	-2.5 - -2.5			330	J		#	53	-
	mg/kg	0857	08/30/2015	0004	-3 - -3			700			#	55	-
	mg/kg	0857	08/30/2015	0005	-5 - -5			630			#	54	-
	mg/kg	0857	08/30/2015	0006	-7 - -7			1000			#	55	-
	mg/kg	0857	08/30/2015	0007	-8 - -8			570			#	61	-
	mg/kg	0857	08/30/2015	0008	-9 - -9			670			#	62	-
	mg/kg	0857	08/30/2015	0009	-10 - -10			610			#	66	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/kg	0857	08/30/2015	0010	-10.5 - -10.5			620			#	62	-
	mg/kg	0857	08/30/2015	0011	-11 - -11			860			#	61	-
	mg/kg	0857	08/30/2015	0012	-11.5 - -11.5			1400			#	63	-
	mg/kg	0858	08/29/2015	0001	-0.5 - -.5			1200			#	66	-
	mg/kg	0858	08/29/2015	0002	-1.5 - -1.5			4900			#	77	-
	mg/kg	0858	08/29/2015	0003	-2.5 - -2.5			2800			#	58	-
	mg/kg	0858	08/29/2015	0004	-3 - -3			690			#	58	-
	mg/kg	0858	08/29/2015	0005	-4.5 - -4.5			430	J		#	58	-
	mg/kg	0858	08/29/2015	0006	-6 - -6			440	J		#	56	-
	mg/kg	0858	08/29/2015	0007	-7 - -7			660			#	63	-
	mg/kg	0858	08/29/2015	0008	-8 - -8			740			#	58	-
	mg/kg	0858	08/29/2015	0009	-9 - -9			540			#	56	-
	mg/kg	0858	08/29/2015	0010	-10.5 - -10.5			510			#	58	-
	mg/kg	0858	08/29/2015	0011	-12 - -12			490			#	57	-
	mg/kg	0858	08/29/2015	0012	-13 - -13			290	J		#	69	-
	mg/kg	0858	08/29/2015	0013	-14 - -14			310	J		#	61	-
	mg/kg	0858	08/29/2015	0014	-15 - -15			270	J		#	55	-
	mg/kg	0858	08/29/2015	0015	-16 - -16			520			#	56	-
	mg/kg	0858	08/29/2015	0016	-17 - -17			370	J		#	56	-
	mg/kg	0858	08/29/2015	0017	-18 - -18			1300			#	72	-
	mg/kg	0858	08/29/2015	0018	-13 - -13			300	J		#	62	-
	mg/kg	0859	09/01/2015	0001	-0.5 - -.5			190	J		#	57	-
	mg/kg	0859	09/01/2015	0002	-1.5 - -1.5			120	J		#	56	-
	mg/kg	0859	09/01/2015	0003	-2.5 - -2.5			570			#	56	-
	mg/kg	0859	09/01/2015	0004	-3.5 - -3.5			2000			#	60	-
	mg/kg	0859	09/01/2015	0005	-4.5 - -4.5			1900			#	63	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/kg	0859	09/01/2015	0006	-5.5 - -5.5			480			#	56	-
	mg/kg	0859	09/01/2015	0007	-7 - -7			510			#	60	-
	mg/kg	0859	09/01/2015	0008	-8 - -8			470	J		#	58	-
	mg/kg	0859	09/01/2015	0009	-8.5 - -8.5			940			#	68	-
	mg/kg	0859	09/01/2015	0010	-9 - -9			700			#	60	-
	mg/kg	0859	09/01/2015	0011	-10.5 - -10.5			520			#	54	-
	mg/kg	0859	09/01/2015	0012	-11.5 - -11.5			2000			#	61	-
	mg/kg	0859	09/01/2015	0013	-12.5 - -12.5			2400			#	60	-
	mg/kg	0859	09/01/2015	0018	-5.5 - -5.5			400	J		#	63	-
	mg/kg	0860	08/31/2015	0001	-0.5 - -.5			85	J		#	62	-
	mg/kg	0860	08/31/2015	0002	-1.5 - -1.5			310	J		#	57	-
	mg/kg	0860	08/31/2015	0003	-2.5 - -2.5			1600			#	58	-
	mg/kg	0860	08/31/2015	0004	-3.5 - -3.5			2000			#	59	-
	mg/kg	0860	08/31/2015	0005	-4.5 - -4.5			1800			#	61	-
	mg/kg	0860	08/31/2015	0006	-5.5 - -5.5			420	J		#	56	-
	mg/kg	0860	08/31/2015	0007	-6.5 - -6.5			400	J		#	52	-
	mg/kg	0860	08/31/2015	0008	-8 - -8			400	J		#	56	-
	mg/kg	0860	08/31/2015	0009	-9 - -9			610			#	61	-
	mg/kg	0860	08/31/2015	0010	-10 - -10			370	J		#	59	-
	mg/kg	0860	08/31/2015	0011	-11 - -11			340	J		#	63	-
	mg/kg	0860	08/31/2015	0012	-12 - -12			320	J		#	70	-
	mg/kg	0860	08/31/2015	0013	-13 - -13			400	J		#	63	-
	mg/kg	0860	08/31/2015	0014	-14.5 - -14.5			380	J		#	62	-
	mg/kg	0860	08/31/2015	0015	-15.5 - -15.5			230	J		#	61	-
	mg/kg	0860	08/31/2015	0016	-16.5 - -16.5			370	J		#	59	-
	mg/kg	0860	08/31/2015	0017	-17.5 - -17.5			1100			#	60	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/kg	0860	08/31/2015	0018	-10 - -10			390	J		#	58	-
	mg/kg	0860	08/31/2015	0018	-1.5 - -1.5			290	J		#	55	-
	mg/kg	0877	08/30/2015	0001	-0.5 - -.5			1200			#	61	-
	mg/kg	0877	08/30/2015	0002	-1.5 - -1.5			3300			#	60	-
	mg/kg	0877	08/30/2015	0003	-2.5 - -2.5			3800			#	59	-
	mg/kg	0877	08/30/2015	0004	-3.5 - -3.5			4100			#	64	-
	mg/kg	0877	08/30/2015	0005	-4.5 - -4.5			3300			#	59	-
	mg/kg	0877	08/30/2015	0006	-5.5 - -5.5			2300			#	67	-
	mg/kg	0877	08/30/2015	0007	-6.5 - -6.5			2100			#	68	-
	mg/kg	0877	08/30/2015	0008	-7.5 - -7.5			690			#	59	-
	mg/kg	0877	08/30/2015	0009	-8.5 - -8.5			2200			#	65	-
	mg/kg	0877	08/30/2015	0010	-9.5 - -9.5			650			#	60	-
	mg/kg	0877	08/30/2015	0011	-10.5 - -10.5			540			#	62	-
	mg/kg	0877	08/30/2015	0012	-11.5 - -11.5			590			#	61	-
	mg/kg	0877	08/30/2015	0013	-12.5 - -12.5			430	J		#	54	-
	mg/kg	0877	08/30/2015	0014	-13.5 - -13.5			540			#	59	-
	mg/kg	0877	08/30/2015	0015	-14.5 - -14.5			540			#	62	-
	mg/kg	0877	08/30/2015	0016	-15 - -15			2100			#	61	-
	mg/kg	0877	08/30/2015	0018	-5.5 - -5.5			2000			#	65	-
	mg/kg	BHT-01	05/05/2015	0001	-0.3 - -.3			1100			#	66	-
	mg/kg	BHT-01	05/05/2015	0002	-0.75 - -.75			2500			#	70	-
	mg/kg	BHT-01	05/05/2015	0003	-1.4 - -1.4			4000			#	72	-
	mg/kg	BHT-01	05/05/2015	0004	-2.9 - -2.9			3800			#	68	-
	mg/kg	BHT-01	05/05/2015	0005	-4.3 - -4.3			1900			#	65	-
	mg/kg	BHT-01	05/05/2015	0006	-4.3 - -4.3			1700			#	65	-
	mg/kg	BHT-02	05/05/2015	0001	-0.5 - -.5			2000			#	72	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/kg	BHT-02	05/05/2015	0002	-1.5 - -1.5			3900			#	63	-
	mg/kg	BHT-02	05/05/2015	0003	-3 - -3			6600			#	66	-
	mg/kg	BHT-02	05/05/2015	0004	-4 - -4			650			#	61	-
	mg/kg	BHT-02	05/05/2015	0005	-4.6 - -4.6			300	J		#	53	-
	mg/kg	BHT-02	05/05/2015	0006	-0.5 - -.5			2000			#	72	-
	mg/kg	BHT-03	05/05/2015	0001	-0.6 - -.6			5200			#	69	-
	mg/kg	BHT-03	05/05/2015	0002	-2.5 - -2.5			3900			#	67	-
	mg/kg	BHT-03	05/05/2015	0003	-3.1 - -3.1			760			#	59	-
	mg/kg	BHT-03	05/05/2015	0004	-5.6 - -5.6			720			#	76	-
	mg/kg	BHT-04	05/05/2015	0001	-0.3 - -.3			310	J		#	62	-
	mg/kg	BHT-04	05/05/2015	0002	-3 - -3			580			#	58	-
	mg/kg	BHT-04	05/05/2015	0003	-5.3 - -5.3			510	J		#	63	-
	mg/kg	BHT-04	05/05/2015	0004	-5.6 - -5.6			500			#	56	-
	mg/kg	BHT-05	05/05/2015	0001	-0.5 - -.5			1400			#	56	-
	mg/kg	BHT-05	05/05/2015	0002	-1.5 - -1.5			4500			#	62	-
	mg/kg	BHT-05	05/05/2015	0003	-2.5 - -2.5			3100			#	65	-
	mg/kg	BHT-05	05/05/2015	0004	-3 - -3			710			#	52	-
	mg/kg	BHT-05	05/05/2015	0005	-4.2 - -4.2			340	J		#	52	-
Sulfate	mg/kg	0852	08/30/2015	0001	-0.5 - -.5			4100			#	9	-
	mg/kg	0852	08/30/2015	0002	-1.5 - -1.5			1900			#	8.9	-
	mg/kg	0852	08/30/2015	0003	-2.5 - -2.5			3500			#	9.1	-
	mg/kg	0852	08/30/2015	0004	-3.5 - -3.5			2800			#	8.8	-
	mg/kg	0852	08/30/2015	0005	-4.5 - -4.5			2200			#	1.9	-
	mg/kg	0852	08/30/2015	0006	-5.5 - -5.5			1900			#	8.6	-
	mg/kg	0852	08/30/2015	0007	-7 - -7			690			#	1.6	-
	mg/kg	0852	08/30/2015	0008	-8 - -8			34	J		#	1.8	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/kg	0852	08/30/2015	0009	-9 - -9			94			#	1.8	-
	mg/kg	0852	08/30/2015	0010	-10 - -10			71			#	1.8	-
	mg/kg	0852	08/30/2015	0011	-10.5 - -10.5			520			#	1.9	-
	mg/kg	0852	08/30/2015	0012	-11.5 - -11.5			76			#	1.8	-
	mg/kg	0852	08/30/2015	0013	-12 - -12			170			#	1.9	-
	mg/kg	0852	08/30/2015	0014	-13 - -13			63			#	1.8	-
	mg/kg	0852	08/30/2015	0015	-14 - -14			100			#	1.9	-
	mg/kg	0852	08/30/2015	0016	-15 - -15			100			#	2	-
	mg/kg	0852	08/30/2015	0017	-17 - -17			74			#	2	-
	mg/kg	0853	08/27/2015	0001	-0.5 - -.5			27	J		#	1.8	-
	mg/kg	0853	08/27/2015	0002	-1.5 - -1.5			1300			#	1.8	-
	mg/kg	0853	08/27/2015	0003	-2.5 - -2.5			4400	B		#	9.2	-
	mg/kg	0853	08/27/2015	0004	-3.5 - -3.5			4500	B		#	18	-
	mg/kg	0853	08/27/2015	0005	-4 - -4			1800	B		#	1.7	-
	mg/kg	0853	08/27/2015	0006	-4.5 - -4.5			270	B		#	1.7	-
	mg/kg	0853	08/27/2015	0007	-5.5 - -5.5			1500	B		#	1.6	-
	mg/kg	0853	08/27/2015	0008	-6.5 - -6.5			88	B		#	1.8	-
	mg/kg	0853	08/27/2015	0009	-7.5 - -7.5			32	B	U	#	0.18	-
	mg/kg	0853	08/27/2015	0010	-8.5 - -8.5			46	JB		#	1.8	-
	mg/kg	0853	08/27/2015	0011	-10 - -10			190	B		#	1.9	-
	mg/kg	0853	08/27/2015	0012	-11 - -11			290	B		#	1.7	-
	mg/kg	0853	08/27/2015	0013	-12 - -12			1100	B	J	#	1.9	-
	mg/kg	0853	08/27/2015	0014	-14 - -14			220	B		#	2	-
	mg/kg	0853	08/27/2015	0015	-15 - -15			140	B		#	1.9	-
	mg/kg	0853	08/27/2015	0016	-16.3 - -16.3			170	B		#	1.9	-
	mg/kg	0853	08/27/2015	0017	-17 - -17			130	B	J	#	1.9	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/kg	0853	08/27/2015	0018	-17 - -17			180	B	J	#	1.8	-
	mg/kg	0853	08/27/2015	0018	-12 - -12			280	B	J	#	2	-
	mg/kg	0854	08/26/2015	0001	-0.3 - -.3			10000	B		#	37	-
	mg/kg	0854	08/26/2015	0002	-1 - -1			6200	B		#	9.5	-
	mg/kg	0854	08/26/2015	0003	-2 - -2			5200	B		#	9.6	-
	mg/kg	0854	08/26/2015	0004	-3 - -3			1700	B		#	1.8	-
	mg/kg	0854	08/26/2015	0005	-4 - -4			1200	B		#	1.7	-
	mg/kg	0854	08/26/2015	0006	-4.5 - -4.5			3400	B		#	11	-
	mg/kg	0854	08/26/2015	0007	-6 - -6			310	B		#	1.9	-
	mg/kg	0854	08/26/2015	0008	-8 - -8			390	B		#	2	-
	mg/kg	0854	08/26/2015	0009	-9 - -9			770	B		#	2	-
	mg/kg	0854	08/26/2015	0010	-10.5 - -10.5			220	B		#	1.9	-
	mg/kg	0854	08/26/2015	0011	-11.5 - -11.5			210	B		#	1.8	-
	mg/kg	0854	08/26/2015	0012	-12.5 - -12.5			230	B		#	1.9	-
	mg/kg	0855	08/28/2015	0001	-0.5 - -.5			8700	B		#	19	-
	mg/kg	0855	08/28/2015	0002	-1.5 - -1.5			12000	B	J	#	20	-
	mg/kg	0855	08/28/2015	0003	-2.5 - -2.5			7900	B		#	20	-
	mg/kg	0855	08/28/2015	0004	-4 - -4			14000	B		#	21	-
	mg/kg	0855	08/28/2015	0005	-5 - -5			4700	B		#	10	-
	mg/kg	0855	08/28/2015	0006	-6 - -6			2500	B		#	11	-
	mg/kg	0855	08/28/2015	0007	-7.5 - -7.5			4700	B		#	11	-
	mg/kg	0855	08/28/2015	0008	-8.5 - -8.5			1700	B		#	2	-
	mg/kg	0855	08/28/2015	0009	-9.5 - -9.5			1400	B		#	1.9	-
	mg/kg	0855	08/28/2015	0010	-11 - -11			3300	B		#	9.5	-
	mg/kg	0855	08/28/2015	0011	-13 - -13			630	B		#	1.8	-
	mg/kg	0855	08/28/2015	0012	-15 - -15			2300	B		#	9.7	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/kg	0855	08/28/2015	0013	-16.5 - -16.5			2300	B		#	2	-
	mg/kg	0855	08/28/2015	0014	-17.7 - -17.7			1000	B		#	1.9	-
	mg/kg	0855	08/28/2015	0015	-18.5 - -18.5			410			#	1.9	-
	mg/kg	0855	08/28/2015	0018	-1.5 - -1.5			20000	B	J	#	39	-
	mg/kg	0856	08/28/2015	0001	-0.5 - -.5			1300			#	1.8	-
	mg/kg	0856	08/28/2015	0002	-1.5 - -1.5			8300			#	19	-
	mg/kg	0856	08/28/2015	0003	-2.5 - -2.5			8100			#	18	-
	mg/kg	0856	08/28/2015	0004	-3.5 - -3.5			660			#	1.6	-
	mg/kg	0856	08/28/2015	0005	-5.5 - -5.5			990			#	1.8	-
	mg/kg	0856	08/28/2015	0006	-6.5 - -6.5			490			#	1.8	-
	mg/kg	0856	08/28/2015	0007	-7.5 - -7.5			480			#	1.8	-
	mg/kg	0856	08/28/2015	0008	-8.5 - -8.5			550			#	1.8	-
	mg/kg	0856	08/28/2015	0009	-9.5 - -9.5			2800			#	18	-
	mg/kg	0856	08/28/2015	0010	-10.5 - -10.5			3200			#	9.2	-
	mg/kg	0856	08/28/2015	0011	-11.2 - -11.2			8000			#	19	-
	mg/kg	0856	08/28/2015	0012	-12 - -12			8100			#	19	-
	mg/kg	0857	08/30/2015	0001	-0.5 - -.5			1300			#	1.8	-
	mg/kg	0857	08/30/2015	0002	-1.5 - -1.5			4300			#	8.9	-
	mg/kg	0857	08/30/2015	0003	-2.5 - -2.5			22	J		#	1.8	-
	mg/kg	0857	08/30/2015	0004	-3 - -3			200			#	1.8	-
	mg/kg	0857	08/30/2015	0005	-5 - -5			290			#	1.6	-
	mg/kg	0857	08/30/2015	0006	-7 - -7			930			#	1.7	-
	mg/kg	0857	08/30/2015	0007	-8 - -8			320			#	1.8	-
	mg/kg	0857	08/30/2015	0008	-9 - -9			520		J	#	1.9	-
	mg/kg	0857	08/30/2015	0009	-10 - -10			560			#	1.9	-
	mg/kg	0857	08/30/2015	0010	-10.5 - -10.5			580			#	1.8	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/kg	0857	08/30/2015	0011	-11 - -11			550			#	1.8	-
	mg/kg	0857	08/30/2015	0012	-11.5 - -11.5			500			#	1.9	-
	mg/kg	0858	08/29/2015	0001	-0.5 - -.5			5300			#	10	-
	mg/kg	0858	08/29/2015	0002	-1.5 - -1.5			8500			#	13	-
	mg/kg	0858	08/29/2015	0003	-2.5 - -2.5			9700			#	18	-
	mg/kg	0858	08/29/2015	0004	-3 - -3			7100			#	18	-
	mg/kg	0858	08/29/2015	0005	-4.5 - -4.5			340			#	1.9	-
	mg/kg	0858	08/29/2015	0006	-6 - -6			3000			#	9.2	-
	mg/kg	0858	08/29/2015	0007	-7 - -7			3600			#	9.4	-
	mg/kg	0858	08/29/2015	0008	-8 - -8			7200			#	18	-
	mg/kg	0858	08/29/2015	0009	-9 - -9			3000			#	9.1	-
	mg/kg	0858	08/29/2015	0010	-10.5 - -10.5			1400			#	1.8	-
	mg/kg	0858	08/29/2015	0011	-12 - -12			440			#	1.8	-
	mg/kg	0858	08/29/2015	0012	-13 - -13			480			#	2	-
	mg/kg	0858	08/29/2015	0013	-14 - -14			570			#	2	-
	mg/kg	0858	08/29/2015	0014	-15 - -15			290			#	1.8	-
	mg/kg	0858	08/29/2015	0015	-16 - -16			320			#	1.8	-
	mg/kg	0858	08/29/2015	0016	-17 - -17			410	B		#	1.9	-
	mg/kg	0858	08/29/2015	0017	-18 - -18			530	B		#	2.2	-
	mg/kg	0858	08/29/2015	0018	-13 - -13			500	B		#	1.9	-
	mg/kg	0859	09/01/2015	0001	-0.5 - -.5			32	JB		#	1.8	-
	mg/kg	0859	09/01/2015	0002	-1.5 - -1.5			1900	B		#	1.7	-
	mg/kg	0859	09/01/2015	0003	-2.5 - -2.5			11000	B		#	18	-
	mg/kg	0859	09/01/2015	0004	-3.5 - -3.5			9500	B		#	18	-
	mg/kg	0859	09/01/2015	0005	-4.5 - -4.5			7100	B		#	20	-
	mg/kg	0859	09/01/2015	0006	-5.5 - -5.5			250	B		#	1.8	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/kg	0859	09/01/2015	0007	-7 - -7			630	B		#	2	-
	mg/kg	0859	09/01/2015	0008	-8 - -8			890	B		#	1.8	-
	mg/kg	0859	09/01/2015	0009	-8.5 - -8.5			6500	B		#	10	-
	mg/kg	0859	09/01/2015	0010	-9 - -9			4000	B		#	9.2	-
	mg/kg	0859	09/01/2015	0011	-10.5 - -10.5			2800	B		#	8.7	-
	mg/kg	0859	09/01/2015	0012	-11.5 - -11.5			4300	B		#	10	-
	mg/kg	0859	09/01/2015	0013	-12.5 - -12.5			360	B		#	2	-
	mg/kg	0859	09/01/2015	0018	-5.5 - -5.5			280	B		#	1.8	-
	mg/kg	0860	08/31/2015	0001	-0.5 - -.5			630	B		#	1.8	-
	mg/kg	0860	08/31/2015	0002	-1.5 - -1.5			3300	B		#	8.5	-
	mg/kg	0860	08/31/2015	0003	-2.5 - -2.5			4400	B		#	8.8	-
	mg/kg	0860	08/31/2015	0004	-3.5 - -3.5			4800	B		#	9.4	-
	mg/kg	0860	08/31/2015	0005	-4.5 - -4.5			4600	B		#	9.4	-
	mg/kg	0860	08/31/2015	0006	-5.5 - -5.5			450	B		#	1.6	-
	mg/kg	0860	08/31/2015	0007	-6.5 - -6.5			1100	B		#	1.7	-
	mg/kg	0860	08/31/2015	0008	-8 - -8			2100	B		#	8.5	-
	mg/kg	0860	08/31/2015	0009	-9 - -9			1400	B		#	1.8	-
	mg/kg	0860	08/31/2015	0010	-10 - -10			1300	B		#	2	-
	mg/kg	0860	08/31/2015	0011	-11 - -11			540	B		#	1.9	-
	mg/kg	0860	08/31/2015	0012	-12 - -12			420	B		#	1.9	-
	mg/kg	0860	08/31/2015	0013	-13 - -13			870	B		#	2	-
	mg/kg	0860	08/31/2015	0014	-14.5 - -14.5			810	B		#	2.1	-
	mg/kg	0860	08/31/2015	0015	-15.5 - -15.5			500	B		#	1.8	-
	mg/kg	0860	08/31/2015	0016	-16.5 - -16.5			260	B		#	1.8	-
	mg/kg	0860	08/31/2015	0017	-17.5 - -17.5			99	B		#	2	-
	mg/kg	0860	08/31/2015	0018	-10 - -10			1200	B		#	1.9	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/kg	0860	08/31/2015	0018	-1.5 - -1.5			2700	B		#	8.8	-
	mg/kg	0877	08/30/2015	0001	-0.5 - -.5			1600	B		#	1.9	-
	mg/kg	0877	08/30/2015	0002	-1.5 - -1.5			6400	B		#	18	-
	mg/kg	0877	08/30/2015	0003	-2.5 - -2.5			8500	B		#	19	-
	mg/kg	0877	08/30/2015	0004	-3.5 - -3.5			5700	B		#	20	-
	mg/kg	0877	08/30/2015	0005	-4.5 - -4.5			6600	B		#	19	-
	mg/kg	0877	08/30/2015	0006	-5.5 - -5.5			4900	B	J	#	21	-
	mg/kg	0877	08/30/2015	0007	-6.5 - -6.5			2900	B		#	10	-
	mg/kg	0877	08/30/2015	0008	-7.5 - -7.5			1100	B		#	1.8	-
	mg/kg	0877	08/30/2015	0009	-8.5 - -8.5			4300	B		#	10	-
	mg/kg	0877	08/30/2015	0010	-9.5 - -9.5			660	B		#	1.8	-
	mg/kg	0877	08/30/2015	0011	-10.5 - -10.5			370	B		#	1.7	-
	mg/kg	0877	08/30/2015	0012	-11.5 - -11.5			490	B		#	1.8	-
	mg/kg	0877	08/30/2015	0013	-12.5 - -12.5			370	B		#	1.8	-
	mg/kg	0877	08/30/2015	0014	-13.5 - -13.5			340	B		#	1.8	-
	mg/kg	0877	08/30/2015	0015	-14.5 - -14.5			560	B		#	1.8	-
	mg/kg	0877	08/30/2015	0016	-15 - -15			1600	B		#	1.9	-
	mg/kg	0877	08/30/2015	0018	-5.5 - -5.5			3200	B	J	#	10	-
	mg/kg	BHT-01	05/05/2015	0001	-0.3 - -.3			6600			#	9.6	-
	mg/kg	BHT-01	05/05/2015	0002	-0.75 - -.75			8700			#	19	-
	mg/kg	BHT-01	05/05/2015	0003	-1.4 - -1.4			12000			#	20	-
	mg/kg	BHT-01	05/05/2015	0004	-2.9 - -2.9			6600			#	21	-
	mg/kg	BHT-01	05/05/2015	0005	-4.3 - -4.3			2500			#	10	-
	mg/kg	BHT-01	05/05/2015	0006	-4.3 - -4.3			3000			#	10	-
	mg/kg	BHT-02	05/05/2015	0001	-0.5 - -.5			5900			#	10	-
	mg/kg	BHT-02	05/05/2015	0002	-1.5 - -1.5			1500			#	1.9	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/kg	BHT-02	05/05/2015	0003	-3 - -3			6500			#	19	-
	mg/kg	BHT-02	05/05/2015	0004	-4 - -4			500			#	1.7	-
	mg/kg	BHT-02	05/05/2015	0005	-4.6 - -4.6			280			#	1.7	-
	mg/kg	BHT-02	05/05/2015	0006	-0.5 - -.5			4300			#	11	-
	mg/kg	BHT-03	05/05/2015	0001	-0.6 - -.6			5000			#	19	-
	mg/kg	BHT-03	05/05/2015	0002	-2.5 - -2.5			6900			#	19	-
	mg/kg	BHT-03	05/05/2015	0003	-3.1 - -3.1			3400			#	8.3	-
	mg/kg	BHT-03	05/05/2015	0004	-5.6 - -5.6			1500			#	2.2	-
	mg/kg	BHT-04	05/05/2015	0001	-0.3 - -.3			39	J		#	1.7	-
	mg/kg	BHT-04	05/05/2015	0002	-3 - -3			1200			#	1.7	-
	mg/kg	BHT-04	05/05/2015	0003	-5.3 - -5.3			530			#	1.8	-
	mg/kg	BHT-04	05/05/2015	0004	-5.6 - -5.6			3200			#	9.1	-
	mg/kg	BHT-05	05/05/2015	0001	-0.5 - -.5			9000			#	18	-
	mg/kg	BHT-05	05/05/2015	0002	-1.5 - -1.5			8600			#	19	-
	mg/kg	BHT-05	05/05/2015	0003	-2.5 - -2.5			11000			#	18	-
	mg/kg	BHT-05	05/05/2015	0004	-3 - -3			4400			#	8.4	-
	mg/kg	BHT-05	05/05/2015	0005	-4.2 - -4.2			8000			#	8.5	-
Total Inorganic Carbon	mg/kg	0852	08/30/2015	0001	-0.5 - -.5			6900			#	1700	-
	mg/kg	0852	08/30/2015	0002	-1.5 - -1.5			2800	J		#	1700	-
	mg/kg	0852	08/30/2015	0003	-2.5 - -2.5			4400			#	1700	-
	mg/kg	0852	08/30/2015	0004	-3.5 - -3.5			3600	J		#	1700	-
	mg/kg	0852	08/30/2015	0005	-4.5 - -4.5			3700	J		#	1700	-
	mg/kg	0852	08/30/2015	0006	-5.5 - -5.5			2900	J		#	1700	-
	mg/kg	0852	08/30/2015	0007	-7 - -7			2400	J		#	1700	-
	mg/kg	0852	08/30/2015	0008	-8 - -8			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0009	-9 - -9			1700	U		#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Total Inorganic Carbon	mg/kg	0852	08/30/2015	0010	-10 - -10			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0011	-10.5 - -10.5			4400			#	1700	-
	mg/kg	0852	08/30/2015	0012	-11.5 - -11.5			2800	J		#	1700	-
	mg/kg	0852	08/30/2015	0013	-12 - -12			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0014	-13 - -13			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0015	-14 - -14			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0016	-15 - -15			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0017	-17 - -17			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0001	-0.5 - -.5			8600			#	1700	-
	mg/kg	0853	08/27/2015	0002	-1.5 - -1.5			8200			#	1700	-
	mg/kg	0853	08/27/2015	0003	-2.5 - -2.5			7700			#	1700	-
	mg/kg	0853	08/27/2015	0004	-3.5 - -3.5			11000			#	1700	-
	mg/kg	0853	08/27/2015	0005	-4 - -4			2100	J		#	1700	-
	mg/kg	0853	08/27/2015	0006	-4.5 - -4.5			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0007	-5.5 - -5.5			2900	J		#	1700	-
	mg/kg	0853	08/27/2015	0008	-6.5 - -6.5			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0009	-7.5 - -7.5			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0010	-8.5 - -8.5			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0011	-10 - -10			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0012	-11 - -11			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0013	-12 - -12			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0014	-14 - -14			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0015	-15 - -15			4100			#	1700	-
	mg/kg	0853	08/27/2015	0016	-16.3 - -16.3			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0017	-17 - -17			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0018	-17 - -17			1700	U		#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Total Inorganic Carbon	mg/kg	0853	08/27/2015	0018	-12 - -12			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0001	-0.3 - -.3			15000			#	1700	-
	mg/kg	0854	08/26/2015	0002	-1 - -1			7900			#	1700	-
	mg/kg	0854	08/26/2015	0003	-2 - -2			7200			#	1700	-
	mg/kg	0854	08/26/2015	0004	-3 - -3			3400	J		#	1700	-
	mg/kg	0854	08/26/2015	0005	-4 - -4			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0006	-4.5 - -4.5			2300	J		#	1700	-
	mg/kg	0854	08/26/2015	0007	-6 - -6			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0008	-8 - -8			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0009	-9 - -9			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0010	-10.5 - -10.5			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0011	-11.5 - -11.5			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0012	-12.5 - -12.5			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0001	-0.5 - -.5			11000			#	1700	-
	mg/kg	0855	08/28/2015	0002	-1.5 - -1.5			20000			#	1700	-
	mg/kg	0855	08/28/2015	0003	-2.5 - -2.5			14000			#	1700	-
	mg/kg	0855	08/28/2015	0004	-4 - -4			13000			#	1700	-
	mg/kg	0855	08/28/2015	0005	-5 - -5			1900	J		#	1700	-
	mg/kg	0855	08/28/2015	0006	-6 - -6			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0007	-7.5 - -7.5			3900	J		#	1700	-
	mg/kg	0855	08/28/2015	0008	-8.5 - -8.5			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0009	-9.5 - -9.5			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0010	-11 - -11			4800			#	1700	-
	mg/kg	0855	08/28/2015	0011	-13 - -13			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0012	-15 - -15			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0013	-16.5 - -16.5			2200	J		#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Total Inorganic Carbon	mg/kg	0855	08/28/2015	0014	-17.7 - -17.7			30000			#	1700	-
	mg/kg	0855	08/28/2015	0015	-18.5 - -18.5			3400	J		#	1700	-
	mg/kg	0855	08/28/2015	0018	-1.5 - -1.5			17000			#	1700	-
	mg/kg	0856	08/28/2015	0001	-0.5 - -.5			9400			#	1700	-
	mg/kg	0856	08/28/2015	0002	-1.5 - -1.5			14000			#	1700	-
	mg/kg	0856	08/28/2015	0003	-2.5 - -2.5			12000			#	1700	-
	mg/kg	0856	08/28/2015	0004	-3.5 - -3.5			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0005	-5.5 - -5.5			3600	J		#	1700	-
	mg/kg	0856	08/28/2015	0006	-6.5 - -6.5			2300	J		#	1700	-
	mg/kg	0856	08/28/2015	0007	-7.5 - -7.5			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0008	-8.5 - -8.5			3000	J		#	1700	-
	mg/kg	0856	08/28/2015	0009	-9.5 - -9.5			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0010	-10.5 - -10.5			2300	J		#	1700	-
	mg/kg	0856	08/28/2015	0011	-11.2 - -11.2			5400			#	1700	-
	mg/kg	0856	08/28/2015	0012	-12 - -12			53000			#	1700	-
	mg/kg	0857	08/30/2015	0001	-0.5 - -.5			5400			#	1700	-
	mg/kg	0857	08/30/2015	0002	-1.5 - -1.5			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0003	-2.5 - -2.5			2000	J		#	1700	-
	mg/kg	0857	08/30/2015	0004	-3 - -3			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0005	-5 - -5			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0006	-7 - -7			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0007	-8 - -8			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0008	-9 - -9			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0009	-10 - -10			3900	J		#	1700	-
	mg/kg	0857	08/30/2015	0010	-10.5 - -10.5			2300	J		#	1700	-
	mg/kg	0857	08/30/2015	0011	-11 - -11			12000			#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Total Inorganic Carbon	mg/kg	0857	08/30/2015	0012	-11.5 - -11.5			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0001	-0.5 - -.5			3300	J		#	1700	-
	mg/kg	0858	08/29/2015	0002	-1.5 - -1.5			6800			#	1700	-
	mg/kg	0858	08/29/2015	0003	-2.5 - -2.5			7800			#	1700	-
	mg/kg	0858	08/29/2015	0004	-3 - -3			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0005	-4.5 - -4.5			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0006	-6 - -6			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0007	-7 - -7			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0008	-8 - -8			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0009	-9 - -9			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0010	-10.5 - -10.5			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0011	-12 - -12			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0012	-13 - -13			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0013	-14 - -14			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0014	-15 - -15			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0015	-16 - -16			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0016	-17 - -17			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0017	-18 - -18			3300	J		#	1700	-
	mg/kg	0858	08/29/2015	0018	-13 - -13			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0001	-0.5 - -.5			6000			#	1700	-
	mg/kg	0859	09/01/2015	0002	-1.5 - -1.5			5500			#	1700	-
	mg/kg	0859	09/01/2015	0003	-2.5 - -2.5			11000			#	1700	-
	mg/kg	0859	09/01/2015	0004	-3.5 - -3.5			7200			#	1700	-
	mg/kg	0859	09/01/2015	0005	-4.5 - -4.5			7600			#	1700	-
	mg/kg	0859	09/01/2015	0006	-5.5 - -5.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0007	-7 - -7			1700	U		#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Total Inorganic Carbon	mg/kg	0859	09/01/2015	0008	-8 - -8			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0009	-8.5 - -8.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0010	-9 - -9			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0011	-10.5 - -10.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0012	-11.5 - -11.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0013	-12.5 - -12.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0018	-5.5 - -5.5			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0001	-0.5 - -.5			7100			#	1700	-
	mg/kg	0860	08/31/2015	0002	-1.5 - -1.5			11000			#	1700	-
	mg/kg	0860	08/31/2015	0003	-2.5 - -2.5			4500			#	1700	-
	mg/kg	0860	08/31/2015	0004	-3.5 - -3.5			8900			#	1700	-
	mg/kg	0860	08/31/2015	0005	-4.5 - -4.5			4700			#	1700	-
	mg/kg	0860	08/31/2015	0006	-5.5 - -5.5			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0007	-6.5 - -6.5			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0008	-8 - -8			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0009	-9 - -9			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0010	-10 - -10			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0011	-11 - -11			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0012	-12 - -12			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0013	-13 - -13			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0014	-14.5 - -14.5			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0015	-15.5 - -15.5			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0016	-16.5 - -16.5			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0017	-17.5 - -17.5			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0018	-10 - -10			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0018	-1.5 - -1.5			10000			#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Total Inorganic Carbon	mg/kg	0877	08/30/2015	0001	-0.5 - -.5			6300			#	1700	-
	mg/kg	0877	08/30/2015	0002	-1.5 - -1.5			7800			#	1700	-
	mg/kg	0877	08/30/2015	0003	-2.5 - -2.5			14000			#	1700	-
	mg/kg	0877	08/30/2015	0004	-3.5 - -3.5			19000			#	1700	-
	mg/kg	0877	08/30/2015	0005	-4.5 - -4.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0006	-5.5 - -5.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0007	-6.5 - -6.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0008	-7.5 - -7.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0009	-8.5 - -8.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0010	-9.5 - -9.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0011	-10.5 - -10.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0012	-11.5 - -11.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0013	-12.5 - -12.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0014	-13.5 - -13.5			1700	J		#	1700	-
	mg/kg	0877	08/30/2015	0015	-14.5 - -14.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0016	-15 - -15			3100	J		#	1700	-
	mg/kg	0877	08/30/2015	0018	-5.5 - -5.5			10000			#	1700	-
	mg/kg	BHT-01	05/05/2015	0001	-0.3 - -.3			12000			#	1700	-
	mg/kg	BHT-01	05/05/2015	0002	-0.75 - -.75			8300			#	1700	-
	mg/kg	BHT-01	05/05/2015	0003	-1.4 - -1.4			13000			#	1700	-
	mg/kg	BHT-01	05/05/2015	0004	-2.9 - -2.9			8700			#	1700	-
	mg/kg	BHT-01	05/05/2015	0005	-4.3 - -4.3			4700			#	1700	-
	mg/kg	BHT-01	05/05/2015	0006	-4.3 - -4.3			4000			#	1700	-
	mg/kg	BHT-02	05/05/2015	0001	-0.5 - -.5			7400			#	1700	-
	mg/kg	BHT-02	05/05/2015	0002	-1.5 - -1.5			1900	J		#	1700	-
	mg/kg	BHT-02	05/05/2015	0003	-3 - -3			13000			#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Total Inorganic Carbon	mg/kg	BHT-02	05/05/2015	0004	-4 - -4			1700	U		#	1700	-
	mg/kg	BHT-02	05/05/2015	0005	-4.6 - -4.6			1700	U		#	1700	-
	mg/kg	BHT-02	05/05/2015	0006	-0.5 - -.5			8700			#	1700	-
	mg/kg	BHT-03	05/05/2015	0001	-0.6 - -.6			6200			#	1700	-
	mg/kg	BHT-03	05/05/2015	0002	-2.5 - -2.5			11000			#	1700	-
	mg/kg	BHT-03	05/05/2015	0003	-3.1 - -3.1			1700	U		#	1700	-
	mg/kg	BHT-03	05/05/2015	0004	-5.6 - -5.6			1700	U		#	1700	-
	mg/kg	BHT-04	05/05/2015	0001	-0.3 - -.3			1800	J		#	1700	-
	mg/kg	BHT-04	05/05/2015	0002	-3 - -3			2000	J		#	1700	-
	mg/kg	BHT-04	05/05/2015	0003	-5.3 - -5.3			1700	U		#	1700	-
	mg/kg	BHT-04	05/05/2015	0004	-5.6 - -5.6			1700	U		#	1700	-
	mg/kg	BHT-05	05/05/2015	0001	-0.5 - -.5			10000	H	J	#	1700	-
	mg/kg	BHT-05	05/05/2015	0002	-1.5 - -1.5			17000	H	J	#	1700	-
	mg/kg	BHT-05	05/05/2015	0003	-2.5 - -2.5			8300	H	J	#	1700	-
	mg/kg	BHT-05	05/05/2015	0004	-3 - -3			4200	H	J	#	1700	-
	mg/kg	BHT-05	05/05/2015	0005	-4.2 - -4.2			1700	UH	J	#	1700	-
Total Organic Carbon	mg/kg	0852	08/30/2015	0001	-0.5 - -.5			6300			#	1700	-
	mg/kg	0852	08/30/2015	0002	-1.5 - -1.5			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0003	-2.5 - -2.5			2000	J		#	1700	-
	mg/kg	0852	08/30/2015	0004	-3.5 - -3.5			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0005	-4.5 - -4.5			3100	J		#	1700	-
	mg/kg	0852	08/30/2015	0006	-5.5 - -5.5			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0007	-7 - -7			2200	J		#	1700	-
	mg/kg	0852	08/30/2015	0008	-8 - -8			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0009	-9 - -9			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0010	-10 - -10			1700	U		#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Total Organic Carbon	mg/kg	0852	08/30/2015	0011	-10.5 - -10.5			3800	J		#	1700	-
	mg/kg	0852	08/30/2015	0012	-11.5 - -11.5			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0013	-12 - -12			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0014	-13 - -13			7600			#	1700	-
	mg/kg	0852	08/30/2015	0015	-14 - -14			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0016	-15 - -15			1700	U		#	1700	-
	mg/kg	0852	08/30/2015	0017	-17 - -17			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0001	-0.5 - -.5			3800	J		#	1700	-
	mg/kg	0853	08/27/2015	0002	-1.5 - -1.5			2100	J		#	1700	-
	mg/kg	0853	08/27/2015	0003	-2.5 - -2.5			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0004	-3.5 - -3.5			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0005	-4 - -4			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0006	-4.5 - -4.5			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0007	-5.5 - -5.5			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0008	-6.5 - -6.5			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0009	-7.5 - -7.5			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0010	-8.5 - -8.5			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0011	-10 - -10			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0012	-11 - -11			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0013	-12 - -12			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0014	-14 - -14			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0015	-15 - -15			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0016	-16.3 - -16.3			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0017	-17 - -17			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0018	-17 - -17			1700	U		#	1700	-
	mg/kg	0853	08/27/2015	0018	-12 - -12			1700	U		#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Total Organic Carbon	mg/kg	0854	08/26/2015	0001	-0.3 - -.3			7900			#	1700	-
	mg/kg	0854	08/26/2015	0002	-1 - -1			2300	J		#	1700	-
	mg/kg	0854	08/26/2015	0003	-2 - -2			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0004	-3 - -3			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0005	-4 - -4			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0006	-4.5 - -4.5			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0007	-6 - -6			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0008	-8 - -8			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0009	-9 - -9			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0010	-10.5 - -10.5			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0011	-11.5 - -11.5			1700	U		#	1700	-
	mg/kg	0854	08/26/2015	0012	-12.5 - -12.5			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0001	-0.5 - -.5			16000			#	1700	-
	mg/kg	0855	08/28/2015	0002	-1.5 - -1.5			6600			#	1700	-
	mg/kg	0855	08/28/2015	0003	-2.5 - -2.5			2800	J		#	1700	-
	mg/kg	0855	08/28/2015	0004	-4 - -4			3800	J		#	1700	-
	mg/kg	0855	08/28/2015	0005	-5 - -5			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0006	-6 - -6			6100			#	1700	-
	mg/kg	0855	08/28/2015	0007	-7.5 - -7.5			1700	J		#	1700	-
	mg/kg	0855	08/28/2015	0008	-8.5 - -8.5			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0009	-9.5 - -9.5			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0010	-11 - -11			8100			#	1700	-
	mg/kg	0855	08/28/2015	0011	-13 - -13			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0012	-15 - -15			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0013	-16.5 - -16.5			6900			#	1700	-
	mg/kg	0855	08/28/2015	0014	-17.7 - -17.7			6600			#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Total Organic Carbon	mg/kg	0855	08/28/2015	0015	-18.5 - -18.5			1700	U		#	1700	-
	mg/kg	0855	08/28/2015	0018	-1.5 - -1.5			7100			#	1700	-
	mg/kg	0856	08/28/2015	0001	-0.5 - -.5			2800	J		#	1700	-
	mg/kg	0856	08/28/2015	0002	-1.5 - -1.5			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0003	-2.5 - -2.5			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0004	-3.5 - -3.5			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0005	-5.5 - -5.5			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0006	-6.5 - -6.5			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0007	-7.5 - -7.5			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0008	-8.5 - -8.5			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0009	-9.5 - -9.5			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0010	-10.5 - -10.5			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0011	-11.2 - -11.2			1700	U		#	1700	-
	mg/kg	0856	08/28/2015	0012	-12 - -12			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0001	-0.5 - -.5			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0002	-1.5 - -1.5			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0003	-2.5 - -2.5			5700			#	1700	-
	mg/kg	0857	08/30/2015	0004	-3 - -3			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0005	-5 - -5			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0006	-7 - -7			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0007	-8 - -8			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0008	-9 - -9			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0009	-10 - -10			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0010	-10.5 - -10.5			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0011	-11 - -11			1700	U		#	1700	-
	mg/kg	0857	08/30/2015	0012	-11.5 - -11.5			1700	U		#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Total Organic Carbon	mg/kg	0858	08/29/2015	0001	-0.5 - -.5			10000			#	1700	-
	mg/kg	0858	08/29/2015	0002	-1.5 - -1.5			3600	J		#	1700	-
	mg/kg	0858	08/29/2015	0003	-2.5 - -2.5			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0004	-3 - -3			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0005	-4.5 - -4.5			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0006	-6 - -6			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0007	-7 - -7			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0008	-8 - -8			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0009	-9 - -9			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0010	-10.5 - -10.5			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0011	-12 - -12			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0012	-13 - -13			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0013	-14 - -14			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0014	-15 - -15			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0015	-16 - -16			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0016	-17 - -17			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0017	-18 - -18			1700	U		#	1700	-
	mg/kg	0858	08/29/2015	0018	-13 - -13			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0001	-0.5 - -.5			2200	J		#	1700	-
	mg/kg	0859	09/01/2015	0002	-1.5 - -1.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0003	-2.5 - -2.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0004	-3.5 - -3.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0005	-4.5 - -4.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0006	-5.5 - -5.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0007	-7 - -7			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0008	-8 - -8			1700	U		#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Total Organic Carbon	mg/kg	0859	09/01/2015	0009	-8.5 - -8.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0010	-9 - -9			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0011	-10.5 - -10.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0012	-11.5 - -11.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0013	-12.5 - -12.5			1700	U		#	1700	-
	mg/kg	0859	09/01/2015	0018	-5.5 - -5.5			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0001	-0.5 - -.5			2500	J		#	1700	-
	mg/kg	0860	08/31/2015	0002	-1.5 - -1.5			2400	J		#	1700	-
	mg/kg	0860	08/31/2015	0003	-2.5 - -2.5			9200			#	1700	-
	mg/kg	0860	08/31/2015	0004	-3.5 - -3.5			7000			#	1700	-
	mg/kg	0860	08/31/2015	0005	-4.5 - -4.5			7500			#	1700	-
	mg/kg	0860	08/31/2015	0006	-5.5 - -5.5			5600			#	1700	-
	mg/kg	0860	08/31/2015	0007	-6.5 - -6.5			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0008	-8 - -8			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0009	-9 - -9			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0010	-10 - -10			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0011	-11 - -11			2000	J		#	1700	-
	mg/kg	0860	08/31/2015	0012	-12 - -12			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0013	-13 - -13			6600			#	1700	-
	mg/kg	0860	08/31/2015	0014	-14.5 - -14.5			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0015	-15.5 - -15.5			13000			#	1700	-
	mg/kg	0860	08/31/2015	0016	-16.5 - -16.5			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0017	-17.5 - -17.5			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0018	-10 - -10			1700	U		#	1700	-
	mg/kg	0860	08/31/2015	0018	-1.5 - -1.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0001	-0.5 - -.5			25000			#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Total Organic Carbon	mg/kg	0877	08/30/2015	0002	-1.5 - -1.5			8300			#	1700	-
	mg/kg	0877	08/30/2015	0003	-2.5 - -2.5			19000			#	1700	-
	mg/kg	0877	08/30/2015	0004	-3.5 - -3.5			8300			#	1700	-
	mg/kg	0877	08/30/2015	0005	-4.5 - -4.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0006	-5.5 - -5.5			2500	J		#	1700	-
	mg/kg	0877	08/30/2015	0007	-6.5 - -6.5			2000	J		#	1700	-
	mg/kg	0877	08/30/2015	0008	-7.5 - -7.5			13000			#	1700	-
	mg/kg	0877	08/30/2015	0009	-8.5 - -8.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0010	-9.5 - -9.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0011	-10.5 - -10.5			2600	J		#	1700	-
	mg/kg	0877	08/30/2015	0012	-11.5 - -11.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0013	-12.5 - -12.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0014	-13.5 - -13.5			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0015	-14.5 - -14.5			4600			#	1700	-
	mg/kg	0877	08/30/2015	0016	-15 - -15			1700	U		#	1700	-
	mg/kg	0877	08/30/2015	0018	-5.5 - -5.5			1800	J		#	1700	-
	mg/kg	BHT-01	05/05/2015	0001	-0.3 - -.3			15000			#	1700	-
	mg/kg	BHT-01	05/05/2015	0002	-0.75 - -.75			35000			#	1700	-
	mg/kg	BHT-01	05/05/2015	0003	-1.4 - -1.4			7100			#	1700	-
	mg/kg	BHT-01	05/05/2015	0004	-2.9 - -2.9			3800	J		#	1700	-
	mg/kg	BHT-01	05/05/2015	0005	-4.3 - -4.3			1700	U		#	1700	-
	mg/kg	BHT-01	05/05/2015	0006	-4.3 - -4.3			1700	U		#	1700	-
	mg/kg	BHT-02	05/05/2015	0001	-0.5 - -.5			9500			#	1700	-
	mg/kg	BHT-02	05/05/2015	0002	-1.5 - -1.5			4100			#	1700	-
	mg/kg	BHT-02	05/05/2015	0003	-3 - -3			1700	U		#	1700	-
	mg/kg	BHT-02	05/05/2015	0004	-4 - -4			2000	J		#	1700	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Total Organic Carbon	mg/kg	BHT-02	05/05/2015	0005	-4.6 - -4.6			1700	U		#	1700	-
	mg/kg	BHT-02	05/05/2015	0006	-0.5 - -.5			9000			#	1700	-
	mg/kg	BHT-03	05/05/2015	0001	-0.6 - -.6			1700	U		#	1700	-
	mg/kg	BHT-03	05/05/2015	0002	-2.5 - -2.5			1700	U		#	1700	-
	mg/kg	BHT-03	05/05/2015	0003	-3.1 - -3.1			1800	J		#	1700	-
	mg/kg	BHT-03	05/05/2015	0004	-5.6 - -5.6			1700	UH	J	#	1700	-
	mg/kg	BHT-04	05/05/2015	0001	-0.3 - -.3			1700	JH	J	#	1700	-
	mg/kg	BHT-04	05/05/2015	0002	-3 - -3			1700	UH	J	#	1700	-
	mg/kg	BHT-04	05/05/2015	0003	-5.3 - -5.3			1700	UH	J	#	1700	-
	mg/kg	BHT-04	05/05/2015	0004	-5.6 - -5.6			1700	UH	J	#	1700	-
	mg/kg	BHT-05	05/05/2015	0001	-0.5 - -.5			2200	JH	J	#	1700	-
	mg/kg	BHT-05	05/05/2015	0002	-1.5 - -1.5			1700	UH	J	#	1700	-
	mg/kg	BHT-05	05/05/2015	0003	-2.5 - -2.5			1700	UH	J	#	1700	-
	mg/kg	BHT-05	05/05/2015	0004	-3 - -3			1700	UH	J	#	1700	-
	mg/kg	BHT-05	05/05/2015	0005	-4.2 - -4.2			1700	UH	J	#	1700	-
Uranium	mg/kg	0852	08/30/2015	0001	-0.5 - -.5			1.9	B		#	0.0016	-
	mg/kg	0852	08/30/2015	0002	-1.5 - -1.5			1.3	B		#	0.0015	-
	mg/kg	0852	08/30/2015	0003	-2.5 - -2.5			1.1	B		#	0.0017	-
	mg/kg	0852	08/30/2015	0004	-3.5 - -3.5			1.3	B		#	0.0017	-
	mg/kg	0852	08/30/2015	0005	-4.5 - -4.5			1.5	B		#	0.0019	-
	mg/kg	0852	08/30/2015	0006	-5.5 - -5.5			0.44	B		#	0.0014	-
	mg/kg	0852	08/30/2015	0007	-7 - -7			0.93	B		#	0.0016	-
	mg/kg	0852	08/30/2015	0008	-8 - -8			0.60	B		#	0.0014	-
	mg/kg	0852	08/30/2015	0009	-9 - -9			0.57	B		#	0.0015	-
	mg/kg	0852	08/30/2015	0010	-10 - -10			0.56	B		#	0.0018	-
	mg/kg	0852	08/30/2015	0011	-10.5 - -10.5			0.69	B		#	0.0017	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/kg	0852	08/30/2015	0012	-11.5 - -11.5			0.64	B		#	0.0016	-
	mg/kg	0852	08/30/2015	0013	-12 - -12			0.26	B		#	0.0016	-
	mg/kg	0852	08/30/2015	0014	-13 - -13			0.67			#	0.0017	-
	mg/kg	0852	08/30/2015	0015	-14 - -14			0.40			#	0.0017	-
	mg/kg	0852	08/30/2015	0016	-15 - -15			0.90			#	0.0018	-
	mg/kg	0852	08/30/2015	0017	-17 - -17			0.56			#	0.0017	-
	mg/kg	0853	08/27/2015	0001	-0.5 - -.5			0.69			#	0.0016	-
	mg/kg	0853	08/27/2015	0002	-1.5 - -1.5			1.2			#	0.0017	-
	mg/kg	0853	08/27/2015	0003	-2.5 - -2.5			1.3			#	0.0017	-
	mg/kg	0853	08/27/2015	0004	-3.5 - -3.5			1.3			#	0.0015	-
	mg/kg	0853	08/27/2015	0005	-4 - -4			0.49			#	0.0014	-
	mg/kg	0853	08/27/2015	0006	-4.5 - -4.5			0.40			#	0.0014	-
	mg/kg	0853	08/27/2015	0007	-5.5 - -5.5			0.61			#	0.0014	-
	mg/kg	0853	08/27/2015	0008	-6.5 - -6.5			0.77			#	0.0016	-
	mg/kg	0853	08/27/2015	0009	-7.5 - -7.5			0.44			#	0.0017	-
	mg/kg	0853	08/27/2015	0010	-8.5 - -8.5			0.37	B		#	0.0016	-
	mg/kg	0853	08/27/2015	0011	-10 - -10			0.56	B		#	0.0017	-
	mg/kg	0853	08/27/2015	0012	-11 - -11			0.42	B		#	0.0014	-
	mg/kg	0853	08/27/2015	0013	-12 - -12			0.40	B		#	0.0018	-
	mg/kg	0853	08/27/2015	0014	-14 - -14			0.41	B		#	0.0016	-
	mg/kg	0853	08/27/2015	0015	-15 - -15			0.39	B		#	0.0017	-
	mg/kg	0853	08/27/2015	0016	-16.3 - -16.3			0.78	B		#	0.0018	-
	mg/kg	0853	08/27/2015	0017	-17 - -17			1.3	B		#	0.0016	-
	mg/kg	0853	08/27/2015	0018	-17 - -17			1.1			#	0.0015	-
	mg/kg	0853	08/27/2015	0018	-12 - -12			0.33			#	0.0017	-
	mg/kg	0854	08/26/2015	0001	-0.3 - -.3			3.1	B		#	0.0015	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/kg	0854	08/26/2015	0002	-1 - -1			2.1	B		#	0.0018	-
	mg/kg	0854	08/26/2015	0003	-2 - -2			1.3	B		#	0.0016	-
	mg/kg	0854	08/26/2015	0004	-3 - -3			0.95	B		#	0.0014	-
	mg/kg	0854	08/26/2015	0005	-4 - -4			0.51	B		#	0.0015	-
	mg/kg	0854	08/26/2015	0006	-4.5 - -4.5			1.2	B		#	0.0019	-
	mg/kg	0854	08/26/2015	0007	-6 - -6			0.49	B		#	0.0016	-
	mg/kg	0854	08/26/2015	0008	-8 - -8			0.89	B		#	0.0017	-
	mg/kg	0854	08/26/2015	0009	-9 - -9			0.84	B		#	0.0017	-
	mg/kg	0854	08/26/2015	0010	-10.5 - -10.5			0.82	B		#	0.0017	-
	mg/kg	0854	08/26/2015	0011	-11.5 - -11.5			0.66	B		#	0.0015	-
	mg/kg	0854	08/26/2015	0012	-12.5 - -12.5			0.43	B		#	0.0016	-
	mg/kg	0855	08/28/2015	0001	-0.5 - -.5			4.1	B		#	0.0018	-
	mg/kg	0855	08/28/2015	0002	-1.5 - -1.5			4.1	B		#	0.0017	-
	mg/kg	0855	08/28/2015	0003	-2.5 - -2.5			4.5	B		#	0.0018	-
	mg/kg	0855	08/28/2015	0004	-4 - -4			2.9	B		#	0.002	-
	mg/kg	0855	08/28/2015	0005	-5 - -5			4.1	B		#	0.0018	-
	mg/kg	0855	08/28/2015	0006	-6 - -6			22	B		#	0.0021	-
	mg/kg	0855	08/28/2015	0007	-7.5 - -7.5			6.7	B		#	0.0021	-
	mg/kg	0855	08/28/2015	0008	-8.5 - -8.5			4.9	B		#	0.0018	-
	mg/kg	0855	08/28/2015	0009	-9.5 - -9.5			3.3	B		#	0.0018	-
	mg/kg	0855	08/28/2015	0010	-11 - -11			2.4	B		#	0.0018	-
	mg/kg	0855	08/28/2015	0011	-13 - -13			0.42	B		#	0.0017	-
	mg/kg	0855	08/28/2015	0012	-15 - -15			1.3	B		#	0.0018	-
	mg/kg	0855	08/28/2015	0013	-16.5 - -16.5			1.0	B		#	0.0016	-
	mg/kg	0855	08/28/2015	0014	-17.7 - -17.7			2.2	B		#	0.0016	-
	mg/kg	0855	08/28/2015	0015	-18.5 - -18.5			1.2	B		#	0.0016	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/kg	0855	08/28/2015	0018	-1.5 - -1.5			3.9			#	0.0017	-
	mg/kg	0856	08/28/2015	0001	-0.5 - -.5			3.5	B		#	0.0017	-
	mg/kg	0856	08/28/2015	0002	-1.5 - -1.5			7.3	B		#	0.0017	-
	mg/kg	0856	08/28/2015	0003	-2.5 - -2.5			4.3	B		#	0.0017	-
	mg/kg	0856	08/28/2015	0004	-3.5 - -3.5			1.0	B		#	0.0014	-
	mg/kg	0856	08/28/2015	0005	-5.5 - -5.5			0.70			#	0.0016	-
	mg/kg	0856	08/28/2015	0006	-6.5 - -6.5			0.83			#	0.0017	-
	mg/kg	0856	08/28/2015	0007	-7.5 - -7.5			0.62			#	0.0016	-
	mg/kg	0856	08/28/2015	0008	-8.5 - -8.5			0.62			#	0.0017	-
	mg/kg	0856	08/28/2015	0009	-9.5 - -9.5			0.50			#	0.0016	-
	mg/kg	0856	08/28/2015	0010	-10.5 - -10.5			0.46			#	0.0017	-
	mg/kg	0856	08/28/2015	0011	-11.2 - -11.2			1.0			#	0.0016	-
	mg/kg	0856	08/28/2015	0012	-12 - -12			1.5			#	0.0017	-
	mg/kg	0857	08/30/2015	0001	-0.5 - -.5			0.96			#	0.0016	-
	mg/kg	0857	08/30/2015	0002	-1.5 - -1.5			1.0			#	0.0015	-
	mg/kg	0857	08/30/2015	0003	-2.5 - -2.5			0.97			#	0.0015	-
	mg/kg	0857	08/30/2015	0004	-3 - -3			1.2			#	0.0015	-
	mg/kg	0857	08/30/2015	0005	-5 - -5			0.67			#	0.0014	-
	mg/kg	0857	08/30/2015	0006	-7 - -7			1.1			#	0.0015	-
	mg/kg	0857	08/30/2015	0007	-8 - -8			0.69			#	0.0016	-
	mg/kg	0857	08/30/2015	0008	-9 - -9			0.90			#	0.0016	-
	mg/kg	0857	08/30/2015	0009	-10 - -10			0.79			#	0.0017	-
	mg/kg	0857	08/30/2015	0010	-10.5 - -10.5			0.77			#	0.0015	-
	mg/kg	0857	08/30/2015	0011	-11 - -11			0.89			#	0.0017	-
	mg/kg	0857	08/30/2015	0012	-11.5 - -11.5			0.63			#	0.0015	-
	mg/kg	0858	08/29/2015	0001	-0.5 - -.5			3.3			#	0.0017	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/kg	0858	08/29/2015	0002	-1.5 - -1.5			7.8			#	0.0023	-
	mg/kg	0858	08/29/2015	0003	-2.5 - -2.5			5.2			#	0.0017	-
	mg/kg	0858	08/29/2015	0004	-3 - -3			1.6			#	0.0016	-
	mg/kg	0858	08/29/2015	0005	-4.5 - -4.5			0.64			#	0.0017	-
	mg/kg	0858	08/29/2015	0006	-6 - -6			1.3			#	0.0015	-
	mg/kg	0858	08/29/2015	0007	-7 - -7			1.4			#	0.0017	-
	mg/kg	0858	08/29/2015	0008	-8 - -8			1.5			#	0.0016	-
	mg/kg	0858	08/29/2015	0009	-9 - -9			0.70			#	0.0015	-
	mg/kg	0858	08/29/2015	0010	-10.5 - -10.5			0.92			#	0.0015	-
	mg/kg	0858	08/29/2015	0011	-12 - -12			0.89			#	0.0016	-
	mg/kg	0858	08/29/2015	0012	-13 - -13			0.72		J	#	0.0019	-
	mg/kg	0858	08/29/2015	0013	-14 - -14			0.42			#	0.0017	-
	mg/kg	0858	08/29/2015	0014	-15 - -15			0.41			#	0.0015	-
	mg/kg	0858	08/29/2015	0015	-16 - -16			0.68			#	0.0016	-
	mg/kg	0858	08/29/2015	0016	-17 - -17			0.62			#	0.0016	-
	mg/kg	0858	08/29/2015	0017	-18 - -18			5.0			#	0.0019	-
	mg/kg	0858	08/29/2015	0018	-13 - -13			9.4		J	#	0.0016	-
	mg/kg	0859	09/01/2015	0001	-0.5 - -.5			0.54			#	0.0015	-
	mg/kg	0859	09/01/2015	0002	-1.5 - -1.5			0.76			#	0.0016	-
	mg/kg	0859	09/01/2015	0003	-2.5 - -2.5			1.5			#	0.0015	-
	mg/kg	0859	09/01/2015	0004	-3.5 - -3.5			1.4			#	0.0015	-
	mg/kg	0859	09/01/2015	0005	-4.5 - -4.5			1.9			#	0.0017	-
	mg/kg	0859	09/01/2015	0006	-5.5 - -5.5			3.6		J	#	0.0015	-
	mg/kg	0859	09/01/2015	0007	-7 - -7			0.64			#	0.0016	-
	mg/kg	0859	09/01/2015	0008	-8 - -8			3.4			#	0.0016	-
	mg/kg	0859	09/01/2015	0009	-8.5 - -8.5			5.5			#	0.002	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/kg	0859	09/01/2015	0010	-9 - -9			3.6			#	0.0016	-
	mg/kg	0859	09/01/2015	0011	-10.5 - -10.5			2.7			#	0.0015	-
	mg/kg	0859	09/01/2015	0012	-11.5 - -11.5			2.0			#	0.0017	-
	mg/kg	0859	09/01/2015	0013	-12.5 - -12.5			2.6			#	0.0017	-
	mg/kg	0859	09/01/2015	0018	-5.5 - -5.5			0.46		J	#	0.0015	-
	mg/kg	0860	08/31/2015	0001	-0.5 - -.5			0.80			#	0.0014	-
	mg/kg	0860	08/31/2015	0002	-1.5 - -1.5			1.6			#	0.0015	-
	mg/kg	0860	08/31/2015	0003	-2.5 - -2.5			1.6			#	0.0015	-
	mg/kg	0860	08/31/2015	0004	-3.5 - -3.5			1.9			#	0.0015	-
	mg/kg	0860	08/31/2015	0005	-4.5 - -4.5			2.5			#	0.0015	-
	mg/kg	0860	08/31/2015	0006	-5.5 - -5.5			0.83			#	0.0016	-
	mg/kg	0860	08/31/2015	0007	-6.5 - -6.5			1.4			#	0.0014	-
	mg/kg	0860	08/31/2015	0008	-8 - -8			1.1			#	0.0015	-
	mg/kg	0860	08/31/2015	0009	-9 - -9			1.7			#	0.0015	-
	mg/kg	0860	08/31/2015	0010	-10 - -10			1.3			#	0.0017	-
	mg/kg	0860	08/31/2015	0011	-11 - -11			1.0			#	0.0016	-
	mg/kg	0860	08/31/2015	0012	-12 - -12			1.2			#	0.0016	-
	mg/kg	0860	08/31/2015	0013	-13 - -13			1.8			#	0.002	-
	mg/kg	0860	08/31/2015	0014	-14.5 - -14.5			2.3			#	0.0018	-
	mg/kg	0860	08/31/2015	0015	-15.5 - -15.5			2.7			#	0.0015	-
	mg/kg	0860	08/31/2015	0016	-16.5 - -16.5			2.7			#	0.0016	-
	mg/kg	0860	08/31/2015	0017	-17.5 - -17.5			3.0			#	0.0017	-
	mg/kg	0860	08/31/2015	0018	-10 - -10			1.2			#	0.0018	-
	mg/kg	0860	08/31/2015	0018	-1.5 - -1.5			1.2			#	0.0017	-
	mg/kg	0877	08/30/2015	0001	-0.5 - -.5			4.2			#	0.0017	-
	mg/kg	0877	08/30/2015	0002	-1.5 - -1.5			4.4			#	0.0015	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/kg	0877	08/30/2015	0003	-2.5 - -2.5			10			#	0.0016	-
	mg/kg	0877	08/30/2015	0004	-3.5 - -3.5			6.8			#	0.0016	-
	mg/kg	0877	08/30/2015	0005	-4.5 - -4.5			3.9			#	0.0018	-
	mg/kg	0877	08/30/2015	0006	-5.5 - -5.5			9.0		J	#	0.0018	-
	mg/kg	0877	08/30/2015	0007	-6.5 - -6.5			20			#	0.0019	-
	mg/kg	0877	08/30/2015	0008	-7.5 - -7.5			6.5			#	0.0017	-
	mg/kg	0877	08/30/2015	0009	-8.5 - -8.5			6.7			#	0.0017	-
	mg/kg	0877	08/30/2015	0010	-9.5 - -9.5			1.2			#	0.0017	-
	mg/kg	0877	08/30/2015	0011	-10.5 - -10.5			0.80			#	0.0017	-
	mg/kg	0877	08/30/2015	0012	-11.5 - -11.5			0.88			#	0.0015	-
	mg/kg	0877	08/30/2015	0013	-12.5 - -12.5			0.77			#	0.0016	-
	mg/kg	0877	08/30/2015	0014	-13.5 - -13.5			0.91			#	0.0015	-
	mg/kg	0877	08/30/2015	0015	-14.5 - -14.5			0.84			#	0.0017	-
	mg/kg	0877	08/30/2015	0016	-15 - -15			2.1			#	0.0016	-
	mg/kg	0877	08/30/2015	0018	-5.5 - -5.5			0.54		J	#	0.0017	-
	mg/kg	BHT-01	05/05/2015	0001	-0.3 - -.3			3.4	B		#	0.0018	-
	mg/kg	BHT-01	05/05/2015	0002	-0.75 - -.75			3.7	B		#	0.0017	-
	mg/kg	BHT-01	05/05/2015	0003	-1.4 - -1.4			4.7	B		#	0.0018	-
	mg/kg	BHT-01	05/05/2015	0004	-2.9 - -2.9			2.5	B		#	0.0017	-
	mg/kg	BHT-01	05/05/2015	0005	-4.3 - -4.3			4.5	B		#	0.0017	-
	mg/kg	BHT-01	05/05/2015	0006	-4.3 - -4.3			5.3	B		#	0.0018	-
	mg/kg	BHT-02	05/05/2015	0001	-0.5 - -.5			2.0	B	J	#	0.0019	-
	mg/kg	BHT-02	05/05/2015	0002	-1.5 - -1.5			2.6	B		#	0.0016	-
	mg/kg	BHT-02	05/05/2015	0003	-3 - -3			4.7	B		#	0.0018	-
	mg/kg	BHT-02	05/05/2015	0004	-4 - -4			0.85	B		#	0.0015	-
	mg/kg	BHT-02	05/05/2015	0005	-4.6 - -4.6			0.52	B		#	0.0015	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/kg	BHT-02	05/05/2015	0006	-0.5 - -.5			1.8	B	J	#	0.0019	-
	mg/kg	BHT-03	05/05/2015	0001	-0.6 - -.6			3.9	B		#	0.0016	-
	mg/kg	BHT-03	05/05/2015	0002	-2.5 - -2.5			4.2	B		#	0.0018	-
	mg/kg	BHT-03	05/05/2015	0003	-3.1 - -3.1			2.1	B		#	0.0016	-
	mg/kg	BHT-03	05/05/2015	0004	-5.6 - -5.6			0.96	B		#	0.0019	-
	mg/kg	BHT-04	05/05/2015	0001	-0.3 - -.3			1.1	B		#	0.0016	-
	mg/kg	BHT-04	05/05/2015	0002	-3 - -3			1.3	B		#	0.0015	-
	mg/kg	BHT-04	05/05/2015	0003	-5.3 - -5.3			1.1	B		#	0.0014	-
	mg/kg	BHT-04	05/05/2015	0004	-5.6 - -5.6			1.9	B		#	0.0016	-
	mg/kg	BHT-05	05/05/2015	0001	-0.5 - -.5			4.2	B		#	0.0017	-
	mg/kg	BHT-05	05/05/2015	0002	-1.5 - -1.5			8.8	B		#	0.0017	-
	mg/kg	BHT-05	05/05/2015	0003	-2.5 - -2.5			4.7	B		#	0.0017	-
	mg/kg	BHT-05	05/05/2015	0004	-3 - -3			1.1	B		#	0.0015	-
	mg/kg	BHT-05	05/05/2015	0005	-4.2 - -4.2			1.6	B		#	0.0014	-

SOIL CHEMISTRY DATA BY PARAMETER (USEE600) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:19 am

PARAMETER	UNIT	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	ELEV. RANGE (FT)	DIGEST. CODE	SAMP DESC.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY

RECORDS: SELECTED FROM USEE600 WHERE site_code='RVT01' AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND DATE_SAMPLED between #5/1/2015# and #10/1/2015#

DIGESTION CODES:

SAMPLE DESCRIPTORS (UNIFIED SOIL CLASSIFICATION SYSTEM):

LAB QUALIFIERS:

*	Replicate analysis not within control limits.
+	Correlation coefficient for MSA < 0.995.
>	Result above upper detection limit.
A	TIC is a suspected aldol-condensation product.
B	Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
C	Pesticide result confirmed by GC-MS.
D	Analyte determined in diluted sample.
E	Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
H	Holding time expired, value suspect.
I	Increased detection limit due to required dilution.
J	Estimated
M	GFAA duplicate injection precision not met.
N	Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compund (TIC).
P	> 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
S	Result determined by method of standard addition (MSA).
U	Analytical result below detection limit.
W	Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
X	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
Y	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
Z	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

F	Low flow sampling method used.	G	Possible grout contamination, pH > 9.	J	Estimated value.
L	Less than 3 bore volumes purged prior to sampling.	N	Presumptive evidence that analyte is present. The analyte is "tentatively identified".	Q	Qualitative result due to sampling technique
R	Unusable result.	U	Parameter analyzed for but was not detected.	X	Location is undefined.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

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Appendix D

Monitoring Well Completion and Borehole Logs

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MONITORING WELL COMPLETION LOG RVT01-0852-1

PROJECT	LM	**WELL NUMBER**	RVT01-0852-1	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845386.42	**SURFACE ELEV. (FT NGVD)**	4935.52
SITE	Riverton	**EAST COORD. (FT)**	591652.32	**TOP OF CASING (FT)**	4938.00
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4930.52
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	5.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.48	to	5.0
WELL SCREEN:	0.375 in. Slotted CMT	5.0	to	5.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	5.0
SCREEN PACK	20-40 Silica Sand	5.0	to	5.5
LOWER SAND PACK	20-40 Silica Sand	5.5	to	7.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/1/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4935		Bentonite Pellets 3/8"		**0-4.5 ft. SILT (ML)** @ 0-1.0 ft. brown (10YR 5/3). @ 1.0 ft. grayish brown (10YR 5/2). @ ~ 1.0-2.0 ft. white flecks (caliche) mottling. @ 2.0 ft. pale brown (10YR 6/3).
			20-40 Silica Sand		
					@ ~ 4.0 ft. brown (10YR 5/3). @ ~4.5 ft. sediments damp.
5	4930	4930.52	ZONE #1 Slotted CMT		**4.5-6.0 ft. SILTY GRAVEL (GM);** ~ 30% gravel clasts (up to 2.0" in diameter), fine to medium grained sand matrix. Gray (10YR 5/1).
			Bentonite Pellets 3/8"		**6.0-15.0 ft. SANDY GRAVEL (GW)**; ~ 30-40% gravel with clasts (up to 3.0" in diameter), sandy matrix mostly medium grained. @ 6.5-7.5 ft. clasts (up to 4.0-5.0" in diameter), with medium grained sand matrix. @ ~ 7.0-8.0 ft. brown (7.5YR 5/2), sediments near saturated.
10	4925		ZONE #2 Slotted CMT		@ ~ 9.5 ft. ~ 50% gravel with clasts (up to 5.0" in diameter), sand matrix, grayish brown (10YR 5/2), saturated.
			ZONE #3 Slotted CMT		@ ~12.0-13.0 ft. coarse sand matrix.
15	4920		ZONE #4 Slotted 1.5 in. PVC		@ ~13.0-15.0 ft. gravel clasts (up to 4.0" in diameter), sand matrix, medium grained, wet.
			20-40 Silica Sand		**15.0-18.0 ft. WIND RIVER FORMATION: SANDSTONE;** weathered fine grained sandstone, soft, friable, light olive gray (5Y 5/2).
					Total Depth 18.0 ft.

LM CMT MONITORING WELLS REV 9-2014 2947 RVT01-0852-877 EDIT.GPJ SHIP.GDT 4/7/16

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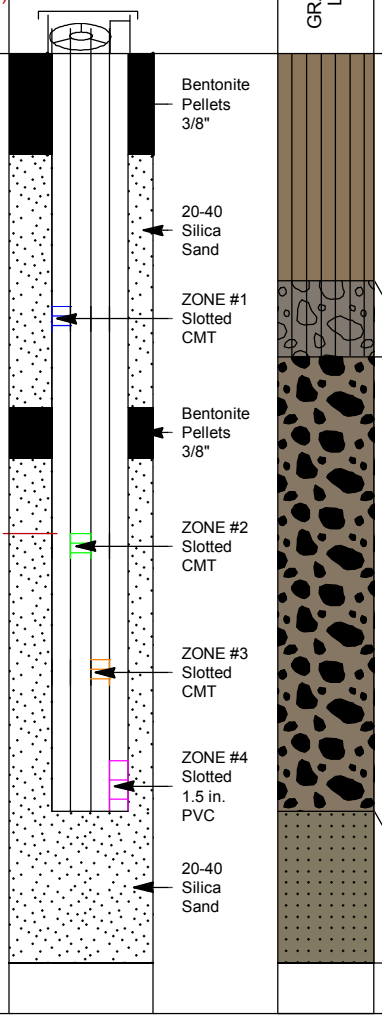
MONITORING WELL COMPLETION LOG RVT01-0852-2

PROJECT	LM	**WELL NUMBER**	RVT01-0852-2	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845386.42	**SURFACE ELEV. (FT NGVD)**	4935.52
SITE	Riverton	**EAST COORD. (FT)**	591652.32	**TOP OF CASING (FT)**	4938.00
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4926.02
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	10.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.48	to	9.5
WELL SCREEN:	0.375 in. Slotted CMT	9.5	to	10.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	7.0	to	8.0
UPPER SAND PACK	20-40 Silica Sand	8.0	to	9.5
SCREEN PACK	20-40 Silica Sand	9.5	to	10.0
LOWER SAND PACK	20-40 Silica Sand	10.0	to	11.5

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	9/1/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL) | ELEV. (FT NGVD) | SCREEN ELEV (FT) | WELL DIAGRAM | GRAPHIC LOG | LITHOLOGIC DESCRIPTION



0-4.5 ft. SILT (ML)
@ 0-1.0 ft. brown (10YR 5/3).
@ 1.0 ft. grayish brown (10YR 5/2).
@ ~ 1.0-2.0 ft. white flecks (caliche) mottling.
@ 2.0 ft. pale brown (10YR 6/3).
@ ~ 4.0 ft. brown (10YR 5/3).
@ ~4.5 ft. sediments damp.

4.5-6.0 ft. SILTY GRAVEL (GM); ~ 30% gravel clasts (up to 2.0" in diameter), fine to medium grained sand matrix. Gray (10YR 5/1).

6.0-15.0 ft. SANDY GRAVEL (GW); ~ 30-40% gravel with clasts (up to 3.0" in diameter), sandy matrix mostly medium grained.
@ 6.5-7.5 ft. clasts (up to 4.0-5.0" in diameter), with medium grained sand matrix.
@ ~ 7.0-8.0 ft. brown (7.5YR 5/2), sediments near saturated.
@ ~ 9.5 ft. ~ 50% gravel with clasts (up to 5.0" in diameter), sand matrix, grayish brown (10YR 5/2), saturated.
@ ~12.0-13.0 ft. coarse sand matrix.
@ ~13.0-15.0 ft. gravel clasts (up to 4.0" in diameter), sand matrix, medium grained, wet.

15.0-18.0 ft. WIND RIVER FORMATION: SANDSTONE; weathered fine grained sandstone, soft, friable, light olive gray (5Y 5/2).

Total Depth 18.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0852-3

PROJECT	LM	**WELL NUMBER**	RVT01-0852-3	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845386.42	**SURFACE ELEV. (FT NGVD)**	4935.52
SITE	Riverton	**EAST COORD. (FT)**	591652.32	**TOP OF CASING (FT)**	4938.00
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4923.52
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	12.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.48	to	12.0
WELL SCREEN:	0.375 in. Slotted CMT	12.0	to	12.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	7.0	to	8.0
UPPER SAND PACK	20-40 Silica Sand	11.5	to	12.0
SCREEN PACK	20-40 Silica Sand	12.0	to	12.5
LOWER SAND PACK	20-40 Silica Sand	12.5	to	13.5

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	9/1/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4935		Bentonite Pellets 3/8"		**0-4.5 ft. SILT (ML)** @ 0-1.0 ft. brown (10YR 5/3). @ 1.0 ft. grayish brown (10YR 5/2). @ ~ 1.0-2.0 ft. white flecks (caliche) mottling. @ 2.0 ft. pale brown (10YR 6/3).
			20-40 Silica Sand		
					@ ~ 4.0 ft. brown (10YR 5/3). @ ~4.5 ft. sediments damp.
5	4930		ZONE #1 Slotted CMT		**4.5-6.0 ft. SILTY GRAVEL (GM);** ~ 30% gravel clasts (up to 2.0" in diameter), fine to medium grained sand matrix. Gray (10YR 5/1).
			Bentonite Pellets 3/8"		**6.0-15.0 ft. SANDY GRAVEL (GW)**; ~ 30-40% gravel with clasts (up to 3.0" in diameter), sandy matrix mostly medium grained. @ 6.5-7.5 ft. clasts (up to 4.0-5.0" in diameter), with medium grained sand matrix. @ ~ 7.0-8.0 ft. brown (7.5YR 5/2), sediments near saturated.
10	4925		ZONE #2 Slotted CMT		@ ~ 9.5 ft. ~ 50% gravel with clasts (up to 5.0" in diameter), sand matrix, grayish brown (10YR 5/2), saturated.
		4923.52	ZONE #3 Slotted CMT		@ ~12.0-13.0 ft. coarse sand matrix.
15	4920		ZONE #4 Slotted 1.5 in. PVC		@ ~13.0-15.0 ft. gravel clasts (up to 4.0" in diameter), sand matrix, medium grained, wet.
			20-40 Silica Sand		**15.0-18.0 ft. WIND RIVER FORMATION: SANDSTONE;** weathered fine grained sandstone, soft, friable, light olive gray (5Y 5/2).
					Total Depth 18.0 ft.

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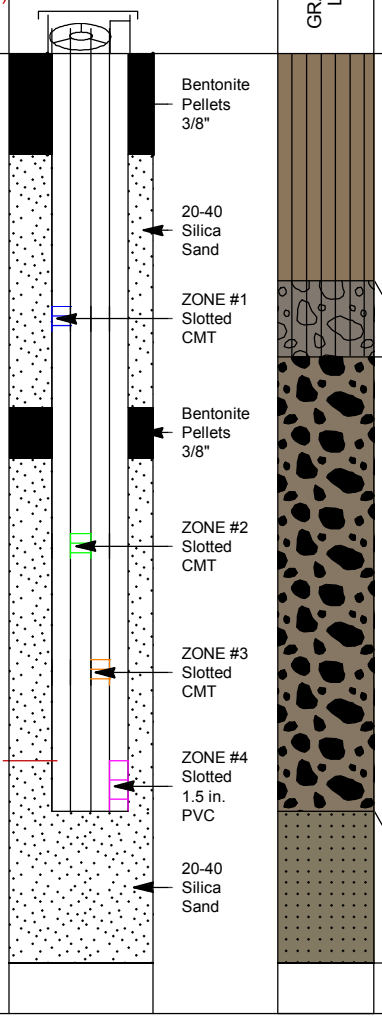
MONITORING WELL COMPLETION LOG RVT01-0852-4

PROJECT	LM	**WELL NUMBER**	RVT01-0852-4	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845386.42	**SURFACE ELEV. (FT NGVD)**	4935.52
SITE	Riverton	**EAST COORD. (FT)**	591652.32	**TOP OF CASING (FT)**	4938.30
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4921.52
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	15.00	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.78	to	14.0
WELL SCREEN:	1.5 in. Slotted PVC	14.0	to	15.0
SUMP/END CAP:	1.5 in. PVC Sch 40	15.0	to	15.1
BENTONITE SEAL:	Bentonite Pellets	7.0	to	8.0
UPPER SAND PACK	20-40 Silica Sand	13.5	to	14.0
SCREEN PACK	20-40 Silica Sand	14.0	to	15.0
LOWER SAND PACK	20-40 Silica Sand	15.0	to	18.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/1/2015
REMARKS

DEPTH (FT BGL) | ELEV. (FT NGVD) | SCREEN ELEV (FT) | WELL DIAGRAM | GRAPHIC LOG | LITHOLOGIC DESCRIPTION



0-4.5 ft. SILT (ML)
@ 0-1.0 ft. brown (10YR 5/3).
@ 1.0 ft. grayish brown (10YR 5/2).
@ ~ 1.0-2.0 ft. white flecks (caliche) mottling.
@ 2.0 ft. pale brown (10YR 6/3).
@ ~ 4.0 ft. brown (10YR 5/3).
@ ~4.5 ft. sediments damp.

4.5-6.0 ft. SILTY GRAVEL (GM); ~ 30% gravel clasts (up to 2.0" in diameter), fine to medium grained sand matrix. Gray (10YR 5/1).

6.0-15.0 ft. SANDY GRAVEL (GW); ~ 30-40% gravel with clasts (up to 3.0" in diameter), sandy matrix mostly medium grained.
@ 6.5-7.5 ft. clasts (up to 4.0-5.0" in diameter), with medium grained sand matrix.
@ ~ 7.0-8.0 ft. brown (7.5YR 5/2), sediments near saturated.
@ ~ 9.5 ft. ~ 50% gravel with clasts (up to 5.0" in diameter), sand matrix, grayish brown (10YR 5/2), saturated.
@ ~12.0-13.0 ft. coarse sand matrix.
@ ~13.0-15.0 ft. gravel clasts (up to 4.0" in diameter), sand matrix, medium grained, wet.

15.0-18.0 ft. WIND RIVER FORMATION: SANDSTONE; weathered fine grained sandstone, soft, friable, light olive gray (5Y 5/2).

Total Depth 18.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0853-1

PROJECT	LM	**WELL NUMBER**	RVT01-0853-1	**DATE DRILLED**	8/27/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845685.82	**SURFACE ELEV. (FT NGVD)**	4933.56
SITE	Riverton	**EAST COORD. (FT)**	592527.94	**TOP OF CASING (FT)**	4935.81
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	17.50	**TOP OF SCREEN (FT)**	4930.06
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	4.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.25	to	3.5
WELL SCREEN:	0.375 in. Slotted CMT	3.5	to	4.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	3.5
SCREEN PACK	20-40 Silica Sand	3.5	to	4.0
LOWER SAND PACK	20-40 Silica Sand	4.0	to	5.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-3.5 ft. SILT (ML);** ~90% silt, ~10% very fine grained sand, A horizon (0 -6.0"), trace roots down to ~1.5 ft., trace white caliche specks down to ~ 2.5 ft., light yellowish brown (10YR 6/4), dry.
			20-40 Silica Sand		
	4930	4930.06	ZONE #1 Slotted CMT		@ ~3.0 ft. brown (10YR 5/3).
					3.5 -4.5 ft. SANDY GRAVEL (GW); ~40% gravel, ~ 60 % matrix mostly fine grained.
					4.5-5.0 FT. GRAVELLY SAND (SP); ~10-25% gravel, ~ 75-90% fine to medium grained sand, light brownish gray (10YR 6/2).
5			Bentonite Pellets 3/8"		**5.0 -6.0 ft. SANDY GRAVEL (GW);** ~60 % gravel (up to 4.0" in diameter).
					6.0-7.0 ft. SAND (SP); mostly fine grained, coarsening downward
			ZONE #2 Slotted CMT		**7.0 -12.0 FT. SANDY GRAVEL (GW);** ~50% gravel (up to 4.0" in diameter), matrix sand mostly fine to medium grained, grayish brown (10YR 5/2), damp at 7.0 ft. , wet at 7.5 ft.
	4925				@ ~8.5 - 10.0 ft. ~70% gravel (up to 4.0" in diameter).
10			Bentonite Pellets 3/8"		@ ~10.0-12.0 ft. ~40% gravel (up to 2.0" in diameter).
			ZONE #3 Slotted CMT		
					12.0-12.5 ft. GRAVELLY SAND (SP); mostly medium grained sand, ~ 10% gravel, wet.
			Bentonite Pellets 3/8"		**12.5-16.0 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 3.0" in diameter), matrix sand mostly medium grained, gray (2.5Y 5/1).
	4920				
15			ZONE #4 Slotted 1.5 in. PVC		
					16.0-17.5 ft. WIND RIVER FORMATION: SILTY CLAYSTONE; weathered, soft, dry below 17.0 ft., light olive gray (5Y 6/1).
			20-40 Silica Sand		
					Total Depth 17.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0853-2

PROJECT	LM	**WELL NUMBER**	RVT01-0853-2	**DATE DRILLED**	8/27/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845685.82	**SURFACE ELEV. (FT NGVD)**	4933.56
SITE	Riverton	**EAST COORD. (FT)**	592527.94	**TOP OF CASING (FT)**	4935.81
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	17.50	**TOP OF SCREEN (FT)**	4926.06
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	8.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.25	to	7.5
WELL SCREEN:	0.375 in. Slotted CMT	7.5	to	8.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	5.5	to	6.0
UPPER SAND PACK	20-40 Silica Sand	6.0	to	7.5
SCREEN PACK	20-40 Silica Sand	7.5	to	8.0
LOWER SAND PACK	20-40 Silica Sand	8.0	to	9.5

WATER LEVEL DATE

DRILLER Johnson, J

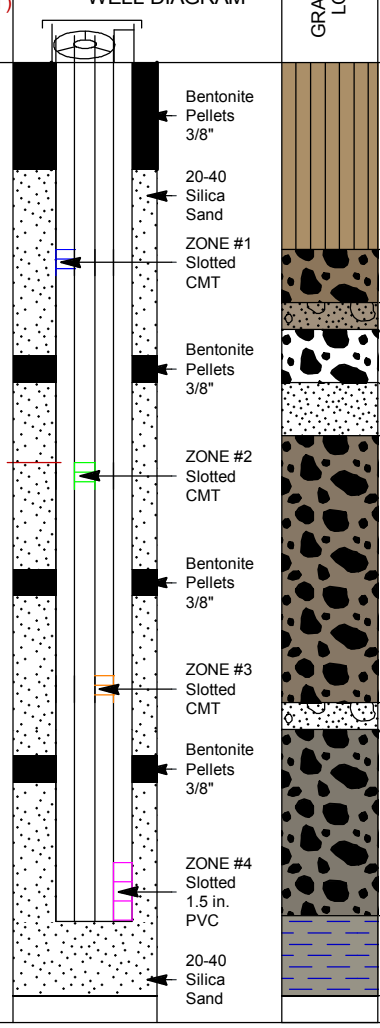
LOGGED BY Goodknight, C., Johnson, R.

SAMPLING METHOD ROTASONIC CORE

DATE DEVELOPED 8/31/2015

REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL) | ELEV. (FT NGVD) | SCREEN ELEV (FT) | WELL DIAGRAM | GRAPHIC LOG | LITHOLOGIC DESCRIPTION



0-3.5 ft. SILT (ML); ~90% silt, ~10% very fine grained sand, A horizon (0 -6.0"), trace roots down to ~1.5 ft., trace white caliche specks down to ~ 2.5 ft., light yellowish brown (10YR 6/4), dry.

@ ~3.0 ft. brown (10YR 5/3).

3.5 -4.5 ft. SANDY GRAVEL (GW); ~40% gravel, ~ 60 % matrix mostly fine grained.

4.5-5.0 FT. GRAVELLY SAND (SP); ~10-25% gravel, ~ 75-90% fine to medium grained sand, light brownish gray (10YR 6/2).

5.0 -6.0 ft. SANDY GRAVEL (GW); ~60 % gravel (up to 4.0" in diameter).

6.0-7.0 ft. SAND (SP); mostly fine grained, coarsening downward

7.0 -12.0 FT. SANDY GRAVEL (GW); ~50% gravel (up to 4.0" in diameter), matrix sand mostly fine to medium grained, grayish brown (10YR 5/2), damp at 7.0 ft. , wet at 7.5 ft.

@ ~8.5 - 10.0 ft. ~70% gravel (up to 4.0" in diameter).

@ ~10.0-12.0 ft. ~40% gravel (up to 2.0" in diameter).

12.0-12.5 ft. GRAVELLY SAND (SP); mostly medium grained sand, ~ 10% gravel, wet.

12.5-16.0 ft. SANDY GRAVEL (GW); ~40% gravel (up to 3.0" in diameter), matrix sand mostly medium grained, gray (2.5Y 5/1).

16.0-17.5 ft. WIND RIVER FORMATION: SILTY CLAYSTONE; weathered, soft, dry below 17.0 ft., light olive gray (5Y 6/1).

Total Depth 17.5 ft.

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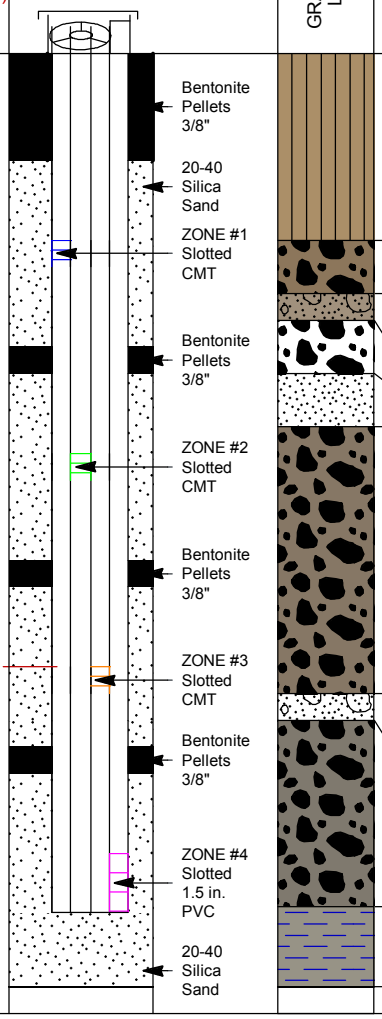
MONITORING WELL COMPLETION LOG RVT01-0853-3

PROJECT	LM	**WELL NUMBER**	RVT01-0853-3	**DATE DRILLED**	8/27/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845685.82	**SURFACE ELEV. (FT NGVD)**	4933.56
SITE	Riverton	**EAST COORD. (FT)**	592527.94	**TOP OF CASING (FT)**	4935.81
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	17.50	**TOP OF SCREEN (FT)**	4922.06
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	12.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.25	to	11.5
WELL SCREEN:	0.375 in. Slotted CMT	11.5	to	12.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	9.5	to	10.0
UPPER SAND PACK	20-40 Silica Sand	10.0	to	11.5
SCREEN PACK	20-40 Silica Sand	11.5	to	12.0
LOWER SAND PACK	20-40 Silica Sand	12.0	to	13.0

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	8/31/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL) | ELEV. (FT NGVD) | SCREEN ELEV (FT) | WELL DIAGRAM | GRAPHIC LOG | LITHOLOGIC DESCRIPTION



0-3.5 ft. SILT (ML); ~90% silt, ~10% very fine grained sand, A horizon (0 -6.0"), trace roots down to ~1.5 ft., trace white caliche specks down to ~ 2.5 ft., light yellowish brown (10YR 6/4), dry.

@ ~3.0 ft. brown (10YR 5/3).

3.5 -4.5 ft. SANDY GRAVEL (GW); ~40% gravel, ~ 60 % matrix mostly fine grained.

4.5-5.0 FT. GRAVELLY SAND (SP); ~10-25% gravel, ~ 75-90% fine to medium grained sand, light brownish gray (10YR 6/2).

5.0 -6.0 ft. SANDY GRAVEL (GW); ~60 % gravel (up to 4.0" in diameter).

6.0-7.0 ft. SAND (SP); mostly fine grained, coarsening downward

7.0 -12.0 FT. SANDY GRAVEL (GW); ~50% gravel (up to 4.0" in diameter), matrix sand mostly fine to medium grained, grayish brown (10YR 5/2), damp at 7.0 ft. , wet at 7.5 ft.

@ ~8.5 - 10.0 ft. ~70% gravel (up to 4.0" in diameter).

@ ~10.0-12.0 ft. ~40% gravel (up to 2.0" in diameter).

12.0-12.5 ft. GRAVELLY SAND (SP); mostly medium grained sand, ~ 10% gravel, wet.

12.5-16.0 ft. SANDY GRAVEL (GW); ~40% gravel (up to 3.0" in diameter), matrix sand mostly medium grained, gray (2.5Y 5/1).

16.0-17.5 ft. WIND RIVER FORMATION: SILTY CLAYSTONE; weathered, soft, dry below 17.0 ft., light olive gray (5Y 6/1).

Total Depth 17.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0853-4

PROJECT	LM	**WELL NUMBER**	RVT01-0853-4	**DATE DRILLED**	8/27/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845685.82	**SURFACE ELEV. (FT NGVD)**	4933.56
SITE	Riverton	**EAST COORD. (FT)**	592527.94	**TOP OF CASING (FT)**	4935.98
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	17.50	**TOP OF SCREEN (FT)**	4918.56
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	16.10	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	1.5 in. PVC Sch 40	-2.42	to	15.0
WELL SCREEN:	1.5 in. Slotted PVC	15.0	to	16.0
SUMP/END CAP:	1.5 in. PVC Sch 40	16.0	to	16.1
BENTONITE SEAL:	Bentonite Pellets	13.0	to	13.5
UPPER SAND PACK	20-40 Silica Sand	13.5	to	15.0
SCREEN PACK	20-40 Silica Sand	15.0	to	16.1
LOWER SAND PACK	20-40 Silica Sand	16.1	to	17.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-3.5 ft. SILT (ML);** ~90% silt, ~10% very fine grained sand, A horizon (0 -6.0"), trace roots down to ~1.5 ft., trace white caliche specks down to ~ 2.5 ft., light yellowish brown (10YR 6/4), dry.
			20-40 Silica Sand		
					@ ~3.0 ft. brown (10YR 5/3).
	4930		ZONE #1 Slotted CMT		**3.5 -4.5 ft. SANDY GRAVEL (GW);** ~40% gravel, ~ 60 % matrix mostly fine grained.
					4.5-5.0 FT. GRAVELLY SAND (SP); ~10-25% gravel, ~ 75-90% fine to medium grained sand, light brownish gray (10YR 6/2).
5			Bentonite Pellets 3/8"		**5.0 -6.0 ft. SANDY GRAVEL (GW);** ~60 % gravel (up to 4.0" in diameter).
					6.0-7.0 ft. SAND (SP); mostly fine grained, coarsening downward
			ZONE #2 Slotted CMT		**7.0 -12.0 FT. SANDY GRAVEL (GW);** ~50% gravel (up to 4.0" in diameter), matrix sand mostly fine to medium grained, grayish brown (10YR 5/2), damp at 7.0 ft. , wet at 7.5 ft.
	4925				@ ~8.5 - 10.0 ft. ~70% gravel (up to 4.0" in diameter).
10			Bentonite Pellets 3/8"		@ ~10.0-12.0 ft. ~40% gravel (up to 2.0" in diameter).
			ZONE #3 Slotted CMT		
					12.0-12.5 ft. GRAVELLY SAND (SP); mostly medium grained sand, ~ 10% gravel, wet.
			Bentonite Pellets 3/8"		**12.5-16.0 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 3.0" in diameter), matrix sand mostly medium grained, gray (2.5Y 5/1).
	4920				
15		4918.56	ZONE #4 Slotted 1.5 in. PVC		
					16.0-17.5 ft. WIND RIVER FORMATION: SILTY CLAYSTONE; weathered, soft, dry below 17.0 ft., light olive gray (5Y 6/1).
			20-40 Silica Sand		
					Total Depth 17.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0854-1

PROJECT	LM	**WELL NUMBER**	RVT01-0854-1	**DATE DRILLED**	8/26/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846505.69	**SURFACE ELEV. (FT NGVD)**	4934.88
SITE	Riverton	**EAST COORD. (FT)**	591768.86	**TOP OF CASING (FT)**	4937.19
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4931.88
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	3.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.31	to	3.0
WELL SCREEN:	0.375 in. Slotted CMT	3.0	to	3.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	3.0
SCREEN PACK	20-40 Silica Sand	3.0	to	3.5
LOWER SAND PACK	20-40 Silica Sand	3.5	to	4.5

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	8/31/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-3.0 ft. SILT (ML);** A horizon (0-1.0 ft.), trace roots (0-2.0 ft.), trace white specks of caliche (0-1.5 ft.), pale brown color (10YR 6/3), 0-2.0 ft. dry. Slightly damp below 2.0' with increasing amounts of very fine grained sand, from 1.5-2.5 ft. gray (7.5YR 5/1).
			20-40 Silica Sand		
		4931.88	ZONE #1 Slotted CMT		**3.0-6.5 ft. SAND (SP);** mostly fine grained, damp.
5	4930		Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		@ 6.0 ft. gray (10YR 5/1). @ ~6.5 ft. wet. 6.5-7.5 ft. No Recovery.
			20-40 Silica Sand		**7.5-12.5 ft. SANDY GRAVEL (GW);** ~50% gravel (up to 2.0" in diameter), sand matrix mostly medium to fine grained, gray (7.5YR 5/1).
			ZONE #3 Slotted CMT		
10	4925		ZONE #4 Slotted 1.5 in. PVC		@ 11.0 ft. cobbles (up to 4.0" in diameter).
					12.0-12.5 ft. WIND RIVER FORMATION: SANDSTONE; weathered fine grained sandstone, soft, friable, light olive gray (5Y 6/1).
					Total Depth 12.5 ft.

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U.S. DEPARTMENT OF ENERGY
GRAND JUNCTION, COLORADO

MONITORING WELL COMPLETION LOG RVT01-0854-2

PROJECT	LM	**WELL NUMBER**	RVT01-0854-2	**DATE DRILLED**	8/26/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846505.69	**SURFACE ELEV. (FT NGVD)**	4934.88
SITE	Riverton	**EAST COORD. (FT)**	591768.86	**TOP OF CASING (FT)**	4937.19
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4928.38
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	7.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.31	to	6.5
WELL SCREEN:	0.375 in. Slotted CMT	6.5	to	7.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	4.5	to	5.5
UPPER SAND PACK	20-40 Silica Sand	5.5	to	6.5
SCREEN PACK	20-40 Silica Sand	6.5	to	7.0
LOWER SAND PACK	20-40 Silica Sand	7.0	to	8.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"; 20-40 Silica Sand; ZONE #1 Slotted CMT		**0-3.0 ft. SILT (ML);** A horizon (0-1.0 ft.), trace roots (0-2.0 ft.), trace white specks of caliche (0-1.5 ft.), pale brown color (10YR 6/3), 0-2.0 ft. dry. Slightly damp below 2.0' with increasing amounts of very fine grained sand, from 1.5-2.5 ft. gray (7.5YR 5/1).
5	4930		Bentonite Pellets 3/8"		**3.0-6.5 ft. SAND (SP);** mostly fine grained, damp.
		4928.38	ZONE #2 Slotted CMT		@ 6.0 ft. gray (10YR 5/1). @ ~6.5 ft. wet. 6.5-7.5 ft. No Recovery.
10	4925		20-40 Silica Sand; ZONE #3 Slotted CMT		**7.5-12.5 ft. SANDY GRAVEL (GW);** ~50% gravel (up to 2.0" in diameter), sand matrix mostly medium to fine grained, gray (7.5YR 5/1).
			ZONE #4 Slotted 1.5 in. PVC		@ 11.0 ft. cobbles (up to 4.0" in diameter).
					12.0-12.5 ft. WIND RIVER FORMATION: SANDSTONE; weathered fine grained sandstone, soft, friable, light olive gray (5Y 6/1).
					Total Depth 12.5 ft.

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GRAND JUNCTION, COLORADO

MONITORING WELL COMPLETION LOG RVT01-0854-3

PROJECT	LM	**WELL NUMBER**	RVT01-0854-3	**DATE DRILLED**	8/26/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846505.69	**SURFACE ELEV. (FT NGVD)**	4934.88
SITE	Riverton	**EAST COORD. (FT)**	591768.86	**TOP OF CASING (FT)**	4937.19
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4925.88
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	9.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.31	to	9.0
WELL SCREEN:	0.375 in. Slotted CMT	9.0	to	9.5
SUMP/END CAP:				
BENTONITE SEAL:				
UPPER SAND PACK	20-40 Silica Sand	8.0	to	9.0
SCREEN PACK	20-40 Silica Sand	9.0	to	9.5
LOWER SAND PACK	20-40 Silica Sand	9.5	to	10.0

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	8/31/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8" 20-40 Silica Sand ZONE #1 Slotted CMT		**0-3.0 ft. SILT (ML);** A horizon (0-1.0 ft.), trace roots (0-2.0 ft.), trace white specks of caliche (0-1.5 ft.), pale brown color (10YR 6/3), 0-2.0 ft. dry. Slightly damp below 2.0' with increasing amounts of very fine grained sand, from 1.5-2.5 ft. gray (7.5YR 5/1).
5	4930		Bentonite Pellets 3/8" ZONE #2 Slotted CMT		**3.0-6.5 ft. SAND (SP);** mostly fine grained, damp. @ 6.0 ft. gray (10YR 5/1). @ ~6.5 ft. wet. 6.5-7.5 ft. No Recovery.
10	4925	4925.88	20-40 Silica Sand ZONE #3 Slotted CMT ZONE #4 Slotted 1.5 in. PVC		**7.5-12.5 ft. SANDY GRAVEL (GW);** ~50% gravel (up to 2.0" in diameter), sand matrix mostly medium to fine grained, gray (7.5YR 5/1). @ 11.0 ft. cobbles (up to 4.0" in diameter). **12.0-12.5 ft. WIND RIVER FORMATION: SANDSTONE;** weathered fine grained sandstone, soft, friable, light olive gray (5Y 6/1).

Total Depth 12.5 ft.

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GRAND JUNCTION, COLORADO

MONITORING WELL COMPLETION LOG RVT01-0854-4

PROJECT	LM	**WELL NUMBER**	RVT01-0854-4	**DATE DRILLED**	8/26/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846505.69	**SURFACE ELEV. (FT NGVD)**	4934.88
SITE	Riverton	**EAST COORD. (FT)**	591768.86	**TOP OF CASING (FT)**	4937.42
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4923.88
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	12.10	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.54	to	11.0
WELL SCREEN:	1.5 in. Slotted PVC	11.0	to	12.0
SUMP/END CAP:	1.5 in. PVC Sch 40	12.0	to	12.1
BENTONITE SEAL:	Bentonite Pellets	4.5	to	5.5
UPPER SAND PACK	20-40 Silica Sand	10.0	to	11.0
SCREEN PACK	20-40 Silica Sand	11.0	to	12.1
LOWER SAND PACK	20-40 Silica Sand	12.1	to	12.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"; 20-40 Silica Sand		**0-3.0 ft. SILT (ML);** A horizon (0-1.0 ft.), trace roots (0-2.0 ft.), trace white specks of caliche (0-1.5 ft.), pale brown color (10YR 6/3), 0-2.0 ft. dry. Slightly damp below 2.0' with increasing amounts of very fine grained sand, from 1.5-2.5 ft. gray (7.5YR 5/1).
			ZONE #1 Slotted CMT		**3.0-6.5 ft. SAND (SP);** mostly fine grained, damp.
5	4930		Bentonite Pellets 3/8"; ZONE #2 Slotted CMT		@ 6.0 ft. gray (10YR 5/1). @ ~6.5 ft. wet.
					6.5-7.5 ft. No Recovery.
			20-40 Silica Sand; ZONE #3 Slotted CMT		**7.5-12.5 ft. SANDY GRAVEL (GW);** ~50% gravel (up to 2.0" in diameter), sand matrix mostly medium to fine grained, gray (7.5YR 5/1).
10	4925	4923.88	ZONE #4 Slotted 1.5 in. PVC		@ 11.0 ft. cobbles (up to 4.0" in diameter).
					12.0-12.5 ft. WIND RIVER FORMATION: SANDSTONE; weathered fine grained sandstone, soft, friable, light olive gray (5Y 6/1).
					Total Depth 12.5 ft.

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GRAND JUNCTION, COLORADO

MONITORING WELL COMPLETION LOG RVT01-0855-1

PROJECT	LM	**WELL NUMBER**	RVT01-0855-1	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846251.03	**SURFACE ELEV. (FT NGVD)**	4928.94
SITE	Riverton	**EAST COORD. (FT)**	593764.14	**TOP OF CASING (FT)**	4931.02
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	19.00	**TOP OF SCREEN (FT)**	4925.94
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	3.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.08	to	3.25
WELL SCREEN:	0.375 in. Slotted CMT	3.0	to	3.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.5
UPPER SAND PACK	20-40 Silica Sand	2.5	to	3.0
SCREEN PACK	20-40 Silica Sand	3.0	to	3.5
LOWER SAND PACK	20-40 Silica Sand	3.5	to	5.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Final well string (CMT and PVC) was set about 0.25 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log. Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.0 ft. SILT (ML);** A horizon with roots (0-6.0"), brown (7.5YR 4/2), mottling with white careous flecks (1.0- 3.0 ft.), trace roots down to 2.5', brown (0.5-4.0 ft.) (7.5YR 5/3), damp at 2.0 ft.
	4925	4925.94	ZONE #1 Slotted CMT		
5			Bentonite Pellets 3/8"		**4.0-7.0 ft. CLAYEY SILT (ML);** ~10% very fine grained sand, 10-20% clay, trace mica flecks, brown (7.5YR 4/3). @ 4.0-5.0 ft. is mottled with rust brown to black. @ 4.5-7.0 ft. dark gray color (7.5YR 4/1), wet at 4.5 ft.
	4920		ZONE #2 Slotted CMT		**7.0-18.0 SANDY GRAVEL (GW);** ~50% gravel with clasts (up to 3.0" in diameter), naturally reduced zone (NRZ) with trace mica flecks, dark gray (10YR 4/1), sand matrix mostly medium grained, gray (7.5YR 5/1), wet.
10			Bentonite Pellets 3/8"		
			20-40 Silica Sand		
	4915		ZONE #3 Slotted CMT		@ ~13.0 to 15.0 ft. gravel coarsens downward, wet.
15			Bentonite Pellets 3/8"		@ ~15 very coarse gravel (up to 4.0-5.0" in diameter), 60% gravel, sand matrix mostly medium grained, grayish brown (10YR 5/2).
	4910		ZONE #4 Slotted 1.5 in. PVC		**18.0- 19.0 ft. WIND RIVER FORMATION: SILTSTONE;** weathered, soft, trace fine pyrite, greenish gray (5GY 6/1).
					Total Depth 19.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0855-2

PROJECT	LM	**WELL NUMBER**	RVT01-0855-2	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846251.03	**SURFACE ELEV. (FT NGVD)**	4928.94
SITE	Riverton	**EAST COORD. (FT)**	593764.14	**TOP OF CASING (FT)**	4931.02
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	19.00	**TOP OF SCREEN (FT)**	4921.19
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	8.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.08	to	7.75
WELL SCREEN:	0.375 in. Slotted CMT	7.75	to	8.25
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	5.0	to	6.0
UPPER SAND PACK	20-40 Silica Sand	6.0	to	7.5
SCREEN PACK	20-40 Silica Sand	7.5	to	8.0
LOWER SAND PACK	20-40 Silica Sand	8.0	to	9.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Final well string (CMT and PVC) was set about 0.25 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log. Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.0 ft. SILT (ML);** A horizon with roots (0-6.0"), brown (7.5YR 4/2), mottling with white careous flecks (1.0- 3.0 ft.), trace roots down to 2.5', brown (0.5-4.0 ft.) (7.5YR 5/3), damp at 2.0 ft.
			ZONE #1 Slotted CMT		
	4925				**4.0-7.0 ft. CLAYEY SILT (ML);** ~10% very fine grained sand, 10-20% clay, trace mica flecks, brown (7.5YR 4/3). @ 4.0-5.0 ft. is mottled with rust brown to black. @ 4.5-7.0 ft. dark gray color (7.5YR 4/1), wet at 4.5 ft.
5			Bentonite Pellets 3/8"		
		4921.19	ZONE #2 Slotted CMT		**7.0-18.0 SANDY GRAVEL (GW);** ~50% gravel with clasts (up to 3.0" in diameter), naturally reduced zone (NRZ) with trace mica flecks, dark gray (10YR 4/1), sand matrix mostly medium grained, gray (7.5YR 5/1), wet.
	4920				
10			Bentonite Pellets 3/8"		
			20-40 Silica Sand		
			ZONE #3 Slotted CMT		@ ~13.0 to 15.0 ft. gravel coarsens downward, wet.
	4915				
15			Bentonite Pellets 3/8"		@ ~15 very coarse gravel (up to 4.0-5.0" in diameter), 60% gravel, sand matrix mostly medium grained, grayish brown (10YR 5/2).
			ZONE #4 Slotted 1.5 in. PVC		
	4910				**18.0- 19.0 ft. WIND RIVER FORMATION: SILTSTONE;** weathered, soft, trace fine pyrite, greenish gray (5GY 6/1).
					Total Depth 19.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0855-3

PROJECT	LM	**WELL NUMBER**	RVT01-0855-3	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846251.03	**SURFACE ELEV. (FT NGVD)**	4928.94
SITE	Riverton	**EAST COORD. (FT)**	593764.14	**TOP OF CASING (FT)**	4931.02
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	19.00	**TOP OF SCREEN (FT)**	4916.19
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	13.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.08	to	12.75
WELL SCREEN:	0.375 in. Slotted CMT	12.75	to	13.25
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	9.5	to	10.0
UPPER SAND PACK	20-40 Silica Sand	10.0	to	12.5
SCREEN PACK	20-40 Silica Sand	12.5	to	13.0
LOWER SAND PACK	20-40 Silica Sand	13.0	to	14.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Final well string (CMT and PVC) was set about 0.25 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log. Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.0 ft. SILT (ML);** A horizon with roots (0-6.0"), brown (7.5YR 4/2), mottling with white careous flecks (1.0- 3.0 ft.), trace roots down to 2.5', brown (0.5-4.0 ft.) (7.5YR 5/3), damp at 2.0 ft.
			ZONE #1 Slotted CMT		
	4925				**4.0-7.0 ft. CLAYEY SILT (ML);** ~10% very fine grained sand, 10-20% clay, trace mica flecks, brown (7.5YR 4/3). @ 4.0-5.0 ft. is mottled with rust brown to black. @ 4.5-7.0 ft. dark gray color (7.5YR 4/1), wet at 4.5 ft.
5			Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		**7.0-18.0 SANDY GRAVEL (GW);** ~50% gravel with clasts (up to 3.0" in diameter), naturally reduced zone (NRZ) with trace mica flecks, dark gray (10YR 4/1), sand matrix mostly medium grained, gray (7.5YR 5/1), wet.
	4920				
10			Bentonite Pellets 3/8"		
			20-40 Silica Sand		
		4916.19	ZONE #3 Slotted CMT		@ ~13.0 to 15.0 ft. gravel coarsens downward, wet.
	4915				
15			Bentonite Pellets 3/8"		@ ~15 very coarse gravel (up to 4.0-5.0" in diameter), 60% gravel, sand matrix mostly medium grained, grayish brown (10YR 5/2).
			ZONE #4 Slotted 1.5 in. PVC		
	4910				**18.0- 19.0 ft. WIND RIVER FORMATION: SILTSTONE;** weathered, soft, trace fine pyrite, greenish gray (5GY 6/1).
					Total Depth 19.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0855-4

PROJECT	LM	**WELL NUMBER**	RVT01-0855-4	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846251.03	**SURFACE ELEV. (FT NGVD)**	4928.94
SITE	Riverton	**EAST COORD. (FT)**	593764.14	**TOP OF CASING (FT)**	4931.48
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	19.00	**TOP OF SCREEN (FT)**	4911.69
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	18.35	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.54	to	17.25
WELL SCREEN:	1.5 in. Slotted PVC	17.25	to	18.25
SUMP/END CAP:	1.5 in. PVC Sch 40	18.25	to	18.35
BENTONITE SEAL:	Bentonite Pellets	14.5	to	15.5
UPPER SAND PACK	20-40 Silica Sand	15.5	to	17.0
SCREEN PACK	20-40 Silica Sand	17.0	to	18.1
LOWER SAND PACK	20-40 Silica Sand	18.1	to	19.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Final well string (CMT and PVC) was set about 0.25 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log.

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.0 ft. SILT (ML);** A horizon with roots (0-6.0"), brown (7.5YR 4/2), mottling with white careous flecks (1.0- 3.0 ft.), trace roots down to 2.5', brown (0.5-4.0 ft.) (7.5YR 5/3), damp at 2.0 ft.
			ZONE #1 Slotted CMT		
	4925				**4.0-7.0 ft. CLAYEY SILT (ML);** ~10% very fine grained sand, 10-20% clay, trace mica flecks, brown (7.5YR 4/3). @ 4.0-5.0 ft. is mottled with rust brown to black. @ 4.5-7.0 ft. dark gray color (7.5YR 4/1), wet at 4.5 ft.
5			Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		**7.0-18.0 SANDY GRAVEL (GW);** ~50% gravel with clasts (up to 3.0" in diameter), naturally reduced zone (NRZ) with trace mica flecks, dark gray (10YR 4/1), sand matrix mostly medium grained, gray (7.5YR 5/1), wet.
	4920				
10			Bentonite Pellets 3/8"		
			20-40 Silica Sand		
			ZONE #3 Slotted CMT		@ ~13.0 to 15.0 ft. gravel coarsens downward, wet.
	4915				
15			Bentonite Pellets 3/8"		@ ~15 very coarse gravel (up to 4.0-5.0" in diameter), 60% gravel, sand matrix mostly medium grained, grayish brown (10YR 5/2).
		4911.69	ZONE #4 Slotted 1.5 in. PVC		
	4910				**18.0- 19.0 ft. WIND RIVER FORMATION: SILTSTONE;** weathered, soft, trace fine pyrite, greenish gray (5GY 6/1).
					Total Depth 19.0 ft.

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LM CMT MONITORING WELLS REV 9-2014 2947 RVT01-0852-877 EDIT.GPJ SHIP.GDT 4/7/16

MONITORING WELL COMPLETION LOG RVT01-0856-1

PROJECT	LM	**WELL NUMBER**	RVT01-0856-1	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846583.19	**SURFACE ELEV. (FT NGVD)**	4931.37
SITE	Riverton	**EAST COORD. (FT)**	593282.00	**TOP OF CASING (FT)**	4933.63
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4928.37
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	3.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.26	to	3.0
WELL SCREEN:	0.375 in. Slotted CMT	3.0	to	3.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	3.0
SCREEN PACK	20-40 Silica Sand	3.0	to	3.5
LOWER SAND PACK	20-40 Silica Sand	3.5	to	4.5

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	8/31/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"; 20-40 Silica Sand		**0-3.0 ft. SILT (ML);** trace roots down to ~3.0', trace mottling with white specks, brown (7.5YR 5/3).
		4928.37	ZONE #1 Slotted CMT		**3.0-5.0 ft. SANDY GRAVEL (GW);** ~30 % gravel (up to 4.0" in diameter), sand matrix mostly fine grained, and grayish brown (10YR 5/2).
5			Bentonite Pellets 3/8"		**5.0-6.0 ft. GRAVELY SAND (SP);** ~10-15% gravel (up to 2.0" in diameter), sand matrix mostly fine grained, grayish brown (10YR 5/2).
	4925		ZONE #2 Slotted CMT; ZONE #3 Slotted CMT		**6-11.5 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 4.0" in diameter), sand matrix mostly medium grained, brown (7.5YR 4/2), wet.
10	4920		ZONE #4 Slotted 1.5 in. PVC; 20-40 Silica Sand		@ 10.5 - 11.0 ft. very coarse gravel (up to ~6.0" in diameter).
					11.5- 12.5 ft. WIND RIVER FORMATION: SILTSTONE; weathered siltstone, soft, light olive gray (5Y 5/2), becomes hard and dry at 12.0 ft.
					Total Depth 12.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0856-2

PROJECT	LM	**WELL NUMBER**	RVT01-0856-2	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846583.19	**SURFACE ELEV. (FT NGVD)**	4931.37
SITE	Riverton	**EAST COORD. (FT)**	593282.00	**TOP OF CASING (FT)**	4933.63
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4924.87
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	7.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.26	to	6.5
WELL SCREEN:	0.375 in. Slotted CMT	6.5	to	7.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	4.5	to	5.5
UPPER SAND PACK	20-40 Silica Sand	5.5	to	6.5
SCREEN PACK	20-40 Silica Sand	6.5	to	7.0
LOWER SAND PACK	20-40 Silica Sand	7.0	to	8.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"; 20-40 Silica Sand; ZONE #1 Slotted CMT		**0-3.0 ft. SILT (ML);** trace roots down to ~3.0', trace mottling with white specks, brown (7.5YR 5/3).
					3.0-5.0 ft. SANDY GRAVEL (GW); ~30 % gravel (up to 4.0" in diameter), sand matrix mostly fine grained, and grayish brown (10YR 5/2).
5			Bentonite Pellets 3/8"		**5.0-6.0 ft. GRAVELY SAND (SP);** ~10-15% gravel (up to 2.0" in diameter), sand matrix mostly fine grained, grayish brown (10YR 5/2).
	4925	4924.87	ZONE #2 Slotted CMT; ZONE #3 Slotted CMT		**6-11.5 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 4.0" in diameter), sand matrix mostly medium grained, brown (7.5YR 4/2), wet.
10			ZONE #4 Slotted 1.5 in. PVC		@ 10.5 - 11.0 ft. very coarse gravel (up to ~6.0" in diameter).
	4920		20-40 Silica Sand		**11.5- 12.5 ft. WIND RIVER FORMATION: SILTSTONE;** weathered siltstone, soft, light olive gray (5Y 5/2), becomes hard and dry at 12.0 ft.
					Total Depth 12.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0856-3

PROJECT	LM	**WELL NUMBER**	RVT01-0856-3	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846583.19	**SURFACE ELEV. (FT NGVD)**	4931.37
SITE	Riverton	**EAST COORD. (FT)**	593282.00	**TOP OF CASING (FT)**	4933.63
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4922.87
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	9.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.26	to	8.5
WELL SCREEN:	0.375 in. Slotted CMT	8.5	to	9.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	4.5	to	5.5
UPPER SAND PACK	20-40 Silica Sand	8.0	to	8.5
SCREEN PACK	20-40 Silica Sand	8.5	to	9.0
LOWER SAND PACK	20-40 Silica Sand	9.0	to	10.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"; 20-40 Silica Sand; ZONE #1 Slotted CMT		**0-3.0 ft. SILT (ML);** trace roots down to ~3.0', trace mottling with white specks, brown (7.5YR 5/3).
					3.0-5.0 ft. SANDY GRAVEL (GW); ~30 % gravel (up to 4.0" in diameter), sand matrix mostly fine grained, and grayish brown (10YR 5/2).
5			Bentonite Pellets 3/8"		**5.0-6.0 ft. GRAVELY SAND (SP);** ~10-15% gravel (up to 2.0" in diameter), sand matrix mostly fine grained, grayish brown (10YR 5/2).
	4925		ZONE #2 Slotted CMT		**6-11.5 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 4.0" in diameter), sand matrix mostly medium grained, brown (7.5YR 4/2), wet.
		4922.87	ZONE #3 Slotted CMT		
10			ZONE #4 Slotted 1.5 in. PVC		@ 10.5 - 11.0 ft. very coarse gravel (up to ~6.0" in diameter).
	4920		20-40 Silica Sand		**11.5- 12.5 ft. WIND RIVER FORMATION: SILTSTONE;** weathered siltstone, soft, light olive gray (5Y 5/2), becomes hard and dry at 12.0 ft.
					Total Depth 12.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0856-4

PROJECT	LM	**WELL NUMBER**	RVT01-0856-4	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846583.19	**SURFACE ELEV. (FT NGVD)**	4931.37
SITE	Riverton	**EAST COORD. (FT)**	593282.00	**TOP OF CASING (FT)**	4933.87
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4920.87
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	11.60	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	1.5 in. PVC Sch 40	-2.5	to	10.5
WELL SCREEN:	1.5 in. Slotted PVC	10.5	to	11.5
SUMP/END CAP:	1.5 in. PVC Sch 40	11.5	to	11.6
BENTONITE SEAL:	Bentonite Pellets	4.5	to	5.5
UPPER SAND PACK	20-40 Silica Sand	10.0	to	10.5
SCREEN PACK	20-40 Silica Sand	10.5	to	11.6
LOWER SAND PACK	20-40 Silica Sand	11.6	to	12.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"; 20-40 Silica Sand		**0-3.0 ft. SILT (ML);** trace roots down to ~3.0', trace mottling with white specks, brown (7.5YR 5/3).
			ZONE #1 Slotted CMT		**3.0-5.0 ft. SANDY GRAVEL (GW);** ~30 % gravel (up to 4.0" in diameter), sand matrix mostly fine grained, and grayish brown (10YR 5/2).
5			Bentonite Pellets 3/8"		**5.0-6.0 ft. GRAVELY SAND (SP);** ~10-15% gravel (up to 2.0" in diameter), sand matrix mostly fine grained, grayish brown (10YR 5/2).
	4925		ZONE #2 Slotted CMT; ZONE #3 Slotted CMT		**6-11.5 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 4.0" in diameter), sand matrix mostly medium grained, brown (7.5YR 4/2), wet.
10		4920.87	ZONE #4 Slotted 1.5 in. PVC		@ 10.5 - 11.0 ft. very coarse gravel (up to ~6.0" in diameter).
	4920		20-40 Silica Sand		**11.5- 12.5 ft. WIND RIVER FORMATION: SILTSTONE;** weathered siltstone, soft, light olive gray (5Y 5/2), becomes hard and dry at 12.0 ft.
					Total Depth 12.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0857-1

PROJECT	LM	**WELL NUMBER**	RVT01-0857-1	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846909.91	**SURFACE ELEV. (FT NGVD)**	4932.94
SITE	Riverton	**EAST COORD. (FT)**	592893.06	**TOP OF CASING (FT)**	4935.51
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	11.50	**TOP OF SCREEN (FT)**	4929.44
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	4.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.57	to	3.5
WELL SCREEN:	0.375 in. Slotted CMT	3.5	to	4.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	3.5
SCREEN PACK	20-40 Silica Sand	3.5	to	4.0
LOWER SAND PACK	20-40 Silica Sand	4.0	to	5.0

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	9/1/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-2.5 ft. SILTY GRAVEL (GM);** ~50% gravel (up to 3.0" in diameter), silt matrix, trace roots down to 2.0', 0-2.0' matrix is light gray (10YR 7/1).
			20-40 Silica Sand		@ 2.0 -2.5 ft. distinct layer is light yellowish brown (10YR 6/4).
	4930	4929.44	ZONE #1 Slotted CMT		**2.5-10.8 SANDY GRAVEL (GW);** ~50% gravel, sand matrix mostly fine grained, brown (10YR 5/3), damp at 5.0 ft.
5			Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		@ 6.0 ft. sand matrix is fine grained, light gray (10YR 7/1), dry.
	4925		ZONE #3 Slotted CMT		@ ~7.5 -10.8 ft. pebbles/ cobbles (up to 3.0" in diameter), sand matrix is dark grayish brown (10YR 4/2), saturated.
10			ZONE #4 Slotted 1.5 in. PVC		
			20-40 Silica Sand		**10.8-11.5 ft. WIND RIVER FORMATION: SANDSTONE;** weathered sandstone, friable to competent, some hard sandstone layers, trace pyrite, light olive gray (5Y 6/1).
					Total Depth 11.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0857-2

PROJECT	LM	**WELL NUMBER**	RVT01-0857-2	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846909.91	**SURFACE ELEV. (FT NGVD)**	4932.94
SITE	Riverton	**EAST COORD. (FT)**	592893.06	**TOP OF CASING (FT)**	4935.51
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	11.50	**TOP OF SCREEN (FT)**	4926.44
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	7.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.57	to	6.5
WELL SCREEN:	0.375 in. Slotted CMT	6.5	to	7.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	5.0	to	5.5
UPPER SAND PACK	20-40 Silica Sand	5.5	to	6.5
SCREEN PACK	20-40 Silica Sand	6.5	to	7.0
LOWER SAND PACK	20-40 Silica Sand	7.0	to	7.5

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	9/1/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-2.5 ft. SILTY GRAVEL (GM);** ~50% gravel (up to 3.0" in diameter), silt matrix, trace roots down to 2.0', 0-2.0' matrix is light gray (10YR 7/1).
			20-40 Silica Sand		@ 2.0 -2.5 ft. distinct layer is light yellowish brown (10YR 6/4).
	4930		ZONE #1 Slotted CMT		**2.5-10.8 SANDY GRAVEL (GW);** ~50% gravel, sand matrix mostly fine grained, brown (10YR 5/3), damp at 5.0 ft.
5			Bentonite Pellets 3/8"		
		4926.44	ZONE #2 Slotted CMT		@ 6.0 ft. sand matrix is fine grained, light gray (10YR 7/1), dry.
	4925		ZONE #3 Slotted CMT		@ ~7.5 -10.8 ft. pebbles/ cobbles (up to 3.0" in diameter), sand matrix is dark grayish brown (10YR 4/2), saturated.
10			ZONE #4 Slotted 1.5 in. PVC		
			20-40 Silica Sand		**10.8-11.5 ft. WIND RIVER FORMATION: SANDSTONE;** weathered sandstone, friable to competent, some hard sandstone layers, trace pyrite, light olive gray (5Y 6/1).

Total Depth 11.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0857-3

PROJECT	LM	**WELL NUMBER**	RVT01-0857-3	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846909.91	**SURFACE ELEV. (FT NGVD)**	4932.94
SITE	Riverton	**EAST COORD. (FT)**	592893.06	**TOP OF CASING (FT)**	4935.51
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	11.50	**TOP OF SCREEN (FT)**	4924.94
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	8.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.57	to	8.0
WELL SCREEN:	0.375 in. Slotted CMT	8.0	to	8.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	5.0	to	5.5
UPPER SAND PACK	20-40 Silica Sand	7.5	to	8.0
SCREEN PACK	20-40 Silica Sand	8.0	to	8.5
LOWER SAND PACK	20-40 Silica Sand	8.5	to	9.0

WATER LEVEL DATE

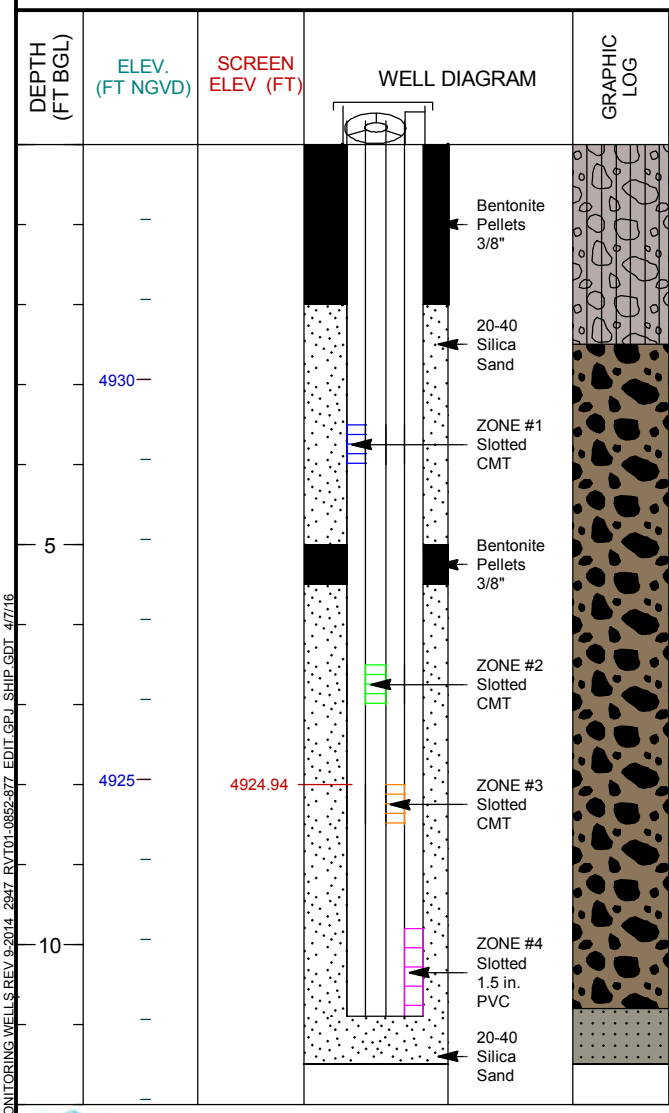
DRILLER Johnson, J

LOGGED BY Goodknight, C., Johnson, R.

SAMPLING METHOD ROTASONIC CORE

DATE DEVELOPED 9/1/2015

REMARKS Sreen wraped with SS 100 mesh



LITHOLOGIC DESCRIPTION

0-2.5 ft. SILTY GRAVEL (GM); ~50% gravel (up to 3.0" in diameter), silt matrix, trace roots down to 2.0', 0-2.0' matrix is light gray (10YR 7/1).

@ 2.0 -2.5 ft. distinct layer is light yellowish brown (10YR 6/4).

2.5-10.8 SANDY GRAVEL (GW); ~50% gravel, sand matrix mostly fine grained, brown (10YR 5/3), damp at 5.0 ft.

@ 6.0 ft. sand matrix is fine grained, light gray (10YR 7/1), dry.

@ ~7.5 -10.8 ft. pebbles/ cobbles (up to 3.0" in diameter), sand matrix is dark grayish brown (10YR 4/2), saturated.

10.8-11.5 ft. WIND RIVER FORMATION: SANDSTONE; weathered sandstone, friable to competent, some hard sandstone layers, trace pyrite, light olive gray (5Y 6/1).

Total Depth 11.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0857-4

PROJECT	LM	**WELL NUMBER**	RVT01-0857-4	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846909.91	**SURFACE ELEV. (FT NGVD)**	4932.94
SITE	Riverton	**EAST COORD. (FT)**	592893.06	**TOP OF CASING (FT)**	4935.76
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	11.50	**TOP OF SCREEN (FT)**	4923.14
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	10.90	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.82	to	9.8
WELL SCREEN:	1.5 in. Slotted PVC	9.8	to	10.8
SUMP/END CAP:	1.5 in. PVC Sch 40	10.8	to	10.9
BENTONITE SEAL:	Bentonite Pellets	5.0	to	5.5
UPPER SAND PACK	20-40 Silica Sand	9.0	to	9.8
SCREEN PACK	20-40 Silica Sand	9.8	to	10.9
LOWER SAND PACK	20-40 Silica Sand	10.9	to	11.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/1/2015
REMARKS

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-2.5 ft. SILTY GRAVEL (GM);** ~50% gravel (up to 3.0" in diameter), silt matrix, trace roots down to 2.0', 0-2.0' matrix is light gray (10YR 7/1).
			20-40 Silica Sand		@ 2.0 -2.5 ft. distinct layer is light yellowish brown (10YR 6/4).
	4930		ZONE #1 Slotted CMT		**2.5-10.8 SANDY GRAVEL (GW);** ~50% gravel, sand matrix mostly fine grained, brown (10YR 5/3), damp at 5.0 ft.
5			Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		@ 6.0 ft. sand matrix is fine grained, light gray (10YR 7/1), dry.
	4925		ZONE #3 Slotted CMT		@ ~7.5 -10.8 ft. pebbles/ cobbles (up to 3.0" in diameter), sand matrix is dark grayish brown (10YR 4/2), saturated.
10		4923.14	ZONE #4 Slotted 1.5 in. PVC		
			20-40 Silica Sand		**10.8-11.5 ft. WIND RIVER FORMATION: SANDSTONE;** weathered sandstone, friable to competent, some hard sandstone layers, trace pyrite, light olive gray (5Y 6/1).

Total Depth 11.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0858-1

PROJECT	LM	**WELL NUMBER**	RVT01-0858-1	**DATE DRILLED**	8/29/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846935.52	**SURFACE ELEV. (FT NGVD)**	4930.20
SITE	Riverton	**EAST COORD. (FT)**	593830.29	**TOP OF CASING (FT)**	4932.14
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4927.2
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	3.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-1.94	to	3.2
WELL SCREEN:	0.375 in. Slotted CMT	3.0	to	3.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	3.0
SCREEN PACK	20-40 Silica Sand	3.0	to	3.5
LOWER SAND PACK	20-40 Silica Sand	3.5	to	5.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Final well string (CMT and PVC) was set about 0.2 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log. Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"		**0-2.5 ft. SILT (ML);** A horizon (0-6.0"), trace roots down to ~ 2.0 ft., grayish brown (10YR 5/2), dry.
		4927.2	ZONE #1 Slotted CMT		**2.5-12.5 ft. SANDY GRAVEL (GM);** ~40% gravel with clasts (up to 4.0" in diameter).
5	4925		Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		@ ~ 7.0 ft. wet.
10	4920		Bentonite Pellets 3/8"		@ ~9.5 sand matrix is medium to fine grained, with clasts (up to 5.0" in diameter), dark grayish brown (10YR 4/2).
			20-40 Silica Sand		
			ZONE #3 Slotted CMT		**12.5-17.7 ft. GRAVELLY SAND (SP);** ~ 75% sand, 15-20% gravel with clasts (up to 3.0" in diameter), sand matrix mostly medium grained, gray (7.5YR 5/1) to grayish brown (10YR 5/2). @ ~ 13.0 ft. ~90% sand, gravel % increasing downward.
15	4915		Bentonite Pellets 3/8"		@ ~ 15.0 ft. cobbles (up to 5.0" in diameter). @ ~15.0-17.7 ft. is gravelly sand to sandy gravel, ~20% gravel with clasts (up to 2.0" in diameter).
			ZONE #4 Slotted 1.5 in. PVC		**17.7-18.0 ft. WIND RIVER FORMATION: SILTY CLAYSTONE;** weathered, soft, medium dark gray (N4) to olive gray (5Y 3/2).
					Total Depth 18.0 ft.

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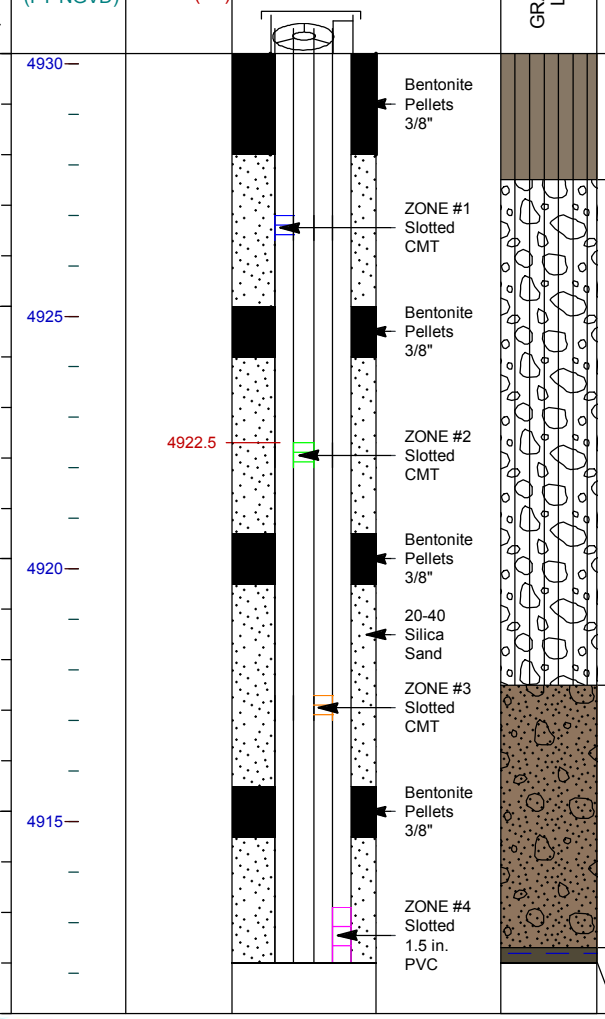
MONITORING WELL COMPLETION LOG RVT01-0858-2

PROJECT	LM	**WELL NUMBER**	RVT01-0858-2	**DATE DRILLED**	8/29/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846935.52	**SURFACE ELEV. (FT NGVD)**	4930.20
SITE	Riverton	**EAST COORD. (FT)**	593830.29	**TOP OF CASING (FT)**	4932.14
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4922.5
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	8.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-1.94	to	7.7
WELL SCREEN:	0.375 in. Slotted CMT	7.7	to	8.2
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	5.0	to	6.0
UPPER SAND PACK	20-40 Silica Sand	6.0	to	7.5
SCREEN PACK	20-40 Silica Sand	7.5	to	8.0
LOWER SAND PACK	20-40 Silica Sand	8.0	to	9.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Final well string (CMT and PVC) was set about 0.2 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log. Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"		**0-2.5 ft. SILT (ML);** A horizon (0-6.0"), trace roots down to ~ 2.0 ft., grayish brown (10YR 5/2), dry.
			ZONE #1 Slotted CMT		**2.5-12.5 ft. SANDY GRAVEL (GM);** ~40% gravel with clasts (up to 4.0" in diameter).
5	4925		Bentonite Pellets 3/8"		
		4922.5	ZONE #2 Slotted CMT		@ ~ 7.0 ft. wet.
10	4920		Bentonite Pellets 3/8"		@ ~9.5 sand matrix is medium to fine grained, with clasts (up to 5.0" in diameter), dark grayish brown (10YR 4/2).
			20-40 Silica Sand		
			ZONE #3 Slotted CMT		**12.5-17.7 ft. GRAVELLY SAND (SP);** ~ 75% sand, 15-20% gravel with clasts (up to 3.0" in diameter), sand matrix mostly medium grained, gray (7.5YR 5/1) to grayish brown (10YR 5/2). @ ~ 13.0 ft. ~90% sand, gravel % increasing downward.
15	4915		Bentonite Pellets 3/8"		@ ~ 15.0 ft. cobbles (up to 5.0" in diameter). @ ~15.0-17.7 ft. is gravelly sand to sandy gravel, ~20% gravel with clasts (up to 2.0" in diameter).
			ZONE #4 Slotted 1.5 in. PVC		**17.7-18.0 ft. WIND RIVER FORMATION: SILTY CLAYSTONE;** weathered, soft, medium dark gray (N4) to olive gray (5Y 3/2).
					Total Depth 18.0 ft.



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MONITORING WELL COMPLETION LOG RVT01-0858-3

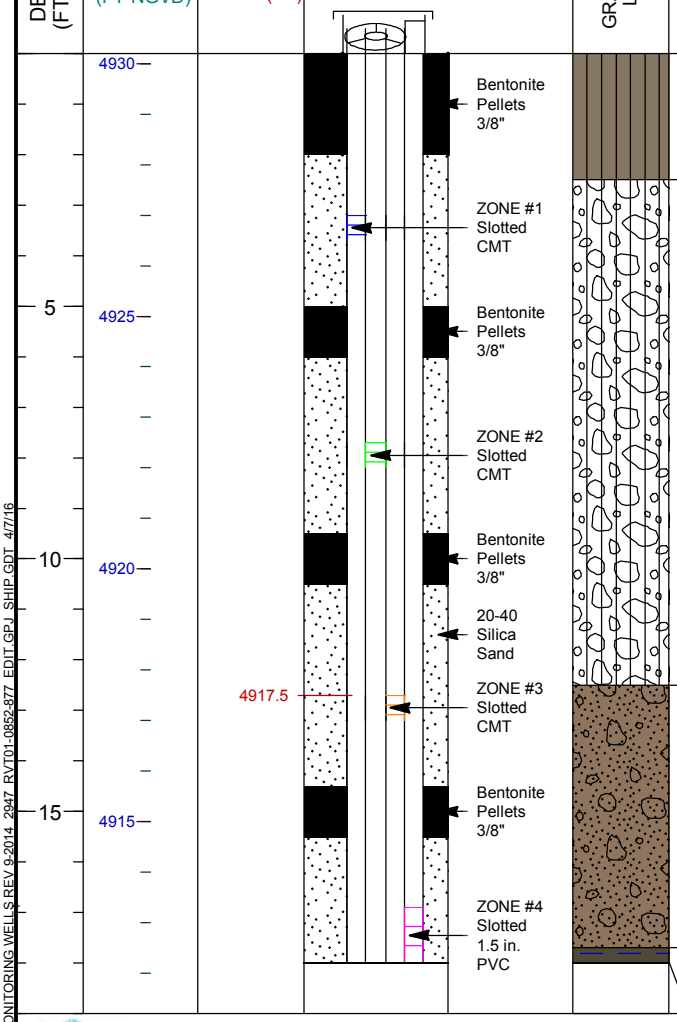
PROJECT	LM	**WELL NUMBER**	RVT01-0858-3	**DATE DRILLED**	8/29/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846935.52	**SURFACE ELEV. (FT NGVD)**	4930.20
SITE	Riverton	**EAST COORD. (FT)**	593830.29	**TOP OF CASING (FT)**	4932.14
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4917.5
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	13.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-1.94	to	12.7
WELL SCREEN:	0.375 in. Slotted CMT	12.7	to	13.2
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	9.5	to	10.5
UPPER SAND PACK	20-40 Silica Sand	10.5	to	12.5
SCREEN PACK	20-40 Silica Sand	12.5	to	13.0
LOWER SAND PACK	20-40 Silica Sand	13.0	to	14.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Final well string (CMT and PVC) was set about 0.2 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log. Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"		**0-2.5 ft. SILT (ML);** A horizon (0-6.0"), trace roots down to ~ 2.0 ft., grayish brown (10YR 5/2), dry.
			ZONE #1 Slotted CMT		**2.5-12.5 ft. SANDY GRAVEL (GM);** ~40% gravel with clasts (up to 4.0" in diameter).
5	4925		Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		@ ~ 7.0 ft. wet.
10	4920		Bentonite Pellets 3/8"		@ ~9.5 sand matrix is medium to fine grained, with clasts (up to 5.0" in diameter), dark grayish brown (10YR 4/2).
			20-40 Silica Sand		
		4917.5	ZONE #3 Slotted CMT		**12.5-17.7 ft. GRAVELLY SAND (SP);** ~ 75% sand, 15-20% gravel with clasts (up to 3.0" in diameter), sand matrix mostly medium grained, gray (7.5YR 5/1) to grayish brown (10YR 5/2). @ ~ 13.0 ft. ~90% sand, gravel % increasing downward.
15	4915		Bentonite Pellets 3/8"		@ ~ 15.0 ft. cobbles (up to 5.0" in diameter). @ ~15.0-17.7 ft. is gravelly sand to sandy gravel, ~20% gravel with clasts (up to 2.0" in diameter).
			ZONE #4 Slotted 1.5 in. PVC		**17.7-18.0 ft. WIND RIVER FORMATION: SILTY CLAYSTONE;** weathered, soft, medium dark gray (N4) to olive gray (5Y 3/2).

Total Depth 18.0 ft.



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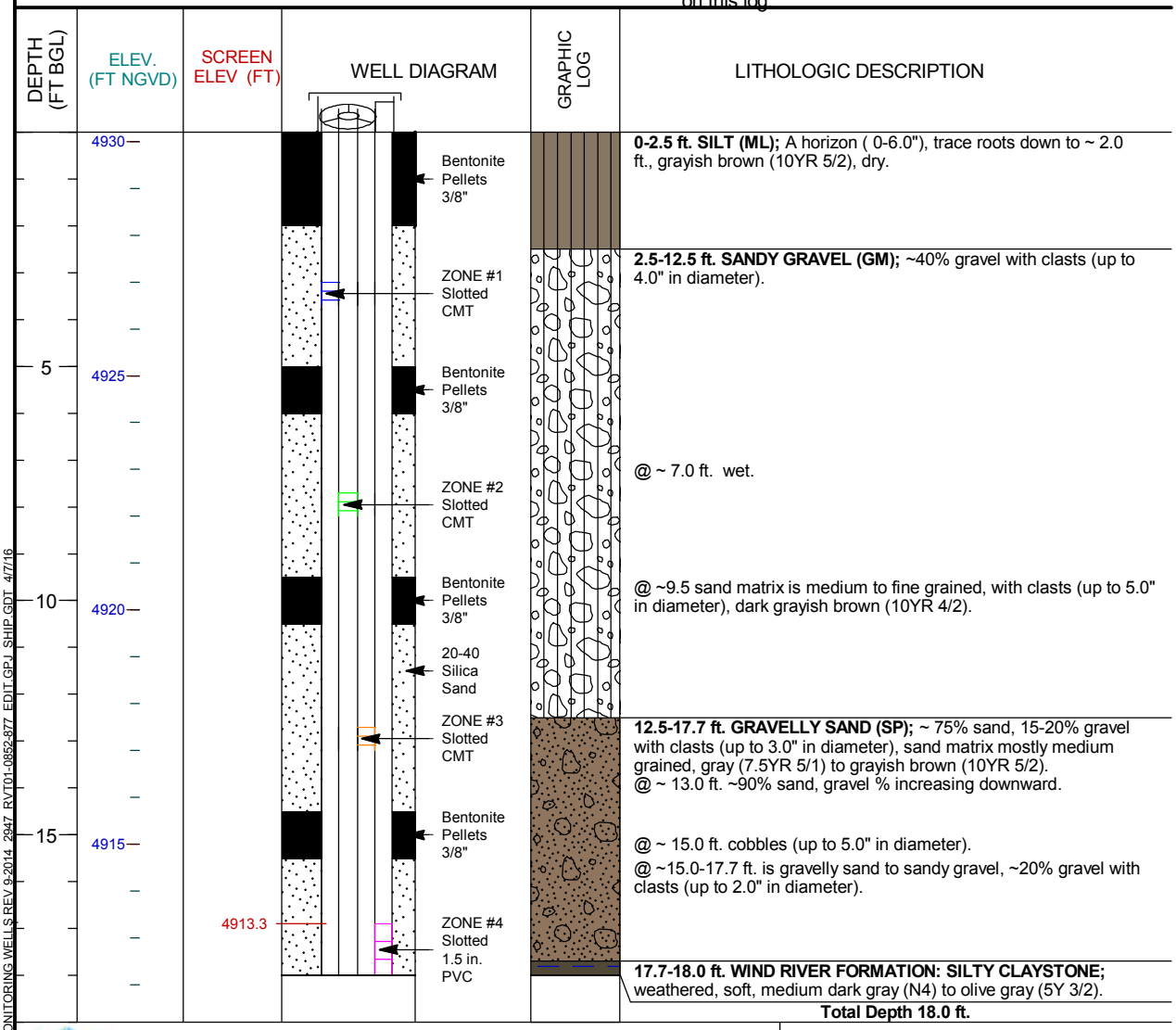
MONITORING WELL COMPLETION LOG RVT01-0858-4

PROJECT	LM	**WELL NUMBER**	RVT01-0858-4	**DATE DRILLED**	8/29/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846935.52	**SURFACE ELEV. (FT NGVD)**	4930.20
SITE	Riverton	**EAST COORD. (FT)**	593830.29	**TOP OF CASING (FT)**	4932.39
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4913.3
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	17.90	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.19	to	16.9
WELL SCREEN:	1.5 in. Slotted PVC	16.9	to	17.9
SUMP/END CAP:	1.5 in. PVC Sch 40	17.9	to	18.0
BENTONITE SEAL:	Bentonite Pellets	14.5	to	15.5
UPPER SAND PACK	20-40 Silica Sand	15.5	to	16.7
SCREEN PACK	20-40 Silica Sand	16.7	to	17.9
LOWER SAND PACK	20-40 Silica Sand	17.9	to	18.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Final well string (CMT and PVC) was set about 0.2 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log.



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MONITORING WELL COMPLETION LOG RVT01-0859-1

PROJECT	LM	**WELL NUMBER**	RVT01-0859-1	**DATE DRILLED**	9/1/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848885.03	**SURFACE ELEV. (FT NGVD)**	4943.67
SITE	Riverton	**EAST COORD. (FT)**	590039.45	**TOP OF CASING (FT)**	4945.98
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4939.17
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	5.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.31	to	4.5
WELL SCREEN:	0.375 in. Slotted CMT	4.5	to	5.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	4.5
SCREEN PACK	20-40 Silica Sand	4.5	to	5.0
LOWER SAND PACK	20-40 Silica Sand	5.0	to	6.0

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	9/2/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.7 ft. Silt (ML);** trace roots down to ~1.5 ft., trace mottling, pale brown (0-1.0 ft.)(10YR 6/3), yellowish brown (1.0-4.7 ft.)(10YR 5/4).
	4940				@ ~4-4.7 ft. clay at ~20%.
		4939.17	ZONE #1 Slotted CMT		@ 4.7 ft. base of fill.
5			20-40 Silica Sand		**4.7-11.0 ft. Sandy Gravel (GW);** ~ 50% gravel with clasts (up to 4.0" in diameter), sand matrix is mostly medium grained , grayish brown (10YR 5/2). @ 5.5 ft. damp.
			ZONE #2 Slotted CMT		@ 7.0 ft. saturated.
	4935		ZONE #3 Slotted CMT		@ ~8.5 ft. Sediments have a petrochemical odor, possibly associated with a more clayey lens in the gravel, wet.
10					@ ~10-10.5 ft. Large cobbles (up to 5.0" in diameter).
			ZONE #4 Slotted 1.5 in. PVC		**11.0-12.5 ft. Wind River Formation: Siltstone;** weathered, soft, mixed gravel and clayey siltstone at 11.0 -11.5', greenish gray (5GY 6/1) to light olive gray (5Y 6/1) , more competent siltstone (11.5 -12.5 ft.), trace disseminated fine pyrite, olive gray (5Y 4/1).
			20-40 Silica Sand		**Total Depth 12.5 ft.**

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MONITORING WELL COMPLETION LOG RVT01-0859-2

PROJECT	LM	**WELL NUMBER**	RVT01-0859-2	**DATE DRILLED**	9/1/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848885.03	**SURFACE ELEV. (FT NGVD)**	4943.67
SITE	Riverton	**EAST COORD. (FT)**	590039.45	**TOP OF CASING (FT)**	4945.98
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4937.17
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	7.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.31	to	6.5
WELL SCREEN:	0.375 in. Slotted CMT	6.5	to	7.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	6.0	to	6.5
SCREEN PACK	20-40 Silica Sand	6.5	to	7.0
LOWER SAND PACK	20-40 Silica Sand	7.0	to	8.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.7 ft. Silt (ML);** trace roots down to ~1.5 ft., trace mottling, pale brown (0-1.0 ft.)(10YR 6/3), yellowish brown (1.0-4.7 ft.)(10YR 5/4).
	4940				@ ~4-4.7 ft. clay at ~20%.
			ZONE #1 Slotted CMT		@ 4.7 ft. base of fill.
5			20-40 Silica Sand		**4.7-11.0 ft. Sandy Gravel (GW);** ~ 50% gravel with clasts (up to 4.0" in diameter), sand matrix is mostly medium grained , grayish brown (10YR 5/2). @ 5.5 ft. damp.
		4937.17	ZONE #2 Slotted CMT		@ 7.0 ft. saturated.
	4935		ZONE #3 Slotted CMT		@ ~8.5 ft. Sediments have a petrochemical odor, possibly associated with a more clayey lens in the gravel, wet.
10					@ ~10-10.5 ft. Large cobbles (up to 5.0" in diameter).
			ZONE #4 Slotted 1.5 in. PVC		**11.0-12.5 ft. Wind River Formation: Siltstone;** weathered, soft, mixed gravel and clayey siltstone at 11.0 -11.5', greenish gray (5GY 6/1) to light olive gray (5Y 6/1) , more competent siltstone (11.5 -12.5 ft.), trace disseminated fine pyrite, olive gray (5Y 4/1).
			20-40 Silica Sand		**Total Depth 12.5 ft.**

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MONITORING WELL COMPLETION LOG RVT01-0859-3

PROJECT	LM	**WELL NUMBER**	RVT01-0859-3	**DATE DRILLED**	9/1/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848885.03	**SURFACE ELEV. (FT NGVD)**	4943.67
SITE	Riverton	**EAST COORD. (FT)**	590039.45	**TOP OF CASING (FT)**	4945.98
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4935.17
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	9.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.31	to	8.5
WELL SCREEN:	0.375 in. Slotted CMT	8.5	to	9.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	8.0	to	8.5
SCREEN PACK	20-40 Silica Sand	8.5	to	9.0
LOWER SAND PACK	20-40 Silica Sand	9.0	to	10.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.7 ft. Silt (ML);** trace roots down to ~1.5 ft., trace mottling, pale brown (0-1.0 ft.)(10YR 6/3), yellowish brown (1.0-4.7 ft.)(10YR 5/4).
	4940				@ ~4-4.7 ft. clay at ~20%.
			ZONE #1 Slotted CMT		@ 4.7 ft. base of fill.
5			20-40 Silica Sand		**4.7-11.0 ft. Sandy Gravel (GW);** ~ 50% gravel with clasts (up to 4.0" in diameter), sand matrix is mostly medium grained , grayish brown (10YR 5/2). @ 5.5 ft. damp.
			ZONE #2 Slotted CMT		@ 7.0 ft. saturated.
	4935	4935.17	ZONE #3 Slotted CMT		@ ~8.5 ft. Sediments have a petrochemical odor, possibly associated with a more clayey lens in the gravel, wet.
10					@ ~10-10.5 ft. Large cobbles (up to 5.0" in diameter).
			ZONE #4 Slotted 1.5 in. PVC		**11.0-12.5 ft. Wind River Formation: Siltstone;** weathered, soft, mixed gravel and clayey siltstone at 11.0 -11.5', greenish gray (5GY 6/1) to light olive gray (5Y 6/1) , more competent siltstone (11.5 -12.5 ft.), trace disseminated fine pyrite, olive gray (5Y 4/1).
			20-40 Silica Sand		**Total Depth 12.5 ft.**

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MONITORING WELL COMPLETION LOG RVT01-0859-4

PROJECT	LM	**WELL NUMBER**	RVT01-0859-4	**DATE DRILLED**	9/1/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848885.03	**SURFACE ELEV. (FT NGVD)**	4943.67
SITE	Riverton	**EAST COORD. (FT)**	590039.45	**TOP OF CASING (FT)**	4946.26
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4933.17
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	11.60	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.59	to	10.5
WELL SCREEN:	1.5 in. Slotted PVC	10.5	to	11.5
SUMP/END CAP:	1.5 in. PVC Sch 40	11.5	to	11.6
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	10.0	to	10.5
SCREEN PACK	20-40 Silica Sand	10.5	to	11.6
LOWER SAND PACK	20-40 Silica Sand	11.6	to	12.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Screened interval at 10.5 - 11.5 ft. straddles the alluvium/ bedrock contact at 11 ft.

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.7 ft. Silt (ML);** trace roots down to ~1.5 ft., trace mottling, pale brown (0-1.0 ft.)(10YR 6/3), yellowish brown (1.0-4.7 ft.)(10YR 5/4).
	4940				@ ~4-4.7 ft. clay at ~20%.
			ZONE #1 Slotted CMT		@ 4.7 ft. base of fill.
5			20-40 Silica Sand		**4.7-11.0 ft. Sandy Gravel (GW);** ~ 50% gravel with clasts (up to 4.0" in diameter), sand matrix is mostly medium grained , grayish brown (10YR 5/2). @ 5.5 ft. damp.
			ZONE #2 Slotted CMT		@ 7.0 ft. saturated.
	4935		ZONE #3 Slotted CMT		@ ~8.5 ft. Sediments have a petrochemical odor, possibly associated with a more clayey lens in the gravel, wet.
10		4933.17	ZONE #4 Slotted 1.5 in. PVC		@ ~10-10.5 ft. Large cobbles (up to 5.0" in diameter).
			20-40 Silica Sand		**11.0-12.5 ft. Wind River Formation: Siltstone;** weathered, soft, mixed gravel and clayey siltstone at 11.0 -11.5', greenish gray (5GY 6/1) to light olive gray (5Y 6/1) , more competent siltstone (11.5 -12.5 ft.), trace disseminated fine pyrite, olive gray (5Y 4/1).
					Total Depth 12.5 ft.

LM CMT MONITORING WELLS REV 9-2014 2947 RVT01-0852-877 EDIT.GPJ SHIP.GDT 4/7/16

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MONITORING WELL COMPLETION LOG RVT01-0860-1

PROJECT	LM	**WELL NUMBER**	RVT01-0860-1	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848283.00	**SURFACE ELEV. (FT NGVD)**	4941.73
SITE	Riverton	**EAST COORD. (FT)**	590879.17	**TOP OF CASING (FT)**	4944.10
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4934.73
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	7.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.37	to	7.0
WELL SCREEN:	0.375 in. Slotted CMT	7.0	to	7.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	7.0
SCREEN PACK	20-40 Silica Sand	7.0	to	7.5
LOWER SAND PACK	20-40 Silica Sand	7.5	to	9.0

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	9/2/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.8 ft. Silt (ML);** dry fill, ~10% very fine grained sand, trace roots down to ~1.5 ft., light brownish gray (10YR 6/2).
	4940				
					@ 2.5 ft. sediments are damp, ~3.0 ft. grayish brown (10YR 5/2).
			20-40 Silica Sand		
5					@ 4.8 ft. base of fill.
					4.8-6.0 ft. Silty Gravel (GM); ~30% gravel with clasts (up to 2.0" in diameter), silt matrix is pale brown (10YR 6/3), dry.
	4935	4934.73	ZONE #1 Slotted CMT		**6.0-10.2 ft. Sandy Gravel (GW);** ~40-50% gravel with clasts (up to 3.0" in diameter), sand matrix is fine to medium grained, grayish brown (10YR 5/2).
					@ ~8.3 ft. damp. @ ~10.0 ft. saturated.
10			ZONE #2 Slotted CMT		**10.2-12.5 ft. Sand (SP);** ~90% sand, mostly medium to fine grained, ~10% pebbles (up to 1.0" in diameter), brown (7.5YR 5/2).
	4930				
			ZONE #3 Slotted CMT		**12.5-17.0 ft. Sandy Gravel (GW);** ~ 50-60% gravel with clasts (up to 4.0" in diameter), sand matrix is fine to medium grained, sand is grayish brown (10YR 5/2).
15					@ ~15.0-17.0 ft. very coarse cobbles near base of alluvium (up to 5.0- 6.0" in diameter), sand matrix is mostly medium grained , gray (10YR 5/1).
	4925		ZONE #4 Slotted 1.5 in. PVC		**17.0-18.0 ft. Wind River Formation: Siltstone;** @ 17.0-17.5 ft. is weathered and greenish gray (5GY 6/1), @ 17.5-18.0' is slightly weathered and medium gray (N5).
					Total Depth 18.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0860-2

PROJECT	LM	**WELL NUMBER**	RVT01-0860-2	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848283.00	**SURFACE ELEV. (FT NGVD)**	4941.73
SITE	Riverton	**EAST COORD. (FT)**	590879.17	**TOP OF CASING (FT)**	4944.10
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4931.73
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	10.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.37	to	10.0
WELL SCREEN:	0.375 in. Slotted CMT	10.0	to	10.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	9.0	to	10.0
SCREEN PACK	20-40 Silica Sand	10.0	to	10.5
LOWER SAND PACK	20-40 Silica Sand	10.5	to	11.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.8 ft. Silt (ML);** dry fill, ~10% very fine grained sand, trace roots down to ~1.5 ft., light brownish gray (10YR 6/2).
	4940				
			20-40 Silica Sand		@ 2.5 ft. sediments are damp, ~3.0 ft. grayish brown (10YR 5/2).
5					@ 4.8 ft. base of fill.
					4.8-6.0 ft. Silty Gravel (GM); ~30% gravel with clasts (up to 2.0" in diameter), silt matrix is pale brown (10YR 6/3), dry.
	4935		ZONE #1 Slotted CMT		**6.0-10.2 ft. Sandy Gravel (GW);** ~40-50% gravel with clasts (up to 3.0" in diameter), sand matrix is fine to medium grained, grayish brown (10YR 5/2).
					@ ~8.3 ft. damp.
10		4931.73	ZONE #2 Slotted CMT		@ ~10.0 ft. saturated.
					10.2-12.5 ft. Sand (SP); ~90% sand, mostly medium to fine grained, ~10% pebbles (up to 1.0" in diameter), brown (7.5YR 5/2).
	4930				
			ZONE #3 Slotted CMT		**12.5-17.0 ft. Sandy Gravel (GW);** ~ 50-60% gravel with clasts (up to 4.0" in diameter), sand matrix is fine to medium grained, sand is grayish brown (10YR 5/2).
15					@ ~15.0-17.0 ft. very coarse cobbles near base of alluvium (up to 5.0- 6.0" in diameter), sand matrix is mostly medium grained , gray (10YR 5/1).
	4925		ZONE #4 Slotted 1.5 in. PVC		**17.0-18.0 ft. Wind River Formation: Siltstone;** @ 17.0-17.5 ft. is weathered and greenish gray (5GY 6/1), @ 17.5-18.0' is slightly weathered and medium gray (N5).
					Total Depth 18.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0860-3

PROJECT	LM	**WELL NUMBER**	RVT01-0860-3	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848283.00	**SURFACE ELEV. (FT NGVD)**	4941.73
SITE	Riverton	**EAST COORD. (FT)**	590879.17	**TOP OF CASING (FT)**	4944.10
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4928.73
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	13.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.37	to	13.0
WELL SCREEN:	0.375 in. Slotted CMT	13.0	to	13.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	11.5	to	13.0
SCREEN PACK	20-40 Silica Sand	13.0	to	13.5
LOWER SAND PACK	20-40 Silica Sand	13.5	to	15.0

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	9/2/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.8 ft. Silt (ML);** dry fill, ~10% very fine grained sand, trace roots down to ~1.5 ft., light brownish gray (10YR 6/2).
	4940				
			20-40 Silica Sand		@ 2.5 ft. sediments are damp, ~3.0 ft. grayish brown (10YR 5/2).
5					@ 4.8 ft. base of fill.
					4.8-6.0 ft. Silty Gravel (GM); ~30% gravel with clasts (up to 2.0" in diameter), silt matrix is pale brown (10YR 6/3), dry.
	4935		ZONE #1 Slotted CMT		**6.0-10.2 ft. Sandy Gravel (GW);** ~40-50% gravel with clasts (up to 3.0" in diameter), sand matrix is fine to medium grained, grayish brown (10YR 5/2).
					@ ~8.3 ft. damp. @ ~10.0 ft. saturated.
10			ZONE #2 Slotted CMT		**10.2-12.5 ft. Sand (SP);** ~90% sand, mostly medium to fine grained, ~10% pebbles (up to 1.0" in diameter), brown (7.5YR 5/2).
	4930				
		4928.73	ZONE #3 Slotted CMT		**12.5-17.0 ft. Sandy Gravel (GW);** ~ 50-60% gravel with clasts (up to 4.0" in diameter), sand matrix is fine to medium grained, sand is grayish brown (10YR 5/2).
15					@ ~15.0-17.0 ft. very coarse cobbles near base of alluvium (up to 5.0- 6.0" in diameter), sand matrix is mostly medium grained , gray (10YR 5/1).
	4925		ZONE #4 Slotted 1.5 in. PVC		**17.0-18.0 ft. Wind River Formation: Siltstone;** @ 17.0-17.5 ft. is weathered and greenish gray (5GY 6/1), @ 17.5-18.0' is slightly weathered and medium gray (N5).
					Total Depth 18.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0860-4

PROJECT	LM	**WELL NUMBER**	RVT01-0860-4	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848283.00	**SURFACE ELEV. (FT NGVD)**	4941.73
SITE	Riverton	**EAST COORD. (FT)**	590879.17	**TOP OF CASING (FT)**	4944.38
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4925.73
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	17.00	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	1.5 in. PVC Sch 40	-2.65	to	16.0
WELL SCREEN:	1.5 in. Slotted PVC	16.0	to	17.0
SUMP/END CAP:	1.5 in. PVC Sch 40	17.0	to	17.1
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	15.0	to	16.0
SCREEN PACK	20-40 Silica Sand	16.0	to	17.0
LOWER SAND PACK	20-40 Silica Sand	17.0	to	18.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.8 ft. Silt (ML);** dry fill, ~10% very fine grained sand, trace roots down to ~1.5 ft., light brownish gray (10YR 6/2).
	4940				
			20-40 Silica Sand		@ 2.5 ft. sediments are damp, ~3.0 ft. grayish brown (10YR 5/2).
5					@ 4.8 ft. base of fill.
					4.8-6.0 ft. Silty Gravel (GM); ~30% gravel with clasts (up to 2.0" in diameter), silt matrix is pale brown (10YR 6/3), dry.
	4935		ZONE #1 Slotted CMT		**6.0-10.2 ft. Sandy Gravel (GW);** ~40-50% gravel with clasts (up to 3.0" in diameter), sand matrix is fine to medium grained, grayish brown (10YR 5/2).
					@ ~8.3 ft. damp.
10			ZONE #2 Slotted CMT		@ ~10.0 ft. saturated.
					10.2-12.5 ft. Sand (SP); ~90% sand, mostly medium to fine grained, ~10% pebbles (up to 1.0" in diameter), brown (7.5YR 5/2).
	4930				
			ZONE #3 Slotted CMT		**12.5-17.0 ft. Sandy Gravel (GW);** ~ 50-60% gravel with clasts (up to 4.0" in diameter), sand matrix is fine to medium grained, sand is grayish brown (10YR 5/2).
15					@ ~15.0-17.0 ft. very coarse cobbles near base of alluvium (up to 5.0- 6.0" in diameter), sand matrix is mostly medium grained , gray (10YR 5/1).
		4925.73	ZONE #4 Slotted 1.5 in. PVC		
	4925				**17.0-18.0 ft. Wind River Formation: Siltstone;** @ 17.0-17.5 ft. is weathered and greenish gray (5GY 6/1), @ 17.5-18.0' is slightly weathered and medium gray (N5).
					Total Depth 18.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0877

PROJECT	LM	**WELL NUMBER**	RVT01-0877	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846309.19	**SURFACE ELEV. (FT NGVD)**	
SITE	Riverton	**EAST COORD. (FT)**	594817.15	**TOP OF CASING (FT)**	
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	15.00	**TOP OF SCREEN (FT)**	
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**		**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

WELL INSTALLATION	**INTERVAL (FT/BGS)**
BLANK CASING:	
WELL SCREEN:	
SUMP/END CAP:	
BENTONITE SEAL:	
UPPER SAND PACK	
SCREEN PACK	
LOWER SAND PACK	

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	
REMARKS	Borehole only no CMT installation

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
					0-4.0 ft. Silt (ML); A horizon is (0-6.0"), grayish brown (0-2.0 ft.)(10YR 5/2), dark gray (2.0-4.0 ft.)(10YR 4/1). @ 1.0-2.5 ft. mottling with white calcareous flecks.
5					**4.0-6.5 ft. Clayey Silt (ML);** ~10% very fine grained sand, ~ 4.0 ft. brown (10YR 5/3), ~4.5 ft. is dark gray (7.5YR 4/1), wet at 4.5 ft.
10					**6.5-14.5 ft. Sandy Gravel (GW);** ~ 50% gravel with clasts (up to 4.0" in diameter), brown (7.5YR 5/2), sand matrix is mostly medium grained, gray (7.5YR 5/1). @ ~10-13ft. 50-60% coarse gravel, as above, coarsening downward to ~13.0 ft., matrix is gray (7.5YR 5/1). @ 13.0-14.0 ft. 50% gravel clasts (up to 3.0" in diameter), sand matrix is medium grained.
15					**14.5-15.0 ft. Wind River Formation- Siltstone;** weathered, soft, greenish gray (5GY6/1) to light olive gray (5Y 6/1). **Total Depth 15.0 ft.**

LM CMT MONITORING WELLS REV 9-2014 2947 RVT01-0852-877 EDIT.GPJ SHIP.GDT 4/7/16

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Appendix E

Static Water Level Data

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STATIC WATER LEVELS (USEE700) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/17/2016 8:06 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT)	MEASUREMENT DATE	MEASUREMENT TIME	DEPTH FROM TOP OF CASING (FT)	WATER ELEVATION (FT)	WATER LEVEL FLAG
0101	O	4950.68	08/27/2015	12:05	10.70	4939.98	
		4950.68	09/17/2015	13:01	10.78	4939.90	
0110	O	4950.19	08/27/2015	12:00	13.50	4936.69	
		4950.19	09/17/2015	10:58	13.71	4936.48	
0111	O	4948.85	08/27/2015	12:05	10.18	4938.67	
		4948.85	09/17/2015	13:02	10.39	4938.46	
0700	U	4951.97	08/27/2015	14:10	7.03	4944.94	
		4951.97	09/17/2015	13:04	6.74	4945.23	
0702	D	4931.92	08/27/2015	16:15	7.13	4924.79	
		4931.92	09/15/2015	09:22	7.08	4924.84	
0705	D	4931.91	08/27/2015	16:15	7.18	4924.73	
		4931.91	09/15/2015	12:30	7.13	4924.78	
0707	D	4931.30	08/27/2015	16:10	6.39	4924.91	
		4931.30	09/15/2015	13:10	6.30	4925.00	
0709	D	4931.64	08/27/2015	16:10	6.98	4924.66	
		4931.64	09/15/2015	08:40	7.22	4924.42	
0710	U	4947.69	08/27/2015	14:05	6.62	4941.07	
		4947.69	09/17/2015	16:50	6.71	4940.98	
0716	O	4940.69	08/27/2015	12:30	9.37	4931.32	
		4940.69	09/17/2015	11:55	9.10	4931.59	
0717	O	4940.30	08/27/2015	12:30	8.95	4931.35	
		4940.30	09/17/2015	11:25	8.61	4931.69	
0718	D	4937.60	08/27/2015	08:30	8.90	4928.70	
		4937.60	09/16/2015	16:10	8.90	4928.70	
0719	D	4937.55	08/27/2015	08:40	7.87	4929.68	
		4937.55	09/16/2015	16:50	8.43	4929.12	
0720	C	4941.15	08/27/2015	10:00	5.37	4935.78	
		4941.15	09/16/2015	14:55	5.28	4935.87	
0721	C	4941.05	08/27/2015	10:10	8.71	4932.34	
		4941.05	09/16/2015	14:20	8.69	4932.36	
0722R		4937.83	08/27/2015	09:35	9.63	4928.20	
		4937.83	09/17/2015	09:10	9.20	4928.63	
0723	D	4936.01	08/27/2015	09:30	8.43	4927.58	

STATIC WATER LEVELS (USEE700) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/17/2016 8:06 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT)	MEASUREMENT DATE	MEASUREMENT TIME	DEPTH FROM TOP OF CASING (FT)	WATER ELEVATION (FT)	WATER LEVEL FLAG
0723	D	4936.01	09/17/2015	08:40	7.90	4928.11	
0724	U	4941.93	08/27/2015	13:30	7.10	4934.83	
		4941.93	09/17/2015	10:57	7.12	4934.81	
0725	U	4942.21	08/27/2015	13:30	7.40	4934.81	
		4942.21	09/17/2015	10:48	7.41	4934.80	
0726	U	4942.20	08/27/2015	13:30	7.73	4934.47	
		4942.20	09/17/2015	10:55	8.20	4934.00	
0727	U	4952.26	08/27/2015	10:50	10.65	4941.61	
		4952.26	09/17/2015	10:25	10.86	4941.40	
0728	U	4946.63	08/27/2015	11:50	8.51	4938.12	
		4946.63	09/15/2015	09:24	8.99	4937.64	
0729	D	4932.75	08/27/2015	08:55	4.72	4928.03	
		4932.75	09/16/2015	13:35	5.48	4927.27	
0730	D	4933.08	08/27/2015	08:50	4.98	4928.10	
		4933.08	09/16/2015	13:00	6.00	4927.08	
0732	U	4946.58	08/27/2015	12:10	8.60	4937.98	
		4946.58	09/17/2015	17:05	8.60	4937.98	
0733	U	4947.46	08/27/2015	14:30	4.86	4942.60	
		4947.46	09/14/2015	16:21	5.20	4942.26	
0734	U	4946.84	08/27/2015	14:30	6.72	4940.12	
		4946.84	09/14/2015	16:20	6.74	4940.10	
0736	U	4946.43	08/27/2015	14:00	7.50	4938.93	
		4946.43	09/17/2015	17:32	7.72	4938.71	
0784	U	4947.00	08/27/2015	12:10	7.30	4939.70	
		4947.00	09/17/2015	16:35	7.25	4939.75	
0788	C	4935.43	08/27/2015	16:30	9.68	4925.75	
		4935.43	09/16/2015	12:30	9.78	4925.65	
0789	D	4933.08	08/27/2015	16:00	9.80	4923.28	
		4933.08	09/15/2015	17:15	9.80	4923.28	
0824		4929.38	08/27/2015	09:05	5.90	4923.48	
		4929.38	09/18/2015	09:45	6.31	4923.07	
0826		4937.36	08/27/2015	16:20	8.58	4928.78	
		4937.36	09/16/2015	15:55	8.66	4928.70	

STATIC WATER LEVELS (USEE700) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/17/2016 8:06 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT)	MEASUREMENT DATE	MEASUREMENT TIME	DEPTH FROM TOP OF CASING (FT)	WATER ELEVATION (FT)	WATER LEVEL FLAG
0852-1		4938.00	09/15/2015	15:40		-	D
0852-2		4938.00	09/15/2015	16:02		-	D
0852-3		4938.00	09/15/2015	16:40	11.06	4926.94	
0852-4		4938.30	09/15/2015	17:15	11.59	4926.71	
0853-2		4935.81	09/16/2015	13:40	10.12	4925.69	
0853-3		4935.81	09/16/2015	14:30	10.14	4925.67	
0853-4		4935.98	09/16/2015	15:10	10.25	4925.73	
0854-2		4937.19	09/16/2015	16:40	8.50	4928.69	
0854-3		4937.19	09/16/2015	17:10	8.52	4928.67	
0854-4		4937.42	09/17/2015	08:30	8.75	4928.67	
0855-1		4931.02	09/15/2015	14:17		-	D
0855-2		4931.02	09/16/2015	09:35	7.44	4923.58	
0855-3		4931.02	09/16/2015	10:15	7.44	4923.58	
0855-4		4931.48	09/16/2015	10:40	7.91	4923.57	
0856-2		4933.63	09/17/2015	09:25		-	B
0856-3		4933.63	09/17/2015	09:55	9.11	4924.52	
0856-4		4933.87	09/17/2015	10:25	9.35	4924.52	
0857-3		4935.51	09/16/2015	10:15	9.44	4926.07	
0857-4		4935.76	09/16/2015	11:10	9.72	4926.04	
0858-1		4932.14	09/15/2015	14:16		-	D
0858-2		4932.14	09/15/2015	09:30	7.98	4924.16	
0858-3		4932.14	09/15/2015	10:35	7.98	4924.16	
0858-4		4932.39	09/15/2015	11:35	8.23	4924.16	
0859-1		4945.98	09/17/2015	14:27		-	D
0859-2		4945.98	09/17/2015	15:15	8.60	4937.38	
0859-3		4945.98	09/17/2015	15:35	8.61	4937.37	
0859-4		4946.26	09/17/2015	16:00	8.94	4937.32	
0860-1		4944.10	09/17/2015	12:13		-	D
0860-2		4944.10	09/17/2015	13:25	11.30	4932.80	
0860-3		4944.10	09/17/2015	13:45	11.30	4932.80	

STATIC WATER LEVELS (USEE700) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/17/2016 8:06 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT)	MEASUREMENT DATE	MEASUREMENT TIME	DEPTH FROM TOP OF CASING (FT)	WATER ELEVATION (FT)	WATER LEVEL FLAG
0860-4		4944.38	09/17/2015	14:15	11.57	4932.81	
0866		4925.87	09/15/2015	09:10	2.75	4923.12	
0867		4927.52	09/15/2015	10:15	4.39	4923.13	
0868		4925.68	09/15/2015	10:50	2.55	4923.13	
0869		4926.79	09/15/2015	11:40	3.63	4923.16	
0870		4926.76	09/15/2015	12:55	3.60	4923.16	
0871		4927.90	09/15/2015	13:25	4.74	4923.16	
0872		4927.35	09/15/2015	14:05	4.15	4923.20	
0873		4927.62	09/15/2015	14:45	4.13	4923.49	
0874		4927.45	09/15/2015	15:55	4.24	4923.21	
0875		4927.48	09/15/2015	16:25	4.30	4923.18	

RECORDS: SELECTED FROM USEE700 WHERE site_code='RVT01' AND LOG_DATE between #8/1/2015# and #9/30/2015#

FLOW CODES: C CROSS GRADIENT D DOWN GRADIENT O ON-SITE
U UPGRADIENT

WATER LEVEL FLAGS:
B Water level is below the top of the pump
D Dry

Appendix F

Groundwater Data

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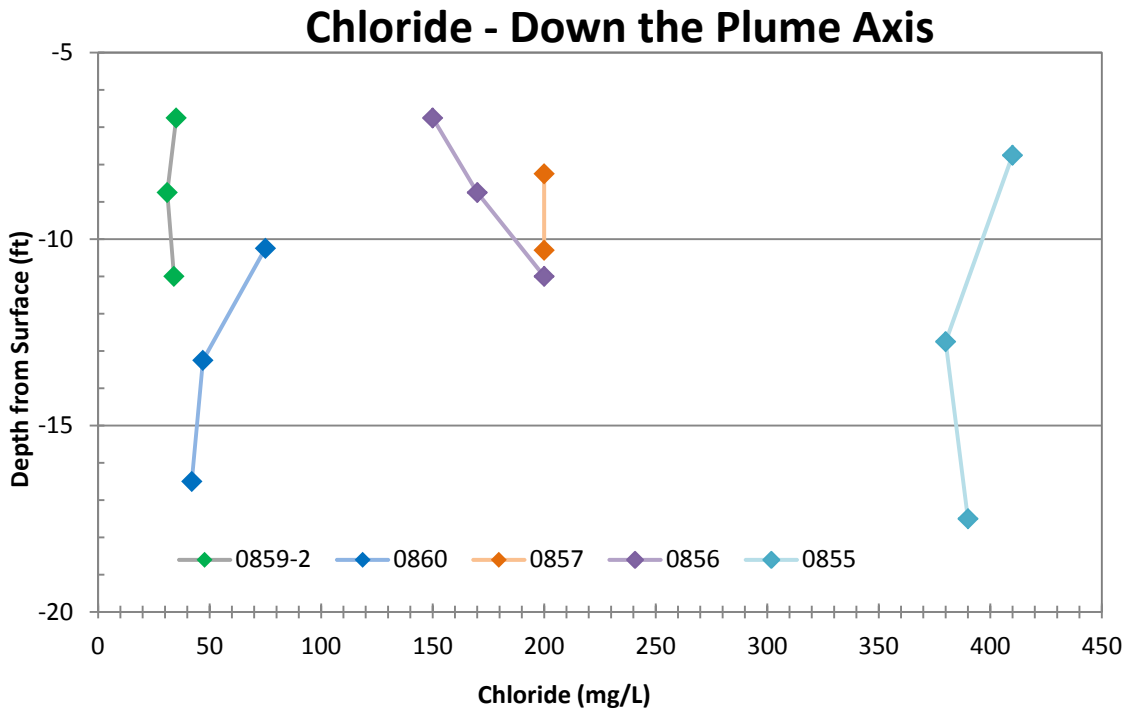
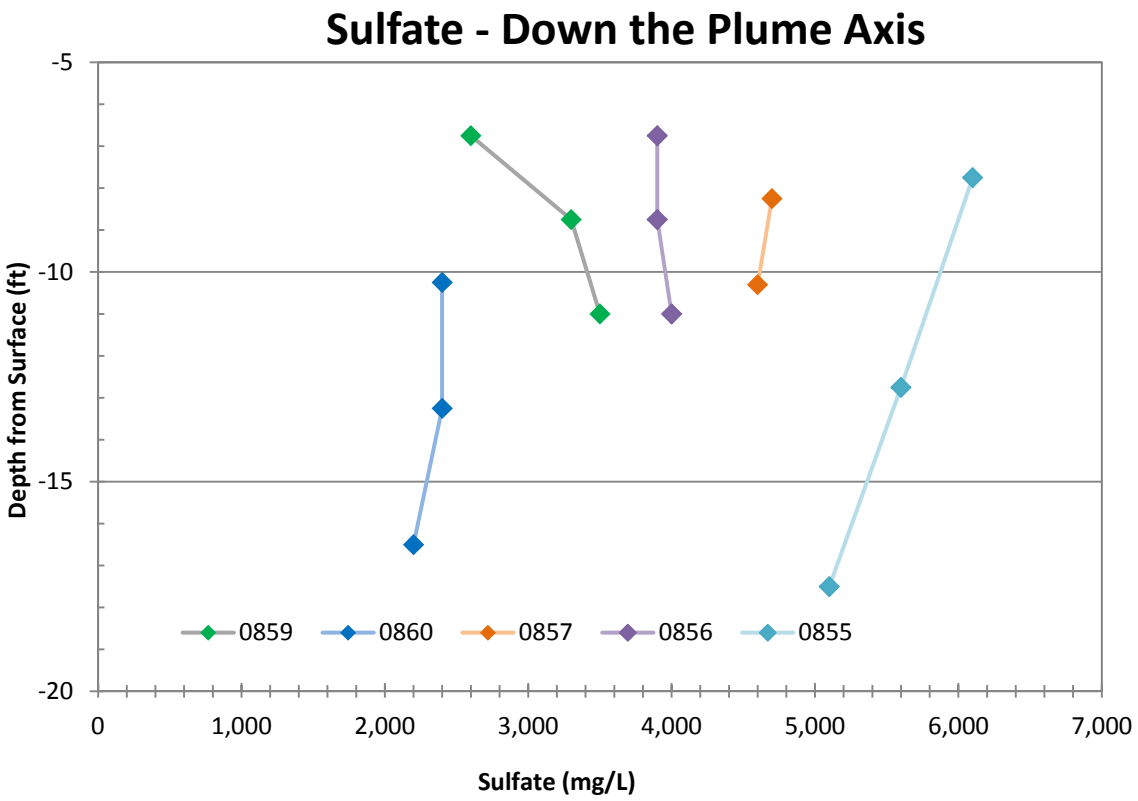
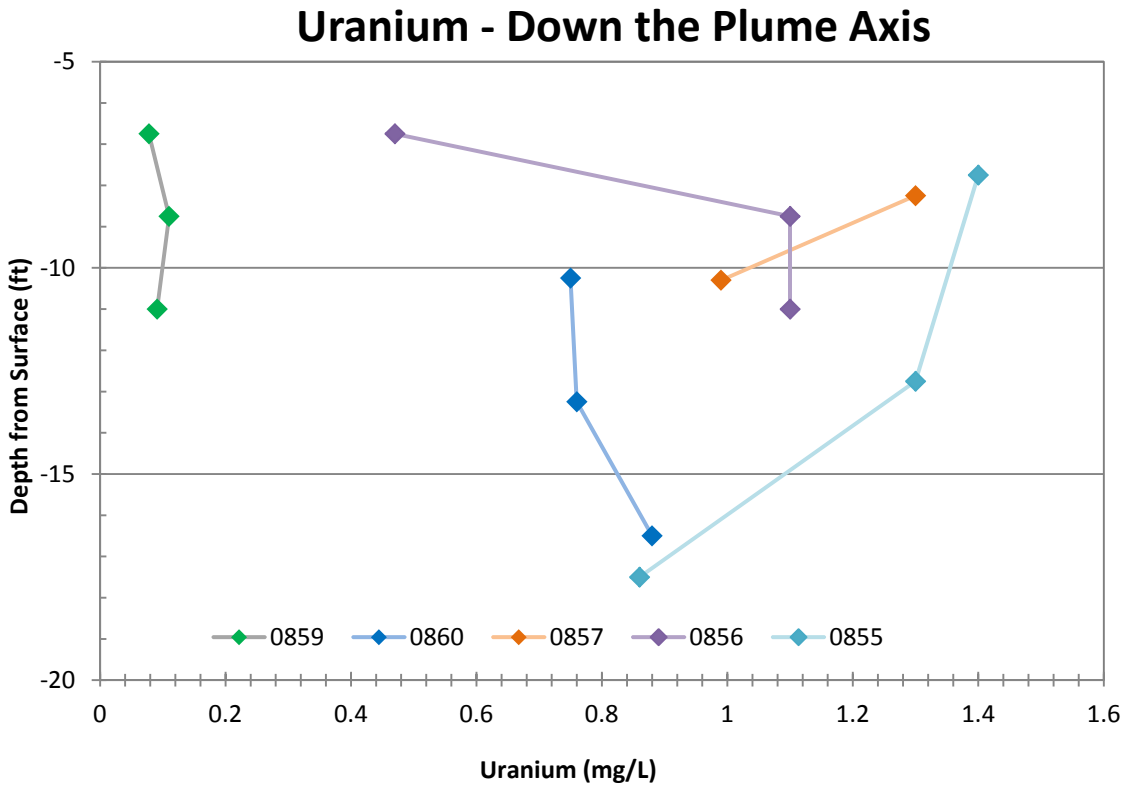
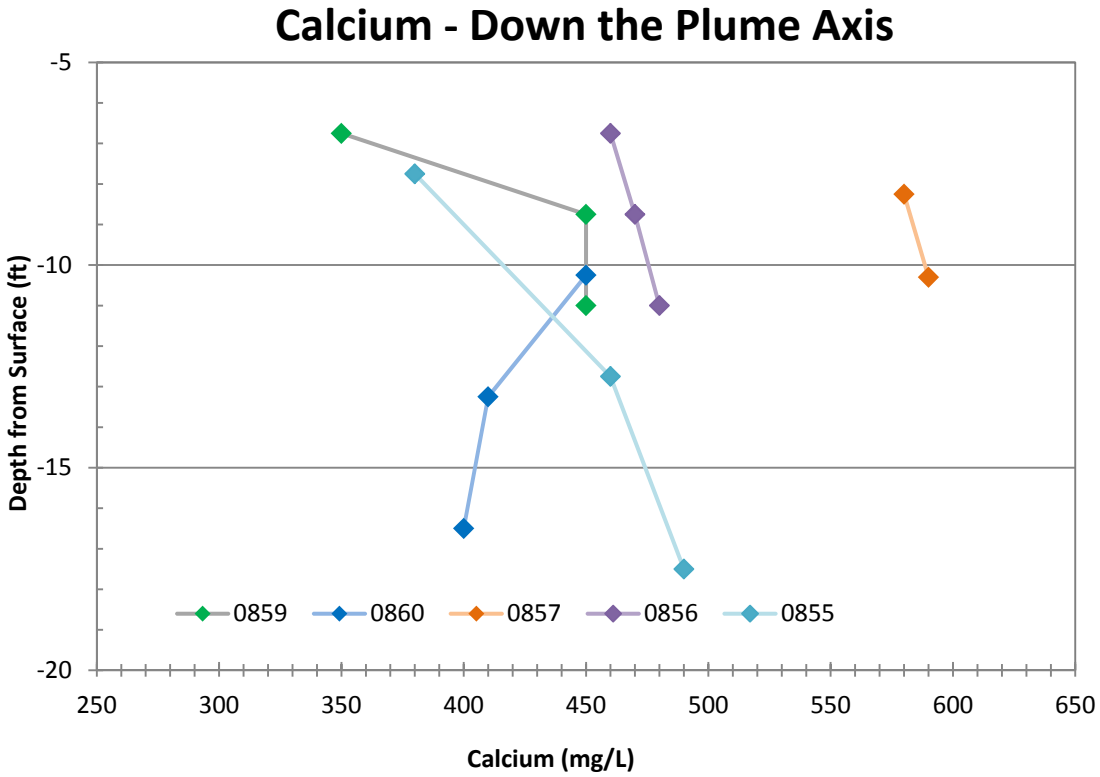
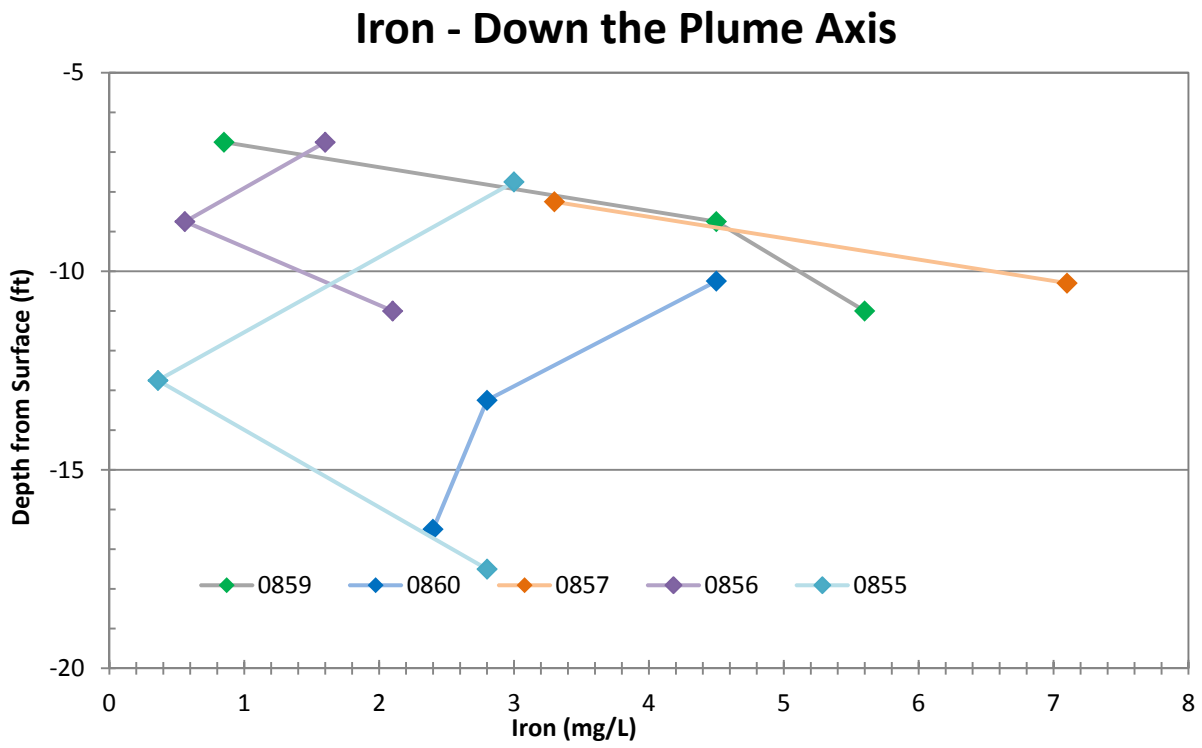
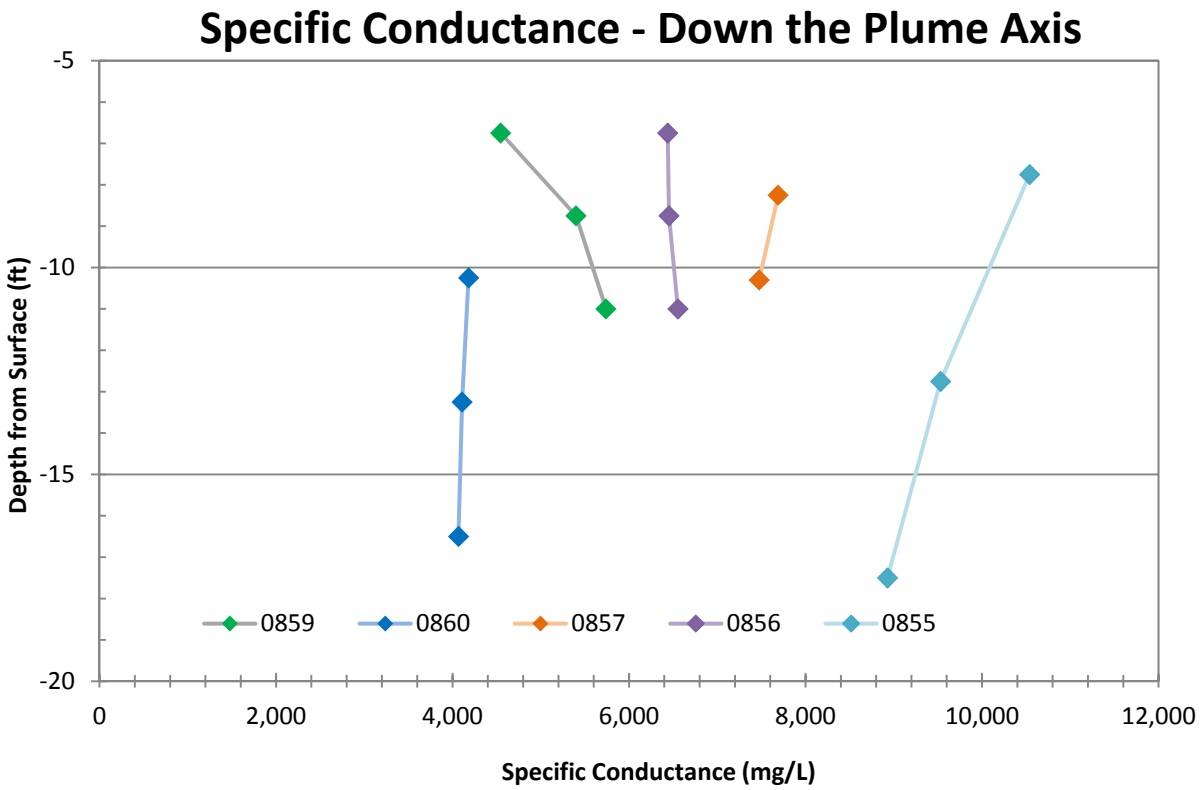

Chloride - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
50
100
150
200
250
300
350
400
450
Chloride (mg/L)
0859-2
0860
0857
0856
0855

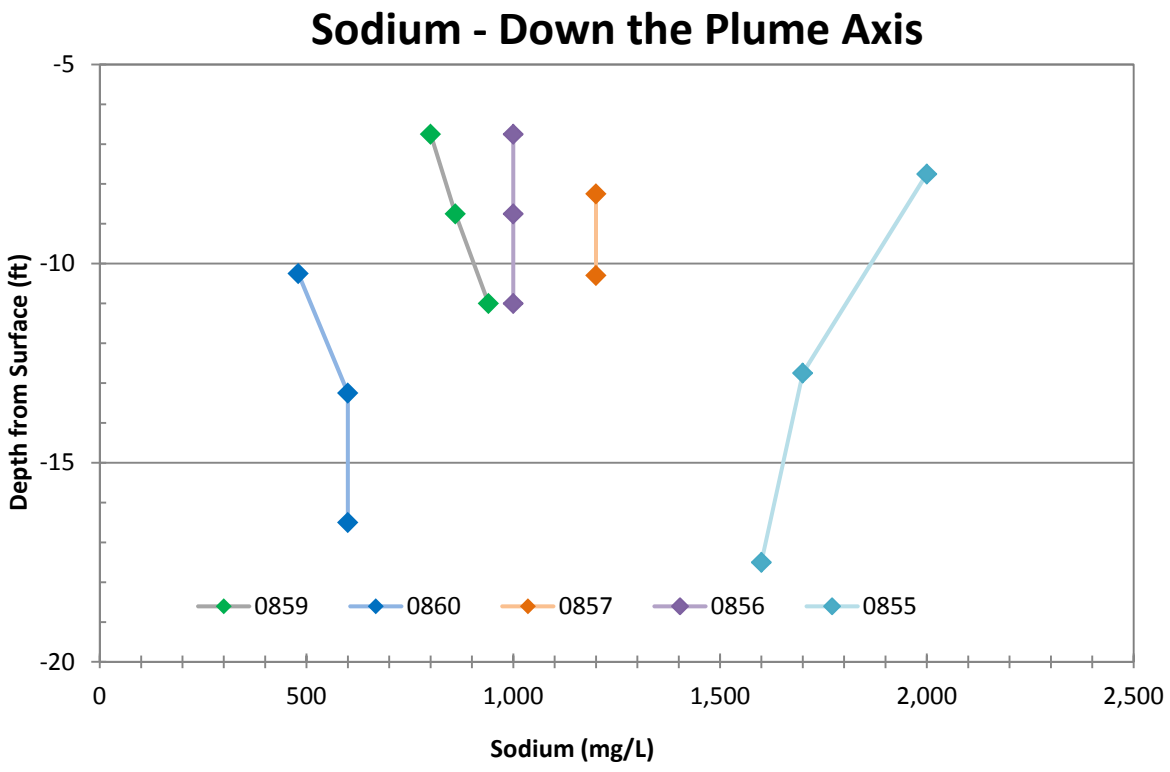

Sulfate - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
Sulfate (mg/L)
0859
0860
0857
0856
0855

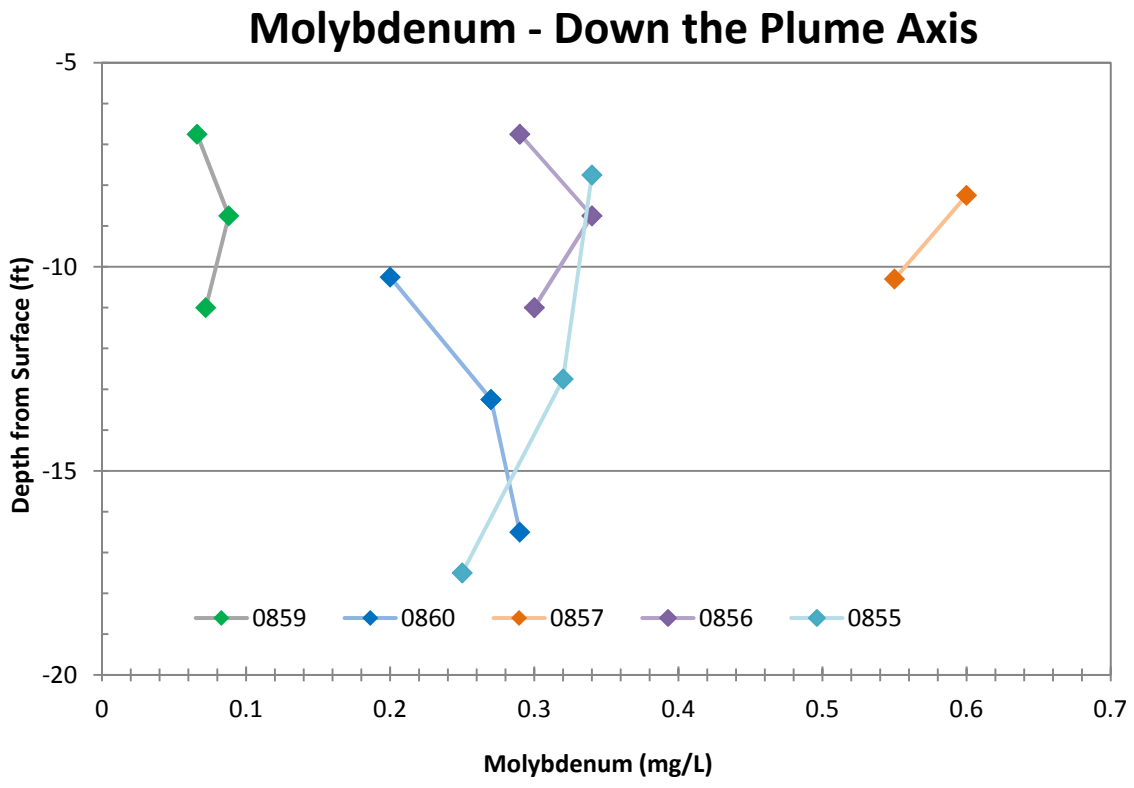

Uranium - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
Uranium (mg/L)
0859
0860
0857
0856
0855

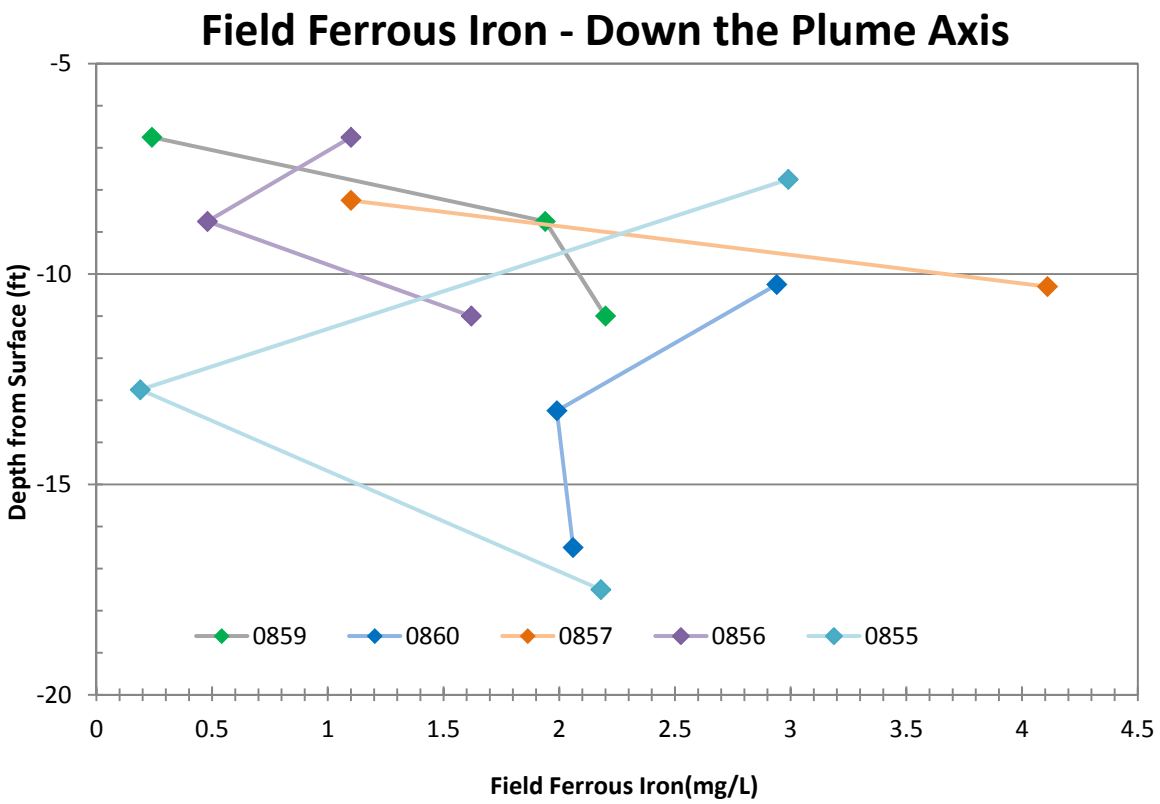

Calcium - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
250
300
350
400
450
500
550
600
650
Calcium (mg/L)
0859
0860
0857
0856
0855

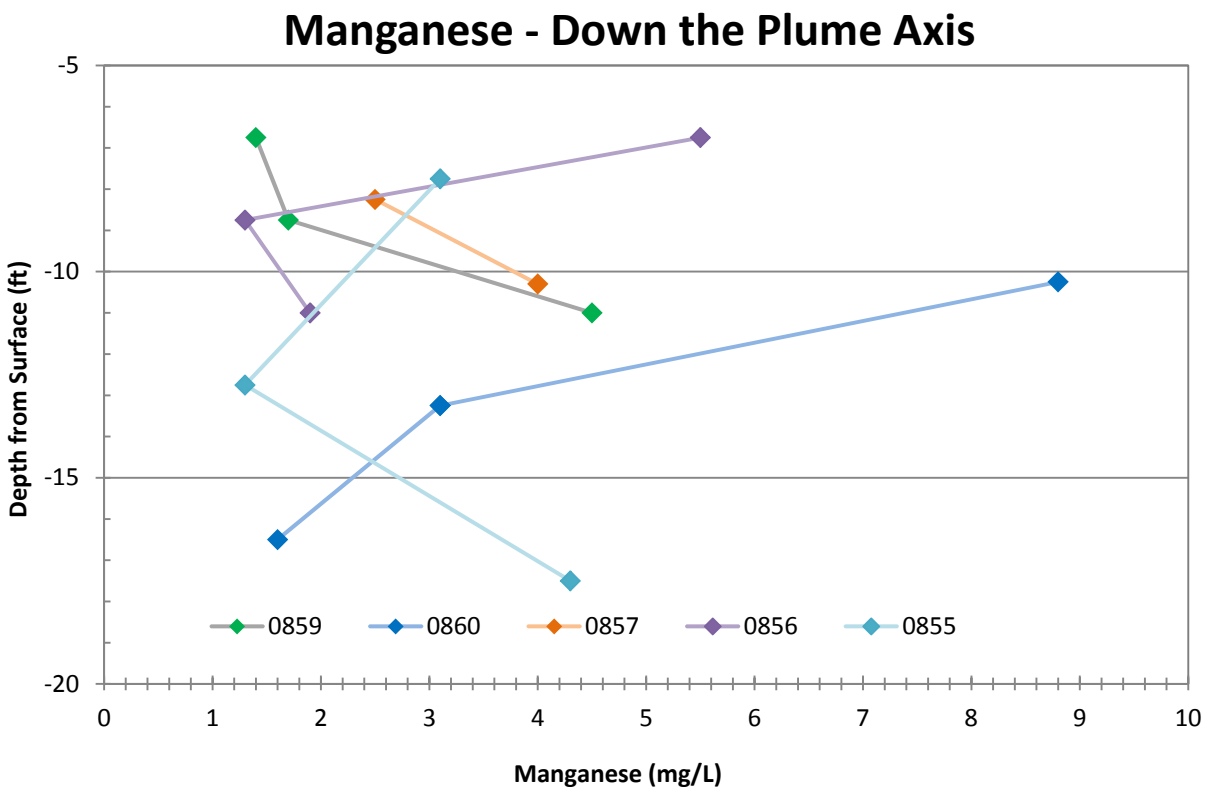

Iron - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
1
2
3
4
5
6
7
8
Iron (mg/L)
0859
0860
0857
0856
0855

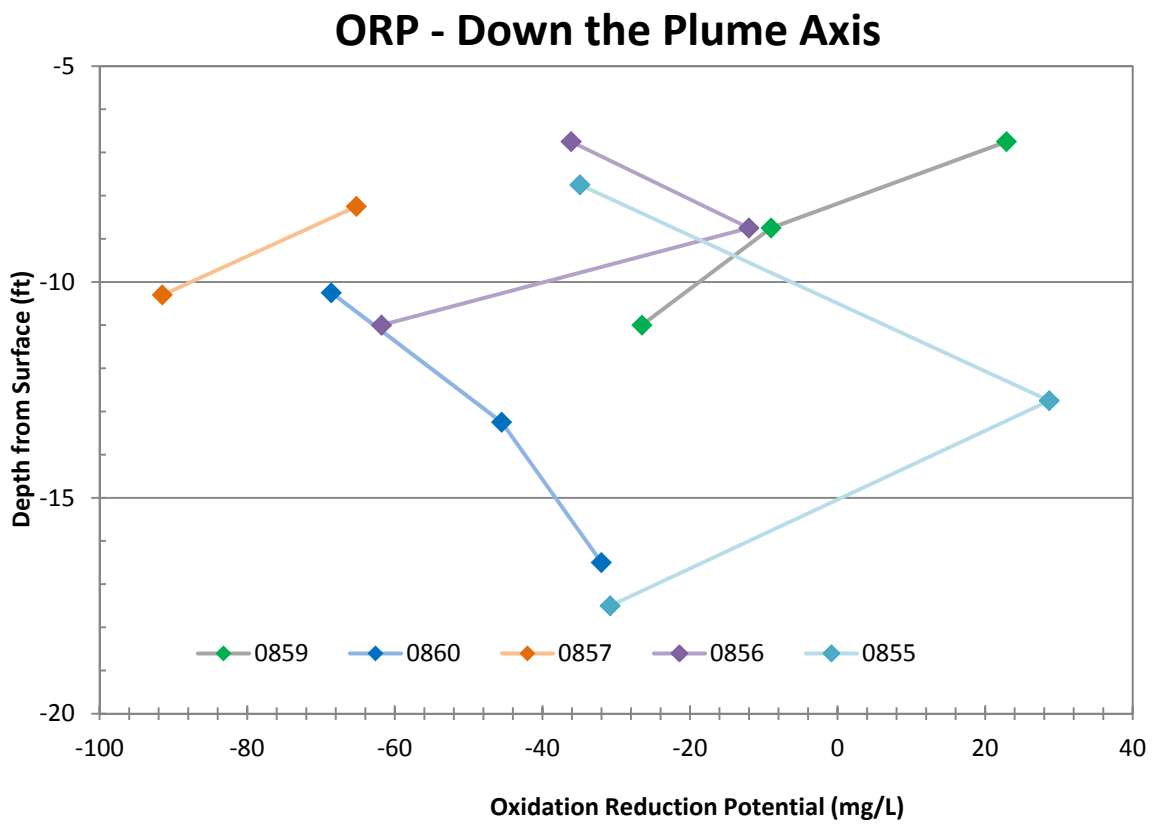

Specific Conductance - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
2,000
4,000
6,000
8,000
10,000
12,000
Specific Conductance (mg/L)
0859
0860
0857
0856
0855

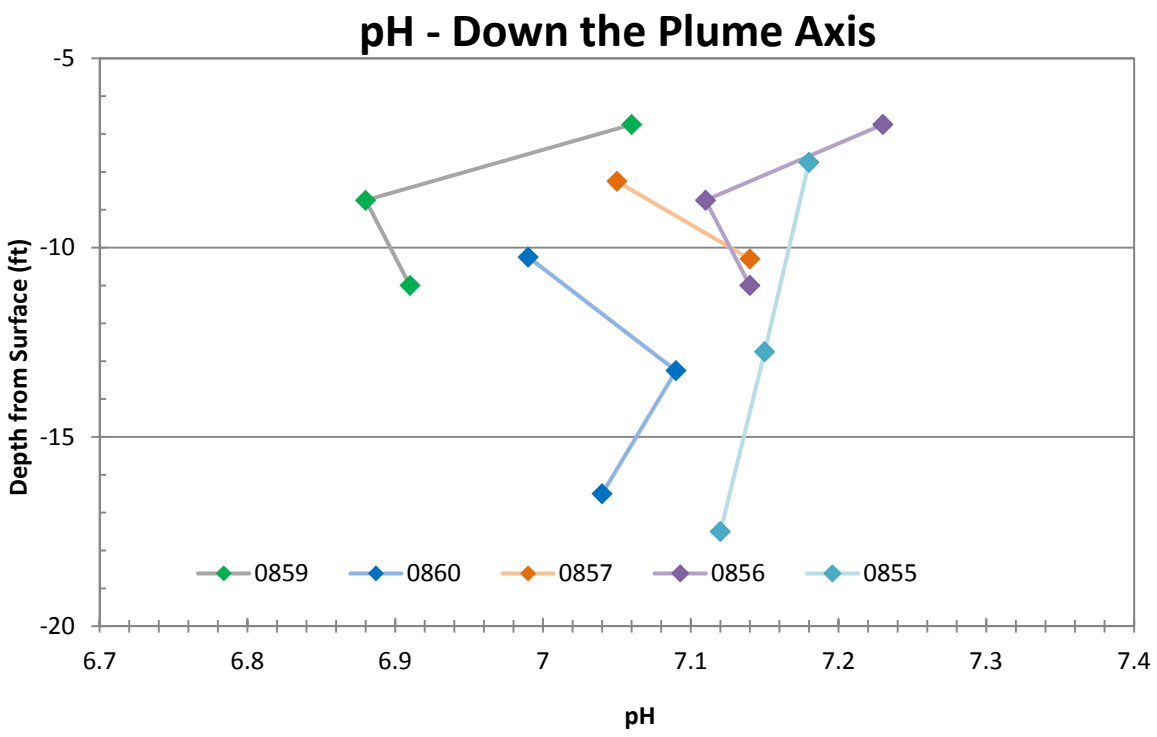

Sodium - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
500
1,000
1,500
2,000
2,500
Sodium (mg/L)
0859
0860
0857
0856
0855

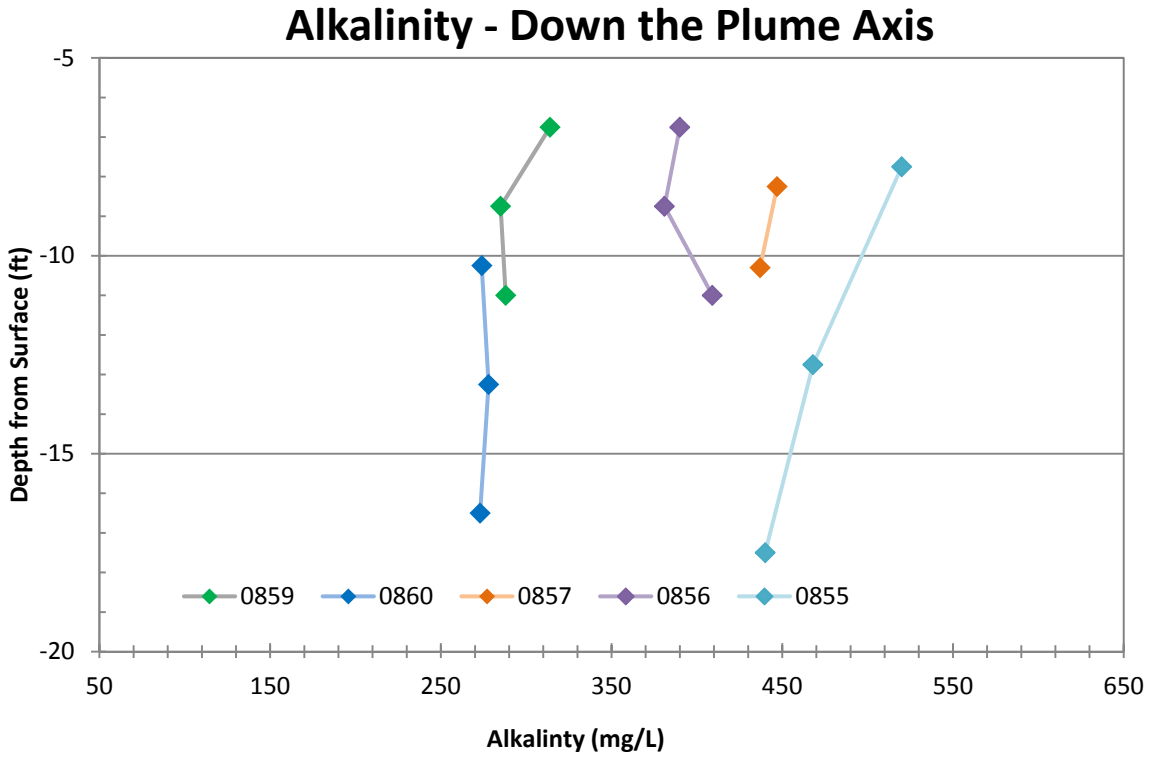

Molybdenum - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Molybdenum (mg/L)
0859
0860
0857
0856
0855

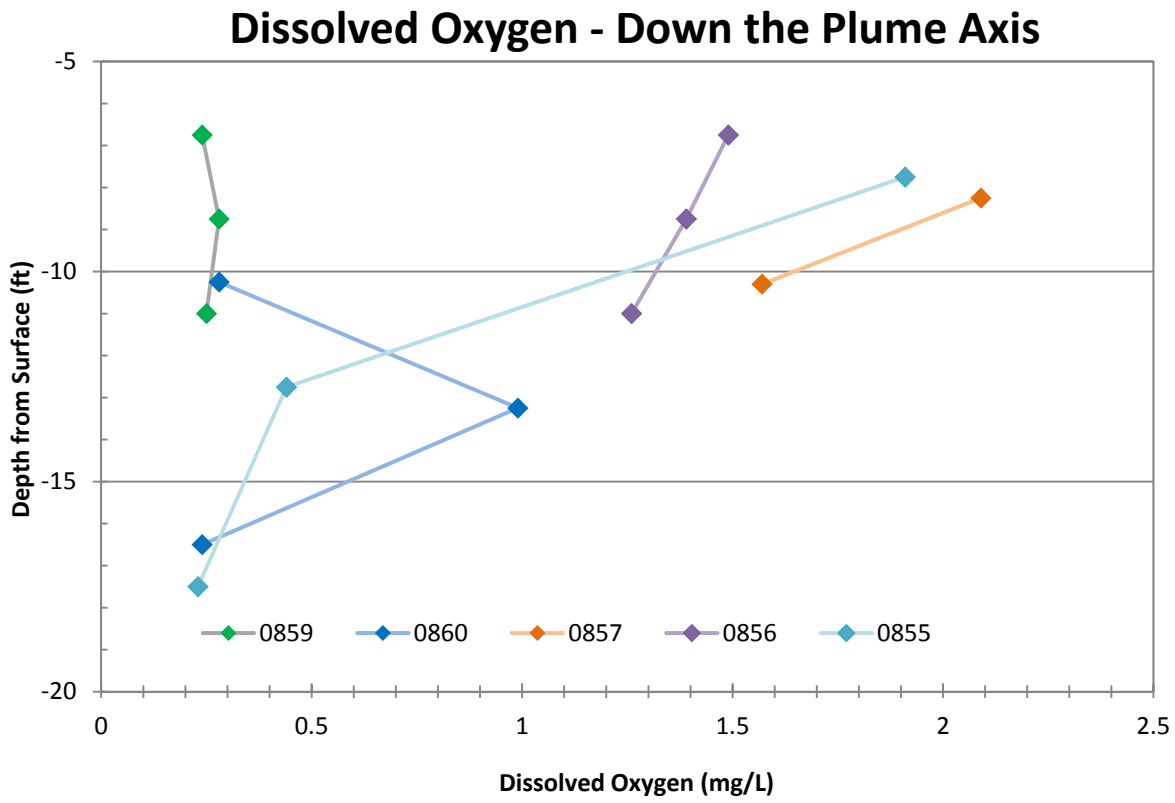

Field Ferrous Iron - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
Field Ferrous Iron(mg/L)
0859
0860
0857
0856
0855

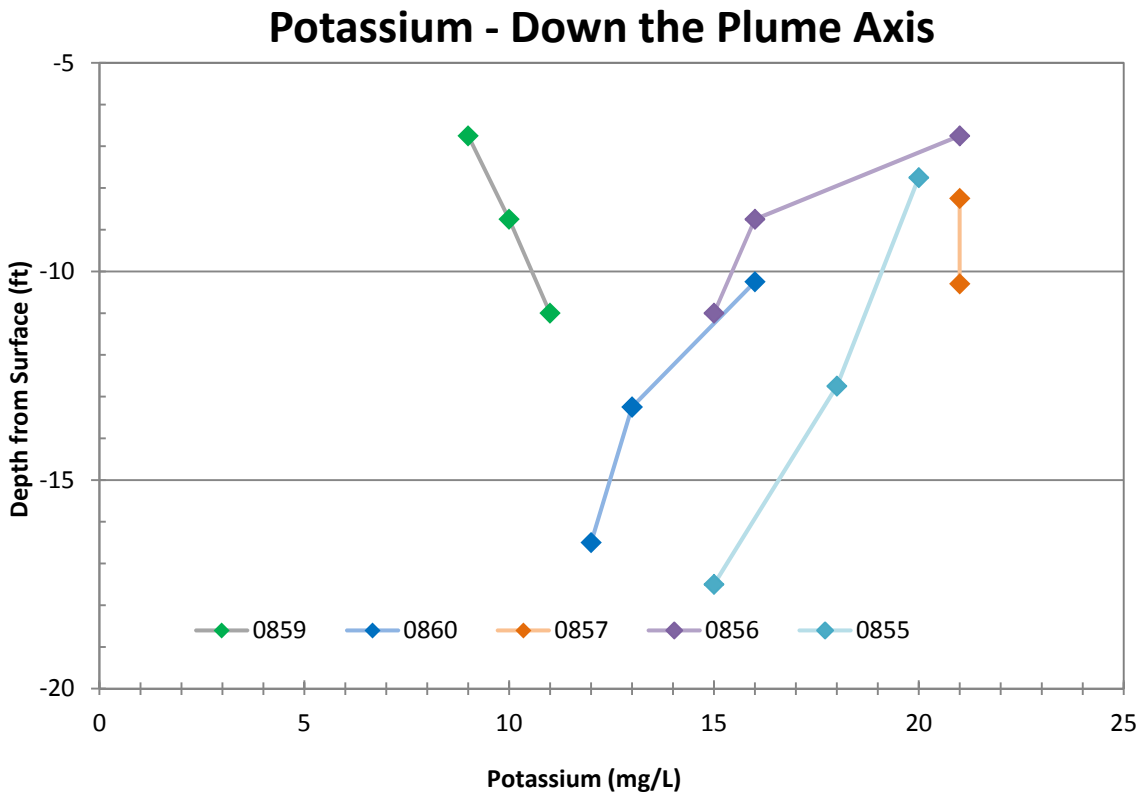

Manganese - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
1
2
3
4
5
6
7
8
9
10
Manganese (mg/L)
0859
0860
0857
0856
0855

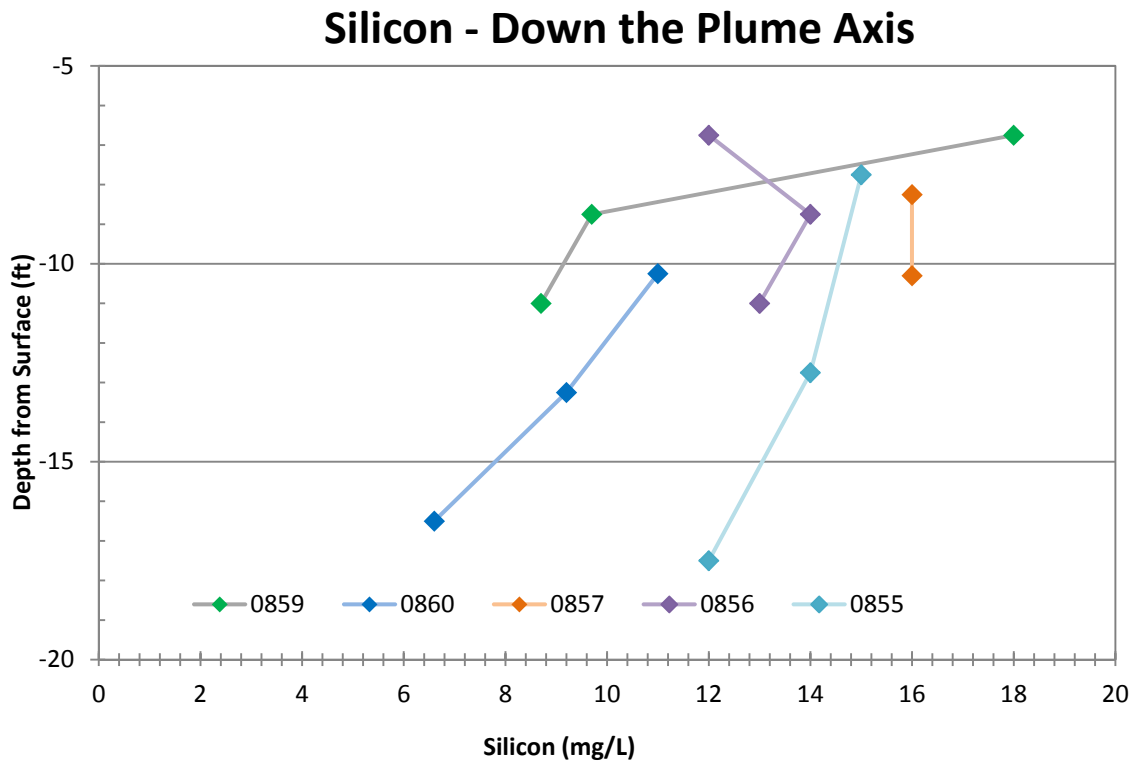

ORP - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
-100
-80
-60
-40
-20
0
20
40
Oxidation Reduction Potential (mg/L)
0859
0860
0857
0856
0855

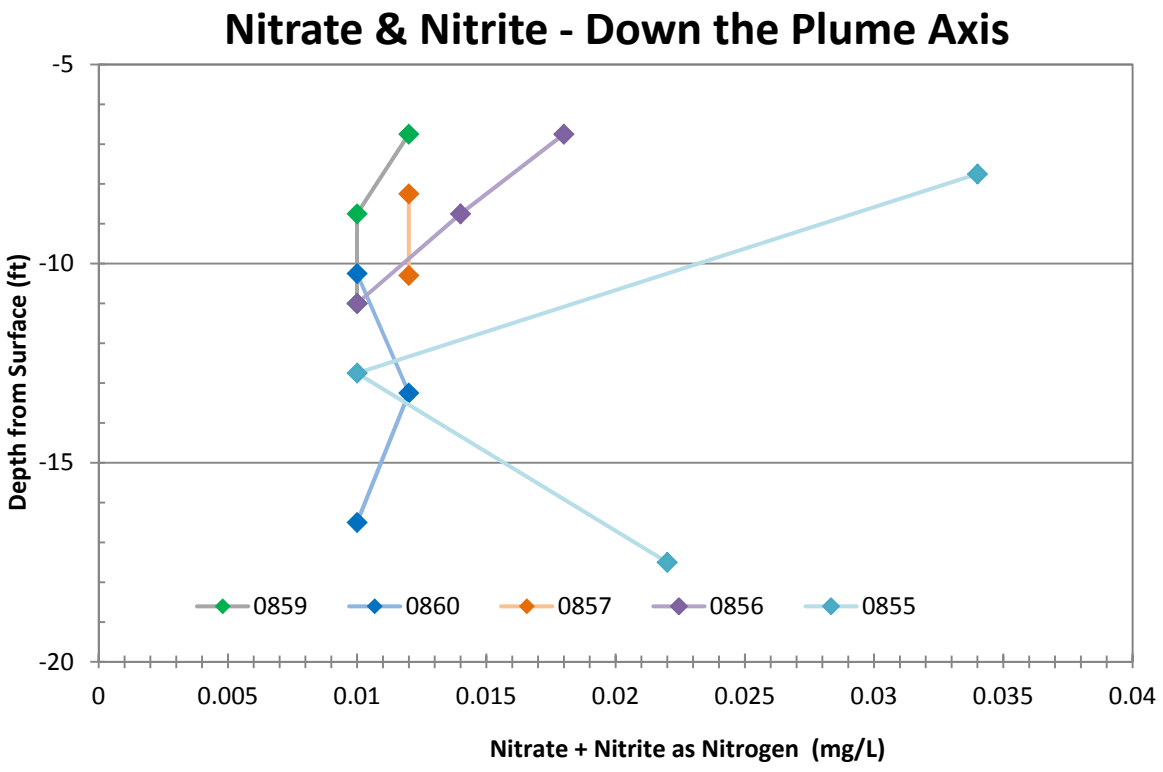

pH - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
6.7
6.8
6.9
7
7.1
7.2
7.3
7.4
pH
0859
0860
0857
0856
0855

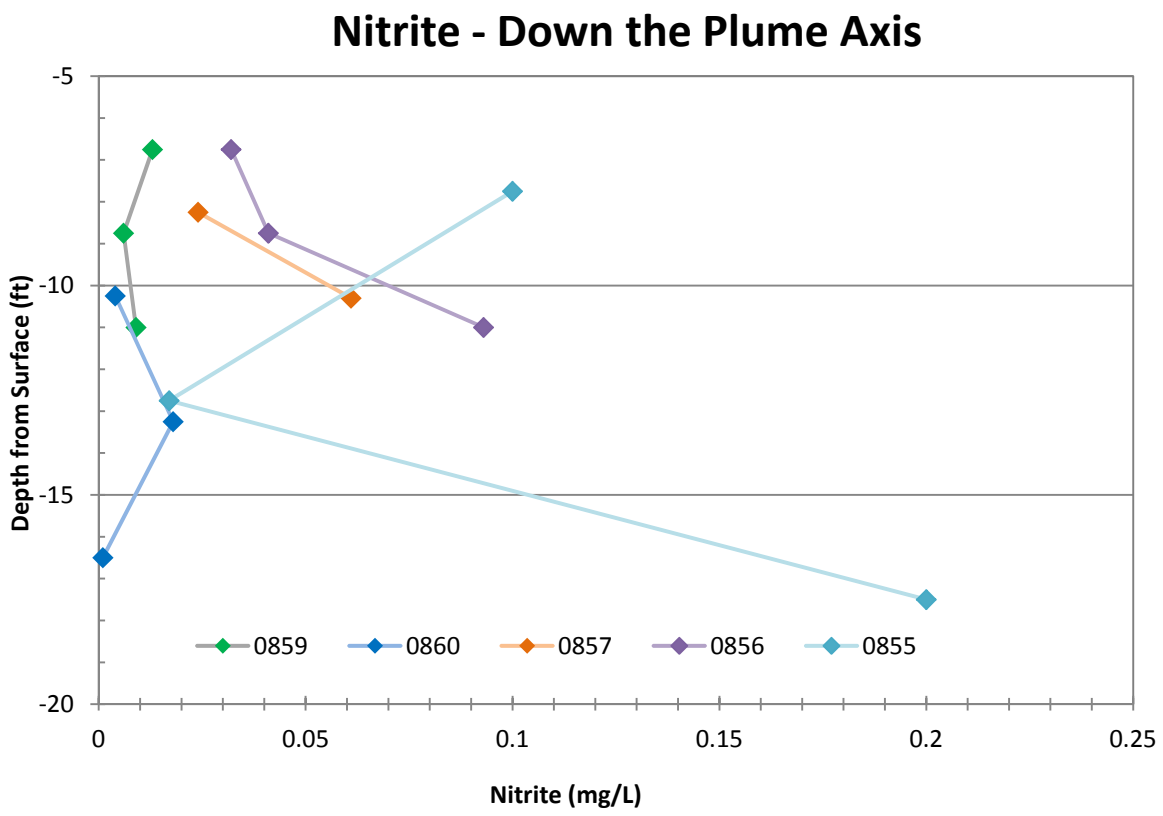

Alkalinity - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
50
150
250
350
450
550
650
Alkalinty (mg/L)
0859
0860
0857
0856
0855

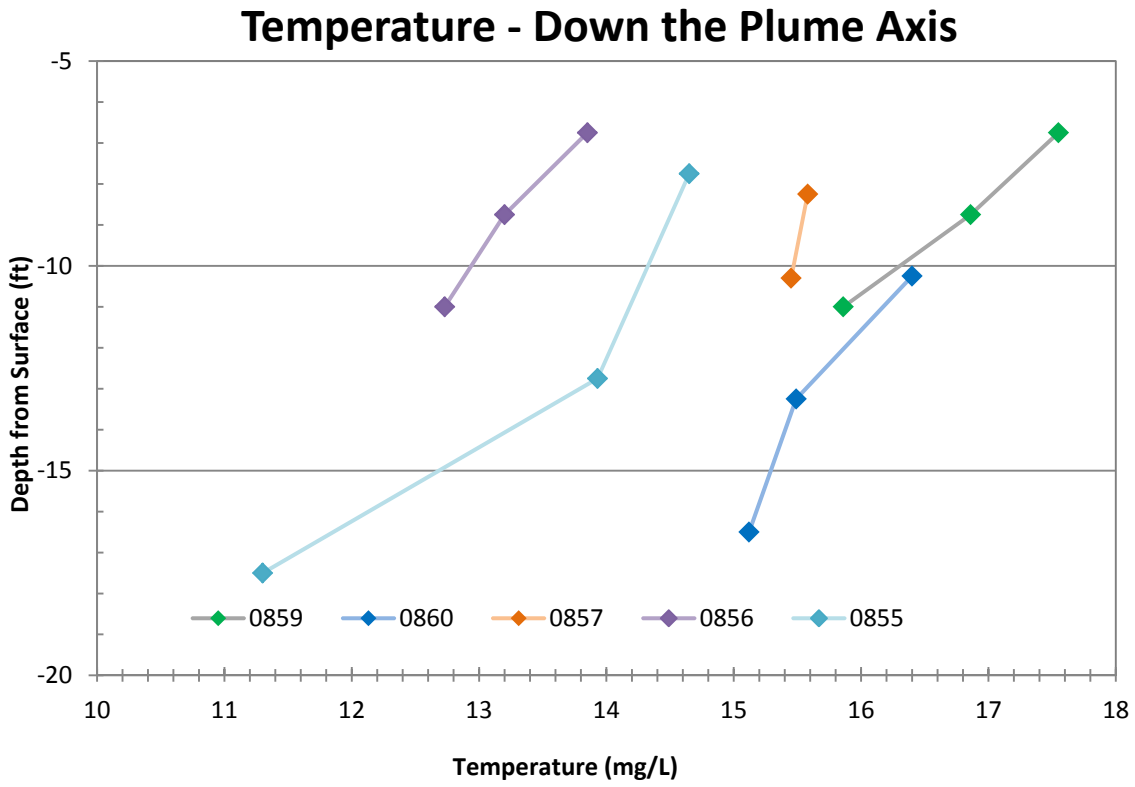

Dissolved Oxygen - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
0.5
1
1.5
2
2.5
Dissolved Oxygen (mg/L)
0859
0860
0857
0856
0855

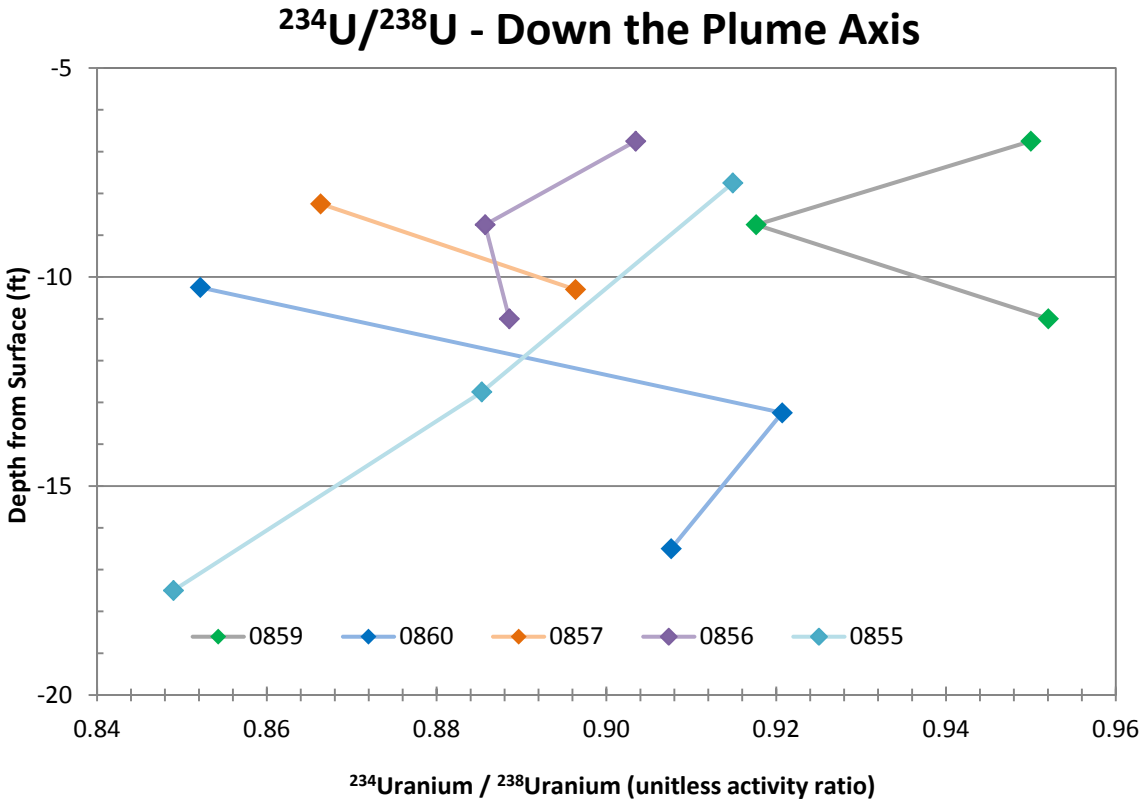

Potassium - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
5
10
15
20
25
Potassium (mg/L)
0859
0860
0857
0856
0855

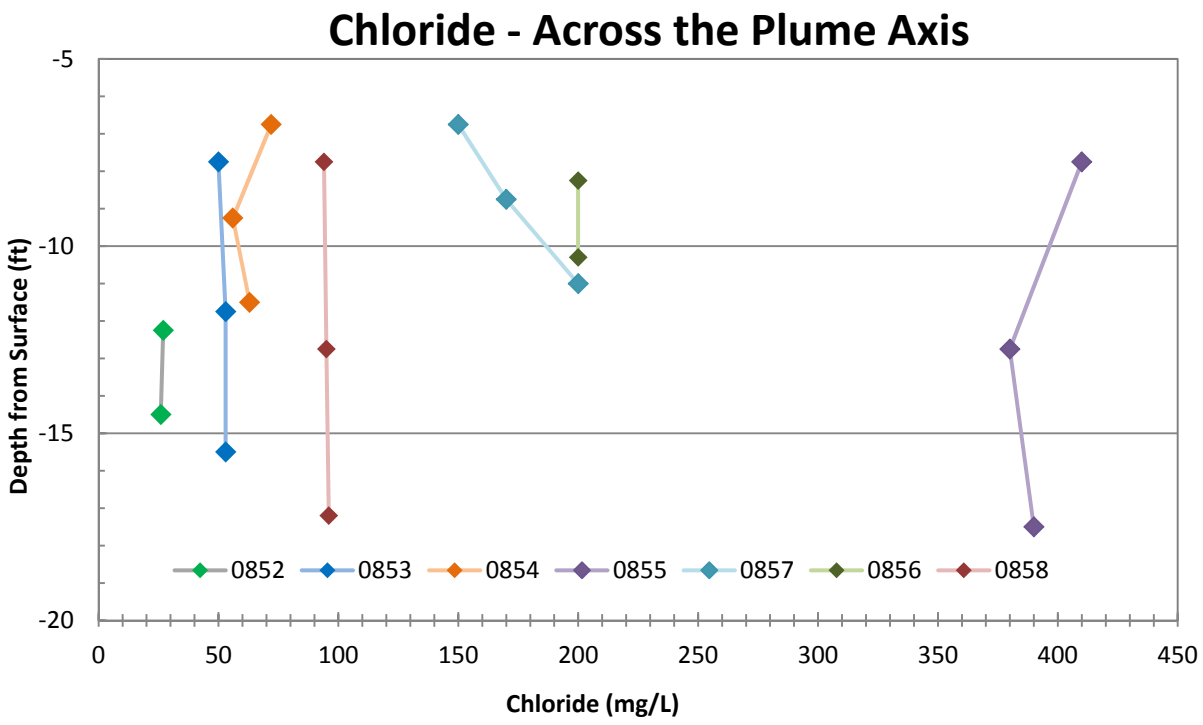

Silicon - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
2
4
6
8
10
12
14
16
18
20
Silicon (mg/L)
0859
0860
0857
0856
0855

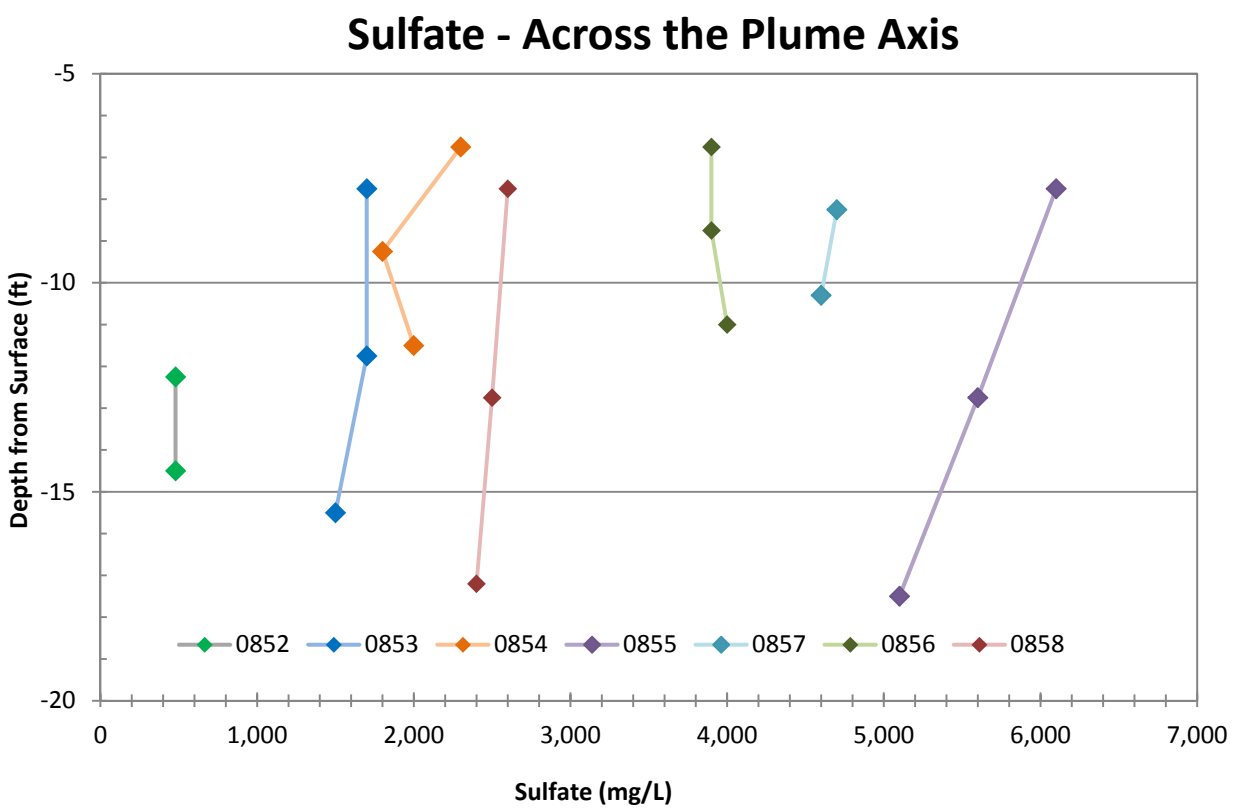

Nitrate & Nitrite - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
0.005
0.01
0.015
0.02
0.025
0.03
0.035
0.04
Nitrate + Nitrite as Nitrogen (mg/L)
0859
0860
0857
0856
0855

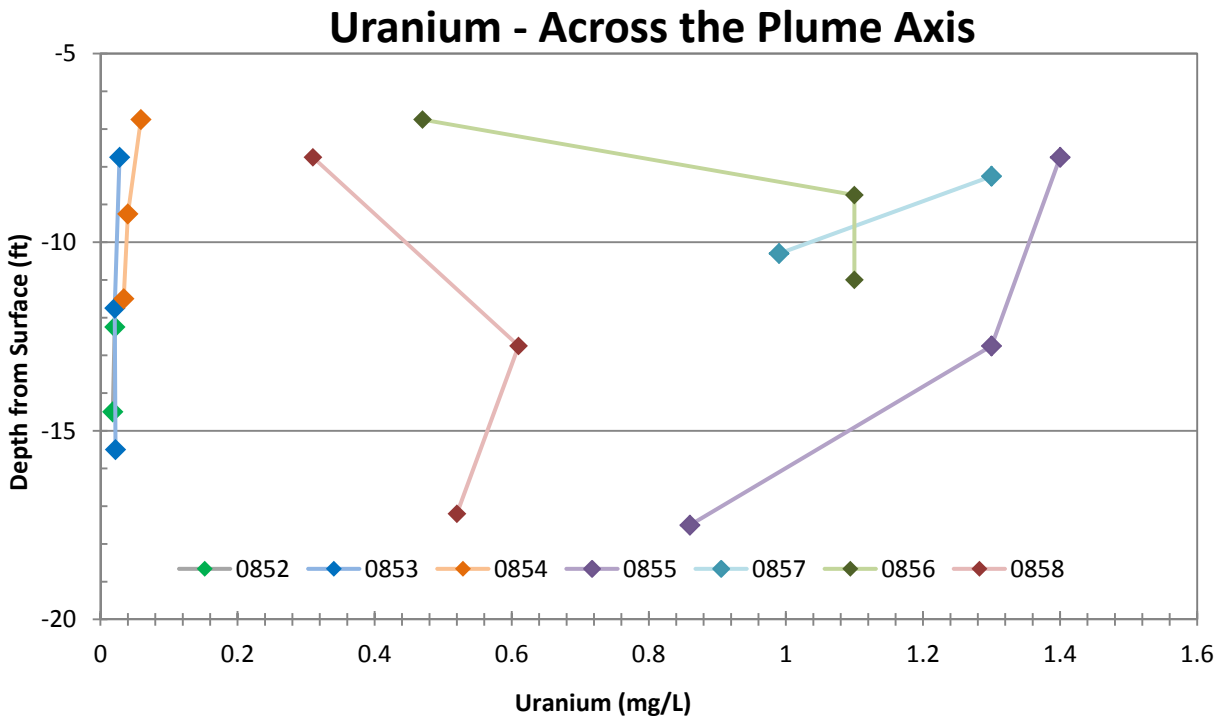

Nitrite - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
0.05
0.1
0.15
0.2
0.25
Nitrite (mg/L)
0859
0860
0857
0856
0855

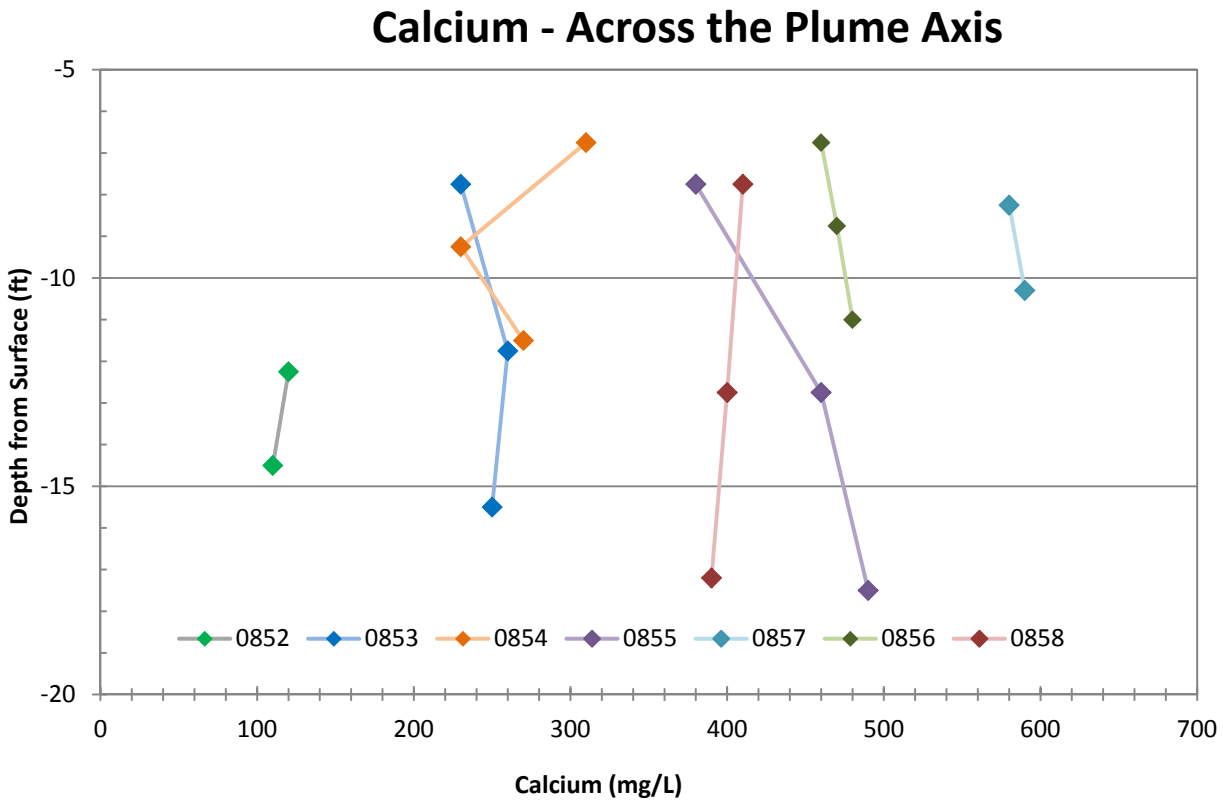

Temperature - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
10
11
12
13
14
15
16
17
18
Temperature (mg/L)
0859
0860
0857
0856
0855

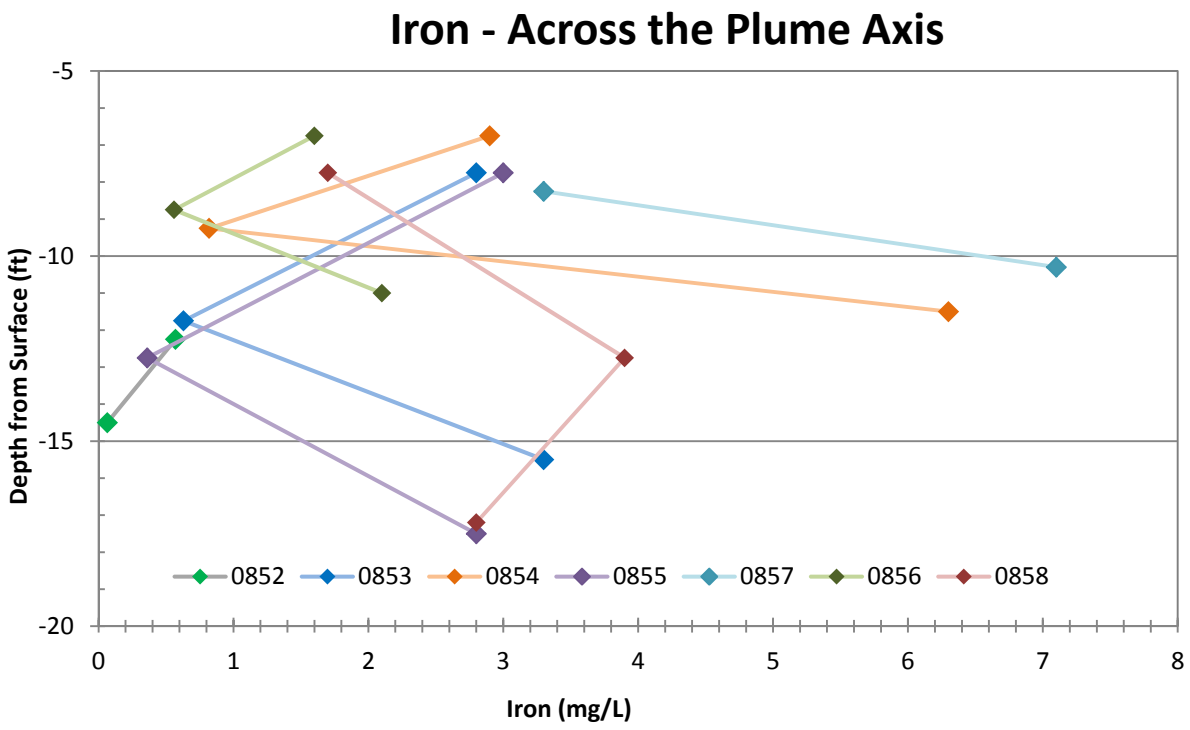

$^{234}U/^{238}U$ - Down the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0.84
0.86
0.88
0.90
0.92
0.94
0.96
^{234}Uranium / ^{238}Uranium (unitless activity ratio)
0859
0860
0857
0856
0855

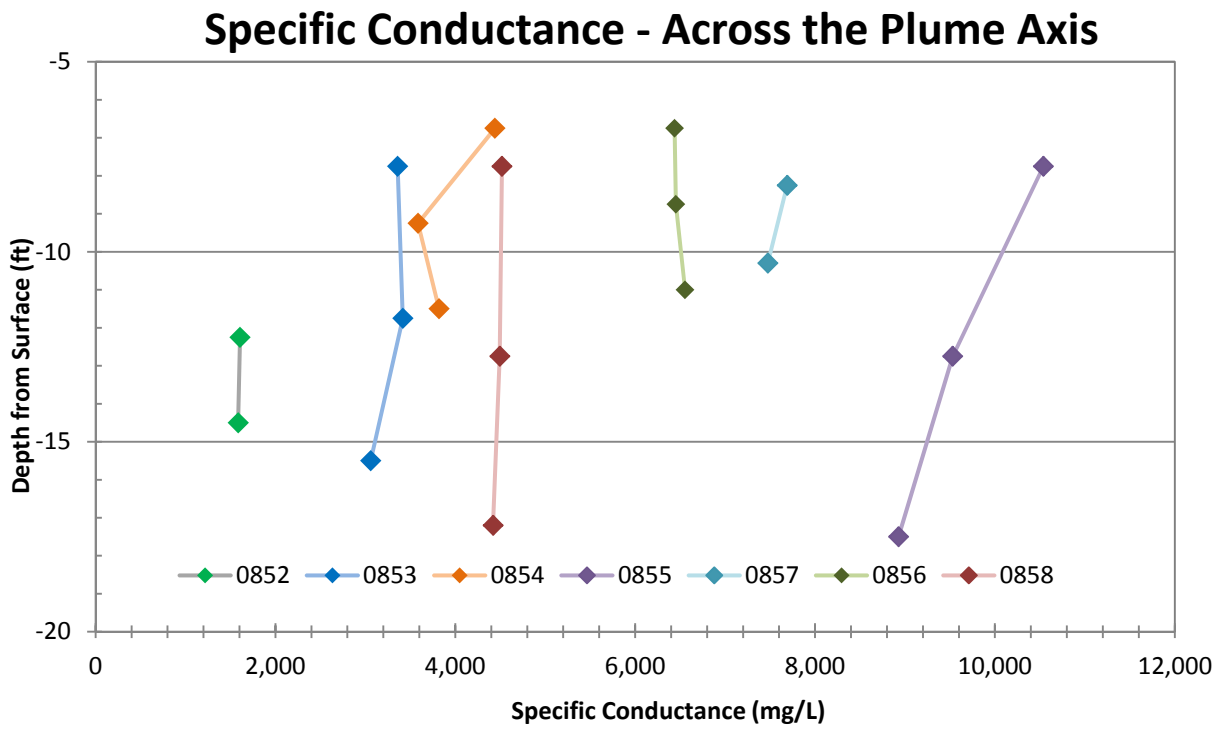

Chloride - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
50
100
150
200
250
300
350
400
450
Chloride (mg/L)
0852
0853
0854
0855
0857
0856
0858

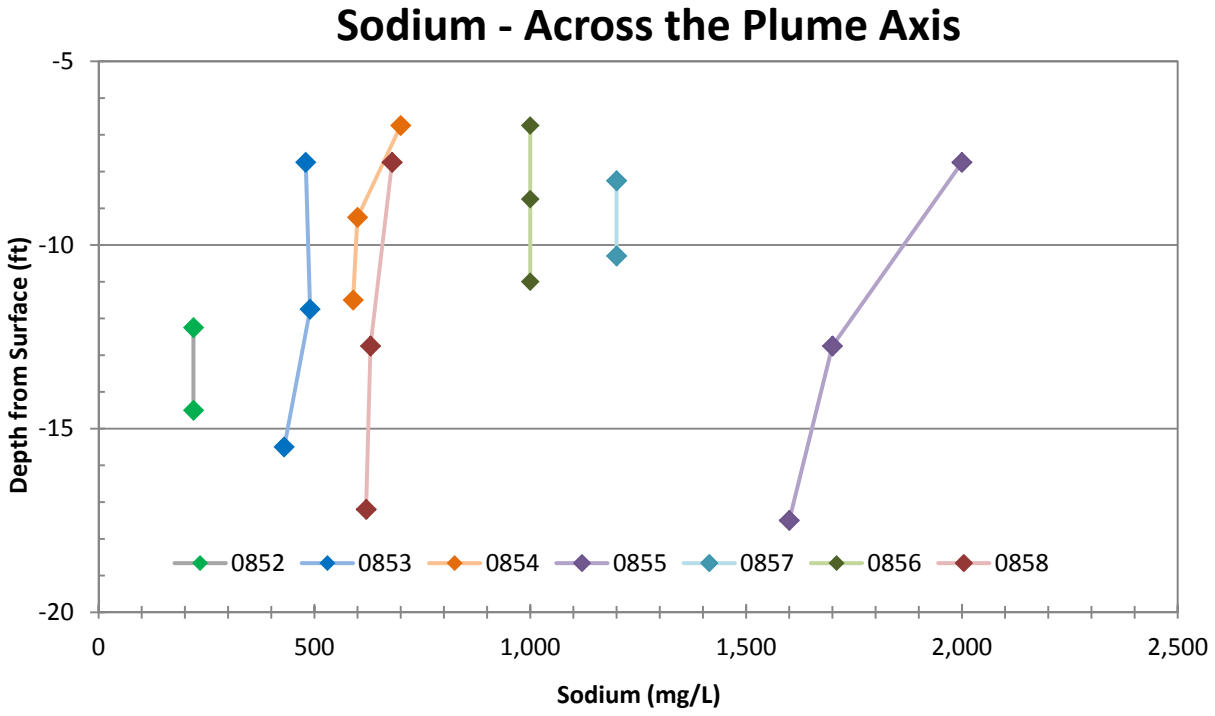

Sulfate - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
Sulfate (mg/L)
0852
0853
0854
0855
0857
0856
0858

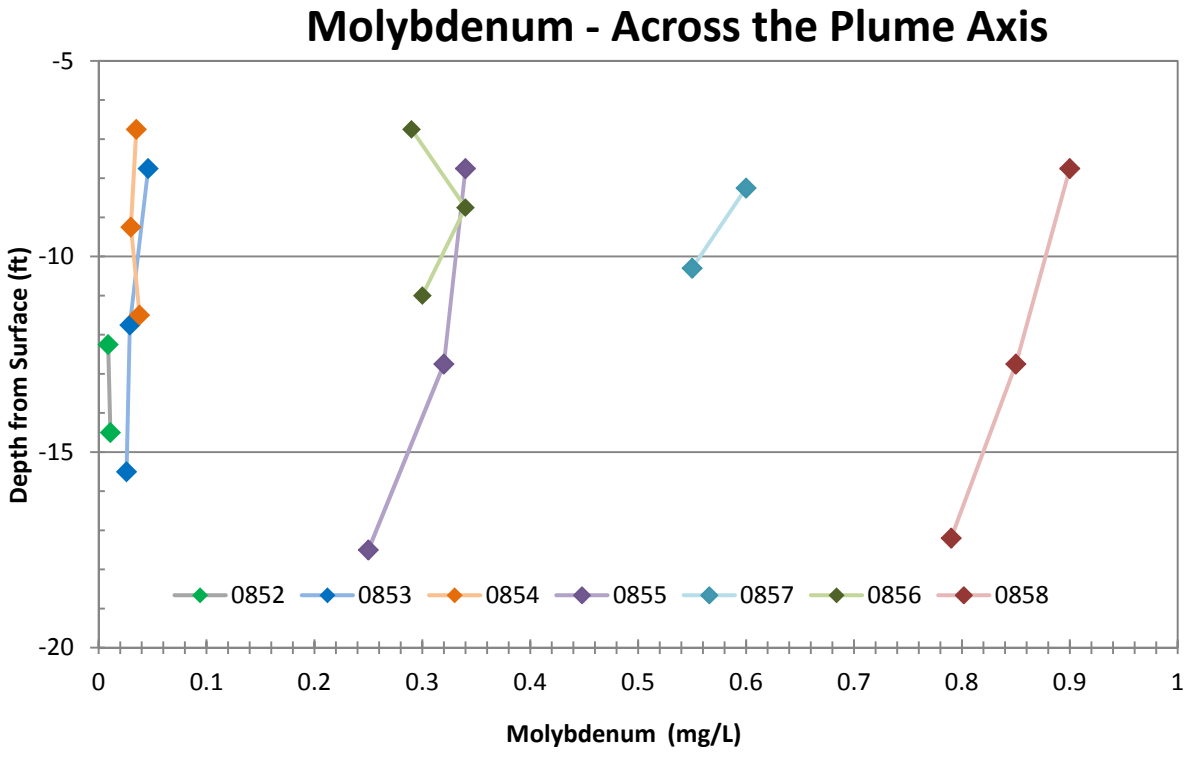

Uranium - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
Uranium (mg/L)
0852
0853
0854
0855
0857
0856
0858

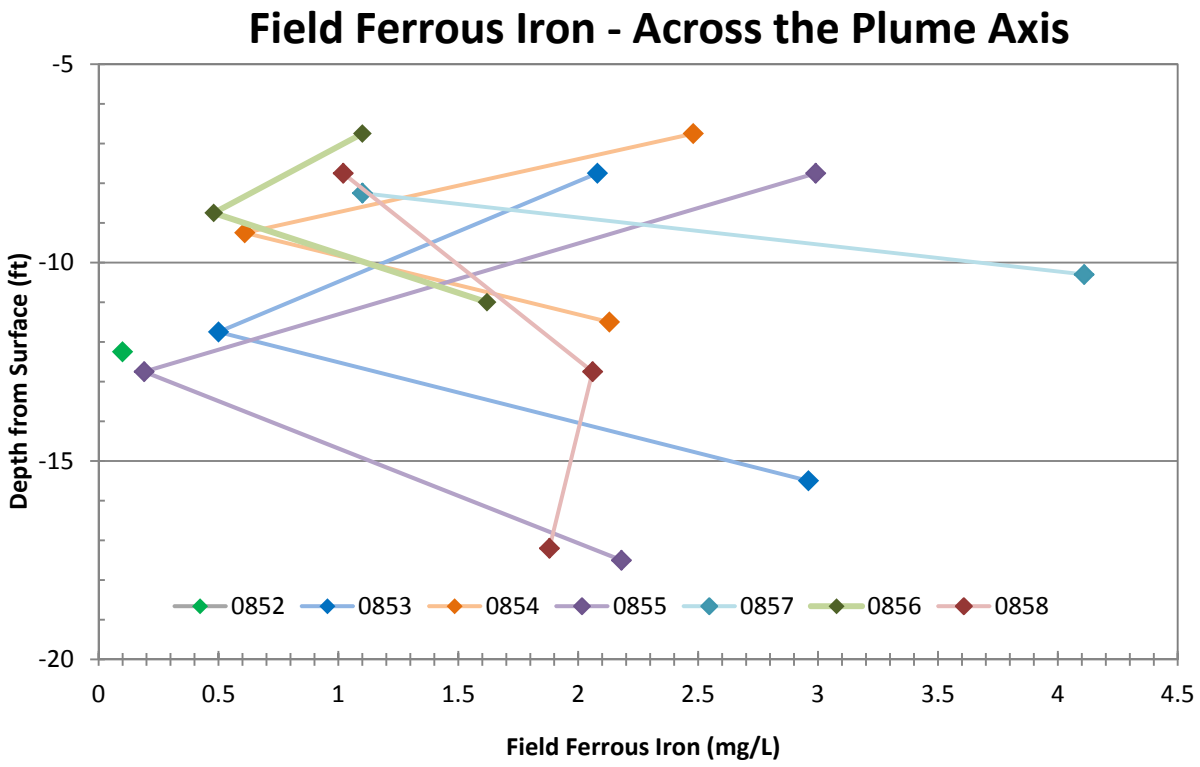

Calcium - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
100
200
300
400
500
600
700
Calcium (mg/L)
0852
0853
0854
0855
0857
0856
0858

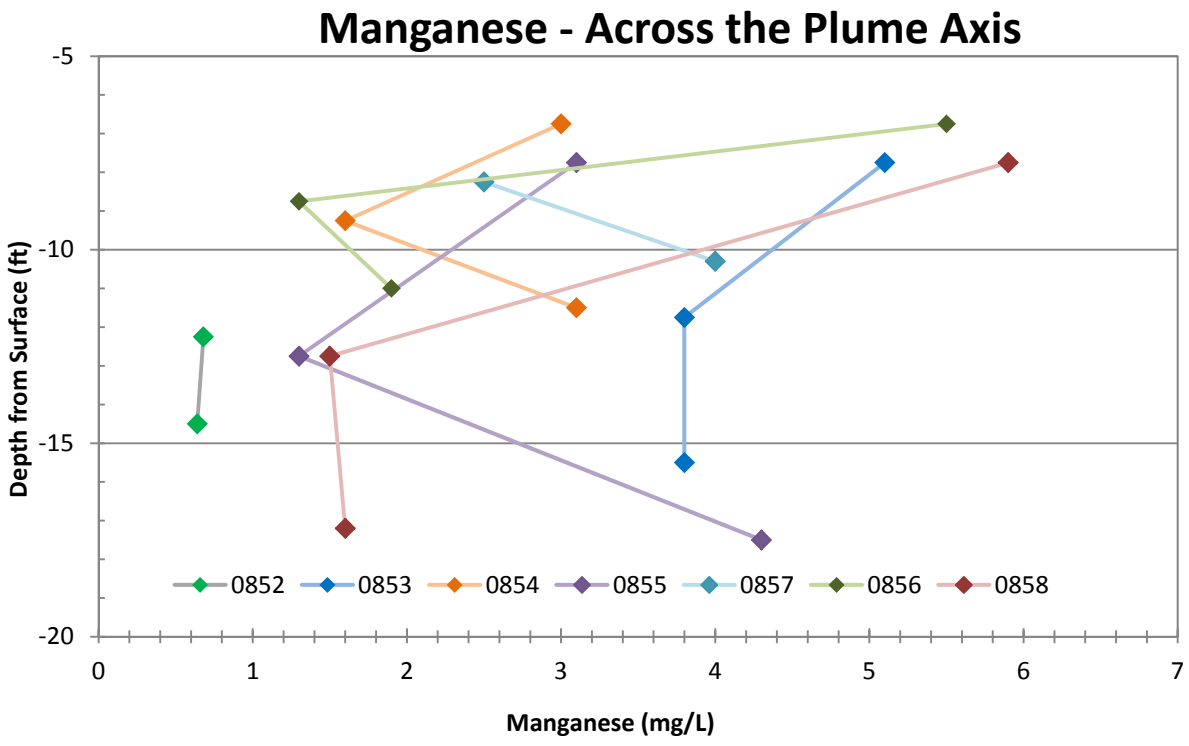

Iron - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
1
2
3
4
5
6
7
8
Iron (mg/L)
0852
0853
0854
0855
0857
0856
0858

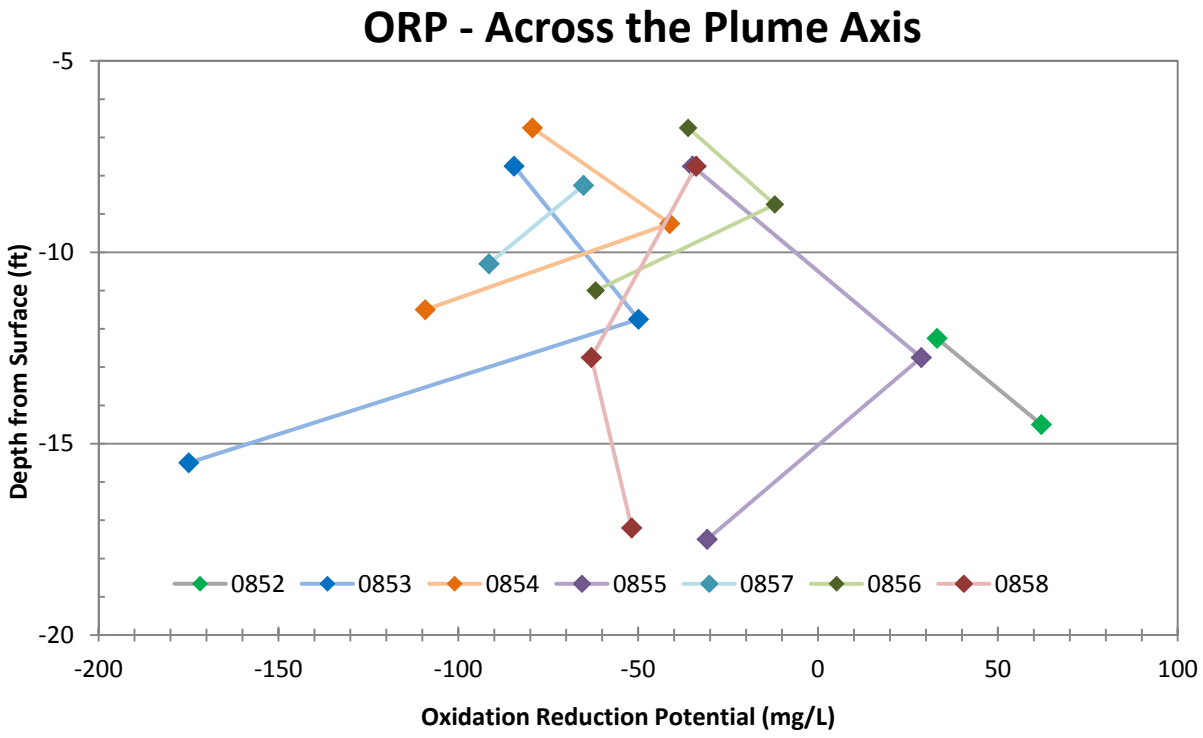

Specific Conductance - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
2,000
4,000
6,000
8,000
10,000
12,000
Specific Conductance (mg/L)
0852
0853
0854
0855
0857
0856
0858

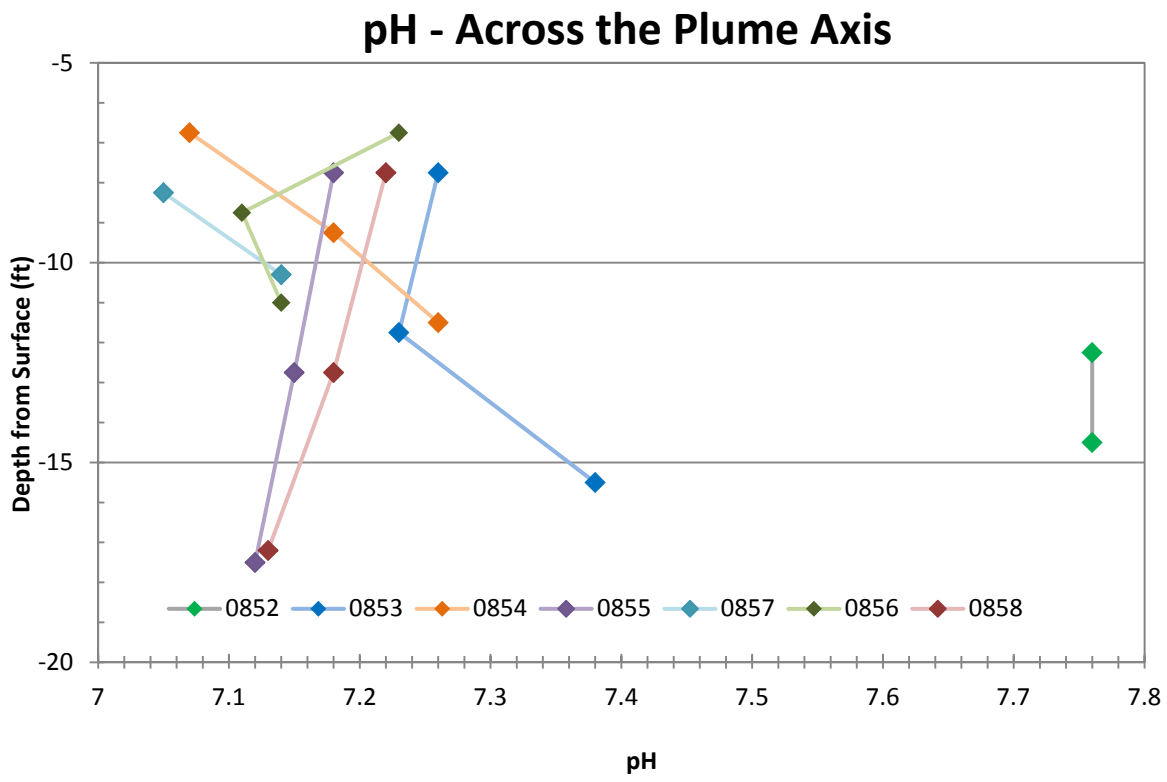

Sodium - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
500
1,000
1,500
2,000
2,500
Sodium (mg/L)
0852
0853
0854
0855
0857
0856
0858

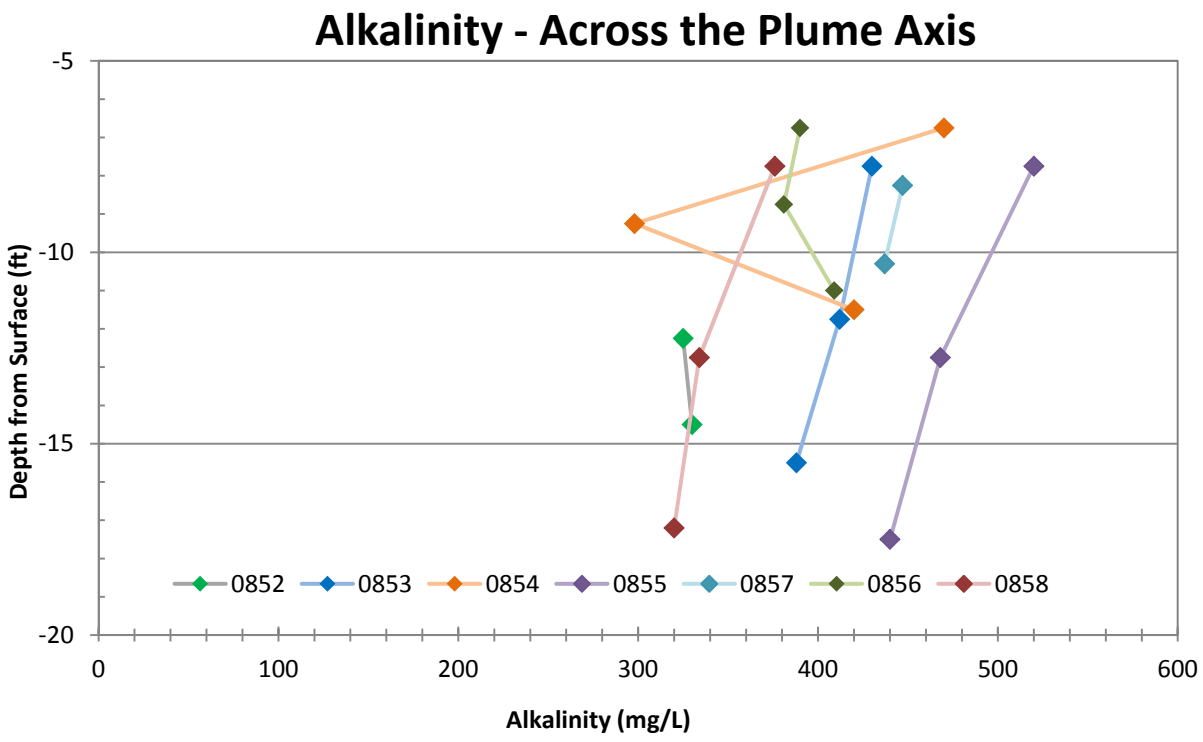

Molybdenum - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
Molybdenum (mg/L)
0852
0853
0854
0855
0857
0856
0858

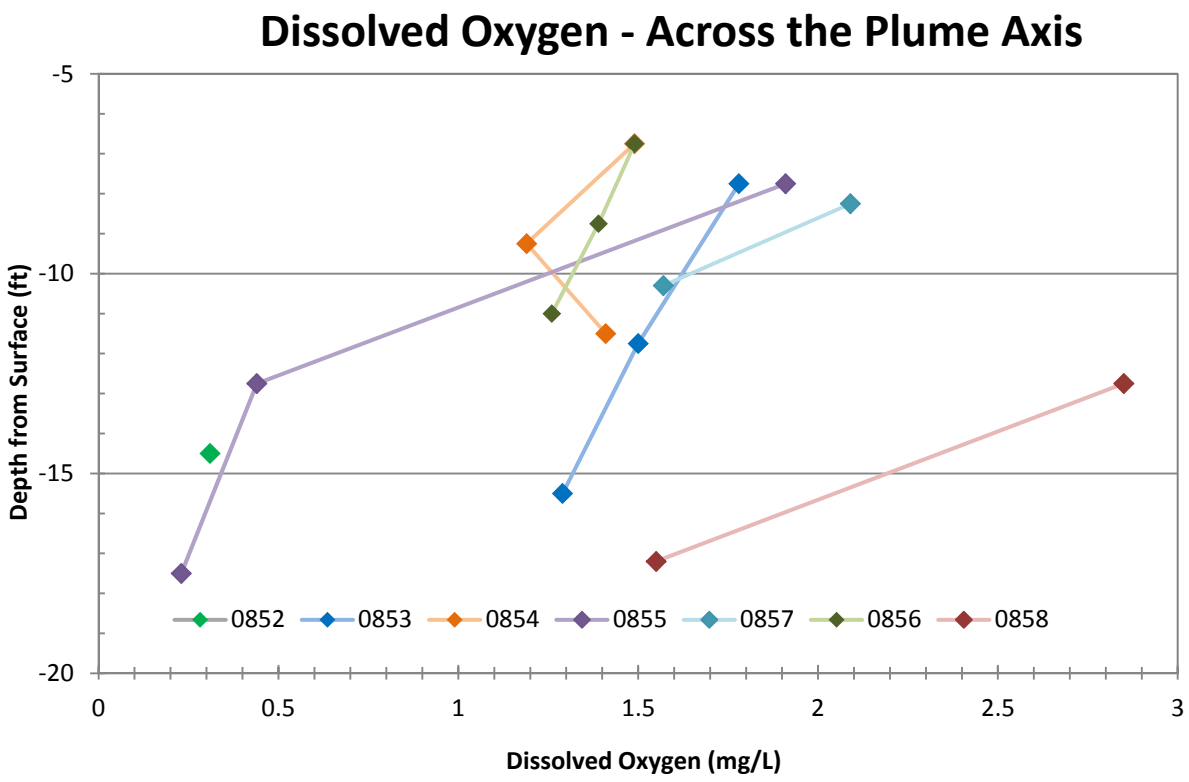

Field Ferrous Iron - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
Field Ferrous Iron (mg/L)
0852
0853
0854
0855
0857
0856
0858

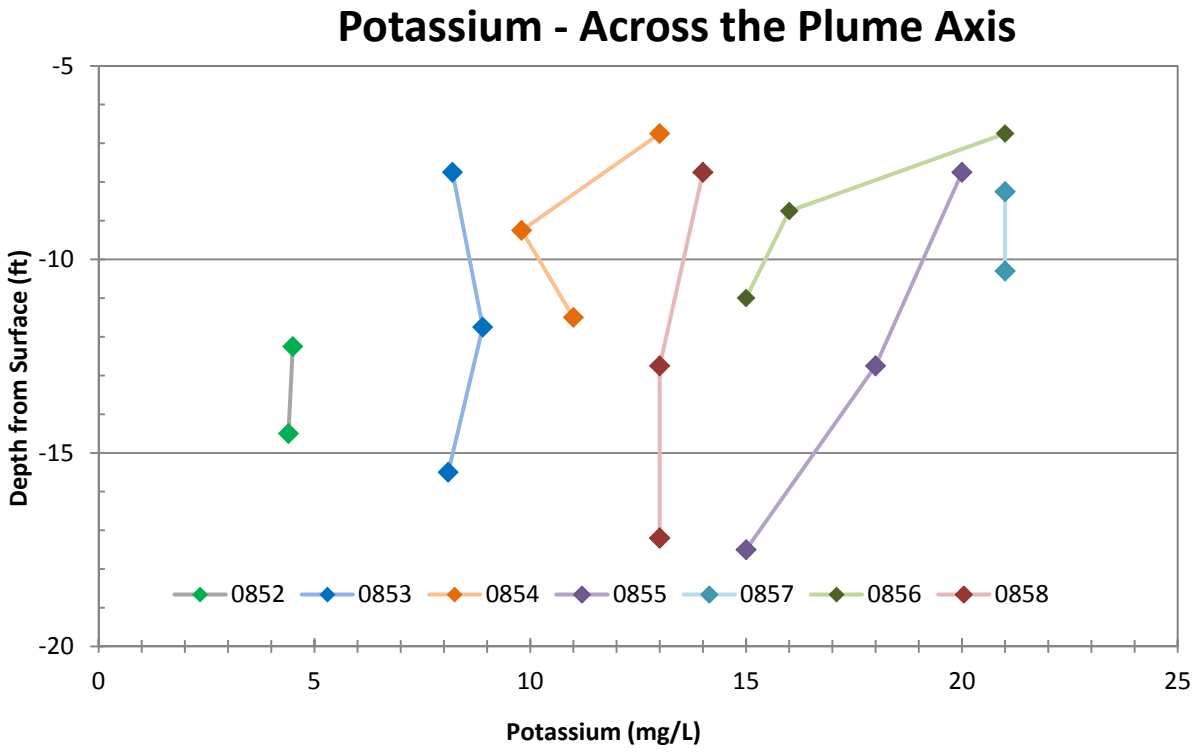

Manganese - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
1
2
3
4
5
6
7
Manganese (mg/L)
0852
0853
0854
0855
0857
0856
0858

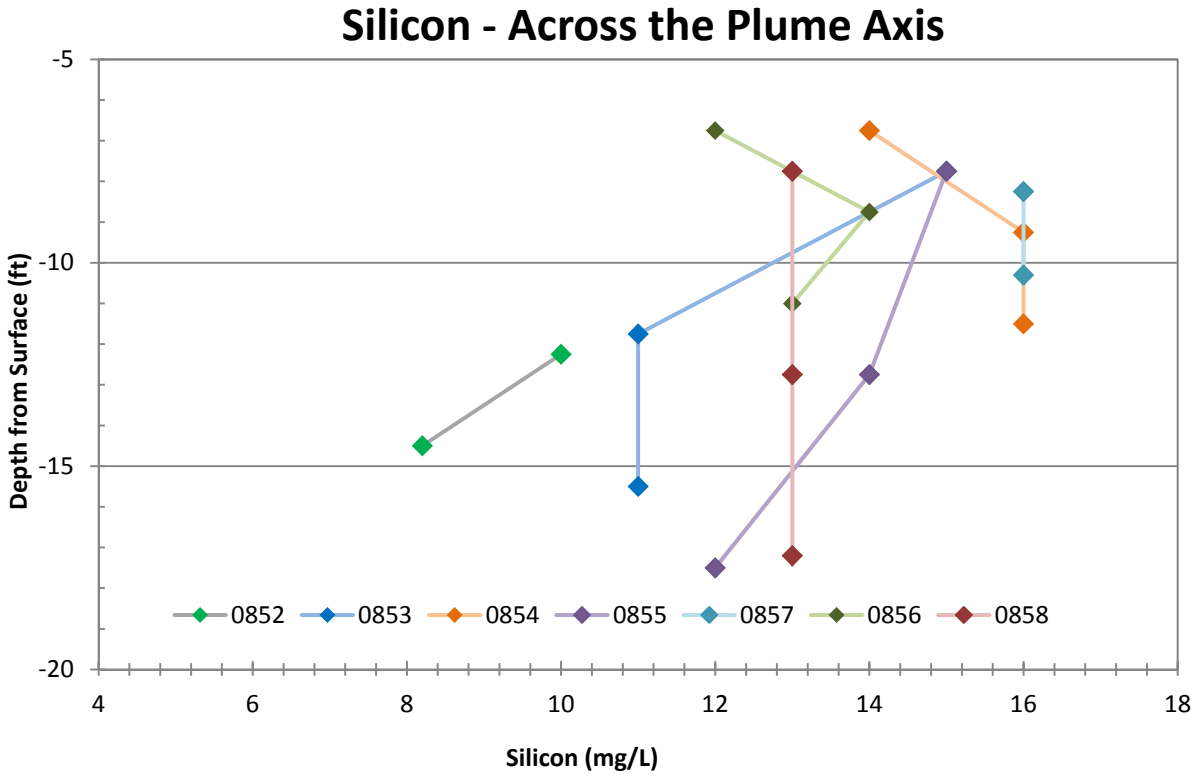

ORP - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
-200
-150
-100
-50
0
50
100
Oxidation Reduction Potential (mg/L)
0852
0853
0854
0855
0857
0856
0858

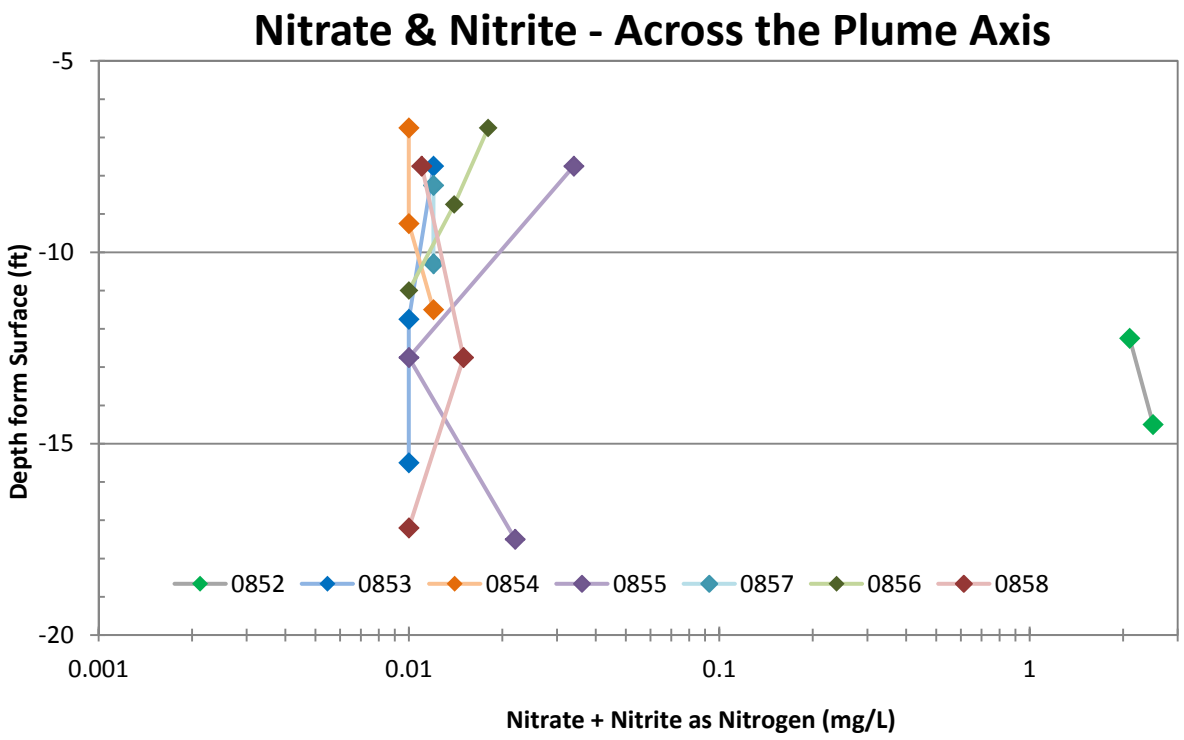

pH - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
7
7.1
7.2
7.3
7.4
7.5
7.6
7.7
7.8
pH
0852
0853
0854
0855
0857
0856
0858

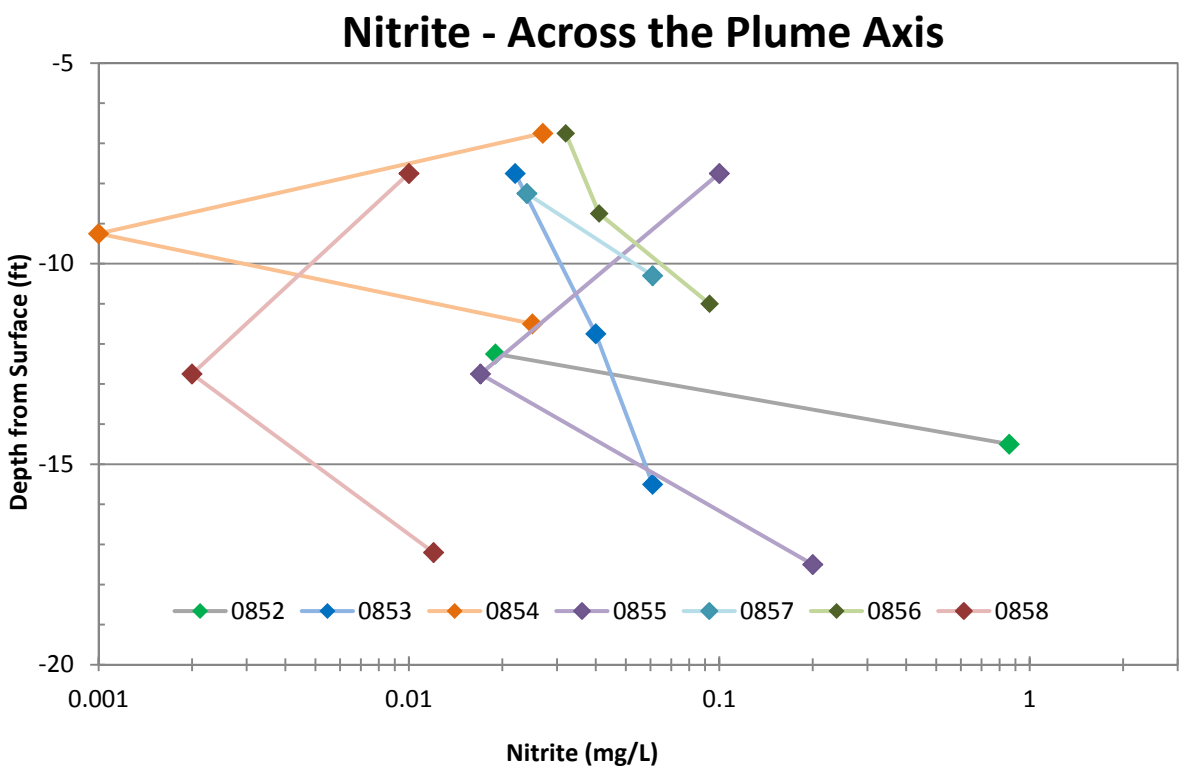

Alkalinity - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
100
200
300
400
500
600
Alkalinity (mg/L)
0852
0853
0854
0855
0857
0856
0858

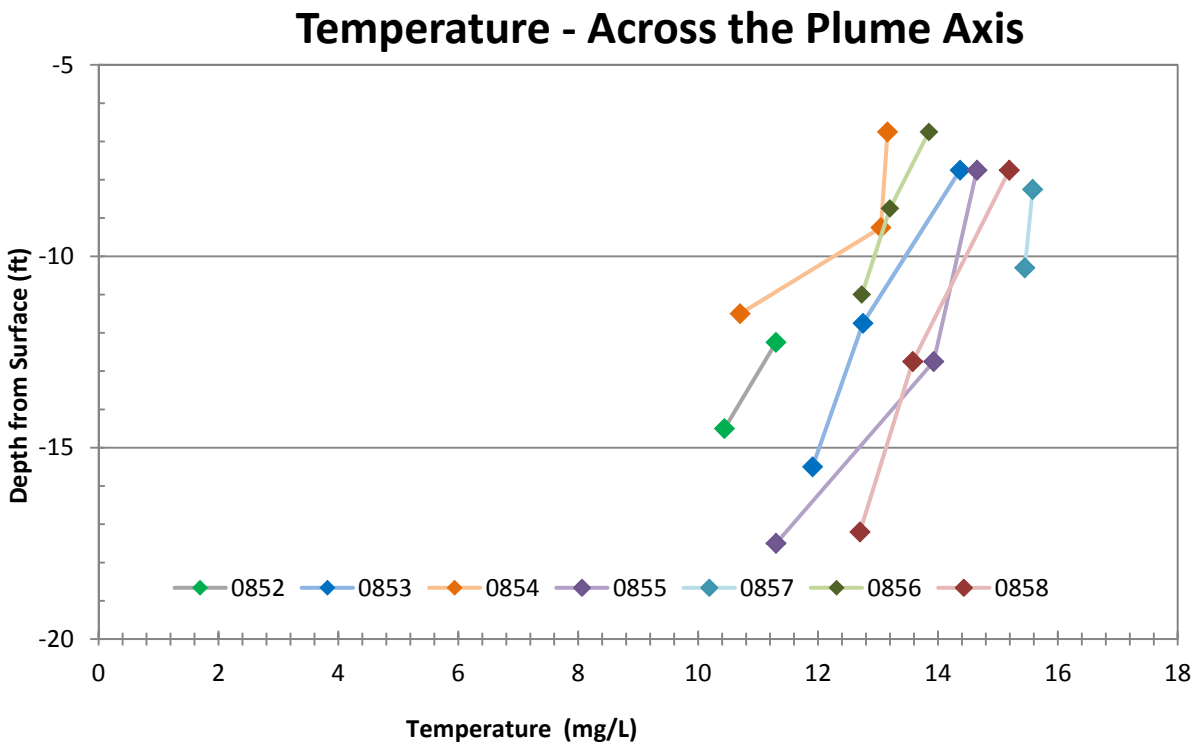

Dissolved Oxygen - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
0.5
1
1.5
2
2.5
3
Dissolved Oxygen (mg/L)
0852
0853
0854
0855
0857
0856
0858

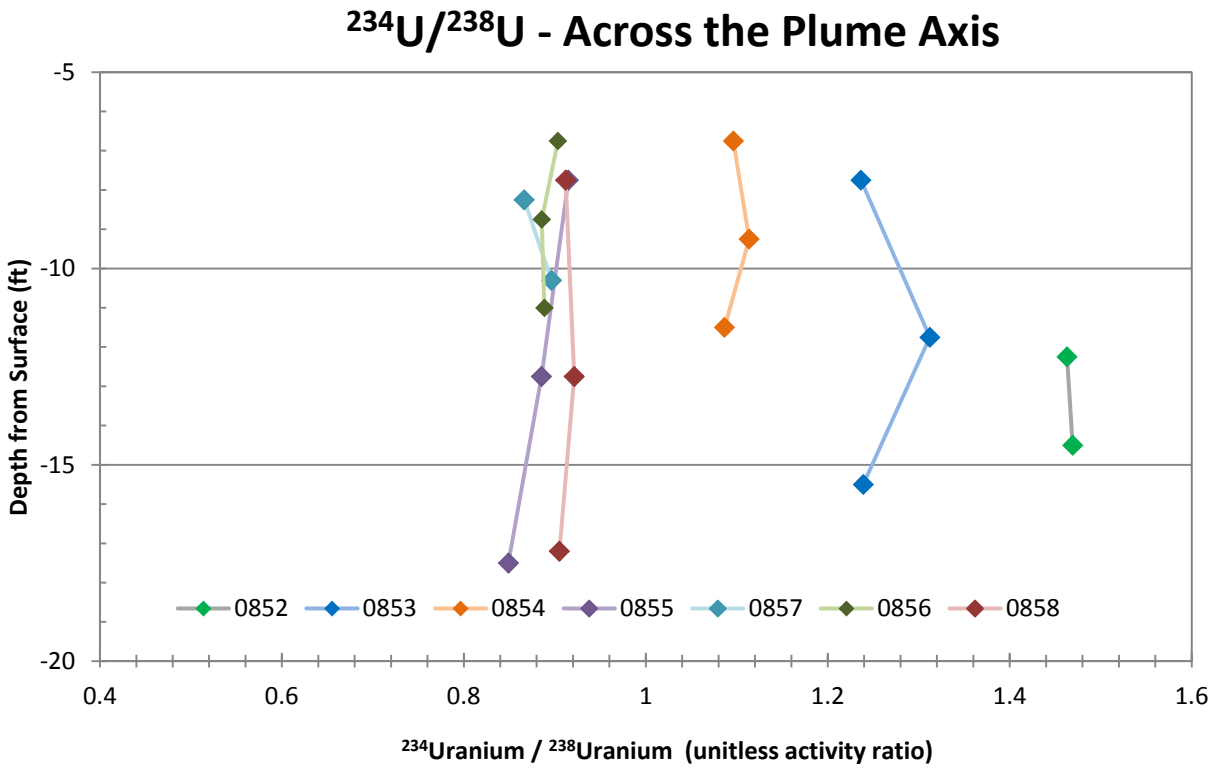

Potassium - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
5
10
15
20
25
Potassium (mg/L)
0852
0853
0854
0855
0857
0856
0858


Silicon - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
4
6
8
10
12
14
16
18
Silicon (mg/L)
0852
0853
0854
0855
0857
0856
0858


Nitrate & Nitrite - Across the Plume Axis
-5
-10
-15
-20
Depth form Surface (ft)
0.001
0.01
0.1
1
Nitrate + Nitrite as Nitrogen (mg/L)
0852
0853
0854
0855
0857
0856
0858


Nitrite - Across the Plume Axis
-5
-10
-15
-20
Depth from Surface (ft)
0.001
0.01
0.1
1
Nitrite (mg/L)
0852
0853
0854
0855
0857
0856
0858


Temperature - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0
2
4
6
8
10
12
14
16
18
Temperature (mg/L)
0852
0853
0854
0855
0857
0856
0858


234U/238U - Across the Plume Axis
Depth from Surface (ft)
-5
-10
-15
-20
0.4
0.6
0.8
1
1.2
1.4
1.6
234Uranium / 238Uranium (unitless activity ratio)
0852
0853
0854
0855
0857
0856
0858

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3)	mg/L	0405	WL	09/17/2015	N001	NR	N	99			#	-	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	63		J	#	-	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	116			#	-	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	150			#	-	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	40		FQ	#	-	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	325		F	#	-	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	190		F	#	-	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	280		F	#	-	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	299		F	#	-	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	330		F	#	-	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	83		FQ	#	-	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	207		F	#	-	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	94		F	#	-	-
	mg/L	0722R	WL	09/17/2015	N001	SF		270		F	#	-	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	308		F	#	-	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	170		F	#	-	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	212		F	#	-	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	298		FQ	#	-	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	240.00		F	#	-	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	215		F	#	-	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	402		F	#	-	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	442		F	#	-	-
	mg/L	0824	WL	09/18/2015	N001	SF		320		F	#	-	-
	mg/L	0826	WL	09/16/2015	N001	SF		371		F	#	-	-
	mg/L	0828	WL	09/14/2015	N001		O	129			#	-	-
	mg/L	0841	WL	09/17/2015	N001			200			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3)	mg/L	0842	WL	09/17/2015	N001			169			#	-	-
	mg/L	0844	BH	08/26/2015	0001			173			#	-	-
	mg/L	0852-3	WL	09/15/2015	N001			325		F	#	-	-
	mg/L	0852-4	WL	09/15/2015	N001			330		F	#	-	-
	mg/L	0853-2	WL	09/16/2015	N001			430		F	#	-	-
	mg/L	0853-3	WL	09/16/2015	N001			412		F	#	-	-
	mg/L	0853-4	WL	09/16/2015	N001			388		F	#	-	-
	mg/L	0854-2	WL	09/16/2015	N001			470		F	#	-	-
	mg/L	0854-3	WL	09/16/2015	N001			298		F	#	-	-
	mg/L	0854-4	WL	09/17/2015	N001			420		F	#	-	-
	mg/L	0855-2	WL	09/16/2015	N001			520		F	#	-	-
	mg/L	0855-3	WL	09/16/2015	N001			468		F	#	-	-
	mg/L	0855-4	WL	09/16/2015	N001			440		F	#	-	-
	mg/L	0856-2	WL	09/17/2015	N001			390		F	#	-	-
	mg/L	0856-3	WL	09/17/2015	N001			381		F	#	-	-
	mg/L	0856-4	WL	09/17/2015	N001			409		F	#	-	-
	mg/L	0857-3	WL	09/16/2015	N001			447		F	#	-	-
	mg/L	0857-4	WL	09/16/2015	N001			437		F	#	-	-
	mg/L	0858-2	WL	09/15/2015	N001			376		F	#	-	-
	mg/L	0858-3	WL	09/15/2015	N001			334		F	#	-	-
	mg/L	0858-4	WL	09/15/2015	N001			320		F	#	-	-
	mg/L	0859-2	WL	09/17/2015	N001			314		F	#	-	-
	mg/L	0859-3	WL	09/17/2015	N001			285		F	#	-	-
	mg/L	0859-4	WL	09/17/2015	N001			288		F	#	-	-
	mg/L	0860-2	WL	09/17/2015	N001			274		F	#	-	-
	mg/L	0860-3	WL	09/17/2015	N001			278		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3)	mg/L	0860-4	WL	09/17/2015	N001			273		F	#	-	-
	mg/L	0866	WL	09/15/2015	N001			366		F	#	-	-
	mg/L	0867	WL	09/15/2015	N001			396		F	#	-	-
	mg/L	0868	WL	09/15/2015	N001			416		F	#	-	-
	mg/L	0869	WL	09/15/2015	N001			516		F	#	-	-
	mg/L	0870	WL	09/15/2015	N001			601		F	#	-	-
	mg/L	0871	WL	09/15/2015	N001			1210		F	#	-	-
	mg/L	0872	WL	09/15/2015	N001			601		F	#	-	-
	mg/L	0873	WL	09/15/2015	N001			631		F	#	-	-
	mg/L	0874	WL	09/15/2015	N001			620		F	#	-	-
	mg/L	0875	WL	09/15/2015	N001			529		F	#	-	-
	mg/L	0876	WL	09/17/2015	N001			32			#	-	-
	mg/L	0878	WL	09/17/2015	N001			125			#	-	-
	mg/L	T03-03	BH	08/27/2015	0001			365			#	-	-
	mg/L	T03-04	BH	08/27/2015	0001			355			#	-	-
	mg/L	T03-05	BH	08/27/2015	0001			374			#	-	-
	mg/L	T03-06	BH	08/27/2015	0001			352			#	-	-
	mg/L	T03-07	BH	08/27/2015	0001			347			#	-	-
	mg/L	T03-08	BH	08/27/2015	0001			269			#	-	-
	mg/L	T03-09	BH	08/27/2015	0001			312			#	-	-
	mg/L	T06-01	BH	08/25/2015	0001			354			#	-	-
	mg/L	T06-01-01	BH	08/25/2015	0001			338			#	-	-
	mg/L	T06-01-02	BH	08/25/2015	0001			370			#	-	-
	mg/L	T06-01-03	BH	08/25/2015	0001			358			#	-	-
	mg/L	T06-01-04	BH	08/26/2015	0001			350			#	-	-
	mg/L	T10-01	BH	08/26/2015	0001			377			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3)	mg/L	T10-02	BH	08/26/2015	0001			247			#	-	-
	mg/L	T10-03	BH	08/26/2015	0001			239			#	-	-
Calcium	mg/L	0405	WL	09/17/2015	N001	NR	N	7.100			#	0.024	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	4.200			#	0.024	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	3.800			#	0.024	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	3.600			#	0.024	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	28.000		FQ	#	0.024	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	430.000		F	#	0.024	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	79.000		F	#	0.024	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	130.000		F	#	0.024	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	93.000		F	#	0.024	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	350.000		F	#	0.024	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	80.000		FQ	#	0.024	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	94.000		F	#	0.024	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	8.700		F	#	0.024	-
	mg/L	0722R	WL	09/17/2015	N001	SF		340.000		F	#	0.024	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	290.000		F	#	0.024	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	57.000		F	#	0.24	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	80.000		F	#	0.024	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	79.000		FQ	#	0.024	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	480.000		F	#	0.024	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	170.000		F	#	0.024	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	230.000		F	#	0.024	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	390.000		F	#	0.024	-
	mg/L	0824	WL	09/18/2015	N001	SF		90.000		F	#	0.024	-
	mg/L	0826	WL	09/16/2015	N001	SF		210.000		F	#	0.024	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/L	0828	WL	09/14/2015	N001		O	3.500			#	0.024	-
	mg/L	0841	WL	09/17/2015	N001			85.000			#	0.024	-
	mg/L	0842	WL	09/17/2015	N001			57.000			#	0.024	-
	mg/L	0844	BH	08/26/2015	0001			74.000			#	0.024	-
	mg/L	0852-3	WL	09/15/2015	N001			120.000		F	#	0.024	-
	mg/L	0852-4	WL	09/15/2015	N001			110.000		F	#	0.024	-
	mg/L	0853-2	WL	09/16/2015	N001			230.000		F	#	0.024	-
	mg/L	0853-3	WL	09/16/2015	N001			260.000		F	#	0.024	-
	mg/L	0853-4	WL	09/16/2015	N001			250.000		F	#	0.024	-
	mg/L	0854-2	WL	09/16/2015	N001			310.000		F	#	0.12	-
	mg/L	0854-3	WL	09/16/2015	N001			230.000		F	#	0.024	-
	mg/L	0854-4	WL	09/17/2015	N001			270.000		F	#	0.024	-
	mg/L	0855-2	WL	09/16/2015	N001			380.000		F	#	0.024	-
	mg/L	0855-3	WL	09/16/2015	N001			460.000		F	#	0.024	-
	mg/L	0855-4	WL	09/16/2015	N001			490.000		F	#	0.024	-
	mg/L	0856-2	WL	09/17/2015	N001			460.000		F	#	0.12	-
	mg/L	0856-3	WL	09/17/2015	N001			470.000		F	#	0.12	-
	mg/L	0856-4	WL	09/17/2015	N001			480.000		F	#	0.12	-
	mg/L	0857-3	WL	09/16/2015	N001			580.000		F	#	0.12	-
	mg/L	0857-4	WL	09/16/2015	N001			590.000		F	#	0.12	-
	mg/L	0858-2	WL	09/15/2015	N001			410.000		F	#	0.12	-
	mg/L	0858-3	WL	09/15/2015	N001			400.000		F	#	0.12	-
	mg/L	0858-4	WL	09/15/2015	N001			390.000		F	#	0.12	-
	mg/L	0858-4	WL	09/15/2015	N002			350.000		F	#	0.024	-
	mg/L	0859-2	WL	09/17/2015	N001			350.000		F	#	0.12	-
	mg/L	0859-3	WL	09/17/2015	N001			450.000		F	#	0.12	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/L	0859-4	WL	09/17/2015	N001			450.000		F	#	0.12	-
	mg/L	0860-2	WL	09/17/2015	N001			450.000		F	#	0.024	-
	mg/L	0860-3	WL	09/17/2015	N001			410.000		F	#	0.024	-
	mg/L	0860-3	WL	09/17/2015	N002			420.000		F	#	0.024	-
	mg/L	0860-4	WL	09/17/2015	N001			400.000		F	#	0.024	-
	mg/L	0866	WL	09/15/2015	N001			490.000		F	#	0.12	-
	mg/L	0867	WL	09/15/2015	N001			450.000		F	#	0.12	-
	mg/L	0868	WL	09/15/2015	N001			460.000		F	#	0.12	-
	mg/L	0869	WL	09/15/2015	N001			490.000		F	#	0.12	-
	mg/L	0870	WL	09/15/2015	N001			490.000		F	#	0.12	-
	mg/L	0871	WL	09/15/2015	N001			500.000		F	#	0.12	-
	mg/L	0872	WL	09/15/2015	N001			560.000		F	#	0.12	-
	mg/L	0872	WL	09/15/2015	N002			560.000		F	#	0.12	-
	mg/L	0873	WL	09/15/2015	N001			540.000		F	#	0.12	-
	mg/L	0874	WL	09/15/2015	N001			610.000		F	#	0.12	-
	mg/L	0875	WL	09/15/2015	N001			540.000		F	#	0.12	-
	mg/L	0876	WL	09/17/2015	N001			4.900			#	0.024	-
	mg/L	0878	WL	09/17/2015	N001			4.900			#	0.024	-
	mg/L	T03-03	BH	08/27/2015	0001			200.000			#	0.024	-
	mg/L	T03-04	BH	08/27/2015	0001			300.000			#	0.024	-
	mg/L	T03-05	BH	08/27/2015	0001			430.000			#	0.24	-
	mg/L	T03-06	BH	08/27/2015	0001			360.000			#	0.24	-
	mg/L	T03-07	BH	08/27/2015	0001			300.000			#	0.24	-
	mg/L	T03-08	BH	08/27/2015	0001			510.000			#	0.24	-
	mg/L	T03-09	BH	08/27/2015	0001			420.000			#	0.024	-
	mg/L	T06-01	BH	08/25/2015	0001			140.000			#	0.24	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/L	T06-01	BH	08/25/2015	0002			140.000			#	0.024	-
	mg/L	T06-01-01	BH	08/25/2015	0001			130.000			#	0.024	-
	mg/L	T06-01-02	BH	08/25/2015	0001			130.000			#	0.024	-
	mg/L	T06-01-03	BH	08/25/2015	0001			110.000			#	0.024	-
	mg/L	T06-01-04	BH	08/26/2015	0001			110.000			#	0.024	-
	mg/L	T10-01	BH	08/26/2015	0001			140.000			#	0.024	-
	mg/L	T10-02	BH	08/26/2015	0001			76.000			#	0.024	-
	mg/L	T10-03	BH	08/26/2015	0001			99.000			#	0.024	-
Chloride	mg/L	0405	WL	09/17/2015	N001	NR	N	21			#	0.8	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	10			#	0.4	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	14			#	0.8	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	11			#	0.4	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	58		FQ	#	1	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	110		F	#	10	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	15		F	#	0.4	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	35		F	#	1	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	52		F	#	2	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	150		F	#	10	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	41		FQ	#	2	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	5.6		F	#	0.4	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	26		F	#	0.8	-
	mg/L	0722R	WL	09/17/2015	N001	SF		29		F	#	4	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	59		F	#	4	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	13		F	#	0.4	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	6.9		F	#	2	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	7.2		FQ	#	0.4	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/L	0732	WL	09/17/2015	N001	SE	U	41		F	#	5	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	18		F	#	4	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	40		F	#	4	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	180		F	#	20	-
	mg/L	0824	WL	09/18/2015	N001	SF		6.5		F	#	0.4	-
	mg/L	0826	WL	09/16/2015	N001	SF		38		F	#	4	-
	mg/L	0828	WL	09/14/2015	N001		O	14			#	0.8	-
	mg/L	0841	WL	09/17/2015	N001			26			#	0.8	-
	mg/L	0842	WL	09/17/2015	N001			15			#	0.4	-
	mg/L	0844	BH	08/26/2015	0001			14			#	2	-
	mg/L	0852-3	WL	09/15/2015	N001			27		F	#	2	-
	mg/L	0852-4	WL	09/15/2015	N001			26		F	#	1	-
	mg/L	0853-2	WL	09/16/2015	N001			50		F	#	5	-
	mg/L	0853-3	WL	09/16/2015	N001			53		F	#	5	-
	mg/L	0853-4	WL	09/16/2015	N001			53		F	#	5	-
	mg/L	0854-2	WL	09/16/2015	N001			72		F	#	10	-
	mg/L	0854-3	WL	09/16/2015	N001			56		F	#	5	-
	mg/L	0854-4	WL	09/17/2015	N001			63		F	#	5	-
	mg/L	0855-2	WL	09/16/2015	N001			410		F	#	20	-
	mg/L	0855-3	WL	09/16/2015	N001			380		F	#	20	-
	mg/L	0855-4	WL	09/16/2015	N001			390		F	#	20	-
	mg/L	0856-2	WL	09/17/2015	N001			150		F	#	10	-
	mg/L	0856-3	WL	09/17/2015	N001			170		F	#	10	-
	mg/L	0856-4	WL	09/17/2015	N001			200		F	#	10	-
	mg/L	0857-3	WL	09/16/2015	N001			200		F	#	10	-
	mg/L	0857-4	WL	09/16/2015	N001			200		F	#	10	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/L	0858-2	WL	09/15/2015	N001			94		F	#	10	-
	mg/L	0858-3	WL	09/15/2015	N001			95		F	#	10	-
	mg/L	0858-4	WL	09/15/2015	N002			96		F	#	10	-
	mg/L	0859-2	WL	09/17/2015	N001			35		F	#	10	-
	mg/L	0859-3	WL	09/17/2015	N001			31		F	#	10	-
	mg/L	0859-4	WL	09/17/2015	N001			34		F	#	10	-
	mg/L	0860-2	WL	09/17/2015	N001			75		F	#	10	-
	mg/L	0860-3	WL	09/17/2015	N001			47		F	#	10	-
	mg/L	0860-3	WL	09/17/2015	N002			49		F	#	10	-
	mg/L	0860-4	WL	09/17/2015	N001			42		F	#	10	-
	mg/L	0866	WL	09/15/2015	N001			120		F	#	10	-
	mg/L	0867	WL	09/15/2015	N001			130		F	#	10	-
	mg/L	0868	WL	09/15/2015	N001			180		F	#	20	-
	mg/L	0869	WL	09/15/2015	N001			310		F	#	20	-
	mg/L	0870	WL	09/15/2015	N001			440		F	#	20	-
	mg/L	0871	WL	09/15/2015	N001			550		F	#	20	-
	mg/L	0872	WL	09/15/2015	N001			580		F	#	20	-
	mg/L	0872	WL	09/15/2015	N002			580		F	#	20	-
	mg/L	0873	WL	09/15/2015	N001			630		F	#	20	-
	mg/L	0874	WL	09/15/2015	N001			510		F	#	20	-
	mg/L	0875	WL	09/15/2015	N001			360		F	#	20	-
	mg/L	0876	WL	09/17/2015	N001			38			#	0.8	-
	mg/L	0878	WL	09/17/2015	N001			10			#	0.8	-
	mg/L	T03-03	BH	08/27/2015	0001			18			#	4	-
	mg/L	T03-04	BH	08/27/2015	0001			46			#	8	-
	mg/L	T03-05	BH	08/27/2015	0001			140			#	10	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/L	T03-06	BH	08/27/2015	0001			120			#	10	-
	mg/L	T03-07	BH	08/27/2015	0001			100			#	10	-
	mg/L	T03-08	BH	08/27/2015	0001			63			#	10	-
	mg/L	T03-09	BH	08/27/2015	0001			43			#	10	-
	mg/L	T06-01	BH	08/25/2015	0001			30			#	4	-
	mg/L	T06-01	BH	08/25/2015	0002			29			#	4	-
	mg/L	T06-01-01	BH	08/25/2015	0001			25			#	4	-
	mg/L	T06-01-02	BH	08/25/2015	0001			29			#	4	-
	mg/L	T06-01-03	BH	08/25/2015	0001			24			#	2.5	-
	mg/L	T06-01-04	BH	08/26/2015	0001			27			#	2.5	-
	mg/L	T10-01	BH	08/26/2015	0001			28			#	4	-
	mg/L	T10-02	BH	08/26/2015	0001			16			#	2	-
	mg/L	T10-03	BH	08/26/2015	0001			23			#	2	-
Dissolved Oxygen	mg/L	0405	WL	09/17/2015	N001	NR	N	4.55			#	-	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	4.51			#	-	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	4.12			#	-	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	2.14			#	-	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	0.45		FQ	#	-	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	0.50		F	#	-	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	1.08		F	#	-	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.89		F	#	-	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.25		F	#	-	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.41		F	#	-	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.14		FQ	#	-	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	2.48		F	#	-	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.25		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Dissolved Oxygen	mg/L	0722R	WL	09/17/2015	N001	SF		0.54		F	#	-	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.27		F	#	-	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.20		F	#	-	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.53		F	#	-	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	1.23		FQ	#	-	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	0.25		F	#	-	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	0.26		F	#	-	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	1.40		F	#	-	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	2.59		F	#	-	-
	mg/L	0824	WL	09/18/2015	N001	SF		4.37		F	#	-	-
	mg/L	0826	WL	09/16/2015	N001	SF		1.24		F	#	-	-
	mg/L	0828	WL	09/14/2015	N001		O	5.31			#	-	-
	mg/L	0841	WL	09/17/2015	N001			2.84			#	-	-
	mg/L	0842	WL	09/17/2015	N001			4.66			#	-	-
	mg/L	0844	BH	08/26/2015	N001			0.29			#	-	-
	mg/L	0852-4	WL	09/15/2015	N001			0.31		F	#	-	-
	mg/L	0853-2	WL	09/16/2015	N001			1.78		F	#	-	-
	mg/L	0853-3	WL	09/16/2015	N001			1.50		F	#	-	-
	mg/L	0853-4	WL	09/16/2015	N001			1.29		F	#	-	-
	mg/L	0854-2	WL	09/16/2015	N001			1.49		F	#	-	-
	mg/L	0854-3	WL	09/16/2015	N001			1.19		F	#	-	-
	mg/L	0854-4	WL	09/17/2015	N001			1.41		F	#	-	-
	mg/L	0855-2	WL	09/16/2015	N001			1.91		F	#	-	-
	mg/L	0855-3	WL	09/16/2015	N001			0.44		F	#	-	-
	mg/L	0855-4	WL	09/16/2015	N001			0.23		F	#	-	-
	mg/L	0856-2	WL	09/17/2015	N001			1.49		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Dissolved Oxygen	mg/L	0856-3	WL	09/17/2015	N001			1.39		F	#	-	-
	mg/L	0856-4	WL	09/17/2015	N001			1.26		F	#	-	-
	mg/L	0857-3	WL	09/16/2015	N001			2.09		F	#	-	-
	mg/L	0857-4	WL	09/16/2015	N001			1.57		F	#	-	-
	mg/L	0858-3	WL	09/15/2015	N001			2.85		F	#	-	-
	mg/L	0858-4	WL	09/15/2015	N001			1.55		F	#	-	-
	mg/L	0859-2	WL	09/17/2015	N001			0.24		F	#	-	-
	mg/L	0859-3	WL	09/17/2015	N001			0.28		F	#	-	-
	mg/L	0859-4	WL	09/17/2015	N001			0.25		F	#	-	-
	mg/L	0860-2	WL	09/17/2015	N001			0.28		F	#	-	-
	mg/L	0860-3	WL	09/17/2015	N001			0.99		F	#	-	-
	mg/L	0860-4	WL	09/17/2015	N001			0.24		F	#	-	-
	mg/L	0866	WL	09/15/2015	N001			1.74		F	#	-	-
	mg/L	0867	WL	09/15/2015	N001			1.33		F	#	-	-
	mg/L	0868	WL	09/15/2015	N001			1.40		F	#	-	-
	mg/L	0869	WL	09/15/2015	N001			1.23		F	#	-	-
	mg/L	0870	WL	09/15/2015	N001			1.27		F	#	-	-
	mg/L	0871	WL	09/15/2015	N001			1.22		F	#	-	-
	mg/L	0872	WL	09/15/2015	N001			1.09		F	#	-	-
	mg/L	0873	WL	09/15/2015	N001			1.17		F	#	-	-
	mg/L	0874	WL	09/15/2015	N001			1.20		F	#	-	-
	mg/L	0875	WL	09/15/2015	N001			1.21		F	#	-	-
	mg/L	0876	WL	09/17/2015	N001			7.42			#	-	-
	mg/L	T03-03	BH	08/27/2015	N001			0.62			#	-	-
	mg/L	T03-04	BH	08/27/2015	N001			0.53			#	-	-
	mg/L	T03-05	BH	08/27/2015	N001			0.56			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Dissolved Oxygen	mg/L	T03-06	BH	08/27/2015	N001			0.46			#	-	-
	mg/L	T03-07	BH	08/27/2015	N001			0.47			#	-	-
	mg/L	T03-08	BH	08/27/2015	N001			0.52			#	-	-
	mg/L	T03-09	BH	08/27/2015	N001			0.46			#	-	-
	mg/L	T06-01	BH	08/25/2015	N001			0.89			#	-	-
	mg/L	T06-01-01	BH	08/25/2015	N001			0.68			#	-	-
	mg/L	T06-01-02	BH	08/25/2015	N001			0.89			#	-	-
	mg/L	T06-01-03	BH	08/25/2015	N001			0.88			#	-	-
	mg/L	T06-01-04	BH	08/26/2015	N001			0.74			#	-	-
	mg/L	T10-01	BH	08/26/2015	N001			0.44			#	-	-
	mg/L	T10-02	BH	08/26/2015	N001			0.45			#	-	-
	mg/L	T10-03	BH	08/26/2015	N001			0.41			#	-	-
Field Ferrous Iron	mg/L	0705	WL	09/15/2015	N001	SE	D	0.00		FQ	#	-	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	0.04		F	#	-	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.04		F	#	-	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.07		F	#	-	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.16		F	#	-	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.00		F	#	-	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.22		FQ	#	-	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	0.01		F	#	-	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.00		F	#	-	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.02		F	#	-	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.55		F	#	-	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.00		F	#	-	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.13		F	#	-	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	0.15		FQ	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Field Ferrous Iron	mg/L	0732	WL	09/17/2015	N001	SE	U	0.02		F	#	-	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	0.05		F	#	-	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0		F	#	-	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	0		F	#	-	-
	mg/L	0824	WL	09/18/2015	N001	SF		0.01		F	#	-	-
	mg/L	0826	WL	09/16/2015	N001	SF		0.18		F	#	-	-
	mg/L	0852-3	WL	09/15/2015	N001			0.10		F	#	-	-
	mg/L	0852-4	WL	09/15/2015	N001			0.00		F	#	-	-
	mg/L	0853-2	WL	09/16/2015	N001			2.08		F	#	-	-
	mg/L	0853-3	WL	09/16/2015	N001			0.5		F	#	-	-
	mg/L	0853-4	WL	09/16/2015	N001			2.96		F	#	-	-
	mg/L	0854-2	WL	09/16/2015	N001			2.48		F	#	-	-
	mg/L	0854-3	WL	09/16/2015	N001			0.61		F	#	-	-
	mg/L	0854-4	WL	09/17/2015	N001			2.13		F	#	-	-
	mg/L	0855-2	WL	09/16/2015	N001			2.99		F	#	-	-
	mg/L	0855-3	WL	09/16/2015	N001			0.19		F	#	-	-
	mg/L	0855-4	WL	09/16/2015	N001			2.18		F	#	-	-
	mg/L	0856-2	WL	09/17/2015	N001			1.10		F	#	-	-
	mg/L	0856-3	WL	09/17/2015	N001			0.48		F	#	-	-
	mg/L	0856-4	WL	09/17/2015	N001			1.62		F	#	-	-
	mg/L	0857-3	WL	09/16/2015	N001			1.10		F	#	-	-
	mg/L	0857-4	WL	09/16/2015	N001			4.11		F	#	-	-
	mg/L	0858-2	WL	09/15/2015	N001			1.02		F	#	-	-
	mg/L	0858-3	WL	09/15/2015	N001			2.06		F	#	-	-
	mg/L	0858-4	WL	09/15/2015	N001			1.88		F	#	-	-
	mg/L	0859-2	WL	09/17/2015	N001			0.24		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Field Ferrous Iron	mg/L	0859-3	WL	09/17/2015	N001			1.94		F	#	-	-
	mg/L	0859-4	WL	09/17/2015	N001			2.20		F	#	-	-
	mg/L	0860-2	WL	09/17/2015	N001			2.94		F	#	-	-
	mg/L	0860-3	WL	09/17/2015	N001			1.99		F	#	-	-
	mg/L	0860-4	WL	09/17/2015	N001			2.06		F	#	-	-
	mg/L	0866	WL	09/15/2015	N001			1.28		F	#	-	-
	mg/L	0867	WL	09/15/2015	N001			2.78		F	#	-	-
	mg/L	0868	WL	09/15/2015	N001			0.02		F	#	-	-
	mg/L	0869	WL	09/15/2015	N001			0.68		F	#	-	-
	mg/L	0870	WL	09/15/2015	N001			3.03		F	#	-	-
	mg/L	0871	WL	09/15/2015	N001			0.24		F	#	-	-
	mg/L	0872	WL	09/15/2015	N001			2.93		F	#	-	-
	mg/L	0873	WL	09/15/2015	N001			1.81		F	#	-	-
	mg/L	0874	WL	09/15/2015	N001			1.86		F	#	-	-
	mg/L	0875	WL	09/15/2015	N001			2.32		F	#	-	-
Iron	mg/L	0705	WL	09/15/2015	N001	SE	D	0.052	J	FQ	#	0.0067	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	0.050	J	F	#	0.0067	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.310		F	#	0.0067	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.100		F	#	0.0067	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.190		F	#	0.0067	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.042	J	F	#	0.0067	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.480		FQ	#	0.0067	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	0.0093	J	F	#	0.0067	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.042	J	F	#	0.0067	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.015	J	F	#	0.0067	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.560		F	#	0.0067	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/L	0727	WL	09/17/2015	N001	SE	U	0.067	U	F	#	0.067	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.110	N	F	#	0.0067	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	1.300		FQ	#	0.0067	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	0.071	J	F	#	0.0067	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	0.110		F	#	0.0067	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0.160		F	#	0.0067	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	0.150		F	#	0.0067	-
	mg/L	0824	WL	09/18/2015	N001	SF		0.0067	U	F	#	0.0067	-
	mg/L	0826	WL	09/16/2015	N001	SF		0.055	J	UF	#	0.0067	-
	mg/L	0852-3	WL	09/15/2015	N001			0.570		F	#	0.0067	-
	mg/L	0852-4	WL	09/15/2015	N001			0.065	J	F	#	0.0067	-
	mg/L	0853-2	WL	09/16/2015	N001			2.800		F	#	0.0067	-
	mg/L	0853-3	WL	09/16/2015	N001			0.630		F	#	0.0067	-
	mg/L	0853-4	WL	09/16/2015	N001			3.300		F	#	0.0067	-
	mg/L	0854-2	WL	09/16/2015	N001			2.900		F	#	0.033	-
	mg/L	0854-3	WL	09/16/2015	N001			0.820		F	#	0.0067	-
	mg/L	0854-4	WL	09/17/2015	N001			6.300		F	#	0.0067	-
	mg/L	0855-2	WL	09/16/2015	N001			3.000		F	#	0.0067	-
	mg/L	0855-3	WL	09/16/2015	N001			0.360		F	#	0.0067	-
	mg/L	0855-4	WL	09/16/2015	N001			2.800		F	#	0.0067	-
	mg/L	0856-2	WL	09/17/2015	N001			1.600		F	#	0.033	-
	mg/L	0856-3	WL	09/17/2015	N001			0.560		F	#	0.033	-
	mg/L	0856-4	WL	09/17/2015	N001			2.100		F	#	0.033	-
	mg/L	0857-3	WL	09/16/2015	N001			3.300		F	#	0.033	-
	mg/L	0857-4	WL	09/16/2015	N001			7.100		F	#	0.033	-
	mg/L	0858-2	WL	09/15/2015	N001			1.700		F	#	0.033	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/L	0858-3	WL	09/15/2015	N001			3.900		F	#	0.033	-
	mg/L	0858-4	WL	09/15/2015	N001			2.800		F	#	0.033	-
	mg/L	0858-4	WL	09/15/2015	N002			2.600		F	#	0.0067	-
	mg/L	0859-2	WL	09/17/2015	N001			0.850		F	#	0.033	-
	mg/L	0859-3	WL	09/17/2015	N001			4.500		F	#	0.033	-
	mg/L	0859-4	WL	09/17/2015	N001			5.600		F	#	0.033	-
	mg/L	0860-2	WL	09/17/2015	N001			4.500		F	#	0.0067	-
	mg/L	0860-3	WL	09/17/2015	N001			2.800		F	#	0.0067	-
	mg/L	0860-3	WL	09/17/2015	N002			2.800		F	#	0.0067	-
	mg/L	0860-4	WL	09/17/2015	N001			2.400		F	#	0.0067	-
	mg/L	0866	WL	09/15/2015	N001			1.400		F	#	0.033	-
	mg/L	0867	WL	09/15/2015	N001			3.400		F	#	0.033	-
	mg/L	0868	WL	09/15/2015	N001			0.690		F	#	0.033	-
	mg/L	0869	WL	09/15/2015	N001			3.200		F	#	0.033	-
	mg/L	0870	WL	09/15/2015	N001			6.400		F	#	0.033	-
	mg/L	0871	WL	09/15/2015	N001			0.460	J	F	#	0.033	-
	mg/L	0872	WL	09/15/2015	N001			3.900		F	#	0.033	-
	mg/L	0872	WL	09/15/2015	N002			3.900		F	#	0.033	-
	mg/L	0873	WL	09/15/2015	N001			2.800		F	#	0.033	-
	mg/L	0874	WL	09/15/2015	N001			2.900		F	#	0.033	-
	mg/L	0875	WL	09/15/2015	N001			2.600		F	#	0.033	-
Magnesium	mg/L	0405	WL	09/17/2015	N001	NR	N	0.063	J		#	0.03	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.042	J		#	0.03	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.049	J		#	0.03	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.050	J		#	0.03	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	0.520	J	FQ	#	0.03	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/L	0707	WL	09/15/2015	N001	SF	D	130.000		F	#	0.03	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	17.000		F	#	0.03	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	28.000		F	#	0.03	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	6.100		F	#	0.03	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	96.000		F	#	0.03	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	2.700		FQ	#	0.03	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	23.000		F	#	0.03	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.091	J	F	#	0.03	-
	mg/L	0722R	WL	09/17/2015	N001	SF		33.000		F	#	0.03	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	11.000		F	#	0.03	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	6.400	J	F	#	0.3	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	20.000		F	#	0.03	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	14.000		FQ	#	0.03	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	31.000		F	#	0.03	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	16.000		F	#	0.03	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	69.000		F	#	0.03	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	260.000		F	#	0.03	-
	mg/L	0824	WL	09/18/2015	N001	SF		24.000		F	#	0.03	-
	mg/L	0826	WL	09/16/2015	N001	SF		60.000		F	#	0.03	-
	mg/L	0828	WL	09/14/2015	N001		O	0.082	J		#	0.03	-
	mg/L	0841	WL	09/17/2015	N001			14.000			#	0.03	-
	mg/L	0842	WL	09/17/2015	N001			6.500			#	0.03	-
	mg/L	0844	BH	08/26/2015	0001			27.000			#	0.03	-
	mg/L	0852-3	WL	09/15/2015	N001			29.000		F	#	0.03	-
	mg/L	0852-4	WL	09/15/2015	N001			28.000		F	#	0.03	-
	mg/L	0853-2	WL	09/16/2015	N001			66.000		F	#	0.03	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/L	0853-3	WL	09/16/2015	N001			67.000		F	#	0.03	-
	mg/L	0853-4	WL	09/16/2015	N001			65.000		F	#	0.03	-
	mg/L	0854-2	WL	09/16/2015	N001			97.000		F	#	0.15	-
	mg/L	0854-3	WL	09/16/2015	N001			72.000		F	#	0.03	-
	mg/L	0854-4	WL	09/17/2015	N001			86.000		F	#	0.03	-
	mg/L	0855-2	WL	09/16/2015	N001			320.000		F	#	0.03	-
	mg/L	0855-3	WL	09/16/2015	N001			300.000		F	#	0.03	-
	mg/L	0855-4	WL	09/16/2015	N001			280.000		F	#	0.03	-
	mg/L	0856-2	WL	09/17/2015	N001			170.000		F	#	0.15	-
	mg/L	0856-3	WL	09/17/2015	N001			180.000		F	#	0.15	-
	mg/L	0856-4	WL	09/17/2015	N001			180.000		F	#	0.15	-
	mg/L	0857-3	WL	09/16/2015	N001			200.000		F	#	0.15	-
	mg/L	0857-4	WL	09/16/2015	N001			190.000		F	#	0.15	-
	mg/L	0858-2	WL	09/15/2015	N001			100.000		F	#	0.15	-
	mg/L	0858-3	WL	09/15/2015	N001			110.000		F	#	0.15	-
	mg/L	0858-4	WL	09/15/2015	N001			110.000		F	#	0.15	-
	mg/L	0858-4	WL	09/15/2015	N002			110.000		F	#	0.03	-
	mg/L	0859-2	WL	09/17/2015	N001			37.000		F	#	0.15	-
	mg/L	0859-3	WL	09/17/2015	N001			58.000		F	#	0.15	-
	mg/L	0859-4	WL	09/17/2015	N001			70.000		F	#	0.15	-
	mg/L	0860-2	WL	09/17/2015	N001			64.000		F	#	0.03	-
	mg/L	0860-3	WL	09/17/2015	N001			47.000		F	#	0.03	-
	mg/L	0860-3	WL	09/17/2015	N002			49.000		F	#	0.03	-
	mg/L	0860-4	WL	09/17/2015	N001			44.000		F	#	0.03	-
	mg/L	0866	WL	09/15/2015	N001			180.000		F	#	0.15	-
	mg/L	0867	WL	09/15/2015	N001			200.000		F	#	0.15	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/L	0868	WL	09/15/2015	N001			220.000		F	#	0.15	-
	mg/L	0869	WL	09/15/2015	N001			320.000		F	#	0.15	-
	mg/L	0870	WL	09/15/2015	N001			340.000		F	#	0.15	-
	mg/L	0871	WL	09/15/2015	N001			340.000		F	#	0.15	-
	mg/L	0872	WL	09/15/2015	N001			340.000		F	#	0.15	-
	mg/L	0872	WL	09/15/2015	N002			340.000		F	#	0.15	-
	mg/L	0873	WL	09/15/2015	N001			350.000		F	#	0.15	-
	mg/L	0874	WL	09/15/2015	N001			310.000		F	#	0.15	-
	mg/L	0875	WL	09/15/2015	N001			250.000		F	#	0.15	-
	mg/L	0876	WL	09/17/2015	N001			0.030	U		#	0.03	-
	mg/L	0878	WL	09/17/2015	N001			0.030	U		#	0.03	-
	mg/L	T03-03	BH	08/27/2015	0001			44.000			#	0.03	-
	mg/L	T03-04	BH	08/27/2015	0001			69.000			#	0.03	-
	mg/L	T03-05	BH	08/27/2015	0001			120.000			#	0.3	-
	mg/L	T03-06	BH	08/27/2015	0001			91.000			#	0.3	-
	mg/L	T03-07	BH	08/27/2015	0001			74.000			#	0.3	-
	mg/L	T03-08	BH	08/27/2015	0001			59.000			#	0.3	-
	mg/L	T03-09	BH	08/27/2015	0001			48.000			#	0.03	-
	mg/L	T06-01	BH	08/25/2015	0001			35.000			#	0.3	-
	mg/L	T06-01	BH	08/25/2015	0002			37.000			#	0.03	-
	mg/L	T06-01-01	BH	08/25/2015	0001			34.000			#	0.03	-
	mg/L	T06-01-02	BH	08/25/2015	0001			34.000			#	0.03	-
	mg/L	T06-01-03	BH	08/25/2015	0001			27.000			#	0.03	-
	mg/L	T06-01-04	BH	08/26/2015	0001			29.000			#	0.03	-
	mg/L	T10-01	BH	08/26/2015	0001			36.000			#	0.03	-
	mg/L	T10-02	BH	08/26/2015	0001			22.000			#	0.03	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/L	T10-03	BH	08/26/2015	0001			25.000			#	0.03	-
Manganese	mg/L	0405	WL	09/17/2015	N001	NR	N	0.0044	J		#	0.00024	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.0034	J		#	0.00024	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.0035	J		#	0.00024	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.00084	J		#	0.00024	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	0.099		FQ	#	0.00024	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	1.100		F	#	0.00024	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.027		F	#	0.00024	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.230		F	#	0.00024	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.180		F	#	0.00024	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.410		F	#	0.00024	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.100		FQ	#	0.00024	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	0.00024	U	F	#	0.00024	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.003	J	F	#	0.00024	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.0025	J	F	#	0.00024	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.390		F	#	0.00024	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.410		F	#	0.0024	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.0052		F	#	0.00024	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	0.092		FQ	#	0.00024	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	1.200		F	#	0.00024	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	1.000		F	#	0.00024	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0.250		F	#	0.00024	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	0.870		F	#	0.00024	-
	mg/L	0824	WL	09/18/2015	N001	SF		0.00086	J	F	#	0.00024	-
	mg/L	0826	WL	09/16/2015	N001	SF		1.600		F	#	0.00024	-
	mg/L	0828	WL	09/14/2015	N001		O	0.0023	J		#	0.00024	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/L	0841	WL	09/17/2015	N001			0.100			#	0.00024	-
	mg/L	0842	WL	09/17/2015	N001			0.058			#	0.00024	-
	mg/L	0844	BH	08/26/2015	0001			1.200			#	0.00024	-
	mg/L	0852-3	WL	09/15/2015	N001			0.680		F	#	0.00024	-
	mg/L	0852-4	WL	09/15/2015	N001			0.640		F	#	0.00024	-
	mg/L	0853-2	WL	09/16/2015	N001			5.100		F	#	0.00024	-
	mg/L	0853-3	WL	09/16/2015	N001			3.800		F	#	0.00024	-
	mg/L	0853-4	WL	09/16/2015	N001			3.800		F	#	0.00024	-
	mg/L	0854-2	WL	09/16/2015	N001			3.000		F	#	0.0012	-
	mg/L	0854-3	WL	09/16/2015	N001			1.600		F	#	0.00024	-
	mg/L	0854-4	WL	09/17/2015	N001			3.100		F	#	0.00024	-
	mg/L	0855-2	WL	09/16/2015	N001			3.100		F	#	0.00024	-
	mg/L	0855-3	WL	09/16/2015	N001			1.300		F	#	0.00024	-
	mg/L	0855-4	WL	09/16/2015	N001			4.300		F	#	0.00024	-
	mg/L	0856-2	WL	09/17/2015	N001			5.500		F	#	0.0012	-
	mg/L	0856-3	WL	09/17/2015	N001			1.300		F	#	0.0012	-
	mg/L	0856-4	WL	09/17/2015	N001			1.900		F	#	0.0012	-
	mg/L	0857-3	WL	09/16/2015	N001			2.500		F	#	0.0012	-
	mg/L	0857-4	WL	09/16/2015	N001			4.000		F	#	0.0012	-
	mg/L	0858-2	WL	09/15/2015	N001			5.900		F	#	0.0012	-
	mg/L	0858-3	WL	09/15/2015	N001			1.500		F	#	0.0012	-
	mg/L	0858-4	WL	09/15/2015	N001			1.600		F	#	0.0012	-
	mg/L	0858-4	WL	09/15/2015	N002			1.500		F	#	0.00024	-
	mg/L	0859-2	WL	09/17/2015	N001			1.400		F	#	0.0012	-
	mg/L	0859-3	WL	09/17/2015	N001			1.700		F	#	0.0012	-
	mg/L	0859-4	WL	09/17/2015	N001			4.500		F	#	0.0012	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/L	0860-2	WL	09/17/2015	N001			8.800		F	#	0.00024	-
	mg/L	0860-3	WL	09/17/2015	N001			3.100		F	#	0.00024	-
	mg/L	0860-3	WL	09/17/2015	N002			3.200		F	#	0.00024	-
	mg/L	0860-4	WL	09/17/2015	N001			1.600		F	#	0.00024	-
	mg/L	0866	WL	09/15/2015	N001			1.600		F	#	0.0012	-
	mg/L	0867	WL	09/15/2015	N001			4.300		F	#	0.0012	-
	mg/L	0868	WL	09/15/2015	N001			2.500		F	#	0.0012	-
	mg/L	0869	WL	09/15/2015	N001			2.200		F	#	0.0012	-
	mg/L	0870	WL	09/15/2015	N001			1.500		F	#	0.0012	-
	mg/L	0871	WL	09/15/2015	N001			2.100		F	#	0.0012	-
	mg/L	0872	WL	09/15/2015	N001			2.400		F	#	0.0012	-
	mg/L	0872	WL	09/15/2015	N002			2.400		F	#	0.0012	-
	mg/L	0873	WL	09/15/2015	N001			1.800		F	#	0.0012	-
	mg/L	0874	WL	09/15/2015	N001			2.500		F	#	0.0012	-
	mg/L	0875	WL	09/15/2015	N001			3.600		F	#	0.0012	-
	mg/L	0876	WL	09/17/2015	N001			0.00077	J		#	0.00024	-
	mg/L	0878	WL	09/17/2015	N001			0.0035	J		#	0.00024	-
	mg/L	T03-03	BH	08/27/2015	0001			0.400			#	0.00024	-
	mg/L	T03-04	BH	08/27/2015	0001			2.000			#	0.00024	-
	mg/L	T03-05	BH	08/27/2015	0001			3.600			#	0.0024	-
	mg/L	T03-06	BH	08/27/2015	0001			1.700			#	0.0024	-
	mg/L	T03-07	BH	08/27/2015	0001			2.200			#	0.0024	-
	mg/L	T03-08	BH	08/27/2015	0001			0.790			#	0.0024	-
	mg/L	T03-09	BH	08/27/2015	0001			0.380			#	0.00024	-
	mg/L	T06-01	BH	08/25/2015	0001			0.710			#	0.0024	-
	mg/L	T06-01	BH	08/25/2015	0002			0.690			#	0.00024	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/L	T06-01-01	BH	08/25/2015	0001			0.700			#	0.00024	-
	mg/L	T06-01-02	BH	08/25/2015	0001			0.630			#	0.00024	-
	mg/L	T06-01-03	BH	08/25/2015	0001			0.500			#	0.00024	-
	mg/L	T06-01-04	BH	08/26/2015	0001			0.600			#	0.00024	-
	mg/L	T10-01	BH	08/26/2015	0001			1.100			#	0.00024	-
	mg/L	T10-02	BH	08/26/2015	0001			1.200			#	0.00024	-
	mg/L	T10-03	BH	08/26/2015	0001			1.700			#	0.00024	-
Molybdenum	mg/L	0405	WL	09/17/2015	N001	NR	N	0.0032			#	0.00032	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.0021			#	0.00032	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.0034			#	0.00032	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.0025			#	0.00032	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	0.0025		FQ	#	0.00032	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	0.960		F	#	0.00032	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.0025		F	#	0.00032	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.130		F	#	0.00032	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.0096		F	#	0.00032	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.073		F	#	0.00032	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.010		FQ	#	0.00032	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	0.00084	J	F	#	0.00032	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.0024		F	#	0.00032	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.110		F	#	0.00032	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.00032	U	F	#	0.00032	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.0038		F	#	0.00032	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.0039		F	#	0.00032	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	0.0043		FQ	#	0.00032	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	0.029		F	#	0.00032	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/L	0784	WL	09/17/2015	N001	SF	U	0.021		F	#	0.00032	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0.020		F	#	0.00032	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	0.570		F	#	0.00032	-
	mg/L	0824	WL	09/18/2015	N001	SF		0.0036		F	#	0.00032	-
	mg/L	0826	WL	09/16/2015	N001	SF		0.018		F	#	0.00032	-
	mg/L	0828	WL	09/14/2015	N001		O	0.0029			#	0.00032	-
	mg/L	0841	WL	09/17/2015	N001			0.003			#	0.00032	-
	mg/L	0842	WL	09/17/2015	N001			0.0022			#	0.00032	-
	mg/L	0844	BH	08/26/2015	0001			0.0042			#	0.00032	-
	mg/L	0852-3	WL	09/15/2015	N001			0.0089		F	#	0.00032	-
	mg/L	0852-4	WL	09/15/2015	N001			0.011		F	#	0.00032	-
	mg/L	0853-2	WL	09/16/2015	N001			0.046		F	#	0.00032	-
	mg/L	0853-3	WL	09/16/2015	N001			0.029		F	#	0.00032	-
	mg/L	0853-4	WL	09/16/2015	N001			0.026		F	#	0.00032	-
	mg/L	0854-2	WL	09/16/2015	N001			0.035		F	#	0.00032	-
	mg/L	0854-3	WL	09/16/2015	N001			0.030		F	#	0.00032	-
	mg/L	0854-4	WL	09/17/2015	N001			0.038		F	#	0.00032	-
	mg/L	0855-2	WL	09/16/2015	N001			0.340		F	#	0.00032	-
	mg/L	0855-3	WL	09/16/2015	N001			0.320		F	#	0.00032	-
	mg/L	0855-4	WL	09/16/2015	N001			0.250		F	#	0.00032	-
	mg/L	0856-2	WL	09/17/2015	N001			0.290		F	#	0.00032	-
	mg/L	0856-3	WL	09/17/2015	N001			0.340		F	#	0.00032	-
	mg/L	0856-4	WL	09/17/2015	N001			0.300		F	#	0.00032	-
	mg/L	0857-3	WL	09/16/2015	N001			0.600		F	#	0.0016	-
	mg/L	0857-4	WL	09/16/2015	N001			0.550		F	#	0.0016	-
	mg/L	0858-2	WL	09/15/2015	N001			0.900		F	#	0.00032	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/L	0858-3	WL	09/15/2015	N001			0.850		F	#	0.00032	-
	mg/L	0858-4	WL	09/15/2015	N001			0.790		F	#	0.00032	-
	mg/L	0858-4	WL	09/15/2015	N002			0.730		F	#	0.00032	-
	mg/L	0859-2	WL	09/17/2015	N001			0.066		F	#	0.00032	-
	mg/L	0859-3	WL	09/17/2015	N001			0.088		F	#	0.00032	-
	mg/L	0859-4	WL	09/17/2015	N001			0.072		F	#	0.00032	-
	mg/L	0860-2	WL	09/17/2015	N001			0.200		F	#	0.00032	-
	mg/L	0860-3	WL	09/17/2015	N001			0.270		F	#	0.00032	-
	mg/L	0860-3	WL	09/17/2015	N002			0.270		F	#	0.00032	-
	mg/L	0860-4	WL	09/17/2015	N001			0.290		F	#	0.00032	-
	mg/L	0866	WL	09/15/2015	N001			0.860		F	#	0.00032	-
	mg/L	0867	WL	09/15/2015	N001			0.640		F	#	0.00032	-
	mg/L	0868	WL	09/15/2015	N001			0.550		F	#	0.0016	-
	mg/L	0869	WL	09/15/2015	N001			0.430		F	#	0.0016	-
	mg/L	0870	WL	09/15/2015	N001			0.310		F	#	0.0016	-
	mg/L	0871	WL	09/15/2015	N001			0.190		F	#	0.00032	-
	mg/L	0872	WL	09/15/2015	N001			0.170		F	#	0.00032	-
	mg/L	0872	WL	09/15/2015	N002			0.170		F	#	0.00032	-
	mg/L	0873	WL	09/15/2015	N001			0.160		F	#	0.00032	-
	mg/L	0874	WL	09/15/2015	N001			0.058		F	#	0.00032	-
	mg/L	0875	WL	09/15/2015	N001			0.053		F	#	0.00032	-
	mg/L	0876	WL	09/17/2015	N001			0.0049			#	0.00032	-
	mg/L	0878	WL	09/17/2015	N001			0.002			#	0.00032	-
	mg/L	T03-03	BH	08/27/2015	0001			0.0087			#	0.00032	-
	mg/L	T03-04	BH	08/27/2015	0001			0.011			#	0.00032	-
	mg/L	T03-05	BH	08/27/2015	0001			0.025			#	0.00032	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/L	T03-06	BH	08/27/2015	0001			0.018			#	0.00032	-
	mg/L	T03-07	BH	08/27/2015	0001			0.055			#	0.00032	-
	mg/L	T03-08	BH	08/27/2015	0001			0.320			#	0.00032	-
	mg/L	T03-09	BH	08/27/2015	0001			0.980			#	0.00032	-
	mg/L	T06-01	BH	08/25/2015	0001			0.014		J	#	0.00032	-
	mg/L	T06-01	BH	08/25/2015	0002			0.011		J	#	0.00032	-
	mg/L	T06-01-01	BH	08/25/2015	0001			0.012			#	0.00032	-
	mg/L	T06-01-02	BH	08/25/2015	0001			0.018			#	0.00032	-
	mg/L	T06-01-03	BH	08/25/2015	0001			0.012			#	0.00032	-
	mg/L	T06-01-04	BH	08/26/2015	0001			0.013			#	0.00032	-
	mg/L	T10-01	BH	08/26/2015	0001			0.0095			#	0.00032	-
	mg/L	T10-02	BH	08/26/2015	0001			0.0081			#	0.00032	-
	mg/L	T10-03	BH	08/26/2015	0001			0.009			#	0.00032	-
Nitrate + Nitrite as Nitrogen	mg/L	0705	WL	09/15/2015	N001	SE	D	0.01	U	FQ	#	0.01	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	0.044		F	#	0.01	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.44		F	#	0.01	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.01	U	F	#	0.01	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.023		F	#	0.01	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.4		F	#	0.01	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.01	U	FQ	#	0.01	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	1.2		F	#	0.01	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.01	U	F	#	0.01	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.75		F	#	0.01	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.01	U	F	#	0.01	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.01	U	F	#	0.01	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	1.4		F	#	0.05	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Nitrate + Nitrite as Nitrogen	mg/L	0730	WL	09/16/2015	N001	SE	D	0.01	U	FQ	#	0.01	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	0.01	U	F	#	0.01	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	0.01	U	F	#	0.01	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0.01	U	F	#	0.01	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	0.013		F	#	0.01	-
	mg/L	0824	WL	09/18/2015	N001	SF		0.67		F	#	0.01	-
	mg/L	0826	WL	09/16/2015	N001	SF		0.01	U	F	#	0.01	-
	mg/L	0852-3	WL	09/15/2015	N001			2.1		F	#	0.05	-
	mg/L	0852-4	WL	09/15/2015	N001			2.5		F	#	0.05	-
	mg/L	0853-2	WL	09/16/2015	N001			0.012		F	#	0.01	-
	mg/L	0853-3	WL	09/16/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0853-4	WL	09/16/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0854-2	WL	09/16/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0854-3	WL	09/16/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0854-4	WL	09/17/2015	N001			0.012		F	#	0.01	-
	mg/L	0855-2	WL	09/16/2015	N001			0.034		F	#	0.01	-
	mg/L	0855-3	WL	09/16/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0855-4	WL	09/16/2015	N001			0.022		F	#	0.01	-
	mg/L	0856-2	WL	09/17/2015	N001			0.018		F	#	0.01	-
	mg/L	0856-3	WL	09/17/2015	N001			0.014		F	#	0.01	-
	mg/L	0856-4	WL	09/17/2015	N001			0.01		F	#	0.01	-
	mg/L	0857-3	WL	09/16/2015	N001			0.012		F	#	0.01	-
	mg/L	0857-4	WL	09/16/2015	N001			0.012		F	#	0.01	-
	mg/L	0858-2	WL	09/15/2015	N001			0.011		F	#	0.01	-
	mg/L	0858-3	WL	09/15/2015	N001			0.015		F	#	0.01	-
	mg/L	0858-4	WL	09/15/2015	N001			0.01	U	F	#	0.01	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Nitrate + Nitrite as Nitrogen	mg/L	0858-4	WL	09/15/2015	N002			0.01	U	F	#	0.01	-
	mg/L	0859-2	WL	09/17/2015	N001			0.012		F	#	0.01	-
	mg/L	0859-3	WL	09/17/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0859-4	WL	09/17/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0860-2	WL	09/17/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0860-3	WL	09/17/2015	N001			0.012		F	#	0.01	-
	mg/L	0860-3	WL	09/17/2015	N002			0.015		F	#	0.01	-
	mg/L	0860-4	WL	09/17/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0866	WL	09/15/2015	N001			0.012		F	#	0.01	-
	mg/L	0867	WL	09/15/2015	N001			0.014		F	#	0.01	-
	mg/L	0868	WL	09/15/2015	N001			0.01		F	#	0.01	-
	mg/L	0869	WL	09/15/2015	N001			0.013		F	#	0.01	-
	mg/L	0870	WL	09/15/2015	N001			0.011		F	#	0.01	-
	mg/L	0871	WL	09/15/2015	N001			0.01		F	#	0.01	-
	mg/L	0872	WL	09/15/2015	N001			0.011		F	#	0.01	-
	mg/L	0872	WL	09/15/2015	N002			0.012		F	#	0.01	-
	mg/L	0873	WL	09/15/2015	N001			0.013		F	#	0.01	-
	mg/L	0874	WL	09/15/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0875	WL	09/15/2015	N001			0.01	U	F	#	0.01	-
Nitrite	mg/L	0707	WL	09/15/2015	N001	SF	D	0.01		F	#	-	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.009		F	#	-	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.017		F	#	-	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.008		F	#	-	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.005		F	#	-	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.1		FQ	#	-	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	0.008		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Nitrite	mg/L	0721	WL	09/16/2015	N001	SE	C	0		F	#	-	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.016		F	#	-	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.017		F	#	-	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.002		F	#	-	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.003		F	#	-	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	0.011		FQ	#	-	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	0.008		F	#	-	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	0.006		F	#	-	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0.036		F	#	-	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	0.02		F	#	-	-
	mg/L	0826	WL	09/16/2015	N001	SF		0.026		F	#	-	-
	mg/L	0852-3	WL	09/15/2015	N001			0.019		F	#	-	-
	mg/L	0852-4	WL	09/15/2015	N001			0.86		F	#	-	-
	mg/L	0853-2	WL	09/16/2015	N001			0.022		F	#	-	-
	mg/L	0853-3	WL	09/16/2015	N001			0.04		F	#	-	-
	mg/L	0853-4	WL	09/16/2015	N001			0.061		F	#	-	-
	mg/L	0854-2	WL	09/16/2015	N001			0.027		F	#	-	-
	mg/L	0854-3	WL	09/16/2015	N001			0.001		F	#	-	-
	mg/L	0854-4	WL	09/17/2015	N001			0.025		F	#	-	-
	mg/L	0855-2	WL	09/16/2015	N001			0.1		F	#	-	-
	mg/L	0855-3	WL	09/16/2015	N001			0.017		F	#	-	-
	mg/L	0855-4	WL	09/16/2015	N001			0.2		F	#	-	-
	mg/L	0856-2	WL	09/17/2015	N001			0.032		F	#	-	-
	mg/L	0856-3	WL	09/17/2015	N001			0.041		F	#	-	-
	mg/L	0856-4	WL	09/17/2015	N001			0.093		F	#	-	-
	mg/L	0857-3	WL	09/16/2015	N001			0.024		F	#	-	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Nitrite	mg/L	0857-4	WL	09/16/2015	N001			0.061		F	#	-	-
	mg/L	0858-2	WL	09/15/2015	N001			0.01		F	#	-	-
	mg/L	0858-3	WL	09/15/2015	N001			0.002		F	#	-	-
	mg/L	0858-4	WL	09/15/2015	N001			0.012		F	#	-	-
	mg/L	0859-2	WL	09/17/2015	N001			0.013		F	#	-	-
	mg/L	0859-3	WL	09/17/2015	N001			0.006		F	#	-	-
	mg/L	0859-4	WL	09/17/2015	N001			0.009		F	#	-	-
	mg/L	0860-2	WL	09/17/2015	N001			0.004		F	#	-	-
	mg/L	0860-3	WL	09/17/2015	N001			0.018		F	#	-	-
	mg/L	0860-4	WL	09/17/2015	N001			0.001		F	#	-	-
	mg/L	0866	WL	09/15/2015	N001			0.036		F	#	-	-
	mg/L	0867	WL	09/15/2015	N001			0.037		F	#	-	-
	mg/L	0868	WL	09/15/2015	N001			0.029		F	#	-	-
	mg/L	0869	WL	09/15/2015	N001			0.07		F	#	-	-
	mg/L	0870	WL	09/15/2015	N001			0.118		F	#	-	-
	mg/L	0871	WL	09/15/2015	N001			0.155		F	#	-	-
	mg/L	0872	WL	09/15/2015	N001			0.16		F	#	-	-
	mg/L	0873	WL	09/15/2015	N001			0.11		F	#	-	-
	mg/L	0874	WL	09/15/2015	N001			0.075		F	#	-	-
	mg/L	0875	WL	09/15/2015	N001			0.038		F	#	-	-
Oxidation Reduction Potential	mV	0405	WL	09/17/2015	N001	NR	N	155.5			#	-	-
	mV	0430	WL	09/17/2015	N001	NR	N	72.2		J	#	-	-
	mV	0436	WL	09/14/2015	N001	NR	N	172.2			#	-	-
	mV	0460	WL	09/17/2015	N001	NR	N	-5.1			#	-	-
	mV	0705	WL	09/15/2015	N001	SE	D	19.6		FQ	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Oxidation Reduction Potential	mV	0707	WL	09/15/2015	N001	SF	D	74.7		F	#	-	-
	mV	0710	WL	09/17/2015	N001	SF	U	108.7		FJ	#	-	-
	mV	0716	WL	09/17/2015	N001	SF	O	-31.2		F	#	-	-
	mV	0717	WL	09/17/2015	N001	SE	O	-41.7		F	#	-	-
	mV	0718	WL	09/16/2015	N001	SF	D	139.3		F	#	-	-
	mV	0719	WL	09/16/2015	N001	SE	D	-53.4		FQ	#	-	-
	mV	0720	WL	09/16/2015	N001	SF	C	78.0		F	#	-	-
	mV	0721	WL	09/16/2015	N001	SE	C	72.3		F	#	-	-
	mV	0722R	WL	09/17/2015	N001	SF		9.5		F	#	-	-
	mV	0723	WL	09/17/2015	N001	SE	D	-28.8		F	#	-	-
	mV	0727	WL	09/17/2015	N001	SE	U	2.3		F	#	-	-
	mV	0729	WL	09/16/2015	N001	SF	D	67.4		F	#	-	-
	mV	0730	WL	09/16/2015	N001	SE	D	53.8		FQ	#	-	-
	mV	0732	WL	09/17/2015	N001	SE	U	34.4		F	#	-	-
	mV	0784	WL	09/17/2015	N001	SF	U	5.0		F	#	-	-
	mV	0788	WL	09/16/2015	N001	SF	C	43.8		F	#	-	-
	mV	0789	WL	09/15/2015	N001	SF	D	70.5		F	#	-	-
	mV	0824	WL	09/18/2015	N001	SF		132.5		F	#	-	-
	mV	0826	WL	09/16/2015	N001	SF		14.6		F	#	-	-
	mV	0828	WL	09/14/2015	N001		O	175.8			#	-	-
	mV	0841	WL	09/17/2015	N001			129.2			#	-	-
	mV	0842	WL	09/17/2015	N001			37.6			#	-	-
	mV	0844	BH	08/26/2015	N001			-72.1			#	-	-
	mV	0852-3	WL	09/15/2015	N001			33.1		F	#	-	-
	mV	0852-4	WL	09/15/2015	N001			62.1		F	#	-	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Oxidation Reduction Potential	mV	0853-2	WL	09/16/2015	N001			-84.5		F	#	-	-
	mV	0853-3	WL	09/16/2015	N001			-49.9		F	#	-	-
	mV	0853-4	WL	09/16/2015	N001			-174.9		F	#	-	-
	mV	0854-2	WL	09/16/2015	N001			-79.4		F	#	-	-
	mV	0854-3	WL	09/16/2015	N001			-41.2		F	#	-	-
	mV	0854-4	WL	09/17/2015	N001			-109.2		F	#	-	-
	mV	0855-2	WL	09/16/2015	N001			-34.9		F	#	-	-
	mV	0855-3	WL	09/16/2015	N001			28.7		F	#	-	-
	mV	0855-4	WL	09/16/2015	N001			-30.8		F	#	-	-
	mV	0856-2	WL	09/17/2015	N001			-36.1		F	#	-	-
	mV	0856-3	WL	09/17/2015	N001			-12.0		F	#	-	-
	mV	0856-4	WL	09/17/2015	N001			-61.8		F	#	-	-
	mV	0857-3	WL	09/16/2015	N001			-65.2		F	#	-	-
	mV	0857-4	WL	09/16/2015	N001			-91.5		F	#	-	-
	mV	0858-2	WL	09/15/2015	N001			-33.9		F	#	-	-
	mV	0858-3	WL	09/15/2015	N001			-63.0		F	#	-	-
	mV	0858-4	WL	09/15/2015	N001			-51.8		F	#	-	-
	mV	0859-2	WL	09/17/2015	N001			22.9		F	#	-	-
	mV	0859-3	WL	09/17/2015	N001			-9.0		F	#	-	-
	mV	0859-4	WL	09/17/2015	N001			-26.5		F	#	-	-
	mV	0860-2	WL	09/17/2015	N001			-68.6		F	#	-	-
	mV	0860-3	WL	09/17/2015	N001			-45.5		F	#	-	-
	mV	0860-4	WL	09/17/2015	N001			-32.0		F	#	-	-
	mV	0866	WL	09/15/2015	N001			-46.1		F	#	-	-
	mV	0867	WL	09/15/2015	N001			-119.6		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Oxidation Reduction Potential	mV	0868	WL	09/15/2015	N001			-39.3		F	#	-	-
	mV	0869	WL	09/15/2015	N001			-6.0		F	#	-	-
	mV	0870	WL	09/15/2015	N001			-93.8		F	#	-	-
	mV	0871	WL	09/15/2015	N001			16.4		F	#	-	-
	mV	0872	WL	09/15/2015	N001			-78.8		F	#	-	-
	mV	0873	WL	09/15/2015	N001			-64.5		F	#	-	-
	mV	0874	WL	09/15/2015	N001			-54.5		F	#	-	-
	mV	0875	WL	09/15/2015	N001			-62.1		F	#	-	-
	mV	0876	WL	09/17/2015	N001			68.6			#	-	-
	mV	0878	WL	09/17/2015	N001			140.1			#	-	-
	mV	T03-03	BH	08/27/2015	N001			-47.6			#	-	-
	mV	T03-04	BH	08/27/2015	N001			-84.0			#	-	-
	mV	T03-05	BH	08/27/2015	N001			-44.5			#	-	-
	mV	T03-06	BH	08/27/2015	N001			-54.8			#	-	-
	mV	T03-07	BH	08/27/2015	N001			-62.5			#	-	-
	mV	T03-08	BH	08/27/2015	N001			-22.0			#	-	-
	mV	T03-09	BH	08/27/2015	N001			-41.6			#	-	-
	mV	T06-01	BH	08/25/2015	N001			-74			#	-	-
	mV	T06-01-01	BH	08/25/2015	N001			-106.5			#	-	-
	mV	T06-01-02	BH	08/25/2015	N001			-110			#	-	-
	mV	T06-01-03	BH	08/25/2015	N001			-138			#	-	-
	mV	T06-01-04	BH	08/26/2015	N001			-127.9			#	-	-
	mV	T10-01	BH	08/26/2015	N001			-70.2			#	-	-
	mV	T10-02	BH	08/26/2015	N001			-96.7			#	-	-
	mV	T10-03	BH	08/26/2015	N001			-28.3			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	0405	WL	09/17/2015	N001	NR	N	8.92			#	-	-
	s.u.	0430	WL	09/17/2015	N001	NR	N	8.83			#	-	-
	s.u.	0436	WL	09/14/2015	N001	NR	N	8.54			#	-	-
	s.u.	0460	WL	09/17/2015	N001	NR	N	8.94			#	-	-
	s.u.	0705	WL	09/15/2015	N001	SE	D	8.47		FQ	#	-	-
	s.u.	0707	WL	09/15/2015	N001	SF	D	7.07		F	#	-	-
	s.u.	0710	WL	09/17/2015	N001	SF	U	7.51		F	#	-	-
	s.u.	0716	WL	09/17/2015	N001	SF	O	7.22		F	#	-	-
	s.u.	0717	WL	09/17/2015	N001	SE	O	7.84		F	#	-	-
	s.u.	0718	WL	09/16/2015	N001	SF	D	7.14		F	#	-	-
	s.u.	0719	WL	09/16/2015	N001	SE	D	7.88		FQ	#	-	-
	s.u.	0720	WL	09/16/2015	N001	SF	C	7.30		F	#	-	-
	s.u.	0721	WL	09/16/2015	N001	SE	C	8.86		F	#	-	-
	s.u.	0722R	WL	09/17/2015	N001	SF		7.00		F	#	-	-
	s.u.	0723	WL	09/17/2015	N001	SE	D	7.20		F	#	-	-
	s.u.	0727	WL	09/17/2015	N001	SE	U	7.82		F	#	-	-
	s.u.	0729	WL	09/16/2015	N001	SF	D	7.29		F	#	-	-
	s.u.	0730	WL	09/16/2015	N001	SE	D	7.53		FQ	#	-	-
	s.u.	0732	WL	09/17/2015	N001	SE	U	7.22		F	#	-	-
	s.u.	0784	WL	09/17/2015	N001	SF	U	7.29		F	#	-	-
	s.u.	0788	WL	09/16/2015	N001	SF	C	7.24		F	#	-	-
	s.u.	0789	WL	09/15/2015	N001	SF	D	7.16		F	#	-	-
	s.u.	0824	WL	09/18/2015	N001	SF		7.29		F	#	-	-
	s.u.	0826	WL	09/16/2015	N001	SF		7.19		F	#	-	-
	s.u.	0828	WL	09/14/2015	N001		O	8.7			#	-	-
	s.u.	0841	WL	09/17/2015	N001			7.59			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	0842	WL	09/17/2015	N001			7.95			#	-	-
	s.u.	0844	BH	08/26/2015	N001			7.41			#	-	-
	s.u.	0852-3	WL	09/15/2015	N001			7.76		F	#	-	-
	s.u.	0852-4	WL	09/15/2015	N001			7.76		F	#	-	-
	s.u.	0853-2	WL	09/16/2015	N001			7.26		F	#	-	-
	s.u.	0853-3	WL	09/16/2015	N001			7.23		F	#	-	-
	s.u.	0853-4	WL	09/16/2015	N001			7.38		F	#	-	-
	s.u.	0854-2	WL	09/16/2015	N001			7.07		F	#	-	-
	s.u.	0854-3	WL	09/16/2015	N001			7.18		F	#	-	-
	s.u.	0854-4	WL	09/17/2015	N001			7.26		F	#	-	-
	s.u.	0855-2	WL	09/16/2015	N001			7.18		F	#	-	-
	s.u.	0855-3	WL	09/16/2015	N001			7.15		F	#	-	-
	s.u.	0855-4	WL	09/16/2015	N001			7.12		F	#	-	-
	s.u.	0856-2	WL	09/17/2015	N001			7.23		F	#	-	-
	s.u.	0856-3	WL	09/17/2015	N001			7.11		F	#	-	-
	s.u.	0856-4	WL	09/17/2015	N001			7.14		F	#	-	-
	s.u.	0857-3	WL	09/16/2015	N001			7.05		F	#	-	-
	s.u.	0857-4	WL	09/16/2015	N001			7.14		F	#	-	-
	s.u.	0858-2	WL	09/15/2015	N001			7.22		F	#	-	-
	s.u.	0858-3	WL	09/15/2015	N001			7.18		F	#	-	-
	s.u.	0858-4	WL	09/15/2015	N001			7.13		F	#	-	-
	s.u.	0859-2	WL	09/17/2015	N001			7.06		F	#	-	-
	s.u.	0859-3	WL	09/17/2015	N001			6.88		F	#	-	-
	s.u.	0859-4	WL	09/17/2015	N001			6.91		F	#	-	-
	s.u.	0860-2	WL	09/17/2015	N001			6.99		F	#	-	-
	s.u.	0860-3	WL	09/17/2015	N001			7.09		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	0860-4	WL	09/17/2015	N001			7.04		F	#	-	-
	s.u.	0866	WL	09/15/2015	N001			7.10		F	#	-	-
	s.u.	0867	WL	09/15/2015	N001			7.28		F	#	-	-
	s.u.	0868	WL	09/15/2015	N001			7.25		F	#	-	-
	s.u.	0869	WL	09/15/2015	N001			7.18		F	#	-	-
	s.u.	0870	WL	09/15/2015	N001			7.13		F	#	-	-
	s.u.	0871	WL	09/15/2015	N001			7.08		F	#	-	-
	s.u.	0872	WL	09/15/2015	N001			7.11		F	#	-	-
	s.u.	0873	WL	09/15/2015	N001			7.11		F	#	-	-
	s.u.	0874	WL	09/15/2015	N001			7.06		F	#	-	-
	s.u.	0875	WL	09/15/2015	N001			7.12		F	#	-	-
	s.u.	0876	WL	09/17/2015	N001			9.63			#	-	-
	s.u.	0878	WL	09/17/2015	N001			8.95			#	-	-
	s.u.	T03-03	BH	08/27/2015	N001			7.12			#	-	-
	s.u.	T03-04	BH	08/27/2015	N001			7.18			#	-	-
	s.u.	T03-05	BH	08/27/2015	N001			7.18			#	-	-
	s.u.	T03-06	BH	08/27/2015	N001			7.17			#	-	-
	s.u.	T03-07	BH	08/27/2015	N001			7.10			#	-	-
	s.u.	T03-08	BH	08/27/2015	N001			6.85			#	-	-
	s.u.	T03-09	BH	08/27/2015	N001			7.07			#	-	-
	s.u.	T06-01	BH	08/25/2015	N001			7.68			#	-	-
	s.u.	T06-01-01	BH	08/25/2015	N001			7.58			#	-	-
	s.u.	T06-01-02	BH	08/25/2015	N001			7.68			#	-	-
	s.u.	T06-01-03	BH	08/25/2015	N001			7.81			#	-	-
	s.u.	T06-01-04	BH	08/26/2015	N001			7.88			#	-	-
	s.u.	T10-01	BH	08/26/2015	N001			7.34			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	T10-02	BH	08/26/2015	N001			7.39			#	-	-
	s.u.	T10-03	BH	08/26/2015	N001			7.53			#	-	-
Potassium	mg/L	0405	WL	09/17/2015	N001	NR	N	0.420	J		#	0.052	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.350	J		#	0.052	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.410	J		#	0.052	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.360	J		#	0.052	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	0.600	J	FQ	#	0.052	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	14.000		F	#	0.052	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	2.200		F	#	0.052	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	5.500		F	#	0.052	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.990	J	F	#	0.052	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	13.000		F	#	0.052	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	1.200		FQ	#	0.052	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	2.900		F	#	0.052	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.330	J	F	#	0.052	-
	mg/L	0722R	WL	09/17/2015	N001	SF		8.900		F	#	0.052	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	1.900		F	#	0.052	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.520	U	F	#	0.52	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	7.400		F	#	0.052	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	2.500		FQ	#	0.052	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	2.200		F	#	0.052	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	5.800		F	#	0.052	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	7.700		F	#	0.052	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	17.000		F	#	0.052	-
	mg/L	0824	WL	09/18/2015	N001	SF		6.700		F	#	0.052	-
	mg/L	0826	WL	09/16/2015	N001	SF		7.700		F	#	0.052	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/L	0828	WL	09/14/2015	N001		O	0.420	J		#	0.052	-
	mg/L	0841	WL	09/17/2015	N001			2.400			#	0.052	-
	mg/L	0842	WL	09/17/2015	N001			0.650	J		#	0.052	-
	mg/L	0844	BH	08/26/2015	0001			2.900			#	0.052	-
	mg/L	0852-3	WL	09/15/2015	N001			4.500		F	#	0.052	-
	mg/L	0852-4	WL	09/15/2015	N001			4.400		F	#	0.052	-
	mg/L	0853-2	WL	09/16/2015	N001			8.200		F	#	0.052	-
	mg/L	0853-3	WL	09/16/2015	N001			8.900		F	#	0.052	-
	mg/L	0853-4	WL	09/16/2015	N001			8.100		F	#	0.052	-
	mg/L	0854-2	WL	09/16/2015	N001			13.000		F	#	0.26	-
	mg/L	0854-3	WL	09/16/2015	N001			9.800		F	#	0.052	-
	mg/L	0854-4	WL	09/17/2015	N001			11.000		F	#	0.052	-
	mg/L	0855-2	WL	09/16/2015	N001			20.000		F	#	0.052	-
	mg/L	0855-3	WL	09/16/2015	N001			18.000		F	#	0.052	-
	mg/L	0855-4	WL	09/16/2015	N001			15.000		F	#	0.052	-
	mg/L	0856-2	WL	09/17/2015	N001			21.000		F	#	0.26	-
	mg/L	0856-3	WL	09/17/2015	N001			16.000		F	#	0.26	-
	mg/L	0856-4	WL	09/17/2015	N001			15.000		F	#	0.26	-
	mg/L	0857-3	WL	09/16/2015	N001			21.000		F	#	0.26	-
	mg/L	0857-4	WL	09/16/2015	N001			21.000		F	#	0.26	-
	mg/L	0858-2	WL	09/15/2015	N001			14.000		F	#	0.26	-
	mg/L	0858-3	WL	09/15/2015	N001			13.000		F	#	0.26	-
	mg/L	0858-4	WL	09/15/2015	N001			13.000		F	#	0.26	-
	mg/L	0858-4	WL	09/15/2015	N002			13.000		F	#	0.052	-
	mg/L	0859-2	WL	09/17/2015	N001			9.000		F	#	0.26	-
	mg/L	0859-3	WL	09/17/2015	N001			10.000		F	#	0.26	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/L	0859-4	WL	09/17/2015	N001			11.000		F	#	0.26	-
	mg/L	0860-2	WL	09/17/2015	N001			16.000		F	#	0.052	-
	mg/L	0860-3	WL	09/17/2015	N001			13.000		F	#	0.052	-
	mg/L	0860-3	WL	09/17/2015	N002			13.000		F	#	0.052	-
	mg/L	0860-4	WL	09/17/2015	N001			12.000		F	#	0.052	-
	mg/L	0866	WL	09/15/2015	N001			13.000		F	#	0.26	-
	mg/L	0867	WL	09/15/2015	N001			15.000		F	#	0.26	-
	mg/L	0868	WL	09/15/2015	N001			16.000		F	#	0.26	-
	mg/L	0869	WL	09/15/2015	N001			19.000		F	#	0.26	-
	mg/L	0870	WL	09/15/2015	N001			19.000		F	#	0.26	-
	mg/L	0871	WL	09/15/2015	N001			18.000		F	#	0.26	-
	mg/L	0872	WL	09/15/2015	N001			17.000		F	#	0.26	-
	mg/L	0872	WL	09/15/2015	N002			18.000		F	#	0.26	-
	mg/L	0873	WL	09/15/2015	N001			17.000		F	#	0.26	-
	mg/L	0874	WL	09/15/2015	N001			15.000		F	#	0.26	-
	mg/L	0875	WL	09/15/2015	N001			13.000		F	#	0.26	-
	mg/L	0876	WL	09/17/2015	N001			0.330	J		#	0.052	-
	mg/L	0878	WL	09/17/2015	N001			0.430	J		#	0.052	-
	mg/L	T03-03	BH	08/27/2015	0001			5.100			#	0.052	-
	mg/L	T03-04	BH	08/27/2015	0001			8.300			#	0.052	-
	mg/L	T03-05	BH	08/27/2015	0001			9.300	J		#	0.52	-
	mg/L	T03-06	BH	08/27/2015	0001			8.500	J		#	0.52	-
	mg/L	T03-07	BH	08/27/2015	0001			9.500	J		#	0.52	-
	mg/L	T03-08	BH	08/27/2015	0001			12.000			#	0.52	-
	mg/L	T03-09	BH	08/27/2015	0001			14.000			#	0.052	-
	mg/L	T06-01	BH	08/25/2015	0001			4.800	J		#	0.52	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/L	T06-01	BH	08/25/2015	0002			5.400			#	0.052	-
	mg/L	T06-01-01	BH	08/25/2015	0001			4.700			#	0.052	-
	mg/L	T06-01-02	BH	08/25/2015	0001			5.600			#	0.052	-
	mg/L	T06-01-03	BH	08/25/2015	0001			4.900			#	0.052	-
	mg/L	T06-01-04	BH	08/26/2015	0001			6.200			#	0.052	-
	mg/L	T10-01	BH	08/26/2015	0001			6.300			#	0.052	-
	mg/L	T10-02	BH	08/26/2015	0001			5.200			#	0.052	-
	mg/L	T10-03	BH	08/26/2015	0001			5.000			#	0.052	-
Silica	mg/L	0705	WL	09/15/2015	N001	SE	D	9.300		FQ	#	0.021	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	29.000		F	#	0.021	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	20.000		F	#	0.021	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	23.000		F	#	0.021	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	13.000		F	#	0.021	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	26.000		F	#	0.021	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	13.000		FQ	#	0.021	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	20.000		F	#	0.021	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	9.600		F	#	0.021	-
	mg/L	0722R	WL	09/17/2015	N001	SF		21.000		F	#	0.021	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	22.000		F	#	0.021	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	12.000		F	#	0.21	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	30.000		F	#	0.021	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	24.000		FQ	#	0.021	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	17.000		F	#	0.021	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	61.000		F	#	0.021	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	32.000		F	#	0.021	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	37.000		F	#	0.021	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Silica	mg/L	0824	WL	09/18/2015	N001	SF		34.000		F	#	0.021	-
	mg/L	0826	WL	09/16/2015	N001	SF		31.000		F	#	0.021	-
	mg/L	0852-3	WL	09/15/2015	N001			21.000		F	#	0.021	-
	mg/L	0852-4	WL	09/15/2015	N001			18.000		F	#	0.021	-
	mg/L	0853-2	WL	09/16/2015	N001			31.000		F	#	0.021	-
	mg/L	0853-3	WL	09/16/2015	N001			24.000		F	#	0.021	-
	mg/L	0853-4	WL	09/16/2015	N001			24.000		F	#	0.021	-
	mg/L	0854-2	WL	09/16/2015	N001			31.000		F	#	0.1	-
	mg/L	0854-3	WL	09/16/2015	N001			33.000		F	#	0.021	-
	mg/L	0854-4	WL	09/17/2015	N001			34.000		F	#	0.021	-
	mg/L	0855-2	WL	09/16/2015	N001			33.000		F	#	0.021	-
	mg/L	0855-3	WL	09/16/2015	N001			31.000		F	#	0.021	-
	mg/L	0855-4	WL	09/16/2015	N001			26.000		F	#	0.021	-
	mg/L	0856-2	WL	09/17/2015	N001			27.000		F	#	0.1	-
	mg/L	0856-3	WL	09/17/2015	N001			29.000		F	#	0.1	-
	mg/L	0856-4	WL	09/17/2015	N001			27.000		F	#	0.1	-
	mg/L	0857-3	WL	09/16/2015	N001			35.000		F	#	0.1	-
	mg/L	0857-4	WL	09/16/2015	N001			34.000		F	#	0.1	-
	mg/L	0858-2	WL	09/15/2015	N001			27.000		F	#	0.1	-
	mg/L	0858-3	WL	09/15/2015	N001			28.000		F	#	0.1	-
	mg/L	0858-4	WL	09/15/2015	N001			27.000		F	#	0.1	-
	mg/L	0858-4	WL	09/15/2015	N002			28.000		F	#	0.021	-
	mg/L	0859-2	WL	09/17/2015	N001			38.000		F	#	0.1	-
	mg/L	0859-3	WL	09/17/2015	N001			21.000		F	#	0.1	-
	mg/L	0859-4	WL	09/17/2015	N001			19.000		F	#	0.1	-
	mg/L	0860-2	WL	09/17/2015	N001			23.000		F	#	0.021	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Silica	mg/L	0860-3	WL	09/17/2015	N001			20.000		F	#	0.021	-
	mg/L	0860-3	WL	09/17/2015	N002			19.000		F	#	0.021	-
	mg/L	0860-4	WL	09/17/2015	N001			14.000		F	#	0.021	-
	mg/L	0866	WL	09/15/2015	N001			30.000		F	#	0.1	-
	mg/L	0867	WL	09/15/2015	N001			30.000		F	#	0.1	-
	mg/L	0868	WL	09/15/2015	N001			31.000		F	#	0.1	-
	mg/L	0869	WL	09/15/2015	N001			45.000		F	#	0.1	-
	mg/L	0870	WL	09/15/2015	N001			30.000		F	#	0.1	-
	mg/L	0871	WL	09/15/2015	N001			25.000		F	#	0.1	-
	mg/L	0872	WL	09/15/2015	N001			28.000		F	#	0.1	-
	mg/L	0872	WL	09/15/2015	N002			29.000		F	#	0.1	-
	mg/L	0873	WL	09/15/2015	N001			27.000		F	#	0.1	-
	mg/L	0874	WL	09/15/2015	N001			27.000		F	#	0.1	-
	mg/L	0875	WL	09/15/2015	N001			25.000		F	#	0.1	-
Silicon	mg/L	0705	WL	09/15/2015	N001	SE	D	4.300		FQ	#	0.0097	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	13.000		F	#	0.0097	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	9.100		F	#	0.0097	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	11.000		F	#	0.0097	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	6.000		F	#	0.0097	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	12.000		F	#	0.0097	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	6.000		FQ	#	0.0097	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	9.400		F	#	0.0097	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	4.500		F	#	0.0097	-
	mg/L	0722R	WL	09/17/2015	N001	SF		9.800		F	#	0.0097	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	10.000		F	#	0.0097	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	5.700		F	#	0.097	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Silicon	mg/L	0729	WL	09/16/2015	N001	SF	D	14.000		F	#	0.0097	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	11.000		FQ	#	0.0097	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	8.100		F	#	0.0097	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	29.000		F	#	0.0097	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	15.000		F	#	0.0097	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	17.000		F	#	0.0097	-
	mg/L	0824	WL	09/18/2015	N001	SF		16.000		F	#	0.0097	-
	mg/L	0826	WL	09/16/2015	N001	SF		14.000		F	#	0.0097	-
	mg/L	0852-3	WL	09/15/2015	N001			10.000		F	#	0.0097	-
	mg/L	0852-4	WL	09/15/2015	N001			8.200		F	#	0.0097	-
	mg/L	0853-2	WL	09/16/2015	N001			15.000		F	#	0.0097	-
	mg/L	0853-3	WL	09/16/2015	N001			11.000		F	#	0.0097	-
	mg/L	0853-4	WL	09/16/2015	N001			11.000		F	#	0.0097	-
	mg/L	0854-2	WL	09/16/2015	N001			14.000		F	#	0.048	-
	mg/L	0854-3	WL	09/16/2015	N001			16.000		F	#	0.0097	-
	mg/L	0854-4	WL	09/17/2015	N001			16.000		F	#	0.0097	-
	mg/L	0855-2	WL	09/16/2015	N001			15.000		F	#	0.0097	-
	mg/L	0855-3	WL	09/16/2015	N001			14.000		F	#	0.0097	-
	mg/L	0855-4	WL	09/16/2015	N001			12.000		F	#	0.0097	-
	mg/L	0856-2	WL	09/17/2015	N001			12.000		F	#	0.048	-
	mg/L	0856-3	WL	09/17/2015	N001			14.000		F	#	0.048	-
	mg/L	0856-4	WL	09/17/2015	N001			13.000		F	#	0.048	-
	mg/L	0857-3	WL	09/16/2015	N001			16.000		F	#	0.048	-
	mg/L	0857-4	WL	09/16/2015	N001			16.000		F	#	0.048	-
	mg/L	0858-2	WL	09/15/2015	N001			13.000		F	#	0.048	-
	mg/L	0858-3	WL	09/15/2015	N001			13.000		F	#	0.048	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Silicon	mg/L	0858-4	WL	09/15/2015	N001			13.000		F	#	0.048	-
	mg/L	0858-4	WL	09/15/2015	N002			13.000		F	#	0.0097	-
	mg/L	0859-2	WL	09/17/2015	N001			18.000		F	#	0.048	-
	mg/L	0859-3	WL	09/17/2015	N001			9.700		F	#	0.048	-
	mg/L	0859-4	WL	09/17/2015	N001			8.700		F	#	0.048	-
	mg/L	0860-2	WL	09/17/2015	N001			11.000		F	#	0.0097	-
	mg/L	0860-3	WL	09/17/2015	N001			9.200		F	#	0.0097	-
	mg/L	0860-3	WL	09/17/2015	N002			8.900		F	#	0.0097	-
	mg/L	0860-4	WL	09/17/2015	N001			6.600		F	#	0.0097	-
	mg/L	0866	WL	09/15/2015	N001			14.000		F	#	0.048	-
	mg/L	0867	WL	09/15/2015	N001			14.000		F	#	0.048	-
	mg/L	0868	WL	09/15/2015	N001			14.000		F	#	0.048	-
	mg/L	0869	WL	09/15/2015	N001			21.000		F	#	0.048	-
	mg/L	0870	WL	09/15/2015	N001			14.000		F	#	0.048	-
	mg/L	0871	WL	09/15/2015	N001			12.000		F	#	0.048	-
	mg/L	0872	WL	09/15/2015	N001			13.000		F	#	0.048	-
	mg/L	0872	WL	09/15/2015	N002			13.000		F	#	0.048	-
	mg/L	0873	WL	09/15/2015	N001			13.000		F	#	0.048	-
	mg/L	0874	WL	09/15/2015	N001			13.000		F	#	0.048	-
	mg/L	0875	WL	09/15/2015	N001			12.000		F	#	0.048	-
Sodium	mg/L	0405	WL	09/17/2015	N001	NR	N	190.000			#	0.047	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	160.000			#	0.047	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	170.000			#	0.047	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	160.000			#	0.047	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	200.000		FQ	#	0.047	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	650.000		F	#	0.47	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/L	0710	WL	09/17/2015	N001	SF	U	42.000		F	#	0.047	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	160.000		F	#	0.047	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	320.000		F	#	0.047	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	740.000		F	#	0.47	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	190.000		FQ	#	0.047	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	35.000		F	#	0.047	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	180.000		F	#	0.047	-
	mg/L	0722R	WL	09/17/2015	N001	SF		150.000		F	#	0.047	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	630.000		F	#	0.47	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	73.000		F	#	0.47	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	28.000		F	#	0.047	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	110.000		FQ	#	0.047	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	290.000		F	#	0.047	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	350.000		F	#	0.047	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	420.000		F	#	0.047	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	1400.000		F	#	0.47	-
	mg/L	0824	WL	09/18/2015	N001	SF		67.000		F	#	0.047	-
	mg/L	0826	WL	09/16/2015	N001	SF		410.000		F	#	0.047	-
	mg/L	0828	WL	09/14/2015	N001		O	180.000			#	0.047	-
	mg/L	0841	WL	09/17/2015	N001			96.000			#	0.047	-
	mg/L	0842	WL	09/17/2015	N001			82.000			#	0.047	-
	mg/L	0844	BH	08/26/2015	0001			75.000			#	0.047	-
	mg/L	0852-3	WL	09/15/2015	N001			220.000		F	#	0.047	-
	mg/L	0852-4	WL	09/15/2015	N001			220.000		F	#	0.047	-
	mg/L	0853-2	WL	09/16/2015	N001			480.000		F	#	0.047	-
	mg/L	0853-3	WL	09/16/2015	N001			490.000		F	#	0.047	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/L	0853-4	WL	09/16/2015	N001			430.000		F	#	0.047	-
	mg/L	0854-2	WL	09/16/2015	N001			700.000		F	#	0.23	-
	mg/L	0854-3	WL	09/16/2015	N001			600.000		F	#	0.23	-
	mg/L	0854-4	WL	09/17/2015	N001			590.000		F	#	0.23	-
	mg/L	0855-2	WL	09/16/2015	N001			2000.000		F	#	0.47	-
	mg/L	0855-3	WL	09/16/2015	N001			1700.000		F	#	0.47	-
	mg/L	0855-4	WL	09/16/2015	N001			1600.000		F	#	0.47	-
	mg/L	0856-2	WL	09/17/2015	N001			1000.000		F	#	0.23	-
	mg/L	0856-3	WL	09/17/2015	N001			1000.000		F	#	0.23	-
	mg/L	0856-4	WL	09/17/2015	N001			1000.000		F	#	0.23	-
	mg/L	0857-3	WL	09/16/2015	N001			1200.000		F	#	0.23	-
	mg/L	0857-4	WL	09/16/2015	N001			1200.000		F	#	0.23	-
	mg/L	0858-2	WL	09/15/2015	N001			680.000		F	#	0.23	-
	mg/L	0858-3	WL	09/15/2015	N001			630.000		F	#	0.23	-
	mg/L	0858-4	WL	09/15/2015	N001			620.000		F	#	0.23	-
	mg/L	0858-4	WL	09/15/2015	N002			630.000		F	#	0.23	-
	mg/L	0859-2	WL	09/17/2015	N001			800.000		F	#	0.23	-
	mg/L	0859-3	WL	09/17/2015	N001			860.000		F	#	0.23	-
	mg/L	0859-4	WL	09/17/2015	N001			940.000		F	#	0.23	-
	mg/L	0860-2	WL	09/17/2015	N001			480.000		F	#	0.047	-
	mg/L	0860-3	WL	09/17/2015	N001			600.000		F	#	0.23	-
	mg/L	0860-3	WL	09/17/2015	N002			600.000		F	#	0.23	-
	mg/L	0860-4	WL	09/17/2015	N001			600.000		F	#	0.23	-
	mg/L	0866	WL	09/15/2015	N001			990.000		F	#	0.23	-
	mg/L	0867	WL	09/15/2015	N001			1200.000		F	#	0.23	-
	mg/L	0868	WL	09/15/2015	N001			1300.000		F	#	0.23	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/L	0869	WL	09/15/2015	N001			1700.000		F	#	0.23	-
	mg/L	0870	WL	09/15/2015	N001			2000.000		F	#	0.23	-
	mg/L	0871	WL	09/15/2015	N001			1900.000		F	#	0.23	-
	mg/L	0872	WL	09/15/2015	N001			1800.000		F	#	0.23	-
	mg/L	0872	WL	09/15/2015	N002			1900.000		F	#	0.23	-
	mg/L	0873	WL	09/15/2015	N001			1900.000		F	#	0.23	-
	mg/L	0874	WL	09/15/2015	N001			1700.000		F	#	0.23	-
	mg/L	0875	WL	09/15/2015	N001			1300.000		F	#	0.23	-
	mg/L	0876	WL	09/17/2015	N001			170.000			#	0.047	-
	mg/L	0878	WL	09/17/2015	N001			180.000			#	0.047	-
	mg/L	T03-03	BH	08/27/2015	0001			170.000			#	0.047	-
	mg/L	T03-04	BH	08/27/2015	0001			580.000			#	0.47	-
	mg/L	T03-05	BH	08/27/2015	0001			870.000			#	0.47	-
	mg/L	T03-06	BH	08/27/2015	0001			680.000			#	0.47	-
	mg/L	T03-07	BH	08/27/2015	0001			640.000			#	0.47	-
	mg/L	T03-08	BH	08/27/2015	0001			540.000			#	0.47	-
	mg/L	T03-09	BH	08/27/2015	0001			880.000			#	0.46	-
	mg/L	T06-01	BH	08/25/2015	0001			240.000			#	0.47	-
	mg/L	T06-01	BH	08/25/2015	0002			240.000			#	0.047	-
	mg/L	T06-01-01	BH	08/25/2015	0001			230.000			#	0.047	-
	mg/L	T06-01-02	BH	08/25/2015	0001			230.000			#	0.047	-
	mg/L	T06-01-03	BH	08/25/2015	0001			220.000			#	0.047	-
	mg/L	T06-01-04	BH	08/26/2015	0001			220.000			#	0.047	-
	mg/L	T10-01	BH	08/26/2015	0001			250.000			#	0.047	-
	mg/L	T10-02	BH	08/26/2015	0001			150.000			#	0.047	-
	mg/L	T10-03	BH	08/26/2015	0001			180.000			#	0.047	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0405	WL	09/17/2015	N001	NR	N	950			#	-	-
	umhos/cm	0430	WL	09/17/2015	N001	NR	N	767			#	-	-
	umhos/cm	0436	WL	09/14/2015	N001	NR	N	834			#	-	-
	umhos/cm	0460	WL	09/17/2015	N001	NR	N	740			#	-	-
	umhos/cm	0705	WL	09/15/2015	N001	SE	D	1219		FQ	#	-	-
	umhos/cm	0707	WL	09/15/2015	N001	SF	D	4776		F	#	-	-
	umhos/cm	0710	WL	09/17/2015	N001	SF	U	689		F	#	-	-
	umhos/cm	0716	WL	09/17/2015	N001	SF	O	1384		F	#	-	-
	umhos/cm	0717	WL	09/17/2015	N001	SE	O	1912		F	#	-	-
	umhos/cm	0718	WL	09/16/2015	N001	SF	D	4636		F	#	-	-
	umhos/cm	0719	WL	09/16/2015	N001	SE	D	1256		FQ	#	-	-
	umhos/cm	0720	WL	09/16/2015	N001	SF	C	721		F	#	-	-
	umhos/cm	0721	WL	09/16/2015	N001	SE	C	889		F	#	-	-
	umhos/cm	0722R	WL	09/17/2015	N001	SF		2151		F	#	-	-
	umhos/cm	0723	WL	09/17/2015	N001	SE	D	3766		F	#	-	-
	umhos/cm	0727	WL	09/17/2015	N001	SE	U	620		F	#	-	-
	umhos/cm	0729	WL	09/16/2015	N001	SF	D	631		F	#	-	-
	umhos/cm	0730	WL	09/16/2015	N001	SE	D	903		FQ	#	-	-
	umhos/cm	0732	WL	09/17/2015	N001	SE	U	3111		F	#	-	-
	umhos/cm	0784	WL	09/17/2015	N001	SF	U	2338		F	#	-	-
	umhos/cm	0788	WL	09/16/2015	N001	SF	C	3039		F	#	-	-
	umhos/cm	0789	WL	09/15/2015	N001	SF	D	7876		F	#	-	-
	umhos/cm	0824	WL	09/18/2015	N001	SF		844		F	#	-	-
	umhos/cm	0826	WL	09/16/2015	N001	SF		2908		F	#	-	-
	umhos/cm	0828	WL	09/14/2015	N001		O	824			#	-	-
	umhos/cm	0841	WL	09/17/2015	N001			895			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0842	WL	09/17/2015	N001			665			#	-	-
	umhos/cm	0844	BH	08/26/2015	N001			787			#	-	-
	umhos/cm	0852-3	WL	09/15/2015	N001			1607		F	#	-	-
	umhos/cm	0852-4	WL	09/15/2015	N001			1586		F	#	-	-
	umhos/cm	0853-2	WL	09/16/2015	N001			3359		F	#	-	-
	umhos/cm	0853-3	WL	09/16/2015	N001			3417		F	#	-	-
	umhos/cm	0853-4	WL	09/16/2015	N001			3059		F	#	-	-
	umhos/cm	0854-2	WL	09/16/2015	N001			4441		F	#	-	-
	umhos/cm	0854-3	WL	09/16/2015	N001			3586		F	#	-	-
	umhos/cm	0854-4	WL	09/17/2015	N001			3819		F	#	-	-
	umhos/cm	0855-2	WL	09/16/2015	N001			10540		F	#	-	-
	umhos/cm	0855-3	WL	09/16/2015	N001			9531		F	#	-	-
	umhos/cm	0855-4	WL	09/16/2015	N001			8929		F	#	-	-
	umhos/cm	0856-2	WL	09/17/2015	N001			6439		F	#	-	-
	umhos/cm	0856-3	WL	09/17/2015	N001			6453		F	#	-	-
	umhos/cm	0856-4	WL	09/17/2015	N001			6554		F	#	-	-
	umhos/cm	0857-3	WL	09/16/2015	N001			7690		F	#	-	-
	umhos/cm	0857-4	WL	09/16/2015	N001			7475		F	#	-	-
	umhos/cm	0858-2	WL	09/15/2015	N001			4519		F	#	-	-
	umhos/cm	0858-3	WL	09/15/2015	N001			4495		F	#	-	-
	umhos/cm	0858-4	WL	09/15/2015	N001			4420		F	#	-	-
	umhos/cm	0859-2	WL	09/17/2015	N001			4546		F	#	-	-
	umhos/cm	0859-3	WL	09/17/2015	N001			5400		F	#	-	-
	umhos/cm	0859-4	WL	09/17/2015	N001			5739		F	#	-	-
	umhos/cm	0860-2	WL	09/17/2015	N001			4182		F	#	-	-
	umhos/cm	0860-3	WL	09/17/2015	N001			4109		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0860-4	WL	09/17/2015	N001			4068		F	#	-	-
	umhos/cm	0866	WL	09/15/2015	N001			6151		F	#	-	-
	umhos/cm	0867	WL	09/15/2015	N001			6900		F	#	-	-
	umhos/cm	0868	WL	09/15/2015	N001			7452		F	#	-	-
	umhos/cm	0869	WL	09/15/2015	N001			9908		F	#	-	-
	umhos/cm	0870	WL	09/15/2015	N001			10422		F	#	-	-
	umhos/cm	0871	WL	09/15/2015	N001			10593		F	#	-	-
	umhos/cm	0872	WL	09/15/2015	N001			10449		F	#	-	-
	umhos/cm	0873	WL	09/15/2015	N001			10886		F	#	-	-
	umhos/cm	0874	WL	09/15/2015	N001			9864		F	#	-	-
	umhos/cm	0875	WL	09/15/2015	N001			7798		F	#	-	-
	umhos/cm	0876	WL	09/17/2015	N001			816			#	-	-
	umhos/cm	0878	WL	09/17/2015	N001			844			#	-	-
	umhos/cm	T03-03	BH	08/27/2015	N001			1646			#	-	-
	umhos/cm	T03-04	BH	08/27/2015	N001			3534			#	-	-
	umhos/cm	T03-05	BH	08/27/2015	N001			5149			#	-	-
	umhos/cm	T03-06	BH	08/27/2015	N001			4220			#	-	-
	umhos/cm	T03-07	BH	08/27/2015	N001			3931			#	-	-
	umhos/cm	T03-08	BH	08/27/2015	N001			3957			#	-	-
	umhos/cm	T03-09	BH	08/27/2015	N001			5026			#	-	-
	umhos/cm	T06-01	BH	08/25/2015	N001			1721			#	-	-
	umhos/cm	T06-01-01	BH	08/25/2015	N001			1705			#	-	-
	umhos/cm	T06-01-02	BH	08/25/2015	N001			1704			#	-	-
	umhos/cm	T06-01-03	BH	08/25/2015	N001			1509			#	-	-
	umhos/cm	T06-01-04	BH	08/26/2015	N001			1576			#	-	-
	umhos/cm	T10-01	BH	08/26/2015	N001			1768			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	T10-02	BH	08/26/2015	N001			1096			#	-	-
	umhos/cm	T10-03	BH	08/26/2015	N001			1315			#	-	-
Stable isotope ratio H2/H1 in Water	parts per t	0705	WL	09/15/2015	N003	SE	D	-137.23		FQ	#	-	-
	parts per t	0707	WL	09/15/2015	N003	SF	D	-130.19		F	#	-	-
	parts per t	0710	WL	09/17/2015	N003	SF	U	-126.97		F	#	-	-
	parts per t	0716	WL	09/17/2015	N003	SF	O	-129.61		F	#	-	-
	parts per t	0717	WL	09/17/2015	N003	SE	O	-137.57		F	#	-	-
	parts per t	0718	WL	09/16/2015	N003	SF	D	-125.42		F	#	-	-
	parts per t	0719	WL	09/16/2015	N003	SE	D	-138.33		FQ	#	-	-
	parts per t	0720	WL	09/16/2015	N003	SF	C	-122.29		F	#	-	-
	parts per t	0721	WL	09/16/2015	N003	SE	C	-134.38		F	#	-	-
	parts per t	0722R	WL	09/17/2015	N003	SF		-127.51		F	#	-	-
	parts per t	0723	WL	09/17/2015	N003	SE	D	-134.53		F	#	-	-
	parts per t	0727	WL	09/17/2015	N003	SE	U	-129.27		F	#	-	-
	parts per t	0729	WL	09/16/2015	N003	SF	D	-119.61		F	#	-	-
	parts per t	0730	WL	09/16/2015	N003	SE	D	-127.85		FQ	#	-	-
	parts per t	0732	WL	09/17/2015	N003	SE	U	-130.92		F	#	-	-
	parts per t	0784	WL	09/17/2015	N003	SF	U	-129.85		F	#	-	-
	parts per t	0788	WL	09/16/2015	N003	SF	C	-125.78		F	#	-	-
	parts per t	0789	WL	09/15/2015	N003	SF	D	-130.09		F	#	-	-
	parts per t	0824	WL	09/18/2015	N003	SF		-124.25		F	#	-	-
	parts per t	0826	WL	09/16/2015	N003	SF		-126.89		F	#	-	-
	parts per t	0852-3	WL	09/15/2015	N003			-126.47		F	#	-	-
	parts per t	0852-4	WL	09/15/2015	N003			-126.26		F	#	-	-
	parts per t	0853-2	WL	09/16/2015	N003			-125.33		F	#	-	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Stable isotope ratio H2/H1 in Water	parts per t	0853-3	WL	09/16/2015	N003			-126.3		F	#	-	-
	parts per t	0853-4	WL	09/16/2015	N003			-127.02		F	#	-	-
	parts per t	0854-2	WL	09/16/2015	N003			-126.57		F	#	-	-
	parts per t	0854-3	WL	09/16/2015	N003			-126.22		F	#	-	-
	parts per t	0854-4	WL	09/17/2015	N003			-126.48		F	#	-	-
	parts per t	0855-2	WL	09/16/2015	N003			-127.9		F	#	-	-
	parts per t	0855-3	WL	09/16/2015	N003			-128.25		F	#	-	-
	parts per t	0855-4	WL	09/16/2015	N003			-128.86		F	#	-	-
	parts per t	0856-2	WL	09/17/2015	N003			-128.13		F	#	-	-
	parts per t	0856-3	WL	09/17/2015	N003			-129.33		F	#	-	-
	parts per t	0856-4	WL	09/17/2015	N003			-129.82		F	#	-	-
	parts per t	0857-3	WL	09/16/2015	N003			-130.77		F	#	-	-
	parts per t	0857-4	WL	09/16/2015	N003			-130.55		F	#	-	-
	parts per t	0858-2	WL	09/15/2015	N003			-130.18		F	#	-	-
	parts per t	0858-3	WL	09/15/2015	N003			-130.13		F	#	-	-
	parts per t	0858-4	WL	09/15/2015	N003			-130.59		F	#	-	-
	parts per t	0858-4	WL	09/15/2015	N004			-129.62		F	#	-	-
	parts per t	0859-2	WL	09/17/2015	N003			-131.69		F	#	-	-
	parts per t	0859-3	WL	09/17/2015	N003			-131.14		F	#	-	-
	parts per t	0859-4	WL	09/17/2015	N003			-131.48		F	#	-	-
	parts per t	0860-2	WL	09/17/2015	N003			-130.53		F	#	-	-
	parts per t	0860-3	WL	09/17/2015	N003			-132.52		F	#	-	-
	parts per t	0860-3	WL	09/17/2015	N004			-131.11		F	#	-	-
	parts per t	0860-4	WL	09/17/2015	N003			-131.48		F	#	-	-
	parts per t	0866	WL	09/15/2015	N003			-130.54		F	#	-	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Stable isotope ratio H2/H1 in Water	parts per t	0867	WL	09/15/2015	N003			-130.31		F	#	-	-
	parts per t	0868	WL	09/15/2015	N003			-130.24		F	#	-	-
	parts per t	0869	WL	09/15/2015	N003			-129.27		F	#	-	-
	parts per t	0870	WL	09/15/2015	N003			-128.3		F	#	-	-
	parts per t	0871	WL	09/15/2015	N003			-127.5		F	#	-	-
	parts per t	0872	WL	09/15/2015	N003			-127.39		F	#	-	-
	parts per t	0872	WL	09/15/2015	N004			-127.46		F	#	-	-
	parts per t	0873	WL	09/15/2015	N003			-127.05		F	#	-	-
	parts per t	0874	WL	09/15/2015	N003			-127.29		F	#	-	-
	parts per t	0875	WL	09/15/2015	N003			-128.79		F	#	-	-
Stable isotope ratio O18/O16 in Water	parts per t	0705	WL	09/15/2015	N003	SE	D	-17.42		FQ	#	-	-
	parts per t	0707	WL	09/15/2015	N003	SF	D	-16.38		F	#	-	-
	parts per t	0710	WL	09/17/2015	N003	SF	U	-16.45		F	#	-	-
	parts per t	0716	WL	09/17/2015	N003	SF	O	-16.5		F	#	-	-
	parts per t	0717	WL	09/17/2015	N003	SE	O	-17.79		F	#	-	-
	parts per t	0718	WL	09/16/2015	N003	SF	D	-15.41		F	#	-	-
	parts per t	0719	WL	09/16/2015	N003	SE	D	-17.9		FQ	#	-	-
	parts per t	0720	WL	09/16/2015	N003	SF	C	-15.81		F	#	-	-
	parts per t	0721	WL	09/16/2015	N003	SE	C	-17.06		F	#	-	-
	parts per t	0722R	WL	09/17/2015	N003	SF		-16.56		F	#	-	-
	parts per t	0723	WL	09/17/2015	N003	SE	D	-17.3		F	#	-	-
	parts per t	0727	WL	09/17/2015	N003	SE	U	-16.82		F	#	-	-
	parts per t	0729	WL	09/16/2015	N003	SF	D	-15.3		F	#	-	-
	parts per t	0730	WL	09/16/2015	N003	SE	D	-16.36		FQ	#	-	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Stable isotope ratio O18/O16 in Water	parts per t	0732	WL	09/17/2015	N003	SE	U	-15.83		F	#	-	-
	parts per t	0784	WL	09/17/2015	N003	SF	U	-15.24		F	#	-	-
	parts per t	0788	WL	09/16/2015	N003	SF	C	-15.89		F	#	-	-
	parts per t	0789	WL	09/15/2015	N003	SF	D	-16.06		F	#	-	-
	parts per t	0824	WL	09/18/2015	N003	SF		-15.95		F	#	-	-
	parts per t	0826	WL	09/16/2015	N003	SF		-15.98		F	#	-	-
	parts per t	0852-3	WL	09/15/2015	N003			-16.2		F	#	-	-
	parts per t	0852-4	WL	09/15/2015	N003			-16.2		F	#	-	-
	parts per t	0853-2	WL	09/16/2015	N003			-15.79		F	#	-	-
	parts per t	0853-3	WL	09/16/2015	N003			-15.96		F	#	-	-
	parts per t	0853-4	WL	09/16/2015	N003			-16.05		F	#	-	-
	parts per t	0854-2	WL	09/16/2015	N003			-15.96		F	#	-	-
	parts per t	0854-3	WL	09/16/2015	N003			-16.02		F	#	-	-
	parts per t	0854-4	WL	09/17/2015	N003			-16.02		F	#	-	-
	parts per t	0855-2	WL	09/16/2015	N003			-16		F	#	-	-
	parts per t	0855-3	WL	09/16/2015	N003			-15.86		F	#	-	-
	parts per t	0855-4	WL	09/16/2015	N003			-15.95		F	#	-	-
	parts per t	0856-2	WL	09/17/2015	N003			-15.88		F	#	-	-
	parts per t	0856-3	WL	09/17/2015	N003			-15.93		F	#	-	-
	parts per t	0856-4	WL	09/17/2015	N003			-16		F	#	-	-
	parts per t	0857-3	WL	09/16/2015	N003			-16.04		F	#	-	-
	parts per t	0857-4	WL	09/16/2015	N003			-16.05		F	#	-	-
	parts per t	0858-2	WL	09/15/2015	N003			-16.3		F	#	-	-
	parts per t	0858-3	WL	09/15/2015	N003			-16.41		F	#	-	-
	parts per t	0858-4	WL	09/15/2015	N003			-16.34		F	#	-	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Stable isotope ratio O18/O16 in Water	parts per t	0858-4	WL	09/15/2015	N004			-16.31		F	#	-	-
	parts per t	0859-2	WL	09/17/2015	N003			-16.03		F	#	-	-
	parts per t	0859-3	WL	09/17/2015	N003			-16.02		F	#	-	-
	parts per t	0859-4	WL	09/17/2015	N003			-15.98		F	#	-	-
	parts per t	0860-2	WL	09/17/2015	N003			-16.3		F	#	-	-
	parts per t	0860-3	WL	09/17/2015	N003			-16.12		F	#	-	-
	parts per t	0860-3	WL	09/17/2015	N004			-16.22		F	#	-	-
	parts per t	0860-4	WL	09/17/2015	N003			-16.19		F	#	-	-
	parts per t	0866	WL	09/15/2015	N003			-16.22		F	#	-	-
	parts per t	0867	WL	09/15/2015	N003			-16.18		F	#	-	-
	parts per t	0868	WL	09/15/2015	N003			-16.12		F	#	-	-
	parts per t	0869	WL	09/15/2015	N003			-15.98		F	#	-	-
	parts per t	0870	WL	09/15/2015	N003			-15.84		F	#	-	-
	parts per t	0871	WL	09/15/2015	N003			-15.84		F	#	-	-
	parts per t	0872	WL	09/15/2015	N003			-15.82		F	#	-	-
	parts per t	0872	WL	09/15/2015	N004			-15.89		F	#	-	-
	parts per t	0873	WL	09/15/2015	N003			-15.82		F	#	-	-
	parts per t	0874	WL	09/15/2015	N003			-16.12		F	#	-	-
	parts per t	0875	WL	09/15/2015	N003			-16.28		F	#	-	-
Stable isotope ratio S-34/S-32 in Sulfate	parts per t	0705	WL	09/15/2015	0003	SE	D	3.29		FQ	#	-	-
	parts per t	0707	WL	09/15/2015	0003	SF	D	5.64		F	#	-	-
	parts per t	0710	WL	09/17/2015	0003	SF	U	-0.74		F	#	-	-
	parts per t	0716	WL	09/17/2015	0003	SF	O	0.9		F	#	-	-
	parts per t	0717	WL	09/17/2015	0003	SE	O	4.27		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Stable isotope ratio S-34/S-32 in Sulfate	parts per t	0718	WL	09/16/2015	0003	SF	D	4.64		F	#	-	-
	parts per t	0719	WL	09/16/2015	0003	SE	D	2.98		FQ	#	-	-
	parts per t	0720	WL	09/16/2015	0003	SF	C	-5.46		F	#	-	-
	parts per t	0721	WL	09/16/2015	0003	SE	C	-1.16		F	#	-	-
	parts per t	0722R	WL	09/17/2015	0003	SF		6.26		F	#	-	-
	parts per t	0723	WL	09/17/2015	0003	SE	D	5.65		F	#	-	-
	parts per t	0727	WL	09/17/2015	0003	SE	U	-0.81		F	#	-	-
	parts per t	0729	WL	09/16/2015	0003	SF	D	-2.35		F	#	-	-
	parts per t	0730	WL	09/16/2015	0003	SE	D	0.68		FQ	#	-	-
	parts per t	0732	WL	09/17/2015	0003	SE	U	6.36		F	#	-	-
	parts per t	0784	WL	09/17/2015	0003	SF	U	8.36		F	#	-	-
Sulfate	mg/L	0405	WL	09/17/2015	N001	NR	N	310			#	2	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	190			#	1	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	220	N		#	2	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	180			#	1	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	450		FQ	#	2.5	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	2700		F	#	25	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	140		F	#	1	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	450		F	#	2.5	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	760		F	#	5	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	2500		F	#	25	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	490		FQ	#	5	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	150		F	#	1	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	300		F	#	2	-
	mg/L	0722R	WL	09/17/2015	N001	SF		1100		F	#	10	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/L	0723	WL	09/17/2015	N001	SE	D	1900		F	#	10	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	130		F	#	1	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	88		F	#	5	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	140		FQ	#	1	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	1700		F	#	12	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	1100		F	#	10	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	1400		F	#	10	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	4700		F	#	50	-
	mg/L	0824	WL	09/18/2015	N001	SF		130		F	#	1	-
	mg/L	0826	WL	09/16/2015	N001	SF		1300		F	#	10	-
	mg/L	0828	WL	09/14/2015	N001		O	220			#	2	-
	mg/L	0841	WL	09/17/2015	N001			240			#	2	-
	mg/L	0842	WL	09/17/2015	N001			160			#	1	-
	mg/L	0844	BH	08/26/2015	0001			220			#	5	-
	mg/L	0852-3	WL	09/15/2015	N001			480		F	#	5	-
	mg/L	0852-4	WL	09/15/2015	N001			480		F	#	2.5	-
	mg/L	0853-2	WL	09/16/2015	N001			1700		F	#	12	-
	mg/L	0853-3	WL	09/16/2015	N001			1700		F	#	12	-
	mg/L	0853-4	WL	09/16/2015	N001			1500		F	#	12	-
	mg/L	0854-2	WL	09/16/2015	N001			2300		F	#	25	-
	mg/L	0854-3	WL	09/16/2015	N001			1800		F	#	12	-
	mg/L	0854-4	WL	09/17/2015	N001			2000		F	#	12	-
	mg/L	0855-2	WL	09/16/2015	N001			6100		F	#	50	-
	mg/L	0855-3	WL	09/16/2015	N001			5600		F	#	50	-
	mg/L	0855-4	WL	09/16/2015	N001			5100		F	#	50	-
	mg/L	0856-2	WL	09/17/2015	N001			3900		F	#	25	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/L	0856-3	WL	09/17/2015	N001			3900		F	#	25	-
	mg/L	0856-4	WL	09/17/2015	N001			4000		F	#	25	-
	mg/L	0857-3	WL	09/16/2015	N001			4700		F	#	25	-
	mg/L	0857-4	WL	09/16/2015	N001			4600		F	#	25	-
	mg/L	0858-2	WL	09/15/2015	N001			2600		F	#	25	-
	mg/L	0858-3	WL	09/15/2015	N001			2500		F	#	25	-
	mg/L	0858-4	WL	09/15/2015	N002			2400		F	#	25	-
	mg/L	0859-2	WL	09/17/2015	N001			2600		F	#	25	-
	mg/L	0859-3	WL	09/17/2015	N001			3300		F	#	25	-
	mg/L	0859-4	WL	09/17/2015	N001			3500		F	#	25	-
	mg/L	0860-2	WL	09/17/2015	N001			2400		F	#	25	-
	mg/L	0860-3	WL	09/17/2015	N001			2400		F	#	25	-
	mg/L	0860-3	WL	09/17/2015	N002			2300		F	#	25	-
	mg/L	0860-4	WL	09/17/2015	N001			2200		F	#	25	-
	mg/L	0866	WL	09/15/2015	N001			3700		F	#	25	-
	mg/L	0867	WL	09/15/2015	N001			4100		F	#	25	-
	mg/L	0868	WL	09/15/2015	N001			4400		F	#	50	-
	mg/L	0869	WL	09/15/2015	N001			5900		F	#	50	-
	mg/L	0870	WL	09/15/2015	N001			6200		F	#	50	-
	mg/L	0871	WL	09/15/2015	N001			6100		F	#	50	-
	mg/L	0872	WL	09/15/2015	N001			6000		F	#	50	-
	mg/L	0872	WL	09/15/2015	N002			6000		F	#	50	-
	mg/L	0873	WL	09/15/2015	N001			6300		F	#	50	-
	mg/L	0874	WL	09/15/2015	N001			5600		F	#	50	-
	mg/L	0875	WL	09/15/2015	N001			4300		F	#	50	-
	mg/L	0876	WL	09/17/2015	N001			270			#	2	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/L	0878	WL	09/17/2015	N001			250			#	2	-
	mg/L	T03-03	BH	08/27/2015	0001			570			#	10	-
	mg/L	T03-04	BH	08/27/2015	0001			1800			#	20	-
	mg/L	T03-05	BH	08/27/2015	0001			2700			#	25	-
	mg/L	T03-06	BH	08/27/2015	0001			2100			#	25	-
	mg/L	T03-07	BH	08/27/2015	0001			1900			#	25	-
	mg/L	T03-08	BH	08/27/2015	0001			2200			#	25	-
	mg/L	T03-09	BH	08/27/2015	0001			2800			#	25	-
	mg/L	T06-01	BH	08/25/2015	0001			560			#	10	-
	mg/L	T06-01	BH	08/25/2015	0002			550			#	10	-
	mg/L	T06-01-01	BH	08/25/2015	0001			560			#	10	-
	mg/L	T06-01-02	BH	08/25/2015	0001			520			#	10	-
	mg/L	T06-01-03	BH	08/25/2015	0001			440			#	6.2	-
	mg/L	T06-01-04	BH	08/26/2015	0001			500			#	6.2	-
	mg/L	T10-01	BH	08/26/2015	0001			580			#	10	-
	mg/L	T10-02	BH	08/26/2015	0001			320			#	5	-
	mg/L	T10-03	BH	08/26/2015	0001			460			#	5	-
Sulfide	mg/L	0855-2	WL	09/16/2015	N001			2	U	F	#	2	-
	mg/L	0855-3	WL	09/16/2015	N001			2	U	F	#	2	-
	mg/L	0855-4	WL	09/16/2015	N001			2	U	F	#	2	-
Temperature	C	0405	WL	09/17/2015	N001	NR	N	11.36			#	-	-
	C	0430	WL	09/17/2015	N001	NR	N	12.26			#	-	-
	C	0436	WL	09/14/2015	N001	NR	N	22.86			#	-	-
	C	0460	WL	09/17/2015	N001	NR	N	15.36			#	-	-
	C	0705	WL	09/15/2015	N001	SE	D	12.52		FQ	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Temperature	C	0707	WL	09/15/2015	N001	SF	D	14.57		F	#	-	-
	C	0710	WL	09/17/2015	N001	SF	U	11.70		F	#	-	-
	C	0716	WL	09/17/2015	N001	SF	O	15.15		F	#	-	-
	C	0717	WL	09/17/2015	N001	SE	O	11.67		F	#	-	-
	C	0718	WL	09/16/2015	N001	SF	D	14.61		F	#	-	-
	C	0719	WL	09/16/2015	N001	SE	D	13.41		FQ	#	-	-
	C	0720	WL	09/16/2015	N001	SF	C	13.28		F	#	-	-
	C	0721	WL	09/16/2015	N001	SE	C	11.61		F	#	-	-
	C	0722R	WL	09/17/2015	N001	SF		22.36		F	#	-	-
	C	0723	WL	09/17/2015	N001	SE	D	11.46		F	#	-	-
	C	0727	WL	09/17/2015	N001	SE	U	12.42		F	#	-	-
	C	0729	WL	09/16/2015	N001	SF	D	15.73		F	#	-	-
	C	0730	WL	09/16/2015	N001	SE	D	14.09		FQ	#	-	-
	C	0732	WL	09/17/2015	N001	SE	U	12.39		F	#	-	-
	C	0784	WL	09/17/2015	N001	SF	U	18.32		F	#	-	-
	C	0788	WL	09/16/2015	N001	SF	C	12.97		F	#	-	-
	C	0789	WL	09/15/2015	N001	SF	D	12.04		F	#	-	-
	C	0824	WL	09/18/2015	N001	SF		13.66		F	#	-	-
	C	0826	WL	09/16/2015	N001	SF		12.18		F	#	-	-
	C	0828	WL	09/14/2015	N001		O	18.75			#	-	-
	C	0841	WL	09/17/2015	N001			16.64			#	-	-
	C	0842	WL	09/17/2015	N001			10.93			#	-	-
	C	0844	BH	08/26/2015	N001			13.50			#	-	-
	C	0852-3	WL	09/15/2015	N001			11.30		F	#	-	-
	C	0852-4	WL	09/15/2015	N001			10.44		F	#	-	-
	C	0853-2	WL	09/16/2015	N001			14.37		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Temperature	C	0853-3	WL	09/16/2015	N001			12.75		F	#	-	-
	C	0853-4	WL	09/16/2015	N001			11.91		F	#	-	-
	C	0854-2	WL	09/16/2015	N001			13.16		F	#	-	-
	C	0854-3	WL	09/16/2015	N001			13.05		F	#	-	-
	C	0854-4	WL	09/17/2015	N001			10.70		F	#	-	-
	C	0855-2	WL	09/16/2015	N001			14.65		F	#	-	-
	C	0855-3	WL	09/16/2015	N001			13.93		F	#	-	-
	C	0855-4	WL	09/16/2015	N001			11.30		F	#	-	-
	C	0856-2	WL	09/17/2015	N001			13.85		F	#	-	-
	C	0856-3	WL	09/17/2015	N001			13.20		F	#	-	-
	C	0856-4	WL	09/17/2015	N001			12.73		F	#	-	-
	C	0857-3	WL	09/16/2015	N001			15.58		F	#	-	-
	C	0857-4	WL	09/16/2015	N001			15.45		F	#	-	-
	C	0858-2	WL	09/15/2015	N001			15.19		F	#	-	-
	C	0858-3	WL	09/15/2015	N001			13.58		F	#	-	-
	C	0858-4	WL	09/15/2015	N001			12.70		F	#	-	-
	C	0859-2	WL	09/17/2015	N001			17.55		F	#	-	-
	C	0859-3	WL	09/17/2015	N001			16.86		F	#	-	-
	C	0859-4	WL	09/17/2015	N001			15.86		F	#	-	-
	C	0860-2	WL	09/17/2015	N001			16.40		F	#	-	-
	C	0860-3	WL	09/17/2015	N001			15.49		F	#	-	-
	C	0860-4	WL	09/17/2015	N001			15.12		F	#	-	-
	C	0866	WL	09/15/2015	N001			15.66		F	#	-	-
	C	0867	WL	09/15/2015	N001			16.91		F	#	-	-
	C	0868	WL	09/15/2015	N001			16.60		F	#	-	-
	C	0869	WL	09/15/2015	N001			15.27		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Temperature	C	0870	WL	09/15/2015	N001			15.01		F	#	-	-
	C	0871	WL	09/15/2015	N001			15.83		F	#	-	-
	C	0872	WL	09/15/2015	N001			15.05		F	#	-	-
	C	0873	WL	09/15/2015	N001			14.32		F	#	-	-
	C	0874	WL	09/15/2015	N001			13.75		F	#	-	-
	C	0875	WL	09/15/2015	N001			13.60		F	#	-	-
	C	0876	WL	09/17/2015	N001			15.26			#	-	-
	C	0878	WL	09/17/2015	N001			10.45			#	-	-
	C	T03-03	BH	08/27/2015	N001			16.45			#	-	-
	C	T03-04	BH	08/27/2015	N001			17.72			#	-	-
	C	T03-05	BH	08/27/2015	N001			14.97			#	-	-
	C	T03-06	BH	08/27/2015	N001			15.54			#	-	-
	C	T03-07	BH	08/27/2015	N001			16.64			#	-	-
	C	T03-08	BH	08/27/2015	N001			18.29			#	-	-
	C	T03-09	BH	08/27/2015	N001			18.02			#	-	-
	C	T06-01	BH	08/25/2015	N001			13.27			#	-	-
	C	T06-01-01	BH	08/25/2015	N001			16.16			#	-	-
	C	T06-01-02	BH	08/25/2015	N001			18.39			#	-	-
	C	T06-01-03	BH	08/25/2015	N001			14.17			#	-	-
	C	T06-01-04	BH	08/26/2015	N001			13.19			#	-	-
	C	T10-01	BH	08/26/2015	N001			15.34			#	-	-
	C	T10-02	BH	08/26/2015	N001			14.94			#	-	-
	C	T10-03	BH	08/26/2015	N001			13.68			#	-	-
Tritium	pCi/L	0705	WL	09/15/2015	N002	SE	D	2.44	U	FQ	#	2.44	± 1.66
	pCi/L	0707	WL	09/15/2015	N002	SF	D	10.7		F	#	2.49	± 4.09
	pCi/L	0710	WL	09/17/2015	N002	SF	U	26.9		F	#	2.43	± 9.45

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Tritium	pCi/L	0716	WL	09/17/2015	N002	SF	O	19.2		F	#	2.48	± 6.85
	pCi/L	0717	WL	09/17/2015	N002	SE	O	5.67		FJ	#	2.44	± 2.53
	pCi/L	0718	WL	09/16/2015	N002	SF	D	13.8		F	#	2.37	± 5.05
	pCi/L	0719	WL	09/16/2015	N002	SE	D	2.46	U	FQ	#	2.46	± 1.44
	pCi/L	0720	WL	09/16/2015	N002	SF	C	22.9		F	#	2.45	± 8.18
	pCi/L	0721	WL	09/16/2015	N002	SE	C	2.72		UF	#	2.39	± 1.79
	pCi/L	0722R	WL	09/17/2015	N002	SF		18.9		F	#	2.39	± 6.78
	pCi/L	0723	WL	09/17/2015	N002	SE	D	21.3		F	#	2.4	± 7.60
	pCi/L	0727	WL	09/17/2015	N002	SE	U	20.2		F	#	2.64	± 3.77
	pCi/L	0729	WL	09/16/2015	N002	SF	D	22.2		F	#	2.86	± 4.13
	pCi/L	0730	WL	09/16/2015	N002	SE	D	23.8		FQ	#	2.86	± 4.21
	pCi/L	0732	WL	09/17/2015	N002	SE	U	18.0		F	#	2.8	± 3.47
	pCi/L	0784	WL	09/17/2015	N002	SF	U	4.93		FJ	#	2.8	± 1.97
Turbidity	NTU	0405	WL	09/17/2015	N001	NR	N	3.37			#	-	-
	NTU	0430	WL	09/17/2015	N001	NR	N	1.62			#	-	-
	NTU	0436	WL	09/14/2015	N001	NR	N	1.83		J	#	-	-
	NTU	0460	WL	09/17/2015	N001	NR	N	0.96			#	-	-
	NTU	0705	WL	09/15/2015	N001	SE	D	1.48		FQ	#	-	-
	NTU	0707	WL	09/15/2015	N001	SF	D	1.45		F	#	-	-
	NTU	0710	WL	09/17/2015	N001	SF	U	3.13		F	#	-	-
	NTU	0716	WL	09/17/2015	N001	SF	O	1.35		F	#	-	-
	NTU	0717	WL	09/17/2015	N001	SE	O	1.50		F	#	-	-
	NTU	0718	WL	09/16/2015	N001	SF	D	1.15		F	#	-	-
	NTU	0719	WL	09/16/2015	N001	SE	D	9.98		FQ	#	-	-
	NTU	0720	WL	09/16/2015	N001	SF	C	0.66		F	#	-	-
	NTU	0721	WL	09/16/2015	N001	SE	C	0.76		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Turbidity	NTU	0722R	WL	09/17/2015	N001	SF		0.96		F	#	-	-
	NTU	0723	WL	09/17/2015	N001	SE	D	2.32		F	#	-	-
	NTU	0727	WL	09/17/2015	N001	SE	U	6.51		F	#	-	-
	NTU	0729	WL	09/16/2015	N001	SF	D	2.16		F	#	-	-
	NTU	0730	WL	09/16/2015	N001	SE	D	2.27		FQ	#	-	-
	NTU	0732	WL	09/17/2015	N001	SE	U	0.99		F	#	-	-
	NTU	0784	WL	09/17/2015	N001	SF	U	0.96		F	#	-	-
	NTU	0788	WL	09/16/2015	N001	SF	C	1.23		F	#	-	-
	NTU	0789	WL	09/15/2015	N001	SF	D	9.31		F	#	-	-
	NTU	0824	WL	09/18/2015	N001	SF		1.93		F	#	-	-
	NTU	0826	WL	09/16/2015	N001	SF		0.96		F	#	-	-
	NTU	0828	WL	09/14/2015	N001		O	3.79		J	#	-	-
	NTU	0841	WL	09/17/2015	N001			1.81			#	-	-
	NTU	0842	WL	09/17/2015	N001			2.27			#	-	-
	NTU	0844	BH	08/26/2015	N001			59.7			#	-	-
	NTU	0852-3	WL	09/15/2015	N001			8.25		F	#	-	-
	NTU	0852-4	WL	09/15/2015	N001			3.08		F	#	-	-
	NTU	0853-2	WL	09/16/2015	N001			2.32		F	#	-	-
	NTU	0853-3	WL	09/16/2015	N001			1.61		F	#	-	-
	NTU	0853-4	WL	09/16/2015	N001			9.79		F	#	-	-
	NTU	0854-2	WL	09/16/2015	N001			1.38		F	#	-	-
	NTU	0854-3	WL	09/16/2015	N001			2.22		F	#	-	-
	NTU	0854-4	WL	09/17/2015	N001			8.90		F	#	-	-
	NTU	0855-2	WL	09/16/2015	N001			2.35		F	#	-	-
	NTU	0855-3	WL	09/16/2015	N001			1.71		F	#	-	-
	NTU	0855-4	WL	09/16/2015	N001			2.27		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Turbidity	NTU	0856-2	WL	09/17/2015	N001			1.63		F	#	-	-
	NTU	0856-3	WL	09/17/2015	N001			0.91		F	#	-	-
	NTU	0856-4	WL	09/17/2015	N001			3.22		F	#	-	-
	NTU	0857-3	WL	09/16/2015	N001			1.25		F	#	-	-
	NTU	0857-4	WL	09/16/2015	N001			2.18		F	#	-	-
	NTU	0858-2	WL	09/15/2015	N001			2.04		F	#	-	-
	NTU	0858-3	WL	09/15/2015	N001			9.54		F	#	-	-
	NTU	0858-4	WL	09/15/2015	N001			2.35		F	#	-	-
	NTU	0859-2	WL	09/17/2015	N001			1.63		F	#	-	-
	NTU	0859-3	WL	09/17/2015	N001			1.80		F	#	-	-
	NTU	0859-4	WL	09/17/2015	N001			2.50		F	#	-	-
	NTU	0860-2	WL	09/17/2015	N001			2.97		F	#	-	-
	NTU	0860-3	WL	09/17/2015	N001			2.74		F	#	-	-
	NTU	0860-4	WL	09/17/2015	N001			3.52		F	#	-	-
	NTU	0866	WL	09/15/2015	N001			1.19		F	#	-	-
	NTU	0867	WL	09/15/2015	N001			3.79		F	#	-	-
	NTU	0868	WL	09/15/2015	N001			2.52		F	#	-	-
	NTU	0869	WL	09/15/2015	N001			4.32		F	#	-	-
	NTU	0870	WL	09/15/2015	N001			1.93		F	#	-	-
	NTU	0871	WL	09/15/2015	N001			2.11		F	#	-	-
	NTU	0872	WL	09/15/2015	N001			0.80		F	#	-	-
	NTU	0873	WL	09/15/2015	N001			7.40		F	#	-	-
	NTU	0874	WL	09/15/2015	N001			2.71		F	#	-	-
	NTU	0875	WL	09/15/2015	N001			3.82		F	#	-	-
	NTU	0876	WL	09/17/2015	N001			2.41			#	-	-
	NTU	0878	WL	09/17/2015	N001			1.66			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Turbidity	NTU	T03-03	BH	08/27/2015	N001			49.6			#	-	-
	NTU	T03-04	BH	08/27/2015	N001			166			#	-	-
	NTU	T03-05	BH	08/27/2015	N001			98.9			#	-	-
	NTU	T03-06	BH	08/27/2015	N001			585			#	-	-
	NTU	T03-07	BH	08/27/2015	N001			38.2			#	-	-
	NTU	T03-08	BH	08/27/2015	N001			11.5			#	-	-
	NTU	T03-09	BH	08/27/2015	N001			712			#	-	-
	NTU	T06-01	BH	08/25/2015	N001			316			#	-	-
	NTU	T06-01-01	BH	08/25/2015	N001			117			#	-	-
	NTU	T06-01-02	BH	08/25/2015	N001			54			#	-	-
	NTU	T06-01-03	BH	08/25/2015	N001			111			#	-	-
	NTU	T06-01-04	BH	08/26/2015	N001			119			#	-	-
	NTU	T10-01	BH	08/26/2015	N001			71.8			#	-	-
	NTU	T10-02	BH	08/26/2015	N001			30			#	-	-
	NTU	T10-03	BH	08/26/2015	N001			200			#	-	-
Uranium	mg/L	0405	WL	09/17/2015	N001	NR	N	0.00039			#	2.9E-05	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.00005	J		#	2.9E-05	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.0001			#	2.9E-05	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.00005	J		#	2.9E-05	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	0.00018		FQ	#	2.9E-05	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	0.780		F	#	2.9E-05	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.0042		F	#	2.9E-05	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.210		F	#	2.9E-05	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.00011		F	#	2.9E-05	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.110		F	#	2.9E-05	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.00034		FQ	#	2.9E-05	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0720	WL	09/16/2015	N001	SF	C	0.0052		F	#	2.9E-05	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.00009	J	F	#	2.9E-05	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.660		F	#	2.9E-05	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.00018		F	#	2.9E-05	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.0022		F	#	2.9E-05	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.0046		F	#	2.9E-05	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	0.0051		FQ	#	2.9E-05	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	0.0057		F	#	2.9E-05	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	0.0026		F	#	2.9E-05	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0.038		F	#	2.9E-05	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	1.600		F	#	0.00029	-
	mg/L	0824	WL	09/18/2015	N001	SF		0.013		F	#	2.9E-05	-
	mg/L	0826	WL	09/16/2015	N001	SF		0.037		F	#	2.9E-05	-
	mg/L	0828	WL	09/14/2015	N001		O	0.00008	J		#	2.9E-05	-
	mg/L	0841	WL	09/17/2015	N001			0.0019			#	2.9E-05	-
	mg/L	0842	WL	09/17/2015	N001			0.0004			#	2.9E-05	-
	mg/L	0844	BH	08/26/2015	0001			0.012			#	2.9E-05	-
	mg/L	0852-3	WL	09/15/2015	N001			0.021		F	#	2.9E-05	-
	mg/L	0852-4	WL	09/15/2015	N001			0.018		F	#	2.9E-05	-
	mg/L	0853-2	WL	09/16/2015	N001			0.028		F	#	2.9E-05	-
	mg/L	0853-3	WL	09/16/2015	N001			0.021		F	#	2.9E-05	-
	mg/L	0853-4	WL	09/16/2015	N001			0.022		F	#	2.9E-05	-
	mg/L	0854-2	WL	09/16/2015	N001			0.059		F	#	2.9E-05	-
	mg/L	0854-3	WL	09/16/2015	N001			0.040		F	#	2.9E-05	-
	mg/L	0854-4	WL	09/17/2015	N001			0.034		F	#	2.9E-05	-
	mg/L	0855-2	WL	09/16/2015	N001			1.400		F	#	0.00029	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0855-3	WL	09/16/2015	N001			1.300		F	#	0.00029	-
	mg/L	0855-4	WL	09/16/2015	N001			0.860		F	#	2.9E-05	-
	mg/L	0856-2	WL	09/17/2015	N001			0.470		F	#	2.9E-05	-
	mg/L	0856-3	WL	09/17/2015	N001			1.100		F	#	0.00029	-
	mg/L	0856-4	WL	09/17/2015	N001			1.100		F	#	0.00029	-
	mg/L	0857-3	WL	09/16/2015	N001			1.300		F	#	0.00015	-
	mg/L	0857-4	WL	09/16/2015	N001			0.990		F	#	0.00015	-
	mg/L	0858-2	WL	09/15/2015	N001			0.310		F	#	2.9E-05	-
	mg/L	0858-3	WL	09/15/2015	N001			0.610		F	#	2.9E-05	-
	mg/L	0858-4	WL	09/15/2015	N001			0.520		F	#	2.9E-05	-
	mg/L	0858-4	WL	09/15/2015	N002			0.490		F	#	2.9E-05	-
	mg/L	0859-2	WL	09/17/2015	N001			0.078		F	#	2.9E-05	-
	mg/L	0859-3	WL	09/17/2015	N001			0.110		F	#	2.9E-05	-
	mg/L	0859-4	WL	09/17/2015	N001			0.091		F	#	2.9E-05	-
	mg/L	0860-2	WL	09/17/2015	N001			0.750		F	#	2.9E-05	-
	mg/L	0860-3	WL	09/17/2015	N001			0.760		F	#	2.9E-05	-
	mg/L	0860-3	WL	09/17/2015	N002			0.770		F	#	2.9E-05	-
	mg/L	0860-4	WL	09/17/2015	N001			0.880		F	#	2.9E-05	-
	mg/L	0866	WL	09/15/2015	N001			1.000		F	#	0.00029	-
	mg/L	0867	WL	09/15/2015	N001			0.980		F	#	0.00029	-
	mg/L	0868	WL	09/15/2015	N001			1.500		F	#	0.00015	-
	mg/L	0869	WL	09/15/2015	N001			1.700		F	#	0.00015	-
	mg/L	0870	WL	09/15/2015	N001			1.600		F	#	0.00015	-
	mg/L	0871	WL	09/15/2015	N001			1.200		F	#	0.00029	-
	mg/L	0872	WL	09/15/2015	N001			0.890		F	#	2.9E-05	-
	mg/L	0872	WL	09/15/2015	N002			0.920		F	#	2.9E-05	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0873	WL	09/15/2015	N001			0.850		F	#	2.9E-05	-
	mg/L	0874	WL	09/15/2015	N001			0.380		F	#	2.9E-05	-
	mg/L	0875	WL	09/15/2015	N001			0.280		F	#	2.9E-05	-
	mg/L	0876	WL	09/17/2015	N001			0.0037			#	2.9E-05	-
	mg/L	0878	WL	09/17/2015	N001			0.00024			#	2.9E-05	-
	mg/L	T03-03	BH	08/27/2015	0001			0.014			#	2.9E-05	-
	mg/L	T03-04	BH	08/27/2015	0001			0.010			#	2.9E-05	-
	mg/L	T03-05	BH	08/27/2015	0001			0.017			#	2.9E-05	-
	mg/L	T03-06	BH	08/27/2015	0001			0.015			#	2.9E-05	-
	mg/L	T03-07	BH	08/27/2015	0001			0.067			#	2.9E-05	-
	mg/L	T03-08	BH	08/27/2015	0001			1.100			#	0.00029	-
	mg/L	T03-09	BH	08/27/2015	0001			0.620			#	2.9E-05	-
	mg/L	T06-01	BH	08/25/2015	0001			0.025			#	2.9E-05	-
	mg/L	T06-01	BH	08/25/2015	0002			0.024			#	2.9E-05	-
	mg/L	T06-01-01	BH	08/25/2015	0001			0.019			#	2.9E-05	-
	mg/L	T06-01-02	BH	08/25/2015	0001			0.022			#	2.9E-05	-
	mg/L	T06-01-03	BH	08/25/2015	0001			0.024			#	2.9E-05	-
	mg/L	T06-01-04	BH	08/26/2015	0001			0.023			#	2.9E-05	-
	mg/L	T10-01	BH	08/26/2015	0001			0.028			#	2.9E-05	-
	mg/L	T10-02	BH	08/26/2015	0001			0.008			#	2.9E-05	-
	mg/L	T10-03	BH	08/26/2015	0001			0.017			#	2.9E-05	-
Uranium-234	pCi/L	0705	WL	09/15/2015	N001	SE	D	0.11		FQJ	#	0.057	± 0.07
	pCi/L	0707	WL	09/15/2015	N001	SF	D	227		F	#	0.18	± 40.8
	pCi/L	0710	WL	09/17/2015	N001	SF	U	1.87		F	#	0.042	± 0.39
	pCi/L	0716	WL	09/17/2015	N001	SF	O	63.2		F	#	0.055	± 10.5
	pCi/L	0717	WL	09/17/2015	N001	SE	O	0.107		UF	#	0.024	± 0.06

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-234	pCi/L	0718	WL	09/16/2015	N001	SF	D	36.9		F	#	0.07	± 6.11
	pCi/L	0719	WL	09/16/2015	N001	SE	D	0.195		FQ	#	0.057	± 0.09
	pCi/L	0720	WL	09/16/2015	N001	SF	C	2.38		F	#	0.05	± 0.48
	pCi/L	0721	WL	09/16/2015	N001	SE	C	0.242		F	#	0.049	± 0.10
	pCi/L	0722R	WL	09/17/2015	N001	SF		203		F	#	0.16	± 36.4
	pCi/L	0723	WL	09/17/2015	N001	SE	D	0.052	U	F	#	0.052	± 0.04
	pCi/L	0727	WL	09/17/2015	N001	SE	U	1.13		F	#	0.063	± 0.28
	pCi/L	0729	WL	09/16/2015	N001	SF	D	1.6		F	#	0.066	± 0.36
	pCi/L	0730	WL	09/16/2015	N001	SE	D	2.15		FQ	#	0.075	± 0.46
	pCi/L	0732	WL	09/17/2015	N001	SE	U	2.15		F	#	0.11	± 0.47
	pCi/L	0784	WL	09/17/2015	N001	SF	U	1.04		F	#	0.087	± 0.28
	pCi/L	0788	WL	09/16/2015	N001	SF	C	14.8		F	#	0.12	± 2.57
	pCi/L	0789	WL	09/15/2015	N001	SF	D	419		FJ	#	0.045	± 72.4
	pCi/L	0824	WL	09/18/2015	N001	SF		5.07		F	#	0.035	± 0.83
	pCi/L	0826	WL	09/16/2015	N001	SF		13.5		F	#	0.036	± 2.12
	pCi/L	0852-3	WL	09/15/2015	N001			10.3		F	#	0.039	± 1.64
	pCi/L	0852-4	WL	09/15/2015	N001			9.08		F	#	0.039	± 1.43
	pCi/L	0853-2	WL	09/16/2015	N001			11.5		F	#	0.023	± 1.81
	pCi/L	0853-3	WL	09/16/2015	N001			8.7		F	#	0.029	± 1.39
	pCi/L	0853-4	WL	09/16/2015	N001			8.5		F	#	0.012	± 1.37
	pCi/L	0854-2	WL	09/16/2015	N001			20.5		F	#	0.042	± 3.19
	pCi/L	0854-3	WL	09/16/2015	N001			14.7		F	#	0.038	± 2.31
	pCi/L	0854-4	WL	09/17/2015	N001			11.3		F	#	0.03	± 1.78
	pCi/L	0855-2	WL	09/16/2015	N001			430		F	#	0.1	± 85.5
	pCi/L	0855-3	WL	09/16/2015	N001			386		F	#	0.23	± 75.0
	pCi/L	0855-4	WL	09/16/2015	N001			253		F	#	0.18	± 45.9

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-234	pCi/L	0856-2	WL	09/17/2015	N001			131		F	#	0.1	± 22.5
	pCi/L	0856-3	WL	09/17/2015	N001			279		F	#	0.19	± 51.4
	pCi/L	0856-4	WL	09/17/2015	N001			303		F	#	0.2	± 57.5
	pCi/L	0857-3	WL	09/16/2015	N001			363		FJ	#	0.2	± 65.0
	pCi/L	0857-4	WL	09/16/2015	N001			320		FJ	#	0.14	± 53.7
	pCi/L	0858-2	WL	09/15/2015	N001			86.9		F	#	0.12	± 14.7
	pCi/L	0858-3	WL	09/15/2015	N001			164		F	#	0.22	± 28.6
	pCi/L	0858-4	WL	09/15/2015	N001			143		F	#	0.17	± 25.1
	pCi/L	0858-4	WL	09/15/2015	N002			147		F	#	0.56	± 24.6
	pCi/L	0859-2	WL	09/17/2015	N001			24.7		F	#	0.062	± 3.84
	pCi/L	0859-3	WL	09/17/2015	N001			31.2		F	#	0.13	± 5.31
	pCi/L	0859-4	WL	09/17/2015	N001			27.8		F	#	0.11	± 4.67
	pCi/L	0860-2	WL	09/17/2015	N001			196		F	#	0.74	± 33.0
	pCi/L	0860-3	WL	09/17/2015	N001			209		F	#	1	± 35.2
	pCi/L	0860-3	WL	09/17/2015	N002			205		F	#	0.63	± 34.1
	pCi/L	0860-4	WL	09/17/2015	N001			226		F	#	0.69	± 37.5
	pCi/L	0866	WL	09/15/2015	N001			256		F	#	0.96	± 42.6
	pCi/L	0867	WL	09/15/2015	N001			270		F	#	1.4	± 44.7
	pCi/L	0868	WL	09/15/2015	N001			400		F	#	2.1	± 67.5
	pCi/L	0869	WL	09/15/2015	N001			510		F	#	1.9	± 85.5
	pCi/L	0870	WL	09/15/2015	N001			465		F	#	2	± 77.0
	pCi/L	0871	WL	09/15/2015	N001			325		F	#	0.86	± 53.3
	pCi/L	0872	WL	09/15/2015	N001			252		F	#	0.76	± 41.2
	pCi/L	0872	WL	09/15/2015	N002			255		F	#	0.99	± 42.4
	pCi/L	0873	WL	09/15/2015	N001			259		F	#	1	± 43.2
	pCi/L	0874	WL	09/15/2015	N001			118		F	#	0.34	± 19.6

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-234	pCi/L	0875	WL	09/15/2015	N001			88.4		F	#	0.36	± 15.1
Uranium-235	pCi/L	0705	WL	09/15/2015	N001	SE	D	0.050	U	FQ	#	0.05	± 0.04
	pCi/L	0707	WL	09/15/2015	N001	SF	D	12.2		F	#	0.14	± 2.45
	pCi/L	0710	WL	09/17/2015	N001	SF	U	0.118		F	#	0.027	± 0.07
	pCi/L	0716	WL	09/17/2015	N001	SF	O	3.41		F	#	0.035	± 0.70
	pCi/L	0717	WL	09/17/2015	N001	SE	O	0.0628		F	#	0.028	± 0.05
	pCi/L	0718	WL	09/16/2015	N001	SF	D	1.88		F	#	0.075	± 0.42
	pCi/L	0719	WL	09/16/2015	N001	SE	D	0.050	U	FQ	#	0.05	± 0.04
	pCi/L	0720	WL	09/16/2015	N001	SF	C	0.0993		F	#	0.027	± 0.06
	pCi/L	0721	WL	09/16/2015	N001	SE	C	0.049	U	F	#	0.049	± 0.04
	pCi/L	0722R	WL	09/17/2015	N001	SF		11.5		F	#	0.068	± 2.30
	pCi/L	0723	WL	09/17/2015	N001	SE	D	0.028	U	F	#	0.028	± 0.04
	pCi/L	0727	WL	09/17/2015	N001	SE	U	0.055	U	F	#	0.055	± 0.04
	pCi/L	0729	WL	09/16/2015	N001	SF	D	0.0997		UF	#	0.058	± 0.07
	pCi/L	0730	WL	09/16/2015	N001	SE	D	0.104		UFQ	#	0.06	± 0.07
	pCi/L	0732	WL	09/17/2015	N001	SE	U	0.091	U	F	#	0.091	± 0.07
	pCi/L	0784	WL	09/17/2015	N001	SF	U	0.087	U	F	#	0.087	± 0.07
	pCi/L	0788	WL	09/16/2015	N001	SF	C	0.64		F	#	0.089	± 0.22
	pCi/L	0789	WL	09/15/2015	N001	SF	D	25.5		FJ	#	0.053	± 4.60
	pCi/L	0824	WL	09/18/2015	N001	SF		0.212		F	#	0.041	± 0.07
	pCi/L	0826	WL	09/16/2015	N001	SF		0.482		F	#	0.011	± 0.11
	pCi/L	0852-3	WL	09/15/2015	N001			0.44		F	#	0.031	± 0.11
	pCi/L	0852-4	WL	09/15/2015	N001			0.296		F	#	0.028	± 0.08
	pCi/L	0853-2	WL	09/16/2015	N001			0.499		F	#	0.01	± 0.12
	pCi/L	0853-3	WL	09/16/2015	N001			0.346		F	#	0.013	± 0.10
	pCi/L	0853-4	WL	09/16/2015	N001			0.348		F	#	0.014	± 0.10

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-235	pCi/L	0854-2	WL	09/16/2015	N001			0.908		F	#	0.044	± 0.19
	pCi/L	0854-3	WL	09/16/2015	N001			0.717		F	#	0.03	± 0.16
	pCi/L	0854-4	WL	09/17/2015	N001			0.454		F	#	0.01	± 0.11
	pCi/L	0855-2	WL	09/16/2015	N001			22.4		F	#	0.12	± 4.87
	pCi/L	0855-3	WL	09/16/2015	N001			24.8		F	#	0.27	± 5.18
	pCi/L	0855-4	WL	09/16/2015	N001			17.9		F	#	0.073	± 3.51
	pCi/L	0856-2	WL	09/17/2015	N001			7.71		F	#	0.1	± 1.51
	pCi/L	0856-3	WL	09/17/2015	N001			15.2		F	#	0.08	± 3.10
	pCi/L	0856-4	WL	09/17/2015	N001			16.4		F	#	0.094	± 3.44
	pCi/L	0857-3	WL	09/16/2015	N001			24		FJ	#	0.16	± 4.53
	pCi/L	0857-4	WL	09/16/2015	N001			21.2		FJ	#	0.11	± 3.72
	pCi/L	0858-2	WL	09/15/2015	N001			5.62		F	#	0.087	± 1.11
	pCi/L	0858-3	WL	09/15/2015	N001			8.68		F	#	0.17	± 1.72
	pCi/L	0858-4	WL	09/15/2015	N001			8.65		F	#	0.16	± 1.73
	pCi/L	0858-4	WL	09/15/2015	N002			8.16		F	#	0.5	± 2.23
	pCi/L	0859-2	WL	09/17/2015	N001			1.3		F	#	0.045	± 0.25
	pCi/L	0859-3	WL	09/17/2015	N001			1.83		F	#	0.12	± 0.51
	pCi/L	0859-4	WL	09/17/2015	N001			1.47		F	#	0.1	± 0.42
	pCi/L	0860-2	WL	09/17/2015	N001			9.74		F	#	0.56	± 2.62
	pCi/L	0860-3	WL	09/17/2015	N001			12.2		F	#	0.84	± 3.11
	pCi/L	0860-3	WL	09/17/2015	N002			13.7		F	#	0.51	± 3.22
	pCi/L	0860-4	WL	09/17/2015	N001			13.9		F	#	0.62	± 3.29
	pCi/L	0866	WL	09/15/2015	N001			14.9		F	#	0.74	± 3.53
	pCi/L	0867	WL	09/15/2015	N001			14.7		F	#	0.53	± 3.45
	pCi/L	0868	WL	09/15/2015	N001			19.9		F	#	1.2	± 5.42
	pCi/L	0869	WL	09/15/2015	N001			27.8		F	#	1.2	± 6.82

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-235	pCi/L	0870	WL	09/15/2015	N001			25.4		F	#	1.5	± 6.14
	pCi/L	0871	WL	09/15/2015	N001			17		F	#	0.6	± 3.78
	pCi/L	0872	WL	09/15/2015	N001			13.7		F	#	0.73	± 3.16
	pCi/L	0872	WL	09/15/2015	N002			14.7		F	#	0.8	± 3.48
	pCi/L	0873	WL	09/15/2015	N001			13.6		F	#	0.83	± 3.34
	pCi/L	0874	WL	09/15/2015	N001			5.69		F	#	0.31	± 1.42
	pCi/L	0875	WL	09/15/2015	N001			5.6		F	#	0.37	± 1.50
Uranium-238	pCi/L	0705	WL	09/15/2015	N001	SE	D	0.0929		UFQ	#	0.057	± 0.06
	pCi/L	0707	WL	09/15/2015	N001	SF	D	253		F	#	0.059	± 45.5
	pCi/L	0710	WL	09/17/2015	N001	SF	U	1.36		F	#	0.061	± 0.31
	pCi/L	0716	WL	09/17/2015	N001	SF	O	70.2		F	#	0.074	± 11.7
	pCi/L	0717	WL	09/17/2015	N001	SE	O	0.0591		F	#	0.045	± 0.05
	pCi/L	0718	WL	09/16/2015	N001	SF	D	35.7		F	#	0.048	± 5.90
	pCi/L	0719	WL	09/16/2015	N001	SE	D	0.112		FQJ	#	0.067	± 0.07
	pCi/L	0720	WL	09/16/2015	N001	SF	C	1.58		F	#	0.05	± 0.34
	pCi/L	0721	WL	09/16/2015	N001	SE	C	0.069	U	F	#	0.069	± 0.04
	pCi/L	0722R	WL	09/17/2015	N001	SF		238		F	#	0.14	± 42.6
	pCi/L	0723	WL	09/17/2015	N001	SE	D	0.076	U	F	#	0.076	± 0.03
	pCi/L	0727	WL	09/17/2015	N001	SE	U	0.625		F	#	0.069	± 0.19
	pCi/L	0729	WL	09/16/2015	N001	SF	D	1.39		F	#	0.049	± 0.33
	pCi/L	0730	WL	09/16/2015	N001	SE	D	1.86		FQ	#	0.068	± 0.41
	pCi/L	0732	WL	09/17/2015	N001	SE	U	2.09		F	#	0.053	± 0.45
	pCi/L	0784	WL	09/17/2015	N001	SF	U	0.983		F	#	0.074	± 0.27
	pCi/L	0788	WL	09/16/2015	N001	SF	C	12.3		F	#	0.083	± 2.16
	pCi/L	0789	WL	09/15/2015	N001	SF	D	476		FJ	#	0.23	± 82.1
	pCi/L	0824	WL	09/18/2015	N001	SF		4.09		F	#	0.01	± 0.68

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-238	pCi/L	0826	WL	09/16/2015	N001	SF		11.7		F	#	0.031	± 1.84
	pCi/L	0852-3	WL	09/15/2015	N001			7.04		F	#	0.039	± 1.13
	pCi/L	0852-4	WL	09/15/2015	N001			6.18		F	#	0.0088	± 0.99
	pCi/L	0853-2	WL	09/16/2015	N001			9.3		F	#	0.038	± 1.46
	pCi/L	0853-3	WL	09/16/2015	N001			6.63		F	#	0.042	± 1.07
	pCi/L	0853-4	WL	09/16/2015	N001			6.86		F	#	0.032	± 1.12
	pCi/L	0854-2	WL	09/16/2015	N001			18.7		F	#	0.026	± 2.92
	pCi/L	0854-3	WL	09/16/2015	N001			13.2		F	#	0.046	± 2.07
	pCi/L	0854-4	WL	09/17/2015	N001			10.4		F	#	0.03	± 1.64
	pCi/L	0855-2	WL	09/16/2015	N001			470		F	#	0.37	± 93.5
	pCi/L	0855-3	WL	09/16/2015	N001			436		F	#	0.091	± 84.6
	pCi/L	0855-4	WL	09/16/2015	N001			298		F	#	0.16	± 54.1
	pCi/L	0856-2	WL	09/17/2015	N001			145		F	#	0.15	± 24.9
	pCi/L	0856-3	WL	09/17/2015	N001			315		F	#	0.17	± 58.0
	pCi/L	0856-4	WL	09/17/2015	N001			341		F	#	0.3	± 64.7
	pCi/L	0857-3	WL	09/16/2015	N001			419		FJ	#	0.23	± 75.2
	pCi/L	0857-4	WL	09/16/2015	N001			357		FJ	#	0.096	± 59.9
	pCi/L	0858-2	WL	09/15/2015	N001			95.3		F	#	0.1	± 16.1
	pCi/L	0858-3	WL	09/15/2015	N001			178		F	#	0.096	± 31.1
	pCi/L	0858-4	WL	09/15/2015	N001			158		F	#	0.15	± 27.7
	pCi/L	0858-4	WL	09/15/2015	N002			151		F	#	0.42	± 25.3
	pCi/L	0859-2	WL	09/17/2015	N001			26		F	#	0.043	± 4.04
	pCi/L	0859-3	WL	09/17/2015	N001			34		F	#	0.14	± 5.77
	pCi/L	0859-4	WL	09/17/2015	N001			29.2		F	#	0.085	± 4.90
	pCi/L	0860-2	WL	09/17/2015	N001			230		F	#	0.63	± 38.4
	pCi/L	0860-3	WL	09/17/2015	N001			227		F	#	0.49	± 38.2

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-238	pCi/L	0860-3	WL	09/17/2015	N002			241		F	#	0.58	± 39.8
	pCi/L	0860-4	WL	09/17/2015	N001			249		F	#	0.59	± 41.2
	pCi/L	0866	WL	09/15/2015	N001			278		F	#	0.68	± 46.2
	pCi/L	0867	WL	09/15/2015	N001			296		F	#	0.66	± 48.9
	pCi/L	0868	WL	09/15/2015	N001			431		F	#	1.3	± 72.7
	pCi/L	0869	WL	09/15/2015	N001			538		F	#	1.7	± 90.0
	pCi/L	0870	WL	09/15/2015	N001			502		F	#	1.4	± 83.0
	pCi/L	0871	WL	09/15/2015	N001			344		F	#	0.79	± 56.4
	pCi/L	0872	WL	09/15/2015	N001			277		F	#	0.58	± 45.3
	pCi/L	0872	WL	09/15/2015	N002			268		F	#	0.47	± 44.5
	pCi/L	0873	WL	09/15/2015	N001			253		F	#	0.49	± 42.3
	pCi/L	0874	WL	09/15/2015	N001			116		F	#	0.29	± 19.2
	pCi/L	0875	WL	09/15/2015	N001			85.8		F	#	0.36	± 14.7

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY

RECORDS: SELECTED FROM USEE200 WHERE site_code='RVT01' AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND DATE_SAMPLED between #8/1/2015# and #9/30/2015#

SAMPLE ID CODES: 000X = Filtered sample. N00X = Unfiltered sample. X = replicate number.

LOCATION TYPES: BH BOREHOLE WL WELL

ZONES OF COMPLETION: a zone of completion with a "-" is cross-screened and, therefore, has two zones of completion (1st zone - 2nd zone).

NR NO RECOVERY OF DATA FOR CLASSIFYING SE SEMICONFINED SANDSTONE SF SURFICIAL

FLOW CODES: C CROSS GRADIENT D DOWN GRADIENT N UNKNOWN O ON-SITE U UPGRADIENT

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compund (TIC).
- P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined qualifier, see case narrative.
- Y Laboratory defined qualifier, see case narrative.
- Z Laboratory defined qualifier, see case narrative.

DATA QUALIFIERS:

- F Low flow sampling method used.
- G Possible grout contamination, pH > 9.
- J Estimated value.
- L Less than 3 bore volumes purged prior to sampling.
- N Presumptive evidence that analyte is present. The analyte is "tentatively identified".
- Q Qualitative result due to sampling technique
- R Unusable result.
- U Parameter analyzed for but was not detected.
- X Location is undefined.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

Appendix G

Surface Water Data

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SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:27 am

PARAMETER	UNITS	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3)	mg/L	0747	09/16/2015	N001	248			#	-	-
	mg/L	0749	09/17/2015	N001	89			#	-	-
	mg/L	0794	09/14/2015	0001	177			#	-	-
	mg/L	0796	09/18/2015	N001	192			#	-	-
	mg/L	0810	09/17/2015	N001	315			#	-	-
	mg/L	0811	09/17/2015	N001	192			#	-	-
	mg/L	0812	09/17/2015	N001	192			#	-	-
	mg/L	0822	09/16/2015	N001	247			#	-	-
	mg/L	0823	09/17/2015	0001	148			#	-	-
Calcium	mg/L	0747	09/16/2015	0001	150.000			#	0.024	-
	mg/L	0749	09/17/2015	N001	580.000			#	0.24	-
	mg/L	0794	09/14/2015	N001	89.000			#	0.024	-
	mg/L	0796	09/18/2015	N001	90.000			#	0.024	-
	mg/L	0796	09/18/2015	N002	96.000			#	0.024	-
	mg/L	0810	09/17/2015	N001	18.000			#	0.024	-
	mg/L	0811	09/17/2015	N001	95.000			#	0.024	-
	mg/L	0812	09/17/2015	N001	90.000			#	0.024	-
	mg/L	0822	09/16/2015	N001	170.000			#	0.024	-
	mg/L	0823	09/17/2015	0001	130.000			#	0.024	-
Chloride	mg/L	0747	09/16/2015	0001	22			#	2	-
	mg/L	0749	09/17/2015	N001	13			#	5	-
	mg/L	0794	09/14/2015	N001	11			#	0.8	-
	mg/L	0796	09/18/2015	N001	11			#	0.8	-
	mg/L	0796	09/18/2015	N002	11			#	0.8	-
	mg/L	0810	09/17/2015	N001	37			#	1	-
	mg/L	0811	09/17/2015	N001	11			#	0.8	-
	mg/L	0812	09/17/2015	N001	12			#	0.8	-
	mg/L	0822	09/16/2015	N001	12			#	2	-
	mg/L	0823	09/17/2015	0001	180			#	4	-
Dissolved Oxygen	mg/L	0747	09/16/2015	N001	2.13			#	-	-
	mg/L	0749	09/17/2015	N001	7.33			#	-	-
	mg/L	0794	09/14/2015	N001	8.61			#	-	-
	mg/L	0796	09/18/2015	N001	13.32			#	-	-
	mg/L	0810	09/17/2015	N001	8.54			#	-	-
	mg/L	0811	09/17/2015	N001	9.74			#	-	-
	mg/L	0812	09/17/2015	N001	9.92			#	-	-
	mg/L	0822	09/16/2015	N001	9.03			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:27 am

PARAMETER	UNITS	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/L	0796	09/18/2015	N002	0.230			#	0.0067	-
Magnesium	mg/L	0747	09/16/2015	0001	47.000			#	0.03	-
	mg/L	0749	09/17/2015	N001	3.100			#	0.03	-
	mg/L	0794	09/14/2015	N001	36.000			#	0.03	-
	mg/L	0796	09/18/2015	N001	36.000			#	0.03	-
	mg/L	0796	09/18/2015	N002	37.000			#	0.03	-
	mg/L	0810	09/17/2015	N001	81.000			#	0.03	-
	mg/L	0811	09/17/2015	N001	38.000			#	0.03	-
	mg/L	0812	09/17/2015	N001	38.000			#	0.03	-
	mg/L	0822	09/16/2015	N001	22.000			#	0.03	-
	mg/L	0823	09/17/2015	0001	80.000			#	0.03	-
Manganese	mg/L	0747	09/16/2015	0001	0.650			#	0.00024	-
	mg/L	0749	09/17/2015	N001	0.100			#	0.00024	-
	mg/L	0794	09/14/2015	N001	0.037			#	0.00024	-
	mg/L	0796	09/18/2015	N001	0.060			#	0.00024	-
	mg/L	0796	09/18/2015	N002	0.052	E	J	#	0.00024	-
	mg/L	0810	09/17/2015	N001	0.074			#	0.00024	-
	mg/L	0811	09/17/2015	N001	0.057			#	0.00024	-
	mg/L	0812	09/17/2015	N001	0.047			#	0.00024	-
	mg/L	0822	09/16/2015	N001	0.059			#	0.00024	-
	mg/L	0823	09/17/2015	0001	0.059			#	0.00024	-
Molybdenum	mg/L	0747	09/16/2015	0001	0.027			#	0.00032	-
	mg/L	0749	09/17/2015	N001	0.046			#	0.00032	-
	mg/L	0794	09/14/2015	N001	0.0026			#	0.00032	-
	mg/L	0796	09/18/2015	N001	0.0019			#	0.00032	-
	mg/L	0796	09/18/2015	N002	0.0031			#	0.00032	-
	mg/L	0810	09/17/2015	N001	0.0014			#	0.00032	-
	mg/L	0811	09/17/2015	N001	0.0021			#	0.00032	-
	mg/L	0812	09/17/2015	N001	0.0018			#	0.00032	-
	mg/L	0822	09/16/2015	N001	0.0085			#	0.00032	-
	mg/L	0823	09/17/2015	0001	0.0038			#	0.00032	-
Oxidation Reduction Potential	mV	0747	09/16/2015	N001	48.6			#	-	-
	mV	0749	09/17/2015	N001	19.7			#	-	-
	mV	0794	09/14/2015	N001	104.5			#	-	-
	mV	0796	09/18/2015	N001	173.5			#	-	-
	mV	0810	09/17/2015	N001	173.9		J	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:27 am

PARAMETER	UNITS	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Oxidation Reduction Potential	mV	0811	09/17/2015	N001	60.8			#	-	-
	mV	0812	09/17/2015	N001	86.2			#	-	-
	mV	0822	09/16/2015	N001	99.0			#	-	-
	mV	0823	09/17/2015	N001	98.2			#	-	-
pH	s.u.	0747	09/16/2015	N001	8.09			#	-	-
	s.u.	0749	09/17/2015	N001	7.86			#	-	-
	s.u.	0794	09/14/2015	N001	8.17			#	-	-
	s.u.	0796	09/18/2015	N001	8.15			#	-	-
	s.u.	0810	09/17/2015	N001	9.63			#	-	-
	s.u.	0811	09/17/2015	N001	8.38			#	-	-
	s.u.	0812	09/17/2015	N001	8.45			#	-	-
	s.u.	0822	09/16/2015	N001	8.20			#	-	-
	s.u.	0823	09/17/2015	N001	8.51			#	-	-
Potassium	mg/L	0747	09/16/2015	0001	7.100			#	0.052	-
	mg/L	0749	09/17/2015	N001	1.800			#	0.052	-
	mg/L	0794	09/14/2015	N001	7.100			#	0.052	-
	mg/L	0796	09/18/2015	N001	4.200			#	0.052	-
	mg/L	0796	09/18/2015	N002	3.600	E	J	#	0.052	-
	mg/L	0810	09/17/2015	N001	13.000			#	0.052	-
	mg/L	0811	09/17/2015	N001	4.000			#	0.052	-
	mg/L	0812	09/17/2015	N001	4.200			#	0.052	-
	mg/L	0822	09/16/2015	N001	4.200			#	0.052	-
	mg/L	0823	09/17/2015	0001	12.000			#	0.052	-
Silica	mg/L	0796	09/18/2015	N002	8.600			#	0.021	-
Silicon	mg/L	0796	09/18/2015	N002	4.000			#	0.0097	-
Sodium	mg/L	0747	09/16/2015	0001	140.000			#	0.047	-
	mg/L	0749	09/17/2015	N001	250.000			#	0.047	-
	mg/L	0794	09/14/2015	N001	80.000			#	0.047	-
	mg/L	0796	09/18/2015	N001	74.000			#	0.047	-
	mg/L	0796	09/18/2015	N002	71.000			#	0.047	-
	mg/L	0810	09/17/2015	N001	210.000			#	0.047	-
	mg/L	0811	09/17/2015	N001	77.000			#	0.047	-
	mg/L	0812	09/17/2015	N001	78.000			#	0.047	-
	mg/L	0822	09/16/2015	N001	130.000			#	0.047	-
	mg/L	0823	09/17/2015	0001	320.000			#	0.047	-
Specific Conductance	umhos/cm	0749	09/17/2015	N001	3017			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:27 am

PARAMETER	UNITS	LOCATION CODE	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0794	09/14/2015	N001	1007				#	-	-
	umhos/cm	0796	09/18/2015	N001	976				#	-	-
	umhos/cm	0810	09/17/2015	N001	1502				#	-	-
	umhos/cm	0811	09/17/2015	N001	1007				#	-	-
	umhos/cm	0812	09/17/2015	N001	1001				#	-	-
	umhos/cm	0822	09/16/2015	N001	1409				#	-	-
	umhos/cm	0823	09/17/2015	N001	2527				#	-	-
Sulfate	mg/L	0747	09/16/2015	0001	620				#	5	-
	mg/L	0749	09/17/2015	N001	1900				#	12	-
	mg/L	0794	09/14/2015	N001	330				#	2	-
	mg/L	0796	09/18/2015	N001	320				#	2	-
	mg/L	0796	09/18/2015	N002	320				#	2	-
	mg/L	0810	09/17/2015	N001	470				#	2.5	-
	mg/L	0811	09/17/2015	N001	330				#	2	-
	mg/L	0812	09/17/2015	N001	340				#	2	-
	mg/L	0822	09/16/2015	N001	530				#	5	-
	mg/L	0823	09/17/2015	0001	1000				#	10	-
Temperature	C	0747	09/16/2015	N001	18.50				#	-	-
	C	0749	09/17/2015	N001	19.07				#	-	-
	C	0794	09/14/2015	N001	18.21				#	-	-
	C	0796	09/18/2015	N001	10.34				#	-	-
	C	0810	09/17/2015	N001	16.32				#	-	-
	C	0811	09/17/2015	N001	11.98				#	-	-
	C	0812	09/17/2015	N001	16.38				#	-	-
	C	0822	09/16/2015	N001	16.80				#	-	-
	C	0823	09/17/2015	N001	18.78				#	-	-
Turbidity	NTU	0747	09/16/2015	N001	67.7				#	-	-
	NTU	0749	09/17/2015	N001	5.28				#	-	-
	NTU	0794	09/14/2015	N001	31.4		J		#	-	-
	NTU	0796	09/18/2015	N001	7.84				#	-	-
	NTU	0810	09/17/2015	N001	3.54				#	-	-
	NTU	0811	09/17/2015	N001	5.53				#	-	-
	NTU	0812	09/17/2015	N001	8.41				#	-	-
	NTU	0822	09/16/2015	N001	4.74				#	-	-
	NTU	0823	09/17/2015	N001	11.1				#	-	-
Uranium	mg/L	0747	09/16/2015	0001	0.190				#	2.9E-05	-
	mg/L	0749	09/17/2015	N001	0.0031				#	2.9E-05	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:27 am

PARAMETER	UNITS	LOCATION CODE	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0794	09/14/2015	N001	0.011			#	2.9E-05	-
	mg/L	0796	09/18/2015	N001	0.008			#	2.9E-05	-
	mg/L	0796	09/18/2015	N002	0.0085			#	2.9E-05	-
	mg/L	0810	09/17/2015	N001	0.0051			#	2.9E-05	-
	mg/L	0811	09/17/2015	N001	0.0084			#	2.9E-05	-
	mg/L	0812	09/17/2015	N001	0.0091			#	2.9E-05	-
	mg/L	0822	09/16/2015	N001	0.0089			#	2.9E-05	-
	mg/L	0823	09/17/2015	0001	0.0093			#	2.9E-05	-

RECORDS: SELECTED FROM USEE800 WHERE site_code='RVT01' AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND DATE_SAMPLED between #9/1/2015# and #9/30/2015#

SAMPLE ID CODES: 000X = Filtered sample. N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compund (TIC).
- P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

- F Low flow sampling method used.
- J Estimated value.
- N Presumptive evidence that analyte is present. The analyte is "tentatively identified".
- R Unusable result.
- X Location is undefined.
- G Possible grout contamination, pH > 9.
- L Less than 3 bore volumes purged prior to sampling.
- Q Qualitative result due to sampling technique
- U Parameter analyzed for but was not detected.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

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Appendix D

Monitoring Well Completion and Borehole Logs

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MONITORING WELL COMPLETION LOG RVT01-0852-1

PROJECT	LM	**WELL NUMBER**	RVT01-0852-1	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845386.42	**SURFACE ELEV. (FT NGVD)**	4935.52
SITE	Riverton	**EAST COORD. (FT)**	591652.32	**TOP OF CASING (FT)**	4938.00
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4930.52
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	5.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.48	to	5.0
WELL SCREEN:	0.375 in. Slotted CMT	5.0	to	5.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	5.0
SCREEN PACK	20-40 Silica Sand	5.0	to	5.5
LOWER SAND PACK	20-40 Silica Sand	5.5	to	7.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/1/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4935		Bentonite Pellets 3/8"		**0-4.5 ft. SILT (ML)** @ 0-1.0 ft. brown (10YR 5/3). @ 1.0 ft. grayish brown (10YR 5/2). @ ~ 1.0-2.0 ft. white flecks (caliche) mottling. @ 2.0 ft. pale brown (10YR 6/3).
			20-40 Silica Sand		
					@ ~ 4.0 ft. brown (10YR 5/3). @ ~4.5 ft. sediments damp.
5	4930	4930.52	ZONE #1 Slotted CMT		**4.5-6.0 ft. SILTY GRAVEL (GM);** ~ 30% gravel clasts (up to 2.0" in diameter), fine to medium grained sand matrix. Gray (10YR 5/1).
			Bentonite Pellets 3/8"		**6.0-15.0 ft. SANDY GRAVEL (GW)**; ~ 30-40% gravel with clasts (up to 3.0" in diameter), sandy matrix mostly medium grained. @ 6.5-7.5 ft. clasts (up to 4.0-5.0" in diameter), with medium grained sand matrix. @ ~ 7.0-8.0 ft. brown (7.5YR 5/2), sediments near saturated.
10	4925		ZONE #2 Slotted CMT		@ ~ 9.5 ft. ~ 50% gravel with clasts (up to 5.0" in diameter), sand matrix, grayish brown (10YR 5/2), saturated.
			ZONE #3 Slotted CMT		@ ~12.0-13.0 ft. coarse sand matrix.
15	4920		ZONE #4 Slotted 1.5 in. PVC		@ ~13.0-15.0 ft. gravel clasts (up to 4.0" in diameter), sand matrix, medium grained, wet.
			20-40 Silica Sand		**15.0-18.0 ft. WIND RIVER FORMATION: SANDSTONE;** weathered fine grained sandstone, soft, friable, light olive gray (5Y 5/2).
					Total Depth 18.0 ft.

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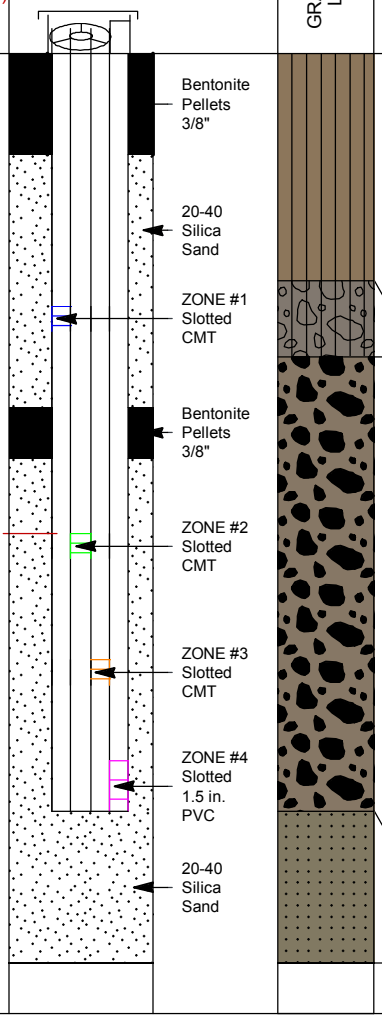
MONITORING WELL COMPLETION LOG RVT01-0852-2

PROJECT	LM	**WELL NUMBER**	RVT01-0852-2	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845386.42	**SURFACE ELEV. (FT NGVD)**	4935.52
SITE	Riverton	**EAST COORD. (FT)**	591652.32	**TOP OF CASING (FT)**	4938.00
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4926.02
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	10.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.48	to	9.5
WELL SCREEN:	0.375 in. Slotted CMT	9.5	to	10.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	7.0	to	8.0
UPPER SAND PACK	20-40 Silica Sand	8.0	to	9.5
SCREEN PACK	20-40 Silica Sand	9.5	to	10.0
LOWER SAND PACK	20-40 Silica Sand	10.0	to	11.5

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	9/1/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL) | ELEV. (FT NGVD) | SCREEN ELEV (FT) | WELL DIAGRAM | GRAPHIC LOG | LITHOLOGIC DESCRIPTION



0-4.5 ft. SILT (ML)
@ 0-1.0 ft. brown (10YR 5/3).
@ 1.0 ft. grayish brown (10YR 5/2).
@ ~ 1.0-2.0 ft. white flecks (caliche) mottling.
@ 2.0 ft. pale brown (10YR 6/3).
@ ~ 4.0 ft. brown (10YR 5/3).
@ ~4.5 ft. sediments damp.

4.5-6.0 ft. SILTY GRAVEL (GM); ~ 30% gravel clasts (up to 2.0" in diameter), fine to medium grained sand matrix. Gray (10YR 5/1).

6.0-15.0 ft. SANDY GRAVEL (GW); ~ 30-40% gravel with clasts (up to 3.0" in diameter), sandy matrix mostly medium grained.
@ 6.5-7.5 ft. clasts (up to 4.0-5.0" in diameter), with medium grained sand matrix.
@ ~ 7.0-8.0 ft. brown (7.5YR 5/2), sediments near saturated.
@ ~ 9.5 ft. ~ 50% gravel with clasts (up to 5.0" in diameter), sand matrix, grayish brown (10YR 5/2), saturated.
@ ~12.0-13.0 ft. coarse sand matrix.
@ ~13.0-15.0 ft. gravel clasts (up to 4.0" in diameter), sand matrix, medium grained, wet.

15.0-18.0 ft. WIND RIVER FORMATION: SANDSTONE; weathered fine grained sandstone, soft, friable, light olive gray (5Y 5/2).

Total Depth 18.0 ft.

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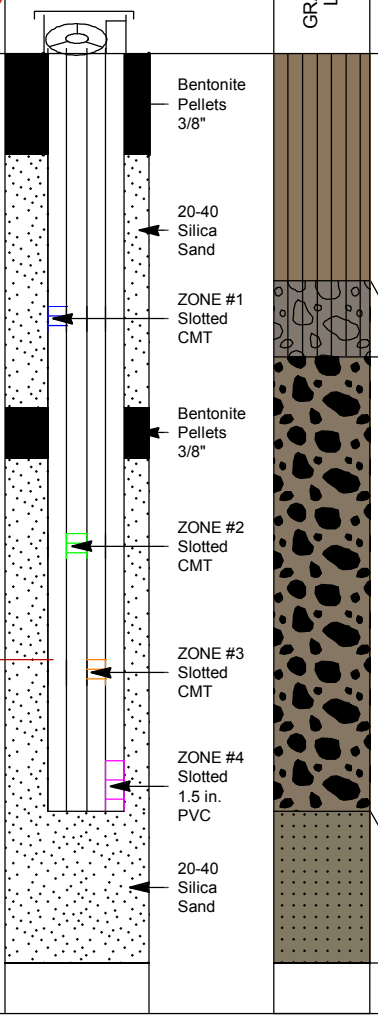
MONITORING WELL COMPLETION LOG RVT01-0852-3

PROJECT	LM	**WELL NUMBER**	RVT01-0852-3	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845386.42	**SURFACE ELEV. (FT NGVD)**	4935.52
SITE	Riverton	**EAST COORD. (FT)**	591652.32	**TOP OF CASING (FT)**	4938.00
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4923.52
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	12.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.48	to	12.0
WELL SCREEN:	0.375 in. Slotted CMT	12.0	to	12.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	7.0	to	8.0
UPPER SAND PACK	20-40 Silica Sand	11.5	to	12.0
SCREEN PACK	20-40 Silica Sand	12.0	to	12.5
LOWER SAND PACK	20-40 Silica Sand	12.5	to	13.5

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	9/1/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL) | ELEV. (FT NGVD) | SCREEN ELEV (FT) | WELL DIAGRAM | GRAPHIC LOG | LITHOLOGIC DESCRIPTION



0-4.5 ft. SILT (ML)
@ 0-1.0 ft. brown (10YR 5/3).
@ 1.0 ft. grayish brown (10YR 5/2).
@ ~ 1.0-2.0 ft. white flecks (caliche) mottling.
@ 2.0 ft. pale brown (10YR 6/3).
@ ~ 4.0 ft. brown (10YR 5/3).
@ ~4.5 ft. sediments damp.

4.5-6.0 ft. SILTY GRAVEL (GM); ~ 30% gravel clasts (up to 2.0" in diameter), fine to medium grained sand matrix. Gray (10YR 5/1).

6.0-15.0 ft. SANDY GRAVEL (GW); ~ 30-40% gravel with clasts (up to 3.0" in diameter), sandy matrix mostly medium grained.
@ 6.5-7.5 ft. clasts (up to 4.0-5.0" in diameter), with medium grained sand matrix.
@ ~ 7.0-8.0 ft. brown (7.5YR 5/2), sediments near saturated.
@ ~ 9.5 ft. ~ 50% gravel with clasts (up to 5.0" in diameter), sand matrix, grayish brown (10YR 5/2), saturated.
@ ~12.0-13.0 ft. coarse sand matrix.
@ ~13.0-15.0 ft. gravel clasts (up to 4.0" in diameter), sand matrix, medium grained, wet.

15.0-18.0 ft. WIND RIVER FORMATION: SANDSTONE; weathered fine grained sandstone, soft, friable, light olive gray (5Y 5/2).

Total Depth 18.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0852-4

PROJECT	LM	**WELL NUMBER**	RVT01-0852-4	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845386.42	**SURFACE ELEV. (FT NGVD)**	4935.52
SITE	Riverton	**EAST COORD. (FT)**	591652.32	**TOP OF CASING (FT)**	4938.30
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4921.52
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	15.00	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.78	to	14.0
WELL SCREEN:	1.5 in. Slotted PVC	14.0	to	15.0
SUMP/END CAP:	1.5 in. PVC Sch 40	15.0	to	15.1
BENTONITE SEAL:	Bentonite Pellets	7.0	to	8.0
UPPER SAND PACK	20-40 Silica Sand	13.5	to	14.0
SCREEN PACK	20-40 Silica Sand	14.0	to	15.0
LOWER SAND PACK	20-40 Silica Sand	15.0	to	18.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/1/2015
REMARKS

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4935		Bentonite Pellets 3/8"		**0-4.5 ft. SILT (ML)** @ 0-1.0 ft. brown (10YR 5/3). @ 1.0 ft. grayish brown (10YR 5/2). @ ~ 1.0-2.0 ft. white flecks (caliche) mottling. @ 2.0 ft. pale brown (10YR 6/3).
			20-40 Silica Sand		
					@ ~ 4.0 ft. brown (10YR 5/3). @ ~4.5 ft. sediments damp.
5	4930		ZONE #1 Slotted CMT		**4.5-6.0 ft. SILTY GRAVEL (GM);** ~ 30% gravel clasts (up to 2.0" in diameter), fine to medium grained sand matrix. Gray (10YR 5/1).
			Bentonite Pellets 3/8"		**6.0-15.0 ft. SANDY GRAVEL (GW)**; ~ 30-40% gravel with clasts (up to 3.0" in diameter), sandy matrix mostly medium grained. @ 6.5-7.5 ft. clasts (up to 4.0-5.0" in diameter), with medium grained sand matrix. @ ~ 7.0-8.0 ft. brown (7.5YR 5/2), sediments near saturated.
10	4925		ZONE #2 Slotted CMT		@ ~ 9.5 ft. ~ 50% gravel with clasts (up to 5.0" in diameter), sand matrix, grayish brown (10YR 5/2), saturated.
			ZONE #3 Slotted CMT		@ ~12.0-13.0 ft. coarse sand matrix.
		4921.52	ZONE #4 Slotted 1.5 in. PVC		
15	4920				@ ~13.0-15.0 ft. gravel clasts (up to 4.0" in diameter), sand matrix, medium grained, wet.
			20-40 Silica Sand		**15.0-18.0 ft. WIND RIVER FORMATION: SANDSTONE;** weathered fine grained sandstone, soft, friable, light olive gray (5Y 5/2).
					Total Depth 18.0 ft.

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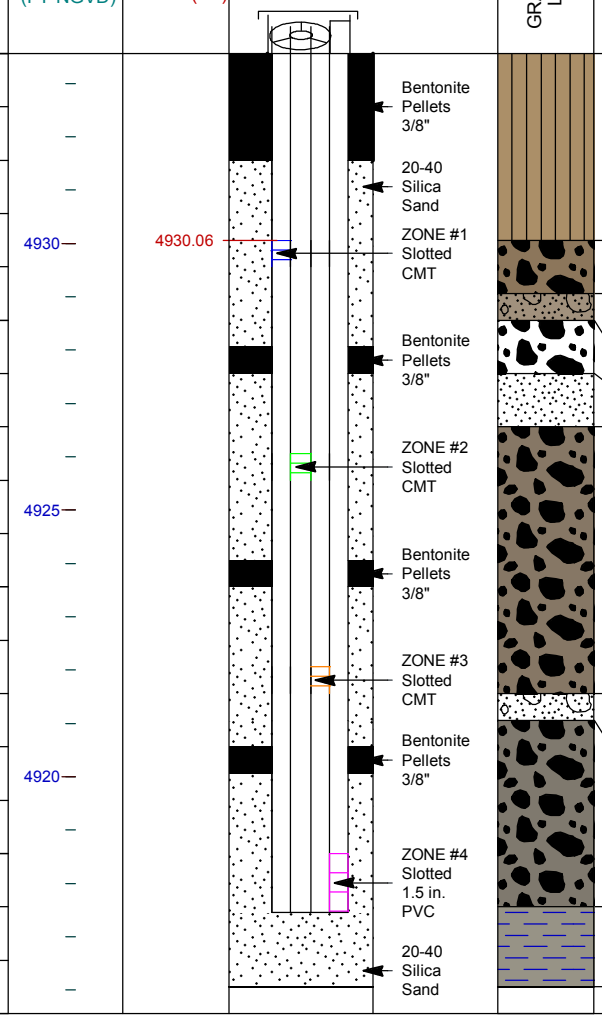
MONITORING WELL COMPLETION LOG RVT01-0853-1

PROJECT	LM	**WELL NUMBER**	RVT01-0853-1	**DATE DRILLED**	8/27/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845685.82	**SURFACE ELEV. (FT NGVD)**	4933.56
SITE	Riverton	**EAST COORD. (FT)**	592527.94	**TOP OF CASING (FT)**	4935.81
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	17.50	**TOP OF SCREEN (FT)**	4930.06
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	4.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.25	to	3.5
WELL SCREEN:	0.375 in. Slotted CMT	3.5	to	4.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	3.5
SCREEN PACK	20-40 Silica Sand	3.5	to	4.0
LOWER SAND PACK	20-40 Silica Sand	4.0	to	5.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-3.5 ft. SILT (ML);** ~90% silt, ~10% very fine grained sand, A horizon (0 -6.0"), trace roots down to ~1.5 ft., trace white caliche specks down to ~ 2.5 ft., light yellowish brown (10YR 6/4), dry.
			20-40 Silica Sand		
					@ ~3.0 ft. brown (10YR 5/3).
	4930	4930.06	ZONE #1 Slotted CMT		**3.5 -4.5 ft. SANDY GRAVEL (GW);** ~40% gravel, ~ 60 % matrix mostly fine grained.
					4.5-5.0 FT. GRAVELLY SAND (SP); ~10-25% gravel, ~ 75-90% fine to medium grained sand, light brownish gray (10YR 6/2).
5			Bentonite Pellets 3/8"		**5.0 -6.0 ft. SANDY GRAVEL (GW);** ~60 % gravel (up to 4.0" in diameter).
					6.0-7.0 ft. SAND (SP); mostly fine grained, coarsening downward
			ZONE #2 Slotted CMT		**7.0 -12.0 FT. SANDY GRAVEL (GW);** ~50% gravel (up to 4.0" in diameter), matrix sand mostly fine to medium grained, grayish brown (10YR 5/2), damp at 7.0 ft. , wet at 7.5 ft.
	4925				@ ~8.5 - 10.0 ft. ~70% gravel (up to 4.0" in diameter).
10			Bentonite Pellets 3/8"		@ ~10.0-12.0 ft. ~40% gravel (up to 2.0" in diameter).
			ZONE #3 Slotted CMT		
					12.0-12.5 ft. GRAVELLY SAND (SP); mostly medium grained sand, ~ 10% gravel, wet.
			Bentonite Pellets 3/8"		**12.5-16.0 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 3.0" in diameter), matrix sand mostly medium grained, gray (2.5Y 5/1).
	4920				
15			ZONE #4 Slotted 1.5 in. PVC		
					16.0-17.5 ft. WIND RIVER FORMATION: SILTY CLAYSTONE; weathered, soft, dry below 17.0 ft., light olive gray (5Y 6/1).
			20-40 Silica Sand		
					Total Depth 17.5 ft.



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LM CMT MONITORING WELL S REV 9-2014 2947 RVT01-0852-877 EDIT.GPJ SHIP.GDT 4/7/16

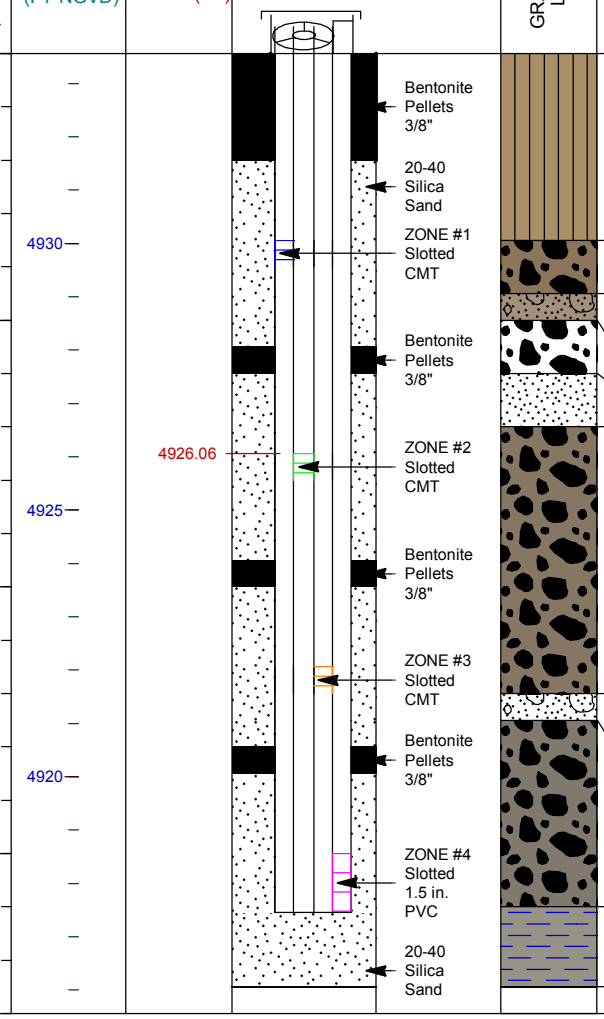
MONITORING WELL COMPLETION LOG RVT01-0853-2

PROJECT	LM	**WELL NUMBER**	RVT01-0853-2	**DATE DRILLED**	8/27/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845685.82	**SURFACE ELEV. (FT NGVD)**	4933.56
SITE	Riverton	**EAST COORD. (FT)**	592527.94	**TOP OF CASING (FT)**	4935.81
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	17.50	**TOP OF SCREEN (FT)**	4926.06
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	8.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.25	to	7.5
WELL SCREEN:	0.375 in. Slotted CMT	7.5	to	8.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	5.5	to	6.0
UPPER SAND PACK	20-40 Silica Sand	6.0	to	7.5
SCREEN PACK	20-40 Silica Sand	7.5	to	8.0
LOWER SAND PACK	20-40 Silica Sand	8.0	to	9.5

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	8/31/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-3.5 ft. SILT (ML);** ~90% silt, ~10% very fine grained sand, A horizon (0 -6.0"), trace roots down to ~1.5 ft., trace white caliche specks down to ~ 2.5 ft., light yellowish brown (10YR 6/4), dry.
			20-40 Silica Sand		
					@ ~3.0 ft. brown (10YR 5/3).
	4930		ZONE #1 Slotted CMT		**3.5 -4.5 ft. SANDY GRAVEL (GW);** ~40% gravel, ~ 60 % matrix mostly fine grained.
					4.5-5.0 FT. GRAVELLY SAND (SP); ~10-25% gravel, ~ 75-90% fine to medium grained sand, light brownish gray (10YR 6/2).
5			Bentonite Pellets 3/8"		**5.0 -6.0 ft. SANDY GRAVEL (GW);** ~60 % gravel (up to 4.0" in diameter).
					6.0-7.0 ft. SAND (SP); mostly fine grained, coarsening downward
		4926.06	ZONE #2 Slotted CMT		**7.0 -12.0 FT. SANDY GRAVEL (GW);** ~50% gravel (up to 4.0" in diameter), matrix sand mostly fine to medium grained, grayish brown (10YR 5/2), damp at 7.0 ft. , wet at 7.5 ft.
	4925				@ ~8.5 - 10.0 ft. ~70% gravel (up to 4.0" in diameter).
10			Bentonite Pellets 3/8"		@ ~10.0-12.0 ft. ~40% gravel (up to 2.0" in diameter).
			ZONE #3 Slotted CMT		
					12.0-12.5 ft. GRAVELLY SAND (SP); mostly medium grained sand, ~ 10% gravel, wet.
			Bentonite Pellets 3/8"		**12.5-16.0 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 3.0" in diameter), matrix sand mostly medium grained, gray (2.5Y 5/1).
	4920				
15			ZONE #4 Slotted 1.5 in. PVC		
					16.0-17.5 ft. WIND RIVER FORMATION: SILTY CLAYSTONE; weathered, soft, dry below 17.0 ft., light olive gray (5Y 6/1).
			20-40 Silica Sand		
					Total Depth 17.5 ft.



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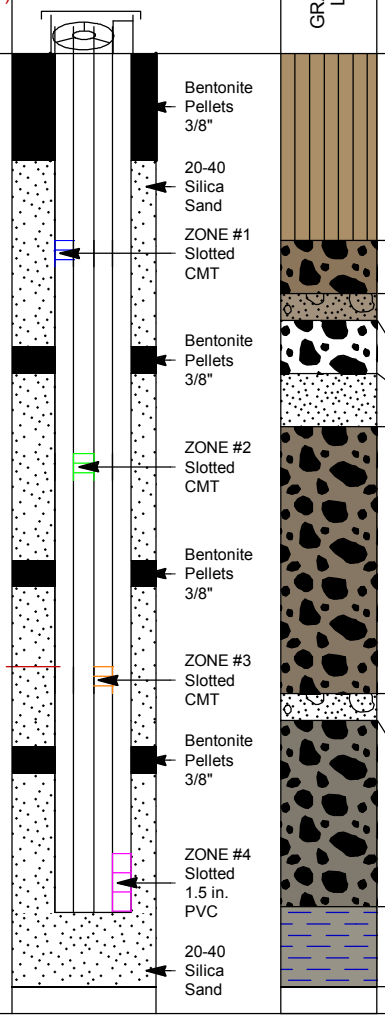
MONITORING WELL COMPLETION LOG RVT01-0853-3

PROJECT	LM	**WELL NUMBER**	RVT01-0853-3	**DATE DRILLED**	8/27/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845685.82	**SURFACE ELEV. (FT NGVD)**	4933.56
SITE	Riverton	**EAST COORD. (FT)**	592527.94	**TOP OF CASING (FT)**	4935.81
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	17.50	**TOP OF SCREEN (FT)**	4922.06
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	12.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.25	to	11.5
WELL SCREEN:	0.375 in. Slotted CMT	11.5	to	12.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	9.5	to	10.0
UPPER SAND PACK	20-40 Silica Sand	10.0	to	11.5
SCREEN PACK	20-40 Silica Sand	11.5	to	12.0
LOWER SAND PACK	20-40 Silica Sand	12.0	to	13.0

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	8/31/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL) | ELEV. (FT NGVD) | SCREEN ELEV (FT) | WELL DIAGRAM | GRAPHIC LOG | LITHOLOGIC DESCRIPTION



0-3.5 ft. SILT (ML); ~90% silt, ~10% very fine grained sand, A horizon (0 -6.0"), trace roots down to ~1.5 ft., trace white caliche specks down to ~ 2.5 ft., light yellowish brown (10YR 6/4), dry.

@ ~3.0 ft. brown (10YR 5/3).

3.5 -4.5 ft. SANDY GRAVEL (GW); ~40% gravel, ~ 60 % matrix mostly fine grained.

4.5-5.0 FT. GRAVELLY SAND (SP); ~10-25% gravel, ~ 75-90% fine to medium grained sand, light brownish gray (10YR 6/2).

5.0 -6.0 ft. SANDY GRAVEL (GW); ~60 % gravel (up to 4.0" in diameter).

6.0-7.0 ft. SAND (SP); mostly fine grained, coarsening downward

7.0 -12.0 FT. SANDY GRAVEL (GW); ~50% gravel (up to 4.0" in diameter), matrix sand mostly fine to medium grained, grayish brown (10YR 5/2), damp at 7.0 ft. , wet at 7.5 ft.

@ ~8.5 - 10.0 ft. ~70% gravel (up to 4.0" in diameter).

@ ~10.0-12.0 ft. ~40% gravel (up to 2.0" in diameter).

12.0-12.5 ft. GRAVELLY SAND (SP); mostly medium grained sand, ~ 10% gravel, wet.

12.5-16.0 ft. SANDY GRAVEL (GW); ~40% gravel (up to 3.0" in diameter), matrix sand mostly medium grained, gray (2.5Y 5/1).

16.0-17.5 ft. WIND RIVER FORMATION: SILTY CLAYSTONE; weathered, soft, dry below 17.0 ft., light olive gray (5Y 6/1).

Total Depth 17.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0853-4

PROJECT	LM	**WELL NUMBER**	RVT01-0853-4	**DATE DRILLED**	8/27/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	845685.82	**SURFACE ELEV. (FT NGVD)**	4933.56
SITE	Riverton	**EAST COORD. (FT)**	592527.94	**TOP OF CASING (FT)**	4935.98
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	17.50	**TOP OF SCREEN (FT)**	4918.56
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	16.10	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.42	to	15.0
WELL SCREEN:	1.5 in. Slotted PVC	15.0	to	16.0
SUMP/END CAP:	1.5 in. PVC Sch 40	16.0	to	16.1
BENTONITE SEAL:	Bentonite Pellets	13.0	to	13.5
UPPER SAND PACK	20-40 Silica Sand	13.5	to	15.0
SCREEN PACK	20-40 Silica Sand	15.0	to	16.1
LOWER SAND PACK	20-40 Silica Sand	16.1	to	17.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-3.5 ft. SILT (ML);** ~90% silt, ~10% very fine grained sand, A horizon (0 -6.0"), trace roots down to ~1.5 ft., trace white caliche specks down to ~ 2.5 ft., light yellowish brown (10YR 6/4), dry.
			20-40 Silica Sand		
					@ ~3.0 ft. brown (10YR 5/3).
	4930		ZONE #1 Slotted CMT		**3.5 -4.5 ft. SANDY GRAVEL (GW);** ~40% gravel, ~ 60 % matrix mostly fine grained.
					4.5-5.0 FT. GRAVELLY SAND (SP); ~10-25% gravel, ~ 75-90% fine to medium grained sand, light brownish gray (10YR 6/2).
5			Bentonite Pellets 3/8"		**5.0 -6.0 ft. SANDY GRAVEL (GW);** ~60 % gravel (up to 4.0" in diameter).
					6.0-7.0 ft. SAND (SP); mostly fine grained, coarsening downward
			ZONE #2 Slotted CMT		**7.0 -12.0 FT. SANDY GRAVEL (GW);** ~50% gravel (up to 4.0" in diameter), matrix sand mostly fine to medium grained, grayish brown (10YR 5/2), damp at 7.0 ft. , wet at 7.5 ft.
	4925				@ ~8.5 - 10.0 ft. ~70% gravel (up to 4.0" in diameter).
			Bentonite Pellets 3/8"		
10					@ ~10.0-12.0 ft. ~40% gravel (up to 2.0" in diameter).
			ZONE #3 Slotted CMT		
					12.0-12.5 ft. GRAVELLY SAND (SP); mostly medium grained sand, ~ 10% gravel, wet.
			Bentonite Pellets 3/8"		**12.5-16.0 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 3.0" in diameter), matrix sand mostly medium grained, gray (2.5Y 5/1).
	4920				
15		4918.56	ZONE #4 Slotted 1.5 in. PVC		
					16.0-17.5 ft. WIND RIVER FORMATION: SILTY CLAYSTONE; weathered, soft, dry below 17.0 ft., light olive gray (5Y 6/1).
			20-40 Silica Sand		
					Total Depth 17.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0854-1

PROJECT	LM	**WELL NUMBER**	RVT01-0854-1	**DATE DRILLED**	8/26/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846505.69	**SURFACE ELEV. (FT NGVD)**	4934.88
SITE	Riverton	**EAST COORD. (FT)**	591768.86	**TOP OF CASING (FT)**	4937.19
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4931.88
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	3.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.31	to	3.0
WELL SCREEN:	0.375 in. Slotted CMT	3.0	to	3.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	3.0
SCREEN PACK	20-40 Silica Sand	3.0	to	3.5
LOWER SAND PACK	20-40 Silica Sand	3.5	to	4.5

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	8/31/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-3.0 ft. SILT (ML);** A horizon (0-1.0 ft.), trace roots (0-2.0 ft.), trace white specks of caliche (0-1.5 ft.), pale brown color (10YR 6/3), 0-2.0 ft. dry. Slightly damp below 2.0' with increasing amounts of very fine grained sand, from 1.5-2.5 ft. gray (7.5YR 5/1).
			20-40 Silica Sand		
		4931.88	ZONE #1 Slotted CMT		**3.0-6.5 ft. SAND (SP);** mostly fine grained, damp.
5	4930		Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		@ 6.0 ft. gray (10YR 5/1). @ ~6.5 ft. wet. 6.5-7.5 ft. No Recovery.
			20-40 Silica Sand		**7.5-12.5 ft. SANDY GRAVEL (GW);** ~50% gravel (up to 2.0" in diameter), sand matrix mostly medium to fine grained, gray (7.5YR 5/1).
			ZONE #3 Slotted CMT		
10	4925		ZONE #4 Slotted 1.5 in. PVC		@ 11.0 ft. cobbles (up to 4.0" in diameter).
					12.0-12.5 ft. WIND RIVER FORMATION: SANDSTONE; weathered fine grained sandstone, soft, friable, light olive gray (5Y 6/1).
					Total Depth 12.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0854-2

PROJECT	LM	**WELL NUMBER**	RVT01-0854-2	**DATE DRILLED**	8/26/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846505.69	**SURFACE ELEV. (FT NGVD)**	4934.88
SITE	Riverton	**EAST COORD. (FT)**	591768.86	**TOP OF CASING (FT)**	4937.19
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4928.38
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	7.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.31	to	6.5
WELL SCREEN:	0.375 in. Slotted CMT	6.5	to	7.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	4.5	to	5.5
UPPER SAND PACK	20-40 Silica Sand	5.5	to	6.5
SCREEN PACK	20-40 Silica Sand	6.5	to	7.0
LOWER SAND PACK	20-40 Silica Sand	7.0	to	8.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"; 20-40 Silica Sand; ZONE #1 Slotted CMT		**0-3.0 ft. SILT (ML);** A horizon (0-1.0 ft.), trace roots (0-2.0 ft.), trace white specks of caliche (0-1.5 ft.), pale brown color (10YR 6/3), 0-2.0 ft. dry. Slightly damp below 2.0' with increasing amounts of very fine grained sand, from 1.5-2.5 ft. gray (7.5YR 5/1).
5	4930		Bentonite Pellets 3/8"		**3.0-6.5 ft. SAND (SP);** mostly fine grained, damp.
		4928.38	ZONE #2 Slotted CMT		@ 6.0 ft. gray (10YR 5/1). @ ~6.5 ft. wet. 6.5-7.5 ft. No Recovery.
			20-40 Silica Sand; ZONE #3 Slotted CMT		**7.5-12.5 ft. SANDY GRAVEL (GW);** ~50% gravel (up to 2.0" in diameter), sand matrix mostly medium to fine grained, gray (7.5YR 5/1).
10	4925		ZONE #4 Slotted 1.5 in. PVC		@ 11.0 ft. cobbles (up to 4.0" in diameter).
					12.0-12.5 ft. WIND RIVER FORMATION: SANDSTONE; weathered fine grained sandstone, soft, friable, light olive gray (5Y 6/1).
					Total Depth 12.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0854-3

PROJECT	LM	**WELL NUMBER**	RVT01-0854-3	**DATE DRILLED**	8/26/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846505.69	**SURFACE ELEV. (FT NGVD)**	4934.88
SITE	Riverton	**EAST COORD. (FT)**	591768.86	**TOP OF CASING (FT)**	4937.19
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4925.88
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	9.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.31	to	9.0
WELL SCREEN:	0.375 in. Slotted CMT	9.0	to	9.5
SUMP/END CAP:				
BENTONITE SEAL:				
UPPER SAND PACK	20-40 Silica Sand	8.0	to	9.0
SCREEN PACK	20-40 Silica Sand	9.0	to	9.5
LOWER SAND PACK	20-40 Silica Sand	9.5	to	10.0

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	8/31/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8" 20-40 Silica Sand ZONE #1 Slotted CMT		**0-3.0 ft. SILT (ML);** A horizon (0-1.0 ft.), trace roots (0-2.0 ft.), trace white specks of caliche (0-1.5 ft.), pale brown color (10YR 6/3), 0-2.0 ft. dry. Slightly damp below 2.0' with increasing amounts of very fine grained sand, from 1.5-2.5 ft. gray (7.5YR 5/1).
5	4930		Bentonite Pellets 3/8" ZONE #2 Slotted CMT		**3.0-6.5 ft. SAND (SP);** mostly fine grained, damp. @ 6.0 ft. gray (10YR 5/1). @ ~6.5 ft. wet. 6.5-7.5 ft. No Recovery.
10	4925	4925.88	20-40 Silica Sand ZONE #3 Slotted CMT ZONE #4 Slotted 1.5 in. PVC		**7.5-12.5 ft. SANDY GRAVEL (GW);** ~50% gravel (up to 2.0" in diameter), sand matrix mostly medium to fine grained, gray (7.5YR 5/1). @ 11.0 ft. cobbles (up to 4.0" in diameter). **12.0-12.5 ft. WIND RIVER FORMATION: SANDSTONE;** weathered fine grained sandstone, soft, friable, light olive gray (5Y 6/1).

Total Depth 12.5 ft.

LM CMT MONITORING WELLS REV 9-2014 2947 RVT01-0852-877 EDIT.GPJ SHIP.GDT 4/7/16

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U.S. DEPARTMENT OF ENERGY
GRAND JUNCTION, COLORADO

MONITORING WELL COMPLETION LOG RVT01-0854-4

PROJECT	LM	**WELL NUMBER**	RVT01-0854-4	**DATE DRILLED**	8/26/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846505.69	**SURFACE ELEV. (FT NGVD)**	4934.88
SITE	Riverton	**EAST COORD. (FT)**	591768.86	**TOP OF CASING (FT)**	4937.42
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4923.88
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	12.10	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.54	to	11.0
WELL SCREEN:	1.5 in. Slotted PVC	11.0	to	12.0
SUMP/END CAP:	1.5 in. PVC Sch 40	12.0	to	12.1
BENTONITE SEAL:	Bentonite Pellets	4.5	to	5.5
UPPER SAND PACK	20-40 Silica Sand	10.0	to	11.0
SCREEN PACK	20-40 Silica Sand	11.0	to	12.1
LOWER SAND PACK	20-40 Silica Sand	12.1	to	12.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"; 20-40 Silica Sand		**0-3.0 ft. SILT (ML);** A horizon (0-1.0 ft.), trace roots (0-2.0 ft.), trace white specks of caliche (0-1.5 ft.), pale brown color (10YR 6/3), 0-2.0 ft. dry. Slightly damp below 2.0' with increasing amounts of very fine grained sand, from 1.5-2.5 ft. gray (7.5YR 5/1).
			ZONE #1 Slotted CMT		**3.0-6.5 ft. SAND (SP);** mostly fine grained, damp.
5	4930		Bentonite Pellets 3/8"; ZONE #2 Slotted CMT		@ 6.0 ft. gray (10YR 5/1). @ ~6.5 ft. wet.
					6.5-7.5 ft. No Recovery.
			20-40 Silica Sand; ZONE #3 Slotted CMT		**7.5-12.5 ft. SANDY GRAVEL (GW);** ~50% gravel (up to 2.0" in diameter), sand matrix mostly medium to fine grained, gray (7.5YR 5/1).
10	4925	4923.88	ZONE #4 Slotted 1.5 in. PVC		@ 11.0 ft. cobbles (up to 4.0" in diameter).
					12.0-12.5 ft. WIND RIVER FORMATION: SANDSTONE; weathered fine grained sandstone, soft, friable, light olive gray (5Y 6/1).
					Total Depth 12.5 ft.

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U.S. DEPARTMENT OF ENERGY
GRAND JUNCTION, COLORADO

MONITORING WELL COMPLETION LOG RVT01-0855-1

PROJECT	LM	**WELL NUMBER**	RVT01-0855-1	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846251.03	**SURFACE ELEV. (FT NGVD)**	4928.94
SITE	Riverton	**EAST COORD. (FT)**	593764.14	**TOP OF CASING (FT)**	4931.02
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	19.00	**TOP OF SCREEN (FT)**	4925.94
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	3.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.08	to	3.25
WELL SCREEN:	0.375 in. Slotted CMT	3.0	to	3.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.5
UPPER SAND PACK	20-40 Silica Sand	2.5	to	3.0
SCREEN PACK	20-40 Silica Sand	3.0	to	3.5
LOWER SAND PACK	20-40 Silica Sand	3.5	to	5.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Final well string (CMT and PVC) was set about 0.25 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log. Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.0 ft. SILT (ML);** A horizon with roots (0-6.0"), brown (7.5YR 4/2), mottling with white careous flecks (1.0- 3.0 ft.), trace roots down to 2.5', brown (0.5-4.0 ft.) (7.5YR 5/3), damp at 2.0 ft.
	4925	4925.94	ZONE #1 Slotted CMT		
5			Bentonite Pellets 3/8"		**4.0-7.0 ft. CLAYEY SILT (ML);** ~10% very fine grained sand, 10-20% clay, trace mica flecks, brown (7.5YR 4/3). @ 4.0-5.0 ft. is mottled with rust brown to black. @ 4.5-7.0 ft. dark gray color (7.5YR 4/1), wet at 4.5 ft.
			ZONE #2 Slotted CMT		**7.0-18.0 SANDY GRAVEL (GW);** ~50% gravel with clasts (up to 3.0" in diameter), naturally reduced zone (NRZ) with trace mica flecks, dark gray (10YR 4/1), sand matrix mostly medium grained, gray (7.5YR 5/1), wet.
	4920		Bentonite Pellets 3/8"		
10			20-40 Silica Sand		
			ZONE #3 Slotted CMT		@ ~13.0 to 15.0 ft. gravel coarsens downward, wet.
	4915				
15			Bentonite Pellets 3/8"		@ ~15 very coarse gravel (up to 4.0-5.0" in diameter), 60% gravel, sand matrix mostly medium grained, grayish brown (10YR 5/2).
			ZONE #4 Slotted 1.5 in. PVC		
	4910				**18.0- 19.0 ft. WIND RIVER FORMATION: SILTSTONE;** weathered, soft, trace fine pyrite, greenish gray (5GY 6/1).
					Total Depth 19.0 ft.

MONITORING WELL COMPLETION LOG RVT01-0855-2

PROJECT	LM	**WELL NUMBER**	RVT01-0855-2	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846251.03	**SURFACE ELEV. (FT NGVD)**	4928.94
SITE	Riverton	**EAST COORD. (FT)**	593764.14	**TOP OF CASING (FT)**	4931.02
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	19.00	**TOP OF SCREEN (FT)**	4921.19
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	8.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.08	to	7.75
WELL SCREEN:	0.375 in. Slotted CMT	7.75	to	8.25
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	5.0	to	6.0
UPPER SAND PACK	20-40 Silica Sand	6.0	to	7.5
SCREEN PACK	20-40 Silica Sand	7.5	to	8.0
LOWER SAND PACK	20-40 Silica Sand	8.0	to	9.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Final well string (CMT and PVC) was set about 0.25 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log. Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.0 ft. SILT (ML);** A horizon with roots (0-6.0"), brown (7.5YR 4/2), mottling with white careous flecks (1.0- 3.0 ft.), trace roots down to 2.5', brown (0.5-4.0 ft.) (7.5YR 5/3), damp at 2.0 ft.
			ZONE #1 Slotted CMT		
	4925				**4.0-7.0 ft. CLAYEY SILT (ML);** ~10% very fine grained sand, 10-20% clay, trace mica flecks, brown (7.5YR 4/3). @ 4.0-5.0 ft. is mottled with rust brown to black. @ 4.5-7.0 ft. dark gray color (7.5YR 4/1), wet at 4.5 ft.
5			Bentonite Pellets 3/8"		
		4921.19	ZONE #2 Slotted CMT		**7.0-18.0 SANDY GRAVEL (GW);** ~50% gravel with clasts (up to 3.0" in diameter), naturally reduced zone (NRZ) with trace mica flecks, dark gray (10YR 4/1), sand matrix mostly medium grained, gray (7.5YR 5/1), wet.
	4920				
10			Bentonite Pellets 3/8"		
			20-40 Silica Sand		
			ZONE #3 Slotted CMT		@ ~13.0 to 15.0 ft. gravel coarsens downward, wet.
	4915				
15			Bentonite Pellets 3/8"		@ ~15 very coarse gravel (up to 4.0-5.0" in diameter), 60% gravel, sand matrix mostly medium grained, grayish brown (10YR 5/2).
			ZONE #4 Slotted 1.5 in. PVC		
	4910				**18.0- 19.0 ft. WIND RIVER FORMATION: SILTSTONE;** weathered, soft, trace fine pyrite, greenish gray (5GY 6/1).
					Total Depth 19.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0855-3

PROJECT	LM	**WELL NUMBER**	RVT01-0855-3	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846251.03	**SURFACE ELEV. (FT NGVD)**	4928.94
SITE	Riverton	**EAST COORD. (FT)**	593764.14	**TOP OF CASING (FT)**	4931.02
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	19.00	**TOP OF SCREEN (FT)**	4916.19
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	13.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.08	to	12.75
WELL SCREEN:	0.375 in. Slotted CMT	12.75	to	13.25
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	9.5	to	10.0
UPPER SAND PACK	20-40 Silica Sand	10.0	to	12.5
SCREEN PACK	20-40 Silica Sand	12.5	to	13.0
LOWER SAND PACK	20-40 Silica Sand	13.0	to	14.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Final well string (CMT and PVC) was set about 0.25 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log. Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.0 ft. SILT (ML);** A horizon with roots (0-6.0"), brown (7.5YR 4/2), mottling with white careous flecks (1.0- 3.0 ft.), trace roots down to 2.5', brown (0.5-4.0 ft.) (7.5YR 5/3), damp at 2.0 ft.
			ZONE #1 Slotted CMT		
	4925				**4.0-7.0 ft. CLAYEY SILT (ML);** ~10% very fine grained sand, 10-20% clay, trace mica flecks, brown (7.5YR 4/3). @ 4.0-5.0 ft. is mottled with rust brown to black. @ 4.5-7.0 ft. dark gray color (7.5YR 4/1), wet at 4.5 ft.
5			Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		**7.0-18.0 SANDY GRAVEL (GW);** ~50% gravel with clasts (up to 3.0" in diameter), naturally reduced zone (NRZ) with trace mica flecks, dark gray (10YR 4/1), sand matrix mostly medium grained, gray (7.5YR 5/1), wet.
	4920				
10			Bentonite Pellets 3/8"		
			20-40 Silica Sand		
		4916.19	ZONE #3 Slotted CMT		@ ~13.0 to 15.0 ft. gravel coarsens downward, wet.
	4915				
15			Bentonite Pellets 3/8"		@ ~15 very coarse gravel (up to 4.0-5.0" in diameter), 60% gravel, sand matrix mostly medium grained, grayish brown (10YR 5/2).
			ZONE #4 Slotted 1.5 in. PVC		
	4910				**18.0- 19.0 ft. WIND RIVER FORMATION: SILTSTONE;** weathered, soft, trace fine pyrite, greenish gray (5GY 6/1).
					Total Depth 19.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0855-4

PROJECT	LM	**WELL NUMBER**	RVT01-0855-4	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846251.03	**SURFACE ELEV. (FT NGVD)**	4928.94
SITE	Riverton	**EAST COORD. (FT)**	593764.14	**TOP OF CASING (FT)**	4931.48
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	19.00	**TOP OF SCREEN (FT)**	4911.69
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	18.35	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.54	to	17.25
WELL SCREEN:	1.5 in. Slotted PVC	17.25	to	18.25
SUMP/END CAP:	1.5 in. PVC Sch 40	18.25	to	18.35
BENTONITE SEAL:	Bentonite Pellets	14.5	to	15.5
UPPER SAND PACK	20-40 Silica Sand	15.5	to	17.0
SCREEN PACK	20-40 Silica Sand	17.0	to	18.1
LOWER SAND PACK	20-40 Silica Sand	18.1	to	19.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Final well string (CMT and PVC) was set about 0.25 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log.

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.0 ft. SILT (ML);** A horizon with roots (0-6.0"), brown (7.5YR 4/2), mottling with white careous flecks (1.0- 3.0 ft.), trace roots down to 2.5', brown (0.5-4.0 ft.) (7.5YR 5/3), damp at 2.0 ft.
			ZONE #1 Slotted CMT		
	4925				**4.0-7.0 ft. CLAYEY SILT (ML);** ~10% very fine grained sand, 10-20% clay, trace mica flecks, brown (7.5YR 4/3). @ 4.0-5.0 ft. is mottled with rust brown to black. @ 4.5-7.0 ft. dark gray color (7.5YR 4/1), wet at 4.5 ft.
5			Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		**7.0-18.0 SANDY GRAVEL (GW);** ~50% gravel with clasts (up to 3.0" in diameter), naturally reduced zone (NRZ) with trace mica flecks, dark gray (10YR 4/1), sand matrix mostly medium grained, gray (7.5YR 5/1), wet.
	4920				
10			Bentonite Pellets 3/8"		
			20-40 Silica Sand		
			ZONE #3 Slotted CMT		@ ~13.0 to 15.0 ft. gravel coarsens downward, wet.
	4915				
15			Bentonite Pellets 3/8"		@ ~15 very coarse gravel (up to 4.0-5.0" in diameter), 60% gravel, sand matrix mostly medium grained, grayish brown (10YR 5/2).
		4911.69	ZONE #4 Slotted 1.5 in. PVC		
	4910				**18.0- 19.0 ft. WIND RIVER FORMATION: SILTSTONE;** weathered, soft, trace fine pyrite, greenish gray (5GY 6/1).
					Total Depth 19.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0856-1

PROJECT	LM	**WELL NUMBER**	RVT01-0856-1	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846583.19	**SURFACE ELEV. (FT NGVD)**	4931.37
SITE	Riverton	**EAST COORD. (FT)**	593282.00	**TOP OF CASING (FT)**	4933.63
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4928.37
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	3.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.26	to	3.0
WELL SCREEN:	0.375 in. Slotted CMT	3.0	to	3.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	3.0
SCREEN PACK	20-40 Silica Sand	3.0	to	3.5
LOWER SAND PACK	20-40 Silica Sand	3.5	to	4.5

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	8/31/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"; 20-40 Silica Sand		**0-3.0 ft. SILT (ML);** trace roots down to ~3.0', trace mottling with white specks, brown (7.5YR 5/3).
		4928.37	ZONE #1 Slotted CMT		**3.0-5.0 ft. SANDY GRAVEL (GW);** ~30 % gravel (up to 4.0" in diameter), sand matrix mostly fine grained, and grayish brown (10YR 5/2).
5			Bentonite Pellets 3/8"		**5.0-6.0 ft. GRAVELY SAND (SP);** ~10-15% gravel (up to 2.0" in diameter), sand matrix mostly fine grained, grayish brown (10YR 5/2).
	4925		ZONE #2 Slotted CMT; ZONE #3 Slotted CMT		**6-11.5 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 4.0" in diameter), sand matrix mostly medium grained, brown (7.5YR 4/2), wet.
10	4920		ZONE #4 Slotted 1.5 in. PVC; 20-40 Silica Sand		@ 10.5 - 11.0 ft. very coarse gravel (up to ~6.0" in diameter).
					11.5- 12.5 ft. WIND RIVER FORMATION: SILTSTONE; weathered siltstone, soft, light olive gray (5Y 5/2), becomes hard and dry at 12.0 ft.
					Total Depth 12.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0856-2

PROJECT	LM	**WELL NUMBER**	RVT01-0856-2	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846583.19	**SURFACE ELEV. (FT NGVD)**	4931.37
SITE	Riverton	**EAST COORD. (FT)**	593282.00	**TOP OF CASING (FT)**	4933.63
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4924.87
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	7.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.26	to	6.5
WELL SCREEN:	0.375 in. Slotted CMT	6.5	to	7.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	4.5	to	5.5
UPPER SAND PACK	20-40 Silica Sand	5.5	to	6.5
SCREEN PACK	20-40 Silica Sand	6.5	to	7.0
LOWER SAND PACK	20-40 Silica Sand	7.0	to	8.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"; 20-40 Silica Sand; ZONE #1 Slotted CMT		**0-3.0 ft. SILT (ML);** trace roots down to ~3.0', trace mottling with white specks, brown (7.5YR 5/3).
					3.0-5.0 ft. SANDY GRAVEL (GW); ~30 % gravel (up to 4.0" in diameter), sand matrix mostly fine grained, and grayish brown (10YR 5/2).
5			Bentonite Pellets 3/8"		**5.0-6.0 ft. GRAVELY SAND (SP);** ~10-15% gravel (up to 2.0" in diameter), sand matrix mostly fine grained, grayish brown (10YR 5/2).
	4925	4924.87	ZONE #2 Slotted CMT; ZONE #3 Slotted CMT		**6-11.5 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 4.0" in diameter), sand matrix mostly medium grained, brown (7.5YR 4/2), wet.
10			ZONE #4 Slotted 1.5 in. PVC		@ 10.5 - 11.0 ft. very coarse gravel (up to ~6.0" in diameter).
	4920		20-40 Silica Sand		**11.5- 12.5 ft. WIND RIVER FORMATION: SILTSTONE;** weathered siltstone, soft, light olive gray (5Y 5/2), becomes hard and dry at 12.0 ft.
					Total Depth 12.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0856-3

PROJECT	LM	**WELL NUMBER**	RVT01-0856-3	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846583.19	**SURFACE ELEV. (FT NGVD)**	4931.37
SITE	Riverton	**EAST COORD. (FT)**	593282.00	**TOP OF CASING (FT)**	4933.63
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4922.87
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	9.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.26	to	8.5
WELL SCREEN:	0.375 in. Slotted CMT	8.5	to	9.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	4.5	to	5.5
UPPER SAND PACK	20-40 Silica Sand	8.0	to	8.5
SCREEN PACK	20-40 Silica Sand	8.5	to	9.0
LOWER SAND PACK	20-40 Silica Sand	9.0	to	10.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 8/31/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"; 20-40 Silica Sand		**0-3.0 ft. SILT (ML);** trace roots down to ~3.0', trace mottling with white specks, brown (7.5YR 5/3).
			ZONE #1 Slotted CMT		**3.0-5.0 ft. SANDY GRAVEL (GW);** ~30 % gravel (up to 4.0" in diameter), sand matrix mostly fine grained, and grayish brown (10YR 5/2).
5			Bentonite Pellets 3/8"		**5.0-6.0 ft. GRAVELY SAND (SP);** ~10-15% gravel (up to 2.0" in diameter), sand matrix mostly fine grained, grayish brown (10YR 5/2).
	4925		ZONE #2 Slotted CMT		**6-11.5 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 4.0" in diameter), sand matrix mostly medium grained, brown (7.5YR 4/2), wet.
		4922.87	ZONE #3 Slotted CMT		
10			ZONE #4 Slotted 1.5 in. PVC		@ 10.5 - 11.0 ft. very coarse gravel (up to ~6.0" in diameter).
	4920		20-40 Silica Sand		**11.5- 12.5 ft. WIND RIVER FORMATION: SILTSTONE;** weathered siltstone, soft, light olive gray (5Y 5/2), becomes hard and dry at 12.0 ft.
					Total Depth 12.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0856-4

PROJECT	LM	**WELL NUMBER**	RVT01-0856-4	**DATE DRILLED**	8/28/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846583.19	**SURFACE ELEV. (FT NGVD)**	4931.37
SITE	Riverton	**EAST COORD. (FT)**	593282.00	**TOP OF CASING (FT)**	4933.87
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4920.87
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	11.60	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.5	to	10.5
WELL SCREEN:	1.5 in. Slotted PVC	10.5	to	11.5
SUMP/END CAP:	1.5 in. PVC Sch 40	11.5	to	11.6
BENTONITE SEAL:	Bentonite Pellets	4.5	to	5.5
UPPER SAND PACK	20-40 Silica Sand	10.0	to	10.5
SCREEN PACK	20-40 Silica Sand	10.5	to	11.6
LOWER SAND PACK	20-40 Silica Sand	11.6	to	12.5

WATER LEVEL DATE

DRILLER Johnson, J

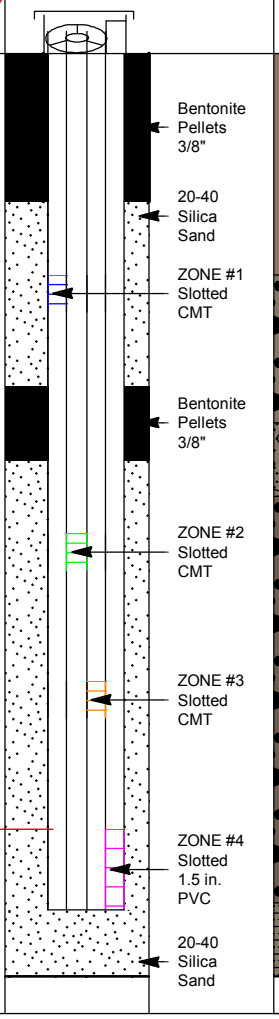
LOGGED BY Goodknight, C., Johnson, R.

SAMPLING METHOD ROTASONIC CORE

DATE DEVELOPED 8/31/2015

REMARKS

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION



Depth (ft BGL)	Elev. (ft NGVD)	Screen elev (ft)	Lithologic description
	4930		**0-3.0 ft. SILT (ML);** trace roots down to ~3.0', trace mottling with white specks, brown (7.5YR 5/3).
			3.0-5.0 ft. SANDY GRAVEL (GW); ~30 % gravel (up to 4.0" in diameter), sand matrix mostly fine grained, and grayish brown (10YR 5/2).
5			**5.0-6.0 ft. GRAVELY SAND (SP);** ~10-15% gravel (up to 2.0" in diameter), sand matrix mostly fine grained, grayish brown (10YR 5/2).
	4925		**6-11.5 ft. SANDY GRAVEL (GW);** ~40% gravel (up to 4.0" in diameter), sand matrix mostly medium grained, brown (7.5YR 4/2), wet.
10		4920.87	@ 10.5 - 11.0 ft. very coarse gravel (up to ~6.0" in diameter).
	4920		**11.5- 12.5 ft. WIND RIVER FORMATION: SILTSTONE;** weathered siltstone, soft, light olive gray (5Y 5/2), becomes hard and dry at 12.0 ft.
			Total Depth 12.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0857-1

PROJECT	LM	**WELL NUMBER**	RVT01-0857-1	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846909.91	**SURFACE ELEV. (FT NGVD)**	4932.94
SITE	Riverton	**EAST COORD. (FT)**	592893.06	**TOP OF CASING (FT)**	4935.51
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	11.50	**TOP OF SCREEN (FT)**	4929.44
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	4.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.57	to	3.5
WELL SCREEN:	0.375 in. Slotted CMT	3.5	to	4.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	3.5
SCREEN PACK	20-40 Silica Sand	3.5	to	4.0
LOWER SAND PACK	20-40 Silica Sand	4.0	to	5.0

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	9/1/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-2.5 ft. SILTY GRAVEL (GM);** ~50% gravel (up to 3.0" in diameter), silt matrix, trace roots down to 2.0', 0-2.0' matrix is light gray (10YR 7/1).
			20-40 Silica Sand		@ 2.0 -2.5 ft. distinct layer is light yellowish brown (10YR 6/4).
	4930	4929.44	ZONE #1 Slotted CMT		**2.5-10.8 SANDY GRAVEL (GW);** ~50% gravel, sand matrix mostly fine grained, brown (10YR 5/3), damp at 5.0 ft.
5			Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		@ 6.0 ft. sand matrix is fine grained, light gray (10YR 7/1), dry.
	4925		ZONE #3 Slotted CMT		@ ~7.5 -10.8 ft. pebbles/ cobbles (up to 3.0" in diameter), sand matrix is dark grayish brown (10YR 4/2), saturated.
10			ZONE #4 Slotted 1.5 in. PVC		
			20-40 Silica Sand		**10.8-11.5 ft. WIND RIVER FORMATION: SANDSTONE;** weathered sandstone, friable to competent, some hard sandstone layers, trace pyrite, light olive gray (5Y 6/1).
					Total Depth 11.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0857-2

PROJECT	LM	**WELL NUMBER**	RVT01-0857-2	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846909.91	**SURFACE ELEV. (FT NGVD)**	4932.94
SITE	Riverton	**EAST COORD. (FT)**	592893.06	**TOP OF CASING (FT)**	4935.51
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	11.50	**TOP OF SCREEN (FT)**	4926.44
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	7.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.57	to	6.5
WELL SCREEN:	0.375 in. Slotted CMT	6.5	to	7.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	5.0	to	5.5
UPPER SAND PACK	20-40 Silica Sand	5.5	to	6.5
SCREEN PACK	20-40 Silica Sand	6.5	to	7.0
LOWER SAND PACK	20-40 Silica Sand	7.0	to	7.5

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	9/1/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-2.5 ft. SILTY GRAVEL (GM);** ~50% gravel (up to 3.0" in diameter), silt matrix, trace roots down to 2.0', 0-2.0' matrix is light gray (10YR 7/1).
			20-40 Silica Sand		@ 2.0 -2.5 ft. distinct layer is light yellowish brown (10YR 6/4).
	4930		ZONE #1 Slotted CMT		**2.5-10.8 SANDY GRAVEL (GW);** ~50% gravel, sand matrix mostly fine grained, brown (10YR 5/3), damp at 5.0 ft.
5			Bentonite Pellets 3/8"		
		4926.44	ZONE #2 Slotted CMT		@ 6.0 ft. sand matrix is fine grained, light gray (10YR 7/1), dry.
	4925		ZONE #3 Slotted CMT		@ ~7.5 -10.8 ft. pebbles/ cobbles (up to 3.0" in diameter), sand matrix is dark grayish brown (10YR 4/2), saturated.
10			ZONE #4 Slotted 1.5 in. PVC		
			20-40 Silica Sand		**10.8-11.5 ft. WIND RIVER FORMATION: SANDSTONE;** weathered sandstone, friable to competent, some hard sandstone layers, trace pyrite, light olive gray (5Y 6/1).

Total Depth 11.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0857-3

PROJECT	LM	**WELL NUMBER**	RVT01-0857-3	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846909.91	**SURFACE ELEV. (FT NGVD)**	4932.94
SITE	Riverton	**EAST COORD. (FT)**	592893.06	**TOP OF CASING (FT)**	4935.51
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	11.50	**TOP OF SCREEN (FT)**	4924.94
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	8.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.57	to	8.0
WELL SCREEN:	0.375 in. Slotted CMT	8.0	to	8.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	5.0	to	5.5
UPPER SAND PACK	20-40 Silica Sand	7.5	to	8.0
SCREEN PACK	20-40 Silica Sand	8.0	to	8.5
LOWER SAND PACK	20-40 Silica Sand	8.5	to	9.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/1/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-2.5 ft. SILTY GRAVEL (GM);** ~50% gravel (up to 3.0" in diameter), silt matrix, trace roots down to 2.0', 0-2.0' matrix is light gray (10YR 7/1).
			20-40 Silica Sand		@ 2.0 -2.5 ft. distinct layer is light yellowish brown (10YR 6/4).
	4930		ZONE #1 Slotted CMT		**2.5-10.8 SANDY GRAVEL (GW);** ~50% gravel, sand matrix mostly fine grained, brown (10YR 5/3), damp at 5.0 ft.
5			Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		@ 6.0 ft. sand matrix is fine grained, light gray (10YR 7/1), dry.
	4925	4924.94	ZONE #3 Slotted CMT		@ ~7.5 -10.8 ft. pebbles/ cobbles (up to 3.0" in diameter), sand matrix is dark grayish brown (10YR 4/2), saturated.
10			ZONE #4 Slotted 1.5 in. PVC		
			20-40 Silica Sand		**10.8-11.5 ft. WIND RIVER FORMATION: SANDSTONE;** weathered sandstone, friable to competent, some hard sandstone layers, trace pyrite, light olive gray (5Y 6/1).

Total Depth 11.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0857-4

PROJECT	LM	**WELL NUMBER**	RVT01-0857-4	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846909.91	**SURFACE ELEV. (FT NGVD)**	4932.94
SITE	Riverton	**EAST COORD. (FT)**	592893.06	**TOP OF CASING (FT)**	4935.76
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	11.50	**TOP OF SCREEN (FT)**	4923.14
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	10.90	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.82	to	9.8
WELL SCREEN:	1.5 in. Slotted PVC	9.8	to	10.8
SUMP/END CAP:	1.5 in. PVC Sch 40	10.8	to	10.9
BENTONITE SEAL:	Bentonite Pellets	5.0	to	5.5
UPPER SAND PACK	20-40 Silica Sand	9.0	to	9.8
SCREEN PACK	20-40 Silica Sand	9.8	to	10.9
LOWER SAND PACK	20-40 Silica Sand	10.9	to	11.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/1/2015
REMARKS

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-2.5 ft. SILTY GRAVEL (GM);** ~50% gravel (up to 3.0" in diameter), silt matrix, trace roots down to 2.0', 0-2.0' matrix is light gray (10YR 7/1).
			20-40 Silica Sand		@ 2.0 -2.5 ft. distinct layer is light yellowish brown (10YR 6/4).
	4930		ZONE #1 Slotted CMT		**2.5-10.8 SANDY GRAVEL (GW);** ~50% gravel, sand matrix mostly fine grained, brown (10YR 5/3), damp at 5.0 ft.
5			Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		@ 6.0 ft. sand matrix is fine grained, light gray (10YR 7/1), dry.
	4925		ZONE #3 Slotted CMT		@ ~7.5 -10.8 ft. pebbles/ cobbles (up to 3.0" in diameter), sand matrix is dark grayish brown (10YR 4/2), saturated.
10		4923.14	ZONE #4 Slotted 1.5 in. PVC		
			20-40 Silica Sand		**10.8-11.5 ft. WIND RIVER FORMATION: SANDSTONE;** weathered sandstone, friable to competent, some hard sandstone layers, trace pyrite, light olive gray (5Y 6/1).

Total Depth 11.5 ft.

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MONITORING WELL COMPLETION LOG RVT01-0858-1

PROJECT	LM	**WELL NUMBER**	RVT01-0858-1	**DATE DRILLED**	8/29/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846935.52	**SURFACE ELEV. (FT NGVD)**	4930.20
SITE	Riverton	**EAST COORD. (FT)**	593830.29	**TOP OF CASING (FT)**	4932.14
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4927.2
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	3.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-1.94	to	3.2
WELL SCREEN:	0.375 in. Slotted CMT	3.0	to	3.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	3.0
SCREEN PACK	20-40 Silica Sand	3.0	to	3.5
LOWER SAND PACK	20-40 Silica Sand	3.5	to	5.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Final well string (CMT and PVC) was set about 0.2 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log. Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"		**0-2.5 ft. SILT (ML);** A horizon (0-6.0"), trace roots down to ~ 2.0 ft., grayish brown (10YR 5/2), dry.
		4927.2	ZONE #1 Slotted CMT		**2.5-12.5 ft. SANDY GRAVEL (GM);** ~40% gravel with clasts (up to 4.0" in diameter).
5	4925		Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		@ ~ 7.0 ft. wet.
10	4920		Bentonite Pellets 3/8"		@ ~9.5 sand matrix is medium to fine grained, with clasts (up to 5.0" in diameter), dark grayish brown (10YR 4/2).
			20-40 Silica Sand		
			ZONE #3 Slotted CMT		**12.5-17.7 ft. GRAVELLY SAND (SP);** ~ 75% sand, 15-20% gravel with clasts (up to 3.0" in diameter), sand matrix mostly medium grained, gray (7.5YR 5/1) to grayish brown (10YR 5/2). @ ~ 13.0 ft. ~90% sand, gravel % increasing downward.
15	4915		Bentonite Pellets 3/8"		@ ~ 15.0 ft. cobbles (up to 5.0" in diameter). @ ~15.0-17.7 ft. is gravelly sand to sandy gravel, ~20% gravel with clasts (up to 2.0" in diameter).
			ZONE #4 Slotted 1.5 in. PVC		**17.7-18.0 ft. WIND RIVER FORMATION: SILTY CLAYSTONE;** weathered, soft, medium dark gray (N4) to olive gray (5Y 3/2).

Total Depth 18.0 ft.

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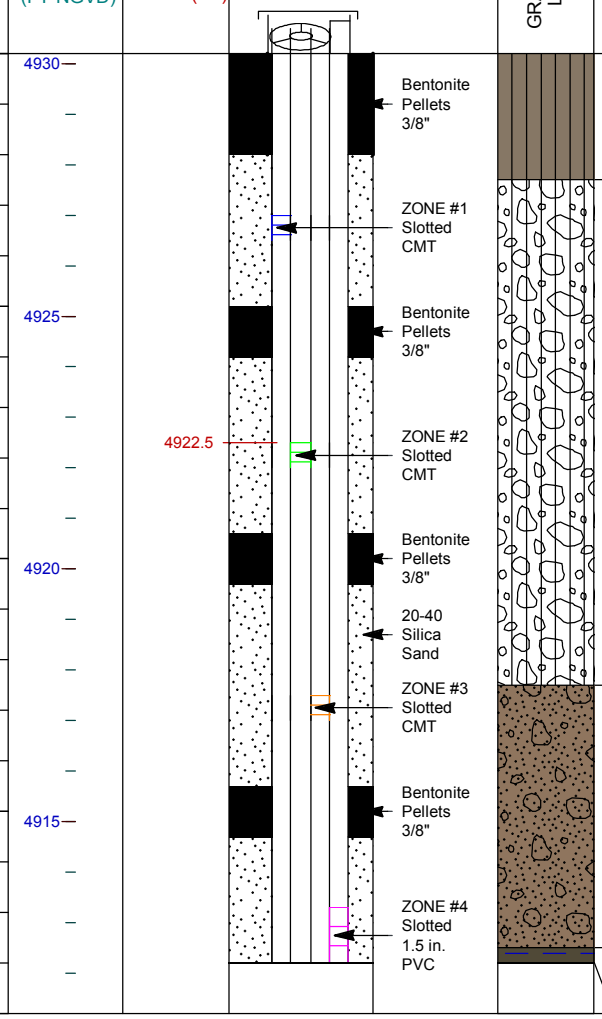
MONITORING WELL COMPLETION LOG RVT01-0858-2

PROJECT	LM	**WELL NUMBER**	RVT01-0858-2	**DATE DRILLED**	8/29/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846935.52	**SURFACE ELEV. (FT NGVD)**	4930.20
SITE	Riverton	**EAST COORD. (FT)**	593830.29	**TOP OF CASING (FT)**	4932.14
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4922.5
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	8.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-1.94	to	7.7
WELL SCREEN:	0.375 in. Slotted CMT	7.7	to	8.2
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	5.0	to	6.0
UPPER SAND PACK	20-40 Silica Sand	6.0	to	7.5
SCREEN PACK	20-40 Silica Sand	7.5	to	8.0
LOWER SAND PACK	20-40 Silica Sand	8.0	to	9.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Final well string (CMT and PVC) was set about 0.2 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log. Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"		**0-2.5 ft. SILT (ML);** A horizon (0-6.0"), trace roots down to ~ 2.0 ft., grayish brown (10YR 5/2), dry.
			ZONE #1 Slotted CMT		**2.5-12.5 ft. SANDY GRAVEL (GM);** ~40% gravel with clasts (up to 4.0" in diameter).
5	4925		Bentonite Pellets 3/8"		
		4922.5	ZONE #2 Slotted CMT		@ ~ 7.0 ft. wet.
10	4920		Bentonite Pellets 3/8"		@ ~9.5 sand matrix is medium to fine grained, with clasts (up to 5.0" in diameter), dark grayish brown (10YR 4/2).
			20-40 Silica Sand		
			ZONE #3 Slotted CMT		**12.5-17.7 ft. GRAVELLY SAND (SP);** ~ 75% sand, 15-20% gravel with clasts (up to 3.0" in diameter), sand matrix mostly medium grained, gray (7.5YR 5/1) to grayish brown (10YR 5/2). @ ~ 13.0 ft. ~90% sand, gravel % increasing downward.
15	4915		Bentonite Pellets 3/8"		@ ~ 15.0 ft. cobbles (up to 5.0" in diameter). @ ~15.0-17.7 ft. is gravelly sand to sandy gravel, ~20% gravel with clasts (up to 2.0" in diameter).
			ZONE #4 Slotted 1.5 in. PVC		**17.7-18.0 ft. WIND RIVER FORMATION: SILTY CLAYSTONE;** weathered, soft, medium dark gray (N4) to olive gray (5Y 3/2).
					Total Depth 18.0 ft.



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LM CMT MONITORING WELLS REV 9-2014 2947 RVT01-0852-877 EDIT.GPJ SHIP.GDT 4/7/16

MONITORING WELL COMPLETION LOG RVT01-0858-3

PROJECT	LM	**WELL NUMBER**	RVT01-0858-3	**DATE DRILLED**	8/29/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846935.52	**SURFACE ELEV. (FT NGVD)**	4930.20
SITE	Riverton	**EAST COORD. (FT)**	593830.29	**TOP OF CASING (FT)**	4932.14
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4917.5
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	13.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-1.94	to	12.7
WELL SCREEN:	0.375 in. Slotted CMT	12.7	to	13.2
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	9.5	to	10.5
UPPER SAND PACK	20-40 Silica Sand	10.5	to	12.5
SCREEN PACK	20-40 Silica Sand	12.5	to	13.0
LOWER SAND PACK	20-40 Silica Sand	13.0	to	14.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Final well string (CMT and PVC) was set about 0.2 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log. Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"		**0-2.5 ft. SILT (ML);** A horizon (0-6.0"), trace roots down to ~ 2.0 ft., grayish brown (10YR 5/2), dry.
			ZONE #1 Slotted CMT		**2.5-12.5 ft. SANDY GRAVEL (GM);** ~40% gravel with clasts (up to 4.0" in diameter).
5	4925		Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		@ ~ 7.0 ft. wet.
10	4920		Bentonite Pellets 3/8"		@ ~9.5 sand matrix is medium to fine grained, with clasts (up to 5.0" in diameter), dark grayish brown (10YR 4/2).
			20-40 Silica Sand		
		4917.5	ZONE #3 Slotted CMT		**12.5-17.7 ft. GRAVELLY SAND (SP);** ~ 75% sand, 15-20% gravel with clasts (up to 3.0" in diameter), sand matrix mostly medium grained, gray (7.5YR 5/1) to grayish brown (10YR 5/2). @ ~ 13.0 ft. ~90% sand, gravel % increasing downward.
15	4915		Bentonite Pellets 3/8"		@ ~ 15.0 ft. cobbles (up to 5.0" in diameter). @ ~15.0-17.7 ft. is gravelly sand to sandy gravel, ~20% gravel with clasts (up to 2.0" in diameter).
			ZONE #4 Slotted 1.5 in. PVC		**17.7-18.0 ft. WIND RIVER FORMATION: SILTY CLAYSTONE;** weathered, soft, medium dark gray (N4) to olive gray (5Y 3/2).

Total Depth 18.0 ft.

MONITORING WELL COMPLETION LOG RVT01-0858-4

PROJECT	LM	**WELL NUMBER**	RVT01-0858-4	**DATE DRILLED**	8/29/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846935.52	**SURFACE ELEV. (FT NGVD)**	4930.20
SITE	Riverton	**EAST COORD. (FT)**	593830.29	**TOP OF CASING (FT)**	4932.39
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4913.3
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	17.90	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.19	to	16.9
WELL SCREEN:	1.5 in. Slotted PVC	16.9	to	17.9
SUMP/END CAP:	1.5 in. PVC Sch 40	17.9	to	18.0
BENTONITE SEAL:	Bentonite Pellets	14.5	to	15.5
UPPER SAND PACK	20-40 Silica Sand	15.5	to	16.7
SCREEN PACK	20-40 Silica Sand	16.7	to	17.9
LOWER SAND PACK	20-40 Silica Sand	17.9	to	18.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Final well string (CMT and PVC) was set about 0.2 ft. lower than shown on (original) well log diagram. Adjustment for final placement has been made on this log.

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
	4930		Bentonite Pellets 3/8"		**0-2.5 ft. SILT (ML);** A horizon (0-6.0"), trace roots down to ~ 2.0 ft., grayish brown (10YR 5/2), dry.
			ZONE #1 Slotted CMT		**2.5-12.5 ft. SANDY GRAVEL (GM);** ~40% gravel with clasts (up to 4.0" in diameter).
5	4925		Bentonite Pellets 3/8"		
			ZONE #2 Slotted CMT		@ ~ 7.0 ft. wet.
10	4920		Bentonite Pellets 3/8"		@ ~9.5 sand matrix is medium to fine grained, with clasts (up to 5.0" in diameter), dark grayish brown (10YR 4/2).
			20-40 Silica Sand		
			ZONE #3 Slotted CMT		**12.5-17.7 ft. GRAVELLY SAND (SP);** ~ 75% sand, 15-20% gravel with clasts (up to 3.0" in diameter), sand matrix mostly medium grained, gray (7.5YR 5/1) to grayish brown (10YR 5/2). @ ~ 13.0 ft. ~90% sand, gravel % increasing downward.
15	4915		Bentonite Pellets 3/8"		@ ~ 15.0 ft. cobbles (up to 5.0" in diameter). @ ~15.0-17.7 ft. is gravelly sand to sandy gravel, ~20% gravel with clasts (up to 2.0" in diameter).
		4913.3	ZONE #4 Slotted 1.5 in. PVC		**17.7-18.0 ft. WIND RIVER FORMATION: SILTY CLAYSTONE;** weathered, soft, medium dark gray (N4) to olive gray (5Y 3/2).

Total Depth 18.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0859-1

PROJECT	LM	**WELL NUMBER**	RVT01-0859-1	**DATE DRILLED**	9/1/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848885.03	**SURFACE ELEV. (FT NGVD)**	4943.67
SITE	Riverton	**EAST COORD. (FT)**	590039.45	**TOP OF CASING (FT)**	4945.98
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4939.17
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	5.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.31	to	4.5
WELL SCREEN:	0.375 in. Slotted CMT	4.5	to	5.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	4.5
SCREEN PACK	20-40 Silica Sand	4.5	to	5.0
LOWER SAND PACK	20-40 Silica Sand	5.0	to	6.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.7 ft. Silt (ML);** trace roots down to ~1.5 ft., trace mottling, pale brown (0-1.0 ft.)(10YR 6/3), yellowish brown (1.0-4.7 ft.)(10YR 5/4).
	4940				@ ~4-4.7 ft. clay at ~20%.
		4939.17	ZONE #1 Slotted CMT		@ 4.7 ft. base of fill.
5			20-40 Silica Sand		**4.7-11.0 ft. Sandy Gravel (GW);** ~ 50% gravel with clasts (up to 4.0" in diameter), sand matrix is mostly medium grained , grayish brown (10YR 5/2). @ 5.5 ft. damp.
			ZONE #2 Slotted CMT		@ 7.0 ft. saturated.
	4935		ZONE #3 Slotted CMT		@ ~8.5 ft. Sediments have a petrochemical odor, possibly associated with a more clayey lens in the gravel, wet.
10					@ ~10-10.5 ft. Large cobbles (up to 5.0" in diameter).
			ZONE #4 Slotted 1.5 in. PVC		**11.0-12.5 ft. Wind River Formation: Siltstone;** weathered, soft, mixed gravel and clayey siltstone at 11.0 -11.5', greenish gray (5GY 6/1) to light olive gray (5Y 6/1) , more competent siltstone (11.5 -12.5 ft.), trace disseminated fine pyrite, olive gray (5Y 4/1).
			20-40 Silica Sand		**Total Depth 12.5 ft.**

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MONITORING WELL COMPLETION LOG RVT01-0859-2

PROJECT	LM	**WELL NUMBER**	RVT01-0859-2	**DATE DRILLED**	9/1/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848885.03	**SURFACE ELEV. (FT NGVD)**	4943.67
SITE	Riverton	**EAST COORD. (FT)**	590039.45	**TOP OF CASING (FT)**	4945.98
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4937.17
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	7.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.31	to	6.5
WELL SCREEN:	0.375 in. Slotted CMT	6.5	to	7.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	6.0	to	6.5
SCREEN PACK	20-40 Silica Sand	6.5	to	7.0
LOWER SAND PACK	20-40 Silica Sand	7.0	to	8.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.7 ft. Silt (ML);** trace roots down to ~1.5 ft., trace mottling, pale brown (0-1.0 ft.)(10YR 6/3), yellowish brown (1.0-4.7 ft.)(10YR 5/4).
	4940				@ ~4-4.7 ft. clay at ~20%.
			ZONE #1 Slotted CMT		@ 4.7 ft. base of fill.
5			20-40 Silica Sand		**4.7-11.0 ft. Sandy Gravel (GW);** ~ 50% gravel with clasts (up to 4.0" in diameter), sand matrix is mostly medium grained , grayish brown (10YR 5/2). @ 5.5 ft. damp.
		4937.17	ZONE #2 Slotted CMT		@ 7.0 ft. saturated.
	4935		ZONE #3 Slotted CMT		@ ~8.5 ft. Sediments have a petrochemical odor, possibly associated with a more clayey lens in the gravel, wet.
10					@ ~10-10.5 ft. Large cobbles (up to 5.0" in diameter).
			ZONE #4 Slotted 1.5 in. PVC		**11.0-12.5 ft. Wind River Formation: Siltstone;** weathered, soft, mixed gravel and clayey siltstone at 11.0 -11.5', greenish gray (5GY 6/1) to light olive gray (5Y 6/1) , more competent siltstone (11.5 -12.5 ft.), trace disseminated fine pyrite, olive gray (5Y 4/1).
			20-40 Silica Sand		**Total Depth 12.5 ft.**

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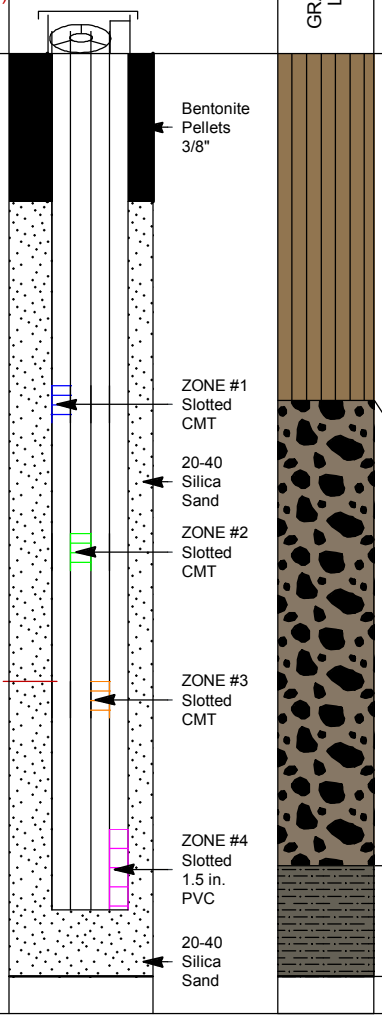
MONITORING WELL COMPLETION LOG RVT01-0859-3

PROJECT	LM	**WELL NUMBER**	RVT01-0859-3	**DATE DRILLED**	9/1/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848885.03	**SURFACE ELEV. (FT NGVD)**	4943.67
SITE	Riverton	**EAST COORD. (FT)**	590039.45	**TOP OF CASING (FT)**	4945.98
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4935.17
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	9.00	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.31	to	8.5
WELL SCREEN:	0.375 in. Slotted CMT	8.5	to	9.0
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	8.0	to	8.5
SCREEN PACK	20-40 Silica Sand	8.5	to	9.0
LOWER SAND PACK	20-40 Silica Sand	9.0	to	10.0

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	9/2/2015
REMARKS	Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.7 ft. Silt (ML);** trace roots down to ~1.5 ft., trace mottling, pale brown (0-1.0 ft.)(10YR 6/3), yellowish brown (1.0-4.7 ft.)(10YR 5/4).
	4940				@ ~4-4.7 ft. clay at ~20%.
			ZONE #1 Slotted CMT		@ 4.7 ft. base of fill.
5			20-40 Silica Sand		**4.7-11.0 ft. Sandy Gravel (GW);** ~ 50% gravel with clasts (up to 4.0" in diameter), sand matrix is mostly medium grained , grayish brown (10YR 5/2). @ 5.5 ft. damp.
			ZONE #2 Slotted CMT		@ 7.0 ft. saturated.
	4935	4935.17	ZONE #3 Slotted CMT		@ ~8.5 ft. Sediments have a petrochemical odor, possibly associated with a more clayey lens in the gravel, wet.
10					@ ~10-10.5 ft. Large cobbles (up to 5.0" in diameter).
			ZONE #4 Slotted 1.5 in. PVC		**11.0-12.5 ft. Wind River Formation: Siltstone;** weathered, soft, mixed gravel and clayey siltstone at 11.0 -11.5', greenish gray (5GY 6/1) to light olive gray (5Y 6/1) , more competent siltstone (11.5 -12.5 ft.), trace disseminated fine pyrite, olive gray (5Y 4/1).
			20-40 Silica Sand		**Total Depth 12.5 ft.**



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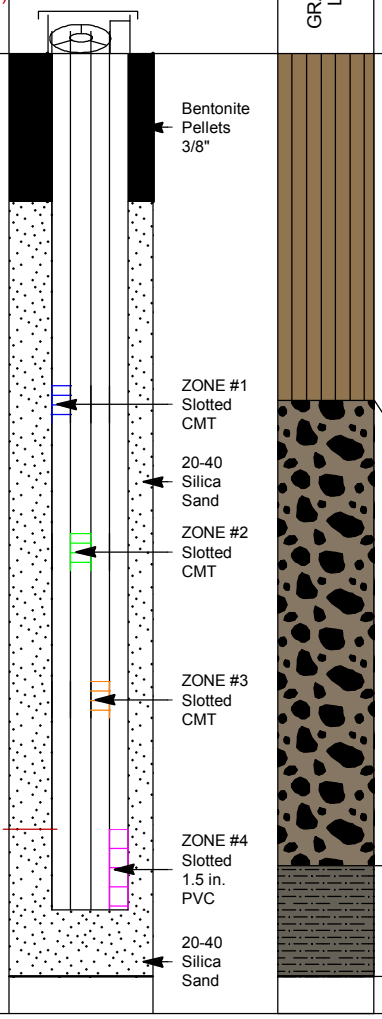
MONITORING WELL COMPLETION LOG RVT01-0859-4

PROJECT	LM	**WELL NUMBER**	RVT01-0859-4	**DATE DRILLED**	9/1/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848885.03	**SURFACE ELEV. (FT NGVD)**	4943.67
SITE	Riverton	**EAST COORD. (FT)**	590039.45	**TOP OF CASING (FT)**	4946.26
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	12.50	**TOP OF SCREEN (FT)**	4933.17
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	11.60	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.59	to	10.5
WELL SCREEN:	1.5 in. Slotted PVC	10.5	to	11.5
SUMP/END CAP:	1.5 in. PVC Sch 40	11.5	to	11.6
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	10.0	to	10.5
SCREEN PACK	20-40 Silica Sand	10.5	to	11.6
LOWER SAND PACK	20-40 Silica Sand	11.6	to	12.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Screened interval at 10.5 - 11.5 ft. straddles the alluvium/ bedrock contact at 11 ft.

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
					0-4.7 ft. Silt (ML); trace roots down to ~1.5 ft., trace mottling, pale brown (0-1.0 ft.)(10YR 6/3), yellowish brown (1.0-4.7 ft.)(10YR 5/4).
	4940				@ ~4-4.7 ft. clay at ~20%.
					@ 4.7 ft. base of fill.
5					**4.7-11.0 ft. Sandy Gravel (GW);** ~ 50% gravel with clasts (up to 4.0" in diameter), sand matrix is mostly medium grained , grayish brown (10YR 5/2). @ 5.5 ft. damp.
					@ 7.0 ft. saturated.
	4935				@ ~8.5 ft. Sediments have a petrochemical odor, possibly associated with a more clayey lens in the gravel, wet.
10					@ ~10-10.5 ft. Large cobbles (up to 5.0" in diameter).
		4933.17			**11.0-12.5 ft. Wind River Formation: Siltstone;** weathered, soft, mixed gravel and clayey siltstone at 11.0 -11.5', greenish gray (5GY 6/1) to light olive gray (5Y 6/1) , more competent siltstone (11.5 -12.5 ft.), trace disseminated fine pyrite, olive gray (5Y 4/1).
					Total Depth 12.5 ft.



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MONITORING WELL COMPLETION LOG RVT01-0860-1

PROJECT	LM	**WELL NUMBER**	RVT01-0860-1	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848283.00	**SURFACE ELEV. (FT NGVD)**	4941.73
SITE	Riverton	**EAST COORD. (FT)**	590879.17	**TOP OF CASING (FT)**	4944.10
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4934.73
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	7.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.37	to	7.0
WELL SCREEN:	0.375 in. Slotted CMT	7.0	to	7.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	2.0	to	7.0
SCREEN PACK	20-40 Silica Sand	7.0	to	7.5
LOWER SAND PACK	20-40 Silica Sand	7.5	to	9.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.8 ft. Silt (ML);** dry fill, ~10% very fine grained sand, trace roots down to ~1.5 ft., light brownish gray (10YR 6/2).
	4940				
			20-40 Silica Sand		@ 2.5 ft. sediments are damp, ~3.0 ft. grayish brown (10YR 5/2).
5					@ 4.8 ft. base of fill.
					4.8-6.0 ft. Silty Gravel (GM); ~30% gravel with clasts (up to 2.0" in diameter), silt matrix is pale brown (10YR 6/3), dry.
	4935	4934.73	ZONE #1 Slotted CMT		**6.0-10.2 ft. Sandy Gravel (GW);** ~40-50% gravel with clasts (up to 3.0" in diameter), sand matrix is fine to medium grained, grayish brown (10YR 5/2).
					@ ~8.3 ft. damp. @ ~10.0 ft. saturated.
10			ZONE #2 Slotted CMT		**10.2-12.5 ft. Sand (SP);** ~90% sand, mostly medium to fine grained, ~10% pebbles (up to 1.0" in diameter), brown (7.5YR 5/2).
	4930				
			ZONE #3 Slotted CMT		**12.5-17.0 ft. Sandy Gravel (GW);** ~ 50-60% gravel with clasts (up to 4.0" in diameter), sand matrix is fine to medium grained, sand is grayish brown (10YR 5/2).
15					@ ~15.0-17.0 ft. very coarse cobbles near base of alluvium (up to 5.0- 6.0" in diameter), sand matrix is mostly medium grained , gray (10YR 5/1).
	4925		ZONE #4 Slotted 1.5 in. PVC		**17.0-18.0 ft. Wind River Formation: Siltstone;** @ 17.0-17.5 ft. is weathered and greenish gray (5GY 6/1), @ 17.5-18.0' is slightly weathered and medium gray (N5).
					Total Depth 18.0 ft.

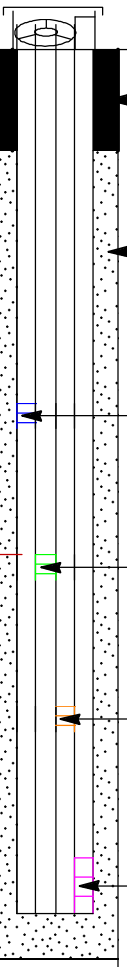
MONITORING WELL COMPLETION LOG RVT01-0860-2

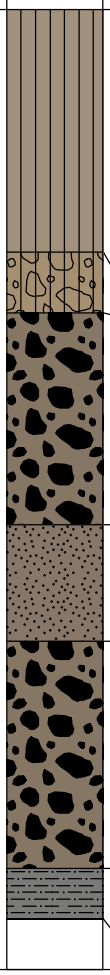
PROJECT	LM	**WELL NUMBER**	RVT01-0860-2	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848283.00	**SURFACE ELEV. (FT NGVD)**	4941.73
SITE	Riverton	**EAST COORD. (FT)**	590879.17	**TOP OF CASING (FT)**	4944.10
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4931.73
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	10.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	**INTERVAL (FT/BGS)**		
BLANK CASING:	0.375 in. CMT	-2.37	to	10.0
WELL SCREEN:	0.375 in. Slotted CMT	10.0	to	10.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	9.0	to	10.0
SCREEN PACK	20-40 Silica Sand	10.0	to	10.5
LOWER SAND PACK	20-40 Silica Sand	10.5	to	11.5

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.8 ft. Silt (ML);** dry fill, ~10% very fine grained sand, trace roots down to ~1.5 ft., light brownish gray (10YR 6/2).
	4940				
			20-40 Silica Sand		@ 2.5 ft. sediments are damp, ~3.0 ft. grayish brown (10YR 5/2).
5					@ 4.8 ft. base of fill.
					4.8-6.0 ft. Silty Gravel (GM); ~30% gravel with clasts (up to 2.0" in diameter), silt matrix is pale brown (10YR 6/3), dry.
	4935		ZONE #1 Slotted CMT		**6.0-10.2 ft. Sandy Gravel (GW);** ~40-50% gravel with clasts (up to 3.0" in diameter), sand matrix is fine to medium grained, grayish brown (10YR 5/2).
					@ ~8.3 ft. damp.
10		4931.73	ZONE #2 Slotted CMT		@ ~10.0 ft. saturated.
					10.2-12.5 ft. Sand (SP); ~90% sand, mostly medium to fine grained, ~10% pebbles (up to 1.0" in diameter), brown (7.5YR 5/2).
	4930				
			ZONE #3 Slotted CMT		**12.5-17.0 ft. Sandy Gravel (GW);** ~ 50-60% gravel with clasts (up to 4.0" in diameter), sand matrix is fine to medium grained, sand is grayish brown (10YR 5/2).
15					@ ~15.0-17.0 ft. very coarse cobbles near base of alluvium (up to 5.0- 6.0" in diameter), sand matrix is mostly medium grained , gray (10YR 5/1).
	4925		ZONE #4 Slotted 1.5 in. PVC		**17.0-18.0 ft. Wind River Formation: Siltstone;** @ 17.0-17.5 ft. is weathered and greenish gray (5GY 6/1), @ 17.5-18.0' is slightly weathered and medium gray (N5).
					Total Depth 18.0 ft.





LM CMT MONITORING WELL S REV 9-2014 2947 RVT01-0852-877 EDIT GPJ SHIP GDT 4/7/16

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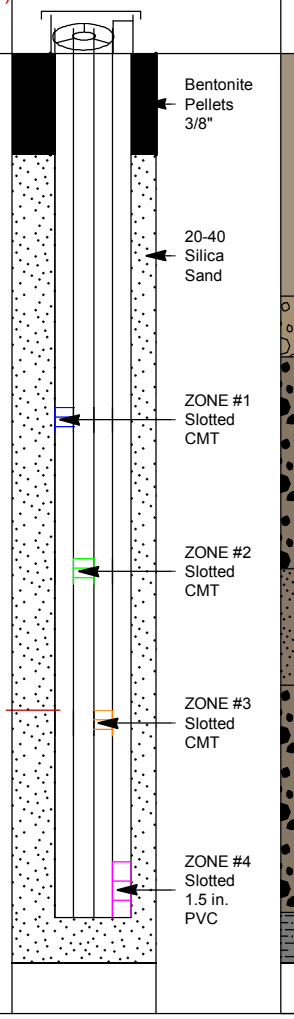
MONITORING WELL COMPLETION LOG RVT01-0860-3

PROJECT	LM	**WELL NUMBER**	RVT01-0860-3	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848283.00	**SURFACE ELEV. (FT NGVD)**	4941.73
SITE	Riverton	**EAST COORD. (FT)**	590879.17	**TOP OF CASING (FT)**	4944.10
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4928.73
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	13.50	**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	0.375 in. CMT	-2.37	to	13.0
WELL SCREEN:	0.375 in. Slotted CMT	13.0	to	13.5
SUMP/END CAP:				
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	11.5	to	13.0
SCREEN PACK	20-40 Silica Sand	13.0	to	13.5
LOWER SAND PACK	20-40 Silica Sand	13.5	to	15.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS Sreen wraped with SS 100 mesh

DEPTH (FT BGL) | ELEV. (FT NGVD) | SCREEN ELEV (FT) | WELL DIAGRAM | GRAPHIC LOG | LITHOLOGIC DESCRIPTION



0-4.8 ft. Silt (ML); dry fill, ~10% very fine grained sand, trace roots down to ~1.5 ft., light brownish gray (10YR 6/2).

@ 2.5 ft. sediments are damp, ~3.0 ft. grayish brown (10YR 5/2).

@ 4.8 ft. base of fill.

4.8-6.0 ft. Silty Gravel (GM); ~30% gravel with clasts (up to 2.0" in diameter), silt matrix is pale brown (10YR 6/3), dry.

6.0-10.2 ft. Sandy Gravel (GW); ~40-50% gravel with clasts (up to 3.0" in diameter), sand matrix is fine to medium grained, grayish brown (10YR 5/2).

@ ~8.3 ft. damp.
@ ~10.0 ft. saturated.

10.2-12.5 ft. Sand (SP); ~90% sand, mostly medium to fine grained, ~10% pebbles (up to 1.0" in diameter), brown (7.5YR 5/2).

12.5-17.0 ft. Sandy Gravel (GW); ~ 50-60% gravel with clasts (up to 4.0" in diameter), sand matrix is fine to medium grained, sand is grayish brown (10YR 5/2).

@ ~15.0-17.0 ft. very coarse cobbles near base of alluvium (up to 5.0- 6.0" in diameter), sand matrix is mostly medium grained , gray (10YR 5/1).

17.0-18.0 ft. Wind River Formation: Siltstone; @ 17.0-17.5 ft. is weathered and greenish gray (5GY 6/1), @ 17.5-18.0' is slightly weathered and medium gray (N5).

Total Depth 18.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0860-4

PROJECT	LM	**WELL NUMBER**	RVT01-0860-4	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	848283.00	**SURFACE ELEV. (FT NGVD)**	4941.73
SITE	Riverton	**EAST COORD. (FT)**	590879.17	**TOP OF CASING (FT)**	4944.38
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	18.00	**TOP OF SCREEN (FT)**	4925.73
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**	17.00	**SLOT SIZE (IN)**	0.010
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

	WELL INSTALLATION	INTERVAL (FT/BGS)		
BLANK CASING:	1.5 in. PVC Sch 40	-2.65	to	16.0
WELL SCREEN:	1.5 in. Slotted PVC	16.0	to	17.0
SUMP/END CAP:	1.5 in. PVC Sch 40	17.0	to	17.1
BENTONITE SEAL:	Bentonite Pellets	0.0	to	2.0
UPPER SAND PACK	20-40 Silica Sand	15.0	to	16.0
SCREEN PACK	20-40 Silica Sand	16.0	to	17.0
LOWER SAND PACK	20-40 Silica Sand	17.0	to	18.0

WATER LEVEL DATE
DRILLER Johnson, J
LOGGED BY Goodknight, C., Johnson, R.
SAMPLING METHOD ROTASONIC CORE
DATE DEVELOPED 9/2/2015
REMARKS

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
			Bentonite Pellets 3/8"		**0-4.8 ft. Silt (ML);** dry fill, ~10% very fine grained sand, trace roots down to ~1.5 ft., light brownish gray (10YR 6/2).
	4940				
			20-40 Silica Sand		@ 2.5 ft. sediments are damp, ~3.0 ft. grayish brown (10YR 5/2).
5					@ 4.8 ft. base of fill.
					4.8-6.0 ft. Silty Gravel (GM); ~30% gravel with clasts (up to 2.0" in diameter), silt matrix is pale brown (10YR 6/3), dry.
	4935		ZONE #1 Slotted CMT		**6.0-10.2 ft. Sandy Gravel (GW);** ~40-50% gravel with clasts (up to 3.0" in diameter), sand matrix is fine to medium grained, grayish brown (10YR 5/2).
					@ ~8.3 ft. damp. @ ~10.0 ft. saturated.
10			ZONE #2 Slotted CMT		**10.2-12.5 ft. Sand (SP);** ~90% sand, mostly medium to fine grained, ~10% pebbles (up to 1.0" in diameter), brown (7.5YR 5/2).
	4930				
			ZONE #3 Slotted CMT		**12.5-17.0 ft. Sandy Gravel (GW);** ~ 50-60% gravel with clasts (up to 4.0" in diameter), sand matrix is fine to medium grained, sand is grayish brown (10YR 5/2).
15					@ ~15.0-17.0 ft. very coarse cobbles near base of alluvium (up to 5.0- 6.0" in diameter), sand matrix is mostly medium grained , gray (10YR 5/1).
		4925.73	ZONE #4 Slotted 1.5 in. PVC		
	4925				**17.0-18.0 ft. Wind River Formation: Siltstone;** @ 17.0-17.5 ft. is weathered and greenish gray (5GY 6/1), @ 17.5-18.0' is slightly weathered and medium gray (N5).
					Total Depth 18.0 ft.

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MONITORING WELL COMPLETION LOG RVT01-0877

PROJECT	LM	**WELL NUMBER**	RVT01-0877	**DATE DRILLED**	8/30/2015
LOCATION	Riverton, WY	**NORTH COORD. (FT)**	846309.19	**SURFACE ELEV. (FT NGVD)**	
SITE	Riverton	**EAST COORD. (FT)**	594817.15	**TOP OF CASING (FT)**	
DRILLING METHOD	ROTASONIC	**HOLE DEPTH (FT/BGS)**	15.00	**TOP OF SCREEN (FT)**	
DRILL COMPANY	Cascade Drilling LP	**WELL DEPTH (FT/BGS)**		**SLOT SIZE (IN)**	
RIG TYPE	Geoprobe 8140 LS	**WATER LEVEL (FT/ BGS)**		**BIT SIZE(S) (IN)**	8.0

WELL INSTALLATION	**INTERVAL (FT/BGS)**
BLANK CASING:	
WELL SCREEN:	
SUMP/END CAP:	
BENTONITE SEAL:	
UPPER SAND PACK	
SCREEN PACK	
LOWER SAND PACK	

WATER LEVEL DATE	
DRILLER	Johnson, J
LOGGED BY	Goodknight, C., Johnson, R.
SAMPLING METHOD	ROTASONIC CORE
DATE DEVELOPED	
REMARKS	Borehole only no CMT installation

DEPTH (FT BGL)	ELEV. (FT NGVD)	SCREEN ELEV (FT)	WELL DIAGRAM	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
					0-4.0 ft. Silt (ML); A horizon is (0-6.0"), grayish brown (0-2.0 ft.)(10YR 5/2), dark gray (2.0-4.0 ft.)(10YR 4/1). @ 1.0-2.5 ft. mottling with white calcareous flecks.
5					**4.0-6.5 ft. Clayey Silt (ML);** ~10% very fine grained sand, ~ 4.0 ft. brown (10YR 5/3), ~4.5 ft. is dark gray (7.5YR 4/1), wet at 4.5 ft.
10					**6.5-14.5 ft. Sandy Gravel (GW);** ~ 50% gravel with clasts (up to 4.0" in diameter), brown (7.5YR 5/2), sand matrix is mostly medium grained, gray (7.5YR 5/1). @ ~10-13ft. 50-60% coarse gravel, as above, coarsening downward to ~13.0 ft., matrix is gray (7.5YR 5/1). @ 13.0-14.0 ft. 50% gravel clasts (up to 3.0" in diameter), sand matrix is medium grained.
15					**14.5-15.0 ft. Wind River Formation- Siltstone;** weathered, soft, greenish gray (5GY6/1) to light olive gray (5Y 6/1). **Total Depth 15.0 ft.**

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Appendix E

Static Water Level Data

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STATIC WATER LEVELS (USEE700) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/17/2016 8:06 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT)	MEASUREMENT DATE	MEASUREMENT TIME	DEPTH FROM TOP OF CASING (FT)	WATER ELEVATION (FT)	WATER LEVEL FLAG
0101	O	4950.68	08/27/2015	12:05	10.70	4939.98	
		4950.68	09/17/2015	13:01	10.78	4939.90	
0110	O	4950.19	08/27/2015	12:00	13.50	4936.69	
		4950.19	09/17/2015	10:58	13.71	4936.48	
0111	O	4948.85	08/27/2015	12:05	10.18	4938.67	
		4948.85	09/17/2015	13:02	10.39	4938.46	
0700	U	4951.97	08/27/2015	14:10	7.03	4944.94	
		4951.97	09/17/2015	13:04	6.74	4945.23	
0702	D	4931.92	08/27/2015	16:15	7.13	4924.79	
		4931.92	09/15/2015	09:22	7.08	4924.84	
0705	D	4931.91	08/27/2015	16:15	7.18	4924.73	
		4931.91	09/15/2015	12:30	7.13	4924.78	
0707	D	4931.30	08/27/2015	16:10	6.39	4924.91	
		4931.30	09/15/2015	13:10	6.30	4925.00	
0709	D	4931.64	08/27/2015	16:10	6.98	4924.66	
		4931.64	09/15/2015	08:40	7.22	4924.42	
0710	U	4947.69	08/27/2015	14:05	6.62	4941.07	
		4947.69	09/17/2015	16:50	6.71	4940.98	
0716	O	4940.69	08/27/2015	12:30	9.37	4931.32	
		4940.69	09/17/2015	11:55	9.10	4931.59	
0717	O	4940.30	08/27/2015	12:30	8.95	4931.35	
		4940.30	09/17/2015	11:25	8.61	4931.69	
0718	D	4937.60	08/27/2015	08:30	8.90	4928.70	
		4937.60	09/16/2015	16:10	8.90	4928.70	
0719	D	4937.55	08/27/2015	08:40	7.87	4929.68	
		4937.55	09/16/2015	16:50	8.43	4929.12	
0720	C	4941.15	08/27/2015	10:00	5.37	4935.78	
		4941.15	09/16/2015	14:55	5.28	4935.87	
0721	C	4941.05	08/27/2015	10:10	8.71	4932.34	
		4941.05	09/16/2015	14:20	8.69	4932.36	
0722R		4937.83	08/27/2015	09:35	9.63	4928.20	
		4937.83	09/17/2015	09:10	9.20	4928.63	
0723	D	4936.01	08/27/2015	09:30	8.43	4927.58	

STATIC WATER LEVELS (USEE700) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/17/2016 8:06 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT)	MEASUREMENT DATE	MEASUREMENT TIME	DEPTH FROM TOP OF CASING (FT)	WATER ELEVATION (FT)	WATER LEVEL FLAG
0723	D	4936.01	09/17/2015	08:40	7.90	4928.11	
0724	U	4941.93	08/27/2015	13:30	7.10	4934.83	
		4941.93	09/17/2015	10:57	7.12	4934.81	
0725	U	4942.21	08/27/2015	13:30	7.40	4934.81	
		4942.21	09/17/2015	10:48	7.41	4934.80	
0726	U	4942.20	08/27/2015	13:30	7.73	4934.47	
		4942.20	09/17/2015	10:55	8.20	4934.00	
0727	U	4952.26	08/27/2015	10:50	10.65	4941.61	
		4952.26	09/17/2015	10:25	10.86	4941.40	
0728	U	4946.63	08/27/2015	11:50	8.51	4938.12	
		4946.63	09/15/2015	09:24	8.99	4937.64	
0729	D	4932.75	08/27/2015	08:55	4.72	4928.03	
		4932.75	09/16/2015	13:35	5.48	4927.27	
0730	D	4933.08	08/27/2015	08:50	4.98	4928.10	
		4933.08	09/16/2015	13:00	6.00	4927.08	
0732	U	4946.58	08/27/2015	12:10	8.60	4937.98	
		4946.58	09/17/2015	17:05	8.60	4937.98	
0733	U	4947.46	08/27/2015	14:30	4.86	4942.60	
		4947.46	09/14/2015	16:21	5.20	4942.26	
0734	U	4946.84	08/27/2015	14:30	6.72	4940.12	
		4946.84	09/14/2015	16:20	6.74	4940.10	
0736	U	4946.43	08/27/2015	14:00	7.50	4938.93	
		4946.43	09/17/2015	17:32	7.72	4938.71	
0784	U	4947.00	08/27/2015	12:10	7.30	4939.70	
		4947.00	09/17/2015	16:35	7.25	4939.75	
0788	C	4935.43	08/27/2015	16:30	9.68	4925.75	
		4935.43	09/16/2015	12:30	9.78	4925.65	
0789	D	4933.08	08/27/2015	16:00	9.80	4923.28	
		4933.08	09/15/2015	17:15	9.80	4923.28	
0824		4929.38	08/27/2015	09:05	5.90	4923.48	
		4929.38	09/18/2015	09:45	6.31	4923.07	
0826		4937.36	08/27/2015	16:20	8.58	4928.78	
		4937.36	09/16/2015	15:55	8.66	4928.70	

STATIC WATER LEVELS (USEE700) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/17/2016 8:06 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT)	MEASUREMENT DATE	MEASUREMENT TIME	DEPTH FROM TOP OF CASING (FT)	WATER ELEVATION (FT)	WATER LEVEL FLAG
0852-1		4938.00	09/15/2015	15:40		-	D
0852-2		4938.00	09/15/2015	16:02		-	D
0852-3		4938.00	09/15/2015	16:40	11.06	4926.94	
0852-4		4938.30	09/15/2015	17:15	11.59	4926.71	
0853-2		4935.81	09/16/2015	13:40	10.12	4925.69	
0853-3		4935.81	09/16/2015	14:30	10.14	4925.67	
0853-4		4935.98	09/16/2015	15:10	10.25	4925.73	
0854-2		4937.19	09/16/2015	16:40	8.50	4928.69	
0854-3		4937.19	09/16/2015	17:10	8.52	4928.67	
0854-4		4937.42	09/17/2015	08:30	8.75	4928.67	
0855-1		4931.02	09/15/2015	14:17		-	D
0855-2		4931.02	09/16/2015	09:35	7.44	4923.58	
0855-3		4931.02	09/16/2015	10:15	7.44	4923.58	
0855-4		4931.48	09/16/2015	10:40	7.91	4923.57	
0856-2		4933.63	09/17/2015	09:25		-	B
0856-3		4933.63	09/17/2015	09:55	9.11	4924.52	
0856-4		4933.87	09/17/2015	10:25	9.35	4924.52	
0857-3		4935.51	09/16/2015	10:15	9.44	4926.07	
0857-4		4935.76	09/16/2015	11:10	9.72	4926.04	
0858-1		4932.14	09/15/2015	14:16		-	D
0858-2		4932.14	09/15/2015	09:30	7.98	4924.16	
0858-3		4932.14	09/15/2015	10:35	7.98	4924.16	
0858-4		4932.39	09/15/2015	11:35	8.23	4924.16	
0859-1		4945.98	09/17/2015	14:27		-	D
0859-2		4945.98	09/17/2015	15:15	8.60	4937.38	
0859-3		4945.98	09/17/2015	15:35	8.61	4937.37	
0859-4		4946.26	09/17/2015	16:00	8.94	4937.32	
0860-1		4944.10	09/17/2015	12:13		-	D
0860-2		4944.10	09/17/2015	13:25	11.30	4932.80	
0860-3		4944.10	09/17/2015	13:45	11.30	4932.80	

STATIC WATER LEVELS (USEE700) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/17/2016 8:06 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT)	MEASUREMENT DATE	MEASUREMENT TIME	DEPTH FROM TOP OF CASING (FT)	WATER ELEVATION (FT)	WATER LEVEL FLAG
0860-4		4944.38	09/17/2015	14:15	11.57	4932.81	
0866		4925.87	09/15/2015	09:10	2.75	4923.12	
0867		4927.52	09/15/2015	10:15	4.39	4923.13	
0868		4925.68	09/15/2015	10:50	2.55	4923.13	
0869		4926.79	09/15/2015	11:40	3.63	4923.16	
0870		4926.76	09/15/2015	12:55	3.60	4923.16	
0871		4927.90	09/15/2015	13:25	4.74	4923.16	
0872		4927.35	09/15/2015	14:05	4.15	4923.20	
0873		4927.62	09/15/2015	14:45	4.13	4923.49	
0874		4927.45	09/15/2015	15:55	4.24	4923.21	
0875		4927.48	09/15/2015	16:25	4.30	4923.18	

RECORDS: SELECTED FROM USEE700 WHERE site_code='RVT01' AND LOG_DATE between #8/1/2015# and #9/30/2015#

FLOW CODES: C CROSS GRADIENT D DOWN GRADIENT O ON-SITE
U UPGRADIENT

WATER LEVEL FLAGS:
B Water level is below the top of the pump
D Dry

Appendix F

Groundwater Data

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CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3)	mg/L	0405	WL	09/17/2015	N001	NR	N	99			#	-	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	63		J	#	-	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	116			#	-	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	150			#	-	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	40		FQ	#	-	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	325		F	#	-	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	190		F	#	-	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	280		F	#	-	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	299		F	#	-	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	330		F	#	-	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	83		FQ	#	-	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	207		F	#	-	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	94		F	#	-	-
	mg/L	0722R	WL	09/17/2015	N001	SF		270		F	#	-	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	308		F	#	-	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	170		F	#	-	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	212		F	#	-	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	298		FQ	#	-	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	240.00		F	#	-	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	215		F	#	-	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	402		F	#	-	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	442		F	#	-	-
	mg/L	0824	WL	09/18/2015	N001	SF		320		F	#	-	-
	mg/L	0826	WL	09/16/2015	N001	SF		371		F	#	-	-
	mg/L	0828	WL	09/14/2015	N001		O	129			#	-	-
	mg/L	0841	WL	09/17/2015	N001			200			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3)	mg/L	0842	WL	09/17/2015	N001			169			#	-	-
	mg/L	0844	BH	08/26/2015	0001			173			#	-	-
	mg/L	0852-3	WL	09/15/2015	N001			325		F	#	-	-
	mg/L	0852-4	WL	09/15/2015	N001			330		F	#	-	-
	mg/L	0853-2	WL	09/16/2015	N001			430		F	#	-	-
	mg/L	0853-3	WL	09/16/2015	N001			412		F	#	-	-
	mg/L	0853-4	WL	09/16/2015	N001			388		F	#	-	-
	mg/L	0854-2	WL	09/16/2015	N001			470		F	#	-	-
	mg/L	0854-3	WL	09/16/2015	N001			298		F	#	-	-
	mg/L	0854-4	WL	09/17/2015	N001			420		F	#	-	-
	mg/L	0855-2	WL	09/16/2015	N001			520		F	#	-	-
	mg/L	0855-3	WL	09/16/2015	N001			468		F	#	-	-
	mg/L	0855-4	WL	09/16/2015	N001			440		F	#	-	-
	mg/L	0856-2	WL	09/17/2015	N001			390		F	#	-	-
	mg/L	0856-3	WL	09/17/2015	N001			381		F	#	-	-
	mg/L	0856-4	WL	09/17/2015	N001			409		F	#	-	-
	mg/L	0857-3	WL	09/16/2015	N001			447		F	#	-	-
	mg/L	0857-4	WL	09/16/2015	N001			437		F	#	-	-
	mg/L	0858-2	WL	09/15/2015	N001			376		F	#	-	-
	mg/L	0858-3	WL	09/15/2015	N001			334		F	#	-	-
	mg/L	0858-4	WL	09/15/2015	N001			320		F	#	-	-
	mg/L	0859-2	WL	09/17/2015	N001			314		F	#	-	-
	mg/L	0859-3	WL	09/17/2015	N001			285		F	#	-	-
	mg/L	0859-4	WL	09/17/2015	N001			288		F	#	-	-
	mg/L	0860-2	WL	09/17/2015	N001			274		F	#	-	-
	mg/L	0860-3	WL	09/17/2015	N001			278		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3)	mg/L	0860-4	WL	09/17/2015	N001			273		F	#	-	-
	mg/L	0866	WL	09/15/2015	N001			366		F	#	-	-
	mg/L	0867	WL	09/15/2015	N001			396		F	#	-	-
	mg/L	0868	WL	09/15/2015	N001			416		F	#	-	-
	mg/L	0869	WL	09/15/2015	N001			516		F	#	-	-
	mg/L	0870	WL	09/15/2015	N001			601		F	#	-	-
	mg/L	0871	WL	09/15/2015	N001			1210		F	#	-	-
	mg/L	0872	WL	09/15/2015	N001			601		F	#	-	-
	mg/L	0873	WL	09/15/2015	N001			631		F	#	-	-
	mg/L	0874	WL	09/15/2015	N001			620		F	#	-	-
	mg/L	0875	WL	09/15/2015	N001			529		F	#	-	-
	mg/L	0876	WL	09/17/2015	N001			32			#	-	-
	mg/L	0878	WL	09/17/2015	N001			125			#	-	-
	mg/L	T03-03	BH	08/27/2015	0001			365			#	-	-
	mg/L	T03-04	BH	08/27/2015	0001			355			#	-	-
	mg/L	T03-05	BH	08/27/2015	0001			374			#	-	-
	mg/L	T03-06	BH	08/27/2015	0001			352			#	-	-
	mg/L	T03-07	BH	08/27/2015	0001			347			#	-	-
	mg/L	T03-08	BH	08/27/2015	0001			269			#	-	-
	mg/L	T03-09	BH	08/27/2015	0001			312			#	-	-
	mg/L	T06-01	BH	08/25/2015	0001			354			#	-	-
	mg/L	T06-01-01	BH	08/25/2015	0001			338			#	-	-
	mg/L	T06-01-02	BH	08/25/2015	0001			370			#	-	-
	mg/L	T06-01-03	BH	08/25/2015	0001			358			#	-	-
	mg/L	T06-01-04	BH	08/26/2015	0001			350			#	-	-
	mg/L	T10-01	BH	08/26/2015	0001			377			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3)	mg/L	T10-02	BH	08/26/2015	0001			247			#	-	-
	mg/L	T10-03	BH	08/26/2015	0001			239			#	-	-
Calcium	mg/L	0405	WL	09/17/2015	N001	NR	N	7.100			#	0.024	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	4.200			#	0.024	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	3.800			#	0.024	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	3.600			#	0.024	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	28.000		FQ	#	0.024	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	430.000		F	#	0.024	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	79.000		F	#	0.024	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	130.000		F	#	0.024	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	93.000		F	#	0.024	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	350.000		F	#	0.024	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	80.000		FQ	#	0.024	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	94.000		F	#	0.024	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	8.700		F	#	0.024	-
	mg/L	0722R	WL	09/17/2015	N001	SF		340.000		F	#	0.024	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	290.000		F	#	0.024	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	57.000		F	#	0.24	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	80.000		F	#	0.024	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	79.000		FQ	#	0.024	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	480.000		F	#	0.024	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	170.000		F	#	0.024	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	230.000		F	#	0.024	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	390.000		F	#	0.024	-
	mg/L	0824	WL	09/18/2015	N001	SF		90.000		F	#	0.024	-
	mg/L	0826	WL	09/16/2015	N001	SF		210.000		F	#	0.024	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/L	0828	WL	09/14/2015	N001		O	3.500			#	0.024	-
	mg/L	0841	WL	09/17/2015	N001			85.000			#	0.024	-
	mg/L	0842	WL	09/17/2015	N001			57.000			#	0.024	-
	mg/L	0844	BH	08/26/2015	0001			74.000			#	0.024	-
	mg/L	0852-3	WL	09/15/2015	N001			120.000		F	#	0.024	-
	mg/L	0852-4	WL	09/15/2015	N001			110.000		F	#	0.024	-
	mg/L	0853-2	WL	09/16/2015	N001			230.000		F	#	0.024	-
	mg/L	0853-3	WL	09/16/2015	N001			260.000		F	#	0.024	-
	mg/L	0853-4	WL	09/16/2015	N001			250.000		F	#	0.024	-
	mg/L	0854-2	WL	09/16/2015	N001			310.000		F	#	0.12	-
	mg/L	0854-3	WL	09/16/2015	N001			230.000		F	#	0.024	-
	mg/L	0854-4	WL	09/17/2015	N001			270.000		F	#	0.024	-
	mg/L	0855-2	WL	09/16/2015	N001			380.000		F	#	0.024	-
	mg/L	0855-3	WL	09/16/2015	N001			460.000		F	#	0.024	-
	mg/L	0855-4	WL	09/16/2015	N001			490.000		F	#	0.024	-
	mg/L	0856-2	WL	09/17/2015	N001			460.000		F	#	0.12	-
	mg/L	0856-3	WL	09/17/2015	N001			470.000		F	#	0.12	-
	mg/L	0856-4	WL	09/17/2015	N001			480.000		F	#	0.12	-
	mg/L	0857-3	WL	09/16/2015	N001			580.000		F	#	0.12	-
	mg/L	0857-4	WL	09/16/2015	N001			590.000		F	#	0.12	-
	mg/L	0858-2	WL	09/15/2015	N001			410.000		F	#	0.12	-
	mg/L	0858-3	WL	09/15/2015	N001			400.000		F	#	0.12	-
	mg/L	0858-4	WL	09/15/2015	N001			390.000		F	#	0.12	-
	mg/L	0858-4	WL	09/15/2015	N002			350.000		F	#	0.024	-
	mg/L	0859-2	WL	09/17/2015	N001			350.000		F	#	0.12	-
	mg/L	0859-3	WL	09/17/2015	N001			450.000		F	#	0.12	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/L	0859-4	WL	09/17/2015	N001			450.000		F	#	0.12	-
	mg/L	0860-2	WL	09/17/2015	N001			450.000		F	#	0.024	-
	mg/L	0860-3	WL	09/17/2015	N001			410.000		F	#	0.024	-
	mg/L	0860-3	WL	09/17/2015	N002			420.000		F	#	0.024	-
	mg/L	0860-4	WL	09/17/2015	N001			400.000		F	#	0.024	-
	mg/L	0866	WL	09/15/2015	N001			490.000		F	#	0.12	-
	mg/L	0867	WL	09/15/2015	N001			450.000		F	#	0.12	-
	mg/L	0868	WL	09/15/2015	N001			460.000		F	#	0.12	-
	mg/L	0869	WL	09/15/2015	N001			490.000		F	#	0.12	-
	mg/L	0870	WL	09/15/2015	N001			490.000		F	#	0.12	-
	mg/L	0871	WL	09/15/2015	N001			500.000		F	#	0.12	-
	mg/L	0872	WL	09/15/2015	N001			560.000		F	#	0.12	-
	mg/L	0872	WL	09/15/2015	N002			560.000		F	#	0.12	-
	mg/L	0873	WL	09/15/2015	N001			540.000		F	#	0.12	-
	mg/L	0874	WL	09/15/2015	N001			610.000		F	#	0.12	-
	mg/L	0875	WL	09/15/2015	N001			540.000		F	#	0.12	-
	mg/L	0876	WL	09/17/2015	N001			4.900			#	0.024	-
	mg/L	0878	WL	09/17/2015	N001			4.900			#	0.024	-
	mg/L	T03-03	BH	08/27/2015	0001			200.000			#	0.024	-
	mg/L	T03-04	BH	08/27/2015	0001			300.000			#	0.024	-
	mg/L	T03-05	BH	08/27/2015	0001			430.000			#	0.24	-
	mg/L	T03-06	BH	08/27/2015	0001			360.000			#	0.24	-
	mg/L	T03-07	BH	08/27/2015	0001			300.000			#	0.24	-
	mg/L	T03-08	BH	08/27/2015	0001			510.000			#	0.24	-
	mg/L	T03-09	BH	08/27/2015	0001			420.000			#	0.024	-
	mg/L	T06-01	BH	08/25/2015	0001			140.000			#	0.24	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/L	T06-01	BH	08/25/2015	0002			140.000			#	0.024	-
	mg/L	T06-01-01	BH	08/25/2015	0001			130.000			#	0.024	-
	mg/L	T06-01-02	BH	08/25/2015	0001			130.000			#	0.024	-
	mg/L	T06-01-03	BH	08/25/2015	0001			110.000			#	0.024	-
	mg/L	T06-01-04	BH	08/26/2015	0001			110.000			#	0.024	-
	mg/L	T10-01	BH	08/26/2015	0001			140.000			#	0.024	-
	mg/L	T10-02	BH	08/26/2015	0001			76.000			#	0.024	-
	mg/L	T10-03	BH	08/26/2015	0001			99.000			#	0.024	-
Chloride	mg/L	0405	WL	09/17/2015	N001	NR	N	21			#	0.8	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	10			#	0.4	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	14			#	0.8	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	11			#	0.4	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	58		FQ	#	1	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	110		F	#	10	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	15		F	#	0.4	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	35		F	#	1	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	52		F	#	2	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	150		F	#	10	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	41		FQ	#	2	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	5.6		F	#	0.4	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	26		F	#	0.8	-
	mg/L	0722R	WL	09/17/2015	N001	SF		29		F	#	4	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	59		F	#	4	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	13		F	#	0.4	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	6.9		F	#	2	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	7.2		FQ	#	0.4	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/L	0732	WL	09/17/2015	N001	SE	U	41		F	#	5	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	18		F	#	4	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	40		F	#	4	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	180		F	#	20	-
	mg/L	0824	WL	09/18/2015	N001	SF		6.5		F	#	0.4	-
	mg/L	0826	WL	09/16/2015	N001	SF		38		F	#	4	-
	mg/L	0828	WL	09/14/2015	N001		O	14			#	0.8	-
	mg/L	0841	WL	09/17/2015	N001			26			#	0.8	-
	mg/L	0842	WL	09/17/2015	N001			15			#	0.4	-
	mg/L	0844	BH	08/26/2015	0001			14			#	2	-
	mg/L	0852-3	WL	09/15/2015	N001			27		F	#	2	-
	mg/L	0852-4	WL	09/15/2015	N001			26		F	#	1	-
	mg/L	0853-2	WL	09/16/2015	N001			50		F	#	5	-
	mg/L	0853-3	WL	09/16/2015	N001			53		F	#	5	-
	mg/L	0853-4	WL	09/16/2015	N001			53		F	#	5	-
	mg/L	0854-2	WL	09/16/2015	N001			72		F	#	10	-
	mg/L	0854-3	WL	09/16/2015	N001			56		F	#	5	-
	mg/L	0854-4	WL	09/17/2015	N001			63		F	#	5	-
	mg/L	0855-2	WL	09/16/2015	N001			410		F	#	20	-
	mg/L	0855-3	WL	09/16/2015	N001			380		F	#	20	-
	mg/L	0855-4	WL	09/16/2015	N001			390		F	#	20	-
	mg/L	0856-2	WL	09/17/2015	N001			150		F	#	10	-
	mg/L	0856-3	WL	09/17/2015	N001			170		F	#	10	-
	mg/L	0856-4	WL	09/17/2015	N001			200		F	#	10	-
	mg/L	0857-3	WL	09/16/2015	N001			200		F	#	10	-
	mg/L	0857-4	WL	09/16/2015	N001			200		F	#	10	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/L	0858-2	WL	09/15/2015	N001			94		F	#	10	-
	mg/L	0858-3	WL	09/15/2015	N001			95		F	#	10	-
	mg/L	0858-4	WL	09/15/2015	N002			96		F	#	10	-
	mg/L	0859-2	WL	09/17/2015	N001			35		F	#	10	-
	mg/L	0859-3	WL	09/17/2015	N001			31		F	#	10	-
	mg/L	0859-4	WL	09/17/2015	N001			34		F	#	10	-
	mg/L	0860-2	WL	09/17/2015	N001			75		F	#	10	-
	mg/L	0860-3	WL	09/17/2015	N001			47		F	#	10	-
	mg/L	0860-3	WL	09/17/2015	N002			49		F	#	10	-
	mg/L	0860-4	WL	09/17/2015	N001			42		F	#	10	-
	mg/L	0866	WL	09/15/2015	N001			120		F	#	10	-
	mg/L	0867	WL	09/15/2015	N001			130		F	#	10	-
	mg/L	0868	WL	09/15/2015	N001			180		F	#	20	-
	mg/L	0869	WL	09/15/2015	N001			310		F	#	20	-
	mg/L	0870	WL	09/15/2015	N001			440		F	#	20	-
	mg/L	0871	WL	09/15/2015	N001			550		F	#	20	-
	mg/L	0872	WL	09/15/2015	N001			580		F	#	20	-
	mg/L	0872	WL	09/15/2015	N002			580		F	#	20	-
	mg/L	0873	WL	09/15/2015	N001			630		F	#	20	-
	mg/L	0874	WL	09/15/2015	N001			510		F	#	20	-
	mg/L	0875	WL	09/15/2015	N001			360		F	#	20	-
	mg/L	0876	WL	09/17/2015	N001			38			#	0.8	-
	mg/L	0878	WL	09/17/2015	N001			10			#	0.8	-
	mg/L	T03-03	BH	08/27/2015	0001			18			#	4	-
	mg/L	T03-04	BH	08/27/2015	0001			46			#	8	-
	mg/L	T03-05	BH	08/27/2015	0001			140			#	10	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/L	T03-06	BH	08/27/2015	0001			120			#	10	-
	mg/L	T03-07	BH	08/27/2015	0001			100			#	10	-
	mg/L	T03-08	BH	08/27/2015	0001			63			#	10	-
	mg/L	T03-09	BH	08/27/2015	0001			43			#	10	-
	mg/L	T06-01	BH	08/25/2015	0001			30			#	4	-
	mg/L	T06-01	BH	08/25/2015	0002			29			#	4	-
	mg/L	T06-01-01	BH	08/25/2015	0001			25			#	4	-
	mg/L	T06-01-02	BH	08/25/2015	0001			29			#	4	-
	mg/L	T06-01-03	BH	08/25/2015	0001			24			#	2.5	-
	mg/L	T06-01-04	BH	08/26/2015	0001			27			#	2.5	-
	mg/L	T10-01	BH	08/26/2015	0001			28			#	4	-
	mg/L	T10-02	BH	08/26/2015	0001			16			#	2	-
	mg/L	T10-03	BH	08/26/2015	0001			23			#	2	-
Dissolved Oxygen	mg/L	0405	WL	09/17/2015	N001	NR	N	4.55			#	-	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	4.51			#	-	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	4.12			#	-	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	2.14			#	-	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	0.45		FQ	#	-	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	0.50		F	#	-	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	1.08		F	#	-	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.89		F	#	-	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.25		F	#	-	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.41		F	#	-	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.14		FQ	#	-	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	2.48		F	#	-	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.25		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Dissolved Oxygen	mg/L	0722R	WL	09/17/2015	N001	SF		0.54		F	#	-	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.27		F	#	-	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.20		F	#	-	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.53		F	#	-	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	1.23		FQ	#	-	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	0.25		F	#	-	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	0.26		F	#	-	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	1.40		F	#	-	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	2.59		F	#	-	-
	mg/L	0824	WL	09/18/2015	N001	SF		4.37		F	#	-	-
	mg/L	0826	WL	09/16/2015	N001	SF		1.24		F	#	-	-
	mg/L	0828	WL	09/14/2015	N001		O	5.31			#	-	-
	mg/L	0841	WL	09/17/2015	N001			2.84			#	-	-
	mg/L	0842	WL	09/17/2015	N001			4.66			#	-	-
	mg/L	0844	BH	08/26/2015	N001			0.29			#	-	-
	mg/L	0852-4	WL	09/15/2015	N001			0.31		F	#	-	-
	mg/L	0853-2	WL	09/16/2015	N001			1.78		F	#	-	-
	mg/L	0853-3	WL	09/16/2015	N001			1.50		F	#	-	-
	mg/L	0853-4	WL	09/16/2015	N001			1.29		F	#	-	-
	mg/L	0854-2	WL	09/16/2015	N001			1.49		F	#	-	-
	mg/L	0854-3	WL	09/16/2015	N001			1.19		F	#	-	-
	mg/L	0854-4	WL	09/17/2015	N001			1.41		F	#	-	-
	mg/L	0855-2	WL	09/16/2015	N001			1.91		F	#	-	-
	mg/L	0855-3	WL	09/16/2015	N001			0.44		F	#	-	-
	mg/L	0855-4	WL	09/16/2015	N001			0.23		F	#	-	-
	mg/L	0856-2	WL	09/17/2015	N001			1.49		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Dissolved Oxygen	mg/L	0856-3	WL	09/17/2015	N001			1.39		F	#	-	-
	mg/L	0856-4	WL	09/17/2015	N001			1.26		F	#	-	-
	mg/L	0857-3	WL	09/16/2015	N001			2.09		F	#	-	-
	mg/L	0857-4	WL	09/16/2015	N001			1.57		F	#	-	-
	mg/L	0858-3	WL	09/15/2015	N001			2.85		F	#	-	-
	mg/L	0858-4	WL	09/15/2015	N001			1.55		F	#	-	-
	mg/L	0859-2	WL	09/17/2015	N001			0.24		F	#	-	-
	mg/L	0859-3	WL	09/17/2015	N001			0.28		F	#	-	-
	mg/L	0859-4	WL	09/17/2015	N001			0.25		F	#	-	-
	mg/L	0860-2	WL	09/17/2015	N001			0.28		F	#	-	-
	mg/L	0860-3	WL	09/17/2015	N001			0.99		F	#	-	-
	mg/L	0860-4	WL	09/17/2015	N001			0.24		F	#	-	-
	mg/L	0866	WL	09/15/2015	N001			1.74		F	#	-	-
	mg/L	0867	WL	09/15/2015	N001			1.33		F	#	-	-
	mg/L	0868	WL	09/15/2015	N001			1.40		F	#	-	-
	mg/L	0869	WL	09/15/2015	N001			1.23		F	#	-	-
	mg/L	0870	WL	09/15/2015	N001			1.27		F	#	-	-
	mg/L	0871	WL	09/15/2015	N001			1.22		F	#	-	-
	mg/L	0872	WL	09/15/2015	N001			1.09		F	#	-	-
	mg/L	0873	WL	09/15/2015	N001			1.17		F	#	-	-
	mg/L	0874	WL	09/15/2015	N001			1.20		F	#	-	-
	mg/L	0875	WL	09/15/2015	N001			1.21		F	#	-	-
	mg/L	0876	WL	09/17/2015	N001			7.42			#	-	-
	mg/L	T03-03	BH	08/27/2015	N001			0.62			#	-	-
	mg/L	T03-04	BH	08/27/2015	N001			0.53			#	-	-
	mg/L	T03-05	BH	08/27/2015	N001			0.56			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Dissolved Oxygen	mg/L	T03-06	BH	08/27/2015	N001			0.46			#	-	-
	mg/L	T03-07	BH	08/27/2015	N001			0.47			#	-	-
	mg/L	T03-08	BH	08/27/2015	N001			0.52			#	-	-
	mg/L	T03-09	BH	08/27/2015	N001			0.46			#	-	-
	mg/L	T06-01	BH	08/25/2015	N001			0.89			#	-	-
	mg/L	T06-01-01	BH	08/25/2015	N001			0.68			#	-	-
	mg/L	T06-01-02	BH	08/25/2015	N001			0.89			#	-	-
	mg/L	T06-01-03	BH	08/25/2015	N001			0.88			#	-	-
	mg/L	T06-01-04	BH	08/26/2015	N001			0.74			#	-	-
	mg/L	T10-01	BH	08/26/2015	N001			0.44			#	-	-
	mg/L	T10-02	BH	08/26/2015	N001			0.45			#	-	-
	mg/L	T10-03	BH	08/26/2015	N001			0.41			#	-	-
Field Ferrous Iron	mg/L	0705	WL	09/15/2015	N001	SE	D	0.00		FQ	#	-	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	0.04		F	#	-	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.04		F	#	-	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.07		F	#	-	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.16		F	#	-	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.00		F	#	-	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.22		FQ	#	-	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	0.01		F	#	-	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.00		F	#	-	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.02		F	#	-	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.55		F	#	-	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.00		F	#	-	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.13		F	#	-	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	0.15		FQ	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Field Ferrous Iron	mg/L	0732	WL	09/17/2015	N001	SE	U	0.02		F	#	-	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	0.05		F	#	-	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0		F	#	-	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	0		F	#	-	-
	mg/L	0824	WL	09/18/2015	N001	SF		0.01		F	#	-	-
	mg/L	0826	WL	09/16/2015	N001	SF		0.18		F	#	-	-
	mg/L	0852-3	WL	09/15/2015	N001			0.10		F	#	-	-
	mg/L	0852-4	WL	09/15/2015	N001			0.00		F	#	-	-
	mg/L	0853-2	WL	09/16/2015	N001			2.08		F	#	-	-
	mg/L	0853-3	WL	09/16/2015	N001			0.5		F	#	-	-
	mg/L	0853-4	WL	09/16/2015	N001			2.96		F	#	-	-
	mg/L	0854-2	WL	09/16/2015	N001			2.48		F	#	-	-
	mg/L	0854-3	WL	09/16/2015	N001			0.61		F	#	-	-
	mg/L	0854-4	WL	09/17/2015	N001			2.13		F	#	-	-
	mg/L	0855-2	WL	09/16/2015	N001			2.99		F	#	-	-
	mg/L	0855-3	WL	09/16/2015	N001			0.19		F	#	-	-
	mg/L	0855-4	WL	09/16/2015	N001			2.18		F	#	-	-
	mg/L	0856-2	WL	09/17/2015	N001			1.10		F	#	-	-
	mg/L	0856-3	WL	09/17/2015	N001			0.48		F	#	-	-
	mg/L	0856-4	WL	09/17/2015	N001			1.62		F	#	-	-
	mg/L	0857-3	WL	09/16/2015	N001			1.10		F	#	-	-
	mg/L	0857-4	WL	09/16/2015	N001			4.11		F	#	-	-
	mg/L	0858-2	WL	09/15/2015	N001			1.02		F	#	-	-
	mg/L	0858-3	WL	09/15/2015	N001			2.06		F	#	-	-
	mg/L	0858-4	WL	09/15/2015	N001			1.88		F	#	-	-
	mg/L	0859-2	WL	09/17/2015	N001			0.24		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Field Ferrous Iron	mg/L	0859-3	WL	09/17/2015	N001			1.94		F	#	-	-
	mg/L	0859-4	WL	09/17/2015	N001			2.20		F	#	-	-
	mg/L	0860-2	WL	09/17/2015	N001			2.94		F	#	-	-
	mg/L	0860-3	WL	09/17/2015	N001			1.99		F	#	-	-
	mg/L	0860-4	WL	09/17/2015	N001			2.06		F	#	-	-
	mg/L	0866	WL	09/15/2015	N001			1.28		F	#	-	-
	mg/L	0867	WL	09/15/2015	N001			2.78		F	#	-	-
	mg/L	0868	WL	09/15/2015	N001			0.02		F	#	-	-
	mg/L	0869	WL	09/15/2015	N001			0.68		F	#	-	-
	mg/L	0870	WL	09/15/2015	N001			3.03		F	#	-	-
	mg/L	0871	WL	09/15/2015	N001			0.24		F	#	-	-
	mg/L	0872	WL	09/15/2015	N001			2.93		F	#	-	-
	mg/L	0873	WL	09/15/2015	N001			1.81		F	#	-	-
	mg/L	0874	WL	09/15/2015	N001			1.86		F	#	-	-
	mg/L	0875	WL	09/15/2015	N001			2.32		F	#	-	-
Iron	mg/L	0705	WL	09/15/2015	N001	SE	D	0.052	J	FQ	#	0.0067	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	0.050	J	F	#	0.0067	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.310		F	#	0.0067	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.100		F	#	0.0067	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.190		F	#	0.0067	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.042	J	F	#	0.0067	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.480		FQ	#	0.0067	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	0.0093	J	F	#	0.0067	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.042	J	F	#	0.0067	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.015	J	F	#	0.0067	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.560		F	#	0.0067	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/L	0727	WL	09/17/2015	N001	SE	U	0.067	U	F	#	0.067	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.110	N	F	#	0.0067	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	1.300		FQ	#	0.0067	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	0.071	J	F	#	0.0067	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	0.110		F	#	0.0067	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0.160		F	#	0.0067	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	0.150		F	#	0.0067	-
	mg/L	0824	WL	09/18/2015	N001	SF		0.0067	U	F	#	0.0067	-
	mg/L	0826	WL	09/16/2015	N001	SF		0.055	J	UF	#	0.0067	-
	mg/L	0852-3	WL	09/15/2015	N001			0.570		F	#	0.0067	-
	mg/L	0852-4	WL	09/15/2015	N001			0.065	J	F	#	0.0067	-
	mg/L	0853-2	WL	09/16/2015	N001			2.800		F	#	0.0067	-
	mg/L	0853-3	WL	09/16/2015	N001			0.630		F	#	0.0067	-
	mg/L	0853-4	WL	09/16/2015	N001			3.300		F	#	0.0067	-
	mg/L	0854-2	WL	09/16/2015	N001			2.900		F	#	0.033	-
	mg/L	0854-3	WL	09/16/2015	N001			0.820		F	#	0.0067	-
	mg/L	0854-4	WL	09/17/2015	N001			6.300		F	#	0.0067	-
	mg/L	0855-2	WL	09/16/2015	N001			3.000		F	#	0.0067	-
	mg/L	0855-3	WL	09/16/2015	N001			0.360		F	#	0.0067	-
	mg/L	0855-4	WL	09/16/2015	N001			2.800		F	#	0.0067	-
	mg/L	0856-2	WL	09/17/2015	N001			1.600		F	#	0.033	-
	mg/L	0856-3	WL	09/17/2015	N001			0.560		F	#	0.033	-
	mg/L	0856-4	WL	09/17/2015	N001			2.100		F	#	0.033	-
	mg/L	0857-3	WL	09/16/2015	N001			3.300		F	#	0.033	-
	mg/L	0857-4	WL	09/16/2015	N001			7.100		F	#	0.033	-
	mg/L	0858-2	WL	09/15/2015	N001			1.700		F	#	0.033	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/L	0858-3	WL	09/15/2015	N001			3.900		F	#	0.033	-
	mg/L	0858-4	WL	09/15/2015	N001			2.800		F	#	0.033	-
	mg/L	0858-4	WL	09/15/2015	N002			2.600		F	#	0.0067	-
	mg/L	0859-2	WL	09/17/2015	N001			0.850		F	#	0.033	-
	mg/L	0859-3	WL	09/17/2015	N001			4.500		F	#	0.033	-
	mg/L	0859-4	WL	09/17/2015	N001			5.600		F	#	0.033	-
	mg/L	0860-2	WL	09/17/2015	N001			4.500		F	#	0.0067	-
	mg/L	0860-3	WL	09/17/2015	N001			2.800		F	#	0.0067	-
	mg/L	0860-3	WL	09/17/2015	N002			2.800		F	#	0.0067	-
	mg/L	0860-4	WL	09/17/2015	N001			2.400		F	#	0.0067	-
	mg/L	0866	WL	09/15/2015	N001			1.400		F	#	0.033	-
	mg/L	0867	WL	09/15/2015	N001			3.400		F	#	0.033	-
	mg/L	0868	WL	09/15/2015	N001			0.690		F	#	0.033	-
	mg/L	0869	WL	09/15/2015	N001			3.200		F	#	0.033	-
	mg/L	0870	WL	09/15/2015	N001			6.400		F	#	0.033	-
	mg/L	0871	WL	09/15/2015	N001			0.460	J	F	#	0.033	-
	mg/L	0872	WL	09/15/2015	N001			3.900		F	#	0.033	-
	mg/L	0872	WL	09/15/2015	N002			3.900		F	#	0.033	-
	mg/L	0873	WL	09/15/2015	N001			2.800		F	#	0.033	-
	mg/L	0874	WL	09/15/2015	N001			2.900		F	#	0.033	-
	mg/L	0875	WL	09/15/2015	N001			2.600		F	#	0.033	-
Magnesium	mg/L	0405	WL	09/17/2015	N001	NR	N	0.063	J		#	0.03	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.042	J		#	0.03	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.049	J		#	0.03	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.050	J		#	0.03	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	0.520	J	FQ	#	0.03	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/L	0707	WL	09/15/2015	N001	SF	D	130.000		F	#	0.03	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	17.000		F	#	0.03	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	28.000		F	#	0.03	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	6.100		F	#	0.03	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	96.000		F	#	0.03	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	2.700		FQ	#	0.03	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	23.000		F	#	0.03	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.091	J	F	#	0.03	-
	mg/L	0722R	WL	09/17/2015	N001	SF		33.000		F	#	0.03	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	11.000		F	#	0.03	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	6.400	J	F	#	0.3	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	20.000		F	#	0.03	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	14.000		FQ	#	0.03	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	31.000		F	#	0.03	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	16.000		F	#	0.03	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	69.000		F	#	0.03	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	260.000		F	#	0.03	-
	mg/L	0824	WL	09/18/2015	N001	SF		24.000		F	#	0.03	-
	mg/L	0826	WL	09/16/2015	N001	SF		60.000		F	#	0.03	-
	mg/L	0828	WL	09/14/2015	N001		O	0.082	J		#	0.03	-
	mg/L	0841	WL	09/17/2015	N001			14.000			#	0.03	-
	mg/L	0842	WL	09/17/2015	N001			6.500			#	0.03	-
	mg/L	0844	BH	08/26/2015	0001			27.000			#	0.03	-
	mg/L	0852-3	WL	09/15/2015	N001			29.000		F	#	0.03	-
	mg/L	0852-4	WL	09/15/2015	N001			28.000		F	#	0.03	-
	mg/L	0853-2	WL	09/16/2015	N001			66.000		F	#	0.03	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/L	0853-3	WL	09/16/2015	N001			67.000		F	#	0.03	-
	mg/L	0853-4	WL	09/16/2015	N001			65.000		F	#	0.03	-
	mg/L	0854-2	WL	09/16/2015	N001			97.000		F	#	0.15	-
	mg/L	0854-3	WL	09/16/2015	N001			72.000		F	#	0.03	-
	mg/L	0854-4	WL	09/17/2015	N001			86.000		F	#	0.03	-
	mg/L	0855-2	WL	09/16/2015	N001			320.000		F	#	0.03	-
	mg/L	0855-3	WL	09/16/2015	N001			300.000		F	#	0.03	-
	mg/L	0855-4	WL	09/16/2015	N001			280.000		F	#	0.03	-
	mg/L	0856-2	WL	09/17/2015	N001			170.000		F	#	0.15	-
	mg/L	0856-3	WL	09/17/2015	N001			180.000		F	#	0.15	-
	mg/L	0856-4	WL	09/17/2015	N001			180.000		F	#	0.15	-
	mg/L	0857-3	WL	09/16/2015	N001			200.000		F	#	0.15	-
	mg/L	0857-4	WL	09/16/2015	N001			190.000		F	#	0.15	-
	mg/L	0858-2	WL	09/15/2015	N001			100.000		F	#	0.15	-
	mg/L	0858-3	WL	09/15/2015	N001			110.000		F	#	0.15	-
	mg/L	0858-4	WL	09/15/2015	N001			110.000		F	#	0.15	-
	mg/L	0858-4	WL	09/15/2015	N002			110.000		F	#	0.03	-
	mg/L	0859-2	WL	09/17/2015	N001			37.000		F	#	0.15	-
	mg/L	0859-3	WL	09/17/2015	N001			58.000		F	#	0.15	-
	mg/L	0859-4	WL	09/17/2015	N001			70.000		F	#	0.15	-
	mg/L	0860-2	WL	09/17/2015	N001			64.000		F	#	0.03	-
	mg/L	0860-3	WL	09/17/2015	N001			47.000		F	#	0.03	-
	mg/L	0860-3	WL	09/17/2015	N002			49.000		F	#	0.03	-
	mg/L	0860-4	WL	09/17/2015	N001			44.000		F	#	0.03	-
	mg/L	0866	WL	09/15/2015	N001			180.000		F	#	0.15	-
	mg/L	0867	WL	09/15/2015	N001			200.000		F	#	0.15	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/L	0868	WL	09/15/2015	N001			220.000		F	#	0.15	-
	mg/L	0869	WL	09/15/2015	N001			320.000		F	#	0.15	-
	mg/L	0870	WL	09/15/2015	N001			340.000		F	#	0.15	-
	mg/L	0871	WL	09/15/2015	N001			340.000		F	#	0.15	-
	mg/L	0872	WL	09/15/2015	N001			340.000		F	#	0.15	-
	mg/L	0872	WL	09/15/2015	N002			340.000		F	#	0.15	-
	mg/L	0873	WL	09/15/2015	N001			350.000		F	#	0.15	-
	mg/L	0874	WL	09/15/2015	N001			310.000		F	#	0.15	-
	mg/L	0875	WL	09/15/2015	N001			250.000		F	#	0.15	-
	mg/L	0876	WL	09/17/2015	N001			0.030	U		#	0.03	-
	mg/L	0878	WL	09/17/2015	N001			0.030	U		#	0.03	-
	mg/L	T03-03	BH	08/27/2015	0001			44.000			#	0.03	-
	mg/L	T03-04	BH	08/27/2015	0001			69.000			#	0.03	-
	mg/L	T03-05	BH	08/27/2015	0001			120.000			#	0.3	-
	mg/L	T03-06	BH	08/27/2015	0001			91.000			#	0.3	-
	mg/L	T03-07	BH	08/27/2015	0001			74.000			#	0.3	-
	mg/L	T03-08	BH	08/27/2015	0001			59.000			#	0.3	-
	mg/L	T03-09	BH	08/27/2015	0001			48.000			#	0.03	-
	mg/L	T06-01	BH	08/25/2015	0001			35.000			#	0.3	-
	mg/L	T06-01	BH	08/25/2015	0002			37.000			#	0.03	-
	mg/L	T06-01-01	BH	08/25/2015	0001			34.000			#	0.03	-
	mg/L	T06-01-02	BH	08/25/2015	0001			34.000			#	0.03	-
	mg/L	T06-01-03	BH	08/25/2015	0001			27.000			#	0.03	-
	mg/L	T06-01-04	BH	08/26/2015	0001			29.000			#	0.03	-
	mg/L	T10-01	BH	08/26/2015	0001			36.000			#	0.03	-
	mg/L	T10-02	BH	08/26/2015	0001			22.000			#	0.03	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/L	T10-03	BH	08/26/2015	0001			25.000			#	0.03	-
Manganese	mg/L	0405	WL	09/17/2015	N001	NR	N	0.0044	J		#	0.00024	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.0034	J		#	0.00024	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.0035	J		#	0.00024	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.00084	J		#	0.00024	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	0.099		FQ	#	0.00024	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	1.100		F	#	0.00024	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.027		F	#	0.00024	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.230		F	#	0.00024	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.180		F	#	0.00024	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.410		F	#	0.00024	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.100		FQ	#	0.00024	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	0.00024	U	F	#	0.00024	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.003	J	F	#	0.00024	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.0025	J	F	#	0.00024	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.390		F	#	0.00024	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.410		F	#	0.0024	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.0052		F	#	0.00024	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	0.092		FQ	#	0.00024	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	1.200		F	#	0.00024	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	1.000		F	#	0.00024	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0.250		F	#	0.00024	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	0.870		F	#	0.00024	-
	mg/L	0824	WL	09/18/2015	N001	SF		0.00086	J	F	#	0.00024	-
	mg/L	0826	WL	09/16/2015	N001	SF		1.600		F	#	0.00024	-
	mg/L	0828	WL	09/14/2015	N001		O	0.0023	J		#	0.00024	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/L	0841	WL	09/17/2015	N001			0.100			#	0.00024	-
	mg/L	0842	WL	09/17/2015	N001			0.058			#	0.00024	-
	mg/L	0844	BH	08/26/2015	0001			1.200			#	0.00024	-
	mg/L	0852-3	WL	09/15/2015	N001			0.680		F	#	0.00024	-
	mg/L	0852-4	WL	09/15/2015	N001			0.640		F	#	0.00024	-
	mg/L	0853-2	WL	09/16/2015	N001			5.100		F	#	0.00024	-
	mg/L	0853-3	WL	09/16/2015	N001			3.800		F	#	0.00024	-
	mg/L	0853-4	WL	09/16/2015	N001			3.800		F	#	0.00024	-
	mg/L	0854-2	WL	09/16/2015	N001			3.000		F	#	0.0012	-
	mg/L	0854-3	WL	09/16/2015	N001			1.600		F	#	0.00024	-
	mg/L	0854-4	WL	09/17/2015	N001			3.100		F	#	0.00024	-
	mg/L	0855-2	WL	09/16/2015	N001			3.100		F	#	0.00024	-
	mg/L	0855-3	WL	09/16/2015	N001			1.300		F	#	0.00024	-
	mg/L	0855-4	WL	09/16/2015	N001			4.300		F	#	0.00024	-
	mg/L	0856-2	WL	09/17/2015	N001			5.500		F	#	0.0012	-
	mg/L	0856-3	WL	09/17/2015	N001			1.300		F	#	0.0012	-
	mg/L	0856-4	WL	09/17/2015	N001			1.900		F	#	0.0012	-
	mg/L	0857-3	WL	09/16/2015	N001			2.500		F	#	0.0012	-
	mg/L	0857-4	WL	09/16/2015	N001			4.000		F	#	0.0012	-
	mg/L	0858-2	WL	09/15/2015	N001			5.900		F	#	0.0012	-
	mg/L	0858-3	WL	09/15/2015	N001			1.500		F	#	0.0012	-
	mg/L	0858-4	WL	09/15/2015	N001			1.600		F	#	0.0012	-
	mg/L	0858-4	WL	09/15/2015	N002			1.500		F	#	0.00024	-
	mg/L	0859-2	WL	09/17/2015	N001			1.400		F	#	0.0012	-
	mg/L	0859-3	WL	09/17/2015	N001			1.700		F	#	0.0012	-
	mg/L	0859-4	WL	09/17/2015	N001			4.500		F	#	0.0012	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/L	0860-2	WL	09/17/2015	N001			8.800		F	#	0.00024	-
	mg/L	0860-3	WL	09/17/2015	N001			3.100		F	#	0.00024	-
	mg/L	0860-3	WL	09/17/2015	N002			3.200		F	#	0.00024	-
	mg/L	0860-4	WL	09/17/2015	N001			1.600		F	#	0.00024	-
	mg/L	0866	WL	09/15/2015	N001			1.600		F	#	0.0012	-
	mg/L	0867	WL	09/15/2015	N001			4.300		F	#	0.0012	-
	mg/L	0868	WL	09/15/2015	N001			2.500		F	#	0.0012	-
	mg/L	0869	WL	09/15/2015	N001			2.200		F	#	0.0012	-
	mg/L	0870	WL	09/15/2015	N001			1.500		F	#	0.0012	-
	mg/L	0871	WL	09/15/2015	N001			2.100		F	#	0.0012	-
	mg/L	0872	WL	09/15/2015	N001			2.400		F	#	0.0012	-
	mg/L	0872	WL	09/15/2015	N002			2.400		F	#	0.0012	-
	mg/L	0873	WL	09/15/2015	N001			1.800		F	#	0.0012	-
	mg/L	0874	WL	09/15/2015	N001			2.500		F	#	0.0012	-
	mg/L	0875	WL	09/15/2015	N001			3.600		F	#	0.0012	-
	mg/L	0876	WL	09/17/2015	N001			0.00077	J		#	0.00024	-
	mg/L	0878	WL	09/17/2015	N001			0.0035	J		#	0.00024	-
	mg/L	T03-03	BH	08/27/2015	0001			0.400			#	0.00024	-
	mg/L	T03-04	BH	08/27/2015	0001			2.000			#	0.00024	-
	mg/L	T03-05	BH	08/27/2015	0001			3.600			#	0.0024	-
	mg/L	T03-06	BH	08/27/2015	0001			1.700			#	0.0024	-
	mg/L	T03-07	BH	08/27/2015	0001			2.200			#	0.0024	-
	mg/L	T03-08	BH	08/27/2015	0001			0.790			#	0.0024	-
	mg/L	T03-09	BH	08/27/2015	0001			0.380			#	0.00024	-
	mg/L	T06-01	BH	08/25/2015	0001			0.710			#	0.0024	-
	mg/L	T06-01	BH	08/25/2015	0002			0.690			#	0.00024	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/L	T06-01-01	BH	08/25/2015	0001			0.700			#	0.00024	-
	mg/L	T06-01-02	BH	08/25/2015	0001			0.630			#	0.00024	-
	mg/L	T06-01-03	BH	08/25/2015	0001			0.500			#	0.00024	-
	mg/L	T06-01-04	BH	08/26/2015	0001			0.600			#	0.00024	-
	mg/L	T10-01	BH	08/26/2015	0001			1.100			#	0.00024	-
	mg/L	T10-02	BH	08/26/2015	0001			1.200			#	0.00024	-
	mg/L	T10-03	BH	08/26/2015	0001			1.700			#	0.00024	-
Molybdenum	mg/L	0405	WL	09/17/2015	N001	NR	N	0.0032			#	0.00032	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.0021			#	0.00032	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.0034			#	0.00032	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.0025			#	0.00032	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	0.0025		FQ	#	0.00032	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	0.960		F	#	0.00032	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.0025		F	#	0.00032	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.130		F	#	0.00032	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.0096		F	#	0.00032	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.073		F	#	0.00032	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.010		FQ	#	0.00032	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	0.00084	J	F	#	0.00032	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.0024		F	#	0.00032	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.110		F	#	0.00032	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.00032	U	F	#	0.00032	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.0038		F	#	0.00032	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.0039		F	#	0.00032	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	0.0043		FQ	#	0.00032	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	0.029		F	#	0.00032	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/L	0784	WL	09/17/2015	N001	SF	U	0.021		F	#	0.00032	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0.020		F	#	0.00032	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	0.570		F	#	0.00032	-
	mg/L	0824	WL	09/18/2015	N001	SF		0.0036		F	#	0.00032	-
	mg/L	0826	WL	09/16/2015	N001	SF		0.018		F	#	0.00032	-
	mg/L	0828	WL	09/14/2015	N001		O	0.0029			#	0.00032	-
	mg/L	0841	WL	09/17/2015	N001			0.003			#	0.00032	-
	mg/L	0842	WL	09/17/2015	N001			0.0022			#	0.00032	-
	mg/L	0844	BH	08/26/2015	0001			0.0042			#	0.00032	-
	mg/L	0852-3	WL	09/15/2015	N001			0.0089		F	#	0.00032	-
	mg/L	0852-4	WL	09/15/2015	N001			0.011		F	#	0.00032	-
	mg/L	0853-2	WL	09/16/2015	N001			0.046		F	#	0.00032	-
	mg/L	0853-3	WL	09/16/2015	N001			0.029		F	#	0.00032	-
	mg/L	0853-4	WL	09/16/2015	N001			0.026		F	#	0.00032	-
	mg/L	0854-2	WL	09/16/2015	N001			0.035		F	#	0.00032	-
	mg/L	0854-3	WL	09/16/2015	N001			0.030		F	#	0.00032	-
	mg/L	0854-4	WL	09/17/2015	N001			0.038		F	#	0.00032	-
	mg/L	0855-2	WL	09/16/2015	N001			0.340		F	#	0.00032	-
	mg/L	0855-3	WL	09/16/2015	N001			0.320		F	#	0.00032	-
	mg/L	0855-4	WL	09/16/2015	N001			0.250		F	#	0.00032	-
	mg/L	0856-2	WL	09/17/2015	N001			0.290		F	#	0.00032	-
	mg/L	0856-3	WL	09/17/2015	N001			0.340		F	#	0.00032	-
	mg/L	0856-4	WL	09/17/2015	N001			0.300		F	#	0.00032	-
	mg/L	0857-3	WL	09/16/2015	N001			0.600		F	#	0.0016	-
	mg/L	0857-4	WL	09/16/2015	N001			0.550		F	#	0.0016	-
	mg/L	0858-2	WL	09/15/2015	N001			0.900		F	#	0.00032	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/L	0858-3	WL	09/15/2015	N001			0.850		F	#	0.00032	-
	mg/L	0858-4	WL	09/15/2015	N001			0.790		F	#	0.00032	-
	mg/L	0858-4	WL	09/15/2015	N002			0.730		F	#	0.00032	-
	mg/L	0859-2	WL	09/17/2015	N001			0.066		F	#	0.00032	-
	mg/L	0859-3	WL	09/17/2015	N001			0.088		F	#	0.00032	-
	mg/L	0859-4	WL	09/17/2015	N001			0.072		F	#	0.00032	-
	mg/L	0860-2	WL	09/17/2015	N001			0.200		F	#	0.00032	-
	mg/L	0860-3	WL	09/17/2015	N001			0.270		F	#	0.00032	-
	mg/L	0860-3	WL	09/17/2015	N002			0.270		F	#	0.00032	-
	mg/L	0860-4	WL	09/17/2015	N001			0.290		F	#	0.00032	-
	mg/L	0866	WL	09/15/2015	N001			0.860		F	#	0.00032	-
	mg/L	0867	WL	09/15/2015	N001			0.640		F	#	0.00032	-
	mg/L	0868	WL	09/15/2015	N001			0.550		F	#	0.0016	-
	mg/L	0869	WL	09/15/2015	N001			0.430		F	#	0.0016	-
	mg/L	0870	WL	09/15/2015	N001			0.310		F	#	0.0016	-
	mg/L	0871	WL	09/15/2015	N001			0.190		F	#	0.00032	-
	mg/L	0872	WL	09/15/2015	N001			0.170		F	#	0.00032	-
	mg/L	0872	WL	09/15/2015	N002			0.170		F	#	0.00032	-
	mg/L	0873	WL	09/15/2015	N001			0.160		F	#	0.00032	-
	mg/L	0874	WL	09/15/2015	N001			0.058		F	#	0.00032	-
	mg/L	0875	WL	09/15/2015	N001			0.053		F	#	0.00032	-
	mg/L	0876	WL	09/17/2015	N001			0.0049			#	0.00032	-
	mg/L	0878	WL	09/17/2015	N001			0.002			#	0.00032	-
	mg/L	T03-03	BH	08/27/2015	0001			0.0087			#	0.00032	-
	mg/L	T03-04	BH	08/27/2015	0001			0.011			#	0.00032	-
	mg/L	T03-05	BH	08/27/2015	0001			0.025			#	0.00032	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/L	T03-06	BH	08/27/2015	0001			0.018			#	0.00032	-
	mg/L	T03-07	BH	08/27/2015	0001			0.055			#	0.00032	-
	mg/L	T03-08	BH	08/27/2015	0001			0.320			#	0.00032	-
	mg/L	T03-09	BH	08/27/2015	0001			0.980			#	0.00032	-
	mg/L	T06-01	BH	08/25/2015	0001			0.014		J	#	0.00032	-
	mg/L	T06-01	BH	08/25/2015	0002			0.011		J	#	0.00032	-
	mg/L	T06-01-01	BH	08/25/2015	0001			0.012			#	0.00032	-
	mg/L	T06-01-02	BH	08/25/2015	0001			0.018			#	0.00032	-
	mg/L	T06-01-03	BH	08/25/2015	0001			0.012			#	0.00032	-
	mg/L	T06-01-04	BH	08/26/2015	0001			0.013			#	0.00032	-
	mg/L	T10-01	BH	08/26/2015	0001			0.0095			#	0.00032	-
	mg/L	T10-02	BH	08/26/2015	0001			0.0081			#	0.00032	-
	mg/L	T10-03	BH	08/26/2015	0001			0.009			#	0.00032	-
Nitrate + Nitrite as Nitrogen	mg/L	0705	WL	09/15/2015	N001	SE	D	0.01	U	FQ	#	0.01	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	0.044		F	#	0.01	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.44		F	#	0.01	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.01	U	F	#	0.01	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.023		F	#	0.01	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.4		F	#	0.01	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.01	U	FQ	#	0.01	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	1.2		F	#	0.01	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.01	U	F	#	0.01	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.75		F	#	0.01	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.01	U	F	#	0.01	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.01	U	F	#	0.01	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	1.4		F	#	0.05	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Nitrate + Nitrite as Nitrogen	mg/L	0730	WL	09/16/2015	N001	SE	D	0.01	U	FQ	#	0.01	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	0.01	U	F	#	0.01	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	0.01	U	F	#	0.01	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0.01	U	F	#	0.01	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	0.013		F	#	0.01	-
	mg/L	0824	WL	09/18/2015	N001	SF		0.67		F	#	0.01	-
	mg/L	0826	WL	09/16/2015	N001	SF		0.01	U	F	#	0.01	-
	mg/L	0852-3	WL	09/15/2015	N001			2.1		F	#	0.05	-
	mg/L	0852-4	WL	09/15/2015	N001			2.5		F	#	0.05	-
	mg/L	0853-2	WL	09/16/2015	N001			0.012		F	#	0.01	-
	mg/L	0853-3	WL	09/16/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0853-4	WL	09/16/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0854-2	WL	09/16/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0854-3	WL	09/16/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0854-4	WL	09/17/2015	N001			0.012		F	#	0.01	-
	mg/L	0855-2	WL	09/16/2015	N001			0.034		F	#	0.01	-
	mg/L	0855-3	WL	09/16/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0855-4	WL	09/16/2015	N001			0.022		F	#	0.01	-
	mg/L	0856-2	WL	09/17/2015	N001			0.018		F	#	0.01	-
	mg/L	0856-3	WL	09/17/2015	N001			0.014		F	#	0.01	-
	mg/L	0856-4	WL	09/17/2015	N001			0.01		F	#	0.01	-
	mg/L	0857-3	WL	09/16/2015	N001			0.012		F	#	0.01	-
	mg/L	0857-4	WL	09/16/2015	N001			0.012		F	#	0.01	-
	mg/L	0858-2	WL	09/15/2015	N001			0.011		F	#	0.01	-
	mg/L	0858-3	WL	09/15/2015	N001			0.015		F	#	0.01	-
	mg/L	0858-4	WL	09/15/2015	N001			0.01	U	F	#	0.01	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Nitrate + Nitrite as Nitrogen	mg/L	0858-4	WL	09/15/2015	N002			0.01	U	F	#	0.01	-
	mg/L	0859-2	WL	09/17/2015	N001			0.012		F	#	0.01	-
	mg/L	0859-3	WL	09/17/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0859-4	WL	09/17/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0860-2	WL	09/17/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0860-3	WL	09/17/2015	N001			0.012		F	#	0.01	-
	mg/L	0860-3	WL	09/17/2015	N002			0.015		F	#	0.01	-
	mg/L	0860-4	WL	09/17/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0866	WL	09/15/2015	N001			0.012		F	#	0.01	-
	mg/L	0867	WL	09/15/2015	N001			0.014		F	#	0.01	-
	mg/L	0868	WL	09/15/2015	N001			0.01		F	#	0.01	-
	mg/L	0869	WL	09/15/2015	N001			0.013		F	#	0.01	-
	mg/L	0870	WL	09/15/2015	N001			0.011		F	#	0.01	-
	mg/L	0871	WL	09/15/2015	N001			0.01		F	#	0.01	-
	mg/L	0872	WL	09/15/2015	N001			0.011		F	#	0.01	-
	mg/L	0872	WL	09/15/2015	N002			0.012		F	#	0.01	-
	mg/L	0873	WL	09/15/2015	N001			0.013		F	#	0.01	-
	mg/L	0874	WL	09/15/2015	N001			0.01	U	F	#	0.01	-
	mg/L	0875	WL	09/15/2015	N001			0.01	U	F	#	0.01	-
Nitrite	mg/L	0707	WL	09/15/2015	N001	SF	D	0.01		F	#	-	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.009		F	#	-	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.017		F	#	-	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.008		F	#	-	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.005		F	#	-	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.1		FQ	#	-	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	0.008		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Nitrite	mg/L	0721	WL	09/16/2015	N001	SE	C	0		F	#	-	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.016		F	#	-	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.017		F	#	-	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.002		F	#	-	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.003		F	#	-	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	0.011		FQ	#	-	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	0.008		F	#	-	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	0.006		F	#	-	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0.036		F	#	-	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	0.02		F	#	-	-
	mg/L	0826	WL	09/16/2015	N001	SF		0.026		F	#	-	-
	mg/L	0852-3	WL	09/15/2015	N001			0.019		F	#	-	-
	mg/L	0852-4	WL	09/15/2015	N001			0.86		F	#	-	-
	mg/L	0853-2	WL	09/16/2015	N001			0.022		F	#	-	-
	mg/L	0853-3	WL	09/16/2015	N001			0.04		F	#	-	-
	mg/L	0853-4	WL	09/16/2015	N001			0.061		F	#	-	-
	mg/L	0854-2	WL	09/16/2015	N001			0.027		F	#	-	-
	mg/L	0854-3	WL	09/16/2015	N001			0.001		F	#	-	-
	mg/L	0854-4	WL	09/17/2015	N001			0.025		F	#	-	-
	mg/L	0855-2	WL	09/16/2015	N001			0.1		F	#	-	-
	mg/L	0855-3	WL	09/16/2015	N001			0.017		F	#	-	-
	mg/L	0855-4	WL	09/16/2015	N001			0.2		F	#	-	-
	mg/L	0856-2	WL	09/17/2015	N001			0.032		F	#	-	-
	mg/L	0856-3	WL	09/17/2015	N001			0.041		F	#	-	-
	mg/L	0856-4	WL	09/17/2015	N001			0.093		F	#	-	-
	mg/L	0857-3	WL	09/16/2015	N001			0.024		F	#	-	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Nitrite	mg/L	0857-4	WL	09/16/2015	N001			0.061		F	#	-	-
	mg/L	0858-2	WL	09/15/2015	N001			0.01		F	#	-	-
	mg/L	0858-3	WL	09/15/2015	N001			0.002		F	#	-	-
	mg/L	0858-4	WL	09/15/2015	N001			0.012		F	#	-	-
	mg/L	0859-2	WL	09/17/2015	N001			0.013		F	#	-	-
	mg/L	0859-3	WL	09/17/2015	N001			0.006		F	#	-	-
	mg/L	0859-4	WL	09/17/2015	N001			0.009		F	#	-	-
	mg/L	0860-2	WL	09/17/2015	N001			0.004		F	#	-	-
	mg/L	0860-3	WL	09/17/2015	N001			0.018		F	#	-	-
	mg/L	0860-4	WL	09/17/2015	N001			0.001		F	#	-	-
	mg/L	0866	WL	09/15/2015	N001			0.036		F	#	-	-
	mg/L	0867	WL	09/15/2015	N001			0.037		F	#	-	-
	mg/L	0868	WL	09/15/2015	N001			0.029		F	#	-	-
	mg/L	0869	WL	09/15/2015	N001			0.07		F	#	-	-
	mg/L	0870	WL	09/15/2015	N001			0.118		F	#	-	-
	mg/L	0871	WL	09/15/2015	N001			0.155		F	#	-	-
	mg/L	0872	WL	09/15/2015	N001			0.16		F	#	-	-
	mg/L	0873	WL	09/15/2015	N001			0.11		F	#	-	-
	mg/L	0874	WL	09/15/2015	N001			0.075		F	#	-	-
	mg/L	0875	WL	09/15/2015	N001			0.038		F	#	-	-
Oxidation Reduction Potential	mV	0405	WL	09/17/2015	N001	NR	N	155.5			#	-	-
	mV	0430	WL	09/17/2015	N001	NR	N	72.2		J	#	-	-
	mV	0436	WL	09/14/2015	N001	NR	N	172.2			#	-	-
	mV	0460	WL	09/17/2015	N001	NR	N	-5.1			#	-	-
	mV	0705	WL	09/15/2015	N001	SE	D	19.6		FQ	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Oxidation Reduction Potential	mV	0707	WL	09/15/2015	N001	SF	D	74.7		F	#	-	-
	mV	0710	WL	09/17/2015	N001	SF	U	108.7		FJ	#	-	-
	mV	0716	WL	09/17/2015	N001	SF	O	-31.2		F	#	-	-
	mV	0717	WL	09/17/2015	N001	SE	O	-41.7		F	#	-	-
	mV	0718	WL	09/16/2015	N001	SF	D	139.3		F	#	-	-
	mV	0719	WL	09/16/2015	N001	SE	D	-53.4		FQ	#	-	-
	mV	0720	WL	09/16/2015	N001	SF	C	78.0		F	#	-	-
	mV	0721	WL	09/16/2015	N001	SE	C	72.3		F	#	-	-
	mV	0722R	WL	09/17/2015	N001	SF		9.5		F	#	-	-
	mV	0723	WL	09/17/2015	N001	SE	D	-28.8		F	#	-	-
	mV	0727	WL	09/17/2015	N001	SE	U	2.3		F	#	-	-
	mV	0729	WL	09/16/2015	N001	SF	D	67.4		F	#	-	-
	mV	0730	WL	09/16/2015	N001	SE	D	53.8		FQ	#	-	-
	mV	0732	WL	09/17/2015	N001	SE	U	34.4		F	#	-	-
	mV	0784	WL	09/17/2015	N001	SF	U	5.0		F	#	-	-
	mV	0788	WL	09/16/2015	N001	SF	C	43.8		F	#	-	-
	mV	0789	WL	09/15/2015	N001	SF	D	70.5		F	#	-	-
	mV	0824	WL	09/18/2015	N001	SF		132.5		F	#	-	-
	mV	0826	WL	09/16/2015	N001	SF		14.6		F	#	-	-
	mV	0828	WL	09/14/2015	N001		O	175.8			#	-	-
	mV	0841	WL	09/17/2015	N001			129.2			#	-	-
	mV	0842	WL	09/17/2015	N001			37.6			#	-	-
	mV	0844	BH	08/26/2015	N001			-72.1			#	-	-
	mV	0852-3	WL	09/15/2015	N001			33.1		F	#	-	-
	mV	0852-4	WL	09/15/2015	N001			62.1		F	#	-	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Oxidation Reduction Potential	mV	0853-2	WL	09/16/2015	N001			-84.5		F	#	-	-
	mV	0853-3	WL	09/16/2015	N001			-49.9		F	#	-	-
	mV	0853-4	WL	09/16/2015	N001			-174.9		F	#	-	-
	mV	0854-2	WL	09/16/2015	N001			-79.4		F	#	-	-
	mV	0854-3	WL	09/16/2015	N001			-41.2		F	#	-	-
	mV	0854-4	WL	09/17/2015	N001			-109.2		F	#	-	-
	mV	0855-2	WL	09/16/2015	N001			-34.9		F	#	-	-
	mV	0855-3	WL	09/16/2015	N001			28.7		F	#	-	-
	mV	0855-4	WL	09/16/2015	N001			-30.8		F	#	-	-
	mV	0856-2	WL	09/17/2015	N001			-36.1		F	#	-	-
	mV	0856-3	WL	09/17/2015	N001			-12.0		F	#	-	-
	mV	0856-4	WL	09/17/2015	N001			-61.8		F	#	-	-
	mV	0857-3	WL	09/16/2015	N001			-65.2		F	#	-	-
	mV	0857-4	WL	09/16/2015	N001			-91.5		F	#	-	-
	mV	0858-2	WL	09/15/2015	N001			-33.9		F	#	-	-
	mV	0858-3	WL	09/15/2015	N001			-63.0		F	#	-	-
	mV	0858-4	WL	09/15/2015	N001			-51.8		F	#	-	-
	mV	0859-2	WL	09/17/2015	N001			22.9		F	#	-	-
	mV	0859-3	WL	09/17/2015	N001			-9.0		F	#	-	-
	mV	0859-4	WL	09/17/2015	N001			-26.5		F	#	-	-
	mV	0860-2	WL	09/17/2015	N001			-68.6		F	#	-	-
	mV	0860-3	WL	09/17/2015	N001			-45.5		F	#	-	-
	mV	0860-4	WL	09/17/2015	N001			-32.0		F	#	-	-
	mV	0866	WL	09/15/2015	N001			-46.1		F	#	-	-
	mV	0867	WL	09/15/2015	N001			-119.6		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Oxidation Reduction Potential	mV	0868	WL	09/15/2015	N001			-39.3		F	#	-	-
	mV	0869	WL	09/15/2015	N001			-6.0		F	#	-	-
	mV	0870	WL	09/15/2015	N001			-93.8		F	#	-	-
	mV	0871	WL	09/15/2015	N001			16.4		F	#	-	-
	mV	0872	WL	09/15/2015	N001			-78.8		F	#	-	-
	mV	0873	WL	09/15/2015	N001			-64.5		F	#	-	-
	mV	0874	WL	09/15/2015	N001			-54.5		F	#	-	-
	mV	0875	WL	09/15/2015	N001			-62.1		F	#	-	-
	mV	0876	WL	09/17/2015	N001			68.6			#	-	-
	mV	0878	WL	09/17/2015	N001			140.1			#	-	-
	mV	T03-03	BH	08/27/2015	N001			-47.6			#	-	-
	mV	T03-04	BH	08/27/2015	N001			-84.0			#	-	-
	mV	T03-05	BH	08/27/2015	N001			-44.5			#	-	-
	mV	T03-06	BH	08/27/2015	N001			-54.8			#	-	-
	mV	T03-07	BH	08/27/2015	N001			-62.5			#	-	-
	mV	T03-08	BH	08/27/2015	N001			-22.0			#	-	-
	mV	T03-09	BH	08/27/2015	N001			-41.6			#	-	-
	mV	T06-01	BH	08/25/2015	N001			-74			#	-	-
	mV	T06-01-01	BH	08/25/2015	N001			-106.5			#	-	-
	mV	T06-01-02	BH	08/25/2015	N001			-110			#	-	-
	mV	T06-01-03	BH	08/25/2015	N001			-138			#	-	-
	mV	T06-01-04	BH	08/26/2015	N001			-127.9			#	-	-
	mV	T10-01	BH	08/26/2015	N001			-70.2			#	-	-
	mV	T10-02	BH	08/26/2015	N001			-96.7			#	-	-
	mV	T10-03	BH	08/26/2015	N001			-28.3			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	0405	WL	09/17/2015	N001	NR	N	8.92			#	-	-
	s.u.	0430	WL	09/17/2015	N001	NR	N	8.83			#	-	-
	s.u.	0436	WL	09/14/2015	N001	NR	N	8.54			#	-	-
	s.u.	0460	WL	09/17/2015	N001	NR	N	8.94			#	-	-
	s.u.	0705	WL	09/15/2015	N001	SE	D	8.47		FQ	#	-	-
	s.u.	0707	WL	09/15/2015	N001	SF	D	7.07		F	#	-	-
	s.u.	0710	WL	09/17/2015	N001	SF	U	7.51		F	#	-	-
	s.u.	0716	WL	09/17/2015	N001	SF	O	7.22		F	#	-	-
	s.u.	0717	WL	09/17/2015	N001	SE	O	7.84		F	#	-	-
	s.u.	0718	WL	09/16/2015	N001	SF	D	7.14		F	#	-	-
	s.u.	0719	WL	09/16/2015	N001	SE	D	7.88		FQ	#	-	-
	s.u.	0720	WL	09/16/2015	N001	SF	C	7.30		F	#	-	-
	s.u.	0721	WL	09/16/2015	N001	SE	C	8.86		F	#	-	-
	s.u.	0722R	WL	09/17/2015	N001	SF		7.00		F	#	-	-
	s.u.	0723	WL	09/17/2015	N001	SE	D	7.20		F	#	-	-
	s.u.	0727	WL	09/17/2015	N001	SE	U	7.82		F	#	-	-
	s.u.	0729	WL	09/16/2015	N001	SF	D	7.29		F	#	-	-
	s.u.	0730	WL	09/16/2015	N001	SE	D	7.53		FQ	#	-	-
	s.u.	0732	WL	09/17/2015	N001	SE	U	7.22		F	#	-	-
	s.u.	0784	WL	09/17/2015	N001	SF	U	7.29		F	#	-	-
	s.u.	0788	WL	09/16/2015	N001	SF	C	7.24		F	#	-	-
	s.u.	0789	WL	09/15/2015	N001	SF	D	7.16		F	#	-	-
	s.u.	0824	WL	09/18/2015	N001	SF		7.29		F	#	-	-
	s.u.	0826	WL	09/16/2015	N001	SF		7.19		F	#	-	-
	s.u.	0828	WL	09/14/2015	N001		O	8.7			#	-	-
	s.u.	0841	WL	09/17/2015	N001			7.59			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	0842	WL	09/17/2015	N001			7.95			#	-	-
	s.u.	0844	BH	08/26/2015	N001			7.41			#	-	-
	s.u.	0852-3	WL	09/15/2015	N001			7.76		F	#	-	-
	s.u.	0852-4	WL	09/15/2015	N001			7.76		F	#	-	-
	s.u.	0853-2	WL	09/16/2015	N001			7.26		F	#	-	-
	s.u.	0853-3	WL	09/16/2015	N001			7.23		F	#	-	-
	s.u.	0853-4	WL	09/16/2015	N001			7.38		F	#	-	-
	s.u.	0854-2	WL	09/16/2015	N001			7.07		F	#	-	-
	s.u.	0854-3	WL	09/16/2015	N001			7.18		F	#	-	-
	s.u.	0854-4	WL	09/17/2015	N001			7.26		F	#	-	-
	s.u.	0855-2	WL	09/16/2015	N001			7.18		F	#	-	-
	s.u.	0855-3	WL	09/16/2015	N001			7.15		F	#	-	-
	s.u.	0855-4	WL	09/16/2015	N001			7.12		F	#	-	-
	s.u.	0856-2	WL	09/17/2015	N001			7.23		F	#	-	-
	s.u.	0856-3	WL	09/17/2015	N001			7.11		F	#	-	-
	s.u.	0856-4	WL	09/17/2015	N001			7.14		F	#	-	-
	s.u.	0857-3	WL	09/16/2015	N001			7.05		F	#	-	-
	s.u.	0857-4	WL	09/16/2015	N001			7.14		F	#	-	-
	s.u.	0858-2	WL	09/15/2015	N001			7.22		F	#	-	-
	s.u.	0858-3	WL	09/15/2015	N001			7.18		F	#	-	-
	s.u.	0858-4	WL	09/15/2015	N001			7.13		F	#	-	-
	s.u.	0859-2	WL	09/17/2015	N001			7.06		F	#	-	-
	s.u.	0859-3	WL	09/17/2015	N001			6.88		F	#	-	-
	s.u.	0859-4	WL	09/17/2015	N001			6.91		F	#	-	-
	s.u.	0860-2	WL	09/17/2015	N001			6.99		F	#	-	-
	s.u.	0860-3	WL	09/17/2015	N001			7.09		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	0860-4	WL	09/17/2015	N001			7.04		F	#	-	-
	s.u.	0866	WL	09/15/2015	N001			7.10		F	#	-	-
	s.u.	0867	WL	09/15/2015	N001			7.28		F	#	-	-
	s.u.	0868	WL	09/15/2015	N001			7.25		F	#	-	-
	s.u.	0869	WL	09/15/2015	N001			7.18		F	#	-	-
	s.u.	0870	WL	09/15/2015	N001			7.13		F	#	-	-
	s.u.	0871	WL	09/15/2015	N001			7.08		F	#	-	-
	s.u.	0872	WL	09/15/2015	N001			7.11		F	#	-	-
	s.u.	0873	WL	09/15/2015	N001			7.11		F	#	-	-
	s.u.	0874	WL	09/15/2015	N001			7.06		F	#	-	-
	s.u.	0875	WL	09/15/2015	N001			7.12		F	#	-	-
	s.u.	0876	WL	09/17/2015	N001			9.63			#	-	-
	s.u.	0878	WL	09/17/2015	N001			8.95			#	-	-
	s.u.	T03-03	BH	08/27/2015	N001			7.12			#	-	-
	s.u.	T03-04	BH	08/27/2015	N001			7.18			#	-	-
	s.u.	T03-05	BH	08/27/2015	N001			7.18			#	-	-
	s.u.	T03-06	BH	08/27/2015	N001			7.17			#	-	-
	s.u.	T03-07	BH	08/27/2015	N001			7.10			#	-	-
	s.u.	T03-08	BH	08/27/2015	N001			6.85			#	-	-
	s.u.	T03-09	BH	08/27/2015	N001			7.07			#	-	-
	s.u.	T06-01	BH	08/25/2015	N001			7.68			#	-	-
	s.u.	T06-01-01	BH	08/25/2015	N001			7.58			#	-	-
	s.u.	T06-01-02	BH	08/25/2015	N001			7.68			#	-	-
	s.u.	T06-01-03	BH	08/25/2015	N001			7.81			#	-	-
	s.u.	T06-01-04	BH	08/26/2015	N001			7.88			#	-	-
	s.u.	T10-01	BH	08/26/2015	N001			7.34			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	T10-02	BH	08/26/2015	N001			7.39			#	-	-
	s.u.	T10-03	BH	08/26/2015	N001			7.53			#	-	-
Potassium	mg/L	0405	WL	09/17/2015	N001	NR	N	0.420	J		#	0.052	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.350	J		#	0.052	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.410	J		#	0.052	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.360	J		#	0.052	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	0.600	J	FQ	#	0.052	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	14.000		F	#	0.052	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	2.200		F	#	0.052	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	5.500		F	#	0.052	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.990	J	F	#	0.052	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	13.000		F	#	0.052	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	1.200		FQ	#	0.052	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	2.900		F	#	0.052	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.330	J	F	#	0.052	-
	mg/L	0722R	WL	09/17/2015	N001	SF		8.900		F	#	0.052	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	1.900		F	#	0.052	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.520	U	F	#	0.52	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	7.400		F	#	0.052	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	2.500		FQ	#	0.052	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	2.200		F	#	0.052	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	5.800		F	#	0.052	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	7.700		F	#	0.052	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	17.000		F	#	0.052	-
	mg/L	0824	WL	09/18/2015	N001	SF		6.700		F	#	0.052	-
	mg/L	0826	WL	09/16/2015	N001	SF		7.700		F	#	0.052	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/L	0828	WL	09/14/2015	N001		O	0.420	J		#	0.052	-
	mg/L	0841	WL	09/17/2015	N001			2.400			#	0.052	-
	mg/L	0842	WL	09/17/2015	N001			0.650	J		#	0.052	-
	mg/L	0844	BH	08/26/2015	0001			2.900			#	0.052	-
	mg/L	0852-3	WL	09/15/2015	N001			4.500		F	#	0.052	-
	mg/L	0852-4	WL	09/15/2015	N001			4.400		F	#	0.052	-
	mg/L	0853-2	WL	09/16/2015	N001			8.200		F	#	0.052	-
	mg/L	0853-3	WL	09/16/2015	N001			8.900		F	#	0.052	-
	mg/L	0853-4	WL	09/16/2015	N001			8.100		F	#	0.052	-
	mg/L	0854-2	WL	09/16/2015	N001			13.000		F	#	0.26	-
	mg/L	0854-3	WL	09/16/2015	N001			9.800		F	#	0.052	-
	mg/L	0854-4	WL	09/17/2015	N001			11.000		F	#	0.052	-
	mg/L	0855-2	WL	09/16/2015	N001			20.000		F	#	0.052	-
	mg/L	0855-3	WL	09/16/2015	N001			18.000		F	#	0.052	-
	mg/L	0855-4	WL	09/16/2015	N001			15.000		F	#	0.052	-
	mg/L	0856-2	WL	09/17/2015	N001			21.000		F	#	0.26	-
	mg/L	0856-3	WL	09/17/2015	N001			16.000		F	#	0.26	-
	mg/L	0856-4	WL	09/17/2015	N001			15.000		F	#	0.26	-
	mg/L	0857-3	WL	09/16/2015	N001			21.000		F	#	0.26	-
	mg/L	0857-4	WL	09/16/2015	N001			21.000		F	#	0.26	-
	mg/L	0858-2	WL	09/15/2015	N001			14.000		F	#	0.26	-
	mg/L	0858-3	WL	09/15/2015	N001			13.000		F	#	0.26	-
	mg/L	0858-4	WL	09/15/2015	N001			13.000		F	#	0.26	-
	mg/L	0858-4	WL	09/15/2015	N002			13.000		F	#	0.052	-
	mg/L	0859-2	WL	09/17/2015	N001			9.000		F	#	0.26	-
	mg/L	0859-3	WL	09/17/2015	N001			10.000		F	#	0.26	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/L	0859-4	WL	09/17/2015	N001			11.000		F	#	0.26	-
	mg/L	0860-2	WL	09/17/2015	N001			16.000		F	#	0.052	-
	mg/L	0860-3	WL	09/17/2015	N001			13.000		F	#	0.052	-
	mg/L	0860-3	WL	09/17/2015	N002			13.000		F	#	0.052	-
	mg/L	0860-4	WL	09/17/2015	N001			12.000		F	#	0.052	-
	mg/L	0866	WL	09/15/2015	N001			13.000		F	#	0.26	-
	mg/L	0867	WL	09/15/2015	N001			15.000		F	#	0.26	-
	mg/L	0868	WL	09/15/2015	N001			16.000		F	#	0.26	-
	mg/L	0869	WL	09/15/2015	N001			19.000		F	#	0.26	-
	mg/L	0870	WL	09/15/2015	N001			19.000		F	#	0.26	-
	mg/L	0871	WL	09/15/2015	N001			18.000		F	#	0.26	-
	mg/L	0872	WL	09/15/2015	N001			17.000		F	#	0.26	-
	mg/L	0872	WL	09/15/2015	N002			18.000		F	#	0.26	-
	mg/L	0873	WL	09/15/2015	N001			17.000		F	#	0.26	-
	mg/L	0874	WL	09/15/2015	N001			15.000		F	#	0.26	-
	mg/L	0875	WL	09/15/2015	N001			13.000		F	#	0.26	-
	mg/L	0876	WL	09/17/2015	N001			0.330	J		#	0.052	-
	mg/L	0878	WL	09/17/2015	N001			0.430	J		#	0.052	-
	mg/L	T03-03	BH	08/27/2015	0001			5.100			#	0.052	-
	mg/L	T03-04	BH	08/27/2015	0001			8.300			#	0.052	-
	mg/L	T03-05	BH	08/27/2015	0001			9.300	J		#	0.52	-
	mg/L	T03-06	BH	08/27/2015	0001			8.500	J		#	0.52	-
	mg/L	T03-07	BH	08/27/2015	0001			9.500	J		#	0.52	-
	mg/L	T03-08	BH	08/27/2015	0001			12.000			#	0.52	-
	mg/L	T03-09	BH	08/27/2015	0001			14.000			#	0.052	-
	mg/L	T06-01	BH	08/25/2015	0001			4.800	J		#	0.52	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/L	T06-01	BH	08/25/2015	0002			5.400			#	0.052	-
	mg/L	T06-01-01	BH	08/25/2015	0001			4.700			#	0.052	-
	mg/L	T06-01-02	BH	08/25/2015	0001			5.600			#	0.052	-
	mg/L	T06-01-03	BH	08/25/2015	0001			4.900			#	0.052	-
	mg/L	T06-01-04	BH	08/26/2015	0001			6.200			#	0.052	-
	mg/L	T10-01	BH	08/26/2015	0001			6.300			#	0.052	-
	mg/L	T10-02	BH	08/26/2015	0001			5.200			#	0.052	-
	mg/L	T10-03	BH	08/26/2015	0001			5.000			#	0.052	-
Silica	mg/L	0705	WL	09/15/2015	N001	SE	D	9.300		FQ	#	0.021	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	29.000		F	#	0.021	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	20.000		F	#	0.021	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	23.000		F	#	0.021	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	13.000		F	#	0.021	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	26.000		F	#	0.021	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	13.000		FQ	#	0.021	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	20.000		F	#	0.021	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	9.600		F	#	0.021	-
	mg/L	0722R	WL	09/17/2015	N001	SF		21.000		F	#	0.021	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	22.000		F	#	0.021	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	12.000		F	#	0.21	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	30.000		F	#	0.021	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	24.000		FQ	#	0.021	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	17.000		F	#	0.021	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	61.000		F	#	0.021	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	32.000		F	#	0.021	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	37.000		F	#	0.021	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Silica	mg/L	0824	WL	09/18/2015	N001	SF		34.000		F	#	0.021	-
	mg/L	0826	WL	09/16/2015	N001	SF		31.000		F	#	0.021	-
	mg/L	0852-3	WL	09/15/2015	N001			21.000		F	#	0.021	-
	mg/L	0852-4	WL	09/15/2015	N001			18.000		F	#	0.021	-
	mg/L	0853-2	WL	09/16/2015	N001			31.000		F	#	0.021	-
	mg/L	0853-3	WL	09/16/2015	N001			24.000		F	#	0.021	-
	mg/L	0853-4	WL	09/16/2015	N001			24.000		F	#	0.021	-
	mg/L	0854-2	WL	09/16/2015	N001			31.000		F	#	0.1	-
	mg/L	0854-3	WL	09/16/2015	N001			33.000		F	#	0.021	-
	mg/L	0854-4	WL	09/17/2015	N001			34.000		F	#	0.021	-
	mg/L	0855-2	WL	09/16/2015	N001			33.000		F	#	0.021	-
	mg/L	0855-3	WL	09/16/2015	N001			31.000		F	#	0.021	-
	mg/L	0855-4	WL	09/16/2015	N001			26.000		F	#	0.021	-
	mg/L	0856-2	WL	09/17/2015	N001			27.000		F	#	0.1	-
	mg/L	0856-3	WL	09/17/2015	N001			29.000		F	#	0.1	-
	mg/L	0856-4	WL	09/17/2015	N001			27.000		F	#	0.1	-
	mg/L	0857-3	WL	09/16/2015	N001			35.000		F	#	0.1	-
	mg/L	0857-4	WL	09/16/2015	N001			34.000		F	#	0.1	-
	mg/L	0858-2	WL	09/15/2015	N001			27.000		F	#	0.1	-
	mg/L	0858-3	WL	09/15/2015	N001			28.000		F	#	0.1	-
	mg/L	0858-4	WL	09/15/2015	N001			27.000		F	#	0.1	-
	mg/L	0858-4	WL	09/15/2015	N002			28.000		F	#	0.021	-
	mg/L	0859-2	WL	09/17/2015	N001			38.000		F	#	0.1	-
	mg/L	0859-3	WL	09/17/2015	N001			21.000		F	#	0.1	-
	mg/L	0859-4	WL	09/17/2015	N001			19.000		F	#	0.1	-
	mg/L	0860-2	WL	09/17/2015	N001			23.000		F	#	0.021	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Silica	mg/L	0860-3	WL	09/17/2015	N001			20.000		F	#	0.021	-
	mg/L	0860-3	WL	09/17/2015	N002			19.000		F	#	0.021	-
	mg/L	0860-4	WL	09/17/2015	N001			14.000		F	#	0.021	-
	mg/L	0866	WL	09/15/2015	N001			30.000		F	#	0.1	-
	mg/L	0867	WL	09/15/2015	N001			30.000		F	#	0.1	-
	mg/L	0868	WL	09/15/2015	N001			31.000		F	#	0.1	-
	mg/L	0869	WL	09/15/2015	N001			45.000		F	#	0.1	-
	mg/L	0870	WL	09/15/2015	N001			30.000		F	#	0.1	-
	mg/L	0871	WL	09/15/2015	N001			25.000		F	#	0.1	-
	mg/L	0872	WL	09/15/2015	N001			28.000		F	#	0.1	-
	mg/L	0872	WL	09/15/2015	N002			29.000		F	#	0.1	-
	mg/L	0873	WL	09/15/2015	N001			27.000		F	#	0.1	-
	mg/L	0874	WL	09/15/2015	N001			27.000		F	#	0.1	-
	mg/L	0875	WL	09/15/2015	N001			25.000		F	#	0.1	-
Silicon	mg/L	0705	WL	09/15/2015	N001	SE	D	4.300		FQ	#	0.0097	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	13.000		F	#	0.0097	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	9.100		F	#	0.0097	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	11.000		F	#	0.0097	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	6.000		F	#	0.0097	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	12.000		F	#	0.0097	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	6.000		FQ	#	0.0097	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	9.400		F	#	0.0097	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	4.500		F	#	0.0097	-
	mg/L	0722R	WL	09/17/2015	N001	SF		9.800		F	#	0.0097	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	10.000		F	#	0.0097	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	5.700		F	#	0.097	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Silicon	mg/L	0729	WL	09/16/2015	N001	SF	D	14.000		F	#	0.0097	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	11.000		FQ	#	0.0097	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	8.100		F	#	0.0097	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	29.000		F	#	0.0097	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	15.000		F	#	0.0097	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	17.000		F	#	0.0097	-
	mg/L	0824	WL	09/18/2015	N001	SF		16.000		F	#	0.0097	-
	mg/L	0826	WL	09/16/2015	N001	SF		14.000		F	#	0.0097	-
	mg/L	0852-3	WL	09/15/2015	N001			10.000		F	#	0.0097	-
	mg/L	0852-4	WL	09/15/2015	N001			8.200		F	#	0.0097	-
	mg/L	0853-2	WL	09/16/2015	N001			15.000		F	#	0.0097	-
	mg/L	0853-3	WL	09/16/2015	N001			11.000		F	#	0.0097	-
	mg/L	0853-4	WL	09/16/2015	N001			11.000		F	#	0.0097	-
	mg/L	0854-2	WL	09/16/2015	N001			14.000		F	#	0.048	-
	mg/L	0854-3	WL	09/16/2015	N001			16.000		F	#	0.0097	-
	mg/L	0854-4	WL	09/17/2015	N001			16.000		F	#	0.0097	-
	mg/L	0855-2	WL	09/16/2015	N001			15.000		F	#	0.0097	-
	mg/L	0855-3	WL	09/16/2015	N001			14.000		F	#	0.0097	-
	mg/L	0855-4	WL	09/16/2015	N001			12.000		F	#	0.0097	-
	mg/L	0856-2	WL	09/17/2015	N001			12.000		F	#	0.048	-
	mg/L	0856-3	WL	09/17/2015	N001			14.000		F	#	0.048	-
	mg/L	0856-4	WL	09/17/2015	N001			13.000		F	#	0.048	-
	mg/L	0857-3	WL	09/16/2015	N001			16.000		F	#	0.048	-
	mg/L	0857-4	WL	09/16/2015	N001			16.000		F	#	0.048	-
	mg/L	0858-2	WL	09/15/2015	N001			13.000		F	#	0.048	-
	mg/L	0858-3	WL	09/15/2015	N001			13.000		F	#	0.048	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Silicon	mg/L	0858-4	WL	09/15/2015	N001			13.000		F	#	0.048	-
	mg/L	0858-4	WL	09/15/2015	N002			13.000		F	#	0.0097	-
	mg/L	0859-2	WL	09/17/2015	N001			18.000		F	#	0.048	-
	mg/L	0859-3	WL	09/17/2015	N001			9.700		F	#	0.048	-
	mg/L	0859-4	WL	09/17/2015	N001			8.700		F	#	0.048	-
	mg/L	0860-2	WL	09/17/2015	N001			11.000		F	#	0.0097	-
	mg/L	0860-3	WL	09/17/2015	N001			9.200		F	#	0.0097	-
	mg/L	0860-3	WL	09/17/2015	N002			8.900		F	#	0.0097	-
	mg/L	0860-4	WL	09/17/2015	N001			6.600		F	#	0.0097	-
	mg/L	0866	WL	09/15/2015	N001			14.000		F	#	0.048	-
	mg/L	0867	WL	09/15/2015	N001			14.000		F	#	0.048	-
	mg/L	0868	WL	09/15/2015	N001			14.000		F	#	0.048	-
	mg/L	0869	WL	09/15/2015	N001			21.000		F	#	0.048	-
	mg/L	0870	WL	09/15/2015	N001			14.000		F	#	0.048	-
	mg/L	0871	WL	09/15/2015	N001			12.000		F	#	0.048	-
	mg/L	0872	WL	09/15/2015	N001			13.000		F	#	0.048	-
	mg/L	0872	WL	09/15/2015	N002			13.000		F	#	0.048	-
	mg/L	0873	WL	09/15/2015	N001			13.000		F	#	0.048	-
	mg/L	0874	WL	09/15/2015	N001			13.000		F	#	0.048	-
	mg/L	0875	WL	09/15/2015	N001			12.000		F	#	0.048	-
Sodium	mg/L	0405	WL	09/17/2015	N001	NR	N	190.000			#	0.047	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	160.000			#	0.047	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	170.000			#	0.047	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	160.000			#	0.047	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	200.000		FQ	#	0.047	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	650.000		F	#	0.47	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/L	0710	WL	09/17/2015	N001	SF	U	42.000		F	#	0.047	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	160.000		F	#	0.047	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	320.000		F	#	0.047	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	740.000		F	#	0.47	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	190.000		FQ	#	0.047	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	35.000		F	#	0.047	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	180.000		F	#	0.047	-
	mg/L	0722R	WL	09/17/2015	N001	SF		150.000		F	#	0.047	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	630.000		F	#	0.47	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	73.000		F	#	0.47	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	28.000		F	#	0.047	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	110.000		FQ	#	0.047	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	290.000		F	#	0.047	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	350.000		F	#	0.047	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	420.000		F	#	0.047	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	1400.000		F	#	0.47	-
	mg/L	0824	WL	09/18/2015	N001	SF		67.000		F	#	0.047	-
	mg/L	0826	WL	09/16/2015	N001	SF		410.000		F	#	0.047	-
	mg/L	0828	WL	09/14/2015	N001		O	180.000			#	0.047	-
	mg/L	0841	WL	09/17/2015	N001			96.000			#	0.047	-
	mg/L	0842	WL	09/17/2015	N001			82.000			#	0.047	-
	mg/L	0844	BH	08/26/2015	0001			75.000			#	0.047	-
	mg/L	0852-3	WL	09/15/2015	N001			220.000		F	#	0.047	-
	mg/L	0852-4	WL	09/15/2015	N001			220.000		F	#	0.047	-
	mg/L	0853-2	WL	09/16/2015	N001			480.000		F	#	0.047	-
	mg/L	0853-3	WL	09/16/2015	N001			490.000		F	#	0.047	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/L	0853-4	WL	09/16/2015	N001			430.000		F	#	0.047	-
	mg/L	0854-2	WL	09/16/2015	N001			700.000		F	#	0.23	-
	mg/L	0854-3	WL	09/16/2015	N001			600.000		F	#	0.23	-
	mg/L	0854-4	WL	09/17/2015	N001			590.000		F	#	0.23	-
	mg/L	0855-2	WL	09/16/2015	N001			2000.000		F	#	0.47	-
	mg/L	0855-3	WL	09/16/2015	N001			1700.000		F	#	0.47	-
	mg/L	0855-4	WL	09/16/2015	N001			1600.000		F	#	0.47	-
	mg/L	0856-2	WL	09/17/2015	N001			1000.000		F	#	0.23	-
	mg/L	0856-3	WL	09/17/2015	N001			1000.000		F	#	0.23	-
	mg/L	0856-4	WL	09/17/2015	N001			1000.000		F	#	0.23	-
	mg/L	0857-3	WL	09/16/2015	N001			1200.000		F	#	0.23	-
	mg/L	0857-4	WL	09/16/2015	N001			1200.000		F	#	0.23	-
	mg/L	0858-2	WL	09/15/2015	N001			680.000		F	#	0.23	-
	mg/L	0858-3	WL	09/15/2015	N001			630.000		F	#	0.23	-
	mg/L	0858-4	WL	09/15/2015	N001			620.000		F	#	0.23	-
	mg/L	0858-4	WL	09/15/2015	N002			630.000		F	#	0.23	-
	mg/L	0859-2	WL	09/17/2015	N001			800.000		F	#	0.23	-
	mg/L	0859-3	WL	09/17/2015	N001			860.000		F	#	0.23	-
	mg/L	0859-4	WL	09/17/2015	N001			940.000		F	#	0.23	-
	mg/L	0860-2	WL	09/17/2015	N001			480.000		F	#	0.047	-
	mg/L	0860-3	WL	09/17/2015	N001			600.000		F	#	0.23	-
	mg/L	0860-3	WL	09/17/2015	N002			600.000		F	#	0.23	-
	mg/L	0860-4	WL	09/17/2015	N001			600.000		F	#	0.23	-
	mg/L	0866	WL	09/15/2015	N001			990.000		F	#	0.23	-
	mg/L	0867	WL	09/15/2015	N001			1200.000		F	#	0.23	-
	mg/L	0868	WL	09/15/2015	N001			1300.000		F	#	0.23	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sodium	mg/L	0869	WL	09/15/2015	N001			1700.000		F	#	0.23	-
	mg/L	0870	WL	09/15/2015	N001			2000.000		F	#	0.23	-
	mg/L	0871	WL	09/15/2015	N001			1900.000		F	#	0.23	-
	mg/L	0872	WL	09/15/2015	N001			1800.000		F	#	0.23	-
	mg/L	0872	WL	09/15/2015	N002			1900.000		F	#	0.23	-
	mg/L	0873	WL	09/15/2015	N001			1900.000		F	#	0.23	-
	mg/L	0874	WL	09/15/2015	N001			1700.000		F	#	0.23	-
	mg/L	0875	WL	09/15/2015	N001			1300.000		F	#	0.23	-
	mg/L	0876	WL	09/17/2015	N001			170.000			#	0.047	-
	mg/L	0878	WL	09/17/2015	N001			180.000			#	0.047	-
	mg/L	T03-03	BH	08/27/2015	0001			170.000			#	0.047	-
	mg/L	T03-04	BH	08/27/2015	0001			580.000			#	0.47	-
	mg/L	T03-05	BH	08/27/2015	0001			870.000			#	0.47	-
	mg/L	T03-06	BH	08/27/2015	0001			680.000			#	0.47	-
	mg/L	T03-07	BH	08/27/2015	0001			640.000			#	0.47	-
	mg/L	T03-08	BH	08/27/2015	0001			540.000			#	0.47	-
	mg/L	T03-09	BH	08/27/2015	0001			880.000			#	0.46	-
	mg/L	T06-01	BH	08/25/2015	0001			240.000			#	0.47	-
	mg/L	T06-01	BH	08/25/2015	0002			240.000			#	0.047	-
	mg/L	T06-01-01	BH	08/25/2015	0001			230.000			#	0.047	-
	mg/L	T06-01-02	BH	08/25/2015	0001			230.000			#	0.047	-
	mg/L	T06-01-03	BH	08/25/2015	0001			220.000			#	0.047	-
	mg/L	T06-01-04	BH	08/26/2015	0001			220.000			#	0.047	-
	mg/L	T10-01	BH	08/26/2015	0001			250.000			#	0.047	-
	mg/L	T10-02	BH	08/26/2015	0001			150.000			#	0.047	-
	mg/L	T10-03	BH	08/26/2015	0001			180.000			#	0.047	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0405	WL	09/17/2015	N001	NR	N	950			#	-	-
	umhos/cm	0430	WL	09/17/2015	N001	NR	N	767			#	-	-
	umhos/cm	0436	WL	09/14/2015	N001	NR	N	834			#	-	-
	umhos/cm	0460	WL	09/17/2015	N001	NR	N	740			#	-	-
	umhos/cm	0705	WL	09/15/2015	N001	SE	D	1219		FQ	#	-	-
	umhos/cm	0707	WL	09/15/2015	N001	SF	D	4776		F	#	-	-
	umhos/cm	0710	WL	09/17/2015	N001	SF	U	689		F	#	-	-
	umhos/cm	0716	WL	09/17/2015	N001	SF	O	1384		F	#	-	-
	umhos/cm	0717	WL	09/17/2015	N001	SE	O	1912		F	#	-	-
	umhos/cm	0718	WL	09/16/2015	N001	SF	D	4636		F	#	-	-
	umhos/cm	0719	WL	09/16/2015	N001	SE	D	1256		FQ	#	-	-
	umhos/cm	0720	WL	09/16/2015	N001	SF	C	721		F	#	-	-
	umhos/cm	0721	WL	09/16/2015	N001	SE	C	889		F	#	-	-
	umhos/cm	0722R	WL	09/17/2015	N001	SF		2151		F	#	-	-
	umhos/cm	0723	WL	09/17/2015	N001	SE	D	3766		F	#	-	-
	umhos/cm	0727	WL	09/17/2015	N001	SE	U	620		F	#	-	-
	umhos/cm	0729	WL	09/16/2015	N001	SF	D	631		F	#	-	-
	umhos/cm	0730	WL	09/16/2015	N001	SE	D	903		FQ	#	-	-
	umhos/cm	0732	WL	09/17/2015	N001	SE	U	3111		F	#	-	-
	umhos/cm	0784	WL	09/17/2015	N001	SF	U	2338		F	#	-	-
	umhos/cm	0788	WL	09/16/2015	N001	SF	C	3039		F	#	-	-
	umhos/cm	0789	WL	09/15/2015	N001	SF	D	7876		F	#	-	-
	umhos/cm	0824	WL	09/18/2015	N001	SF		844		F	#	-	-
	umhos/cm	0826	WL	09/16/2015	N001	SF		2908		F	#	-	-
	umhos/cm	0828	WL	09/14/2015	N001		O	824			#	-	-
	umhos/cm	0841	WL	09/17/2015	N001			895			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0842	WL	09/17/2015	N001			665			#	-	-
	umhos/cm	0844	BH	08/26/2015	N001			787			#	-	-
	umhos/cm	0852-3	WL	09/15/2015	N001			1607		F	#	-	-
	umhos/cm	0852-4	WL	09/15/2015	N001			1586		F	#	-	-
	umhos/cm	0853-2	WL	09/16/2015	N001			3359		F	#	-	-
	umhos/cm	0853-3	WL	09/16/2015	N001			3417		F	#	-	-
	umhos/cm	0853-4	WL	09/16/2015	N001			3059		F	#	-	-
	umhos/cm	0854-2	WL	09/16/2015	N001			4441		F	#	-	-
	umhos/cm	0854-3	WL	09/16/2015	N001			3586		F	#	-	-
	umhos/cm	0854-4	WL	09/17/2015	N001			3819		F	#	-	-
	umhos/cm	0855-2	WL	09/16/2015	N001			10540		F	#	-	-
	umhos/cm	0855-3	WL	09/16/2015	N001			9531		F	#	-	-
	umhos/cm	0855-4	WL	09/16/2015	N001			8929		F	#	-	-
	umhos/cm	0856-2	WL	09/17/2015	N001			6439		F	#	-	-
	umhos/cm	0856-3	WL	09/17/2015	N001			6453		F	#	-	-
	umhos/cm	0856-4	WL	09/17/2015	N001			6554		F	#	-	-
	umhos/cm	0857-3	WL	09/16/2015	N001			7690		F	#	-	-
	umhos/cm	0857-4	WL	09/16/2015	N001			7475		F	#	-	-
	umhos/cm	0858-2	WL	09/15/2015	N001			4519		F	#	-	-
	umhos/cm	0858-3	WL	09/15/2015	N001			4495		F	#	-	-
	umhos/cm	0858-4	WL	09/15/2015	N001			4420		F	#	-	-
	umhos/cm	0859-2	WL	09/17/2015	N001			4546		F	#	-	-
	umhos/cm	0859-3	WL	09/17/2015	N001			5400		F	#	-	-
	umhos/cm	0859-4	WL	09/17/2015	N001			5739		F	#	-	-
	umhos/cm	0860-2	WL	09/17/2015	N001			4182		F	#	-	-
	umhos/cm	0860-3	WL	09/17/2015	N001			4109		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0860-4	WL	09/17/2015	N001			4068		F	#	-	-
	umhos/cm	0866	WL	09/15/2015	N001			6151		F	#	-	-
	umhos/cm	0867	WL	09/15/2015	N001			6900		F	#	-	-
	umhos/cm	0868	WL	09/15/2015	N001			7452		F	#	-	-
	umhos/cm	0869	WL	09/15/2015	N001			9908		F	#	-	-
	umhos/cm	0870	WL	09/15/2015	N001			10422		F	#	-	-
	umhos/cm	0871	WL	09/15/2015	N001			10593		F	#	-	-
	umhos/cm	0872	WL	09/15/2015	N001			10449		F	#	-	-
	umhos/cm	0873	WL	09/15/2015	N001			10886		F	#	-	-
	umhos/cm	0874	WL	09/15/2015	N001			9864		F	#	-	-
	umhos/cm	0875	WL	09/15/2015	N001			7798		F	#	-	-
	umhos/cm	0876	WL	09/17/2015	N001			816			#	-	-
	umhos/cm	0878	WL	09/17/2015	N001			844			#	-	-
	umhos/cm	T03-03	BH	08/27/2015	N001			1646			#	-	-
	umhos/cm	T03-04	BH	08/27/2015	N001			3534			#	-	-
	umhos/cm	T03-05	BH	08/27/2015	N001			5149			#	-	-
	umhos/cm	T03-06	BH	08/27/2015	N001			4220			#	-	-
	umhos/cm	T03-07	BH	08/27/2015	N001			3931			#	-	-
	umhos/cm	T03-08	BH	08/27/2015	N001			3957			#	-	-
	umhos/cm	T03-09	BH	08/27/2015	N001			5026			#	-	-
	umhos/cm	T06-01	BH	08/25/2015	N001			1721			#	-	-
	umhos/cm	T06-01-01	BH	08/25/2015	N001			1705			#	-	-
	umhos/cm	T06-01-02	BH	08/25/2015	N001			1704			#	-	-
	umhos/cm	T06-01-03	BH	08/25/2015	N001			1509			#	-	-
	umhos/cm	T06-01-04	BH	08/26/2015	N001			1576			#	-	-
	umhos/cm	T10-01	BH	08/26/2015	N001			1768			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	T10-02	BH	08/26/2015	N001			1096			#	-	-
	umhos/cm	T10-03	BH	08/26/2015	N001			1315			#	-	-
Stable isotope ratio H2/H1 in Water	parts per t	0705	WL	09/15/2015	N003	SE	D	-137.23		FQ	#	-	-
	parts per t	0707	WL	09/15/2015	N003	SF	D	-130.19		F	#	-	-
	parts per t	0710	WL	09/17/2015	N003	SF	U	-126.97		F	#	-	-
	parts per t	0716	WL	09/17/2015	N003	SF	O	-129.61		F	#	-	-
	parts per t	0717	WL	09/17/2015	N003	SE	O	-137.57		F	#	-	-
	parts per t	0718	WL	09/16/2015	N003	SF	D	-125.42		F	#	-	-
	parts per t	0719	WL	09/16/2015	N003	SE	D	-138.33		FQ	#	-	-
	parts per t	0720	WL	09/16/2015	N003	SF	C	-122.29		F	#	-	-
	parts per t	0721	WL	09/16/2015	N003	SE	C	-134.38		F	#	-	-
	parts per t	0722R	WL	09/17/2015	N003	SF		-127.51		F	#	-	-
	parts per t	0723	WL	09/17/2015	N003	SE	D	-134.53		F	#	-	-
	parts per t	0727	WL	09/17/2015	N003	SE	U	-129.27		F	#	-	-
	parts per t	0729	WL	09/16/2015	N003	SF	D	-119.61		F	#	-	-
	parts per t	0730	WL	09/16/2015	N003	SE	D	-127.85		FQ	#	-	-
	parts per t	0732	WL	09/17/2015	N003	SE	U	-130.92		F	#	-	-
	parts per t	0784	WL	09/17/2015	N003	SF	U	-129.85		F	#	-	-
	parts per t	0788	WL	09/16/2015	N003	SF	C	-125.78		F	#	-	-
	parts per t	0789	WL	09/15/2015	N003	SF	D	-130.09		F	#	-	-
	parts per t	0824	WL	09/18/2015	N003	SF		-124.25		F	#	-	-
	parts per t	0826	WL	09/16/2015	N003	SF		-126.89		F	#	-	-
	parts per t	0852-3	WL	09/15/2015	N003			-126.47		F	#	-	-
	parts per t	0852-4	WL	09/15/2015	N003			-126.26		F	#	-	-
	parts per t	0853-2	WL	09/16/2015	N003			-125.33		F	#	-	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Stable isotope ratio H2/H1 in Water	parts per t	0853-3	WL	09/16/2015	N003			-126.3		F	#	-	-
	parts per t	0853-4	WL	09/16/2015	N003			-127.02		F	#	-	-
	parts per t	0854-2	WL	09/16/2015	N003			-126.57		F	#	-	-
	parts per t	0854-3	WL	09/16/2015	N003			-126.22		F	#	-	-
	parts per t	0854-4	WL	09/17/2015	N003			-126.48		F	#	-	-
	parts per t	0855-2	WL	09/16/2015	N003			-127.9		F	#	-	-
	parts per t	0855-3	WL	09/16/2015	N003			-128.25		F	#	-	-
	parts per t	0855-4	WL	09/16/2015	N003			-128.86		F	#	-	-
	parts per t	0856-2	WL	09/17/2015	N003			-128.13		F	#	-	-
	parts per t	0856-3	WL	09/17/2015	N003			-129.33		F	#	-	-
	parts per t	0856-4	WL	09/17/2015	N003			-129.82		F	#	-	-
	parts per t	0857-3	WL	09/16/2015	N003			-130.77		F	#	-	-
	parts per t	0857-4	WL	09/16/2015	N003			-130.55		F	#	-	-
	parts per t	0858-2	WL	09/15/2015	N003			-130.18		F	#	-	-
	parts per t	0858-3	WL	09/15/2015	N003			-130.13		F	#	-	-
	parts per t	0858-4	WL	09/15/2015	N003			-130.59		F	#	-	-
	parts per t	0858-4	WL	09/15/2015	N004			-129.62		F	#	-	-
	parts per t	0859-2	WL	09/17/2015	N003			-131.69		F	#	-	-
	parts per t	0859-3	WL	09/17/2015	N003			-131.14		F	#	-	-
	parts per t	0859-4	WL	09/17/2015	N003			-131.48		F	#	-	-
	parts per t	0860-2	WL	09/17/2015	N003			-130.53		F	#	-	-
	parts per t	0860-3	WL	09/17/2015	N003			-132.52		F	#	-	-
	parts per t	0860-3	WL	09/17/2015	N004			-131.11		F	#	-	-
	parts per t	0860-4	WL	09/17/2015	N003			-131.48		F	#	-	-
	parts per t	0866	WL	09/15/2015	N003			-130.54		F	#	-	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Stable isotope ratio H2/H1 in Water	parts per t	0867	WL	09/15/2015	N003			-130.31		F	#	-	-
	parts per t	0868	WL	09/15/2015	N003			-130.24		F	#	-	-
	parts per t	0869	WL	09/15/2015	N003			-129.27		F	#	-	-
	parts per t	0870	WL	09/15/2015	N003			-128.3		F	#	-	-
	parts per t	0871	WL	09/15/2015	N003			-127.5		F	#	-	-
	parts per t	0872	WL	09/15/2015	N003			-127.39		F	#	-	-
	parts per t	0872	WL	09/15/2015	N004			-127.46		F	#	-	-
	parts per t	0873	WL	09/15/2015	N003			-127.05		F	#	-	-
	parts per t	0874	WL	09/15/2015	N003			-127.29		F	#	-	-
	parts per t	0875	WL	09/15/2015	N003			-128.79		F	#	-	-
Stable isotope ratio O18/O16 in Water	parts per t	0705	WL	09/15/2015	N003	SE	D	-17.42		FQ	#	-	-
	parts per t	0707	WL	09/15/2015	N003	SF	D	-16.38		F	#	-	-
	parts per t	0710	WL	09/17/2015	N003	SF	U	-16.45		F	#	-	-
	parts per t	0716	WL	09/17/2015	N003	SF	O	-16.5		F	#	-	-
	parts per t	0717	WL	09/17/2015	N003	SE	O	-17.79		F	#	-	-
	parts per t	0718	WL	09/16/2015	N003	SF	D	-15.41		F	#	-	-
	parts per t	0719	WL	09/16/2015	N003	SE	D	-17.9		FQ	#	-	-
	parts per t	0720	WL	09/16/2015	N003	SF	C	-15.81		F	#	-	-
	parts per t	0721	WL	09/16/2015	N003	SE	C	-17.06		F	#	-	-
	parts per t	0722R	WL	09/17/2015	N003	SF		-16.56		F	#	-	-
	parts per t	0723	WL	09/17/2015	N003	SE	D	-17.3		F	#	-	-
	parts per t	0727	WL	09/17/2015	N003	SE	U	-16.82		F	#	-	-
	parts per t	0729	WL	09/16/2015	N003	SF	D	-15.3		F	#	-	-
	parts per t	0730	WL	09/16/2015	N003	SE	D	-16.36		FQ	#	-	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Stable isotope ratio O18/O16 in Water	parts per t	0732	WL	09/17/2015	N003	SE	U	-15.83		F	#	-	-
	parts per t	0784	WL	09/17/2015	N003	SF	U	-15.24		F	#	-	-
	parts per t	0788	WL	09/16/2015	N003	SF	C	-15.89		F	#	-	-
	parts per t	0789	WL	09/15/2015	N003	SF	D	-16.06		F	#	-	-
	parts per t	0824	WL	09/18/2015	N003	SF		-15.95		F	#	-	-
	parts per t	0826	WL	09/16/2015	N003	SF		-15.98		F	#	-	-
	parts per t	0852-3	WL	09/15/2015	N003			-16.2		F	#	-	-
	parts per t	0852-4	WL	09/15/2015	N003			-16.2		F	#	-	-
	parts per t	0853-2	WL	09/16/2015	N003			-15.79		F	#	-	-
	parts per t	0853-3	WL	09/16/2015	N003			-15.96		F	#	-	-
	parts per t	0853-4	WL	09/16/2015	N003			-16.05		F	#	-	-
	parts per t	0854-2	WL	09/16/2015	N003			-15.96		F	#	-	-
	parts per t	0854-3	WL	09/16/2015	N003			-16.02		F	#	-	-
	parts per t	0854-4	WL	09/17/2015	N003			-16.02		F	#	-	-
	parts per t	0855-2	WL	09/16/2015	N003			-16		F	#	-	-
	parts per t	0855-3	WL	09/16/2015	N003			-15.86		F	#	-	-
	parts per t	0855-4	WL	09/16/2015	N003			-15.95		F	#	-	-
	parts per t	0856-2	WL	09/17/2015	N003			-15.88		F	#	-	-
	parts per t	0856-3	WL	09/17/2015	N003			-15.93		F	#	-	-
	parts per t	0856-4	WL	09/17/2015	N003			-16		F	#	-	-
	parts per t	0857-3	WL	09/16/2015	N003			-16.04		F	#	-	-
	parts per t	0857-4	WL	09/16/2015	N003			-16.05		F	#	-	-
	parts per t	0858-2	WL	09/15/2015	N003			-16.3		F	#	-	-
	parts per t	0858-3	WL	09/15/2015	N003			-16.41		F	#	-	-
	parts per t	0858-4	WL	09/15/2015	N003			-16.34		F	#	-	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Stable isotope ratio O18/O16 in Water	parts per t	0858-4	WL	09/15/2015	N004			-16.31		F	#	-	-
	parts per t	0859-2	WL	09/17/2015	N003			-16.03		F	#	-	-
	parts per t	0859-3	WL	09/17/2015	N003			-16.02		F	#	-	-
	parts per t	0859-4	WL	09/17/2015	N003			-15.98		F	#	-	-
	parts per t	0860-2	WL	09/17/2015	N003			-16.3		F	#	-	-
	parts per t	0860-3	WL	09/17/2015	N003			-16.12		F	#	-	-
	parts per t	0860-3	WL	09/17/2015	N004			-16.22		F	#	-	-
	parts per t	0860-4	WL	09/17/2015	N003			-16.19		F	#	-	-
	parts per t	0866	WL	09/15/2015	N003			-16.22		F	#	-	-
	parts per t	0867	WL	09/15/2015	N003			-16.18		F	#	-	-
	parts per t	0868	WL	09/15/2015	N003			-16.12		F	#	-	-
	parts per t	0869	WL	09/15/2015	N003			-15.98		F	#	-	-
	parts per t	0870	WL	09/15/2015	N003			-15.84		F	#	-	-
	parts per t	0871	WL	09/15/2015	N003			-15.84		F	#	-	-
	parts per t	0872	WL	09/15/2015	N003			-15.82		F	#	-	-
	parts per t	0872	WL	09/15/2015	N004			-15.89		F	#	-	-
	parts per t	0873	WL	09/15/2015	N003			-15.82		F	#	-	-
	parts per t	0874	WL	09/15/2015	N003			-16.12		F	#	-	-
	parts per t	0875	WL	09/15/2015	N003			-16.28		F	#	-	-
Stable isotope ratio S-34/S-32 in Sulfate	parts per t	0705	WL	09/15/2015	0003	SE	D	3.29		FQ	#	-	-
	parts per t	0707	WL	09/15/2015	0003	SF	D	5.64		F	#	-	-
	parts per t	0710	WL	09/17/2015	0003	SF	U	-0.74		F	#	-	-
	parts per t	0716	WL	09/17/2015	0003	SF	O	0.9		F	#	-	-
	parts per t	0717	WL	09/17/2015	0003	SE	O	4.27		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Stable isotope ratio S-34/S-32 in Sulfate	parts per t	0718	WL	09/16/2015	0003	SF	D	4.64		F	#	-	-
	parts per t	0719	WL	09/16/2015	0003	SE	D	2.98		FQ	#	-	-
	parts per t	0720	WL	09/16/2015	0003	SF	C	-5.46		F	#	-	-
	parts per t	0721	WL	09/16/2015	0003	SE	C	-1.16		F	#	-	-
	parts per t	0722R	WL	09/17/2015	0003	SF		6.26		F	#	-	-
	parts per t	0723	WL	09/17/2015	0003	SE	D	5.65		F	#	-	-
	parts per t	0727	WL	09/17/2015	0003	SE	U	-0.81		F	#	-	-
	parts per t	0729	WL	09/16/2015	0003	SF	D	-2.35		F	#	-	-
	parts per t	0730	WL	09/16/2015	0003	SE	D	0.68		FQ	#	-	-
	parts per t	0732	WL	09/17/2015	0003	SE	U	6.36		F	#	-	-
	parts per t	0784	WL	09/17/2015	0003	SF	U	8.36		F	#	-	-
Sulfate	mg/L	0405	WL	09/17/2015	N001	NR	N	310			#	2	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	190			#	1	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	220	N		#	2	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	180			#	1	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	450		FQ	#	2.5	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	2700		F	#	25	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	140		F	#	1	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	450		F	#	2.5	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	760		F	#	5	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	2500		F	#	25	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	490		FQ	#	5	-
	mg/L	0720	WL	09/16/2015	N001	SF	C	150		F	#	1	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	300		F	#	2	-
	mg/L	0722R	WL	09/17/2015	N001	SF		1100		F	#	10	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/L	0723	WL	09/17/2015	N001	SE	D	1900		F	#	10	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	130		F	#	1	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	88		F	#	5	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	140		FQ	#	1	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	1700		F	#	12	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	1100		F	#	10	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	1400		F	#	10	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	4700		F	#	50	-
	mg/L	0824	WL	09/18/2015	N001	SF		130		F	#	1	-
	mg/L	0826	WL	09/16/2015	N001	SF		1300		F	#	10	-
	mg/L	0828	WL	09/14/2015	N001		O	220			#	2	-
	mg/L	0841	WL	09/17/2015	N001			240			#	2	-
	mg/L	0842	WL	09/17/2015	N001			160			#	1	-
	mg/L	0844	BH	08/26/2015	0001			220			#	5	-
	mg/L	0852-3	WL	09/15/2015	N001			480		F	#	5	-
	mg/L	0852-4	WL	09/15/2015	N001			480		F	#	2.5	-
	mg/L	0853-2	WL	09/16/2015	N001			1700		F	#	12	-
	mg/L	0853-3	WL	09/16/2015	N001			1700		F	#	12	-
	mg/L	0853-4	WL	09/16/2015	N001			1500		F	#	12	-
	mg/L	0854-2	WL	09/16/2015	N001			2300		F	#	25	-
	mg/L	0854-3	WL	09/16/2015	N001			1800		F	#	12	-
	mg/L	0854-4	WL	09/17/2015	N001			2000		F	#	12	-
	mg/L	0855-2	WL	09/16/2015	N001			6100		F	#	50	-
	mg/L	0855-3	WL	09/16/2015	N001			5600		F	#	50	-
	mg/L	0855-4	WL	09/16/2015	N001			5100		F	#	50	-
	mg/L	0856-2	WL	09/17/2015	N001			3900		F	#	25	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/L	0856-3	WL	09/17/2015	N001			3900		F	#	25	-
	mg/L	0856-4	WL	09/17/2015	N001			4000		F	#	25	-
	mg/L	0857-3	WL	09/16/2015	N001			4700		F	#	25	-
	mg/L	0857-4	WL	09/16/2015	N001			4600		F	#	25	-
	mg/L	0858-2	WL	09/15/2015	N001			2600		F	#	25	-
	mg/L	0858-3	WL	09/15/2015	N001			2500		F	#	25	-
	mg/L	0858-4	WL	09/15/2015	N002			2400		F	#	25	-
	mg/L	0859-2	WL	09/17/2015	N001			2600		F	#	25	-
	mg/L	0859-3	WL	09/17/2015	N001			3300		F	#	25	-
	mg/L	0859-4	WL	09/17/2015	N001			3500		F	#	25	-
	mg/L	0860-2	WL	09/17/2015	N001			2400		F	#	25	-
	mg/L	0860-3	WL	09/17/2015	N001			2400		F	#	25	-
	mg/L	0860-3	WL	09/17/2015	N002			2300		F	#	25	-
	mg/L	0860-4	WL	09/17/2015	N001			2200		F	#	25	-
	mg/L	0866	WL	09/15/2015	N001			3700		F	#	25	-
	mg/L	0867	WL	09/15/2015	N001			4100		F	#	25	-
	mg/L	0868	WL	09/15/2015	N001			4400		F	#	50	-
	mg/L	0869	WL	09/15/2015	N001			5900		F	#	50	-
	mg/L	0870	WL	09/15/2015	N001			6200		F	#	50	-
	mg/L	0871	WL	09/15/2015	N001			6100		F	#	50	-
	mg/L	0872	WL	09/15/2015	N001			6000		F	#	50	-
	mg/L	0872	WL	09/15/2015	N002			6000		F	#	50	-
	mg/L	0873	WL	09/15/2015	N001			6300		F	#	50	-
	mg/L	0874	WL	09/15/2015	N001			5600		F	#	50	-
	mg/L	0875	WL	09/15/2015	N001			4300		F	#	50	-
	mg/L	0876	WL	09/17/2015	N001			270			#	2	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/L	0878	WL	09/17/2015	N001			250			#	2	-
	mg/L	T03-03	BH	08/27/2015	0001			570			#	10	-
	mg/L	T03-04	BH	08/27/2015	0001			1800			#	20	-
	mg/L	T03-05	BH	08/27/2015	0001			2700			#	25	-
	mg/L	T03-06	BH	08/27/2015	0001			2100			#	25	-
	mg/L	T03-07	BH	08/27/2015	0001			1900			#	25	-
	mg/L	T03-08	BH	08/27/2015	0001			2200			#	25	-
	mg/L	T03-09	BH	08/27/2015	0001			2800			#	25	-
	mg/L	T06-01	BH	08/25/2015	0001			560			#	10	-
	mg/L	T06-01	BH	08/25/2015	0002			550			#	10	-
	mg/L	T06-01-01	BH	08/25/2015	0001			560			#	10	-
	mg/L	T06-01-02	BH	08/25/2015	0001			520			#	10	-
	mg/L	T06-01-03	BH	08/25/2015	0001			440			#	6.2	-
	mg/L	T06-01-04	BH	08/26/2015	0001			500			#	6.2	-
	mg/L	T10-01	BH	08/26/2015	0001			580			#	10	-
	mg/L	T10-02	BH	08/26/2015	0001			320			#	5	-
	mg/L	T10-03	BH	08/26/2015	0001			460			#	5	-
Sulfide	mg/L	0855-2	WL	09/16/2015	N001			2	U	F	#	2	-
	mg/L	0855-3	WL	09/16/2015	N001			2	U	F	#	2	-
	mg/L	0855-4	WL	09/16/2015	N001			2	U	F	#	2	-
Temperature	C	0405	WL	09/17/2015	N001	NR	N	11.36			#	-	-
	C	0430	WL	09/17/2015	N001	NR	N	12.26			#	-	-
	C	0436	WL	09/14/2015	N001	NR	N	22.86			#	-	-
	C	0460	WL	09/17/2015	N001	NR	N	15.36			#	-	-
	C	0705	WL	09/15/2015	N001	SE	D	12.52		FQ	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Temperature	C	0707	WL	09/15/2015	N001	SF	D	14.57		F	#	-	-
	C	0710	WL	09/17/2015	N001	SF	U	11.70		F	#	-	-
	C	0716	WL	09/17/2015	N001	SF	O	15.15		F	#	-	-
	C	0717	WL	09/17/2015	N001	SE	O	11.67		F	#	-	-
	C	0718	WL	09/16/2015	N001	SF	D	14.61		F	#	-	-
	C	0719	WL	09/16/2015	N001	SE	D	13.41		FQ	#	-	-
	C	0720	WL	09/16/2015	N001	SF	C	13.28		F	#	-	-
	C	0721	WL	09/16/2015	N001	SE	C	11.61		F	#	-	-
	C	0722R	WL	09/17/2015	N001	SF		22.36		F	#	-	-
	C	0723	WL	09/17/2015	N001	SE	D	11.46		F	#	-	-
	C	0727	WL	09/17/2015	N001	SE	U	12.42		F	#	-	-
	C	0729	WL	09/16/2015	N001	SF	D	15.73		F	#	-	-
	C	0730	WL	09/16/2015	N001	SE	D	14.09		FQ	#	-	-
	C	0732	WL	09/17/2015	N001	SE	U	12.39		F	#	-	-
	C	0784	WL	09/17/2015	N001	SF	U	18.32		F	#	-	-
	C	0788	WL	09/16/2015	N001	SF	C	12.97		F	#	-	-
	C	0789	WL	09/15/2015	N001	SF	D	12.04		F	#	-	-
	C	0824	WL	09/18/2015	N001	SF		13.66		F	#	-	-
	C	0826	WL	09/16/2015	N001	SF		12.18		F	#	-	-
	C	0828	WL	09/14/2015	N001		O	18.75			#	-	-
	C	0841	WL	09/17/2015	N001			16.64			#	-	-
	C	0842	WL	09/17/2015	N001			10.93			#	-	-
	C	0844	BH	08/26/2015	N001			13.50			#	-	-
	C	0852-3	WL	09/15/2015	N001			11.30		F	#	-	-
	C	0852-4	WL	09/15/2015	N001			10.44		F	#	-	-
	C	0853-2	WL	09/16/2015	N001			14.37		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Temperature	C	0853-3	WL	09/16/2015	N001			12.75		F	#	-	-
	C	0853-4	WL	09/16/2015	N001			11.91		F	#	-	-
	C	0854-2	WL	09/16/2015	N001			13.16		F	#	-	-
	C	0854-3	WL	09/16/2015	N001			13.05		F	#	-	-
	C	0854-4	WL	09/17/2015	N001			10.70		F	#	-	-
	C	0855-2	WL	09/16/2015	N001			14.65		F	#	-	-
	C	0855-3	WL	09/16/2015	N001			13.93		F	#	-	-
	C	0855-4	WL	09/16/2015	N001			11.30		F	#	-	-
	C	0856-2	WL	09/17/2015	N001			13.85		F	#	-	-
	C	0856-3	WL	09/17/2015	N001			13.20		F	#	-	-
	C	0856-4	WL	09/17/2015	N001			12.73		F	#	-	-
	C	0857-3	WL	09/16/2015	N001			15.58		F	#	-	-
	C	0857-4	WL	09/16/2015	N001			15.45		F	#	-	-
	C	0858-2	WL	09/15/2015	N001			15.19		F	#	-	-
	C	0858-3	WL	09/15/2015	N001			13.58		F	#	-	-
	C	0858-4	WL	09/15/2015	N001			12.70		F	#	-	-
	C	0859-2	WL	09/17/2015	N001			17.55		F	#	-	-
	C	0859-3	WL	09/17/2015	N001			16.86		F	#	-	-
	C	0859-4	WL	09/17/2015	N001			15.86		F	#	-	-
	C	0860-2	WL	09/17/2015	N001			16.40		F	#	-	-
	C	0860-3	WL	09/17/2015	N001			15.49		F	#	-	-
	C	0860-4	WL	09/17/2015	N001			15.12		F	#	-	-
	C	0866	WL	09/15/2015	N001			15.66		F	#	-	-
	C	0867	WL	09/15/2015	N001			16.91		F	#	-	-
	C	0868	WL	09/15/2015	N001			16.60		F	#	-	-
	C	0869	WL	09/15/2015	N001			15.27		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Temperature	C	0870	WL	09/15/2015	N001			15.01		F	#	-	-
	C	0871	WL	09/15/2015	N001			15.83		F	#	-	-
	C	0872	WL	09/15/2015	N001			15.05		F	#	-	-
	C	0873	WL	09/15/2015	N001			14.32		F	#	-	-
	C	0874	WL	09/15/2015	N001			13.75		F	#	-	-
	C	0875	WL	09/15/2015	N001			13.60		F	#	-	-
	C	0876	WL	09/17/2015	N001			15.26			#	-	-
	C	0878	WL	09/17/2015	N001			10.45			#	-	-
	C	T03-03	BH	08/27/2015	N001			16.45			#	-	-
	C	T03-04	BH	08/27/2015	N001			17.72			#	-	-
	C	T03-05	BH	08/27/2015	N001			14.97			#	-	-
	C	T03-06	BH	08/27/2015	N001			15.54			#	-	-
	C	T03-07	BH	08/27/2015	N001			16.64			#	-	-
	C	T03-08	BH	08/27/2015	N001			18.29			#	-	-
	C	T03-09	BH	08/27/2015	N001			18.02			#	-	-
	C	T06-01	BH	08/25/2015	N001			13.27			#	-	-
	C	T06-01-01	BH	08/25/2015	N001			16.16			#	-	-
	C	T06-01-02	BH	08/25/2015	N001			18.39			#	-	-
	C	T06-01-03	BH	08/25/2015	N001			14.17			#	-	-
	C	T06-01-04	BH	08/26/2015	N001			13.19			#	-	-
	C	T10-01	BH	08/26/2015	N001			15.34			#	-	-
	C	T10-02	BH	08/26/2015	N001			14.94			#	-	-
	C	T10-03	BH	08/26/2015	N001			13.68			#	-	-
Tritium	pCi/L	0705	WL	09/15/2015	N002	SE	D	2.44	U	FQ	#	2.44	± 1.66
	pCi/L	0707	WL	09/15/2015	N002	SF	D	10.7		F	#	2.49	± 4.09
	pCi/L	0710	WL	09/17/2015	N002	SF	U	26.9		F	#	2.43	± 9.45

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Tritium	pCi/L	0716	WL	09/17/2015	N002	SF	O	19.2		F	#	2.48	± 6.85
	pCi/L	0717	WL	09/17/2015	N002	SE	O	5.67		FJ	#	2.44	± 2.53
	pCi/L	0718	WL	09/16/2015	N002	SF	D	13.8		F	#	2.37	± 5.05
	pCi/L	0719	WL	09/16/2015	N002	SE	D	2.46	U	FQ	#	2.46	± 1.44
	pCi/L	0720	WL	09/16/2015	N002	SF	C	22.9		F	#	2.45	± 8.18
	pCi/L	0721	WL	09/16/2015	N002	SE	C	2.72		UF	#	2.39	± 1.79
	pCi/L	0722R	WL	09/17/2015	N002	SF		18.9		F	#	2.39	± 6.78
	pCi/L	0723	WL	09/17/2015	N002	SE	D	21.3		F	#	2.4	± 7.60
	pCi/L	0727	WL	09/17/2015	N002	SE	U	20.2		F	#	2.64	± 3.77
	pCi/L	0729	WL	09/16/2015	N002	SF	D	22.2		F	#	2.86	± 4.13
	pCi/L	0730	WL	09/16/2015	N002	SE	D	23.8		FQ	#	2.86	± 4.21
	pCi/L	0732	WL	09/17/2015	N002	SE	U	18.0		F	#	2.8	± 3.47
	pCi/L	0784	WL	09/17/2015	N002	SF	U	4.93		FJ	#	2.8	± 1.97
Turbidity	NTU	0405	WL	09/17/2015	N001	NR	N	3.37			#	-	-
	NTU	0430	WL	09/17/2015	N001	NR	N	1.62			#	-	-
	NTU	0436	WL	09/14/2015	N001	NR	N	1.83		J	#	-	-
	NTU	0460	WL	09/17/2015	N001	NR	N	0.96			#	-	-
	NTU	0705	WL	09/15/2015	N001	SE	D	1.48		FQ	#	-	-
	NTU	0707	WL	09/15/2015	N001	SF	D	1.45		F	#	-	-
	NTU	0710	WL	09/17/2015	N001	SF	U	3.13		F	#	-	-
	NTU	0716	WL	09/17/2015	N001	SF	O	1.35		F	#	-	-
	NTU	0717	WL	09/17/2015	N001	SE	O	1.50		F	#	-	-
	NTU	0718	WL	09/16/2015	N001	SF	D	1.15		F	#	-	-
	NTU	0719	WL	09/16/2015	N001	SE	D	9.98		FQ	#	-	-
	NTU	0720	WL	09/16/2015	N001	SF	C	0.66		F	#	-	-
	NTU	0721	WL	09/16/2015	N001	SE	C	0.76		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Turbidity	NTU	0722R	WL	09/17/2015	N001	SF		0.96		F	#	-	-
	NTU	0723	WL	09/17/2015	N001	SE	D	2.32		F	#	-	-
	NTU	0727	WL	09/17/2015	N001	SE	U	6.51		F	#	-	-
	NTU	0729	WL	09/16/2015	N001	SF	D	2.16		F	#	-	-
	NTU	0730	WL	09/16/2015	N001	SE	D	2.27		FQ	#	-	-
	NTU	0732	WL	09/17/2015	N001	SE	U	0.99		F	#	-	-
	NTU	0784	WL	09/17/2015	N001	SF	U	0.96		F	#	-	-
	NTU	0788	WL	09/16/2015	N001	SF	C	1.23		F	#	-	-
	NTU	0789	WL	09/15/2015	N001	SF	D	9.31		F	#	-	-
	NTU	0824	WL	09/18/2015	N001	SF		1.93		F	#	-	-
	NTU	0826	WL	09/16/2015	N001	SF		0.96		F	#	-	-
	NTU	0828	WL	09/14/2015	N001		O	3.79		J	#	-	-
	NTU	0841	WL	09/17/2015	N001			1.81			#	-	-
	NTU	0842	WL	09/17/2015	N001			2.27			#	-	-
	NTU	0844	BH	08/26/2015	N001			59.7			#	-	-
	NTU	0852-3	WL	09/15/2015	N001			8.25		F	#	-	-
	NTU	0852-4	WL	09/15/2015	N001			3.08		F	#	-	-
	NTU	0853-2	WL	09/16/2015	N001			2.32		F	#	-	-
	NTU	0853-3	WL	09/16/2015	N001			1.61		F	#	-	-
	NTU	0853-4	WL	09/16/2015	N001			9.79		F	#	-	-
	NTU	0854-2	WL	09/16/2015	N001			1.38		F	#	-	-
	NTU	0854-3	WL	09/16/2015	N001			2.22		F	#	-	-
	NTU	0854-4	WL	09/17/2015	N001			8.90		F	#	-	-
	NTU	0855-2	WL	09/16/2015	N001			2.35		F	#	-	-
	NTU	0855-3	WL	09/16/2015	N001			1.71		F	#	-	-
	NTU	0855-4	WL	09/16/2015	N001			2.27		F	#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Turbidity	NTU	0856-2	WL	09/17/2015	N001			1.63		F	#	-	-
	NTU	0856-3	WL	09/17/2015	N001			0.91		F	#	-	-
	NTU	0856-4	WL	09/17/2015	N001			3.22		F	#	-	-
	NTU	0857-3	WL	09/16/2015	N001			1.25		F	#	-	-
	NTU	0857-4	WL	09/16/2015	N001			2.18		F	#	-	-
	NTU	0858-2	WL	09/15/2015	N001			2.04		F	#	-	-
	NTU	0858-3	WL	09/15/2015	N001			9.54		F	#	-	-
	NTU	0858-4	WL	09/15/2015	N001			2.35		F	#	-	-
	NTU	0859-2	WL	09/17/2015	N001			1.63		F	#	-	-
	NTU	0859-3	WL	09/17/2015	N001			1.80		F	#	-	-
	NTU	0859-4	WL	09/17/2015	N001			2.50		F	#	-	-
	NTU	0860-2	WL	09/17/2015	N001			2.97		F	#	-	-
	NTU	0860-3	WL	09/17/2015	N001			2.74		F	#	-	-
	NTU	0860-4	WL	09/17/2015	N001			3.52		F	#	-	-
	NTU	0866	WL	09/15/2015	N001			1.19		F	#	-	-
	NTU	0867	WL	09/15/2015	N001			3.79		F	#	-	-
	NTU	0868	WL	09/15/2015	N001			2.52		F	#	-	-
	NTU	0869	WL	09/15/2015	N001			4.32		F	#	-	-
	NTU	0870	WL	09/15/2015	N001			1.93		F	#	-	-
	NTU	0871	WL	09/15/2015	N001			2.11		F	#	-	-
	NTU	0872	WL	09/15/2015	N001			0.80		F	#	-	-
	NTU	0873	WL	09/15/2015	N001			7.40		F	#	-	-
	NTU	0874	WL	09/15/2015	N001			2.71		F	#	-	-
	NTU	0875	WL	09/15/2015	N001			3.82		F	#	-	-
	NTU	0876	WL	09/17/2015	N001			2.41			#	-	-
	NTU	0878	WL	09/17/2015	N001			1.66			#	-	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Turbidity	NTU	T03-03	BH	08/27/2015	N001			49.6			#	-	-
	NTU	T03-04	BH	08/27/2015	N001			166			#	-	-
	NTU	T03-05	BH	08/27/2015	N001			98.9			#	-	-
	NTU	T03-06	BH	08/27/2015	N001			585			#	-	-
	NTU	T03-07	BH	08/27/2015	N001			38.2			#	-	-
	NTU	T03-08	BH	08/27/2015	N001			11.5			#	-	-
	NTU	T03-09	BH	08/27/2015	N001			712			#	-	-
	NTU	T06-01	BH	08/25/2015	N001			316			#	-	-
	NTU	T06-01-01	BH	08/25/2015	N001			117			#	-	-
	NTU	T06-01-02	BH	08/25/2015	N001			54			#	-	-
	NTU	T06-01-03	BH	08/25/2015	N001			111			#	-	-
	NTU	T06-01-04	BH	08/26/2015	N001			119			#	-	-
	NTU	T10-01	BH	08/26/2015	N001			71.8			#	-	-
	NTU	T10-02	BH	08/26/2015	N001			30			#	-	-
	NTU	T10-03	BH	08/26/2015	N001			200			#	-	-
Uranium	mg/L	0405	WL	09/17/2015	N001	NR	N	0.00039			#	2.9E-05	-
	mg/L	0430	WL	09/17/2015	N001	NR	N	0.00005	J		#	2.9E-05	-
	mg/L	0436	WL	09/14/2015	N001	NR	N	0.0001			#	2.9E-05	-
	mg/L	0460	WL	09/17/2015	N001	NR	N	0.00005	J		#	2.9E-05	-
	mg/L	0705	WL	09/15/2015	N001	SE	D	0.00018		FQ	#	2.9E-05	-
	mg/L	0707	WL	09/15/2015	N001	SF	D	0.780		F	#	2.9E-05	-
	mg/L	0710	WL	09/17/2015	N001	SF	U	0.0042		F	#	2.9E-05	-
	mg/L	0716	WL	09/17/2015	N001	SF	O	0.210		F	#	2.9E-05	-
	mg/L	0717	WL	09/17/2015	N001	SE	O	0.00011		F	#	2.9E-05	-
	mg/L	0718	WL	09/16/2015	N001	SF	D	0.110		F	#	2.9E-05	-
	mg/L	0719	WL	09/16/2015	N001	SE	D	0.00034		FQ	#	2.9E-05	-

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0720	WL	09/16/2015	N001	SF	C	0.0052		F	#	2.9E-05	-
	mg/L	0721	WL	09/16/2015	N001	SE	C	0.00009	J	F	#	2.9E-05	-
	mg/L	0722R	WL	09/17/2015	N001	SF		0.660		F	#	2.9E-05	-
	mg/L	0723	WL	09/17/2015	N001	SE	D	0.00018		F	#	2.9E-05	-
	mg/L	0727	WL	09/17/2015	N001	SE	U	0.0022		F	#	2.9E-05	-
	mg/L	0729	WL	09/16/2015	N001	SF	D	0.0046		F	#	2.9E-05	-
	mg/L	0730	WL	09/16/2015	N001	SE	D	0.0051		FQ	#	2.9E-05	-
	mg/L	0732	WL	09/17/2015	N001	SE	U	0.0057		F	#	2.9E-05	-
	mg/L	0784	WL	09/17/2015	N001	SF	U	0.0026		F	#	2.9E-05	-
	mg/L	0788	WL	09/16/2015	N001	SF	C	0.038		F	#	2.9E-05	-
	mg/L	0789	WL	09/15/2015	N001	SF	D	1.600		F	#	0.00029	-
	mg/L	0824	WL	09/18/2015	N001	SF		0.013		F	#	2.9E-05	-
	mg/L	0826	WL	09/16/2015	N001	SF		0.037		F	#	2.9E-05	-
	mg/L	0828	WL	09/14/2015	N001		O	0.00008	J		#	2.9E-05	-
	mg/L	0841	WL	09/17/2015	N001			0.0019			#	2.9E-05	-
	mg/L	0842	WL	09/17/2015	N001			0.0004			#	2.9E-05	-
	mg/L	0844	BH	08/26/2015	0001			0.012			#	2.9E-05	-
	mg/L	0852-3	WL	09/15/2015	N001			0.021		F	#	2.9E-05	-
	mg/L	0852-4	WL	09/15/2015	N001			0.018		F	#	2.9E-05	-
	mg/L	0853-2	WL	09/16/2015	N001			0.028		F	#	2.9E-05	-
	mg/L	0853-3	WL	09/16/2015	N001			0.021		F	#	2.9E-05	-
	mg/L	0853-4	WL	09/16/2015	N001			0.022		F	#	2.9E-05	-
	mg/L	0854-2	WL	09/16/2015	N001			0.059		F	#	2.9E-05	-
	mg/L	0854-3	WL	09/16/2015	N001			0.040		F	#	2.9E-05	-
	mg/L	0854-4	WL	09/17/2015	N001			0.034		F	#	2.9E-05	-
	mg/L	0855-2	WL	09/16/2015	N001			1.400		F	#	0.00029	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0855-3	WL	09/16/2015	N001			1.300		F	#	0.00029	-
	mg/L	0855-4	WL	09/16/2015	N001			0.860		F	#	2.9E-05	-
	mg/L	0856-2	WL	09/17/2015	N001			0.470		F	#	2.9E-05	-
	mg/L	0856-3	WL	09/17/2015	N001			1.100		F	#	0.00029	-
	mg/L	0856-4	WL	09/17/2015	N001			1.100		F	#	0.00029	-
	mg/L	0857-3	WL	09/16/2015	N001			1.300		F	#	0.00015	-
	mg/L	0857-4	WL	09/16/2015	N001			0.990		F	#	0.00015	-
	mg/L	0858-2	WL	09/15/2015	N001			0.310		F	#	2.9E-05	-
	mg/L	0858-3	WL	09/15/2015	N001			0.610		F	#	2.9E-05	-
	mg/L	0858-4	WL	09/15/2015	N001			0.520		F	#	2.9E-05	-
	mg/L	0858-4	WL	09/15/2015	N002			0.490		F	#	2.9E-05	-
	mg/L	0859-2	WL	09/17/2015	N001			0.078		F	#	2.9E-05	-
	mg/L	0859-3	WL	09/17/2015	N001			0.110		F	#	2.9E-05	-
	mg/L	0859-4	WL	09/17/2015	N001			0.091		F	#	2.9E-05	-
	mg/L	0860-2	WL	09/17/2015	N001			0.750		F	#	2.9E-05	-
	mg/L	0860-3	WL	09/17/2015	N001			0.760		F	#	2.9E-05	-
	mg/L	0860-3	WL	09/17/2015	N002			0.770		F	#	2.9E-05	-
	mg/L	0860-4	WL	09/17/2015	N001			0.880		F	#	2.9E-05	-
	mg/L	0866	WL	09/15/2015	N001			1.000		F	#	0.00029	-
	mg/L	0867	WL	09/15/2015	N001			0.980		F	#	0.00029	-
	mg/L	0868	WL	09/15/2015	N001			1.500		F	#	0.00015	-
	mg/L	0869	WL	09/15/2015	N001			1.700		F	#	0.00015	-
	mg/L	0870	WL	09/15/2015	N001			1.600		F	#	0.00015	-
	mg/L	0871	WL	09/15/2015	N001			1.200		F	#	0.00029	-
	mg/L	0872	WL	09/15/2015	N001			0.890		F	#	2.9E-05	-
	mg/L	0872	WL	09/15/2015	N002			0.920		F	#	2.9E-05	-

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0873	WL	09/15/2015	N001			0.850		F	#	2.9E-05	-
	mg/L	0874	WL	09/15/2015	N001			0.380		F	#	2.9E-05	-
	mg/L	0875	WL	09/15/2015	N001			0.280		F	#	2.9E-05	-
	mg/L	0876	WL	09/17/2015	N001			0.0037			#	2.9E-05	-
	mg/L	0878	WL	09/17/2015	N001			0.00024			#	2.9E-05	-
	mg/L	T03-03	BH	08/27/2015	0001			0.014			#	2.9E-05	-
	mg/L	T03-04	BH	08/27/2015	0001			0.010			#	2.9E-05	-
	mg/L	T03-05	BH	08/27/2015	0001			0.017			#	2.9E-05	-
	mg/L	T03-06	BH	08/27/2015	0001			0.015			#	2.9E-05	-
	mg/L	T03-07	BH	08/27/2015	0001			0.067			#	2.9E-05	-
	mg/L	T03-08	BH	08/27/2015	0001			1.100			#	0.00029	-
	mg/L	T03-09	BH	08/27/2015	0001			0.620			#	2.9E-05	-
	mg/L	T06-01	BH	08/25/2015	0001			0.025			#	2.9E-05	-
	mg/L	T06-01	BH	08/25/2015	0002			0.024			#	2.9E-05	-
	mg/L	T06-01-01	BH	08/25/2015	0001			0.019			#	2.9E-05	-
	mg/L	T06-01-02	BH	08/25/2015	0001			0.022			#	2.9E-05	-
	mg/L	T06-01-03	BH	08/25/2015	0001			0.024			#	2.9E-05	-
	mg/L	T06-01-04	BH	08/26/2015	0001			0.023			#	2.9E-05	-
	mg/L	T10-01	BH	08/26/2015	0001			0.028			#	2.9E-05	-
	mg/L	T10-02	BH	08/26/2015	0001			0.008			#	2.9E-05	-
	mg/L	T10-03	BH	08/26/2015	0001			0.017			#	2.9E-05	-
Uranium-234	pCi/L	0705	WL	09/15/2015	N001	SE	D	0.11		FQJ	#	0.057	± 0.07
	pCi/L	0707	WL	09/15/2015	N001	SF	D	227		F	#	0.18	± 40.8
	pCi/L	0710	WL	09/17/2015	N001	SF	U	1.87		F	#	0.042	± 0.39
	pCi/L	0716	WL	09/17/2015	N001	SF	O	63.2		F	#	0.055	± 10.5
	pCi/L	0717	WL	09/17/2015	N001	SE	O	0.107		UF	#	0.024	± 0.06

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-234	pCi/L	0718	WL	09/16/2015	N001	SF	D	36.9		F	#	0.07	± 6.11
	pCi/L	0719	WL	09/16/2015	N001	SE	D	0.195		FQ	#	0.057	± 0.09
	pCi/L	0720	WL	09/16/2015	N001	SF	C	2.38		F	#	0.05	± 0.48
	pCi/L	0721	WL	09/16/2015	N001	SE	C	0.242		F	#	0.049	± 0.10
	pCi/L	0722R	WL	09/17/2015	N001	SF		203		F	#	0.16	± 36.4
	pCi/L	0723	WL	09/17/2015	N001	SE	D	0.052	U	F	#	0.052	± 0.04
	pCi/L	0727	WL	09/17/2015	N001	SE	U	1.13		F	#	0.063	± 0.28
	pCi/L	0729	WL	09/16/2015	N001	SF	D	1.6		F	#	0.066	± 0.36
	pCi/L	0730	WL	09/16/2015	N001	SE	D	2.15		FQ	#	0.075	± 0.46
	pCi/L	0732	WL	09/17/2015	N001	SE	U	2.15		F	#	0.11	± 0.47
	pCi/L	0784	WL	09/17/2015	N001	SF	U	1.04		F	#	0.087	± 0.28
	pCi/L	0788	WL	09/16/2015	N001	SF	C	14.8		F	#	0.12	± 2.57
	pCi/L	0789	WL	09/15/2015	N001	SF	D	419		FJ	#	0.045	± 72.4
	pCi/L	0824	WL	09/18/2015	N001	SF		5.07		F	#	0.035	± 0.83
	pCi/L	0826	WL	09/16/2015	N001	SF		13.5		F	#	0.036	± 2.12
	pCi/L	0852-3	WL	09/15/2015	N001			10.3		F	#	0.039	± 1.64
	pCi/L	0852-4	WL	09/15/2015	N001			9.08		F	#	0.039	± 1.43
	pCi/L	0853-2	WL	09/16/2015	N001			11.5		F	#	0.023	± 1.81
	pCi/L	0853-3	WL	09/16/2015	N001			8.7		F	#	0.029	± 1.39
	pCi/L	0853-4	WL	09/16/2015	N001			8.5		F	#	0.012	± 1.37
	pCi/L	0854-2	WL	09/16/2015	N001			20.5		F	#	0.042	± 3.19
	pCi/L	0854-3	WL	09/16/2015	N001			14.7		F	#	0.038	± 2.31
	pCi/L	0854-4	WL	09/17/2015	N001			11.3		F	#	0.03	± 1.78
	pCi/L	0855-2	WL	09/16/2015	N001			430		F	#	0.1	± 85.5
	pCi/L	0855-3	WL	09/16/2015	N001			386		F	#	0.23	± 75.0
	pCi/L	0855-4	WL	09/16/2015	N001			253		F	#	0.18	± 45.9

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-234	pCi/L	0856-2	WL	09/17/2015	N001			131		F	#	0.1	± 22.5
	pCi/L	0856-3	WL	09/17/2015	N001			279		F	#	0.19	± 51.4
	pCi/L	0856-4	WL	09/17/2015	N001			303		F	#	0.2	± 57.5
	pCi/L	0857-3	WL	09/16/2015	N001			363		FJ	#	0.2	± 65.0
	pCi/L	0857-4	WL	09/16/2015	N001			320		FJ	#	0.14	± 53.7
	pCi/L	0858-2	WL	09/15/2015	N001			86.9		F	#	0.12	± 14.7
	pCi/L	0858-3	WL	09/15/2015	N001			164		F	#	0.22	± 28.6
	pCi/L	0858-4	WL	09/15/2015	N001			143		F	#	0.17	± 25.1
	pCi/L	0858-4	WL	09/15/2015	N002			147		F	#	0.56	± 24.6
	pCi/L	0859-2	WL	09/17/2015	N001			24.7		F	#	0.062	± 3.84
	pCi/L	0859-3	WL	09/17/2015	N001			31.2		F	#	0.13	± 5.31
	pCi/L	0859-4	WL	09/17/2015	N001			27.8		F	#	0.11	± 4.67
	pCi/L	0860-2	WL	09/17/2015	N001			196		F	#	0.74	± 33.0
	pCi/L	0860-3	WL	09/17/2015	N001			209		F	#	1	± 35.2
	pCi/L	0860-3	WL	09/17/2015	N002			205		F	#	0.63	± 34.1
	pCi/L	0860-4	WL	09/17/2015	N001			226		F	#	0.69	± 37.5
	pCi/L	0866	WL	09/15/2015	N001			256		F	#	0.96	± 42.6
	pCi/L	0867	WL	09/15/2015	N001			270		F	#	1.4	± 44.7
	pCi/L	0868	WL	09/15/2015	N001			400		F	#	2.1	± 67.5
	pCi/L	0869	WL	09/15/2015	N001			510		F	#	1.9	± 85.5
	pCi/L	0870	WL	09/15/2015	N001			465		F	#	2	± 77.0
	pCi/L	0871	WL	09/15/2015	N001			325		F	#	0.86	± 53.3
	pCi/L	0872	WL	09/15/2015	N001			252		F	#	0.76	± 41.2
	pCi/L	0872	WL	09/15/2015	N002			255		F	#	0.99	± 42.4
	pCi/L	0873	WL	09/15/2015	N001			259		F	#	1	± 43.2
	pCi/L	0874	WL	09/15/2015	N001			118		F	#	0.34	± 19.6

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-234	pCi/L	0875	WL	09/15/2015	N001			88.4		F	#	0.36	± 15.1
Uranium-235	pCi/L	0705	WL	09/15/2015	N001	SE	D	0.050	U	FQ	#	0.05	± 0.04
	pCi/L	0707	WL	09/15/2015	N001	SF	D	12.2		F	#	0.14	± 2.45
	pCi/L	0710	WL	09/17/2015	N001	SF	U	0.118		F	#	0.027	± 0.07
	pCi/L	0716	WL	09/17/2015	N001	SF	O	3.41		F	#	0.035	± 0.70
	pCi/L	0717	WL	09/17/2015	N001	SE	O	0.0628		F	#	0.028	± 0.05
	pCi/L	0718	WL	09/16/2015	N001	SF	D	1.88		F	#	0.075	± 0.42
	pCi/L	0719	WL	09/16/2015	N001	SE	D	0.050	U	FQ	#	0.05	± 0.04
	pCi/L	0720	WL	09/16/2015	N001	SF	C	0.0993		F	#	0.027	± 0.06
	pCi/L	0721	WL	09/16/2015	N001	SE	C	0.049	U	F	#	0.049	± 0.04
	pCi/L	0722R	WL	09/17/2015	N001	SF		11.5		F	#	0.068	± 2.30
	pCi/L	0723	WL	09/17/2015	N001	SE	D	0.028	U	F	#	0.028	± 0.04
	pCi/L	0727	WL	09/17/2015	N001	SE	U	0.055	U	F	#	0.055	± 0.04
	pCi/L	0729	WL	09/16/2015	N001	SF	D	0.0997		UF	#	0.058	± 0.07
	pCi/L	0730	WL	09/16/2015	N001	SE	D	0.104		UFQ	#	0.06	± 0.07
	pCi/L	0732	WL	09/17/2015	N001	SE	U	0.091	U	F	#	0.091	± 0.07
	pCi/L	0784	WL	09/17/2015	N001	SF	U	0.087	U	F	#	0.087	± 0.07
	pCi/L	0788	WL	09/16/2015	N001	SF	C	0.64		F	#	0.089	± 0.22
	pCi/L	0789	WL	09/15/2015	N001	SF	D	25.5		FJ	#	0.053	± 4.60
	pCi/L	0824	WL	09/18/2015	N001	SF		0.212		F	#	0.041	± 0.07
	pCi/L	0826	WL	09/16/2015	N001	SF		0.482		F	#	0.011	± 0.11
	pCi/L	0852-3	WL	09/15/2015	N001			0.44		F	#	0.031	± 0.11
	pCi/L	0852-4	WL	09/15/2015	N001			0.296		F	#	0.028	± 0.08
	pCi/L	0853-2	WL	09/16/2015	N001			0.499		F	#	0.01	± 0.12
	pCi/L	0853-3	WL	09/16/2015	N001			0.346		F	#	0.013	± 0.10
	pCi/L	0853-4	WL	09/16/2015	N001			0.348		F	#	0.014	± 0.10

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-235	pCi/L	0854-2	WL	09/16/2015	N001			0.908		F	#	0.044	± 0.19
	pCi/L	0854-3	WL	09/16/2015	N001			0.717		F	#	0.03	± 0.16
	pCi/L	0854-4	WL	09/17/2015	N001			0.454		F	#	0.01	± 0.11
	pCi/L	0855-2	WL	09/16/2015	N001			22.4		F	#	0.12	± 4.87
	pCi/L	0855-3	WL	09/16/2015	N001			24.8		F	#	0.27	± 5.18
	pCi/L	0855-4	WL	09/16/2015	N001			17.9		F	#	0.073	± 3.51
	pCi/L	0856-2	WL	09/17/2015	N001			7.71		F	#	0.1	± 1.51
	pCi/L	0856-3	WL	09/17/2015	N001			15.2		F	#	0.08	± 3.10
	pCi/L	0856-4	WL	09/17/2015	N001			16.4		F	#	0.094	± 3.44
	pCi/L	0857-3	WL	09/16/2015	N001			24		FJ	#	0.16	± 4.53
	pCi/L	0857-4	WL	09/16/2015	N001			21.2		FJ	#	0.11	± 3.72
	pCi/L	0858-2	WL	09/15/2015	N001			5.62		F	#	0.087	± 1.11
	pCi/L	0858-3	WL	09/15/2015	N001			8.68		F	#	0.17	± 1.72
	pCi/L	0858-4	WL	09/15/2015	N001			8.65		F	#	0.16	± 1.73
	pCi/L	0858-4	WL	09/15/2015	N002			8.16		F	#	0.5	± 2.23
	pCi/L	0859-2	WL	09/17/2015	N001			1.3		F	#	0.045	± 0.25
	pCi/L	0859-3	WL	09/17/2015	N001			1.83		F	#	0.12	± 0.51
	pCi/L	0859-4	WL	09/17/2015	N001			1.47		F	#	0.1	± 0.42
	pCi/L	0860-2	WL	09/17/2015	N001			9.74		F	#	0.56	± 2.62
	pCi/L	0860-3	WL	09/17/2015	N001			12.2		F	#	0.84	± 3.11
	pCi/L	0860-3	WL	09/17/2015	N002			13.7		F	#	0.51	± 3.22
	pCi/L	0860-4	WL	09/17/2015	N001			13.9		F	#	0.62	± 3.29
	pCi/L	0866	WL	09/15/2015	N001			14.9		F	#	0.74	± 3.53
	pCi/L	0867	WL	09/15/2015	N001			14.7		F	#	0.53	± 3.45
	pCi/L	0868	WL	09/15/2015	N001			19.9		F	#	1.2	± 5.42
	pCi/L	0869	WL	09/15/2015	N001			27.8		F	#	1.2	± 6.82

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-235	pCi/L	0870	WL	09/15/2015	N001			25.4		F	#	1.5	± 6.14
	pCi/L	0871	WL	09/15/2015	N001			17		F	#	0.6	± 3.78
	pCi/L	0872	WL	09/15/2015	N001			13.7		F	#	0.73	± 3.16
	pCi/L	0872	WL	09/15/2015	N002			14.7		F	#	0.8	± 3.48
	pCi/L	0873	WL	09/15/2015	N001			13.6		F	#	0.83	± 3.34
	pCi/L	0874	WL	09/15/2015	N001			5.69		F	#	0.31	± 1.42
	pCi/L	0875	WL	09/15/2015	N001			5.6		F	#	0.37	± 1.50
Uranium-238	pCi/L	0705	WL	09/15/2015	N001	SE	D	0.0929		UFQ	#	0.057	± 0.06
	pCi/L	0707	WL	09/15/2015	N001	SF	D	253		F	#	0.059	± 45.5
	pCi/L	0710	WL	09/17/2015	N001	SF	U	1.36		F	#	0.061	± 0.31
	pCi/L	0716	WL	09/17/2015	N001	SF	O	70.2		F	#	0.074	± 11.7
	pCi/L	0717	WL	09/17/2015	N001	SE	O	0.0591		F	#	0.045	± 0.05
	pCi/L	0718	WL	09/16/2015	N001	SF	D	35.7		F	#	0.048	± 5.90
	pCi/L	0719	WL	09/16/2015	N001	SE	D	0.112		FQJ	#	0.067	± 0.07
	pCi/L	0720	WL	09/16/2015	N001	SF	C	1.58		F	#	0.05	± 0.34
	pCi/L	0721	WL	09/16/2015	N001	SE	C	0.069	U	F	#	0.069	± 0.04
	pCi/L	0722R	WL	09/17/2015	N001	SF		238		F	#	0.14	± 42.6
	pCi/L	0723	WL	09/17/2015	N001	SE	D	0.076	U	F	#	0.076	± 0.03
	pCi/L	0727	WL	09/17/2015	N001	SE	U	0.625		F	#	0.069	± 0.19
	pCi/L	0729	WL	09/16/2015	N001	SF	D	1.39		F	#	0.049	± 0.33
	pCi/L	0730	WL	09/16/2015	N001	SE	D	1.86		FQ	#	0.068	± 0.41
	pCi/L	0732	WL	09/17/2015	N001	SE	U	2.09		F	#	0.053	± 0.45
	pCi/L	0784	WL	09/17/2015	N001	SF	U	0.983		F	#	0.074	± 0.27
	pCi/L	0788	WL	09/16/2015	N001	SF	C	12.3		F	#	0.083	± 2.16
	pCi/L	0789	WL	09/15/2015	N001	SF	D	476		FJ	#	0.23	± 82.1
	pCi/L	0824	WL	09/18/2015	N001	SF		4.09		F	#	0.01	± 0.68

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-238	pCi/L	0826	WL	09/16/2015	N001	SF		11.7		F	#	0.031	± 1.84
	pCi/L	0852-3	WL	09/15/2015	N001			7.04		F	#	0.039	± 1.13
	pCi/L	0852-4	WL	09/15/2015	N001			6.18		F	#	0.0088	± 0.99
	pCi/L	0853-2	WL	09/16/2015	N001			9.3		F	#	0.038	± 1.46
	pCi/L	0853-3	WL	09/16/2015	N001			6.63		F	#	0.042	± 1.07
	pCi/L	0853-4	WL	09/16/2015	N001			6.86		F	#	0.032	± 1.12
	pCi/L	0854-2	WL	09/16/2015	N001			18.7		F	#	0.026	± 2.92
	pCi/L	0854-3	WL	09/16/2015	N001			13.2		F	#	0.046	± 2.07
	pCi/L	0854-4	WL	09/17/2015	N001			10.4		F	#	0.03	± 1.64
	pCi/L	0855-2	WL	09/16/2015	N001			470		F	#	0.37	± 93.5
	pCi/L	0855-3	WL	09/16/2015	N001			436		F	#	0.091	± 84.6
	pCi/L	0855-4	WL	09/16/2015	N001			298		F	#	0.16	± 54.1
	pCi/L	0856-2	WL	09/17/2015	N001			145		F	#	0.15	± 24.9
	pCi/L	0856-3	WL	09/17/2015	N001			315		F	#	0.17	± 58.0
	pCi/L	0856-4	WL	09/17/2015	N001			341		F	#	0.3	± 64.7
	pCi/L	0857-3	WL	09/16/2015	N001			419		FJ	#	0.23	± 75.2
	pCi/L	0857-4	WL	09/16/2015	N001			357		FJ	#	0.096	± 59.9
	pCi/L	0858-2	WL	09/15/2015	N001			95.3		F	#	0.1	± 16.1
	pCi/L	0858-3	WL	09/15/2015	N001			178		F	#	0.096	± 31.1
	pCi/L	0858-4	WL	09/15/2015	N001			158		F	#	0.15	± 27.7
	pCi/L	0858-4	WL	09/15/2015	N002			151		F	#	0.42	± 25.3
	pCi/L	0859-2	WL	09/17/2015	N001			26		F	#	0.043	± 4.04
	pCi/L	0859-3	WL	09/17/2015	N001			34		F	#	0.14	± 5.77
	pCi/L	0859-4	WL	09/17/2015	N001			29.2		F	#	0.085	± 4.90
	pCi/L	0860-2	WL	09/17/2015	N001			230		F	#	0.63	± 38.4
	pCi/L	0860-3	WL	09/17/2015	N001			227		F	#	0.49	± 38.2

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-238	pCi/L	0860-3	WL	09/17/2015	N002			241		F	#	0.58	± 39.8
	pCi/L	0860-4	WL	09/17/2015	N001			249		F	#	0.59	± 41.2
	pCi/L	0866	WL	09/15/2015	N001			278		F	#	0.68	± 46.2
	pCi/L	0867	WL	09/15/2015	N001			296		F	#	0.66	± 48.9
	pCi/L	0868	WL	09/15/2015	N001			431		F	#	1.3	± 72.7
	pCi/L	0869	WL	09/15/2015	N001			538		F	#	1.7	± 90.0
	pCi/L	0870	WL	09/15/2015	N001			502		F	#	1.4	± 83.0
	pCi/L	0871	WL	09/15/2015	N001			344		F	#	0.79	± 56.4
	pCi/L	0872	WL	09/15/2015	N001			277		F	#	0.58	± 45.3
	pCi/L	0872	WL	09/15/2015	N002			268		F	#	0.47	± 44.5
	pCi/L	0873	WL	09/15/2015	N001			253		F	#	0.49	± 42.3
	pCi/L	0874	WL	09/15/2015	N001			116		F	#	0.29	± 19.2
	pCi/L	0875	WL	09/15/2015	N001			85.8		F	#	0.36	± 14.7

CLASSIC GROUNDWATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 3/24/2016 9:04 am

PARAMETER	UNITS	LOCATION CODE	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY

RECORDS: SELECTED FROM USEE200 WHERE site_code='RVT01' AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND DATE_SAMPLED between #8/1/2015# and #9/30/2015#

SAMPLE ID CODES: 000X = Filtered sample. N00X = Unfiltered sample. X = replicate number.

LOCATION TYPES: BH BOREHOLE WL WELL

ZONES OF COMPLETION: a zone of completion with a "-" is cross-screened and, therefore, has two zones of completion (1st zone - 2nd zone).

NR NO RECOVERY OF DATA FOR CLASSIFYING SE SEMICONFINED SANDSTONE SF SURFICIAL

FLOW CODES: C CROSS GRADIENT D DOWN GRADIENT N UNKNOWN O ON-SITE U UPGRADIENT

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compund (TIC).
- P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined qualifier, see case narrative.
- Y Laboratory defined qualifier, see case narrative.
- Z Laboratory defined qualifier, see case narrative.

DATA QUALIFIERS:

- F Low flow sampling method used.
- G Possible grout contamination, pH > 9.
- J Estimated value.
- L Less than 3 bore volumes purged prior to sampling.
- N Presumptive evidence that analyte is present. The analyte is "tentatively identified".
- Q Qualitative result due to sampling technique
- R Unusable result.
- U Parameter analyzed for but was not detected.
- X Location is undefined.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

Appendix G

Surface Water Data

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SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:27 am

PARAMETER	UNITS	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3)	mg/L	0747	09/16/2015	N001	248			#	-	-
	mg/L	0749	09/17/2015	N001	89			#	-	-
	mg/L	0794	09/14/2015	0001	177			#	-	-
	mg/L	0796	09/18/2015	N001	192			#	-	-
	mg/L	0810	09/17/2015	N001	315			#	-	-
	mg/L	0811	09/17/2015	N001	192			#	-	-
	mg/L	0812	09/17/2015	N001	192			#	-	-
	mg/L	0822	09/16/2015	N001	247			#	-	-
	mg/L	0823	09/17/2015	0001	148			#	-	-
Calcium	mg/L	0747	09/16/2015	0001	150.000			#	0.024	-
	mg/L	0749	09/17/2015	N001	580.000			#	0.24	-
	mg/L	0794	09/14/2015	N001	89.000			#	0.024	-
	mg/L	0796	09/18/2015	N001	90.000			#	0.024	-
	mg/L	0796	09/18/2015	N002	96.000			#	0.024	-
	mg/L	0810	09/17/2015	N001	18.000			#	0.024	-
	mg/L	0811	09/17/2015	N001	95.000			#	0.024	-
	mg/L	0812	09/17/2015	N001	90.000			#	0.024	-
	mg/L	0822	09/16/2015	N001	170.000			#	0.024	-
	mg/L	0823	09/17/2015	0001	130.000			#	0.024	-
Chloride	mg/L	0747	09/16/2015	0001	22			#	2	-
	mg/L	0749	09/17/2015	N001	13			#	5	-
	mg/L	0794	09/14/2015	N001	11			#	0.8	-
	mg/L	0796	09/18/2015	N001	11			#	0.8	-
	mg/L	0796	09/18/2015	N002	11			#	0.8	-
	mg/L	0810	09/17/2015	N001	37			#	1	-
	mg/L	0811	09/17/2015	N001	11			#	0.8	-
	mg/L	0812	09/17/2015	N001	12			#	0.8	-
	mg/L	0822	09/16/2015	N001	12			#	2	-
	mg/L	0823	09/17/2015	0001	180			#	4	-
Dissolved Oxygen	mg/L	0747	09/16/2015	N001	2.13			#	-	-
	mg/L	0749	09/17/2015	N001	7.33			#	-	-
	mg/L	0794	09/14/2015	N001	8.61			#	-	-
	mg/L	0796	09/18/2015	N001	13.32			#	-	-
	mg/L	0810	09/17/2015	N001	8.54			#	-	-
	mg/L	0811	09/17/2015	N001	9.74			#	-	-
	mg/L	0812	09/17/2015	N001	9.92			#	-	-
	mg/L	0822	09/16/2015	N001	9.03			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:27 am

PARAMETER	UNITS	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/L	0796	09/18/2015	N002	0.230			#	0.0067	-
Magnesium	mg/L	0747	09/16/2015	0001	47.000			#	0.03	-
	mg/L	0749	09/17/2015	N001	3.100			#	0.03	-
	mg/L	0794	09/14/2015	N001	36.000			#	0.03	-
	mg/L	0796	09/18/2015	N001	36.000			#	0.03	-
	mg/L	0796	09/18/2015	N002	37.000			#	0.03	-
	mg/L	0810	09/17/2015	N001	81.000			#	0.03	-
	mg/L	0811	09/17/2015	N001	38.000			#	0.03	-
	mg/L	0812	09/17/2015	N001	38.000			#	0.03	-
	mg/L	0822	09/16/2015	N001	22.000			#	0.03	-
	mg/L	0823	09/17/2015	0001	80.000			#	0.03	-
Manganese	mg/L	0747	09/16/2015	0001	0.650			#	0.00024	-
	mg/L	0749	09/17/2015	N001	0.100			#	0.00024	-
	mg/L	0794	09/14/2015	N001	0.037			#	0.00024	-
	mg/L	0796	09/18/2015	N001	0.060			#	0.00024	-
	mg/L	0796	09/18/2015	N002	0.052	E	J	#	0.00024	-
	mg/L	0810	09/17/2015	N001	0.074			#	0.00024	-
	mg/L	0811	09/17/2015	N001	0.057			#	0.00024	-
	mg/L	0812	09/17/2015	N001	0.047			#	0.00024	-
	mg/L	0822	09/16/2015	N001	0.059			#	0.00024	-
	mg/L	0823	09/17/2015	0001	0.059			#	0.00024	-
Molybdenum	mg/L	0747	09/16/2015	0001	0.027			#	0.00032	-
	mg/L	0749	09/17/2015	N001	0.046			#	0.00032	-
	mg/L	0794	09/14/2015	N001	0.0026			#	0.00032	-
	mg/L	0796	09/18/2015	N001	0.0019			#	0.00032	-
	mg/L	0796	09/18/2015	N002	0.0031			#	0.00032	-
	mg/L	0810	09/17/2015	N001	0.0014			#	0.00032	-
	mg/L	0811	09/17/2015	N001	0.0021			#	0.00032	-
	mg/L	0812	09/17/2015	N001	0.0018			#	0.00032	-
	mg/L	0822	09/16/2015	N001	0.0085			#	0.00032	-
	mg/L	0823	09/17/2015	0001	0.0038			#	0.00032	-
Oxidation Reduction Potential	mV	0747	09/16/2015	N001	48.6			#	-	-
	mV	0749	09/17/2015	N001	19.7			#	-	-
	mV	0794	09/14/2015	N001	104.5			#	-	-
	mV	0796	09/18/2015	N001	173.5			#	-	-
	mV	0810	09/17/2015	N001	173.9		J	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:27 am

PARAMETER	UNITS	LOCATION CODE	SAMPLE: DATE	SAMPLE: ID	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Oxidation Reduction Potential	mV	0811	09/17/2015	N001	60.8			#	-	-
	mV	0812	09/17/2015	N001	86.2			#	-	-
	mV	0822	09/16/2015	N001	99.0			#	-	-
	mV	0823	09/17/2015	N001	98.2			#	-	-
pH	s.u.	0747	09/16/2015	N001	8.09			#	-	-
	s.u.	0749	09/17/2015	N001	7.86			#	-	-
	s.u.	0794	09/14/2015	N001	8.17			#	-	-
	s.u.	0796	09/18/2015	N001	8.15			#	-	-
	s.u.	0810	09/17/2015	N001	9.63			#	-	-
	s.u.	0811	09/17/2015	N001	8.38			#	-	-
	s.u.	0812	09/17/2015	N001	8.45			#	-	-
	s.u.	0822	09/16/2015	N001	8.20			#	-	-
	s.u.	0823	09/17/2015	N001	8.51			#	-	-
Potassium	mg/L	0747	09/16/2015	0001	7.100			#	0.052	-
	mg/L	0749	09/17/2015	N001	1.800			#	0.052	-
	mg/L	0794	09/14/2015	N001	7.100			#	0.052	-
	mg/L	0796	09/18/2015	N001	4.200			#	0.052	-
	mg/L	0796	09/18/2015	N002	3.600	E	J	#	0.052	-
	mg/L	0810	09/17/2015	N001	13.000			#	0.052	-
	mg/L	0811	09/17/2015	N001	4.000			#	0.052	-
	mg/L	0812	09/17/2015	N001	4.200			#	0.052	-
	mg/L	0822	09/16/2015	N001	4.200			#	0.052	-
	mg/L	0823	09/17/2015	0001	12.000			#	0.052	-
Silica	mg/L	0796	09/18/2015	N002	8.600			#	0.021	-
Silicon	mg/L	0796	09/18/2015	N002	4.000			#	0.0097	-
Sodium	mg/L	0747	09/16/2015	0001	140.000			#	0.047	-
	mg/L	0749	09/17/2015	N001	250.000			#	0.047	-
	mg/L	0794	09/14/2015	N001	80.000			#	0.047	-
	mg/L	0796	09/18/2015	N001	74.000			#	0.047	-
	mg/L	0796	09/18/2015	N002	71.000			#	0.047	-
	mg/L	0810	09/17/2015	N001	210.000			#	0.047	-
	mg/L	0811	09/17/2015	N001	77.000			#	0.047	-
	mg/L	0812	09/17/2015	N001	78.000			#	0.047	-
	mg/L	0822	09/16/2015	N001	130.000			#	0.047	-
	mg/L	0823	09/17/2015	0001	320.000			#	0.047	-
Specific Conductance	umhos/cm	0749	09/17/2015	N001	3017			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:27 am

PARAMETER	UNITS	LOCATION CODE	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0794	09/14/2015	N001	1007				#	-	-
	umhos/cm	0796	09/18/2015	N001	976				#	-	-
	umhos/cm	0810	09/17/2015	N001	1502				#	-	-
	umhos/cm	0811	09/17/2015	N001	1007				#	-	-
	umhos/cm	0812	09/17/2015	N001	1001				#	-	-
	umhos/cm	0822	09/16/2015	N001	1409				#	-	-
	umhos/cm	0823	09/17/2015	N001	2527				#	-	-
Sulfate	mg/L	0747	09/16/2015	0001	620				#	5	-
	mg/L	0749	09/17/2015	N001	1900				#	12	-
	mg/L	0794	09/14/2015	N001	330				#	2	-
	mg/L	0796	09/18/2015	N001	320				#	2	-
	mg/L	0796	09/18/2015	N002	320				#	2	-
	mg/L	0810	09/17/2015	N001	470				#	2.5	-
	mg/L	0811	09/17/2015	N001	330				#	2	-
	mg/L	0812	09/17/2015	N001	340				#	2	-
	mg/L	0822	09/16/2015	N001	530				#	5	-
	mg/L	0823	09/17/2015	0001	1000				#	10	-
Temperature	C	0747	09/16/2015	N001	18.50				#	-	-
	C	0749	09/17/2015	N001	19.07				#	-	-
	C	0794	09/14/2015	N001	18.21				#	-	-
	C	0796	09/18/2015	N001	10.34				#	-	-
	C	0810	09/17/2015	N001	16.32				#	-	-
	C	0811	09/17/2015	N001	11.98				#	-	-
	C	0812	09/17/2015	N001	16.38				#	-	-
	C	0822	09/16/2015	N001	16.80				#	-	-
	C	0823	09/17/2015	N001	18.78				#	-	-
Turbidity	NTU	0747	09/16/2015	N001	67.7				#	-	-
	NTU	0749	09/17/2015	N001	5.28				#	-	-
	NTU	0794	09/14/2015	N001	31.4		J		#	-	-
	NTU	0796	09/18/2015	N001	7.84				#	-	-
	NTU	0810	09/17/2015	N001	3.54				#	-	-
	NTU	0811	09/17/2015	N001	5.53				#	-	-
	NTU	0812	09/17/2015	N001	8.41				#	-	-
	NTU	0822	09/16/2015	N001	4.74				#	-	-
	NTU	0823	09/17/2015	N001	11.1				#	-	-
Uranium	mg/L	0747	09/16/2015	0001	0.190				#	2.9E-05	-
	mg/L	0749	09/17/2015	N001	0.0031				#	2.9E-05	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site
REPORT DATE: 2/12/2016 10:27 am

PARAMETER	UNITS	LOCATION CODE	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0794	09/14/2015	N001	0.011			#	2.9E-05	-
	mg/L	0796	09/18/2015	N001	0.008			#	2.9E-05	-
	mg/L	0796	09/18/2015	N002	0.0085			#	2.9E-05	-
	mg/L	0810	09/17/2015	N001	0.0051			#	2.9E-05	-
	mg/L	0811	09/17/2015	N001	0.0084			#	2.9E-05	-
	mg/L	0812	09/17/2015	N001	0.0091			#	2.9E-05	-
	mg/L	0822	09/16/2015	N001	0.0089			#	2.9E-05	-
	mg/L	0823	09/17/2015	0001	0.0093			#	2.9E-05	-

RECORDS: SELECTED FROM USEE800 WHERE site_code='RVT01' AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND DATE_SAMPLED between #9/1/2015# and #9/30/2015#

SAMPLE ID CODES: 000X = Filtered sample. N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compund (TIC).
- P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

- F Low flow sampling method used.
- J Estimated value.
- N Presumptive evidence that analyte is present. The analyte is "tentatively identified".
- R Unusable result.
- X Location is undefined.
- G Possible grout contamination, pH > 9.
- L Less than 3 bore volumes purged prior to sampling.
- Q Qualitative result due to sampling technique
- U Parameter analyzed for but was not detected.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

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