U.S. Department of Energy
Livermore Field Office, Livermore, California 94551

Lawrence Livermore National Laboratory
Lawrence Livermore National Security, LLC, Livermore, California 94551

UCRL-AR-206319-15

2015 Annual Compliance Monitoring Report Lawrence Livermore National Laboratory Site 300

Technical Editors

M. Buscheck*
L. Ferry

Contributing Authors

A. Ardary*
M. Buscheck*
T. Carlsen
S. Chamberlain
Z. Demir
S. Gregory
R. Goodrich
V. Madrid
W. McConihe*
J. McKaskey*
P. McKereghan
K. Oldani
J. Radyk*
M. Taffet

March 31, 2016

*Weiss Associates, Emeryville, California

Environmental Restoration Department

This work performed under the auspices of the U. S. Department of Energy/ National Nuclear Security Administration by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

UCRL-AR-206319-15

2015 Annual
Compliance Monitoring Report
Lawrence Livermore National Laboratory
Site 300

Technical Editors

M. Buscheck*
L. Ferry

Contributing Authors

A. Ardary*	**V. Madrid**
M. Buscheck*	**W. McConihe**
T. Carlsen	**J. McKaskey***
S. Chamberlain	**P. McKereghan**
Z. Demir	**K. Oldani**
S. Gregory	**J. Radyk***
R. Goodrich	**M. Taffet**

March 31, 2016

***Weiss Associates, Emeryville, California**

Table of Contents

List of Figures

List of Tables

Appendices

Acknowledgements

Many people support the Lawrence Livermore National Laboratory Site 300 Environmental Restoration Project. The dedication and diverse skills of all these individuals have contributed to the ongoing success of the Environmental Restoration Department activities. The editors wish to collectively thank all the contributing people and companies.

1. Introduction

This Compliance Monitoring Report (CMR) summarizes the Lawrence Livermore National Laboratory (LLNL) Site 300 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Remedial Action compliance monitoring activities performed during January through December 2015. The report is submitted in compliance with the Compliance Monitoring Plan (CMP)/Contingency Plan (CP) for Environmental Restoration at Lawrence Livermore National Laboratory Site 300 (Dibley et al., 2009a) and CMP/CP Addendum (MacQueen et al., 2013).

During the reporting period of January through December 2015, approximately 7.6 million gallons of ground water and 83 million cubic feet of soil vapor were treated at Site 300, removing approximately five kilograms (kg) of volatile organic compounds (VOCs), 54 grams (g) of perchlorate, 960 kg of nitrate, 99 g of Research Department Explosive (RDX), 5.5 g of a mixture of tetrabutyl orthosilicate (TBOS) and tetrakis (2-ethylbutyl) silane (TKEBS) and 2.9 g of total uranium (Table Summ-1).

Since remediation began in 1991, approximately 433 million gallons of ground water and one billion cubic feet of soil vapor have been treated, removing approximately 610 kg of VOCs, 1.5 kg of perchlorate, 16,000 kg of nitrate, 2.2 kg of RDX, 9.5 kg of TBOS/TKEBs, and 0.024 kg of total uranium (Table Summ-2).

2. Extraction and Treatment System Monitoring and Ground and Surface Water Monitoring Programs

Section 2 presents the monitoring results for the Site 300 remediation systems, ground water monitoring network, and surface water sampling and analyses. These results are presented and discussed by operable unit (OU) as follows:

2.1. General Services Area OU 1

2.2. Building 834 OU 2

2.3. Pit 6 Landfill OU 3

2.4. High Explosives Process Area (HEPA) OU 4

2.5. Building 850/Pit 7 Complex OU 5

2.6. Building 854 OU 6

2.7. Building 832 Canyon OU 7

2.8. Site-Wide OU 8 (Building 833, Building 801/Pit 8, Building 845/Pit 9, and Building 851)

The locations of the Site 300 OUs 1 through 8 are shown on Figure 2-1. The Pit 2, 8, and 9 Landfills (OU 8) are discussed in Section 3.

Treatment facility operations and maintenance issues that occurred during second semester 2015 and influent and effluent analytical data collected during second semester 2015 are included in this report. Treatment facility pH data collected during second semester 2015 are presented in Appendix A. Ground and surface water monitoring analytical data and ground water elevation measurements for the entire calendar year 2015 are presented in Appendices B and C, respectively. Details pertaining to three new wells installed during 2015 are presented in Table 2-1. An acronym list is located in the Table Section of this report.

In accordance with the 2009 CMP/CP requirements, post-only concentration maps and isoconcentration contour maps depicting primary and secondary contaminant of concern (COC) data are presented in this annual CMR report along with hydraulic capture zones for all hydrostratigraphic units (HSUs) where ground water elevation and concentration data are contoured.

Total VOC isoconcentration contour maps were constructed by contouring the sum of the results of the following VOCs: trichloroethene (TCE); tetrachloroethene (PCE); cis-1,2-dichloroethene (cis-1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); carbon tetrachloride (CTET); chloroform; 1,1-dichlorethane (1,1-DCA); 1,2-dichlorethane (1,2-DCA); 1,1-dichloroethene (1,1-DCE); 1,1,1-trichloroethane (1,1,1-TCA); trichlorofluoromethane (Freon 11); 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113); 1,1,2-trichloroethane (1,1,2-TCA); and vinyl chloride. The individual VOCs that make up these total VOC concentrations are also posted on these maps. VOC concentrations presented in the text are total VOCs described above unless a specific VOC is cited. Isoconcentration contour maps and post-only maps for the primary COCs were constructed using second semester 2015 data. Isoconcentration contour maps and post-only maps for the secondary COCs were constructed using first semester 2015 data. To create a snapshot in time, hydraulic capture zones and extents of saturation are based on ground water elevation data collected during the same semester as the same COC data. For collocated wells, the highest concentration was used for contouring.

As a result, in some rare instances, the maximum COC concentrations reported in the text might not agree with the value posted on the contour map. The two values would not agree if the annual maximum concentration sample was collected during a different semester. The two values would also not agree if the maximum concentration sample was collected during the same semester, but during a different quarter. All COC and ground water elevation maps were constructed using a single quarterly sampling data set selected because it contained the most complete geographic coverage for the 6-month reporting period. Specific ground water monitoring data are discussed within each OU section and all ground water analytical data are included in the data tables presented in Appendix B of this report.

Hydraulic capture and injection zones are also presented in this report. The capture zones are defined only for extraction and injection wells that were active during the time period when the ground water elevations were measured. The CMR capture zones are based primarily on the equipotentials of the ground water elevation contour maps. These equipotential-based CMR capture zones may differ from the capture zones presented in the Site-Wide Remediation Evaluation Summary Report (SWESR) (Ferry et al., 2006), because the SWESR capture zones were estimated using computer models such as Winflow or Finite Element subsurface FLOW system (FEFLOW). As a general rule, the CMR capture zones were extended to two upgradient ground water elevation contours. For cases where there were few observation wells located nearby, a Thiem solution for steady-state radial flow in the vicinity of a pumping well was used to control the ground water elevation contours. Hydraulic capture and injection zones are displayed on ground water elevation contour maps and primary and secondary COC isoconcentration contour maps for all OUs where active ground water remediation is occurring (i.e., OU 1, OU 2, OU 4, OU 5, OU 6 and OU 7). As previously mentioned, hydraulic capture zones are based on ground water elevation data collected during the same semester the COC data was collected.

During 2014, it was discovered that the check valves were not functioning properly in some low-yield and cyclic-operating extraction wells. These check valves allowed extracted ground water to back-flow into the same well during non-pumping periods. This resulted in some overestimates of extracted ground water volumes and, therefore, overestimates of the total contaminant mass removed from the effected extraction wells. Throughout 2015, efforts were made to identify all extraction wells with this problem, and install additional check valves in pump discharge lines to prevent ground water from back flowing into the wells.

During 2015, shallow water-bearing zones throughout Site 300 continued to be dewatered by pumping extraction wells and prevailing drought conditions.

In this report, concentrations for most organic compounds are reported in µg/L. The primary exception is nitrate, which is reported throughout this report, in mg/L, as NO_3.

2.1. General Services Area (GSA) OU 1

The GSA OU consists of the Eastern and Central GSA areas.

The source of contamination in the Eastern GSA was abandoned debris burial trenches that received craft shop debris. Leaching of solvents in the debris resulted in the release of VOCs to ground water.

A ground water extraction and treatment system was operated in the Eastern GSA from 1991 to 2007 to remove VOCs from ground water. VOC-contaminated ground water was extracted from three wells (W-26R-03, W-25N01 and W-25N-24), located downgradient of the debris burial trenches, at a combined flow rate of 45 gallons per minute (gpm).

Remediation efforts in the Eastern GSA successfully reduced concentrations of TCE and other VOCs in ground water to below their respective Maximum Contaminant Level (MCL) cleanup standards set in the GSA Record of Decision (ROD) (United States [U.S.] Department of Energy [DOE], 1997). The Eastern GSA ground water extraction and treatment system was shut off on February 15, 2007 with the U.S. Environmental Protection Agency (EPA), Regional Water Quality Control Board (RWQCB) and California Department of Toxic Substances Control (DTSC) approval. As required by the GSA ROD, ground water monitoring was conducted for five years after treatment facility shutdown to determine if VOC concentrations rose or "rebounded" above MCL cleanup standards. The results of the monitoring, indicating that VOC concentrations had remained below MCL cleanup standards during the five-year post shutdown-monitoring period, were presented at the February 24, 2012 Remedial Project Manager's (RPM) Meeting. The regulatory agencies agreed that cleanup of the Eastern GSA was complete, monitoring and reporting could cease, and that close out documentation should be submitted. Therefore, the Eastern GSA is no longer discussed in the CMRs (Dibley et al., 2012).

At the Central GSA, chlorinated solvents, mainly TCE, were historically used as degreasing agents in craft shops, such as Building 875. Rinse water from these degreasing operations was disposed of in dry wells. Typically, the dry wells were gravel-filled holes about three to four feet (ft) deep and two ft in diameter. The Central GSA dry wells were used until 1982. In 1983 and 1984, these dry wells were decommissioned and excavated.

The Central GSA ground water treatment system has been operating since 1992 removing VOCs from ground water. The current ground water extraction wellfield consists of eight wells (W-7I, W-7O, W-7P, W-7R, W-872-02, W-873-07, W-875-07 and W-875-08). The entire extraction wellfield contributed to the volumes extracted during second semester 2015. There was a substantial increase in volumes of water extracted from W-7O and W-7P, which will be discussed in more detail below. The combined flow rates increased to an average rate of 9.0 gpm, with a high of 11.2 gpm in August. The Central GSA ground water treatment system also treated water from the Building 830-Distal South (830-DISS) facility. The current ground water extraction wellfield from 830-DISS connected to the Central GSA ground water treatment system consists of W-830-2216, W-830-51, W-830-52 and W-830-53. The current ground water treatment system configuration includes particulate filtration, air stripping to remove VOCs from extracted water, and granular activated carbon (GAC) to treat vapor effluent from the air stripper. Treated ground water is discharged to the surrounding natural vegetation using misting towers.

The Central GSA soil vapor treatment system began operation in 1994, in the GSA adjacent to the Building 875 dry well contaminant source area, removing VOCs from soil vapor. Soil vapor is currently extracted from seven wells (W-7I, W-875-07, W-875-08, W-875-09, W-875-10, W-875-11 and W-875-15) at a combined total flow rate of approximately 33 to 40 standard cubic feet per minute (scfm). This flow rate has been fairly consistent over the operational history of this system. Simultaneous ground water extraction in the vicinity lowers the elevation of the water table and maximizes the volume of unsaturated soil influenced by vapor extraction. The current soil vapor treatment system configuration includes a water knockout chamber, a rotary vane blower, and four 140-lb vapor-phase GAC columns arranged in series. Treated vapors are discharged to the atmosphere under a regulatory permit from the San Joaquin Valley Unified Air Pollution Control District.

A map of the Central GSA, showing the locations of monitor and extraction wells and treatment facilities is presented on Figure 2.1-1.

During 2015, construction of the new ground water treatment system, Central GSA-North, was completed. This system was intended to treat the northern plume area in the vicinity of monitor well W-889-01. At GCSA-North, water is extracted from one extraction well, W-CGSA-2708, treated and then discharged to the re-injection well, W-CGSA-2907. The treatment system consists of a Cuno® filter followed by three aqueous-phase granular activated carbon (GAC) vessels (in series) to remove VOCs. The ground water treatment system is expected to operate cyclically at very low flow rates (<1.0 gpm).

Construction and operational testing was completed by the end of September 2015. Post-construction pipeline flushing and evaluation began in October 2015 to eliminate or reduce residual organic compound in the pipelines associated with the PVC glue used in construction. Some of the residual compounds from the glue pose a particular problem as they have demonstrated poor sorption to GAC. To ensure none of these compounds are discharged to the re-injection well, the entire system was put through repeated recirculation through sacrificial GAC to remove VOCs. VOCs associated with the glue were still being detected in the pipeline in mid-November, when due to forecasted cold weather, the pipeline was drained and the entire system freeze protected for the winter. Although some water was extracted from the extraction well during the flushing process, this system did not become operational during this reporting period, and no water was discharged. Additional pipeline flushing and evaluation will be conducted in 2016 prior to official system startup.

2.1.1. GSA Ground Water and Soil Vapor Extraction and Treatment System Operations and Monitoring

This section is organized into five subsections: facility performance assessment; operations and maintenance issues; compliance summary; and sampling plan evaluation and modifications.

2.1.1.1. GSA Facility Performance Assessment

The monthly ground water and soil vapor discharge volumes and rates and operational hours for second semester 2015 are summarized in Table 2.1-1. The total volume of ground water and vapor extracted and treated and masses removed during the reporting period are presented in Table Summ-1. The cumulative volume of ground water and soil vapor treated and discharged and masses removed are summarized in Table Summ-2. Analytical results for influent and effluent samples collected during second semester 2015 are presented in Table 2.1-2. The pH measurement results are presented in Appendix A. The CGSA-North ground water treatment system did not become fully operational during this reporting period, so no data is included in these tables or in Appendix A.

2.1.1.2. GSA Operations and Maintenance Issues

The following maintenance and operational issues interrupted continuous operations of the Central GSA ground water treatment system and soil vapor treatment system during second semester 2015:

- The ground water treatment system was offline from June 4 until August 17 due to an electrical problem with one of the misting head motors. The ground water treatment system again shutdown on September 8 due to additional electrical problem with the remaining misting head motors, and remained non-operational the remainder of the operating period.
- The soil vapor treatment system was offline from November 22 until November 23 due to a power outage.

2.1.1.3. GSA Compliance Summary

The Central GSA ground water treatment system operated in compliance with the RWQCB Substantive Requirements for Wastewater Discharge during second semester 2015. The Central GSA soil vapor treatment system operated in compliance with San Joaquin Valley Air Pollution Control District permit limitations.

2.1.1.4. GSA Facility Sampling Plan Evaluation and Modifications

The Central GSA treatment facility sampling and analysis plan complies with the monitoring requirements in the CMP/CP. The treatment facility sampling and analysis plan is presented in Table 2.1-3. No modifications were made to the plan during this reporting period. A new sampling and analysis plan will be included in 2016 CMR for the Central GSA-North ground water treatment system.

2.1.1.5. GSA Treatment Facility and Extraction Wellfield Modifications

No modifications were made to the Central GSA ground water treatment system, soil vapor treatment system, or the extraction wellfield during this reporting period.

2.1.2. GSA Surface Water and Ground Water Monitoring

The sampling and analysis plan for ground water monitoring at the Central GSA is presented in Table 2.1-4. This table delineates and explains deviations from the sampling plan. The sampling and analysis plans for the three Eastern GSA offsite water-supply wells and the three Eastern GSA wells retained for CMP monitoring downgradient of the Central GSA, have been incorporated into Table 2.1-4.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions: a total of 11 required analyses in six different wells were not performed were not performed because the wells were dry or there was insufficient water for sample collection; one required analysis was not performed in a seventh well due to an inoperable pump that has since been replaced.

Analytical results and ground water elevation measurements obtained during 2015 are presented in Appendices B and C, respectively.

For the Central GSA, ground water elevations and the potentiometric surface contour map, based on second semester 2015 data, for the Qt-$Tnsc_1$ and Qal-$Tnbs_1$ HSUs, including hydraulic capture zones, are presented on Figure 2.1-2. Hydraulic capture zones were not included in the potentiometric surface contour map as the Central GSA ground water treatment system was shut down due to misting tower problems for the majority of the semester.

2.1.3. GSA Remediation Progress Analysis

This section is organized into four subsections: mass removal; analysis of contaminant distribution and concentration trends; remediation optimization evaluation; and performance issues.

2.1.3.1. GSA Mass Removal

The monthly ground water and soil vapor mass removal estimates for second semester 2015 are summarized in Table 2.1-5. The total mass removed during the reporting period and cumulative mass estimates are summarized in Table Summ-1 and Table Summ-2, respectively.

2.1.3.2. GSA Contaminant Concentrations and Distribution

At the Central GSA, VOCs are the only COCs in ground water and soil vapor. TCE is the most prevalent VOC, comprising approximately 90% of the total VOCs. Other VOC COCs include tetrachloroethene (PCE), cis-1,2-dichloroethene (cis-1,2-DCE), 1,1-dichloroethene (1,1-DCE), 1,1,1-trichloroethane (TCA), benzene, bromodichloromethane, and chloroform; additionally, trans-1,2-dichloroethene (trans-1,2-DCE), 1,1-dichloroethane (1,1-DCA), and Freon 11 were detected in 2015. The HSUs in the Central GSA are the Qt-$Tnsc_1$ HSU (western part of the Central GSA), Qal-$Tnbs_1$ HSU (eastern part of the Central GSA), and underlying Upper and Lower $Tnbs_1$ HSUs.

Dry Well Pad Area

A VOC plume is present in Qt-$Tnsc_1$ and Qal-$Tnbs_1$ HSU ground water in the Central GSA dry well pad area. The highest VOC and TCE concentrations have been detected in wells screened in the Qt-$Tnsc_1$ HSU within the Building 875 dry pad area. Prior to remediation, the historic maximum total VOC concentration detected in Central GSA ground water was 272,000 µg/L in a bailed ground water sample collected during drilling of the Building 875 dry well pad area dual-extraction well W-875-07 in March 1992. Total VOC concentrations in the Building 875 dry well area have decreased to a 2015 maximum of 550 µg/L in dual-extraction well W-875-07 (August). While most of the VOCs detected in the Building 875 dry well area consist of TCE, other VOCs in this area detected during the reporting period included PCE, cis-1,2-DCE, 1,1-DCE, trans-1,2-DCE, and 1,1-DCA. Of these VOCs, only TCE, PCE, and cis-1,2-DCE were present at concentrations that significantly exceeded their MCL cleanup standards while 1,1-DCE was present at concentrations slightly above its MCL cleanup standard.

Overall, a decreasing trend of VOC concentrations in ground water continued in 2015 in the dry well pad area. For example, TCE concentrations have decreased from a historic maximum of 240,000 µg/L in dual-extraction well W-875-07 (1993) to a 2015 maximum of 460 µg/L (August). PCE concentrations have decreased from a historic maximum of 25,000 µg/L (W-875-07, 1993) to a 2015 maximum of 30 µg/L (August). In dual-extraction well W-7I, cis-1,2-DCE and 1,1-DCA concentrations have decreased from a 1993 historic maximum of 16,000 µg/L and 38 µg/L respectively, to a 2015 maximum of 71 µg/L (August) and below the 5.0 µg/L MCL cleanup standard at 0.72 µg/L (April). Concentrations of 1,1-DCE have decreased from a historic maximum of 860 µg/L (W-7I, 1993) to a 2015 maximum of 7.8 µg/L (W-875-07, August).

During 2015, TCE soil vapor concentrations in the Building 875 dry well pad area (wells W-7I, W-875-07, W-875-08, W-875-09, W-875-10, W-875-11, W-875-12 and W-875-15) ranged from below reporting limits to 1.4 parts per million on a volume per volume basis ($ppm_{v/v}$). These vapor concentrations have decreased significantly from the historic maximum TCE vapor concentration of 530 $ppm_{v/v}$ detected in extraction well W-875-07 in 1994.

Outside the Dry Well Pad Area

Outside the Building 875 dry well pad area, wells monitor the (1) Qt-$Tnsc_1$ and the Qal-$Tnbs_1$ HSUs, (2) Upper $Tnbs_1$ HSU and (3) Lower $Tnbs_1$ HSU.

Qt-$Tnsc_1$ and Qal-$Tnbs_1$ HSUs

For monitor wells outside of the dry well pad area screened in the Qt-$Tnsc_1$ and the Qal-$Tnbs_1$ HSUs, the historic maximum total VOC concentration was detected in well W-7O (screened in the Qt-$Tnsc_1$ HSU) at 920 µg/L (1994), declining to a 2015 maximum total VOC concentration of 96 µg/L (March). Alongside TCE, PCE, cis-1,2-DCE, 1,1-DCE, trans-1,2-DCE, and Freon 11 were also detected in wells outside of the dry well pad area; of these VOCs, only TCE and PCE (at 6.7 µg/L) were present above their MCL cleanup standard of 5 µg/L.

Upper $Tnbs_1$ HSU

One monitor well is screened in the Upper $Tnbs_1$ HSU, W-873-01. This well has never had VOCs detected above the reporting limit since installation in 1988.

Lower $Tnbs_1$ HSU

Five monitor wells are screened in the deeper Lower $Tnbs_1$ HSU. The historic maximum total VOC concentration was detected in well W-7G at 47 µg/L (primarily TCE, 1989) declining to less than the reporting limit in all five wells during 2015. VOCs have not been detected above their respective reporting limits in Lower $Tnbs_1$ Central GSA wells since 2001.

South of the Site 300 Boundary

South of the Site 300 boundary, 17 wells monitor the (1) Qt-$Tnsc_1$ HSU, (2) Upper $Tnbs_1$ HSU, and (3) Lower $Tnbs_1$ HSU.

South of the Site 300 boundary, seven monitor wells and two guard wells are screened in the Qt-$Tnsc_1$ HSU. During 2015, total VOCs were detected in only three Qt-$Tnsc_1$ HSU offsite monitor wells, W-35A-01 (64 µg/L, June and 61 µg/L, December), W-35A-09 (2.57 µg/L, June), and W-35A-10 (15 µg/L, June and December). The historic maximum total VOC concentration observed in Qt-$Tnsc_1$ HSU ground water south of the Site 300 boundary was detected in well W-35A-01 at 545 µg/L (comprised of 510 µg/L TCE and 30 µg/L PCE, 1991). Only TCE remains above its MCL cleanup standard (5 µg/L) at 56 µg/L, whereas PCE has decreased to 3.6 µg/L (December) in 2015.

During the reporting period, no VOCs were detected above their reporting limits in the remaining Qt-$Tnsc_1$ HSU Central GSA wells located south of the Site 300 boundary including guard wells W-35A-08 and W-35A-14, neither of which has had detectable VOCs since their construction in 1994.

Upper $Tnbs_1$ HSU

During 2015, no VOCs were detected in the three monitor wells (W-35A-05, -12 and -13) screened in the Upper $Tnbs_1$ HSU, south of the Site 300 boundary. VOCs were last detected in this HSU south of the Site 300 boundary in 2006 (0.59 µg/L TCE, W-35A-13).

Lower $Tnbs_1$ HSU

No VOCs above the reporting limit were detected in the five Lower $Tnbs_1$ Central GSA wells located south of the Site 300 boundary during 2015. VOCs have not been detected in this HSU south of the Site 300 boundary since 2014, when 0.81 µg/L total VOCs were detected at CDF1 (January).

2.1.3.3. GSA Remediation Optimization Evaluation

During 2015, the combined extraction flow rates increased to an average rate of 9.0 gpm, with a short-term maximum flow rate of 11.2 gpm in August. By contrast, the average combined flow rate was 1.3 gpm during 2014. The higher extraction flow rates in 2015 are due primarily to ground water extraction wells W-7O, W-7R, and W-7P. Increased flow at W-7O and W-7R is attributable to elevated water levels following a 3.5-month winter facility shutdown period and December 2014 precipitation events. In March 2015, the pump intake depth at W-7P was lowered, resulting in ground water extraction; W-7P was unable to pump ground water in 2014 due to a combination of ground water elevation and maintenance issues.

At the Central GSA, ground water extraction continues to capture the highest concentrations in ground water. Remediation efforts have reduced VOC concentrations in Central GSA ground water from a historic maximum of 272,000 µg/L in 1992 (W-875-07) to a 2015 maximum of 550 µg/L (W-875-07, August). At the eastern edge of the VOC plume, VOC concentrations continue to decrease and remain below the 5 µg/L MCL cleanup standard in monitor wells W-26R-06 and W-26R-11.

Ground water remediation continues to reduce VOC concentrations in two key offsite performance monitor wells, W-35A-01 and W-35A-10, located within 50 and 100 ft of the southern site boundary, respectively. Well W-35A-01 appears to be within the hydraulic capture zone of the Central GSA extraction well W-875-08 based on recent capture zone analysis. Although well W-35A-10 is likely not within the hydraulic capture zone of the Central GSA extraction wellfield, VOC and TCE concentrations continue to exhibit a long-term declining trend due to hydraulic capture of VOCs upgradient of this well. TCE concentrations in W-35A-10 have declined from a historic maximum of 86 µg/L (1994) to 15.1 µg/L in 2015 (June and December). No other VOCs were detected above their MCL cleanup standards in W-35A-10.

Substantially more VOC mass continues to be removed in the vapor-phase by soil vapor extraction than in the aqueous-phase by ground water extraction; of the 385 grams (g) of VOCs removed during 2015 at the Central GSA treatment facility, 300 g (78%) were removed in the vapor-phase. A comparison between 2014 and 2015 data indicates the volume of treated soil vapor increased by approximately 11% from 17.7 million cubic feet (cf) (2014) to 18.3 million cf (2015), and the VOC mass removed by soil vapor extraction decreased approximately 47% from 570 g (2014) to 300 g (2015). The reduction in soil vapor mass removal is attributable to the continuous decline of VOC concentrations within the dry well pad source area, indicative of long-term VOC source mass reduction. A comparison between 2014 and 2015 ground water data indicates the volume of treated ground water increased by 274% from 354,000 gallons (2014) to 972,000 gallons (2015), and the VOC mass removed by ground water extraction increased by 161% from 52 g (2014) to 85 g (2015). The increase in extracted ground water volume and VOC dissolved phase mass removal is primarily due to increased pumping from ground water extraction well W-7P. The increased pumping is related to the December 2014 recharge event combined with a lowering of the pump intake in W-7P. For ground water and soil vapor combined, an approximate 38% decrease in VOC mass removed occurred in 2015 (385 g) compared with 2014 (622 g), likely related to the long-term reduction in VOC source mass reduction. Table Summ-1 lists the mass removed by each individual treatment facility.

In 2012, a new extraction well (W-CGSA-2708) was installed to address VOCs in the northern plume area in lieu of converting well W-889-01 to an extraction well as recommended in the third GSA Five-Year Review (Valett et al., 2011). Originally planned for connection to the Central GSA treatment facility, W-CGSA-2708 was alternatively connected to a new treatment facility (CGSA-North) built by the DOE in 2015. During 2013, a new injection well (W-CGSA-2907) was installed in the vadose zone portion of the $Qt\text{-}Tnsc_1$ HSU, upgradient of extraction well W-CGSA-2708. The well was developed and tested during 2014; test results indicate this well has sufficient capacity to accept ground water extracted from W-CGSA-2708. During 2015, the maximum total VOC concentration in nearby monitor well W-889-01 was 9.4 µg/L (December), continuing a declining trend since 1998 (75 µg/L) and 2011 (28 µg/L).

2.1.3.4. GSA OU Remedy Performance Issues

Due to problems with the misting tower head motors, the Central GSA ground water treatment system was inoperable for the majority of the second semester 2015 and is currently awaiting necessary upgrades and repairs. Otherwise, there were no new issues that affect the performance of the cleanup remedy for the GSA OU during this reporting period. The remedy continues to be effective and protective of human health and the environment, and to make progress toward cleanup.

2.2. Building 834 OU 2

The Building 834 Complex has been used to test the stability of weapons and weapon components under various environmental conditions since the 1950s. Past spills and piping leaks in the OU have resulted in soil and ground water contamination with VOCs and TBOS/TKEBs. Nitrate concentrations in Building 834 ground water that exceed the MCL cleanup standard (45 mg/L) are likely caused by a combination of natural sources and septic system leachate. Also, a former underground diesel storage tank released diesel to the subsurface.

The Building 834 OU is informally divided into three areas: the core, leachfield (septic system), and distal areas (Figure 2.2-1). The core area generally refers to the vicinity of the buildings and test cells in the center of the Building 834 Complex where the majority of contaminant releases occurred. The leachfield area is located immediately southwest of the core area. The distal (T2) area refers to the area downgradient (south) of the core and leachfield areas. A map of Building 834 OU showing the locations of monitor and extraction wells and treatment facilities is presented on Figure 2.2-1.

The Building 834 ground water treatment system and soil vapor treatment system began operation in 1995 and 1998, respectively. These systems are located in the Building 834 core area. The ground water extraction wellfield removes VOCs, nitrate, and TBOS/TKEBs from ground water within the Tpsg HSU and the soil vapor treatment system removes VOCs from soil vapor. Due to the very low ground water yield from individual extraction wells (<0.1 gpm), the ground water treatment system and soil vapor treatment system have been operated simultaneously in batch mode. Although the ground water treatment system can be operated alone, the soil vapor treatment system is not operational without ground water extraction due to the upconing of the ground water in the wells that covers the well screens and prevents soil vapor flow until the water table is sufficiently lowered.

The current extraction wellfield consists of 12 active dual-extraction wells for both ground water and soil vapor. Nine extraction wells (W-834-B2, -B3, -D4, -D6, -D7, -D12, -D13, -J1, and -2001) are located within the core area and three (W-834-S1, -S12A, and -S13) within the leachfield area. The ground water treatment system extracts ground water at an approximate combined flow rate of 0.36 gpm and the soil vapor treatment system extracts soil vapor at a combined flow rate of approximately 125 to 139 scfm. The current ground water treatment system configuration includes floating hydrocarbon adsorption devices to remove the floating silicon oil, TBOS/TKEBs, and floating diesel (if any), followed by aqueous-phase GAC to remove VOCs, dissolved-phase TBOS/TKEBs, and diesel from ground water. Nitrate-bearing treated effluent is then discharged via a misting tower onto the landscape for uptake and utilization of the nitrate by indigenous grasses. The current soil vapor treatment system configuration includes vapor-phase GAC for VOC removal. Treated vapors are discharged to the atmosphere under an air permit issued by the San Joaquin Valley Unified Air Pollution Control District.

Since 2005, a long-term enhanced *in situ* bioremediation treatability test has been conducted at the distal T2 Area. This testing has included biostimulation to transform ground water from oxidizing to reducing conditions and bioaugmentation with KB-1™, a natural non-pathogenic microbial consortium capable of complete dechlorination of TCE to ethene. This long-term test is described in Section 2.2.3.4.

Figure 2.2-1 shows the locations of wells and treatment facilities in the Building 834 OU.

2.2.1. Building 834 OU Ground Water and Soil Vapor Extraction and Treatment System Operations and Monitoring

This section is organized into four subsections: facility performance assessment; operations and maintenance issues; compliance summary; and sampling plan evaluation and modification.

2.2.1.1. Building 834 OU Facility Performance Assessment

The monthly ground water and soil vapor discharge volumes and rates and operational hours for second semester 2015 are summarized in Table 2.2-1. The total volumes of ground water and vapor extracted and treated and masses removed during the reporting period are presented in Table Summ-1. The cumulative volume of ground water and soil vapor treated and discharged and masses removed are summarized in Table Summ-2. Analytical results for influent and effluent samples collected during second semester 2015 are presented in Tables 2.2-2 through 2.2-4. The pH measurement results are presented in Appendix A.

2.2.1.2. Building 834 OU Operations and Maintenance Issues

The following maintenance and operational issues interrupted continuous operations of the Building 834 ground water treatment system and soil vapor treatment system during second semester 2015:

- Both the ground water treatment system and soil vapor treatment system were taken offline on August 17 to evaluate excessive noise coming from the vapor extraction blower. Blocked pressure tubes were found and repaired, and the systems were restarted on August 24.
- Both the ground water treatment system and soil vapor treatment system were shut down on November 17 for the annual winter freeze protection, and remained off for the remainder of the reporting period.

2.2.1.3. Building 834 OU Compliance Summary

The Building 834 ground water treatment system operated in compliance with the RWQCB Substantive Requirements for Wastewater Discharge during second semester 2015. The Building 834 soil vapor treatment system also operated in compliance with San Joaquin Valley Air Pollution Control District permit limitations during second semester 2015.

2.2.1.4. Building 834 OU Facility Sampling Plan Evaluation and Modifications

The Building 834 treatment facility sampling and analysis plan complies with the monitoring requirements in the CMP/CP. The sampling and analysis plan is presented in Table 2.2-5. No modifications were made to the plan during this reporting period.

2.2.1.5. Building 834 OU Treatment Facility and Extraction Wellfield Modifications

No modifications to the treatment facility or to the extraction wellfield were made during this reporting period.

2.2.2. Building 834 OU Ground Water Monitoring

The sampling and analysis plan for ground water monitoring is presented in Table 2.2-6. This table also delineates and explains deviations from the sampling plan.

During this reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions. A total of 91 required analyses in 31 different wells were not performed because the wells were dry or there was insufficient water to collect the samples and a total of three required analyses in one well (W-834-T3) were not performed due to restricted access to the well.

Analytical results and ground water elevation measurements obtained during 2015 are presented in Appendices B and C, respectively.

The ground water elevation contour map for the Tpsg HSU is presented on Figure 2.2-2. Ground water elevations for the Tps-$Tnsc_2$ HSU are posted on Figure 2.2-3.

2.2.3. Building 834 OU Remediation Progress Analysis

This section is organized into four subsections: mass removal, analysis of contaminant distribution and concentration trends, remediation optimization evaluation, and performance issues.

2.2.3.1. Building 834 OU Mass Removal

The monthly ground water and soil vapor mass removal estimates for second semester 2015 are summarized in Table 2.2-7. The total mass removed during the reporting period and cumulative mass estimates are summarized in Table Summ-1 and Table Summ-2, respectively.

2.2.3.2. Building 834 OU Contaminant Concentrations and Distribution

At the Building 834 OU, VOCs (primarily TCE but also PCE, cis-1,2-DCE, 1,1,1-TCA, and chloroform) are the primary COCs detected in ground water; TBOS/TKEBs and nitrate are the secondary COCs. These COCs have been identified in two shallow HSUs: (1) the Tpsg perched water-bearing gravel zone, and (2) the underlying Tps-$Tnsc_2$ perching horizon. Figure 2.2-1 shows the location of wells and treatment facilities in the Building 834 OU.

For the Tpsg HSU: (1) isoconcentration contour and individual concentration maps for total VOCs, based on second semester data, are presented on Figure 2.2-4; (2) first semester TBOS/TKEBS concentrations are posted on Figure 2.2-5; and (3) first semester nitrate concentrations are posted on Figure 2.2-6. For the Tps-$Tnsc_2$ HSU, individual VOC, TBOS/TKEBS and nitrate concentrations are posted on Figure 2.2-3. Because each CMR map is representative of contaminant concentrations during a particular semester, the maximum concentration shown on the CMR map may not match the maximum concentration for 2015 described in the text.

2.2.3.2.1. VOCs Concentrations and Distribution

Although the overall extent of VOCs in the Building 834 OU ground water and soil vapor have not changed significantly, the maximum concentrations have decreased by more than one order-of-magnitude since remediation began in the mid-1990s. VOCs detected in Building 834 area ground water consist primarily of TCE and cis-1,2-DCE. Other VOCs including PCE, 1,1-DCE, 1,1,2-TCA, trans-1,2-DCE, 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113), vinyl chloride, and chloroform as well as ethane and ethene have also been detected, albeit in much lower concentrations during recent years. The compounds cis-1,2-DCE, vinyl chloride, ethane, and ethene are the TCE microbial dechlorination breakdown products under anaerobic conditions. The detection of significant concentrations of ethane and ethene in the T2 area required biostimulation with a vinyl chloride reducing bacteria.

Core Area

The Building 834 core area continues to exhibit the highest VOC concentrations in ground water and soil vapor. VOC concentrations and distribution in ground water and soil vapor in the Tpsg and Tps-Tnsc$_2$ HSUs in the Building 834 core area are discussed below.

Tpsg HSU

Twenty-six wells (18 monitor and eight dual-phase extraction) are screened in the Tpsg HSU, where active remediation has reduced total VOC ground water concentrations from a historic maximum of 1,100,000 µg/L (all TCE, W-834-D5, 1988) to a 2015 maximum of 52,000 µg/L (February, extraction well W-834-C5), located approximately 100 ft south of W-834-D5. Over the past two years, the highest concentrations of total VOCs in core area Tpsg HSU wells have been observed in well W-834-C5 at 54,000 µg/L (2014) and 60,000 µg/L (2013) illustrating an overall declining trend in total VOCs in the area.

TCE concentrations have decreased from a historic maximum of 1,100,000 µg/L in W-834-D5 (1988) to a 2015 maximum of 33,000 µg/L (July) in well W-834-C5. Since 2003, TCE concentrations in the Tpsg HSU have been observed in this well, fluctuating within a general range between 48,000 µg/L (2003) and 11,000 µg/L (2015).

In the core area, cis-1,2-DCE and vinyl chloride are microbial dechlorination products of TCE in wells that contain TBOS/TKEBS as co-contaminants. Cis-1,2-DCE concentrations have decreased from a historic maximum of 540,000 µg/L (W-834-D4, 1990) to a 2015 maximum of 19,000 µg/L (July) in well W-834-C5, similar to the 2014 maximum of 20,000 µg/L in the same well. During the reporting period, only four core area Tpsg HSU wells had vinyl chloride concentrations above the reporting limit, all which exceeded the MCL cleanup standard (2 µg/L) including extraction wells W-834-B3 (22 µg/L, September) and W-834-D4 (18 µg/L, February), and monitor wells W-834-C5 (6.2 µg/L, July) and W-834-D3 (2.2 µg/L, August). Although not sampled for this compound in 2015, very low concentrations of ethene most recently detected in monitor well W-834-J2 (0.74 µg/L, 2012), monitor well W-834-D3 (0.66 µg/L, 2012) and extraction well W-834-B3 (0.27 µg/L, 2012) indicate at least partial degradation under biotic or abiotic processes to a benign end product.

PCE concentrations have decreased from a historic maximum of 10,000 µg/L (W-834-D3, 1993) to a 2015 maximum of 110 µg/L (W-834-C5, July), similar to the 120 µg/L detection in the same well, in 2014. Although 1,1,1-TCA was detected at a historic maximum of 33,000 µg/L in extraction well W-834-J1 (1991), this compound was not detected above the reporting limit in this or any other well, in the Building 834 OU during 2015, nor in 2014 and 2013. During 2015, the compound 1,1-DCE was detected in five core area wells, above the reporting limit and in two wells, above the 6 µg/L MCL cleanup standard, in W-834-C5, (59 µg/L, July) and W-834-B3 (21 µg/L, September). In 2014, this compound was detected in the same two wells, at similar concentrations. In 2015, the compound trans-1,2-DCE was detected in one well above the MCL cleanup standard of 10 µg/L, in extraction well W-834-B3 (59 µg/L, June); in subsequent sampling events, trans-1,2-DCE dropped to 12 µg/L in September and was below the reporting limit in October. The historic maximum trans-1,2-DCE concentration in this well was 37 µg/L (2002) but it is worth noting that the detection limit for this compound has varied between <0.5 to <300 µg/L depending on sample dilution by the analytical laboratory, since monitoring of this well began in 1991.

During 2015, the compounds 1,1,2-TCA and Freon 113 did not exceed MCL cleanup standards and were detected at low concentrations or were not detected above their respective reporting limits.

During 2015, TCE soil vapor concentrations from the core area soil vapor extraction (SVE) wells ranged from 0.06 to 6.2 $ppm_{v/v}$. The highest detection (6.2 $ppm_{v/v}$) is representative of ongoing vapor extraction operations rather than rebound conditions, as it was detected in extraction well W-834-B2 in October, approximately eight months after the resumption of treatment facility operations following the freeze protection shutdown period. TCE vapor concentrations have decreased by three orders-of-magnitude from a pre-remediation maximum core area concentration of 3,200 $ppm_{v/v}$ (extraction well W-834-D4, 1989). Well W-834-D4 is located approximately 10 ft from well W-834-D5, where the historic maximum ground water VOC concentration in the Tpsg HSU was observed.

The Tpsg HSU in the core area has exhibited declining VOC trends since treatment began in 1995.

Tps-Tnsc$_2$ HSU

In the core area, underlying the Tpsg HSU, the Tps-Tnsc$_2$ HSU continues to yield the highest VOC ground water concentrations in the Building 834 OU and at Site 300. Five wells (four monitor and one dual-extraction) are screened in the Tps-Tnsc$_2$ HSU. Total VOC concentrations in this HSU, comprised mostly of TCE, have decreased from a historic maximum of 250,000 µg/L (2002) to a 2015 maximum of 69,000 µg/L (February) and PCE concentrations have decreased from a historic maximum of 7,900 µg/L (2001) to a 2015 maximum of 300 µg/L (February). Both TCE and PCE maxima occurred in monitor well W-834-A1. TCE and PCE maxima in 2015 have also declined from 2014 maxima for both compounds (180,000 µg/L and 940 µg/L, respectively). Chloroform concentrations have decreased from a historic maximum of 42 µg/L (W-834-A1 and monitor well W-834-U1, 2000) to a single detection above the reporting limit (15.6 µg/L) in all core area Tps-Tnsc$_2$ HSU wells for 2015. The historic maximum for cis-1,2-DCE was 11,000 µg/L (W-834-U1, 2009), declining to a 2015 maximum of 4,000 µg/L (August) in the same well.

During 2015, vinyl chloride (6.6 µg/L, February) and 1,1-DCE (34 µg/L, February) were detected above their MCL cleanup standards in one well (W-834-U1) while trans-1,2-DCE and 1,1,2-TCA were detected slightly above its reporting limit and Freon 113 was below the reporting limit in the same well. These compounds were not detected above reporting limits in any other Tps-Tnsc$_2$ HSU wells in the core area. The compound 1,1,1-TCA was not detected above the reporting limit in any Tps-Tnsc$_2$ HSU wells in the core area.

During the reporting period, TCE soil vapor concentrations from the sole core area Tps-Tnsc$_2$ HSU SVE well W-834-2001 ranged from 0.22 to 0.25 $ppm_{v/v}$. The highest detection (0.25 $ppm_{v/v}$) is likely representative of ongoing vapor extraction operations, not rebound conditions, as it was collected in March, approximately two weeks after the resumption of treatment facility operations following the winter freeze protection shutdown period. The historic maximum TCE vapor concentration from this well was 30 $ppm_{v/v}$ (April 2011), and representative of rebound conditions following a prolonged period of treatment facility shutdown. Higher vapor concentrations may be observed after an extended rebound period.

Leachfield Area

VOC concentrations and distribution in ground water and soil vapor in the Tpsg and Tps-Tnsc$_2$ HSUs in the Building 834 leachfield area are discussed below.

Tpsg HSU

In the leachfield area, six wells (three monitor and three dual-phase extraction) are screened in the Tpsg HSU. Total VOCs in this HSU have decreased from a pre-remediation maximum of 179,200 µg/L (mostly TCE, W-834-S1, 1988) to a 2015 maximum of 8,800 µg/L (almost entirely TCE, August) in monitor well W-834-2113. The historic maximum PCE detection was 6,300 µg/L (W-834-S1, 1986) declining to a 2015 maximum of 56 µg/L (September) observed in the same well. Concentrations of cis-1,2-DCE have decreased from a historic maximum of 3,900 µg/L (W-834-S13, 2003) to a 2015 maximum of 89 µg/L (W-834-S1, June). The historic maximum chloroform detection was 950 µg/L (W-834-S1, 1989). During 2015, chloroform was detected at a very low concentration, in only one leachfield area Tpsg HSU well, W-834-2113 (1.5 µg/L, September). Concentrations of 1,1-DCE have decreased from a historic maximum of 30 µg/L (W-834-S1, 1985) to a 2015 maximum of 4 µg/L (W-834-2113, August) below the MCL cleanup standard of 6 µg/L; this was the only area well with detectable 1,1-DCE, in 2015. Concentrations of 1,1,1-TCA have decreased from a historic maximum of 300 µg/L (W-834-S1, 1986) to a below the reporting limit in all area wells. Vinyl chloride and Freon 113 were also not detected in any leachfield area Tpsg HSU wells, during the reporting period.

During 2015, TCE soil vapor concentrations in the leachfield area Tpsg HSU ranged from 0.22 to 4.5 ppm$_{v/v}$, significantly lower than the 710 ppm$_{v/v}$ maximum pre-remediation concentration measured in 2004 in well W-834-S13. The highest detection (4.1 ppm$_{v/v}$) is representative of ongoing dual-extraction operations, not rebound conditions, as it was collected from extraction well W-834-S12A, seven months after the resumption of treatment facility operations following the freeze protection shutdown period.

The Tpsg HSU in the leachfield area has exhibited declining VOC trends since treatment began in 1995.

Tps-Tnsc$_2$ HSU

In the leachfield area, the underlying Tps-Tnsc$_2$ HSU (monitored by two wells, W-834-S8 and -S9) exhibits VOC concentrations significantly lower than in the overlying Tpsg HSU or in the core area. Total VOC concentrations in Tps-Tnsc$_2$ HSU ground water have decreased from a historic maximum of 16,000 µg/L (entirely TCE, W-834-S8, 1992) to a 2015 maximum of 3,300 µg/L (almost entirely TCE, W-834-S8, August).

PCE concentrations have declined from a historic maximum of 170 µg/L (W-834-S8, 1993) to a 2015 maximum of 26 µg/L (W-834-S8, August). Cis-1,2-DCE concentrations have decreased from a historic maximum of 130 µg/L (W-834-S8, 1991) to a 2015 maximum of 42 µg/L (W-834-S8, August). 1,1,1-TCA has never been detected above the reporting limit in this HSU since 1989. Chloroform has decreased from a historic maximum of 6.1 µg/L (1993) to a 2015 maximum of 2.1 µg/L (August); both maxima occurred in W-834-S8. 1,1-DCE concentrations in 2015 were very low in both wells (0.57 µg/L, W-834-S8, August and 0.86 µg/L, W-834-S9, August). Freon 113, vinyl chloride and trans-1,2-DCE were not detected above the reporting limit during 2015 and trans-1,2-DCE has never been detected in leachfield area Tps-Tnsc$_2$ HSU wells since 1989.

The Tps-$Tnsc_2$ HSU in the leachfield area continues to exhibit declining VOC trends since monitoring began in 1989.

Distal Area

VOC concentrations and distribution in ground water in the Tpsg, Tps-$Tnsc_2$, and $Tnbs_1$ HSUs in the Building 834 distal area are discussed below.

Tpsg HSU

The distal area includes 20 monitor wells completed in the Tpsg HSU. Since 2005, this HSU (in the T2 area) has been the target of a long-term enhanced *in situ* bioremediation treatability study, discussed in Section 2.2.3.4 of this report.

Total VOC concentrations in this area have decreased from a historic maximum of 86,000 µg/L (entirely TCE, well W-834-T2A, 1988) to a 2015 maximum of 5,200 µg/L (entirely TCE, W-834-2117, August). This concentration has also declined from the 2014 maximum of 7,600 µg/L (entirely TCE) detected in this well.

PCE concentrations have decreased from a historic maximum of 160 µg/L (W-834-S6, 1987) to a 2015 maximum of 21 µg/L (W-834-2117, August). Except for this well and wells W-834-T2A (13 µg/L, February) and W-834-1824 (0.63 µg/L, August), PCE did not exceed the reporting limit in all distal area Tpsg HSU wells in 2015. Cis-1,2-DCE has decreased from a historic maximum of 6,200 µg/L in W-834-T2 (2008) to a 2015 maximum of 1,700 µg/L (W-834-T2A, August). Since 1999, when 2,600 µg/L of cis-1-2-DCE was detected in W-834-T2A, concentrations have decreased significantly to double digits and were detected at 12 µg/L in a February 2015 sample. This recent increase in cis-1,2-DCE is a strong indicator of the active reductive dechlorination of TCE currently underway in the T2 area. Concentrations of 1,1,2-TCA have decreased from a historic maximum of 200 µg/L (W-834-T2D, 1991) to below the reporting limit in all but one well during 2015 (W-834-2117, 0.87 µg/L, August). Chloroform has decreased from a historic maximum concentration of 270 µg/L (W-834-M1, 1999) to a 2015 maximum of 1.5 µg/L (February 2015) in the same well. This concentration (1.5 µg/L) is far below its MCL cleanup standard of 80 µg/L and except for a detection of 1.3 µg/L in W-834-2117 (August) was the only chloroform detection above the reporting limit in all distal area Tpsg HSU wells. During 2015, the only vinyl chloride detections above the reporting limit, were observed in wells W-834-T2 (180 µg/L, February) and W-834-1824 (7.8 µg/L, February and August). These vinyl chloride detections are within the range of concentrations observed in these wells in recent years. During 2014, in distal area Tpsg HSU wells, 1,1-DCE was detected at a very low concentration in only one well (W-834-1824, 1.8 µg/L, August) and trans-1,2-DCE and Freon 113 were not detected in any wells.

During 2015, the Tpsg HSU in the distal area has continued to exhibit declining VOC trends since monitoring began in 1989.

Tps-$Tnsc_2$ HSU

The underlying Tps-$Tnsc_2$ HSU is monitored by well W-834-2119, which contained a 2015 maximum total VOC concentration of 15,000 µg/L (nearly all TCE, February). After an initial increase between 2005 (when monitoring began) and 2007, VOC concentrations in this well have since been relatively stable in a range between 11,000 µg/L and 16,700 µg/L. In this well, 2015 maximum concentrations of primary COCs were 24 µg/L PCE (August), 57 µg/L cis-1,2-DCE

(August), 0.91 µg/L, and 4.1 µg/L chloroform (February). Freon 113, 1,1,1-TCA and vinyl chloride also did not exceed reporting limits.

$Tnbs_1$ HSU

In the distal area, the deeper $Tnbs_1$ HSU is monitored by well W-834-T1. VOCs were not detected in 2015 and have not been detected since 1986 and 1987 when very low concentrations (less than 4 µg/L) were detected immediately following well installation and were likely due to some cross contamination from shallow soil, during drilling.

2.2.3.2.2. TBOS/TKEBS Concentrations and Distribution

TBOS/TKEBS concentrations in ground water have decreased from a historic maximum of 7,300,000 µg/L (core area Tpsg HSU monitor well W-834-D3, 1995) to a 2015 maximum of 73 µg/L (core area Tpsg HSU extraction well W-834-B2, March). Over the past five years, maximum TBOS/TKEBS concentrations in well W-834-D3 ranged from 96,000 µg/L to 13,000 µg/L. Ground water sampled from well W-834-D3 yielded 25 µg/L of TBOS/TKEBS in February.

In the core area, 10 Tpsg HSU wells yielded detectable TBOS/TKEBS during 2015, ranging from 15 to 73 µg/L. This compound is a light, non-aqueous-phase liquid (LNAPL) that is found primarily in the core area, with the highest concentrations in the Tpsg HSU. TBOS/TKEBS concentrations differ significantly from one sampling event to the next. Although several attempts have been made to identify and measure TBOS/TKEBS as floating product, it was last observed in some core area wells in the mid-1990s. Wells that contain TBOS/TKEBS as co-contaminants with TCE, generally exhibit the highest concentrations of microbial degradation products, such as cis-1,2 DCE and vinyl chloride that accumulate under anaerobic conditions when the soil vapor extraction system is not operational.

Because TBOS/TKEBS concentrations in Tpsg HSU wells in the leachfield and distal areas have historically been low or below reporting limits, sampling for TBOS/TKEBS in the leachfield and distal areas are performed biennially, with approximately half the wells sampled during even numbered years and half sampled during odd numbered years. In the leachfield and distal area Tpsg HSU wells sampled during 2015, TBOS/TKEBS concentrations were below reporting limits, except for leachfield area Tpsg HSU extraction well W-834-S13 (29 µg/L, March). Historically, these wells have been below reporting limits for TBOS/TKEBS.

The concentration and extent of TBOS/TKEBS in ground water are greater in the Tpsg HSU than the underlying Tps-$Tnsc_2$ HSU. The historic maximum TBOS/TKEBS detection in the Tps-$Tnsc_2$ HSU is 110 µg/L (W-834-U1, 2009). During the reporting period, TBOS/TKEBS were detected in one well screened in the Tps-$Tnsc_2$ HSU, core area extraction well W-834-2001 (17 µg/L, March). During the reporting period, TBOS/TKEBS remained below the reporting limit in guard well W-834-T1.

2.2.3.2.3. Nitrate Concentrations and Distribution

During 2015, nitrate concentrations in Tpsg HSU ground water exceeded the 45 mg/L MCL cleanup standard in the Building 834 core, leachfield, and distal areas. During the reporting period, nitrate in Tpsg HSU ground water ranged from a maximum concentration of 330 mg/L (February) in core area monitor well W-834-C4 to below the 0.5 mg/L reporting limit.

In the core area, 2015 nitrate concentrations in the Tpsg HSU varied spatially and temporally. This may be due to denitrification associated with the ongoing intrinsic *in situ* biodegradation of TCE. Nitrate concentrations in Tpsg HSU ground water exceeded the 45 mg/L MCL cleanup standard in: (1) 11 core area wells at concentrations ranging from 61 to 330 mg/L, (2) four leachfield area wells at concentrations ranging from 130 to 210 mg/L, and (3) six distal area wells at concentrations ranging from 62 to 310 mg/L. All of these detections were within the historical range of nitrate concentrations observed in these wells since 2006. Nitrate detections in all other Tpsg HSU wells were below the MCL cleanup standard (45 mg/L) many of which did not exceed the reporting limit. It is worth noting that in 2014, seven core area Tpsg HSU wells had nitrate concentrations exceeding the 45 mg/L MCL cleanup standard, in a range between 60 and 210 mg/L. In 2015, the number of core area Tpsg HSU wells with nitrate exceeding the 45 mg/L MCL cleanup standard increased to 11, in a range between 62 to 310 mg/L. The source of this increased nitrate is unknown but again, the concentrations are still within the historical range of nitrate concentrations observed in these wells since 2006.

In the underlying Tps-$Tnsc_2$ HSU, 2015 nitrate concentrations in ground water exceeded the 45 mg/L MCL cleanup standard in (1) no core area wells due to microbial denitrification, (2) one leachfield area well (W-834-S9, 89 mg/L, February), (3) one distal area well (W-834-2119, 97 mg/L, February), and (4) one well south of the distal area (W-834-T5, 100 mg/L, February). All of these detections were within the historical range of nitrate concentrations observed in these wells since 2006. Nitrate detections in all other Tps-$Tnsc_2$ HSU wells were below the nitrate MCL cleanup standard (45 mg/L) many of which did not exceed the reporting limit.

Nitrate concentrations in ground water have decreased from a historic maximum of 749 mg/L (monitor well W-834-K1A, 2000 mg/L) to a 2015 maximum of 330 mg/L (W-834-C4, February). However, the continued presence of elevated nitrate indicates that an ongoing source of nitrate to ground water exists, likely due to a combination of both natural and anthropogenic sources. During 2015, nitrate was not detected in guard wells W-834-T1 and W-834-T3.

2.2.3.2.4. Other Contaminant Concentrations and Distribution

The extent of diesel in ground water in the Building 834 area is limited to the vicinity of a former underground storage tank located beneath the paved portion of the core area. Diesel concentrations have decreased from a historic maximum of 3,900,000 µg/L (W-834-2001, 2004) to a 2015 maximum of 4,900 µg/L (W-834-2001, February). Diesel concentrations measured in ground water tend to vary from one sampling event to the next, likely due to varying amounts of free-phase product in the subsurface and fluctuating ground water levels. No floating product was observed in ground water during 2015.

Perchlorate concentrations have decreased from a historic maximum of 11 µg/L (W-834-2118, 2005) to a 2015 maximum of 5.9 µg/L (W-834-2118, February) below the MCL cleanup standard of 6 µg/L. Perchlorate concentrations in well W-834-A2 did not exceed the reporting limit during 2015. Well W-834-S7 has historically contained perchlorate at concentrations ranging from 8.8 to 11 µg/L. Attempts to sample monitor well W-834-S7, in February and August, were unsuccessful because the well was dry. Semi-annual monitoring for perchlorate will continue for wells W-834-2118, W-834-S7 and W-834-A2.

2.2.3.3. Building 834 OU Remediation Optimization Evaluation

Ground water extraction and drought conditions continue to lower the water table within the Building 834 OU. During 2015, of 64 wells planned for sampling, 31 wells (48%) were dry or had insufficient water to sample.

During the reporting period, no modifications were made to the core or leachfield area extraction wellfields. As has been the case historically, during 2015, substantially more VOC mass was removed by soil vapor extraction than by ground water extraction. Of the 3,560 g of VOCs removed during 2015, 3,200 g (90%) were removed in the vapor-phase. For ground water and soil vapor combined, an approximate 45% decline in VOC mass removed occurred in 2015 (3,560 g) compared with 2014 (6,520 g). This decline was due to the decrease in soil vapor volumes, the phase in which most of the VOC mass is removed. In 2015, the volume of treated ground water increased by approximately 12% from 106,300 gallons (2014) to 120,400 gallons (2015) while the volume of treated soil vapor decreased by 27% from 57,069,000 cf (2014) to 41,632,000 cf (2015). The 12% increase in treated water volume from 2014 to 2015 may be overestimated, due to significant maintenance issues that included malfunctioning check valves that allowed extracted ground water to back-flow into the same cyclic-operated well during non-pumping periods. This issue is currently being addressed, by installing new double check valves in pump discharge lines. For all 12 extraction wells, scheduled maintenance activities, currently underway and planned for completion in 2016, include replacing well pumps, installing the aforementioned new double check valves, upgrading seals and tubing, rebuilding and replacing air regulators, and performing leak checks on air supply lines. The decrease in treated soil vapor volumes is relatively accurate. During 2014, the system was restarted in February following the winter shutdown period and operated for 11 months. During 2015, the system was not restarted until mid-March following the winter shutdown period and operated for only eight months (when it was shut down in mid-November, for winter freeze protection). Also, the treatment facility blower was not running at full capacity during 2015. Repairs are underway and the system should be returned to full capacity in 2016.

During 2015, the total nitrate mass removed was 59 kg, an increase of approximately 79% from 2014 when 33 kg of total nitrate was removed. This is due to the higher concentrations of nitrate detected in 11 core area Tpsg HSU wells, during 2015, described in Section 2.2.3.2.3. The total TBOS/TKEBS mass removed was 5.4 g, similar to 2014 (5.5 g) and previous years. Table Summ-1 lists the mass removed by each individual treatment facility.

Core Area

Dual extraction operations in the core area and regional drought conditions continue to dewater the Tpsg HSU. TCE biodegradation continues within the core area where significant amounts of TBOS/TKEBS are present and, when hydrolyzed, serves as an electron donor for biodegradation. Historically, the primary biodegradation byproduct has been cis-1,2-DCE, although vinyl chloride and trace detections of ethene have also been historically detected in some wells, especially in well W-834-D3. In the core area, cis-1,2-DCE and vinyl chloride are degradation products of intrinsic anaerobic biodegradation of TCE. Low concentrations of ethene (0.74 µg/L in W-834-J2 and 0.66 µg/L in W-834-D3, both 2012) suggest at least partial degradation to a benign end product.

During 2015, both cis-1,2-DCE and vinyl chloride were observed in core area Tpsg HSU ground water at maximum concentrations of 19,000 µg/L (W-834-C5, July) and 22 µg/L

(W-834-B3, September), respectively. During 2015, ground water samples from core area wells (and all OU wells) were not analyzed for ethane and ethene.

The Tpsg HSU extraction wellfield within the core area continues to adequately capture the highest VOC concentrations in ground water. Per the recommendations presented in the third Five-Year Review Report for the Building 834 Operable Unit (Valett et al., 2012), VOC concentrations in monitor well W-834-C5 and nearby well W-834-B4 will continue to be observed closely during the subsequent five years (2011-2016). If these wells exhibit increasing VOC trends, installation of extraction wells in the vicinity of these wells may be considered. Since both wells were installed in 2000, VOCs in W-834-C5 have fluctuated seasonally with no apparent increasing or decreasing long-term trend and W-834-B4 has remained generally stable with a decreasing trend since 2010.

VOC concentration trends in the underlying Tps-$Tnsc_2$ HSU will also continue to be monitored closely during the five years (2011-2016) subsequent to the last Five-Year Review Report. Per the recommendations presented in the Building 834 Five-Year Review, if well W-834-A1 exhibits increasing VOC trends, installation of additional extraction wells in this area may be considered. Total VOC concentrations in this well have decreased from a historic maximum of 250,000 µg/L (2002) to a 2014 maximum of 180,000 µg/L to a 2015 maximum of 69,000 µg/L (February) to 62,000 µg/L (July). Since 2011, there has been a decreasing VOC concentration trend in this well.

Leachfield Area

In the leachfield area, the extraction wellfield continues to capture some portions of the VOC plume in Tpsg HSU ground water. However, the areas with the highest concentrations (in the vicinity of monitor well W-834-2113) are not fully captured. In accordance with recommendations presented in the Building 834 Five Year Review, the leachfield area will undergo an extraction wellfield expansion by converting W-834-2113 from a monitor to extraction well planned for fiscal year 2016.

VOC concentration trends in the underlying Tps-$Tnsc_2$ HSU will also continue to be monitored closely during the five years (2011-2016) subsequent to the most recent Building 834 Five-Year Review. Per the recommendations presented in the Building 834 Five-Year Review, if distal area monitor well W-834-2119 exhibits increasing VOC trends, installation of additional extraction wells in this area may be considered. Since well W-834-2119 was constructed in 2005, VOC concentration trends have remained generally flat, within a range of 6,300 to 16,700 µg/L.

VOCs in ground water are expected to continue to decrease as remediation progresses. The deep regional $Tnbs_1$ aquifer continues to be free of contaminants as demonstrated by quarterly analyses of ground water as recently as December 2015 from guard wells W-834-T1 and W-834-T3, both screened in the Lower $Tnbs_1$ HSU.

2.2.3.4. T2 Treatability Study

Since 2005, the Tpsg HSU in the distal area has been the target of a long-term enhanced *in situ* bioremediation treatability study, including biostimulation using sodium lactate (April 2007 to December 2008) and bioaugmentation (August 2008) using KB-1, a consortium of dechlorinating bacteria that contain *Dehalococcoides*. This treatability study included post-test rebound monitoring to determine if VOC concentrations rebound after biostimulation and bioaugmentation was suspended (January 2009 to present).

The primary objective of this pilot-scale treatability study was to assess the performance of enhanced *in situ* bioremediation of TCE at concentrations greater than 10,000 µg/L in a water-bearing zone typical of TCE contaminant source areas at Site 300. In particular, the T2 area was specifically selected for this *in situ* pilot study due to: (1) the presence of typical challenges for source area remediation such as low hydraulic conductivity, subsurface heterogeneity, and limited recharge; and (2) the low potential for negatively impacting ground water with beneficial uses (i.e., perched ground water, isolated laterally and vertically from any receptors or ground water of beneficial use). Since 2005, progress of this test has been reported semi-annually and annually in the CMRs.

During 2015, a draft final Phase 2 pilot study work plan describing enhanced *in situ* bioremediation of TCE was submitted to regulators for review (LLNL, 2015). Planned activities include expansion of the original *in situ* bioremediation treatment zone at T2 by (1) implementing a small-scale recirculation cell extracting ground water from two nearby wells, W-834-T2A and W-834-T2D, (2) continuing to use well W-834-1824 as an injection well for biostimulation with a more effective form of lactate (ethyl lactate), and (3) using wells W-834-T2, W-834-1825 and W-834-1833 as performance monitor wells. In 2014, wells W-834-1824, W-834-1833 and W-834-T2 were sampled for analysis of *Dehalococcoides* bacteria, volatile fatty acids, and light hydrocarbons (W-834-1825 was scheduled but did not have sufficient water for sampling). The results indicated that Phase 1 *in situ* bioremediation continues to be successful and ideal conditions for Phase 2 implementation are present, with the exception that water levels in this area have declined significantly. Ethene production is ongoing, significant lactate is still present, and dechlorinating bacteria remain in the subsurface at high levels. Performance during Phase 2 will be measured by how effectively the treatment zone can be expanded by the recirculation cell beyond the original Phase 1 treatment zone. Some of the Phase 2 infrastructure (piping and aboveground tanks) has been constructed but lack of available ground water in the wells has delayed the project.

In the T2 area, VOC concentrations of 4,100 µg/L (entirely TCE) were measured in Tpsg HSU well W-834-1833 in 2013, however, by 2014, concentrations decreased to a historic low of 340 µg/L (almost all TCE). The well was dry and not sampled in 2015. These detections continue a steady decline from a historic maximum total VOC concentration of 21,000 µg/L (entirely TCE) in 2004 in W-834-1833. Ethene was detected at 0.11 µg/L (slightly above the laboratory reporting limit of 0.025 µg/L) and an oxidation/reduction potential (ORP) of -54 millivolts (mV) was measured in February 2014. Due to the decline in water levels, well W-834-1833 did not have sufficient ground water for sampling during 2015 and well W-834-1825 did not have sufficient ground water for sampling during 2014 or 2015.

During 2015, concentrations of cis-1,2-DCE at 230 µg/L and vinyl chloride at 180 µg/L (2015 maximum for the area), were detected in well W-834-T2 in February, while the total VOC concentration in this well was 430 µg/L, declining steadily from 30,000 µg/L (entirely TCE) in 2004. The most recent detection of ethene in well W-834-T2 at 200 µg/L in February 2014 demonstrates the complete dechlorination of TCE through bioaugmentation with KB-1. A most recent ORP measurement of -169 mV in February 2014 also demonstrates that subsurface conditions continue to be strongly anaerobic and conducive to reductive dechlorination.

Monitoring well W-834-1824 yielded 1,040 µg/L total VOCs comprised of 340 µg/L TCE, 690 µg/L cis-1,2-DCE and 7.8 µg/L vinyl chloride during 2015. Ethene was most recently detected at 3 µg/L and ORP measured in the field during sampling was -230 mV (February 2014). In 2004, this well yielded 26,000 µg/L total VOCs (mostly TCE). The trend also shows the dechlorination of TCE to its degradation end product ethene through biostimulation and bioaugmentation with KB-1.

In 2015, well W-834-T2A yielded 3,700 µg/L total VOCs (mostly TCE, February) and 2,100 µg/L total VOCs (comprised of 1,700 µg/L cis-1,2-DCE and 400 µg/L TCE) continuing a steady total VOCs decline from 86,000 µg/L (1988), to 5,500 µg/L (2014), to 3,700 µg/L (February 2015), to 2,100 µg/L (August 2015). From February to August 2015, cis-1,2-DCE, a TCE microbial dechlorination breakdown product under anaerobic conditions, increased from 12 µg/L to 1,700 µg/L. This recent increase in cis-1,2-DCE is a strong indicator of the active reductive dechlorination of TCE currently underway in the T2 area. Although W-834-T2A is located outside the treatment zone of the Phase 1 treatability test, a 2013 ground water sample from this well contained 0.48 µg/L ethene and 22 µg/L ethane. The presence of ethane indicates continued biodegradation of ethene under highly anaerobic conditions most likely in the T2 treatment zone upgradient of W-834-T2A.

The cumulative 2014 and 2015 data presented above, especially the continued presence of ethene, rapid rise of cis-1,2-DCE, the overall reduction in total VOCs, and reducing redox conditions indicate that enhanced *in situ* bioremediation of TCE continues in the T2 area, particularly in the vicinity of wells W-834-T2, W-834-1824 and W-834-1825. Initially, VOCs exhibited some rebound in the treatment zone for several months following the end of Phase 1 biostimulation in 2008, but they now exhibit a decreasing trend to the lowest historic VOC levels. Additionally, total VOC concentrations in well W-834-2117, located upgradient of the T2 treatment zone, have declined steadily from 22,000 µg/L (2005) to 6,000 µg/L (August 2014) to 5,200 µg/L (August 2015). Total VOC concentrations in well W-834-2118, located downgradient of the T2 treatment zone, have similarly decreased from 600 µg/L in 2005 to 130 µg/L in 2015.

2.2.3.5. Building 834 OU Remedy Performance Issues

During the reporting period, there were no new issues that affect the performance of the cleanup remedy for the Building 834 OU. Although declining water levels have impacted the ability to collect ground water samples and delayed the implementation of the second phase of the T2 enhanced bioremediation treatability test, soil vapor extraction in the core area continues to be an effective VOC mass removal method and continues to be protective of human health and the environment. Per the recommendations presented in the Building 834 Five Year Review, VOC trends are being monitored in Tps-Tnsc$_2$ HSU wells and installation of additional extraction wells in this HSU may be considered to increase the effectiveness of remediation of VOCs in the Tps-Tnsc$_2$ HSU beneath the core area. The perched water tables beneath the 834 area in the Tpsg and Tps/Tnsc$_2$ HSUs continue to decline as a result of extraction operations and ongoing regional drought conditions.

2.3. Pit 6 Landfill (Pit 6) OU 3

The Pit 6 Landfill covers an area of 2.6 acres near the southern boundary of Site 300. From 1964 to 1973, this landfill was used to bury waste in nine unlined debris trenches and animal pits. The buried waste, which includes shop and laboratory equipment and biomedical waste, is located on or adjacent to the Corral Hollow-Carnegie Fault. Farther east, the fault trends to the south of two nearby water-supply wells CARNRW1 and CARNRW2. These active water-supply wells are located about 1,000 ft east of the Pit 6 Landfill. They provide water for the nearby Carnegie State Vehicular Recreation Area and are monitored on a monthly basis.

The Pit 6 Landfill was capped and closed in 1997 under CERCLA to prevent further leaching of contaminants resulting from percolation of rainwater through the buried waste. The engineered, multi-layer cap is intended to prevent rainwater infiltration into the landfill, mitigate potential damage by burrowing animals and vegetation, prevent potential hazards from the collapse of void spaces in the buried waste, and prevent the potential flux of VOC vapors through the soil. Surface water flow onto the landfill is minimized by a diversion channel on the north side and drainage channels on the east, west, and south sides of the engineered cap.

A map of Pit 6 Landfill OU showing the locations of monitor and water-supply wells are presented on Figure 2.3-1.

2.3.1. Pit 6 Landfill OU Surface Water and Ground Water Monitoring

The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.3-1. This table also delineates and explains deviations from the sampling plan.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring and post-closure requirements with the following exceptions; a total of 22 required analyses in four different wells and four analyses for one spring were not performed because the wells and spring were not performed because the wells or spring were dry or there was insufficient water for sample collection.

The four wells and spring that were dry or had insufficient water to sample during 2015 have been dry for several years. Of these wells and spring:

- K6-15 (dry since 1999) and K6-32 (dry since 2006) are located upgradient of the Pit 6 Landfill and have never had detectable VOCs.
- K6-21 (dry since 2000) has a nearby existing well (EP6-09) screened at a greater depth within the same HSU, which had available ground water and was successfully sampled for the same required analytes.
- K6-24 (dry since 2011) has a nearby existing well (W-PIT6-2817) screened at a greater depth within the same HSU, which had available ground water and was successfully sampled for the same required analytes.
- Spring 15 has been dry during sampling attempts since 1991 when it was last sampled.

Analytical results and ground water elevation measurements obtained during 2015 are presented in Appendices B and C, respectively. The ground water elevation contour map for the Qt-$Tnbs_1$ HSU is presented on Figure 2.3-2.

2.3.2. Pit 6 Landfill OU Remediation Progress Analysis

This section is organized into three subsections: analysis of contaminant distribution and concentration trends; remediation optimization evaluation; and performance issues.

2.3.2.1. Pit 6 Landfill OU Contaminant Distribution and Concentration

At the Pit 6 Landfill OU, VOCs and tritium are the primary COCs detected in ground water. Nitrate is a secondary COC. These constituents have historically been identified within the $Qt\text{-}Tnbs_1$ HSU. The concentrations and activities of COCs have significantly declined below historic maximum levels in Pit 6 ground water.

The $Qt\text{-}Tnbs_1$ HSU is divided into the $Qt\text{-}Tnbs_1$ North HSU (portion north of the Corral Hollow-Carnegie Fault Zone) and the $Qt\text{-}Tnbs_1$ South HSU (portion within the Corral Hollow-Carnegie Fault Zone) due to the difference in hydraulic response to pumping from private CARNRW water-supply wells and seasonal rainfall events on either side of this regional fault. A deeper water-bearing zone ($Tnbs_1$ Deep HSU) occurs beneath a low permeability-confining layer at an approximate depth of 170 ft within the $Tnbs_1$ stratigraphic unit in the northern fault block. Transducers in guard wells K6-34 and W-PIT6-1819 continuously monitor water levels in the $Qt\text{-}Tnbs_1$ North HSU. During 2015, water level data from these wells (K6-34 and W-PIT6-1819) indicated an ongoing hydraulic response from sporadic pumping in nearby private water-supply wells CARNRW1 and CARNRW2 (approximately 200 to 400 ft to the east). Although the pumping schedule of the nearby private water-supply wells is not controlled by LLNL, it is inferred from water levels measured in W-PIT6-1819 and K6-34. The ground water potentiometric surface depicted on Figure 2.3-2 is based on 2015 water level data collected when these nearby CARNRW water-supply wells were pumping at a rate similar to last year (2014) but not pumping at the same rate as in previous years based on the hydraulic response in nearby monitoring wells. Therefore, the potentiometric surface north of the Corral Hollow-Carnegie Fault Zone is similar to 2014 but higher than the surface shown on the same figure, in recent CMRs prior to 2014.

2.3.2.1.1. VOC Concentrations and Distribution

The VOC COCs in Pit 6 Landfill ground water include chloroform and TCE. During 2015, TCE was detected in three Pit 6 Landfill ground water monitor wells at concentrations above its 0.5 µg/L reporting limit with only one of these detections exceeding the 5 µg/L MCL cleanup standard in well EP6-09, at a maximum 2015 concentration of 5.6 µg/L (July). While cis-1,2-DCE is no longer a COC, it was detected in one well, K6-01S, at a concentration of 2.3 µg/L, well below its MCL cleanup standard (6 µg/L). No other VOCs, including chloroform, were detected above applicable reporting limits, in Pit 6 wells.

In the $Qt\text{-}Tnbs_1$ North HSU, TCE concentrations have decreased from a historic maximum of 1.4 µg/L (monitor well K6-36, 2001) to below the 0.5 µg/L reporting limit in all $Qt\text{-}Tnbs_1$ North HSU wells during 2015. No other VOCs including chloroform were detected in the $Qt\text{-}Tnbs_1$ North HSU during the reporting period.

In the $Qt\text{-}Tnbs_1$ South HSU, TCE concentrations have decreased from a historic maximum of 250 µg/L (K6-19, 1988) to the aforementioned 2015 maximum of 5.6 µg/L (monitor well EP6-09, July), slightly above its 5 µg/L MCL cleanup standard. During 2015, TCE was detected in two other $Qt\text{-}Tnbs_1$ South HSU wells (K6-18 and K6-19) at concentrations above the reporting limit but well below the 5 µg/L MCL cleanup standard. Well K6-01S had detectable cis-1,2-DCE at 2.3 µg/L (July) below the 6 µg/L MCL cleanup standard. While no longer a COC, the presence of cis-1,2-DCE, a common anaerobic degradation product of TCE, suggests that some natural dechlorination may be occurring. The historic maximum cis-1,2-DCE concentration detected in K6-01S was 9.8 µg/L (1992). No other VOCs including chloroform were detected in the Qt-$Tnbs_1$ South HSU during the reporting period.

No VOCs, including TCE and chloroform, were detected in the $Tnbs_1$ Deep HSU during 2015. During the reporting period, VOCs were not detected in guard wells W-PIT6-1819, K6-17, K6-22 and K6-34 nor from the two active CARNRW water-supply wells and two inactive CARNRW water-supply wells.

2.3.2.1.2. Tritium Concentrations and Distribution

Including 2015, tritium has never been detected in Pit 6 Landfill ground water at activities exceeding the 20,000 picoCuries per liter (pCi/L) MCL cleanup standard. During 2015, tritium was detected above the 100 pCi/L reporting limit in eight wells at the Pit 6 Landfill OU, including (1) four wells screened in the Qt-$Tnbs_1$ North HSU, (2) three wells screened in the Qt-$Tnbs_1$ South HSU, and (3) one well located south of the Site 300 boundary and Corral Hollow Road, and screened in the Tts (Tesla Formation). In 2014, six wells, completed in both the Qt-$Tnbs_1$ North and Qt-$Tnbs_1$ South HSUs, contained tritium with activities greater than the 100 pCi/L reporting limit. All of the 2015 tritium detections were far below the MCL cleanup standard (<20,000 pCi/L), did not greatly exceed the 100 pCi/L reporting limit, and were accompanied by large analytical uncertainties, and therefore, are likely not indicative of an increasing trend in tritium activity.

In the Qt-$Tnbs_1$ North HSU, tritium activities have decreased from a historic maximum of 2,150 pCi/L (monitor well K6-36, 2000) to a 2015 maximum of 162 ±91.5 pCi/L (K6-33, January). During 2015, tritium activities exceeding the 100 pCi/L reporting limit were also detected in Qt-$Tnbs_1$ North HSU wells (1) W-PIT6-1819 (137 ±74.6 pCi/L, April), (2) one monthly sample from CARNRW-3 (116 ±76.0 pCi/L in a routine sample and <100 pCi/L in a duplicate sample, July; all other monthly routine and duplicate samples collected during 2015 were <100 pCi/L), and (3) one monthly sample from CARNRW-2 (109 ±83 pCi/L in a routine sample, <100 pCi/L in duplicate sample, March; all other monthly routine and duplicate samples collected during 2015 were <100 pCi/L).

In the Qt-$Tnbs_1$ South HSU, tritium activities have decreased from a historic maximum of 3,420 pCi/L (monitor well BC6-13 aka SPRING7, 2000) to a 2015 maximum of 132 ±58.0 pCi/L in a July duplicate sample from monitor well K6-19. (In a routine sample collected the same day/time, a detection of 206 ±88.0 pCi/L analyzed by a different laboratory was flagged as suspect and rejected due to field contamination issues.) The tritium activity in a January sample from the same well did not exceed the reporting limit of 100 pCi/L. Well K6-19 had a 2014 maximum tritium activity of 150 ±89.1 pCi/L. Also, tritium was detected in well K6-14 (122 ±74.8 pCi/L, July). Although wells K6-19 and K6-14 are located south of the Corral Hollow-Carnegie Fault Zone, it is worth noting that when these wells were sampled on 8 and 9 July 2015, nearby CARNRW water-supply wells were not pumping, based on continuous water level data obtained from nearby well W-PIT6-1819. These activities do not greatly exceed the reporting limit and were accompanied by large analytical uncertainties and, therefore, are likely not indicative of an increasing trend in tritium activity. The tritium activities in both wells will be monitored and discussed in future reports. Except for well K6-16 (102 ±72.6 pCi/L, July) and the aforementioned wells, K6-14 and K6-19, tritium activities in all other wells screened in the Qt-$Tnbs_1$ South HSU did not exceed the 100 pCi/L reporting limit during 2015.

Tritium was not detected above the 100 pCi/L reporting limit in any $Tnbs_1$ Deep HSU wells during 2015. The historic maximum tritium activity in this HSU was 1,680 pCi/L (monitor well K6-26, 1999), well below its 20,000 pCi/L MCL cleanup standard.

Tritium was also detected in well W-33C-01 (187 ±83.5 pCi/L, July), located approximately 60 ft south of the Site 300 boundary within the Carnegie SVRA and screened in the Tts stratigraphic unit; this is the first detection of tritium above the reporting limit since the well was initially sampled in 2000. Although well W-33C-01 is located farther south of the Corral Hollow-Carnegie Fault Zone, it is worth noting that when this well was sampled on 9 July 2015, nearby CARNRW water-supply wells were not pumping, based on continuous water level data obtained from nearby well W-PIT6-1819. The tritium activity in W-33C-01 will be closely monitored and discussed in future reports.

Guard well W-PIT6-1819 is located approximately 100 ft west of the Site 300 boundary, within the Carnegie SVRA residence area and about 200 ft west of the CARNRW1 and CARNRW2 water-supply wells, and is used to define the downgradient extent of tritium in Pit 6 ground water with activities above the 100 pCi/L background level. During 2015, the tritium activities in guard well W-PIT6-1819 were 127 ±85.7 pCi/L (January), 137 ±74.6 pCi/L (April), 100 ±70.3 pCi/L (July) and 101 ±80.5 pCi/L (October). These activities do not greatly exceed the reporting limit and were accompanied by large analytical uncertainties and, therefore, are likely not indicative of an increasing trend in tritium activity. Prior to January 2015, tritium activity in this well was below the reporting limit (<100 pCi/L), for five consecutive samplings (October 2013 and January, April, July, and October 2014). Since 2007, tritium activities in W-PIT6-1819 have fluctuated between 295 pCi/L and <100 pCi/L and define an overall decreasing trend in tritium activity.

During 2014 and 2015, tritium was not detected in guard wells K6-34, K6-22 or K6-17 nor at activities above the 100 pCi/L reporting limit in any of the monthly ground water samples from two of the four CARNRW offsite wells. In 2015, the areal extent of the tritium plume with activities reportedly above 100 pCi/L, south of the fault, in the Qt-$Tnbs_1$ South HSU, has increased slightly toward the south, to include the location of well K6-16. In 2015, the areal extent of the tritium plume north of the fault, in the Qt-$Tnbs_1$ North HSU, has advanced nominally eastward, to include the location of well W-PIT6-1819, with the aforementioned second semester 2015 detections (slightly above the 100 pCi/L reporting limit) of 100 ±70.3 pCi/L (July) and 101 ±80.5 pCi/L (October).

2.3.2.1.3. Perchlorate Concentrations and Distribution

In the 2013 Five-Year Review for OUs 3 (Pit 6 Landfill) and 8, perchlorate was removed as a COC in Pit 6 ground water. Per the Five-Year Review, perchlorate will no longer be discussed in this section unless it is detected in an OU3 monitoring well.

During 2015, perchlorate was detected above the 4 µg/L reporting limit, in only one well, K6-18 (7.9 µg/L, January), barely above the MCL cleanup standard of 6 µg/L. In 2014, a duplicate sample from well K6-18 contained 8.7 µg/L perchlorate, above the MCL cleanup standard of 6 µg/L; however, the perchlorate in the coincident routine sample collected from this well on the same day/time was not above the reporting limit of 4 µg/L. Although well K6-18 is located south of the Corral Hollow-Carnegie Fault Zone, it is worth noting that when this well was sampled on 8 January 2015, nearby CARNRW water-supply wells were not pumping, based on continuous water level data obtained from nearby well W-PIT6-1819. The perchlorate trend in K6-18 will be closely monitored, in the future, to evaluate potential long-term impacts.

Except for K6-18, perchlorate was not detected at or above the 4 µg/L reporting limit in any Qt-$Tnbs_1$ North, Qt-$Tnbs_1$ South, or $Tnbs_1$ Deep HSU ground water samples, including samples collected from guard wells and the CARNRW water-supply wells.

2.3.2.1.4. Nitrate Concentrations and Distribution

During 2015, nitrate was detected in samples collected from wells screened in the Qt-$Tnbs_1$ North and South HSUs.

In the Qt-$Tnbs_1$ North HSU, nitrate was detected in nine wells during 2015, with the highest concentration at 3.3 mg/L (K6-04) far below the MCL cleanup standard of 45 mg/L and within the range of background. Nitrate was not detected in ground water samples from any wells completed in the Qt-$Tnbs_1$ North HSU at concentrations above the MCL cleanup standard or outside the range of nitrate background levels.

In the Qt-$Tnbs_1$ South HSU, nitrate was detected during 2015, above the 45 mg/L MCL cleanup standard in two wells, monitor well K6-18 (233 mg/L, January) and K6-23 (110 mg/L, July). The result from K6-23 is consistent with historical nitrate concentrations detected in this well. K6-23 is located in close proximity to the Building 899 septic system, which is recognized as a likely source of the nitrate at this location (Dibley et al., 2013). Conversely, well K6-18, located approximately 240 ft west-northwest and generally upgradient of K6-23 and the Building 899 septic system, has not historically yielded nitrate concentrations exceeding the MCL cleanup standard of 45 mg/L since the 1998 El Niño when nitrate was detected at 78 mg/L. Other wells located in the vicinity of K6-23 have not seen a similar (recent) rise in nitrate concentrations. The source of nitrate recently detected at K6-18 is unknown. This well will be closely monitored to assess whether this detection is representative of nitrate concentrations at this location and the potential source of nitrate detected in this well, including the Building 899 septic system.

Three other wells completed in the Qt-$Tnbs_1$ South HSU yielded detectable but low nitrate concentrations below the 45 mg/L MCL cleanup standard. Except for the aforementioned wells K6-23 and K6-18, nitrate was not detected in ground water samples from any wells completed in the Qt-$Tnbs_1$ South HSU at concentrations above the MCL cleanup standard or outside the range of nitrate background levels.

Nitrate has never been detected in the $Tnbs_1$ Deep HSU above its 45 mg/L MCL cleanup standard. During 2015, nitrate was not detected above the 0.5 mg/L reporting limit, in wells screened in this HSU.

During 2015, nitrate was detected in guard well W-PIT6-1819 at a very low concentration of 0.91 mg/L. Historically, nitrate has not been detected above the 0.5 mg/L reporting limit or at very low concentrations, in this well. During the reporting period, nitrate was not detected in guard wells K6-34, K6-22 or K6-17, above the reporting limit. In 2015, nitrate was detected in water-supply wells CARNRW1 (0.51 mg/L) and CARNRW2 (0.99 mg/L), and inactive water-supply wells CARNRW3 (1.5 mg/L) and CARNRW4 (17 mg/L) at concentrations below the 45 mg/L MCL cleanup standard.

2.3.2.2. Pit 6 Landfill OU Remediation Optimization Evaluation

The remedy for tritium and VOCs in ground water at the Pit 6 Landfill is Monitored Natural Attenuation (MNA). Ground water levels and contaminants are monitored on a regular basis to: (1) evaluate the efficacy of the natural attenuation in reducing contaminant concentrations, and

(2) detect any new chemical releases from the landfill. In general, the primary ground water COCs (VOCs and tritium) at the Pit 6 Landfill OU continue to decline or remain within background and ground water levels beneath the landfill remain approximately 50 ft below the buried waste.

In general, VOCs in ground water near Pit 6 continue to exhibit decreasing trends and the VOC plume areal extent is generally decreasing. Concentrations of the VOC COC chloroform are all below its reporting limit in all Pit 6 wells. Although no longer a COC, cis-1,2-DCE concentrations have remained below its 6 µg/L cleanup standard since 1993. TCE concentrations in ground water remain below the 5 µg/L MCL cleanup standard in samples from all Pit 6 Landfill OU wells except for well EP6-09, which slightly exceeded the 5 µg/L MCL cleanup standard. As recommended in the recent Five-Year Review for OUs 3 and 8 (Buscheck et al., 2013), TCE concentrations will be monitored in well EP6-09 over the next succeeding five years and if concentrations increase or remain above 5 µg/L, remedial measures such as pump-and-treat or enhanced *in situ* bioremediation will be considered for this well. Since the beginning of 2013, TCE concentrations have exceeded the 5 µg/L MCL cleanup standard in EP6-09 only three times, at concentrations of 5.8 µg/L in January 2013, 5.2 µg/L in January 2014 and 5.6 µg/L in July 2015. Total VOCs in this well have exhibited a decreasing trend since the 1990s.

Tritium activities in ground water continue to remain far below the 20,000 pCi/L MCL cleanup standard. During 2015, tritium at activities remained low, slightly exceeding the 100 pCi/L reporting limit in wells K6-14, K6-16, K6-19, K6-33, W-33C-01, W-PIT6-1819, CARNRW2, and CARNRW3. These low activities, large analytical uncertainties, and the sporadic nature of tritium detections in wells CARNRW2 and CARNRW3 are likely not indicative of an increasing trend in tritium activity. Accordingly, these results indicate the MNA remedy for tritium at the Pit 6 Landfill OU 3 continues to be effective. Tritium activities will continue to be monitored to determine any future long-term impacts.

Perchlorate concentrations in Pit 6 area ground water have decreased from a maximum of 65 µg/L (following the 1998 El Niño in well K6-19) to below its reporting limit (4 µg/L) in all but one Pit 6 Landfill OU well (K6-18, 7.9 µg/L, January). Well K6-18 has shown a consistent decreasing perchlorate trend since 1999. Otherwise, perchlorate concentrations have remained below its reporting limit and its 6 µg/L MCL cleanup standard in all Pit 6 wells since March 2009.

Nitrate continues to be consistently detected in Pit 6 well K6-23 above its 45 mg/L MCL cleanup standard. As stated above, well K6-23 is located in close proximity to the Building 899 septic system, which is the likely source of the nitrate at this location. The source of recent nitrate concentrations in well K6-18 above the 45 mg/L MCL cleanup standard is not known but this well may be impacted by the Building 899 septic system believed to be the source of nitrate detected in well K6-23. This well will be closely monitored for nitrate, in the future.

2.3.2.3. Pit 6 Landfill OU Performance Issues

Currently, there is very little contamination above ground water cleanup standards at the Pit 6 Landfill OU. Based on these results, the remedy continues to be effective and protective of human health and the environment, and to make progress toward cleanup.

2.4. High Explosives Process Area (HEPA) OU 4

The HEPA has been used since the 1950s for the chemical formulation, mechanical pressing, and machining of high explosives (HE) compounds into shaped detonation charges. Surface spills from 1958 to 1986 resulted in the release of contaminants at the former Building 815 steam plant. Subsurface contamination is also attributed to HE waste water discharges into former unlined rinse water lagoons. Another minor source of contamination in ground water resulted from leaking contaminated waste stored at the former Building 829 Waste Accumulation Area (WAA) located near Building 829.

Five ground water treatment systems operate in the HEPA: Building 815-Source (815-SRC), Building 815-Proximal (815-PRX), Building 815-Distal Site Boundary (815-DSB), Building 817-Source (817-SRC), and Building 817-Proximal (817-PRX). A sixth ground water treatment system, Building 829-Source (829-SRC), was dismantled in 2013 following approval by the regulatory agencies. As approved, water is still extracted from the same extraction well previously used at 829-SRC, but the water is now collected in a portable tank and transported to the 815-SRC ground water treatment system for treatment. The details of this change were described in a previous CMR report (Dibley et al., 2014). A map of the HEPA OU showing the locations of monitor and extraction wells and treatment facilities is presented on Figure 2.4-1.

The 815-SRC ground water treatment system began operation in September 2000 removing VOCs (primarily TCE), HE compounds (Research Department Explosive [RDX] and High Melting Explosive [HMX]), and perchlorate from ground water. Ground water is extracted from wells W-815-02, W-815-04 and W-815-2803 with a current combined flow rate of approximately 1.1 gpm. The current ground water treatment system configuration includes two ion-exchange resin columns connected in series for perchlorate removal, and three aqueous-phase GAC canisters (also connected in series) for VOC and HE compound removal. The treated effluent is injected into well W-815-1918 for *in situ* denitrification in the $Tnbs_2$ HSU.

The 815-PRX ground water treatment system began operation in October 2002 removing TCE and perchlorate from ground water. Ground water is extracted from wells W-818-08 and W-818-09 at a current combined flow rate of approximately 1.8 gpm. The current ground water treatment system configuration includes a Cuno® filter to remove particulates, two ion-exchange resin columns connected in series for perchlorate removal, and three aqueous-phase GAC canisters (also connected in series) for TCE removal. The treated effluent is injected into well W-815-2134 where an *in situ* natural denitrification process reduces the nitrate to nitrogen in the $Tnbs_2$ HSU.

The 815-DSB ground water treatment system began operation in September 1999 removing low concentrations (less than 10 µg/L) of TCE from ground water extracted near the Site 300 southern boundary. Ground water is extracted from wells W-35C-04, W-6ER and W-815-2608 at a combined flow rate of approximately 3.8 gpm. The current ground water treatment system configuration includes a Cuno® filter to remove particulates and three aqueous-phase GAC canisters connected in series for TCE removal. The treated effluent is discharged to an infiltration trench.

The 817-SRC ground water treatment system began operation in September 2003 removing HE compounds (RDX and HMX) and perchlorate from ground water. Well W-817-01 extracts ground water from a very low yield portion of the $Tnbs_2$ aquifer. It pumps ground water intermittently using solar power at current flow rates ranging from 200 to 350 gal per month, averaging approximately 0.01 gpm. The current ground water treatment system configuration includes a Cuno® filter to remove particulates, two ion-exchange resin columns connected in series for perchlorate removal, and three aqueous-phase GAC canisters (also connected in series) for HE compound removal. Treated ground water is injected into upgradient injection well W-817-06A where an *in situ* natural denitrification process reduces the nitrate to nitrogen in the $Tnbs_2$ HSU.

The 817-PRX ground water treatment system began operation in September 2005 removing VOCs, RDX and perchlorate from ground water. Ground water is currently extracted from wells W-817-03 and W-817-2318 at a combined flow rate of approximately 1.6 gpm, with about 90% from W-817-03. The current ground water treatment system configuration includes a Cuno® filter to remove particulates, two ion-exchange resin columns connected in series for perchlorate removal, and three aqueous-phase GAC canisters (also connected in series) for removal of VOCs and HE compounds. Treated ground water containing nitrate is injected into upgradient injection wells W-817-2109 and W-817-02, where an *in situ* denitrification process reduces the nitrate to nitrogen in the $Tnbs_2$ HSU.

The 829-SRC ground water treatment system began operation in August 2005 removing VOCs, nitrate and perchlorate from ground water. Currently, ground water is extracted from W-829-06 and transported to, and treated at, the 815-SRC ground water treatment system.

2.4.1. HEPA OU Ground Water Extraction and Treatment System Operations and Monitoring

This section is organized into four subsections: facility performance assessment; operations and maintenance issues; compliance summary; and sampling plan evaluation and modifications.

2.4.1.1. HEPA OU Facility Performance Assessment

The monthly ground water discharge volumes, extraction flow rates, and operational hours during second semester 2015 are summarized in Tables 2.4-1 through 2.4-6. The total volume of ground water extracted and treated and the total contaminant mass removed during the reporting period are presented in Table Summ-1. The total volume of ground water treated and discharged and the total contaminant mass removed are summarized in Table Summ-2. Analytical results for influent and effluent samples collected during second semester 2015 are presented in Tables 2.4-7 through 2.4-9. The pH measurement results are presented in Appendix A.

2.4.1.2. HEPA OU Operations and Maintenance Issues

The following maintenance activities and operational issues occurred at the 815-SRC, 815-PRX, 815-DSB, 817-SRC and 817-PRX ground water treatment system, and the 829-SRC extraction well during second semester 2015:

<u>815-SRC ground water treatment system</u>

- The ground water treatment system was shutdown on November 17 for freeze protection and remained offline for the rest of the reporting period.

<u>815-PRX ground water treatment system</u>

- The ground water treatment system was taken offline on August 25 for the facility upgrade construction (REVAL), and remained offline for the rest of the reporting period.

815-DSB ground water treatment system

- The ground water treatment system was taken offline for one day on October 20 to perform interlock checks and to install a bypass valve on the effluent pipeline.
- The ground water treatment system was offline from November 22 until December 1 due to a power outage related to a bird strike, which required the replacement of a transformer.

817-SRC ground water treatment system

- The ground water treatment system was shutdown on July 13 after receiving data indicating a detection of methylene chloride in the effluent sample collected on July 7. The ground water treatment system was restarted on July 15 and operated just long enough to resample the effluent discharge and then shutdown again. The system was again restarted on July 21 to collect another effluent sample, and was left in operating mode. A detailed discussion on the methylene chloride detections is included below.
- The ground water treatment system was shutdown on August 26 to investigate a high-pressure problem in the re-injection well. The system remained offline and was officially freeze protected on November 17 for the remainder of the operating period

817-PRX ground water treatment system

- The ground water treatment system was shutdown for freeze protection on November 17, and remained off the rest of the operating period.

829-SRC Extraction Well

- The ground water extraction system was shut down for short periods on July 13 and September 23 to transfer the collected water to the 815-SRC ground water treatment system for treatment.
- The ground water extraction system was shutdown on November 17 for freeze protection, and all collected water was transferred to 815-SRC at that time. The system remained offline for the rest of the reporting period.

2.4.1.3. HEPA OU Compliance Summary

The 815-SRC, 815-PRX, 815-DSB, and 817-PRX ground water treatment systems operated in compliance with the RWQCB Substantive Requirements for Wastewater Discharge. Methylene chloride was detected in the effluent sample collected at 817-SRC on July 7 at a concentration of 1.0 μg/L. Methylene chloride was also detected in one of the intermediate GAC samples. Since VOCs are not included as COCs for this treatment area, this was likely related to a recent use of new treatment media vessels. Additional samples were collected on July 13 and the system shutdown. No methylene chloride was detected in the effluent sample above the reporting limit of 1.0 μg/L, but it was again detected in one of the intermediate port samples. The system was restarted on July 15 and an additional effluent sample was collected on July 16, following by another system shutdown to evaluate the results. No methylene chloride was detected in this sample.

In order to evaluate the source of the VOCs coming from the treatment media vessels, a vessel washout process was conducted on two new vessels. This followed a standard procedure of a triple soap scrubbing with hot water and a triple hot water rinse using a steam cleaner. The washout was followed by soak test evaluation, where both vessels were filled with clean water and allowed to soak. VOC samples were then collected after 4 days of soaking and again after 11 days. Both samples collected at 4 days had trace levels of methylene chloride, and the samples collected at 11 days had methylene chloride at 1.8 and 1.9 µg/L, respectively. This indicated that the vessels were most likely the source of the VOCs and that our washout process, although very thorough and rigorous, was not able to remove methylene chloride contamination from the vessels. Additional processes and evaluations will be conducted, in 2016.

Since the single detection of methylene chloride (1.0 µg/L) did not exceed the discharge limit for the maximum daily concentration limit of 5 µg/L, along with the two additional non-detect results, the monthly median concentration did not exceed the 0.5 µg/L discharge limit, 817-SRC still operated in compliance with the RWQCB Substantive Requirements for Wastewater Discharge.

2.4.1.4. HEPA OU Facility Sampling Plan Evaluation and Modifications

The HEPA OU facility sampling and analysis plan complies with the monitoring requirements in the CMP/CP. The sampling and analysis plan is presented in Table 2.4-10. No modifications were made to the plan.

2.4.1.5. HEPA OU Treatment Facility and Extraction Wellfield Modifications

No modifications were made to any of the HEPA OU ground water treatment systems or their associated extraction wellfield during this reporting period.

2.4.2. HEPA OU Ground Water and Surface Water Monitoring

The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.4-11. This table also explains deviations from the sampling plan and indicates any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions: a total of 64 required analyses in 13 different wells and two springs were not performed because the wells or springs were dry or there was insufficient water for sample collection; a total of 18 required analyses were not performed due to inaccessibility at six different monitor wells (W-815-05, W-823-13, W-806-06A, W-806-07, W-6F, and W-6G); and a total of eight required analyses in three different wells were not performed due to inoperable equipment.

Analytical results and ground water elevation measurements obtained during 2015 are presented in Appendices B and C, respectively.

Ground water elevations for the Tpsg-Tps and $Tnsc_{1b}$ HSUs are posted on Figures 2.4-2 and 2.4-8, respectively. The ground water elevation contour map, including hydraulic capture zones, for the $Tnbs_2$ HSU is presented on Figure 2.4-3.

2.4.3. HEPA OU Remediation Progress Analysis

This section is organized into four subsections: mass removal; contaminant concentrations and distribution; remediation optimization evaluation; and performance issues.

2.4.3.1. HEPA OU Mass Removal

The monthly ground water mass removal estimates for second semester 2015 are summarized in Tables 2.4-12 through 2.4-17. The total mass removed during the reporting period and cumulative mass estimates are summarized in Table Summ-1 and Table Summ-2, respectively.

2.4.3.2. HEPA OU Contaminant Concentrations and Distribution

At the HEPA OU, VOCs (mainly TCE) are the primary COCs detected in ground water; RDX, HMX, 4-Amino-2,6-dinitrotoluene (4-ADNT), perchlorate, and nitrate are secondary COCs. Most of the ground water contamination in the HEPA OU occurs in the $Tnbs_2$ HSU. Some COCs (TCE, RDX, HMX, perchlorate and nitrate) have also been detected in perched ground water of the Tpsg-Tps HSU in the vicinity of Buildings 815 and 817. Minor concentrations of VOCs, perchlorate and nitrate are also present in perched ground water located in the $Tnsc_{1b}$ HSU beneath the former Building 829 WAA. The WAA is located in the northwest portion of HEPA. No contamination has been detected in the Upper and Lower $Tnbs_1$ HSUs in the HEPA OU. Figure 2.4-1 shows the location of wells in the HEPA OU.

Total VOC concentration data are contoured for the $Tnbs_2$ HSU (Figure 2.4-4) and posted for Tpsg- Tps and $Tnsc_{1b}$ HSUs on Figures 2.4-2 and 2.4-8, respectively. Isoconcentration contour and posted concentration maps for the secondary COCs are presented on: (1) Figure 2.4-2 for the Tpsg- Tps HSU, (2) Figures 2.4-5 through 2.4-7 for the $Tnbs_2$ HSU, and (3) Figure 2.4-8 for the $Tnsc_{1b}$ HSU. Because each CMR map is representative of contaminant concentrations during a particular semester, the maximum concentration shown on the CMR map may not match the maximum concentration for 2015 described in the text.

2.4.3.2.1. VOC Concentrations and Distribution

VOC concentrations and distribution in ground water in the Tpsg-Tps, $Tnbs_2$, and $Tnsc_{1b}$ HSUs in the HE Process Area are discussed below.

Tpsg-Tps HSU

VOCs, primarily TCE, but also 1,1-DCE, chloroform, cis-1,2-DCE, 1,2-DCA and CTET have been detected in the perched water-bearing zones of the Tpsg-Tps HSU. Total VOC concentrations in Tpsg-Tps HSU ground water have decreased from a historic maximum of 450 µg/L (W-815-01, 1992) to a 2015 maximum of 22 µg/L, comprised entirely of TCE, in a July sample collected from 817-PRX extraction well W-817-2318. VOCs remained below the 0.5 µg/L reporting limit in Tpsg-Tps monitor well W-35C-05, located near the southern site boundary. Drought conditions and limited recharge have led to insufficient or no ground water available for sampling in some wells screened in the Tps-Tpsg HSU.

During 2015, VOCs other than TCE were only detected at concentrations above the 0.5 µg/L reporting limit, in monitor wells W-809-01 and W-814-01. Samples collected in March and September from well W-809-01 contained chloroform and 1,1-DCE with maximum concentrations of 1.6 µg/L and 1.2 µg/L, respectively; well below their respective MCL cleanup standards. Samples collected in March and September 2015 from W-814-01 contained cis-1,2-DCE, CTET, chloroform, and 1,2-DCA with maximum concentrations of 0.95 µg/L, 0.54 µg/L, 0.59 µg/L, and 0.72 µg/L, respectively. CTET concentrations detected in well W-814-01 exceeded the 0.5 µg/L State MCL cleanup standard but not the 5 µg/L Federal MCL cleanup standard; the maximum 1,2-DCA concentration was slightly above the 0.5 µg/L MCL cleanup standard. Similar concentrations of the aforementioned VOCs were detected in Tpsg-Tps wells during 2014.

Tnbs$_2$ HSU

In the Tnbs$_2$ HSU, the highest VOC concentrations are found downgradient of Building 815 in the 815-PRX extraction wellfield. Total VOC concentrations in Tnbs$_2$ HSU ground water have decreased from a historic maximum of 110 µg/L in extraction well W-818-08 (1992) to a 2015 maximum of 35 µg/L (April and July) in extraction well W-818-08.

During 2015, TCE was detected in the Tnbs$_2$ HSU with concentrations in 19 wells exceeding the 5 µg/L MCL cleanup standard. The compound 1,1-DCE was detected slightly above the 0.5 µg/L reporting limit in extraction well W-815-02 and monitor well W-818-11, at maximum concentrations of 0.69 µg/L (July) and 0.51 µg/L (September), respectively. Other VOCs were not detected in the Tnbs$_2$ HSU during 2015.

VOCs continue to be detected in ground water from the Tnbs$_2$ HSU at the southern end of Building 832 Canyon. This contamination probably originates from sources located in both the Building 832 Canyon OU and the HEPA OU. Since June 2007, when extraction well W-830-2216 began pumping ground water, total VOC concentrations have steadily decreased from a historic maximum of 20 µg/L in 2007 to a 2015 maximum of 3.8 µg/L (April). A similar decrease in VOC concentrations has been observed in nearby monitor well W-830-13.

During 2015, TCE was detected at concentrations below the 5 µg/L MCL cleanup standard in 10 samples from Tnbs$_2$ onsite guard wells W-815-2110 and W-815-2111, located near the Site 300 southern boundary. The maximum TCE concentrations in these samples were 1.7 µg/L and 1.2 µg/L for W-815-2110 (June) and W-815-2111 (June), respectively. Similar TCE concentrations were detected in these wells in 2014. VOCs were not detected in any other onsite or offsite HEPA Tnbs$_2$ HSU guard wells during 2015. Twenty-six routine and duplicate samples were collected from offsite water-supply well GALLO1 during 2015; VOCs were not detected above the 0.5 µg/L reporting limit in any of these samples.

Overall, total VOC concentrations in the Tnbs$_2$ HSU remained stable or decreased slightly in 2015. The extent of ground water containing total VOCs concentrations above the 0.5 µg/L reporting limit, 5 µg/L, and 10 µg/L remains similar to 2014, except for TCE detections at newly installed monitor wells W-817-3025 and W-817-3026.

Tnsc$_{1b}$ HSU

Extraction well W-829-06, screened in the Tnsc$_{1b}$ HSU, contained TCE at concentrations exceeding the 5 µg/L MCL cleanup standard during 2015. Total VOC concentrations in Tnsc$_{1b}$ HSU ground water have decreased from a historic maximum of 1,013 µg/L (W-829-06, 1993) to a 2015 maximum of 25 µg/L, comprised entirely of TCE (July). VOCs have never been detected in ground water from nearby Tnsc$_{1b}$ monitor well W-829-1940 or in nearby monitor wells screened in the Lower Tnbs$_1$ HSU.

2.4.3.2.2. HE Compound Concentrations and Distribution

During 2015, the HE compounds HMX, RDX, and 4-ADNT were detected at concentrations exceeding reporting limits only in wells screened in the Tnbs$_2$ HSU. Although historic maximum HE concentrations in $Tnbs_2$ HSU ground water were detected in the 817-SRC area, the current maximum concentrations of RDX and 4-ADNT are now observed in the 815-SRC area. Historic maximum concentrations of RDX and 4-ADNT of 204 µg/L (1992) and 24 µg/L (1997) detected in 817-SRC extraction well W-817-01 have declined to 2015 maximum concentrations of 74 and 5.8, respectively, in 815-SRC extraction well W-815-02. HMX concentrations have decreased from a historic maximum of 57 µg/L in 817-SRC extraction well W-817-01 (1995) to a 2015 maximum of 35 µg/L (March) in the same well; significantly below the Regional Tapwater Screening Level of 1,000 µg/L (U.S. EPA, June 2015).

During first semester 2015, RDX was detected in 815-PRX extraction well W-818-09 at 3.2 µg/L (March) for the first time since 2011, when it was first detected at 2 µg/L. This detection, along with a first semester 2015 RDX detection of 3.6 µg/L (March) in monitor well W-818-01, has shifted the eastern extent of the plume to the east-southeast towards the W-818-09 capture zone. The southern extent of the RDX plume will be closely monitored to ensure HE compounds do not continue to migrate towards the Site 300 southern boundary. HE compounds were not detected in any $Tnbs_2$ HSU wells located downgradient of 815-PRX, including no detections in guard wells or other monitor wells located near the Site 300 boundary.

2.4.3.2.3. Perchlorate Concentrations and Distribution

Perchlorate concentrations and distribution in ground water in the Tpsg-Tps, $Tnbs_2$, and $Tnsc_{1b}$ HSUs in the HE Process Area are discussed below.

Tpsg-Tps HSU

During 2015, samples collected from Tpsg-Tps HSU monitor well W-817-03A and extraction well W-817-2318 contained perchlorate concentrations exceeding the 6 µg/L MCL cleanup standard at 13 µg/L and 16 µg/L, respectively (March). These concentrations represent a slight decrease from the historic maximum perchlorate concentration of 19 µg/L in monitor well W-817-03A.

$Tnbs_2$ HSU

In the $Tnbs_2$ HSU, 13 wells yielded ground water with perchlorate concentrations exceeding the 6 µg/L MCL cleanup standard during 2015. Wells with the highest perchlorate concentrations are located in the vicinity of the 817-SRC and 817-PRX treatment facilities. The 2015 maximum perchlorate concentration of 32 µg/L (July) was measured in extraction well W-817-01; well W-817-01 also contained the 50 µg/L historic maximum (1998) and the 2014 maximum of 29 µg/L. Proposed 817-PRX injection wells W-817-3025 and W-817-3026, installed in 2014, were sampled for baseline constituents in April 2015 and both contained 10 µg/L perchlorate. These detections, along with a March detection of 5.1 µg/L at well W-6G, have extended the leading edge of the perchlorate plume to the west-southwest. Perchlorate has not been detected in any of the $Tnbs_2$ HSU guard wells or other monitor wells located near the Site 300 southern boundary to date.

$Tnsc_{1b}$ HSU

Perchlorate concentrations in the $Tnsc_{1b}$ HSU have decreased from a historic maximum of 29 µg/L (extraction well W-829-06, 2000) to a 2015 maximum of 16 µg/L (July) in the same well. This was the only $Tnsc_{1b}$ HSU well with perchlorate concentrations exceeding the 6 µg/L MCL cleanup standard and 4 µg/L reporting limit during 2015.

2.4.3.2.4. Nitrate Concentrations and Distribution

Nitrate concentrations and distribution in ground water in the Tpsg-Tps, $Tnbs_2$, and $Tnsc_{1b}$ HSUs in the HE Process Area are discussed below.

Tpsg-Tps HSU

Nitrate concentrations in Tpsg-Tps HSU ground water have increased from a previous historic maximum of 720 mg/L (2005) in monitor well W-6CS to a 2015 (and new historic) maximum of 770 mg/L (March), in the same well. As there are no known nitrate sources associated with Site 300 operations located near this well, it is possible that a sheep ranch that predates Site 300 discovered in a historic photo of the area may be the source of this localized elevated nitrate. Other wells screened in the Tpsg-Tps HSU had significantly lower nitrate concentrations.

$Tnbs_2$ HSU

During 2014, nitrate concentrations in ground water collected from the $Tnbs_2$ HSU ranged from <0.5 mg/L in the vicinity of the Site 300 southern boundary to a maximum of 120 mg/L in monitor well W-817-2609, located near the 817-PRX ground water treatment system. During 2015, nitrate was not detected above the reporting limit in 24 routine and duplicate samples collected from offsite water-supply well GALLO1, and was not detected above the 45 mg/L MCL cleanup standard in ground water from any of the $Tnbs_2$ HSU guard wells. The 2015 nitrate data from $Tnbs_2$ HSU wells continue to support the interpretation that nitrate is being degraded *in situ* by natural processes consistent with MNA and nitrate concentrations remain below the 45 mg/L MCL cleanup standard in all wells near the southern site boundary where ground water is present under oxygen depleted, confined conditions.

$Tnsc_{1b}$ HSU

Nitrate concentrations in $Tnsc_{1b}$ HSU ground water have decreased from a historic maximum of 240 mg/L in extraction well W-829-06 to a 2015 maximum of 74 mg/L (October) in the same well. Nitrate concentrations and distribution are similar to that of 2014.

2.4.3.3. HEPA OU Remediation Optimization Evaluation

Remediation at the HEPA OU is managed by balancing ground water extraction at the southern site boundary with upgradient pumping in the source and proximal areas. This strategy is designed to aggressively remediate contaminant source areas while hydraulically capturing the leading edge of the VOC plume near the Site 300 boundary and minimizing the migration of multiple, co-mingled plumes from their respective source areas.

Extraction well W-817-2318 extracts ground water from the Tpsg-Tps HSU in the area of highest VOC and perchlorate concentrations near Spring 5, downgradient of 817-SRC and adjacent to 817-PRX. Although declining water levels due to drought conditions and the low permeability of the HSU have hampered remediation efforts, TCE concentrations in W-817-2318 continue to decline, decreasing to a 2015 maximum of 22 µg/L from a 2014 maximum concentration of 25 µg/L and a 2007 historic maximum of 55 µg/L.

During 2015, 815-PRX extraction wells W-818-08 and W-818-09 continued to exhibit hydraulic capture of ground water with the highest VOC concentrations, and extraction wells W-6ER, W-35C-04, and W-815-2608 continued to capture VOCs along the southern site boundary at the leading edge of the plume.

815-SRC extraction wells W-815-02, W-815-04 and W-815-2803, and 817-SRC extraction well W-817-01 continue to extract ground water from the areas with the highest RDX concentrations. RDX concentrations in W-815-04 have continued to decline since the addition of W-815-2803 to the 815-SRC treatment facility. From 2010 through 2014, W-809-03, located approximately 250 ft northeast of the 815-SRC treatment facility just north of 815-SRC effluent injection well W-815-1918, yielded the maximum concentrations of RDX, when previously, RDX was not detected or detected at concentrations slightly above the reporting limit. The increase in HE compounds observed in W-809-03 is likely due to the hydraulic displacement of HE-bearing ground water in the vicinity of the W-815-1918 injection well. This increase appears to be transient and HE concentrations have generally exhibited a decreasing trend over the last two years. During 2015, 815-SRC extraction well W-815-02 yielded the maximum concentration of RDX. RDX concentrations in extraction wells W-815-2803 and W-817-01 remained stable.

Perchlorate concentrations in the $Tnbs_2$ HSU have decreased steadily since monitoring for this COC began in 1998 and the trend continued during 2015 with lower concentrations in the majority of wells with historic perchlorate detections. The areas with the highest perchlorate concentrations continue to be located in the vicinity of the 817-SRC and 817-PRX treatment facilities. Perchlorate concentrations in the confined portions of the $Tnbs_2$ HSU near the Site 300 southern boundary continue to be near or below the reporting limit; spatial and temporal perchlorate concentration trends suggest perchlorate is being degraded *in situ* by natural processes similar to confirmed nitrate natural attenuation.

Nitrate concentrations in the confined portions of the $Tnbs_2$ HSU near the Site 300 southern boundary continue to be near or below the reporting limit, demonstrating the continued effectiveness of MNA of nitrate even under pumping conditions.

Throughout the reporting period, pumping from HEPA extraction wells has been effective in capturing COCs and preventing further migration of contaminated ground water towards the Site 300 boundary. During 2015, VOCs were not detected above the reporting limit at offsite water-supply well GALLO1 and VOCs in onsite guard wells W-815-2110 and W-815-2111 remained stable at very low concentrations. Upgradient and downgradient pumping will continue to be balanced so that hydraulic capture at the Site 300 southern boundary is maintained without accelerating migration from upgradient sources. Close monitoring of VOC concentrations in the southern site boundary area will also continue, especially near offsite water-supply well GALLO1.

The spatial extent of VOCs, perchlorate, and nitrate has slightly increased in the 817-proximal area due to the detection of COCs in recently installed monitor wells W-817-3025 and W-817-3026. At this time, wells W-817-3025 and W-817-3026 will be used as monitor wells instead of injection wells due to the presence of COCs in these wells. Additionally HE compounds were detected in monitor well W-818-01 and extraction well W-818-09 in the 815-Proximal area, most likely, due to the influence of continued pumping from the 815-PRX extraction wells. The spatial extent of these comingled plumes will be closely monitored and any necessary modifications will be made to extraction wellfield operations to minimize further migration of these plumes toward the Site 300 boundary.

During 2015, the total mass removed from all HEPA treatment facilities included 84 g of VOCs; 45 g of perchlorate; and 99 g of RDX. The volume of treated ground water decreased by approximately 37% from 3,908,000 gal (2014) to 2,821,000 gal (2015), likely the result of declining water levels due to drought conditions and an extended freeze protection period from December 2014 to March 2015 during which 815-SRC, 815-PRX, 817-SRC, and 817-PRX were not operational. Compared to 2014, decreases in VOCs (34%), perchlorate (40%), and RDX (15%) mass removed were observed in 2015. Table Summ-1 lists the mass removed by each individual HEPA treatment facility. Nitrate in the $Tnbs_2$ HSU undergoes *in situ* biotransformation to benign nitrogen gas by anaerobic-denitrifying bacteria.

Installed in 2014, $Tnbs_2$ HSU monitor well W-817-3023 was developed in 2015 and was sampled for baseline constituents in 2016. Tps-Tpsg monitor well W-815-3024 has been dry since installation in 2014, and is currently awaiting vapor sampling and baseline constituent sampling at the presence of water. Monitor wells W-817-3025 and W-817-3026 will be sampled routinely starting in 2016.

2.4.3.4. HEPA OU Remedy Performance Issues

There were no new issues that affect the performance of the cleanup remedy for the HEPA OU during this reporting period. The remedy continues to be effective and protective of human health and the environment.

2.5. Building 850/Pit 7 Complex OU 5

High explosive experiments were conducted at the Building 850 Firing Table from the 1950s until 2008. While explosives tests were conducted at Building 850, the firing table was covered with gravel to absorb the shock. The Building 850 Firing Table was routinely rinsed down with water after each experiment to reduce dust. Infiltrating water mobilized chemicals from the contaminated gravel to the underlying bedrock and ground water, however this practice was discontinued in 2004. Until 1989, gravels from the firing table surface were periodically removed and disposed of in several pits in the northwest part of the site.

A Corrective Action Management Unit (CAMU) was constructed in the Building 850 area of OU 5 in 2009 as part of the Building 850 Removal Action. A total of 27,592 cubic yards of polychlorinated biphenyl-, dioxin-, and furan-contaminated soil were excavated from the Building 850 Firing Table area, mixed with Portland cement and water, and consolidated and compacted to form the CAMU. Additional information on the Building 850 Removal Action is presented in the Building 850 Action Memorandum (Dibley et al., 2008). Design information for the CAMU is presented in the construction subcontractor's 100% design submittal (SCS Engineers, 2009). The inspection and maintenance program for the CAMU program is described in Section 3. A map of the Building 850 area within OU 5 showing the locations of Building 850, the CAMU, and monitor wells is presented on Figure 2.5-1.

An *in situ* bioremediation treatability study for reduction of perchlorate in ground water immediately downgradient of Building 850 commenced in September 2011. A summary of the current status and preliminary results of the treatability study is presented in Section 2.5.2.2. Results indicate that the injection of ethyl lactate has resulted in bacterially-motivated reduction of perchlorate and nitrate in the treatment zone to concentrations below reporting limits.

The Pit 7 Complex area within OU 5 consists of the Pit 3, 4, 5 and 7 Landfills. The Pit 7 Complex landfills were used to dispose of firing table debris and gravel. These pits were constructed by excavating topsoil and alluvial materials to an average depth of 15 to 20 ft

(Taffet et al., 1989). The majority of the waste material in the pits derived from the firing tables at Buildings 850 and 851, where aboveground detonations were conducted. The waste placed in the pits included wood, plastic, material, and debris from tent structures, pea gravel, and exploded test assemblies, some of which contained tritium and depleted uranium.

When rainfall increased to above normal levels, such as during El Niño years, the pit waste and underlying bedrock were inundated and residual contamination came into contact with shallow subsurface ground water. Ground water contaminants include tritium, uranium, perchlorate, nitrate and VOCs.

In 1992, an engineered cap was constructed over the Pit 7 Landfill (referred to as the Pit 7 Cap) in compliance with Resource Conservation and Recovery Act (RCRA) requirements. The design included interceptor trenches and surface water drainage channels, a top vegetative layer to prevent erosion, a biotic barrier layer to minimize animal burrowing, and a clay layer of very low permeability to prevent infiltration of precipitation and shallow subsurface interflow that could result in leaching of contaminants. The Pit 7 cap also covers 100% of Pit 4 and approximately 25 to 30% of Pit 3. The original compacted native soil cover on most of Pit 3 and all of Pit 5 remains intact.

The Pit 7 Drainage Diversion System, completed in March 2008, was designed to prevent additional releases of COCs from the pits and underlying bedrock to ground water. There are four components that comprise the drainage diversion system:

1. A subsurface drainage network on the western hillslope.
2. Upgraded riprap at the end of the existing north-flowing concrete channel for the Pit 7 Landfill cap.
3. A vegetated surface water diversion swale along the base of the eastern hillslope, along the paved road (Route 4), including several culverts under Route 4 and dirt fire trails.
4. An upgraded surface water-settling basin at the south end of the existing south-flowing concrete channel for the Pit 7 Landfill cap.

Additional information on the Pit 7 cap and Drainage Diversion System design is presented in the Remedial Design Document for the Pit 7 Complex (Taffet et al., 2008). The detection monitoring, inspection, and maintenance program for the Pit 7 Complex Landfills and the inspection and maintenance program for the Drainage Diversion System are described in Section 3.

The Pit 7-Source (PIT7-SRC) ground water treatment system began operation in May 2010. Ground water is currently extracted from Quaternary alluvium/Weathered bedrock (Qal/WBR) HSU wells, NC7-64, W-PIT7-2306, W-PIT7-2703, W-PIT7-2704 and W-PIT7-2705; $Tnbs_1$/$Tnbs_0$ bedrock HSU wells NC7-25 and W-PIT7-2307; and from well W-PIT7-2305, which is completed in both HSUs. The current ground water treatment system configuration includes three ion-exchange resin canisters to remove uranium followed by three ion-exchange resin canisters containing a perchlorate-selective resin. An additional ion-exchange column for removal of nitrate has been added in series, after the perchlorate removal columns, because the latter became saturated with nitrate and was not effective in removing nitrate. Ground water that has been treated to remove uranium, perchlorate and nitrate is then piped through three aqueous-phase GAC canisters to remove VOCs. The treated water, which still contains tritium, is discharged to an infiltration trench.

A map of the Pit 7 Complex area within OU 5 showing the locations of the landfills, drainage diversion system, extraction and monitor wells, and the treatment system is presented on Figure 2.5-1.

The Building 850 area of OU 5 is discussed in Sections 2.5.1 and 2.5.2. The Pit 7 Complex area of OU 5 is discussed in Sections 2.5.3 through 2.5.5.

2.5.1. Building 850 Area of OU 5 Ground Water Monitoring

The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.5-1. This table also delineates and explains deviations from the sampling plan.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions: a total of 55 required analyses from nine different wells and one spring were not performed because the wells were dry or there was insufficient water for sample collection. A total of seven required analyses from well NC7-54 and W8SPRNG were not performed because the locations were inaccessible due to overgrown weeds; six required analyses from wells NC2-17, W-PIT1-3021, and W-PIT1-3022 were not performed because the locations were inaccessible; and two required analyses from well NC7-69 were not performed due to an inoperable pump that prevented sample collection.

Analytical results and ground water elevation measurements obtained during 2015 are presented in Appendices B and C, respectively.

Ground water elevation contour maps for the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs within the OU are presented on Figures 2.5-2 and 2.5-3, respectively. Ground water elevations in both HSUs have generally declined since Spring 2011 due to lower than average rainfall during water years 2012, 2013, 2014, and 2015.

2.5.2. Building 850 Area of OU 5 Remediation Progress Analysis

This section is organized into three subsections: analysis of contaminant distribution and concentration trends; remediation optimization evaluation; and performance issues.

2.5.2.1. Building 850 Area of OU 5 Contaminant Concentrations and Distribution

In the Building 850 area of OU 5, tritium and perchlorate are the primary COCs detected in ground water; depleted uranium and nitrate are secondary COCs. These constituents have been identified within the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs. The distribution of tritium in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs, based on data collected during second semester 2015 (primarily the fourth quarter), is contoured on Figures 2.5-4 and 2.5-5, respectively. The distribution of perchlorate in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs, based on data collected during first semester 2015 (primarily the second quarter), is contoured on Figures 2.5-10 and 2.5-11, respectively. Concentrations of uranium and nitrate in Qal/WBR and $Tnbs_1/Tnbs_0$ ground water, based on data collected during first semester 2015 (primarily the second quarter), are presented on Figures 2.5-6 through 2.5-9. The COC data presented on Figures 2.5-4 through 2.5-11 represent specific time periods during 2015, and therefore, some of the data discussed in the text are not displayed on the figures.

2.5.2.1.1. Tritium Activities and Distribution

For the first time since elevated tritium activities in ground water were observed downgradient of Building 850 in the 1970s, maximum tritium activities do not exceed the

20,000 pCi/L MCL cleanup standard. The maximum tritium activities have decreased from a historic maximum of 566,000 pCi/L (monitor well NC7-28, 1985) to a 2015 maximum of 18,700 pCi/L (June) in Qal/WBR HSU monitor well NC7-70. Tritium activities and distribution in ground water in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs in the Building 850 Area are discussed below.

Qal/WBR HSU

Tritium activities exceeding the 20,000 pCi/L MCL cleanup standard were not detected in any ground water samples collected from Qal/WBR HSU monitor wells during 2015. The 2015 maximum tritium activity in ground water collected from the Qal/WBR HSU was 18,700 pCi/L from monitor well NC7-70 (June). Tritium activity declined to 17,000 pCi/L in a subsequent sample collected from NC7-70 in December. Well NC7-70 is located approximately 20 ft downgradient (east) of the Building 850 Firing Table and is the only well where tritium activity in ground water exceeded the 20,000 pCi/L MCL cleanup standard during 2014. Samples collected in April and October of 2014 contained 25,100 pCi/L and 23,200 pCi/L, respectively. Overall, tritium activities continue to decline in most portions of the Building 850 plume.

Wells W-PIT2-2301 and W-PIT2-2302, located in Elk Ravine downgradient of the Pit 2 Landfill, are monitored to determine the downgradient extent of tritium in the Qal/WBR HSU. Until November 2015, neither well had contained sufficient water for sampling since 2012 when these wells yielded tritium activities within background range (<100 pCi/L). On November 2, 2015, the first major storm of water year 2016 with 2.5 inches of rainfall recorded at Site 300, well W-PIT2-2302 (screened from 7 to 17 ft below ground surface (ft-bgs)) contained sufficient water for sample collection while well W-PIT2-2301 (screened from 20 to 30 ft-bgs) did not. The sample collected from W-PIT2-2302 contained 211 pCi/L of tritium, indicating that during periods of high seasonal flow, transport of tritium in the Qal/WBR HSU downgradient of the Pit 2 Landfill does occur.

Beginning in 2013, the extent of tritium exceeding the 20,000 pCi/L MCL cleanup standard began to decrease significantly and now, in 2015, tritium activities in ground water samples from all Qal/WBR wells have dropped below the 20,000 pCi/L MCL cleanup standard. The highest tritium activities are still detected in wells located immediately downgradient of the Building 850 Firing Table (NC7-70, W-850-2417, NC7-61, and NC7-28), but they no longer exceed the 20,000 pCi/L MCL cleanup standard.

$Tnbs_1/Tnbs_0$ HSU

During 2015, tritium exceeding the 20,000 pCi/L MCL cleanup standard was not detected in any wells screened in the $Tnbs_1/Tnbs_0$ HSU. The maximum 2015 tritium activity in the $Tnbs_1/Tnbs_0$ HSU was 8,400 pCi/L (October duplicate sample, the routine sample contained 7,510 pCi/L) in monitor well W-850-2145, located approximately 3,000 ft downgradient (east) of the Building 850 Firing Table. The maximum 2014 tritium activity of 8,560 pCi/L was also detected in a ground water sample from well W-850-2145. The extent of tritium in ground water exceeding 1,000 pCi/L was reduced due to baseline constituent sampling results from recently installed monitor wells W-PIT1-3021 and W-PIT1-3022, located approximately 500 ft southeast of the Pit 1 Landfill. Tritium activities of 205 pCi/L and 852 pCi/L from wells W-PIT1-3021 and W-PIT1-3022, respectively, when plotted on the map, reduced the extent of ground water containing tritium with activities in excess of 1,000 pCi/L in the area east of Landfill Pits 1 and

2. Overall, tritium activities in most $Tnbs_1/Tnbs_0$ HSU monitor wells are similar to 2014 and the extent of ground water with tritium in excess of background is also similar to previous years.

2.5.2.1.2. Uranium Concentrations and Distribution

During 2015, uranium analyses were performed primarily by alpha spectroscopy with selected samples analyzed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS). High precision uranium isotope data (uranium-235/uranium-238 [$^{235}U/^{238}U$] atom ratio) for determining the presence of depleted uranium are only available by ICP-MS analysis. The presence of depleted uranium is indicated by a $^{235}U/^{238}U$ atom ratio of less than 0.007. Historic uranium isotope data indicate that regions of ground water containing some added depleted uranium extend downgradient about 1,200 ft within the Qal/WBR HSU, and 700 ft within the $Tnbs_1/Tnbs_0$ HSU, from the Building 850 Firing Table and have remained relatively stable. Uranium activities and distribution in ground water in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs in the Building 850 Area are discussed below.

Qal/WBR HSU

During 2015, total uranium activities exceeding the 20 pCi/L MCL cleanup standard were not detected in any Qal/WBR HSU wells in the Building 850 area. The maximum 2015 total uranium activity, measured in ethyl lactate injection well W-850-2417, was 14 pCi/L (February), an increase from the 2014 maximum activity of 9.6 pCi/L measured in well NC7-28. The uranium activity measured in the September sample collected from W-850-2417 was 7.8 pCi/L. The historic maximum for the Building 850 area is 24 pCi/L (January 2013) in well NC7-28. Both wells W-850-2417 and NC7-28 are located within the *in situ* bioremediation treatment zone immediately downgradient of the Building 850 Firing Table. Overall, uranium activities remain similar to previous years in the Qal/WBR HSU wells within the Building 850 area, with the exception of those located within the *in situ* bioremediation treatment zone, including the two wells previously mentioned and NC7-70. Prior to ethyl lactate injection, which began in September 2011, the maximum uranium activity in the three wells was 9.8 pCi/L in the July 2011 ground water sample collected from well NC7-28. After ethyl lactate injection and related ground water extraction and injection operations began (see Section 2.5.2.3 for details on the treatability study), uranium activities in these wells have ranged from below the reporting limits (0.1 pCi/L and 0.063 pCi/L for alpha spectroscopy and mass spectroscopy, respectively) to 24 pCi/L. Injection of ethyl lactate lowers the pH of the ground water and creates reducing conditions. Short-term decreases in total uranium activity in ground water are a product of reducing conditions that lower uranium solubility. Uranium activities can rebound in excess of pre-injection activities when the treatment zone is recharged by oxygenated ground water and slightly sub-neutral pH that increases uranium solubility and mobilizes depleted and/or natural uranium sorbed/precipitated onto aquifer mineral surfaces.

$Tnbs_1/Tnbs_0$ HSU

During 2015, only one well screened in the $Tnbs_1/Tnbs_0$ HSU contained ground water with a total uranium activity exceeding the 20 pCi/L MCL cleanup standard. The total uranium activity in the October sample collected from monitor well W-850-2315 was 23 pCi/L. During 2014, two wells contained ground water with total uranium activities exceeding the 20 pCi/L MCL cleanup standard. Well W-850-2315 and nearby well NC7-29 contained ground water with activities of 24 pCi/L (April 2014, the historic maximum for $Tnbs_1/Tnbs_0$ HSU wells in the Building 850 area) and 21 pCi/L (April 2014), respectively. ICP-MS results of all water samples from these two wells, including the most recent October 2015 data, have indicated natural uranium atom ratios. Both wells are located approximately 1,400 ft southeast (cross-gradient) of Building 850.

2.5.2.1.3. Nitrate Concentrations and Distribution

Nitrate was detected at concentrations at or above the 45 mg/L MCL cleanup standard in 11 wells in the Building 850 area during 2015. Nitrate concentrations and distribution in ground water in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs in the Building 850 Area are discussed below.

Qal/WBR HSU

During 2015, the maximum nitrate concentration measured in a Qal/WBR HSU well was 61 mg/L (May) from monitor well K2-04S, located approximately 2,500 ft east of Building 850. The maximum historic nitrate concentration for ground water collected from a Qal/WBR HSU well in the Building 850 area is 186 mg/L, also from monitor well K2-04S (1993). In the vicinity of the Building 850 firing table, four wells contained ground water with nitrate concentrations that exceeded the 45 mg/L MCL cleanup standard. Monitor well NC7-44, located upgradient of the firing table and the *in situ* bioremediation treatment zone, contained 57 mg/L of nitrate, and monitor wells NC7-10, NC7-11, and NC7-61, all located downgradient of the firing table and the *in situ* bioremediation treatment zone, contained 51 mg/L, 58 mg/L, and 54 mg/L of nitrate, respectively. Nitrate concentrations in wells NC7-28, NC7-70 and W-850-2417, located within the *in situ* bioremediation treatment zone, remained below the 0.5 mg/L reporting limit during 2014, rose above the reporting limit during rebound monitoring in 2015, but did not exceed the 45 mg/L MCL cleanup standard. Nitrate concentrations within the *in situ* bioremediation treatment zone are microbially denitrified due to biostimulation via ethyl lactate injection and re-circulation in wells W-850-2417 and NC7-70 (see Section 2.5.2.3 for details on the treatability study).

$Tnbs_1/Tnbs_0$ HSU

The 2015 maximum nitrate concentration in the Building 850 area was 170 mg/L (April) in monitor well NC7-29, located southeast and cross-gradient of Building 850. The historic local maximum nitrate concentration was 190 mg/L (2013) in the same well. The other $Tnbs_1/Tnbs_0$ HSU wells with nitrate concentrations exceeding the 45 mg/L MCL cleanup standard are located east of Building 850 (NC7-27), southeast of the Pit 2 Landfill (NC2-12S and NC2-19) and east of the Pit 1 Landfill (W-PIT1-2209 and W-PIT1-2620).

Historic data indicate that ground water nitrate concentrations in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs are limited in extent and relatively stable. Overall, except for the *in situ* bioremediation treatment zone, the distribution and concentrations of nitrate in ground water are generally consistent, or have declined slightly from those observed in previous years.

2.5.2.1.4. Perchlorate Concentrations and Distribution

During 2015, perchlorate concentrations exceeding the 6 µg/L MCL cleanup standard were detected in 24 wells and one spring located east and south (downgradient) of Building 850, east (downgradient) of Pit 1, and southeast of Pit 2 in Elk Ravine. Perchlorate concentrations are similar to or have decreased slightly from 2014. The highest perchlorate concentrations in the Building 850 area are found in wells located downgradient of the Building 850 Firing Table. Perchlorate concentrations and distribution in ground water in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs in the Building 850 Area are discussed below.

Qal/WBR HSU

Ground water in the Qal/WBR HSU that contains perchlorate with concentrations in excess of the 6 µg/L MCL cleanup standard extends approximately 2,200 ft downgradient of the Building 850 firing table, similar to previous years. Perchlorate concentrations in Qal/WBR HSU ground water in the Building 850 area have decreased from a historic maximum of 92 µg/L in monitor well NC7-28 (October 2008) to the 2015 maximum concentration of 41 µg/L (December) in ethyl lactate injection well W-850-2417. Well NC7-61 yielded the 2014 maximum perchlorate concentration of 44 µg/L and during 2015 its maximum concentration was 37 µg/L (May, August, and December). Wells W-850-2417, NC7-28, and NC7-61 are located approximately 225, 250, and 500 ft east (downgradient) of the firing table, respectively. Wells W-850-2417 and NC7-28 are located within the *in situ* bioremediation treatment zone, and well NC7-61 is directly downgradient of the treatment zone. The *in situ* bioremediation treatment zone, located immediately downgradient of the firing table, contains wells NC7-70, W-850-2417, and NC7-28. Biostimulation via ethyl lactate injections between October 2011 and June 2015 in wells NC7-70 and W-850-2417 has resulted in microbial reduction of perchlorate in the treatment zone to levels mostly below the 4 µg/L reporting limit. During 2014, perchlorate concentrations in the wells located within the treatment zone, were all below the reporting limit, with the exception of NC7-28 (4.3 µg/L, May). In 2015, perchlorate concentrations within the treatment zone increased during rebound monitoring and the final perchlorate concentrations measured during 2015 were <4 µg/L, 41 µg/L, and 8.4 µg/L for NC7-70, W-850-2417, and NC7-28, respectively. While perchlorate concentrations rebounded during 2015 they remain considerably lower than the pre-ethyl lactate injection perchlorate concentrations of 32 µg/L, 74 µg/L and 61 µg/L for wells NC7-70, W-850-2417, and NC7-28, respectively. A complete analysis of the perchlorate *in situ* bioremediation treatment study will be presented in the Building 850 Focused Remedial Investigation/ Feasibility Study (RI/FS) report.

Prior to September 2011, when ethyl lactate injection began, perchlorate concentrations in NC7-44, located west (outside) of the *in situ* bioremediation treatment zone approximately 400 ft upgradient of well NC7-70, had not been detected above the 4 µg/L reporting limit. During 2015, perchlorate concentrations of 7.4 µg/L and 8.8 µg/L (April routine and duplicate samples, respectively), were reported by two different analytical laboratories. A subsequent sample collected in December yielded 4.8 µg/L of perchlorate, less than the 6 µg/L MCL cleanup standard but greater than the 4 µg/L reporting limit and the prior perchlorate concentration history of the well. Given the distance upgradient from the treatment zone and the relatively small volumes of ground water involved, it is uncertain whether injection into NC7-70 could hydraulically influence perchlorate distribution in the Building 850 source area causing an increase in perchlorate concentrations in well NC7-44 (similar increases in other COCs were not observed).

$Tnbs_1$/$Tnbs_0$ HSU

Perchlorate concentrations in $Tnbs_1$/$Tnbs_0$ HSU ground water in the Building 850 area have decreased from a historic maximum of 30 µg/L in monitor well NC7-29 (May 2011) to a 2015 maximum perchlorate concentration of 12 µg/L in ground water samples collected in October from monitor well NC7-27 and monitor well NC7-29 (duplicate result, routine sample result was 9.8 µg/L). Well NC7-27, which also contained the 2014 maximum perchlorate concentration of 11 µg/L, is located approximately 900 ft east (downgradient) and well NC7-29 is located approximately 1,500 ft south-southeast (cross-gradient) of the Building 850 firing table. Other

$Tnbs_1/Tnbs_0$ HSU wells containing ground water with perchlorate concentrations exceeding the 6 µg/L MCL cleanup standard during 2015 are located east of the Building 850 firing table (NC2-18 and W-850-2145), southeast of the Pit 2 Landfill (NC2-06, NC2-12I and NC2-17), and east of the Pit 1 Landfill (K1-02B and W-PIT1-2326).

While perchlorate concentrations in wells K1-02B and W-PIT1-2326, located east of the Pit 1 Landfill, did exceed the 6 µg/L MCL cleanup standard during 2015, perchlorate concentrations in both of these wells were below the 6 µg/L MCL cleanup standard in the final 2015 samples collected in October (4.6 µg/L and 5.9 µg/L for K1-02B and W-PIT1-2326, respectively). Perchlorate concentrations were also below the reporting limit in baseline samples collected during second quarter 2015 from recently completed monitor wells W-PIT1-3021 and W-PIT1-3022, located southeast of the Pit 1 Landfill. Due to muddy road conditions, wells W-PIT1-3021 and W-PIT1-3022 were not sampled during second semester 2015. The October results from K1-02B and W-PIT1-2326 and the baseline constituent results from W-PIT1-3021 and W-PIT1-3022 suggest that by the end of 2015, the extent of perchlorate exceeding the 6 µg/L MCL cleanup standard in ground water east of the Elk Ravine Fault was limited to wells located southeast of the Pit 2 Landfill (NC2-06, NC2-12I and NC2-17).

2.5.2.1.5. HE Compound Concentrations and Distribution

During 2015, ground water samples from 22 wells and one spring located in the vicinity of Building 850 or downgradient of the Building 850 Firing Table were analyzed for HE compounds at a reporting limit, generally, of 1 µg/L. Only HMX and RDX were detected at concentrations exceeding the reporting limits. The source of HMX and RDX is the Building 850 Firing Table. HE compound concentrations and distribution in ground water in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs in the Building 850 Area are discussed below.

Qal/WBR HSU

During 2015, all samples collected from wells NC7-10, NC7-11, NC7-61, NC7-70, W-850-2417, and W8SPRNG contained RDX at concentrations that exceeded the 1 µg/L cleanup standard. The maximum RDX concentration of 4.7 µg/L was detected in the May routine sample (the duplicate sample result was 3.4 µg/L) collected from well NC7-61. During 2014, well NC7-61 was the only well that consistently contained RDX at concentrations that exceeded the 1 µg/L cleanup standard with the maximum 2014 concentration of 5.7 µg/L detected in the November sample. With the exception of well NC7-70, RDX has been detected in all of the wells listed above in previous years. Following ethyl lactate injection into well W-850-2417 during 2011, RDX concentrations in W-850-2417 and well NC7-28, located immediately downgradient of W-850-2417, have been mostly below the reporting limit. Biodegradation of RDX is known to occur under anaerobic conditions. However, in 2015, along with perchlorate and nitrate concentrations, RDX concentrations in W-850-2417 have rebounded and exceed the reporting limit at 3.7 µg/L and 3.9 µg/L in the June and December samples, respectively. RDX concentrations in NC7-28 remain below the reporting limit. RDX was never detected in well NC7-70 until extracted water from well W-850-2417 was injected as part of the *in situ* perchlorate bioremediation treatability study.

During 2015, wells NC7-10, NC7-11, NC7-28, NC7-61, NC7-70, W-850-2417 and W8SPRNG, all located downgradient of the Building 850 Firing Table, yielded HMX at concentrations above the reporting limit with the maximum of 8.2 µg/L (December) detected in well W-850-2417. With the exception of well NC7-70, HMX has been detected in all of the wells during previous years. As mentioned previously regarding RDX, the presence of HMX in ground water from well NC7-70 is due to injection of ground water from W-850-2417 as part of the *in situ* perchlorate bioremediation treatability. HMX concentrations in the Qal/WBR HSU are significantly below the HMX Regional Tapwater Screening Level of 1,000 µg/L (U.S. EPA, June 2015).

During 2015, the extent of HE compounds in Building 850 ground water was limited to six wells and one spring located within 900 ft east (downgradient) of the Building 850 Firing Table.

$Tnbs_1$/$Tnbs_0$ HSU

During 2015, HE compounds were not detected above the reporting limit, in ground water from wells screened in the $Tnbs_1$/$Tnbs_0$ HSU downgradient of Building 850 or from wells screened in the underlying $Tnsc_0$ HSU.

2.5.2.2. Building 850 Area of OU 5 Remediation Optimization Evaluation

Data collected during the reporting period indicate that natural attenuation (dispersion, radioactive decay, and a decreasing source term) has been effective in reducing all tritium activities in ground water to below the 20,000 pCi/L MCL cleanup standard. The highest tritium activities in ground water continue to be located directly downgradient of the tritium sources at the Building 850 Firing Table and continue to decline. In general, the footprint of the ground water tritium plume remains stable and activities continue to decline and are significantly below historic highs throughout the Building 850 plume. The leading edge of the tritium plume is stable, within the Site 300 interior, and is expected to completely attenuate within the boundaries of Site 300.

During 2015, only one well in the Building 850 area, located approximately 1,400 ft southeast (cross-gradient) of Building 850, contained ground water with total uranium activities that exceeded the 20 pCi/L MCL cleanup standard. The monitoring-only strategy for uranium at Building 850 continues to be protective given that: (1) total uranium activities in ground water at and downgradient from Building 850 are below the 20 pCi/L MCL cleanup standard, and (2) the areal extent of depleted uranium has not changed during the period of monitoring. Temporal trends in $^{235}U/^{238}U$ isotope ratios from past samples have remained stable.

During 2015, the overall extent and maximum concentrations of nitrate and perchlorate in ground water are similar to those observed in 2014. Within the *in situ* perchlorate bioremediation treatment zone, perchlorate and nitrate concentrations in ground water samples from wells NC7-28, NC7-70 and W-850-2417 during rebound monitoring in 2015 are either below reporting limits or significantly lower than pre-injection concentrations.

2.5.2.3. Building 850 Area of OU 5 Enhanced Bioremediation Treatability Study

The *in situ* perchlorate bioremediation treatability study commenced at Building 850 during second semester 2011. The objective of this study is to evaluate the efficacy of *in situ* enhanced bioremediation methods in reducing perchlorate concentrations in Building 850 ground water. To date, the test has consisted of injecting ethyl lactate mixed with ground water in wells W-850-2417 (ethyl lactate injections in 2011 and 2012) and NC7-70 (ethyl lactate injections in 2013 and 2015) to facilitate the *in situ* bioremediation of perchlorate by indigenous bacteria, while monitoring these and nearby wells NC7-28 and W-850-2416 to evaluate bioremediation performance.

Monitoring results indicate that perchlorate concentrations in wells W-850-2417 and NC7-28 were microbially reduced from pre-test 2011 maxima of 74 µg/L and 71 µg/L, respectively, to below the 4 µg/L reporting limit by 2012. Perchlorate concentrations remained below the reporting limit in almost all samples collected from these wells during 2013 and 2014. During 2015 rebound monitoring, perchlorate concentrations within the treatment zone exhibited an increasing trend and the final perchlorate concentrations measured during 2015 were <4 µg/L, 41 µg/L, and 8.4 µg/L for NC7-70, W-850-2417, and NC7-28, respectively. While perchlorate concentrations increased during 2015 they remain considerably lower than the pre-ethyl lactate injection perchlorate concentrations of 32 µg/L, 74 µg/L and 61 µg/L for wells NC7-70, W-850-2417, and NC7-28, respectively.

Although not specifically targeted for bioremediation, nitrate concentrations and uranium activities were also monitored in the injection wells W-850-2417 and NC7-70, and performance monitor well NC7-28. Nitrate concentrations in wells W-850-2417, NC7-70 and NC7-28 decreased from pre-injection maximum concentrations of 52 mg/L, 32 mg/L, and 57 mg/L, respectively, to below the 0.5 mg/L reporting limit following ethyl lactate injection. During second semester 2015, nitrate concentrations in these wells had rebounded and were greater than the reporting limit, but below pre-injection concentrations and the 45 mg/L MCL cleanup standard (5.8 mg/L, 22 mg/L, and 5.3 mg/L for W-850-2417, NC7-70, and NC7-28, respectively).

Total uranium activities in W-850-2417, NC7-28 and NC7-70 initially decreased following ethyl lactate injection but fluctuated with activities often exceeding the pre-injection values. In the case of well NC7-28, activity increased from a pre-injection value of 9.8 pCi/L to 24 pCi/L (January 2013), the historic maximum for the well and the Qal/WBR HSU in the Building 850 area. During second semester 2015, uranium activities in wells W-850-2417, NC7-28, and NC7-70 were 7.8 pCi/L, 5.0 pCi/L, and 6.7 pCi/L, respectively, exceeding the pre-injection activities in two of the three wells.

Following ethyl lactate injection, decreasing uranium activities appear to result from concurrent reduction of U^{+6} species in ground water to U^{+4} species, which form insoluble mineral solids. Later increases likely arise from a combination of dissolution of natural U under low pH conditions and oxidation of reduced uranium from solids on mineral surfaces back into solution, coupled with arrival of pre-existing dissolved uranium from upgradient of the treatment area.

In March 2013, fluorescein, a non-toxic tracer, mixed with ground water was injected into NC7-70 to independently track the migration of injected fluids along the flow path from well NC7-70 downgradient through the treatment zone to wells W-850-2417 and NC7-28. Tracer was first detected in the December 4, 2013 ground water sample from well W-850-2417 followed by detection in well NC7-28 during first semester 2014. Monitoring of the tracer test continued during 2015.

A complete analysis of the *in situ* perchlorate bioremediation treatability study and the tracer test will be presented in the Building 850 Focused Feasibility Study report.

2.5.2.4. Building 850 Area of OU 5 Remedy Performance Issues

There were no new issues that affect the performance of the MNA cleanup remedy for tritium in the Building 850 area during this reporting period. The remedy for tritium continues to be effective and protective of human health and the environment, and tritium activities, now below the 20,000 pCi/L MCL cleanup standard, continue to decline. Perchlorate, uranium and RDX distribution in ground water downgradient of the Building 850 Firing Table will continue to be closely monitored and reported. The *in situ* bioremediation treatability study analytical results will be evaluated in the Building 850 Focused Feasibility Study report. The performance of this technology with respect to uranium and RDX remediation or stabilization will also be evaluated.

During 2015, a work plan (Madrid and Taffet, 2015) for the drilling and sampling of three boreholes within the footprint of the Building 850 Firing Table to determine if residual perchlorate or HE compounds were present in the unsaturated zone beneath the firing table was submitted to and approved by the regulatory agencies. The drilling and sampling of the boreholes was conducted during September 2015. Perchlorate at concentrations above the 0.02 mg/kg reporting limit was not detected in any of the 23 subsurface soil samples collected, indicating that no perchlorate remains in the subsurface beneath the Building 850 Firing Table. Ground water was encountered and sampled in two of the three boreholes. One of the samples contained 61 µg/L of perchlorate while the other was below the 4 µg/L reporting limit. The ground water perchlorate concentration beneath the firing table does exceed the 6 µg/L MCL cleanup standard and is the highest concentration measured in the Building 850 area during 2015, but it is considerably lower than concentrations measured in wells downgradient of the firing table prior to the *in situ* bioremediation treatability study, suggesting that there is no significant source of perchlorate remaining in the ground water beneath the firing table. HE compounds were not detected in subsurface soil or ground water samples above their respective reporting limits of 0.2 mg/kg and 1 to 2 µg/L, indicating that no source of HE compounds remains beneath the firing table. A complete analysis of the results will be presented in the Building 850 Focused Feasibility Study report.

2.5.3. Pit 7 Complex Area of OU 5 Ground Water Treatment System Operations and Monitoring

This section is organized into five subsections: facility performance assessment; operations and maintenance issues; compliance summary; facility sampling plan evaluation and modifications; and treatment facility and extraction wellfield modifications.

2.5.3.1. Pit 7 Complex Area of OU 5 Facility Performance Assessment

The monthly ground water discharge volumes and rates and operational hours for second semester 2015 are summarized in Table 2.5-2. The total volume of ground water extracted and treated, and masses removed during the reporting period are presented in Table Summ-1. The cumulative volume of ground water treated and discharged and masses removed are summarized in Table Summ-2. Analytical results for influent and effluent samples collected during second semester 2015 are presented in Tables 2.5-3 through 2.5-6. The pH measurement results are presented in Appendix A.

2.5.3.2. Pit 7 Complex Area of OU 5 Operations and Maintenance Issues

The following maintenance activities and operational issues occurred at the PIT7-SRC ground water treatment system during second semester 2015:

- The ground water treatment system was offline overnight from September 22 to 23, and again from September 23 to September 28, due to power line problems that required MUSD to repair.
- The ground water treatment system was offline from October 7 until October 14 and again on October 19 and not restarted until December 1, 2015 due to temperature interlock and compressor problems.

2.5.3.3. Pit 7 Complex Area of OU 5 Compliance Summary

The PIT7-SRC ground water treatment system operated within compliance with the RWQCB Substantive Requirements for Wastewater Discharge throughout the reporting period.

2.5.3.4. Pit 7 Complex Area of OU 5 Facility Sampling Plan Evaluation and Modifications

The PIT7-SRC treatment facility sampling and analysis plan complies with the monitoring requirements in the CMP/CP. The treatment facility sampling and analysis plan is presented in Table 2.5-7. No modifications to the plan were made during this reporting period.

2.5.3.5. Pit 7 Complex Area of OU 5 Treatment Facility and Extraction Wellfield Modifications

No treatment facility or extraction wellfield modifications were made during this reporting period.

2.5.4. Pit 7 Complex Area of OU 5 Ground Water Monitoring

The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.5-8. This table also delineates and explains deviations from the sampling plan.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions: a total of 85 required analyses in 18 different wells were not performed because the wells were dry or there was insufficient water for sample collection.

Analytical results and ground water elevation measurements obtained during 2015 are presented in Appendices B and C, respectively.

Ground water elevation contour maps for the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs within the OU, based on data collected during second semester 2015, are presented on Figures 2.5-2 and 2.5-3, respectively. Ground water elevations in both HSUs have generally declined since spring 2011 due to lower than average rainfall during water years 2012, 2013, 2014 and 2015.

2.5.5. Pit 7 Complex Area of OU 5 Remediation Progress Analysis

This section is organized into three subsections: analysis of contaminant distribution and concentration trends; remediation optimization evaluation; and performance issues.

2.5.5.1. Pit 7 Complex Area of OU 5 Mass Removal

The monthly ground water mass removal estimates for second semester 2015 are summarized in Table 2.5-9. The total mass removed during the reporting period and cumulative mass estimates are summarized in Table Summ-1 and Table Summ-2, respectively.

2.5.5.2. Pit 7 Complex Area of OU 5 Contaminant Concentrations and Distribution

In the Pit 7 Complex area of OU 5, tritium is the primary COC in ground water, and uranium, perchlorate, nitrate, and VOCs are secondary COCs. These constituents have been identified within the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs. The distribution of tritium in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs, based on data collected during second semester 2015 (primarily the fourth quarter), is contoured on Figures 2.5-4 and 2.5-5, respectively. The distribution of perchlorate in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs, based on data collected during first semester 2015 (primarily the second quarter), is contoured on Figures 2.5-10 and 2.5-11, respectively. Concentrations of uranium and nitrate in Qal/WBR and $Tnbs_1/Tnbs_0$ ground water, based on data collected during first semester 2015 (primarily the second quarter), are presented on Figures 2.5-6 through 2.5-9. The COC data presented on Figures 2.5-4 through 2.5-11 represent specific time periods during 2015; therefore, some of the data discussed in the text are not displayed on the figures.

2.5.5.2.1. Tritium Activities and Distribution

Commingled plumes of tritium in ground water extend from Pit 3 and Pit 5 Landfill sources. The Pit 7 Landfill is not an apparent source of tritium to ground water as most of the tritium-bearing experiments at Site 300 were conducted prior to its opening in 1979 (Taffet et al., 2008) and monitor well NC7-48, located directly downgradient of Pit 7 and upgradient of Pit 3, has generally yielded ground water samples that contain tritium activities within background ranges. Tritium activities in the ground water samples collected from well NC7-48 during 2015 were below the 100 pCi/L reporting limit for tritium. Tritium activities and distribution in ground water in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs in the Pit 7 Complex Area are discussed below.

Qal/WBR HSU

Tritium activities in the Qal/WBR HSU ground water in the Pit 7 Complex area have decreased from a historic maximum of 2,660,000 pCi/L (NC7-63, 1998) to a 2015 maximum activity of 173,000 pCi/L in monitor well NC7-51 (April). The 2014 and 2013 maximum tritium activities of 134,000 pCi/L and 144,000 pCi/L, respectively, were also detected in samples collected from well NC7-51. Well NC7-51 is located about 40 ft northeast of Pit 5 and 60 ft east of Pit 3. In the Qal/WBR HSU, the region of ground water containing tritium in excess of the MCL cleanup standard extends about 1,600 ft southeast from the eastern edge of Pit 3. During 2015, ground water tritium activities and the extent of tritium activities exceeding the 20,000 pCi/L MCL cleanup standard remain similar to those observed in 2014.

$Tnbs_1/Tnbs_0$ HSU

In the Pit 7 Complex area, tritium activities in $Tnbs_1/Tnbs_0$ HSU ground water have decreased from a historic maximum of 770,000 pCi/L (1999) to a 2015 maximum of 180,000 pCi/L (April). Both the historic and 2015 maximum tritium activities were detected in samples from extraction well NC7-25, located about 250 ft downgradient (northeast) of the Pit 3 Landfill. Within the Pit 7 Complex area, ground water in the $Tnbs_1/Tnbs_0$ HSU with tritium activities in excess of the 20,000 pCi/L MCL cleanup standard extends about 800 ft northeast of Pit 3 and Pit 5, similar to that observed in 2014. In general, tritium activities in the $Tnbs_1/Tnbs_0$ HSU are similar or have declined slightly compared to 2014 measurements.

Overall, the extent of tritium in ground water with activities in excess of the 100 pCi/L background level remains stable, and is similar to that observed in 2014.

2.5.5.2.2. Uranium Concentrations and Distribution

Uranium activities and distribution in ground water in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs in the Pit 7 Complex Area are discussed below.

Qal/WBR HSU

Uranium activities in Qal/WBR HSU ground water in the Pit 7 Complex area have decreased from a historic maximum of 781 pCi/L (monitor well NC7-40, 1998) to a 2015 maximum of 116 pCi/L in extraction well NC7-64 (April). The 2015 maximum is a slight increase from the 2014 maximum of 109 pCi/L detected in extraction well W-PIT7-2703. A subsequent sample collected from well NC7-64 in December contained 86 pCi/L. Both extraction wells, W-PIT7-2703 and NC7-64 are located directly downgradient (east) of Pit 3. Total uranium activities exceeded the 20 pCi/L MCL cleanup standard in 11 wells in the Qal/WBR HSU during 2015.

All of the wells with uranium activities exceeding the 20 pCi/L MCL cleanup standard are proximal to the landfills and have historically shown $^{235}U/^{238}U$ isotopic ratios indicating some depleted uranium. The extent of uranium in excess of the MCL cleanup standard in the Qal/WBR HSU is confined to an area directly east of Pit 3 and another area that extends about 500 ft southeast from the center of Pit 5. The spatial extent of shallow ground water impacted with depleted uranium has been stable since the mid-1990s. Areas of depleted uranium in ground water are bounded by wells that exhibit $^{235}U/^{238}U$ atom ratios indicative of natural uranium. Sorption and ion-exchange are likely responsible for retarding the migration of depleted uranium in ground water compared to conservative contaminants such as tritium.

$Tnbs_1/Tnbs_0$ HSU

In the Pit 7 Complex Area, only one well screened in the $Tnbs_1/Tnbs_0$ HSU contained ground water with a total uranium activity in excess of the 20 pCi/L MCL cleanup standard during 2015. Ground water samples collected in April and December from extraction well NC7-25, located downgradient (east) of Pit 3, contained 83 pCi/L and 34 pCi/L, respectively, a decrease from October 2014 when the total uranium activity was 100 pCi/L (the historic maximum for the $Tnbs_1/Tnbs_0$ HSU in the Pit 7 Complex Area). Well NC7-25 is the only $Tnbs_1/Tnbs_0$ HSU well that historically and currently yields ground water with uranium in excess of the MCL cleanup standard. Prior to October 2014, uranium activity in NC7-25 had not exceeded 51 pCi/L (October 1998) and all $^{235}U/^{238}U$ atom ratio data indicated that the uranium was natural. In October 2014, two years after ground water extraction from well NC7-25 began in August 2012, the ground water uranium activity increased significantly to 100 pCi/L and the measured $^{235}U/^{238}U$ atom ratio was 0.0066, indicating for the first time a minor but quantifiable presence of depleted uranium in ground water from this well. The presence of depleted uranium indicated that migration of Qal/WBR water into the well's capture zone may have occurred. The uranium activity in the April 2015 ground water sample remained elevated at 83 pCi/L (no isotope ratio data available). During most of October and the entire month of November, the PIT7-SRC ground water treatment system was offline due to temperature interlock and compressor problems. The system was restarted on December 1 and ground water samples were collected from the extraction wells. The uranium activity in the ground water sample collected from well NC7-25 in December had decreased to 34 pCi/L with a natural isotopic ratio (0.0071). It appears that after two years of ground water extraction from well NC7-25, Qal/WBR water with higher uranium activity and a small component of depleted uranium had migrated into the capture zone and been extracted. During an almost two month period of inactivity, recovery to static water level was provided by natural uranium-bearing water of lower activity.

The maximum uranium activity in a well screened in both the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs during 2015 was 26 pCi/L (April) in extraction well W-PIT7-2307.

As is the case for the Building 850 portion of OU 5, uranium activity analyses for 2015 were performed primarily by alpha spectroscopy with selected samples analyzed by ICP-MS.

2.5.5.2.3. Nitrate Concentrations and Distribution

Nitrate concentrations and distribution in ground water in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs in the Pit 7 Complex Area are discussed below.

Qal/WBR HSU

During 2015, ground water in two Qal/WBR HSU wells contained nitrate with concentrations at or above the 45 mg/L MCL cleanup standard. Nitrate concentrations in the Qal/WBR HSU have decreased from the historic maximum of 90 mg/L in well NC7-63 (2011) to a 2015 maximum nitrate of 45 mg/L in April in both extraction well NC7-64 and monitor well NC7-51. Wells NC7-63, NC7-64 and NC7-51 are located immediately downgradient (east) of Pit 3. Well NC7-63 was dry during 2015.

$Tnbs_1/Tnbs_0$ HSU

During 2015, nitrate was detected at concentrations at or above the 45 mg/L MCL cleanup standard in samples from $Tnbs_1/Tnbs_0$ HSU wells NC7-47 and W-PIT7-13, both located downgradient and northeast of the Pit 7 Complex area. The 2015 maximum nitrate concentration detected in this HSU, in the Pit 7 Complex area, was 64 mg/L in well NC7-47 (May). Well NC7-47 is also the location of the historic maximum nitrate concentration of 85 mg/L (2003). Ground water collected from well W-PIT7-13 contained 59 mg/L and 62 mg/L, for the routine and duplicates samples, respectively, in April.

The 2015 maximum nitrate concentration in a well screened in both the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs was 48 mg/L in monitor well K7-01, located immediately downgradient of Pit 5.

Historic data indicate that nitrate concentrations in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSU ground water are limited in extent and relatively stable. The distribution and concentrations of nitrate in ground water during 2015 are similar to what was observed in 2014.

2.5.5.2.4. Perchlorate Concentrations and Distribution

During 2015, perchlorate was detected at concentrations exceeding the 6 µg/L MCL cleanup standard in 13 wells downgradient (east) of the landfills. Perchlorate concentrations and distribution in ground water in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs in the Pit 7 Complex Area are discussed below.

Qal/WBR HSU

Perchlorate concentrations in Qal/WBR HSU ground water in the Pit 7 Complex area have decreased from a historic maximum of 40 µg/L (extraction well W-PIT7-2306, 2009) to a 2015 maximum of 14 µg/L (December) in extraction well W-PIT7-2305, located immediately downgradient of Pit 5. Well W-PIT7-2306 has not contained sufficient water for sampling since May 2012. The other Qal/WBR HSU wells with perchlorate exceeding the 6 µg/L MCL cleanup standard during 2015 were monitor well NC7-51 and extraction wells NC7-64 and W-PIT7-2703, located immediately downgradient of Pit 3, and monitor wells NC7-40, W-PIT7-03, and W-PIT7-1918, and extraction well W-PIT7-2705, located immediately downgradient of Pit 5.

$Tnbs_1/Tnbs_0$ HSU

Perchlorate concentrations in $Tnbs_1/Tnbs_0$ HSU ground water have decreased from a historic maximum of 29 µg/L in monitor well K7-03 (2005) to the 2015 maximum concentration of 10 µg/L, in extraction wells NC7-25 and W-PIT7-2307 (both in April). During 2015, monitor wells NC7-68 and W-PIT7-2309 also contained perchlorate at concentrations exceeding the 6 µg/L MCL cleanup standard. Well NC7-25 is located downgradient of Pit 3, and wells NC7-68, W-PIT7-2309, and W-PIT7-2307 are located downgradient of Pit 5.

The 2015 maximum perchlorate concentration in a well screened in both the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs was 11 µg/L in monitor well K7-01 (April). Well K7-01 is located immediately downgradient of Pit 5.

Overall, the extent of perchlorate at concentrations exceeding the 6 µg/L MCL cleanup standard in the Pit 7 Complex area ground water did not change significantly from 2014 to 2015.

2.5.5.2.5. VOC Concentrations and Distribution

The VOC COCs in Pit 7 Complex Area ground water include TCE and 1,1-DCE. Only TCE was detected in ground water samples from three Pit 7 Complex area wells during 2015. Concentrations were below the TCE 5 µg/L MCL cleanup standard in all of the wells and have been so since 2011. VOC concentrations and distribution in ground water in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs in the Pit 7 Complex Area are discussed below.

Qal/WBR HSU

During 2015, VOCs at concentrations above the 0.5 µg/L reporting limit were not detected in any of the Pit 7 Complex area Qal/WBR HSU monitor wells. During 2014, three wells contained VOCs at concentrations above the 0.5 µg/L reporting limit. Total VOC concentrations in Qal/WBR HSU ground water in the Pit 7 Complex area have decreased from a historic maximum of 21 µg/L in 1995 (monitor well NC7-51, located immediately downgradient of Pit 3, comprised of 15 µg/L TCE and 6.2 µg/L 1,1-DCE) to below the 0.5 µg/L reporting limit in 2015.

$Tnbs_1/Tnbs_0$ HSU

During 2015, TCE concentrations above the 0.5 µg/L reporting limit were detected in two Pit 7 Complex area $Tnbs_1/Tnbs_0$ HSU wells. Monitor well K7-03 contained 1.0 µg/L TCE (duplicate result, 0.92 µg/L in the routine sample, April) and extraction well W-PIT7-2307 contained 0.63 µg/L TCE (April). Total VOC concentrations in the $Tnbs_1/Tnbs_0$ HSU have decreased from the historic maximum of 15.2 µg/L (8.7 µg/L TCE, 4.5 µg/L 1,2-DCE, 0.8 µg/L PCE, and 1.2 µg/L 1,1,1-TCA) measured in the 1985 ground water sample collected from monitor well K7-03.

Monitor well K7-01, located immediately downgradient of Pit 5 and completed in both HSUs, contained 0.78 µg/L TCE (April).

2.5.5.3. Pit 7 Complex Area of OU 5 Remediation Optimization and Performance Evaluation

Ground water extraction and treatment at the PIT7-SRC facility began in March 2010. A wellfield expansion in second semester 2012 added wells W-PIT7-2703, W-PIT7-2704 and W-PIT7-2705 to the Pit 7 extraction wellfield. In addition to the new extraction wells, extraction of ground water from NC7-25, screened in the $Tnbs_1/Tnbs_0$ bedrock HSU, was initiated and the pump intake in well W-PIT7-2307 was raised to target the Qal/WBR HSU.

During 2015, only five (NC7-25, NC7-64, W-PIT7-2305, W-PIT7-2703, and W-PIT7-2705) of the eight PIT7-SRC extraction wells were operable throughout the entire reporting period due to ongoing drought conditions. W-PIT7-2307 operated briefly in February and March until the water level dropped below the pump intake, and wells W-PIT7-2306 and W-PIT7-2704 did not contain sufficient water for pumping at any time during 2015. The lack of recharge combined with the low permeability of the HSU materials limited the long-term average ground water extraction flow rate from the entire PIT7-SRC extraction wellfield to less than 0.1 gpm with the majority of the flow contributed by well W-PIT7-2305. Table Summ-1 lists the volume of ground water treated at PIT7-SRC during 2015 as 20,000 gallons (13,000 gallons during first semester and 7,000 gallons during second semester). As stated in the First Semester 2015 CMR, the volume of ground water extracted during first semester 2015 may have been overestimated by as much as 50% due to issues with check valves and flow meters. The volume of ground water extracted during second semester was lower because the PIT7-SRC ground water treatment system did not operate for most of October and all of November, the installation of new check valves produced more accurate flow measurements and extraction volumes, and flow rates from the wells were slightly lower due to ongoing drought conditions.

Though the yields from the PIT7-SRC extraction wells are extremely low, the wells are located in areas with high COC concentrations and have been removing COC mass since ground water extraction began in 2010. Concentrations of COCs in ground water from well W-PIT7-2305, which provides most of the flow to the PIT7-SRC facility, have fluctuated since pumping started in 2010, but have shown decreases from pre-pumping conditions to present. For example:

- Tritium activities decreased from 73,900 pCi/L (January 2010) to 31,500 pCi/L (December 2015).
- Uranium activities decreased from 21 pCi/L (2010) to 13 pCi/L (December 2015). Since 2008, the ground water from this well has contained only natural uranium.
- TCE concentrations were below the 0.5 µg/L reporting limit (January 2010), were 0.63, 0.67 and 0.52 µg/L in May 2010, October 2010 and April 2011, respectively, and have remained below the 0.5 µg/L reporting limit since October 2011.

In addition to the long-term trends observed in W-PIT7-2305, operation of W-PIT7-2307 in February and March 2015 extracted TCE from ground water in the Pit 7 Complex Area for the first time since 2013. Well NC7-25 was activated as an extraction well in August 2012 to increase uranium mass removal even though this well had historically always exhibited a natural $^{235}U/^{238}U$ atom ratio, it exceeded the 20 pCi/L MCL cleanup standard. After two years of ground water extraction, the October 2014 ground water sample yielded a total uranium activity of 100 pCi/L, a significant increase and historic maximum for this well, with a $^{235}U/^{238}U$ ratio of 0.0066, indicating the presence of some depleted uranium for the first time in this well. Following two months of inactivity, uranium activity decreased and isotopic ratio returned to natural (34 pCi/L with a $^{235}U/^{238}U$ atom ratio of 0.0071), but with renewed extraction of ground water the lower isotopic ratios and higher activities may return in the near future. Given the low yields of the HSU materials and the current climate conditions, the PIT7-SRC extraction wellfield is operating as well as can be expected.

2.5.5.4. Pit 7 Complex Area of OU 5 Remedy Performance Issues

MNA for tritium continues to be effective and protective of human health and the environment, and to make progress toward cleanup. The extraction and treatment of uranium, perchlorate, VOCs and nitrate continue to reduce the concentrations and masses of these contaminants in Pit 7 Complex ground water.

During 2015, tritium activities in treated effluent from PIT7-SRC ranged from 37,400 pCi/L to 43,600 pCi/L. Tritium activities in performance monitor wells NC7-16 and NC7-21, located directly downgradient of the effluent discharge trench, are lower than the treated effluent activities and continue to exhibit decreasing tritium trends. The tritium activities in these wells will continue to be closely monitored to assess any negative impacts to the distribution of tritium in ground water. The performance summary of PIT7-SRC indicates that:

- Progress has been made in reducing COC concentrations towards cleanup standards. Uranium activities to date have remained relatively stable, and those in excess of MCL cleanup standards are limited in extent. TCE concentrations have dropped below the MCL cleanup standard. Perchlorate concentrations are stable to decreasing. Nitrate concentrations and distribution have decreased from historic maxima.
- The extent of uranium in excess of the MCL cleanup standard in the Qal/WBR HSU continues to be confined to an area immediately east of Pit 3 and another area that extends from Pit 5 southeast about 500 ft. Although the uranium isotopic compositions in ground water samples are slowly trending toward natural, the extents of uranium in both these regions have remained stable and similar to what has been observed over the last few years.
- Tritium activities in wells downgradient of the infiltration trench are decreasing, indicating that the discharge of tritium-bearing water is not adversely impacting downgradient ground water.

As discussed in the Remedial Design (RD) for the Pit 7 Complex (Taffet et al., 2008), the drainage diversion system design was not intended to capture 100% of the precipitation that falls in the Pit 7 Complex area. Rather, it was designed to divert excess surface water runoff and shallow subsurface recharge from the hillslopes to the west and east of the Pit 7 Complex landfills during high intensity storms and periods of extreme rainfall (i.e., the 1997-1998 El Niño) to minimize ground water contact with the pit waste and underlying contaminated bedrock. Thus, the drainage diversion system performance can best be evaluated during a future El Niño season or other period of very high rainfall.

Criteria indicating that the drainage diversion system is not operating as intended and corresponding recent performance include:

1. Ground water elevation responses to rainfall events observed in key monitoring wells are similar to those observed before the installation of the drainage diversion system:

- Drainage diversion system performance is evaluated by 22 monitor wells outfitted in April 2010 with dedicated pressure transducers that measure ground water elevations.
- Review of these data indicate that ground water elevation responses to rainfall are less than those observed prior to drainage diversion system installation in several wells. For example, in 2005, prior to installation of the drainage diversion system, ground water elevation in well NC7-17, located downgradient of the drainage diversion system at the south end of Pit 7, increased 5 inches per inch of rain received. In 2011, after installation of the drainage diversion system, ground water elevation increased less than 4 inches per inch of rain received for the same time period during the water year. These data indicate a 20% reduction in ground water elevation response to rainfall in well NC7-17 after installation of the drainage diversion system. Total precipitation received during water years 2004-2005 and 2010-2011 was greater than average and almost identical at 13.7 inches and 13.5 inches, respectively. Precipitation received during rainfall years following 2010-2011 has been below average and water elevation response evaluations have not been performed for these time periods.

2. Maximum ground water rises into the pit waste and underlying contaminated bedrock as indicated by ground water elevation data:
   - Ground water levels have remained well below the bottoms of the Pit 7 Complex Landfills. Ground water elevations in the Qal/WBR HSU have decreased since spring 2011 due to below average rainfall.
3. Increasing trends in tritium, uranium, VOCs or perchlorate activities/concentrations are observed over a period of at least four quarters in ground water samples from key wells downgradient of the landfills:
   - COC trends in Pit 7 Complex ground water are decreasing:
     - Tritium activities decreased from a historic maximum of 2,660,000 pCi/L in 1998 to a 2015 maximum of 180,000 pCi/L.
     - Uranium activities have decreased from a historic maximum of 781 pCi/L in 1998 to a 2015 maximum of 116 pCi/L.
     - Nitrate concentrations have decreased from the historic maximum of 363 mg/L in 2003 to a 2015 maximum of 64 mg/L.
     - Perchlorate concentrations have decreased from a historic maximum of 40 µg/L in 2009 to a 2015 maximum of 14 µg/L.
     - Total VOC concentrations have decreased from a historic maximum of 21.2 µg/L in 1995 to a 2015 maximum of 1.0 µg/L, with concentrations of all VOC COCs below cleanup standards.

Based on the evaluation of ground water elevation and contaminant activity/concentration data collected from Pit 7 Complex area wells against the performance criteria, the drainage diversion system appears to be operating as intended. However, it is important to note that the drainage diversion system is designed to divert recharge during peak events and has not yet been tested under the conditions for which it was designed.

2.6. Building 854 OU 6

The Building 854 Complex has been used to test the stability of weapons and weapon components under various environmental conditions and mechanical and thermal stresses. A map of the Building 854 OU showing the locations of monitor and extraction wells and treatment facilities is presented on Figure 2.6-1.

Three ground water treatment systems are currently operated in the Building 854 OU; Building 854-Source (854-SRC), Building 854-Proximal (854-PRX), and Building 854-Distal (854-DIS). One soil vapor treatment system is also operated at the 854-SRC facility.

The 854-SRC ground water treatment system began operation in December 1999 removing VOCs and perchlorate from ground water. During second semester 2015, ground water was only extracted from one of the extraction wells, W-854-02, at an approximate rate of 3.6 gpm. Extraction well W-854-2218 has been shut down since May 2015 due to interlock problems and the rest of the facility has been offline since November 2015 for engineering upgrades. Operational flow rates will be higher in the future once interlock issues are addressed (discussed in Section 2.6.1.2) and these wells are able to concurrently extract water. The ground water treatment system configuration includes a particulate filtration system, two ion-exchange resin columns connected in series for perchlorate removal, and three aqueous-phase GAC units connected in series for VOC removal. Nitrate-bearing treated effluent is then discharged via a misting tower onto the landscape for uptake and utilization of the nitrate by indigenous grasses.

A soil vapor treatment system began operation at 854-SRC in November 2005. Soil vapor is currently extracted from well W-854-1834 at an approximate flow rate ranging from 46 to 50 scfm. This system consists of a rotary-lobe blower to create vacuum at the wellhead, and a series of pipes leading to vapor-phase GAC by which VOCs are removed from extracted soil vapor. Treated vapors are discharged to the atmosphere under a permit issued by the San Joaquin Valley Air Pollution Control District. This system has been offline since November 2015 for engineering upgrades.

The 854-PRX ground water treatment system began removing VOCs, nitrate and perchlorate from ground water in November 2000. During second semester 2015, ground water was extracted at an average flow rate of 5.5 gpm from a single extraction well, W-854-03, located southeast of the Building 854 complex. This flow rate is a significant increase from the extraction rate that averaged 1.5 gpm before the 2014 facility upgrades. The ground water treatment system configuration includes a particulate filtration system, two ion-exchange resin columns connected in series for perchlorate removal, and three aqueous-phase GAC units connected in series for VOC removal. An additional nitrate ion-exchange column is available in the event that nitrate concentrations approaches the discharge limit of 45 mg/L.

The 854-DIS ground water treatment system is solar-powered and began operation in July 2006 removing VOCs and perchlorate from ground water. Ground water is extracted from well W-854-2139, which operates cyclically. The operational flow rate ranged from 270 to 320 gallons per month during the second semester 2015. The ground water treatment system configuration includes two ion-exchange resin columns connected in series for perchlorate treatment followed by three aqueous-phase GAC units connected in series for VOC removal prior to discharge to an infiltration trench. Nitrate concentrations are low at this location, therefore no nitrate removal is currently needed at this ground water treatment system.

2.6.1. Building 854 OU Ground Water Treatment System Operations and Monitoring

This section is organized into five subsections: facility performance assessment; operations and maintenance issues; receiving water monitoring; compliance summary; and sampling plan evaluation and modifications.

2.6.1.1. Building 854 OU Facility Performance Assessment

The monthly ground water discharge volumes, rates and operational hours for second semester 2015 are summarized in Tables 2.6-1 through 2.6-3. The total volume of ground water treated and masses removed during the reporting period are presented in Table Summ-1. The cumulative volume of ground water treated and discharged and the masses removed are summarized in Table Summ-2. Analytical results for influent and effluent samples collected during second semester 2015 are presented in Tables 2.6-4 and 2.6-5. The pH measurement results are presented in Appendix A.

2.6.1.2. Building 854 OU Operations and Maintenance Issues

The following maintenance activities and operational issues occurred at the 854-SRC ground water treatment system and soil vapor treatment system, and 854-PRX and 854-DIS ground water treatment systems during second semester 2015:

<u>854-SRC ground water treatment system and soil vapor treatment system</u>

- Both the ground water treatment system and the soil vapor treatment system were taken offline on November 16 for a complete system rebuild and remained offline for the rest of 2015.

<u>854-PRX ground water treatment system</u>

- The ground water treatment system was offline from September 22 to 28, for GAC change-out.
- The ground water treatment system was shut down on November 17 through the end of 2015, for freeze protection.

<u>854-DIS ground water treatment system</u>

- The ground water treatment system was taken offline on July 15 to evaluate pump control problems. It was restarted on July 21 but immediately shut down again, followed by a second restart on July 23.
- The ground water treatment system was offline for a short period on August 26 due to loose electrical switch, and was shut down on August 31 through the end of 2015 to evaluate well production problems and accommodate freeze protection.

2.6.1.3. Building 854 OU Compliance Summary

The 854-SRC, 854-PRX and 854-DIS ground water treatment systems all operated in compliance with the RWQCB Substantive Requirements for Wastewater Discharge. The 854-SRC soil vapor treatment system operated in compliance with San Joaquin Valley Air Pollution Control District permit limitations.

2.6.1.4. Building 854 OU Facility Sampling Plan Evaluation and Modifications

The Building 854 OU facility sampling and analysis plan complies with the monitoring requirements in the CMP/CP. The sampling and analysis plan is presented in Table 2.6-6. There were no modifications to the plan during this reporting period.

2.6.1.5. Building 854 OU Treatment Facility and Extraction Wellfield Modifications

There were no treatment facility or extraction wellfield modifications performed for the 854-DIS, 854-PRX, and 854-SRC ground water treatment systems, or the 854-SRC soil vapor treatment system, during the reporting period, although 854-SRC was shut down on November 16 for engineering upgrades and facility optimization.

2.6.2. Building 854 OU Ground Water Monitoring

The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.6-7. This table also explains any deviations from the sampling plan.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions:

- Six analyses in extraction well W-854-2218 were not performed because of an inoperable pump. This pump will be replaced as part of the engineering evaluation and upgrade of this facility currently in progress.
- A total of 30 analyses in seven different wells and one spring were not performed because the wells or spring were dry or there was insufficient water for sample collection.
- A total of four analyses in two extraction wells were not performed because the units were shut down for freeze protection.
- A total of eight analyses in two wells and two springs were not performed because of restricted access.

Analytical results and ground water elevation measurements obtained during 2015 are presented in Appendices B and C, respectively.

A ground water elevation contour map for the $Tnbs_1/Tnsc_0$ HSU, based on data collected during second semester 2015, is presented on Figure 2.6-2. Ground water elevations measured during second semester 2015 are posted for the Qls and $Tnbs_1$ HSUs on Figure 2.6-6. Ground water elevations measured in both HSUs were similar to those observed in previous years.

2.6.3. Building 854 OU Remediation Progress Analysis

This section is organized into four subsections: mass removal; analysis of contaminant distribution and concentration trends; remediation optimization evaluation; and performance issues.

2.6.3.1. Building 854 OU Mass Removal

The monthly ground water mass removal estimates for second semester 2015 are summarized in Tables 2.6-8 through 2.6-10. The total mass removed during the reporting period and cumulative mass estimates are summarized in Table Summ-1 and Table Summ-2, respectively.

2.6.3.2. Building 854 OU Contaminant Concentrations and Distribution

At the Building 854 OU, TCE and perchlorate are the primary COCs detected in ground water; nitrate is a secondary COC. These COCs have been detected primarily in the $Tnbs_1/Tnsc_0$ HSU. The locations of the wells discussed in the following text are shown on the Building 854 OU site map (Figure 2.6-1).

2.6.3.2.1. VOC Concentrations and Distribution

Total VOCs are present primarily in the $Tnbs_1/Tnsc_0$ HSU and in one well screened in the shallower $Qls/Tnbs_1$ HSU.

$Qls/Tnbs_1$ HSU

In the $Qls/Tnbs_1$ HSU, during second semester 2015, 60 µg/L total VOCs (entirely TCE, November) were detected in a routine sample of shallow perched ground water in monitor well W-854-10 (screened in the $Tnbs_1$ unit but above the $Tnbs_1/Tnsc_0$ HSU) in the Building 854 source area. However, a duplicate sample from the same well on the same date yielded only 28 µg/L total VOCs (entirely TCE). Though concentrations in this well have been variable since 2006, ranging from 2.5 to 40 µg/L, the 60 µg/L detection in November 2015 is the highest concentration of total VOCs historically detected in this well. This is discussed further in the remediation optimization evaluation summary (Section 2.6.3.3). During the reporting period, VOCs were not detected above the reporting limit in any other well completed in the $Qls/Tnbs_1$ HSU.

$Tnbs_1/Tnsc_0$ HSU

Total VOC concentrations in $Tnbs_1/Tnsc_0$ HSU ground water have been reduced from a historic pre-remediation maximum of 2,900 µg/L (extraction well W-854-02, 1997) to a 2015 maximum of 93 µg/L in the same well (March). TCE comprises all of the VOCs observed in ground water at Building 854, except for low cis-1,2-DCE concentrations detected in two wells. The 2015 maximum cis-1,2-DCE concentrations detected in these wells were 16 µg/L in monitor well W-854-17 (May, above the 6 µg/L MCL cleanup standard) and 0.91 µg/L in extraction well W-854-2139 (April).

Two VOC plumes exist in the $Tnbs_1/Tnsc_0$ HSU: the northern plume and southern plume. The northern plume is located beneath the 854-SRC and 854-PRX areas and is separated from the southern plume by a region where two monitor wells, W-854-1902 and W-854-1822, have not detected any VOCs above their respective reporting limits since sampling began in 2002. The high-concentration portion of the southern plume is in the vicinity of Well 13, a former water-supply well. The southern plume extends south where low TCE concentrations have been sporadically detected at Springs10 and 11. The overall extent of VOCs impacting Building 854 ground water with concentrations above the 0.5 µg/L reporting limit has remained relatively stable since remediation began. However, (1) the extent of the northern VOC plume with concentrations greater than 50 µg/L has decreased and is currently limited to the immediate vicinity of the Building 854 source area; (2) the extent of the southern VOC plume with concentrations greater than 10 µg/L has decreased; and (3) VOC concentrations in the southern plume, although they fluctuate considerably, are still decreasing.

The maximum historic total VOC vapor concentration (entirely TCE) in the Building 854 source area was detected in 854-SRC soil vapor treatment system extraction well W-854-1834 (4.4 $ppm_{v/v,}$ November 2005). The 2015 maximum total VOC vapor concentration for this well was 0.25 $ppm_{v/v}$, measured in October and collected during normal vapor extraction operation. Vapor concentrations in this well have not been detected above 0.5 $ppm_{v/v}$ since 2007. The overall decline in total VOC vapor concentration indicates significant progress in remediation of VOCs in vapor in this area. The reporting limit for TCE in soil vapor is 0.03 $ppm_{v/v}$.

2.6.3.2.2. Perchlorate Concentrations and Distribution

Perchlorate is present in the $Tnbs_1/Tnsc_0$ HSU but not the shallower $Qls/Tnbs_1$ HSU.

$Qls/Tnbs_1$ HSU

During the reporting period, perchlorate concentrations were below the 4 µg/L reporting limit in all wells screened in the Qls HSU or perched $Tnbs_1$ water-bearing zones.

$Tnbs_1/Tnsc_0$ HSU

During 2015, perchlorate concentrations at or exceeding its 6 µg/L MCL cleanup standard were detected in six $Tnbs_1/Tnsc_0$ HSU wells: extraction well W-854-02 and monitor wells W-854-07, W-854-08, W-854-45, W-854-1823, and W-854-2611. Perchlorate concentrations in $Tnbs_1/Tnsc_0$ HSU ground water have decreased from a historic maximum of 27 µg/L (W-854-1823, 2003) to a 2015 maximum of 15 µg/L (W-854-1823, May and November). Monitor well W-854-1823 is located downgradient of the 854-PRX facility and perchlorate concentrations have been slightly declining in this well since 2003. The distribution and concentrations of perchlorate in $Tnbs_1/Tnsc_0$ HSU ground water during the reporting period are similar to those observed in previous years, except for a single detection of 4.5 µg/L (W-854-08, May) and non-detections throughout 2015 at extraction well W-854-03. Perchlorate has not been detected in extraction well W-854-03 since October 2014. This is discussed further in the remediation optimization evaluation summary (Section 2.6.3.3). Perchlorate at 854-DIS, and near W-854-45 is not currently captured by any ground water extraction well(s).

2.6.3.2.3. Nitrate Concentrations and Distribution

During 2015, the maximum nitrate concentration in Building 854 OU area ground water was 190 mg/L in monitor well W-854-14 (May), screened in the Qls HSU and located near the Building 858 Drop Tower. Nitrate in this well has been steadily decreasing from the historic maximum of 270 mg/L (2009). Nitrate concentrations in well W-854-45 have shown a steadily increasing trend from 2004 (16 mg/L) to first semester 2015 (65 mg/L, March). However, other wells that contain nitrate above the 45 mg/L cleanup standard have steady or decreasing nitrate concentrations during this same period. All of the wells containing ground water with nitrate concentrations exceeding the 45 mg/L MCL cleanup standard were located in the vicinity of the Building 854 Complex or Building 858.

2.6.3.3. Building 854 OU Remediation Optimization Evaluation

During 2015, the 854-SRC ground water treatment system extracted 219,000 gallons, which was a 78% decrease from 2014 when 1 million gallons were extracted. Well W-854-2218 was shut down most of the year that resulted in lower mass removal during 2015 than in 2014 for VOCs (130 g in 2014 and 75 g in 2015) and remained stable for perchlorate (5.9 g in 2014 and 5.2 g in 2015). An engineering evaluation and upgrade of the 854-SRC ground water treatment system and soil vapor treatment system is underway and will address performance issues of W-854-2218 and contribute to more continuous operation of the ground water treatment system.

At the 854-SRC soil vapor treatment system, 420 g of VOC vapor mass were removed 2015, compared to 270 g in 2014. Mass removal was higher than in 2014 due to the increased operational hours. Despite low VOC vapor concentrations, VOC mass continues to be removed from the source area due to relatively high vapor flow rates. This VOC mass is volatilizing from residual TCE in the vadose zone beneath the Building 854 source area and from the dissolved VOC plume in $Tnbs_1/Tnsc_0$ ground water. Due to continued removal of VOC mass, DOE/LLNL plan to operate the 854-SRC soil vapor treatment system until vapor concentrations remain below reporting limits after extended shutdown periods and SVE shutoff criteria have been met. Over the next several years, it will be determined if prerequisites to begin a SVE system shut-off evaluation have been attained. This process will begin with a vapor rebound test, which was planned for late 2015 but postponed until after 854-SRC facility rebuild is completed. The planned vapor rebound test was postponed because there were no significant shutdown periods of the soil vapor treatment system during 2015.

During 2015, the 854-PRX ground water treatment system removed 51 g of VOC mass and 350 kg of nitrate. These mass removal estimates are higher compared to 2014, when the system removed 22 g of VOC mass and 61 kg of nitrate. The increase in removed VOC and nitrate mass is due to the increase in operational time and thus extracted volume of ground water, from 454,000 gallons during 2014 to 2.4 million gallons during 2015. During 2015 however, no perchlorate mass was removed. The decrease in perchlorate mass removed is due to the decrease in perchlorate concentrations in ground water during 2015, where all five influent samples were below the 4 µg/L reporting limit.

Although ground water extraction rates from W-854-03 at 854-PRX ground water treatment system have been higher since November, 2014 and the total extracted VOC mass increased, the ratio of mass removed to volume of water extracted decreased for all COCs except nitrate. It is possible that with the increased extraction rates, the facility is capturing more clean water and diluting influent concentrations from the contaminated area. An analysis of mass removal efficiency will be conducted during 2016 and modifications to system operations will be implemented, if necessary. In order to optimize remedial performance of the ground water treatment system, extraction rates at W-854-03 may be lowered to optimize TCE and perchlorate mass removal while minimizing nitrate removal.

During 2015, the 854-DIS ground water treatment system removed 0.32 g of VOC mass, no perchlorate, and 0.17 kg of nitrate. This is roughly on par with 2014, when the 854-DIS ground water treatment system removed 0.39 g of VOC mass, 0.033 g of perchlorate, and 0.18 kg of nitrate. The mass removal remains steady, though relatively low due to extraction volumes at extraction well W-854-2139. However, TCE concentrations in ground water extraction well W-854-2139 have risen sharply during the reporting period, ranging from 2.3 µg/L in October 2014 to 60 µg/L in November 2015. TCE concentrations in this area will be closely monitored for future long-term trends.

2.6.3.4. Building 854 OU Remedy Performance Issues

There were no new issues that affect the performance of the cleanup remedy for the Building 854 OU during this reporting period. As discussed in Section 2.6.3.3, the ongoing performance issues with 854-SRC extraction well W-854-2218 will be addressed in the engineering evaluation and upgrade of this facility currently in progress. Also, the installation of a data acquisition system to monitor hydraulic response to pumping will allow for improved performance assessment at this facility.

The overall remedy continues to be effective and protective of human health and the environment, and to make progress toward cleanup.

2.7. Building 832 Canyon OU 7

Building 832 Canyon facilities were used to test the stability of weapons and associated components under various environmental conditions. Contaminants were released from Buildings 830 and 832 through piping leaks and surface spills during testing activities at these buildings.

Three ground water treatment systems and two soil vapor treatment systems are operated in the Building 832 Canyon OU: Building 832-Source (832-SRC), Building 830-Source (830-SRC), and Building 830-Distal South (830-DISS). The 832-SRC and 830-SRC facilities extract and treat both ground water and soil vapor, while the 830-DISS facility extracts and treats ground water only.

A map of Building 832 OU showing the locations of monitor and extraction wells and treatment facilities is presented on Figure 2.7-1.

The 832-SRC ground water treatment system removes VOCs and perchlorate from ground water and the soil vapor treatment system removes VOCs from soil vapor. The ground water treatment system and soil vapor treatment system began operation in September and October 1999, respectively. In 2015, ground water was extracted from wells W-832-01, W-832-11, W-832-12, W-832-15 and W-832-25 at an approximate combined flow rate averaging at less than 1 gpm. Due to declining water levels, extraction wells W-832-10 and W-832-11 produced very small amounts of water in 2015. Soil vapor was extracted from wells W-832-12 and W-832-15 at an approximate combined flow rate of approximately 3 to 5 scfm. The current ground water treatment system configuration includes two ion-exchange resin columns connected in series to remove perchlorate, and three aqueous-phase GAC units (also connected in series) to remove VOCs. Nitrate-bearing treated effluent is then discharged via a misting tower over the landscape for uptake and utilization of the nitrate by indigenous grasses. A positive displacement rotary lobe blower is used to create a vacuum at selected wellheads through a system of piping manifolds. The contaminated vapors are treated using three vapor-phase GAC units connected in series. Treated soil vapors are then discharged to the atmosphere under a permit issued by the San Joaquin Valley Air Pollution Control District.

The 830-SRC ground water treatment system removes VOCs and perchlorate from ground water and the soil vapor treatment system removes VOCs from soil vapor. The ground water treatment system and soil vapor treatment system began operation in February and May 2003, respectively. In 2014, both systems were dismantled and rebuilt under REVAL. The new system became operational during the second semester of 2015. The new ground water treatment system configuration includes two ion-exchange resin columns connected in series to remove perchlorate and three aqueous-phase GAC units connected in series to remove VOCs. There is a valve between the ion-exchange resin columns and the GAC units to allow non perchlorate-bearing influent to bypass perchlorate treatment. The current continuous-operational flow rate of the 830-SRC ground water treatment system is approximately 8-10 gpm. During these engineering upgrades under REVAL, an additional extraction well, W-830-2701, was connected and currently extracts water at approximately 2-3 gpm. The new configuration allows for real-time monitoring of pumping rates and ground water elevations of all extraction wells and a few performance monitor wells at 830-SRC area and allows for better optimization of the remediation system. Nitrate-bearing treated effluent is currently discharged via a misting tower over the landscape for uptake and utilization of the nitrate by indigenous grasses. In 2015, two new wells were drilled as potential injection wells, W-830-3101 and W-830-3102 (Table 2.1). These wells (and an additional well, W-833-30) have been evaluated for use as injection wells and the pipeline expansions to connect these to 830-SRC ground water treatment system is currently in progress. New wells W-830-3101 and W-830-3102 are discussed in greater detail, in Section 2.7.1, Building 832 Canyon OU Facility Performance Assessment.

The 830-DISS ground water treatment system began operation in July 2000, removing VOCs, perchlorate and nitrate from ground water. Ground water is currently extracted from wells W-830-51, W-830-52, W-830-53 and W-830-2216 at a combined flow rate of approximately 2 to 6 gpm. During a typical year, approximately 1 to 2.5 gpm of ground water flows naturally from extraction wells W-830-51 and W-830-52, and less than 0.5 gpm from well W-830-53 under artesian pressure. W-830-2216 is actively pumped at a flow rate of approximately 1 to 2 gpm. Currently, extracted ground water flows through ion-exchange canisters to remove perchlorate at the 830-DISS location and the ground water is then piped to the Central GSA ground water treatment system for VOC removal. Nitrate-bearing treated effluent is then discharged via a misting tower over the landscape for uptake and utilization of the nitrate by indigenous grasses.

2.7.1. Building 832 Canyon OU Ground Water and Soil Vapor Extraction and Treatment System Operations and Monitoring

This section is organized into four subsections: facility performance assessment; operations and maintenance issues; compliance summary; and sampling plan evaluation and modifications.

2.7.1.1. Building 832 Canyon OU Facility Performance Assessment

For second semester 2015, monthly ground water and soil vapor discharge volumes, rates, and operational hours are summarized in Tables 2.7-1 through 2.7-3. The total volume of ground water and vapor extracted and treated and mass removed during the reporting period are presented in Table Summ-1. The cumulative volume of ground water and soil vapor treated and discharged and mass removed are summarized in Table Summ-2. Analytical results for influent and effluent samples collected during second semester 2014, are presented in Tables 2.7-4 and 2.7-5. The pH measurement results are presented in Appendix A.

2.7.1.2. Building 832 Canyon OU Operations and Maintenance Issues

The following maintenance activities and operational issues occurred at the 832-SRC ground water treatment system and soil vapor treatment system, 830-SRC ground water treatment system and soil vapor treatment system and 830-DISS ground water treatment system during second semester 2015:

<u>830-SRC ground water treatment system and soil vapor treatment system</u>

- Both the ground water treatment system and the soil vapor treatment system were shut down on August 19, 2014 for a complete system rebuild and remained offline until September 8, 2015.

832-SRC ground water treatment system and soil vapor treatment system

- 832-SRC ground water treatment system extraction wells W-832-01, W-832-11, W-832-10, and W-832-25 were shut down on August 31 for diagnosis and repair of check-valve issues in the manifold. These wells were restarted on October 6.
- Both 832-SRC ground water treatment system and soil vapor treatment system were shut down on November 17 for freeze protection and remained offline through the end of the reporting period.

830-DISS ground water treatment system

- The ground water treatment system was shut down to accommodate repairs at CGSA facility and misting towers from the beginning of the reporting period until August 18.
- The ground water treatment system was shut down on September 8 to perform maintenance on the CGSA misting towers. The facility remained offline for the remainder of 2015.

2.7.1.3. Building 832 Canyon OU Compliance Summary

The 832-SRC, 830-SRC, and 830-DISS ground water treatment systems operated in compliance with RWQCB Substantive Requirements during the reporting period. The 830-SRC soil vapor treatment system operated in compliance with the San Joaquin Valley Air Pollution Control District permit limitations. The 830-SRC ground water treatment system or soil vapor treatment system did not operate during this reporting period.

2.7.1.4. Building 832 Canyon OU Facility Sampling Plan Evaluation and Modifications

The Building 832 Canyon OU treatment facility sampling and analysis plan complies with the monitoring requirements in the CMP/CP. The sampling and analysis plan is presented in Table 2.7-6. No modifications were made to any of the plans during this reporting period.

2.7.1.5. Building 832 Canyon OU Treatment Facility and Extraction Wellfield Modifications

During 2015, three new wells, W-832-3101, W-832-3102, and W-832-3103 were installed in Building 832 Canyon OU. These wells are detailed in Table 2.1 and described below.

Well W-832-3101 is located approximately 420 ft east of the Building 830 ground water treatment system and is a planned injection well for discharge of treated ground water from 830-SRC. This well is completed with two screens with a total screen length of 110 ft, in the Upper and Lower $Tnbs_1$ HSU and sealed blank casing across the clay marker bed confining unit. Initial data at this location indicate that it will sustain an injection rate of approximately 3-5 gpm. Injection-well completion is currently in design and hookup is expected in 2016. Although sampling for baseline constituents in August detected toluene at 1.2 µg/L and bromoform at 0.64 µg/L, VOCs were not detected in follow-up samples collected in September. The initial baseline results for toluene and bromoform were flagged as suspect data.

Well W-832-3102 is located near Building 830, approximately 15 ft north of well W-830-09. This well was a planned injection well but was found to not have sufficient injection capacity for current needs. This well will serve as monitor well screened in the $UTnbs_1$ HSU unless additional injection capacity is needed in the future. Analytical results from baseline constituent samples collected at this well indicate a clean well with VOCs and perchlorate below their respective reporting limits and low nitrate (4.2 mg/L).

Well W-832-3103 is an $UTnbs_1$ monitor well downgradient of the 832-SRC area along Route 3 north of Building 882. This well will serve as a guard well downgradient from the VOC plume from the 832-SRC area and fulfills a recommendation in the 2011 OU7 Five-Year Review (Helmig et al., 2011). Analytical results from baseline constituent samples collected at this well indicate a clean well with VOCs and perchlorate below their respective reporting limits and very low nitrate (<0.44 mg/L).

2.7.2. Building 832 Canyon OU Ground Water Monitoring

The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.7-7. This table explains deviations from the sampling plan and indicates any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions:

- A total of 12 analyses in six different wells were not performed because of an inoperable pump.
- A total of 71 analyses in 21 different wells and 2 springs were not performed because the wells or springs were dry or there was insufficient water for sample collection.
- A total of six analyses in two artesian wells were not performed because the artesian wells did not have sufficient head to flow at the surface and are not equipped with ground water pumps.
- A total of 14 analyses in six different wells and one spring were not performed because the sampling locations were inaccessible.
- A total of 77 analyses in 19 different wells were not performed because the associated treatment facilities were turned off for freeze protection or engineering upgrades.

Analytical results and ground water elevation measurements obtained during 2015 are presented in Appendices B and C, respectively.

Ground water elevations and flow directions for the Qal/WBR and $Tnsc_{1a}$ HSUs are presented on Figures 2.7-2 and 2.7-4, respectively. Ground water elevation contour maps including hydraulic capture zones for the $Tnsc_{1b}$ and Upper $Tnbs_1$ HSUs are presented on Figures 2.7-3 and 2.7-5, respectively.

2.7.3. Building 832 Canyon OU Remediation Progress Analysis

This section is organized into four subsections: mass removal; contaminant concentrations and distribution; remediation optimization evaluation; and performance issues.

2.7.3.1. Building 832 Canyon OU Mass Removal

The monthly ground water and soil vapor mass removal estimates for 2015 are summarized in Tables 2.7-8 through 2.7-10. The total masses removed during the reporting period and cumulative mass estimates are summarized in Table Summ-1 and Table Summ-2, respectively.

2.7.3.2. Building 832 Canyon OU Contaminant Concentrations and Distribution

At the Building 832 Canyon OU, VOCs (mostly TCE) are the primary COCs detected in ground water. The compound cis-1,2-DCE is a COC at both the Building 830 and 832 source areas; chloroform and PCE are COCs at the Building 830 source area. Perchlorate and nitrate are the secondary COCs. These constituents have been detected primarily in the Qal/WBR HSU, $Tnsc_{1b}$ HSU and $Tnsc_{1a}$ HSU. VOCs have also been detected at relatively low concentrations in the $Tnbs_2$ and Upper $Tnbs_1$ HSUs.

2.7.3.2.1. VOC Concentrations and Distribution

VOCs detected in Building 830 area ground water consist primarily of TCE. During 2015, the other VOCs present above the reporting limit in the Building 830 area were chloroform, cis-1,2-DCE, 1,2-DCA, PCE, 1,1,2-TCA, trans-1,2-DCE. Of these VOCs, only TCE and 1,2,-DCA were detected at concentrations above their MCL cleanup standards of 5 µg/L and 0.5 µg/L, respectively.

VOCs detected in Building 832 area ground water consist primarily of TCE. During 2015, VOCs other than TCE present above the reporting limit in the Building 832 source area were chloroform, cis-1,2-DCE, and Freon 11. Of these VOCs, only TCE and cis-1,2-DCE were present in the Building 832 area at concentrations above their MCL cleanup standards of 5 µg/L and 6 µg/L, respectively.

VOC concentrations and distribution are discussed by HSU, below.

Qal/WBR HSU

Since remediation began in 2000 in the Building 830 source area, total VOC concentrations in Qal/WBR HSU ground water near 830-SRC have decreased by two orders of magnitude from a historic maximum of 10,000 µg/L in 2003 (well SVI-830-035) to a 2015 maximum of 860 µg/L in the same well (entirely TCE, February).

Since remediation began in 1999 in the Building 832 source area, ground water total VOC concentrations in wells screened in the Qal/WBR HSU have decreased from a historic maximum of 1,800 µg/L in 1998 (well W-832-18) to a 2015 maximum of 230 µg/L in monitor well W-832-23 (August). Qal/WBR well W-832-23 is screened in the Qal and weathered portion of the $Tnsc_{1b}$ HSU. Since 1999, total VOC concentrations in this well have fluctuated seasonally over a broad range of concentrations from 23 to 690 µg/L, with a stable to slightly decreasing long-term trend. Total VOC concentrations in soil vapor are also declining in the Building 832 source area. Total VOC concentrations detected in soil vapor in well W-832-15 have decreased from a historic maximum concentration of 1.8 $ppm_{v/v}$ in 2001 to a 2015 maximum of 0.15 $ppm_{v/v}$ (October). Neither W-832-15 nor W-832-12 have contained VOC concentrations in excess of 0.44 $ppm_{v/v}$ since 2011.

During 2015, total VOC concentrations in ground water samples taken from Qal/WBR HSU guard wells W-35B-01 and W-880-02, both located south of the Building 832 Canyon OU near the Site 300 southern boundary, were below the 0.5 µg/L reporting limit. Since 2011, none of the 18 ground water samples collected from guard well W-35B-01 exceeded the 0.5 µg/L VOC reporting limit. During the same time period, only four of 11 samples collected from guard well W-880-02 contained VOC concentrations above their respective reporting limits, with a maximum total of 0.61 µg/L in 2011.

$Tnbs_2$ HSU

Well W-830-2216 extracts ground water from the $Tnbs_2$ HSU. COCs in this well are likely due to a combination of sources located in the HE Process Area and Building 832 Canyon OUs. Since extraction began in 2007, total VOC concentrations in W-830-2216 have consistently declined from a historic maximum of 20 μg/L (2007) to a 2015 maximum of 3.8 μg/L (April). TCE was the only VOC detected in extraction well W-830-2216 and nearby monitor well W-830-13 during 2015. Total VOC concentrations in monitor well W-830-13 have decreased from a historic maximum of 26 μg/L in 2006 to a minimum of 3.3 μg/L in August 2015. Although there was a slight increase in TCE concentrations in this well between 2010 and 2012, TCE concentrations have remained consistently below the 5 μg/L MCL cleanup standard since 2012, indicating that extraction well W-830-2216 is capturing the higher concentrations of VOCs in the plume. The extracted ground water is treated at the 830-DISS and Central GSA treatment facilities.

While these $Tnbs_2$ HSU wells are located within the technical boundary of the Building 832 Canyon OU, the performance of these wells is discussed in more detail in HE Process Area OU section. The boundary of HE Process Area OU overlaps in this area, however the remedy performance of the entire $Tnbs_2$ HSU is evaluated as a single continuous contaminated HSU, rather than being split and discussed in two different OUs.

$Tnsc_{1b}$ HSU

Since remediation began in 2000 in the Building 830 source area, total VOC ground water concentrations in the $Tnsc_{1b}$ HSU have decreased from a historic maximum of 13,000 µg/L (extraction well W-830-49, 2003) to a 2015 maximum of 2,100 µg/L (monitor well W-830-1830, September and October). In the 830-DISS area, total VOC concentrations in $Tnsc_{1b}$ HSU artesian wells W-830-51, W-830-52 and W-830-53, have decreased from a historic maximum of 170 µg/L (extraction well W-830-51, 2002) to a 2015 maximum of 20 µg/L (W-830-51, August). Farther south along Building 832 Canyon, the leading edge of the $Tnsc_{1b}$ VOC plume continues to be contained within the Site 300 boundary based on total VOC concentrations below the 0.5 µg/L reporting limit in guard wells W-880-03, W-830-1730 and W-4C.

$Tnsc_{1a}$ HSU

Since recognition and remediation of the $Tnsc_{1a}$ HSU began in early 2007, total VOC concentrations in ground water at both Building 830 and 832 source areas have generally decreased from the historic maximum of 1,700 μg/L in 1998 (monitor well W-830-27). However, in 2015 baseline constituent and routine samples at new extraction well W-830-3019, total VOCs were detected at 1,500 μg/L (April) and 1,600 μg/L (August), respectively. Plans are in place to connect well W-830-3019 to the 832-SRC ground water treatment system and soil vapor treatment system as a dual extraction well in 2016. Until that time, it will serve as a monitor well. Total VOCs measured in other wells during the reporting period were stable compared to previous years.

Upper $Tnbs_1$ HSU

Since remediation began in the Upper $Tnbs_1$ HSU, total VOC concentrations in ground water have decreased from a historic maximum of 100 μg/L in 1998 (monitor well W-830-28) to a 2015 maximum of 25 μg/L (performance monitor well W-830-18, February). Total VOC concentrations in W-830-18 have increased since pumping of extraction well W-830-2215 began in 2006. This increasing trend in W-830-18 indicates the plume is being captured by the adjacent extraction well. In Upper $Tnbs_1$ guard wells W-830-15 and W-832-2112, VOCs have not exceeded their reporting limits since the wells were installed in 1995 and 2005, respectively.

2.7.3.2.2. HE Compound Concentrations and Distribution

Including 2015, HE compounds have never been detected in ground water in any Building 832 Canyon OU wells.

2.7.3.2.3. Perchlorate Concentrations and Distribution

In the Building 832 Canyon OU, perchlorate has historically been detected in the Qal/WBR, $Tnsc_{1b}$, and $Tnsc_{1a}$HSUs. During second semester 2014, perchlorate was initially detected above the reporting limit of 4 μg/L in one ground water sample collected from Upper $Tnbs_1$ guard well W-830-15 (86 μg/L, August) and one ground water sample from $Tnsc_{1b}$ guard well W-880-03 (7.3 μg/L, August). The results for these samples were reviewed and determined to be analytical laboratory errors, likely due to "matrix interference," which is a common problem with perchlorate analyses. During 2015, samples from wells W-830-15 and W-880-03 did not contain perchlorate concentrations above the 4 μg/L reporting limit (March and August).

Qal/WBR HSU

Perchlorate concentrations in the Qal/WBR HSU have decreased in the Building 830 and 832 source areas from a historic maximum of 51 μg/L (monitor well W-830-34, 1998) to a 2015 maximum of 9.6 μg/L (monitor well W-832-13, February). During 2015, perchlorate was not detected in this HSU above the 4 μg/L reporting limit in the 830-SRC area, 830-DISS area, or in Qal/WBR HSU guard wells W-35B-01 and W-880-02. Several wells that have previously yielded perchlorate do not contain sufficient ground water for sampling due to prolonged drought conditions and a declining water table beneath the well screens (e.g. W-832-18, SVI-830-032, and W-832-21). These wells are monitored for presence of water and will be sampled when sufficient water is available.

$Tnbs_2$ HSU

Perchlorate detections in the Building 832 Canyon OU $Tnbs_2$ HSU have all been below the 4 μg/L reporting limit, except for one detection in extraction well W-830-2216 (4.2 μg/L, 2007) and two detections in nearby monitor well W-830-13 (4.1 μg/L, 2004 and 4.7 μg/L, 2006). The source of perchlorate contamination in these Building 832 Canyon area wells is the $Tnbs_2$ perchlorate plume in the HE Process Area. In 2015, perchlorate was not detected in $Tnbs_2$ wells in Building 832 Canyon OU.

$Tnsc_{1b}$ HSU

In the Buildings 830 and 832 source areas, perchlorate concentrations in the $Tnsc_{1b}$ HSU continue a relatively stable to decreasing trend. During 2015, the maximum perchlorate concentration detected in the $Tnsc_{1b}$ HSU was 9.6 μg/L in well W-832-13 (February), slightly above the 6 μg/L MCL cleanup standard. Including 2015, perchlorate has never been detected above the reporting limit in $Tnsc_{1b}$ HSU guard wells W-830-1730 and W-4C.

In the Building 830 distal area, perchlorate concentrations have remained steady to decreasing except in well W-830-51, where perchlorate concentrations have increased from below the reporting limit of 4 μg/L to 5.9 μg/L in August 2015, still below the historic maximum for this well of 8.2 μg/L (2005).

$Tnsc_{1a}$ HSU

Since remediation of the $Tnsc_{1a}$ HSU began in early 2007, perchlorate concentrations in ground water at both the Buildings 830 and 832 source areas have generally remained stable or decreased. However, a baseline sample from new Building 832 source area well W-830-3019 yielded perchlorate at 18 μg/L (April 2015), a historic maximum for $Tnsc_{1a}$ wells in the Building 832 Canyon OU. DOE/LLNL plan to connect W-830-3019 as a dual-extraction well to the 832-SRC ground water treatment system and soil vapor treatment system in the near future, which will include perchlorate treatment.

In the 830-DISS area, perchlorate concentrations in $Tnsc_{1a}$ well W-830-2311 remain low, ranging from below the 4 μg/L reporting limit to 4.9 μg/L (March 2015).

Upper $Tnbs_1$ HSU

Since 2005, perchlorate detections in the Upper $Tnbs_1$ HSU have all not exceeded the 4 μg/L reporting limit, except for analytical laboratory errors as discussed above.

2.7.3.2.4. Nitrate Concentrations and Distribution

During this reporting period, nitrate concentrations in ground water remained high in the vicinity of the Buildings 832 and 830 source areas, and low or below the 0.5 mg/L reporting limit in the downgradient, deeper parts of all Building 832 Canyon HSUs. Concentration trends in the various HSUs are discussed below. Spatial and temporal nitrate concentration trends in all HSUs in the 832 Canyon OU continue to support the interpretation that nitrate is naturally attenuating in the ground water.

Qal/WBR HSU

During 2015, nitrate in Qal/WBR HSU ground water ranged from 120 mg/L in Building 830 source area monitor well W-830-34 (February), and 140 mg/L in Building 832 source area monitor well W-832-13 (February), with nitrate concentrations generally decreasing downgradient. Nitrate concentrations remain the below the 0.5 mg/L reporting limit in guard wells located near the site boundary.

$Tnsc_{1b}$ HSU

During 2015, ground water nitrate concentrations in the $Tnsc_{1b}$ HSU remained high but stable (between 20 and 140 mg/L) in the vicinity of the Buildings 832 and 830 source areas and continue to exhibit a significant decreasing trend toward the Site 300 boundary where the ground water is under confined hydraulic conditions. Since 2011, nitrate concentrations in the downgradient $Tnsc_{1b}$ guard wells have not exceeded the 0.5 mg/L reporting limit.

$Tnsc_{1a}$ HSU

Although nitrate concentrations remain high in the $Tnsc_{1a}$ HSU, they have decreased from a historic maximum of 160 mg/L in 2002 (monitor well W-830-27) to 2015 maxima of 110 mg/L in the 830-SRC area (monitor well W-830-27, February) and 102 mg/L in the 832-SRC area (extraction well W-832-3019, February). Nitrate levels in the $Tnsc_{1a}$ HSU near the Site 300 boundary are not known because the only monitor well installed in this HSU near the site boundary (W-830-2610) was damaged due to problems encountered during drilling and well installation.

Upper Tnbs$_1$ HSU

Historically, the highest nitrate concentration in the Upper Tnbs$_1$ HSU in the Building 832 Canyon OU was 21 mg/L in 1997 (monitor well W-830-28). The 2015 maximum for the Buildings 830 and 832 areas was 8.8 mg/L (well W-830-28), significantly below its 45 mg/L MCL cleanup standard. During 2015, nitrate was not detected in guard wells W-830-15 or W-832-2112 above the reporting limit of 0.5 mg/L. The very low nitrate concentrations in the downgradient areas and the absence of detectable nitrate in the southern site boundary guard wells are consistent with the interpretation that nitrate is naturally attenuating due to *in situ* microbial denitrification in the Upper Tnbs$_1$ and other Neroly bedrock HSUs.

2.7.3.3. Building 832 Canyon OU Remediation Optimization Evaluation

During 2015, ground water and soil vapor extraction wellfield operations continued in the Building 832 Canyon OU to prevent offsite plume migration, reduce source area concentrations, and remove contaminant mass. The expanded 832-SRC and 830-SRC extraction wellfields have increased hydraulic capture, while preventing the downward migration of contaminants into deeper HSUs and/or laterally toward the site boundary and Site 300 water-supply wells, Well 18 and Well 20. Ground water yield from many 830-SRC and 832-SRC extraction wells continues to be low and hydraulic capture is difficult to assess in some areas because these wells cannot maintain continuous operation. The low yields are due to a combination of geologic materials with low hydraulic conductivity, dewatering and limited recharge due to drought conditions. During 2015, 830-SRC ground water treatment system did not operate until September, when the system rebuild and engineering upgrades were completed. Therefore, no capture zones appear on ground water elevation maps or contaminant plume maps on figures 2.7-1 through 2.7-15.

Qal/WBR and Tnsc$_{1b}$ HSUs

In the Qal/WBR and Tnsc$_{1b}$ HSUs, the extraction wellfield targets the highest VOC plume concentrations emanating from the Building 832 and Building 830 source areas, but steep terrain and unstable canyon bottom soil conditions limit the availability of sites for new wells. Ground water extraction is further constrained by limited recharge and declining water levels in both source areas. During 2015, some extraction wells were offline due to pump repairs, pipeline manifold repairs, treatment facility repairs, and freeze protection. No long-term impact is expected as a result of these shutdowns.

Tnsc$_{1a}$ HSU

Active remediation of the Tnsc$_{1a}$ HSU began in 2007 and the extraction wellfield currently consists of two wells: W-830-2214 located near the 830-SRC treatment facility and W-832-25 located downgradient of the 832-SRC treatment facility in the distal area of this plume. Since 2007, VOC ground water concentrations have remained stable in extraction well W-832-25. Since 2012, VOC concentrations have also been stabilizing in extraction well W-830-2214, although concentrations remain high (>1 µg/L). Water levels continue to decline in both the 830-SRC and 832-SRC areas, limiting continuous extraction from the Tnsc$_{1b}$ and Tnsc$_{1a}$ HSUs.

The 830-SRC ground water treatment system recently underwent engineering evaluation and upgrades to improve treatment facility performance and connect Tnsc$_{1a}$ HSU well W-830-2701 to function as an extraction well. New extraction well W-830-2701 pumped at approximately 3 gpm during the two months it operated in 2015. Using W-830-2701 as an extraction well will increase hydraulic capture in the $Tnsc_{1a}$ HSU downgradient of extraction well W-830-2214. An estimated capture zone for this well will be shown on 2016 Annual CMR maps.

Upper $Tnbs_1$ HSU

Extraction wells in the Upper $Tnbs_1$ target areas with the highest total VOC concentrations. Since remediation began in this HSU, the overall extent of VOCs has also decreased significantly and concentrations in monitor well W-830-1832 have been below the reporting limit since March 2010. Ground water in Upper $Tnbs_1$ guard wells W-830-15 and W-832-2112, located downgradient of well W-830-1832 and upgradient of water-supply Well 20, continues to show analytical results below reporting limits for all COCs and significantly below the 45 mg/L MCL cleanup standard for nitrate.

In October 2013, Upper $Tnbs_1$ monitor well W-832-2906 was installed downgradient of the 832-source area and to the north of extraction well W-830-57. During December 2013, TCE was detected at a maximum concentration of 12 µg/L in ground water in this well. In 2015, VOC concentrations in this well have been detected at between 4.9 and 9.24 µg/L in five samples. Over the past year, the size of the VOC plume in the Upper $Tnbs_1$ HSU has remained relatively steady (Figure 2.7-9). The source of this contamination and its impact of the long-term performance of the cleanup remedy for the Building 832 Canyon OU are still being evaluated. In 2015, an additional monitor well, W-832-3103 was installed downgradient of the 832-SRC area along Route 3 north of Building 882. As discussed in Section 2.7.1.5, analytical results from baseline constituent sampling of W-832-3103 indicate a clean well with VOCs and perchlorate below their respective reporting limits and very low nitrate (<0.44 mg/L). This well will serve as a guard well to serve as an early indicator of plume migration away from 832-SRC area and fulfills a recommendation in the 2011 OU7 Five-Year Review (Helmig et al., 2011).

$Tnbs_2$ HSU

In the $Tnbs_2$ HSU, Building 832 Canyon, remediation continues via extraction well W-830-2216. The source of contamination in this area is likely a combination of sources located in both the HEPA and the Building 832 Canyon area. Decreasing concentration trends in this extraction well and nearby monitor well W-830-13 suggest that remediation has been effective in removing mass in this area.

Mass Removal

In the Building 832-SRC area, concentration trends in extraction wells have remained stable for several years as declining water levels and low yields limit ground water extraction. In Building 832-SRC area, the volume of treated ground water remained stable between 2014 and 2015, with 25,000 gallons (2014) to 28,000 gallons (2015) extracted. This is due to facility downtime from maintenance and upgrades to the misting tower. The volume of treated soil vapor remained stable, extracting 1.8 million cf in 2014 and 1.2 million cf in 2015. This is also due to facility downtime. Soil vapor mass removal was much lower in 2015 than in 2014, with 52 g of total VOC mass extracted in 2014 and only 12 g in 2015. These are both due to facility downtime and much lower total VOC concentrations in vapor at dual-extraction wells W-832-12 and W-832-15. Approximately 10 g of total VOC mass, 0.64 g of perchlorate mass, and 12 kg of nitrate were removed by the 832-SRC ground water treatment facility. This represents little change from 2014, when 3.7 g of total VOC mass, 0.64 g of perchlorate, and 7.3 kg of nitrate were removed. The 832-SRC ground water treatment system and soil vapor treatment system are scheduled for engineering upgrades and facility rebuild in 2016. The additional data acquisition capabilities planned as part of these upgrades will provide data needed to better optimize mass removal in this area.

At the 830-SRC treatment facility, both ground water and soil vapor extraction typically play an important role in removing VOC mass. However, during 2015, little water was extracted due to facility downtime to complete the system rebuild and engineering upgrades. Only 781,000 gallons of water were treated by 830-SRC ground water treatment system in 2015. The significant decrease in treated water volume is largely due to the shut down of 830-SRC ground water treatment system for facility upgrades. From 2009 to 2014, typical extraction volumes for 830-SRC were between 1.6 and 2.4 million gallons per year. The total VOC, perchlorate, and nitrate mass removed from 830-SRC ground water extraction wells was similarly lower in 2014 compared to previous years. The extracted volume of ground water and mass removed will increase during 2016, as the recent upgrades facilitate less down time for maintenance and higher flow rates and optimized controls for extraction wells that ensure hydraulic capture of VOC plumes in the different HSUs.

During routine sampling in August 2015, monitor well W-830-18 was found to have an inoperable pump due to electrical issues and the level transducer was covered in a light film of black sludge. Follow up sampling, including SVOCs, PCBs, oil or grease, and drinking water metals, did not indicate any negative water quality impacts other than COCs historically detected in this well. The pump in W-830-18 is scheduled for replacement in 2016 and the well will be redeveloped at that time. During the time this analysis was performed, the adjacent extraction well, W-830-2215, was shut down as a precaution to avoid pulling any sludge into the well screen of W-830-18 or into the formation. Extraction well W-830-2215 will remain offline until the redevelopment is performed at W-830-18.

During 2015, 1.2 million cf of soil vapor were treated at 830-SRC soil vapor treatment system. This represents a large decrease from 2015 (8.3 million cf) and is a result of the shut down of 830-SRC soil vapor treatment system for engineering upgrades during most of 2014. Upon restart of the system, vapor samples were collected from wells W-830-1807 and W-830-49 but results did not indicate any rebound of total VOC concentrations during the extended shutdown period. During October and November 2015, the mass flow meters at 830-SRC soil vapor treatment system had issues with condensate buildup resulting in inaccurate flow volumes. These problems are currently being addressed. Another vapor rebound test is scheduled in 2016 when the system is restarted following the maintenance addressing the condensate issues. During 2015, at 830-SRC area, 150 g of total VOC mass were removed by the ground water treatment system and 270 g were removed by the soil vapor treatment system.

At 830-DISS ground water treatment system, 12 g of VOC mass were removed during 2015. This is a 75% decrease from 2014 (48 g) and is due to the 76% decrease in volume of water treated at this facility. In addition, 59 kg of nitrate and 2.1 g of perchlorate were removed by the 832-SRC, 830-SRC and 830-DISS ground water treatment systems, during 2015. Table Summ-1 summarizes the mass removed by each individual treatment facility.

As remediation proceeds from the 832-SRC, 830-SRC and 830-DISS extraction wells, it is expected that concentrations in all Building 832 Canyon HSUs will continue to decline and that declining water levels will have an impact on long term performance of extraction wells. VOC concentration trends in the Upper $Tnbs_1$ HSU continue to be monitored closely because of pumping of water-supply Well 20 and backup water-supply Well 18 has the potential to hydraulically influence the vertical distribution of contaminants. After Site 300 begins using the Hetch-Hetchy reservoir as its primary water-supply, it is planned that Well 20 will become a backup water-supply well and Well 18 will no longer be used and will be considered for decommissioning.

2.7.3.4. Building 832 Canyon OU Remedy Performance Issues

Declining water levels due to regional drought conditions continued to impact the amount of ground water available for extraction and treatment. Additionally, extended shut down periods required for facility upgrades significantly reduced the operational hours at 830-SRC. No other new issues were identified during this reporting period that could impact the long-term performance of the cleanup remedy for the Building 832 Canyon OU. The remedy continues to make progress toward cleanup and to be protective of human health and of the environment.

2.8. Site 300 Site-Wide OU 8

The Site 300 Site-Wide OU is comprised of release sites at which no significant impacts to ground water and no unacceptable risk to human health or the environment are present. For this reason, a monitoring interim remedy was selected for the release sites in the Site-Wide Record of Decision (U.S. DOE, 2008). The monitoring conducted during the reporting period for these release sites is discussed below. Analytical results and ground water elevation measurements obtained during 2015 from the OU 8 locations are presented in Appendices B and C, respectively.

2.8.1. Building 801 and Pit 8 Landfill

The Building 801 Firing Table was used for explosives testing until it was discontinued in 1998, and the firing table gravel and some underlying soil were removed. Waste fluid discharges to the Building 801 Dry Well from the late 1950s to 1984, resulted in VOC contamination of the soil and ground water. Debris from the firing table was buried in the nearby Pit 8 Landfill until 1974. A map of the Building 801 and Pit 8 Landfill area showing the locations of the building, firing table, landfill, and monitor wells is presented on Figure 2.8-1.

2.8.1.1. Building 801 and Pit 8 Landfill Ground Water Monitoring

Wells K8-01, -02B, -03B, -04, and -05 monitor Building 801 for ground water contaminants that were released from the Building 801 dry well. Wells K8-02B, K8-04 and K8-05 are also used as monitor wells to detect releases from the Pit 8 Landfill. Detection monitoring of this landfill, which is discussed in Section 3.2, is conducted to determine if releases have occurred.

The sampling and analysis plan for ground water monitoring is presented in Table 2.8-1.

During the reporting period, ground water monitoring was conducted in accordance with CMP monitoring requirements with the following exceptions; a total of nine required analyses in one well (K8-05) were not performed because the well was dry.

The approximate generalized ground water flow direction, ground water elevations, and individual VOC concentrations, nitrate, and perchlorate for the $Tnbs_1/Tnbs_0$ HSU are posted on Figure 2.8-1.

2.8.1.2. Building 801 and Pit 8 Landfill Contaminant Concentrations and Distribution

At Building 801, VOCs, comprised of chloroform, 1,2-DCA and TCE are the primary COCs detected in ground water; perchlorate and nitrate are the secondary COCs. There are no COCs in ground water attributable to the Pit 8 Landfill. The results of the detection monitoring of the Pit 8 Landfill are discussed in Section 3.2.

In the Building 801/Pit 8 Landfill area, five monitor wells are screened in the $Tnbs_1/Tnbs_0$ HSU. Wells K8-01, -02B, -03B and -04 were successfully sampled, as scheduled during 2015. Well K8-05 has been dry since installation in 1988.

Total VOC concentrations in ground water in the vicinity of Building 801/Pit 8 Landfill have been relatively stable over time. In the $Tnbs_1/Tnbs_0$ HSU, total VOC concentrations have decreased from a historic maximum of 10 µg/L (monitor well K8-01, 1990) to a 2015 maximum of 5 µg/L (same well, May) comprised of 3.4 µg/L TCE and 1.6 µg/L 1,2-DCA. These concentrations are within the ranges observed since 1990.

Of the COCs, only 1,2-DCA was detected above its MCL cleanup standard (0.5 µg/L) during 2015 in two wells, K8-01 (1.6 µg/L, May) and K8-04 (0.91 µg/L, May). TCE was not detected above its 5 µg/L MCL cleanup standard and chloroform was not detected in any wells above its 0.5 µg/L reporting limit. Overall, total VOC concentrations detected in ground water samples collected from wells downgradient of Building 801 have decreased since 1990.

During 2015, perchlorate was detected only once, in a duplicate sample from well K8-04 at 4.3 µg/L (May), barely above the reporting limit and below its MCL cleanup standard of 6 µg/L. The coincident routine sample (collected the same day and time) was below the reporting limit (4 µg/L). Perchlorate was not detected above its 4 µg/L reporting limit in ground water samples from any other Building 801/Pit 8 monitor wells.

Nitrate concentrations in ground water in the vicinity of Building 801/Pit 8 Landfill have been relatively stable over time. The 2015 maximum nitrate concentration was 80 mg/L, measured in a routine sample collected in May; the duplicate sample contained 71 mg/L of nitrate. Although the 80 mg/L result represents the historic maximum nitrate concentration observed in the area, these detections are within the range of 51 to 80 mg/L of nitrate observed in this well since 2004. A May duplicate sample from well K8-01 yielded a concentration of 46 mg/L of nitrate, just above the MCL cleanup standard of 45 mg/L; the routine sample contained 45 mg/L nitrate. These concentrations are within the range of 21 to 51 mg/L of nitrate observed in this well since 1998. The detections at wells K8-01 and K8-04 were the only 2015 nitrate concentrations in the Pit 8 area that exceeded the 45 mg/L MCL cleanup standard. Nitrate concentrations detected in ground water during 2015 at the Building 801/Pit 8 Landfill are generally similar to previous years.

Nitrate and 1,2-DCA are the only COCs remaining above their MCL cleanup standards at Building 801/Pit 8 Landfill.

2.8.2. Building 833

TCE was used as a heat-exchange fluid at Building 833 from 1959 to 1982 and was released through spills and rinse water disposal, resulting in TCE-contamination of soil and shallow perched ground water. A map showing the locations of the building and monitor wells is presented on Figure 2.8-2.

2.8.2.1. Building 833 Ground Water Monitoring

The sampling and analysis plan for ground water monitoring is presented in Table 2.8-2.

During the reporting period, ground water monitoring was conducted in accordance with CMP monitoring requirements with the following exceptions; a total of seven required analyses in seven different wells were not performed because the wells were dry or there was insufficient water to collect the samples and three required analyses in well W-841-01 were not performed due to an inoperable pump which was replaced in May 2015.

The approximate generalized ground water flow direction, ground water elevations and individual VOC concentrations for the Tpsg HSU are posted on Figure 2.8-2.

2.8.2.2. Building 833 Contaminant Concentrations and Distribution

At Building 833, the VOCs TCE and cis-1,2-DCE are the primary COCs in ground water; there are no secondary COCs.

The Tpsg HSU is a shallow, highly ephemeral, perched water-bearing zone. During heavy rainfall events, this HSU may become saturated, but quarterly monitoring of the wells from 1993 to present has shown variable levels of saturation, including many wells that are now dry (W-833-03, -12, -18 -22, -28, -34 and -43). When saturated, monitoring conducted since 1988 has shown a significant decline in VOC concentrations in Tpsg HSU ground water compared to the highest levels, which were observed in the early 1990s.

In the Building 833 area, eight monitor wells are screened in the Tpsg HSU, two wells (W-833-30 and W-840-01) are screened in the deeper Lower $Tnbs_1$ HSU, and one well (W-841-01) is screened in the Upper $Tnbs_1$ HSU.

The historic maximum concentration of total VOCs measured in the Tpsg HSU in the Building 833 area is 2,100 µg/L (entirely TCE) detected in monitor well W-833-03 in 1992. This well has not been sampled, due to insufficient water, since June 2000, when 20 µg/L of total VOCs (entirely TCE), were detected. During 2015, the only Tpsg HSU well with sufficient ground water to collect a sample was W-833-33 which yielded 130 µg/L total VOCs (entirely TCE, March). In both 2014 and 2013, this well yielded 110 µg/L total VOCs (entirely TCE). The historic maximum total VOC concentration detected in well W-833-33 was 170 µg/L (entirely TCE) in 2008.

The other primary COC, cis-1,2-DCE, was not detected in samples from any Building 833 area wells during 2015. This compound has been detected only five times and most recently in 1993, only in one Building 833 well, W-833-12. The historic maximum cis-1,2-DCE concentration was 58 µg/L, detected in well W-833-12 in 1993.

During 2015, VOCs were not detected in either routine or duplicate ground water samples collected in March from monitor well W-833-30, screened in the deeper Lower $Tnbs_1$ HSU, indicating that VOC contamination continues to be confined to the shallow Tpsg perched water-bearing zone.

TCE in Tpsg HSU ground water is the only COC remaining above its cleanup standard (5 µg/L) at Building 833.

2.8.3. Building 845 Firing Table and Pit 9 Landfill

The Building 845 Firing Table was used from 1958 until 1963 to conduct explosives experiments. Leaching from Building 845 Firing Table debris resulted in minor contamination of subsurface soil with depleted uranium and HMX detected in samples collected from boreholes drilled in 1989. A map showing the locations of the building, landfill, and monitor wells are presented on Figure 2.8-3.

2.8.3.1. Building 845 and Pit 9 Landfill Ground Water Monitoring

No ground water COCs have been identified for the Building 845/Pit 9 Landfill area. Wells K9-01 through K9-04 monitor ground water in the Building 845 and Pit 9 Landfill area to:

- Detect any future releases from the Pit 9 Landfill, and
- Detect any impacts to ground water from HMX and uranium in subsurface soil and rock.

These monitor wells are screened in the lower Neroly Formation $Tnbs_1$/$Tnbs_0$ HSU. Detection monitoring of the Pit 9 Landfill is discussed in Section 3.3.

The sampling and analysis plan for ground water monitoring is presented in Table 2.8-3.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements for all wells in this subarea.

The approximate generalized ground water flow direction, ground water elevations, HMX concentrations, uranium activities, and $^{235}U/^{238}U$ atom ratios for the $Tnbs_1$/$Tnbs_0$ HSU are presented on Figure 2.8-3.

2.8.3.2. Building 845 and Pit 9 Landfill Contaminant Concentrations and Distribution

In the Building 845 and Pit 9 Landfill area, four landfill detection monitor wells are screened in the $Tnbs_1$/$Tnbs_0$ HSU.

There are no ground water COCs at the Building 845 and the Pit 9 Landfill. The detection monitoring constituents: VOCs, nitrate, tritium, perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium, and fluoride concentrations/activities in samples collected during 2015 were either below reporting limits or within the range of background concentrations. Because uranium and the HE compound HMX were identified as COCs in subsurface soil at Building 845/Pit 9 Landfill, ground water in this area is monitored for these constituents.

During 2015, HMX concentrations in ground water samples remained below the 1 µg/L reporting limit. Historically, HMX has not been detected above its reporting limit since the four area monitor wells were installed in 1989.

During 2015, uranium activities in ground water samples remained very low (<1 pCi/L) and $^{235}U/^{238}U$ atom ratios indicated the presence of only natural uranium. The results of the detection monitoring of the Pit 9 Landfill are discussed in Section 3.2.

These 2015 data continue to indicate no releases from the Pit 9 Landfill, nor impacts to ground water from HMX and uranium in subsurface soil.

2.8.4. Building 851 Firing Table

The Building 851 Firing Table has been used since 1962 to conduct explosives experiments. A map depicting the locations of the firing table and monitor wells is presented on Figure 2.8-4.

2.8.4.1. Building 851 Ground Water Monitoring

The sampling and analysis plan for ground water monitoring is presented in Table 2.8-4.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements for all wells in this subarea.

Ground water elevations, total uranium activities, and $^{235}U/^{238}U$ atom ratios for the Tmss HSU are posted on Figure 2.8-4.

2.8.4.2. Building 851 Contaminant Concentrations and Distribution

In the Building 851 Firing Table area, four monitor wells are screened in the Tmss HSU. Uranium is the primary and only COC detected in ground water; there are no secondary COCs.

Uranium activities in Tmss HSU ground water in the Building 851 Firing Table area have always been well below the 20 pCi/L MCL cleanup standard for total uranium and within the range of background levels. Although background uranium activity at Site 300 may vary based on ground water age, major-ion chemistry, and aquifer lithology, single-digit uranium activities are clearly within the range of Site 300 background. However, ground water continues to be monitored to detect any impacts to ground water from uranium in subsurface soil and rock.

During 2015, the maximum total uranium activity detected in the Building 851 area was 1.2 pCi/L in well W-851-08 (April); in 2014, this well yielded 1.1 pCi/L and the historic maximum uranium activity in this well was 2.06 pCi/L, observed in 1993. April samples from the three remaining wells contained uranium activities that did not exceed the 0.0627 pCi/L reporting limit. The historic maximum uranium activity in Tmss HSU ground water was 3.2 pCi/L (well W-851-07, 1991); as mentioned previously, the 2015 activity for this well was <0.0627 pCi/L.

During 2015, the atom ratio of $^{235}U/^{238}U$ in the April sample from well W-851-08 indicated the addition of some depleted uranium but well within the historical range of $^{235}U/^{238}U$ atom ratios observed for this well. Due to the low mass of ^{235}U in the samples (less than the reporting limit) for wells W-851-05, -06 and -07, the reporting limit was used as the numerator in the $^{235}U/^{238}U$ calculation, resulting in an atom ratio (which is thus not usable for defining uranium provenance) that includes the range of atom ratios including that of enriched uranium. In reality, the uranium is wholly natural in these samples. Overall, uranium activities in ground water during 2015 are similar to previous years and remain well below the 20 pCi/L MCL cleanup standard and within the range of natural background levels.

3. Detection Monitoring, Inspection, and Maintenance Program for the Pits 2, 3, 4, 5, 6, 7, 8, and 9 Landfills and Inspection and Maintenance Program for the Drainage Diversion System and Building 850 CAMU

The Detection Monitoring Program is designed to detect any future releases of contaminants from the Pit 2, 3, 4, 5, 6, 7, 8, and 9 Landfills. This section presents the results for ground water detection monitoring of these landfills, and any landfill inspections or maintenance conducted during the reporting period. This section also includes any inspection and maintenance activities conducted for the Pit 7 Drainage Diversion System and Building 850 CAMU during the reporting period.

3.1. Pit 2 Landfill

The Pit 2 Landfill was used from 1956 until 1960 to dispose of firing table debris from Buildings 801 and 802. Ground water data indicate that a past discharge of potable water to support a red-legged frog habitat located upgradient from the landfill may have leached depleted uranium from the buried waste. The frogs were relocated and the water discharge was discontinued, thereby removing the leaching mechanism. No contaminants were identified in surface or subsurface soil at the Pit 2 Landfill. No risk to human or ecological receptors has been identified at the Pit 2 Landfill.

3.1.1. Sampling and Analysis Plan Modifications

Detection monitoring of detection monitor wells located downgradient of the Pit 2 Landfill, is conducted annually for VOCs, nitrate, tritium, perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium, and fluoride. Detection monitoring wells for the Pit 2 Landfill include W-PIT2-1934, W-PIT2-1935, K2-01C and NC2-08.

The sampling and analysis plan for the Pit 2 Landfill ground water Detection Monitoring Program is presented in Table 3.1-1.

During the reporting period ground water monitoring was conducted in accordance with CMP monitoring requirements.

3.1.2. Contaminant Detection Monitoring Results

A map showing the locations of monitor wells and the Pit 2 Landfill is presented on Figure 2.5-1. Depth to ground water within the $Tnbs_1/Tnbs_0$ HSU beneath the Pit 2 Landfill currently ranges from over 50 ft to over 70 ft.

The maximum 2015 tritium activity within the $Tnbs_1/Tnbs_0$ HSU in the area immediately south of the Pit 2 Landfill was 3,360 pCi/L in the October ground water sample collected from detection monitor well K2-01C. The historic maximum tritium activity of 49,100 pCi/L was also detected in ground water samples collected from well K2-01C in 1986. Overall, tritium activities in the Pit 2 Landfill detection monitor wells are decreasing.

The maximum Pit 2 area 2015 uranium activity of 3.5 pCi/L, considerably less than the 20 pCi/L MCL cleanup standard and within the range of natural uranium background, was detected in ground water collected from monitor well W-PIT2-1934. Uranium activities in the Pit 2 area continue to decrease from the 27.4 pCi/L maximum historic uranium activity measured in a 1994 ground water sample collected from well K2-01C. During 2015, the ground water sample collected from well K2-01C contained 2.8 pCi/L (routine sample, results of a reanalysis of the same sample were 1.2 pCi/L), a decrease from 7.6 pCi/L in May 2010 when the well was last sampled (unsafe conditions and an inoperable pump prevented sampling of this well until 2015). Prior to 2005, to maintain a wetland habitat for red-legged frogs (a Federally-listed endangered species) potable water was discharged within a drainage channel that extends along the northern and eastern margin of the Pit 2 Landfill. While this discharge occurred, increased uranium activities in wells in the Pit 2 area were observed and the $^{235}U/^{238}U$ atom ratios in ground water collected from wells K2-01C, W-PIT2-1934, and W-PIT2-1935 analyzed by mass spectrometry indicated the presence of depleted uranium. The release of depleted uranium from Pit 2 appears to have occurred during this time period as a result of this discharge. This discharge was discontinued in 2005 and since then, total uranium activities in ground water collected from the Pit 2 detection monitor wells have decreased and $^{235}U/^{238}U$ atom ratio data continue an increasing trend toward a natural $^{235}U/^{238}U$ atom ratio. During 2015, $^{235}U/^{238}U$ atom ratios in ground water collected from wells NC2-08 and W-PIT2-1935 indicated only natural uranium, and $^{235}U/^{238}U$ atom ratios in wells K2-01C and W-PIT2-1934 (0.0069 and 0.0066, respectively) indicated the presence of some depleted uranium, but continued an increasing trend toward a natural $^{235}U/^{238}U$ atom ratio.

During 2015, well K2-01C was the only Pit 2 detection monitor well with perchlorate concentrations exceeding the 4 µg/L reporting limit. Samples collected in June and October contained 4.1 µg/L and 4.6 µg/L, respectively. Due to a combination of unsafe conditions and an inoperable pump, K2-01C had not been sampled since 2010 when the perchlorate concentration was 5.5 µg/L.

Nitrate concentrations in samples collected from the Pit 2 detection monitor wells during 2015, with the exception of well W-PIT2-1934, remained below the 45 mg/L MCL cleanup standard. The nitrate concentration in the ground water sample collected from well W-PIT2-1934 in May was 47 mg/L, an increase over the 42 mg/L measured in 2014.

The other detection monitoring constituents: VOCs, HE compounds, Title 26 metals, lithium, and fluoride concentrations in samples collected during 2015 were either below reporting limits or within the range of background concentrations.

There was no evidence of new contaminant releases from the Pit 2 Landfill indicated by the 2015 ground water detection monitoring data.

3.1.3. Landfill Inspection Results

During 2015, the Pit 2 Landfill was inspected on February 12, May 13, August 27, and November 17. No problems were identified.

3.1.4. Annual Subsidence Monitoring Results

Annual subsidence monitoring was conducted during second semester 2015. No evidence of subsidence was detected.

3.1.5. Maintenance

No maintenance was necessary or conducted on Pit 2 during 2015.

3.2. Pit 6 Landfill

The Pit 6 Landfill was used from 1964 to 1973 to bury waste in nine unlined debris trenches and animal pits, including shop and laboratory equipment and biomedical waste. The Pit 6 Landfill was capped and closed in 1997 to prevent further leaching of contaminants that likely resulted from percolation of rainwater through the buried waste. Detection monitoring of the Pit 6 Landfill is conducted to identify any future releases to ground water in accordance with the requirements of the Pit 6 Post-Closure Plan.

3.2.1. Sampling and Analysis Plan Modifications

Detection monitoring of wells located downgradient of the Pit 6 Landfill (EP6-06, EP6-08, EP6-09, K6-01S, K6-19 and K6-36) is conducted semi-annually for VOCs and tritium and annually for aromatic VOCs (benzene, toluene, ethylbenzene, and xylenes), beryllium, mercury, total uranium, gross alpha/beta, perchlorate, and nitrate. When detection monitor well K6-01S is dry, well K6-01 serves as an alternate detection monitor well and is sampled for the same constituents. Wells EP6-08 and K6-36 have been dry for the past several reporting periods. Beginning in 2013, nearby wells EP6-07 (near EP6-08) and K6-35 (near K6-36) were designated to serve as detection monitor wells and are sampled for the same constituents when EP6-08 and K6-35 are dry.

The sampling and analysis plan for the Pit 6 Landfill ground water Detection Monitoring Program is presented in Table 2.3-1.

During the reporting period, ground water monitoring was conducted in accordance with CMP monitoring requirements. Because wells EP6-08 and K6-36 were dry, wells EP6-07 (for EP6-08) and K6-35 (for K6-36) were successfully sampled for all the required semi-annual detection monitoring constituents that normally apply to EP6-08 and K6-36. Well K6-01S had available ground water for sampling and thus, well K6-01 was not needed to serve as an alternate detection monitor well.

3.2.2. Contaminant Detection Monitoring Results

A map showing the locations of monitor wells at the Pit 6 Landfill is presented on Figure 2.3-1. The ground water elevation contour map for the Qt-$Tnbs_1$ HSU is presented on Figure 2.3-2. The distribution of total VOCs and tritium in the Qt-$Tnbs_1$ HSU is presented on Figures 2.3-3 and 2.3-4, respectively. Analytical results for 2015 are summarized in Appendix B Table B-3.05 and physical parameters measured during 2015 sampling are included in Appendix B Table 3.06. There was no evidence of a new contaminant release from the Pit 6 Landfill as indicated by the 2015 ground water detection monitoring data. Ground water levels beneath the Pit 6 Landfill remain approximately 50 ft below the buried waste.

With the exception of wells K6-19 and EP6-09, data collected during the third quarter 2015 do not differ significantly from the first semester. Wells EP6-08 and K6-36 were once again dry and not sampled. Nearby wells EP6-07 and K6-35 did have available ground water and were sampled for the required detection monitoring constituents, effectively replacing EP6-08 and K6-36. Also, well K6-01S did contain ground water and was successfully sampled for the required detection monitoring constituents.

Tritium and VOCs that were released to ground water from the landfill prior to its capping in 1998 have been detected historically in Pit 6 Landfill detection monitor wells. During 2015, tritium activities did not exceed statistical limits in ground water samples from any detection monitor wells. Tritium was less than the reporting limit of 100 pCi/L in all the wells except well K6-19 where it was detected in July at 132 ±58.0 pCi/L in a July duplicate sample, (In a routine sample collected the same day/time, a detection of 206 ±88.0 pCi/L analyzed by a different laboratory was flagged as suspect and rejected due to field contamination issues.) A sample from this well in January was <100 pCi/L (reporting limit) for tritium. In 2014, well K6-19 yielded a maximum tritium activity of 150 ±89.1 pCi/L in the first quarter of the year; in the third quarter 2014, the tritium activity dropped to 120 ±66.0 pCi/L (duplicate sample) and

<100 pCi/L (routine sample) collected the same time/day from this well. The statistical limit for tritium in well K6-19 was revised from 100 pCi/L to 317 pCi/L, following a statistical analysis conducted in September 2013. The 2015 tritium detection of 132 ±58.0 pCi/L in this well is not considered to be indicative of a new release, especially given the large analytical uncertainty associated with the tritium measurement. Tritium activities in well K6-19 have dropped since October 1999 when the historic maximum activity of 2,520 pCi/L was detected. Since then, tritium activities have generally decreased (Campbell et al., 2007; Blake et al., 2011) and have always been well below the 20,000 pCi/L MCL cleanup standard.

During 2015, TCE was the only VOCs (detected in a single Pit 6 detection monitor well, EP6-07) above their applicable statistical limits. TCE was detected in EP6-07 in July at 5.6 µg/L (routine sample) and 5.5 µg/L (duplicate sample) slightly above its MCL cleanup standard (5 µg/L) but far below its statistical limit of 17 µg/L. In January, EP6-07 yielded TCE at 3.2 µg/L. In 2014, this well yielded a maximum of 5.2 µg/L TCE, slightly above its MCL cleanup standard but again, far below its statistical limit of 17 µg/L. The historic maximum TCE concentration in Pit 6 monitor wells was 250 µg/L, detected in well K6-19 (1988). In 2015, TCE has declined in K6-19 to 2.3 µg/L in January and to 2.1 µg/L (routine sample) and 0.56 µg/L (duplicate sample) in July. Further discussion of VOC distribution is presented in Section 2.3.2.1.1 of this CMR report.

Except for two small detections of cis-1,2-DCE in well K6-01S (2.3 µg/L, July and 2.1 µg/L, January) both below its MCL cleanup standard (6 µg/L) and statistical limit (7 µg/L), the other detection monitoring constituents in samples collected from the detection monitor wells during 2015 did not exceed reporting limits.

There was no evidence of new contaminant releases from the Pit 6 Landfill indicated by the 2015 ground water detection monitoring data.

3.2.3. Landfill Inspection Results

Abri Engineering conducted the Pit 6 Landfill Annual Engineering Inspection during first semester on April 20, 2015 (Abri Environmental Engineering, 2015). Inspection results were summarized in a May 2015 engineering inspection report. Other than observing accumulation of some vegetative debris in the concrete lined drainage ditch, no problems were reported. Site 300 Labor Shop personnel subsequently removed the vegetative debris.

3.2.4. Annual Subsidence Monitoring Results

The annual subsidence monitoring inspection was conducted during second semester 2015 and results indicate that no subsidence has occurred at the landfill.

3.2.5. Maintenance

A post-closure visual maintenance inspection was performed by LLNL staff on April 9, 2015 and demonstrated the continued functional and structural integrity of the cap, vegetative cover, and drainage system.

3.3. Pit 8 Landfill

Pit 8 Landfill received debris from the Building 801 Firing Table until 1974, when it was covered with compacted soil. There is no evidence of contaminant releases from the landfill.

3.3.1. Sampling and Analysis Plan Modifications

Detection monitoring of detection monitor wells located downgradient of the Pit 8 Landfill, is conducted annually for VOCs, nitrate, tritium, perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium and fluoride. Detection monitoring wells for the Pit 8 Landfill include downgradient wells K8-02B, K8-04 and K8-05. Data from wells K8-01 and K8-03B that are located upgradient from the Pit 8 Landfill and downgradient of the Building 801 release site are also used for comparative purposes.

The sampling and analysis plan for the Pit 8 Landfill ground water Detection Monitoring Program is presented in Table 2.8-1.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions: 9 required analyses were not performed because well K8-05 was dry.

3.3.2. Contaminant Detection Monitoring Results

A map of the Building 801 Firing Table and Pit 8 Landfill showing building, firing table, landfill, and monitor well locations is presented as Figure 2.8-1.

Historic and current data indicate that VOCs detected in ground water in the Pit 8 Landfill area are the result of releases from the former Building 801D dry well, which have migrated downgradient from Building 801 to the area beneath the landfill. During 2015, VOCs were detected in the ground water samples from all of the Pit 8 Landfill area wells, with the exception of the October sample from K8-03B (no detections above the 0.5 µg/L reporting limit) and well K8-05, which was dry. The 2015 maximum VOC concentration of 5.0 µg/L (comprised of 3.4 µg/L of TCE and 1.6 µg/L of 1,2-DCA) was detected in the May duplicate sample from well K8-01, located upgradient of Pit 8 and downgradient of Building 801 and historically containing the highest VOC concentrations. The historic maximum VOC concentration is 10 µg/L, detected four times in samples from well K8-01 between 1988 and 1990 (the most recent, collected February 9, 1990, was comprised of 6.0 µg/L of TCE and 4.0 µg/L 1,2-DCA). The presence of VOCs in the Pit 8 Landfill area wells appears to be a continuation of the VOC plume originating at the Building 801 dry well and is not indicative of a release from the Pit 8 Landfill.

Ground water nitrate concentrations in Pit 8 Landfill area wells K8-04 and K8-01 exceeded the 45 mg/L MCL cleanup standard during 2015. The maximum 2015 nitrate concentration was 80 mg/L in the May routine sample (the duplicate sample contained 71 mg/L) collected from downgradient detection monitor well K8-04. Although the 80 mg/L result represents the historic maximum nitrate concentration observed in the area, these detections are within the range of 51 to 80 mg/L of nitrate observed in this well since 2004. Nitrate concentrations in well K8-01 were 46 mg/L in the duplicate sample and 45 mg/L in the routine sample. Overall, these nitrate results are similar to historical results, and are not indicative of a new release from the Pit 8 Landfill.

The maximum 2015 tritium activity detected in ground water collected from wells in the Pit 8 Landfill area was 174 ±80.7 pCi/L in the May routine sample from well K8-01. The routine and duplicate samples collected in May and October from well K8-01 all contained tritium with activities greater than the 100 pCi/L reporting limit. With the exception of the October sample collected from well K8-02B (106 ±80.1 pCi/L), tritium activities in the other wells in the Pit 8 Landfill area were below the reporting limit. When the error of measurement is considered, the tritium activities in the well K8-01 and well K8-02B ground water samples are within or very close to the range of background. Because well K8-01 is located upgradient of the Pit 8 Landfill, tritium detections above the reporting limit are not indicative of a new release from the Pit 8 Landfill.

Perchlorate with a concentration of 4.3 µg/L, slightly greater than the 4 µg/L reporting limit, was detected in the May routine sample collected from well K8-04, however, the results from the duplicate sample and a subsequent sample collected in October were below the reporting limit. Perchlorate concentrations in the other Pit 8 Landfill area wells did not exceed the 4 µg/L reporting limit.

The other detection monitoring constituents: HE compounds, uranium isotopes, Title 26 metals, lithium, and fluoride concentrations/activities in samples collected during first semester 2015 from wells upgradient/cross-gradient and downgradient of the Pit 8 Landfill were either below the cleanup standards, the reporting limits, or within the range of background concentrations.

Of the constituents monitored during 2015 as part of the Detection Monitoring Program in $Tnbs_1$/$Tnbs_0$ HSU ground water from Pit 8 Landfill area wells, only nitrate and 1,2-DCA exceeded their applicable MCL cleanup standards.

There was no evidence of a new contaminant release from the Pit 8 Landfill indicated by the 2015 ground water detection monitoring data.

3.3.3. Landfill Inspection Results

During 2015, the Pit 8 Landfill was inspected on February 12, May 13, August 27, and November 17. No problems were identified.

3.3.4. Annual Subsidence Monitoring Results

Annual subsidence monitoring was conducted during second semester 2015. No evidence of subsidence was detected.

3.3.5. Maintenance

No maintenance was necessary at Pit 8 during 2015.

3.4. Pit 9 Landfill

Debris generated at the Building 845 Firing Table was buried in the Pit 9 Landfill from 1958 until 1963. There has been no evidence of contaminant releases from the Pit 9 Landfill.

3.4.1. Sampling and Analysis Plan Modifications

Detection monitoring is conducted in wells located downgradient of the Pit 9 Landfill annually for VOCs, nitrate, tritium, perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium and fluoride. Detection monitoring wells for the Pit 9 Landfill include K9-01, K9-02, K9-03 and K9-04.

The sampling and analysis plan for the Pit 9 Landfill ground water Detection Monitoring Program is presented in Table 2.8-3.

During the reporting period, ground water monitoring was conducted in accordance with CMP monitoring requirements.

3.4.2. Contaminant Detection Monitoring Results

A Building 845 Firing Table and Pit 9 Landfill site map showing building, landfill, and monitor well locations is presented as Figure 2.8-3. The detection monitoring constituents: VOCs, nitrate, tritium, perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium and fluoride concentrations/activities in samples collected during 2015 were either below reporting limits or within the range of background concentrations. There was no evidence of a new release from the Pit 9 Landfill during 2015.

3.4.3. Landfill Inspection Results

During 2015, the Pit 9 Landfill was inspected on February 19, May 13, August 27, and November 17. Several animal burrows were noted during the August inspection.

3.4.4. Annual Subsidence Monitoring Results

Annual subsidence monitoring was conducted during second semester 2015. No evidence of subsidence was detected.

3.4.5. Maintenance

Several animal burrows were filled in during the August 2015 inspection.

3.5. Pit 7 Complex Landfills

The Pit 3, 4, 5, and 7 Landfills are collectively designated the Pit 7 Landfill Complex. Firing table debris containing tritium, depleted uranium, and metals was placed in the pits in the 1950s through the 1980s. The Pit 4 and 7 Landfills, and about 25-30% of Pit 3, were capped in 1992. During years of above-normal rainfall (i.e., 1997-1998 El Niño), ground water rose into the bottom of the landfills and the underlying contaminated bedrock. This resulted in the release of tritium, uranium, VOCs, perchlorate and nitrate to ground water. In addition to these COCs, ground water samples from Pit 7 Complex detection monitor wells are also analyzed for metals, HE compounds, and PCBs as these constituents may have been contained in the firing table gravels placed in the landfills.

3.5.1. Sampling and Analysis Plan Modifications

Detection monitoring is conducted in wells located downgradient of the Pit 7 Landfill Complex annually for VOCs, nitrate, tritium, perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium, fluoride and PCBs.

The sampling and analysis plan for the Pit 7 Complex Landfill ground water Detection Monitoring Program is presented in Table 2.5-8.

During the reporting period, ground water monitoring was conducted in accordance with CMP monitoring requirements.

3.5.2. Contaminant Detection Monitoring Results

A map showing the locations of detection monitor wells and the Pit 7 Complex Landfill is presented on Figure 2.5-1. Wells K7-01, K7-03, K7-06, K7-09, K7-10, NC7-26, NC7-47 and NC7-48 comprise the current detection monitoring well network for the Pit 7 Complex. Wells K7-01, K7-03 and NC7-26 are located downgradient of Pit 5 and Pit 7; well K7-06 is upgradient of Pit 7, wells K7-09 and K7-10 are cross-gradient of Pits 3, 5 and 7; well NC7-48 is immediately downgradient of Pit 7, and well NC7-47 is far downgradient of Pits 3 and 7.

The detection monitor wells are screened in the following HSUs:

- NC7-48: Qal/WBR HSU.
- K7-01 and K7-06: Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs.
- K7-03, K7-10, NC7-26 and NC7-47: $Tnbs_1/Tnbs_0$ HSU.
- K7-09: $Tnsc_0$ HSU.

Depth to ground water is currently a minimum of 10 to 15 ft below the buried waste in Landfill Pits 3, 4, 5 and 7.

3.5.2.1. Tritium

The Pit 3 and 5 Landfills have been identified as the sources of previous releases of tritium to ground water. The Pit 7 Landfill is not an apparent source of tritium in ground water as most of the tritium-bearing experiments conducted at Site 300 occurred prior to its opening in 1979 (Taffet et al., 2008).

During 2015, tritium activities in routine and duplicate ground water samples collected from Pit 7 Complex detection monitor wells K7-03 and K7-01 in April and October exceeded the 20,000 pCi/L MCL cleanup standard with maximum activities of 56,900 pCi/L (April, duplicate sample) and 31,000 pCi/L (April), respectively. Tritium activities in ground water samples from well K7-03 have generally been declining since the historic maximum activity 216,000 pCi/L in March 1993. The maximum 2014 ground water tritium activity in K7-03 was 71,500 pCi/L (April). Tritium activities in ground water samples from detection monitor well K7-01 have decreased from the historic maximum activity of 72,900 pCi/L in October 1999. The 2014 maximum tritium activity detected in a ground water sample from this well was 32,700 pCi/L (October).

Tritium activities in all samples collected during 2015 from upgradient well K7-06, cross-gradient wells K7-09 and K7-10, downgradient well NC7-48, and far downgradient well NC7-47 were all below the 100 pCi/L reporting limit/background activity.

In general, the extent of tritium in the $Tnbs_1/Tnbs_0$ and Qal/WBR HSUs in the Pit 7 Complex area are consistent with those observed in 2014, and tritium activities continue to decrease. No new release of tritium from the landfills is indicated by the 2015 ground water tritium data.

A discussion of tritium that was previously released to ground water from the Pit 7 Complex Landfills is presented in Section 2.5.5.2.1.

3.5.2.2. Uranium

Depleted uranium was previously released to ground water from sources in Pits 3, 5 and 7 (Taffet et al., 2008). Uranium activities were below the 20 pCi/L MCL cleanup standard in all detection monitor well samples collected during 2015. The maximum 2015 uranium activity in a sample from a detection monitor well was 16 pCi/L from well K7-01. Uranium activities in ground water samples from this well have generally fluctuated within a few pCi/L of the 20 pCi/L MCL cleanup standard since the 1997-1998 El Niño. The historic maximum uranium activity detected in this well was 27 pCi/L (September 1984).

The uranium activity in well NC7-48, the only detection monitor well containing depleted uranium, was 9.8 pCi/L. Uranium activities in this well have declined from the historic maximum of 105 pCi/L detected after the 1997-98 El Niño (March 1998). Ground water samples from this well have historically contained depleted uranium.

The extent of uranium in Qal/WBR and $Tnbs_1/Tnbs_0$ ground water is similar to recent years and uranium activities in samples from all detection monitor wells have generally decreased from their historic maximum uranium activities. Ground water uranium data from 2015 do not indicate any new releases of uranium from the Pit 7 Complex Landfills. A discussion of uranium that was previously released to ground water from the Pit 7 Complex Landfills is presented in Section 2.5.5.2.2.

3.5.2.3. Nitrate

Ground water samples collected during 2015 from Pit 7 Complex detection monitor wells NC7-47 and K7-01 contained nitrate at concentrations of 64 mg/L and 48 mg/L, respectively, exceeding the 45 mg/L MCL cleanup standard. Ground water samples from well NC7-47 have never contained any other COCs in excess of background concentrations. Overall, nitrate concentrations in the detection monitoring wells have remained stable, with occasional fluctuations, for the last decade. Current data do not indicate any new releases of nitrate from any of the landfills. A discussion of nitrate that was previously released to ground water from the Pit 7 Complex Landfills is presented in Section 2.5.5.2.3.

3.5.2.4. Perchlorate

Wells K7-01 (screened in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs) and K7-03 (screened in the $Tnbs_1/Tnbs_0$ HSU) are the only detection monitor wells from which ground water samples have historically contained perchlorate at concentrations in excess of the 4 µg/L reporting limit. Perchlorate concentrations in samples from these wells have decreased from the historic maximum of 25 µg/L at well K7-01 (July 2006) and 29 µg/L at well K7-03 (April 2005) to 11 µg/L (April) and 5.7 µg/L (April routine sample result, duplicate sample result was 5.2 µg/L) of perchlorate, respectively. The overall extent of perchlorate at concentrations exceeding the 6 µg/L MCL cleanup standard in ground water in the Pit 7 Complex area did not change significantly from 2014 to 2015. The 2015 data do not indicate any new releases of perchlorate from any of the landfills. A discussion of perchlorate that was previously released to ground water from the Pit 7 Complex landfills is presented in Section 2.5.5.2.4.

3.5.2.5. Volatile Organic Compounds

During 2015, VOCs were detected in samples from two detection monitor wells at concentrations above reporting limits. The samples from wells K7-01 and K7-03 contained 0.78 µg/L and 1.0 µg/L of TCE, respectively. The historic maximum VOC concentrations in samples from these wells were 20 µg/L (well K7-01, 1985) and 15.2 µg/L (well K7-03, 1985). VOC concentrations have generally been declining in samples from these wells since these 1985 maxima. The 2015 data do not indicate any new releases of VOCs from any of the landfills. A discussion of VOCs that were previously released to ground water from the Pit 7 Complex Landfills is presented in Section 2.5.5.2.5.

3.5.2.6. Title 26 Metals and Lithium

During 2015, Title 26 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium and zinc) and lithium were not detected in ground water samples from the Pit 7 Complex area detection monitoring wells at concentrations in excess of background concentrations. These data did not indicate a release of metals from any of the landfills during reporting period.

3.5.2.7. High Explosives (HE) Compounds

During 2015, HE compounds were not detected in ground water samples from the Pit 7 Complex area detection monitoring wells at concentrations in excess of individual compound detection limits of 1 to 2 µg/L. These data did not indicate a release of HE compounds from any of the landfills during 2015.

3.5.2.8. Polychlorinated Biphenyls (PCBs)

During 2015, PCB compounds were not detected in ground water samples from the Pit 7 Complex area detection monitoring wells at concentrations in excess of the individual compound detection limits of approximately 0.5 µg/L. The data indicate no release of PCBs from any of the landfills during the reporting period.

3.5.3. Landfill Inspection Results

An inspection of the Pit 7 Landfill Cap was conducted on April 9, 2015. The landfill cap was found to be in good condition and functioning as intended.

3.5.4. Annual Subsidence Monitoring Results

Annual subsidence monitoring was conducted during second semester 2015. No evidence of subsidence was detected.

3.5.5. Maintenance

No maintenance was required at Pit 7 during 2015.

3.6. Pit 7 Complex Drainage Diversion System

A Drainage Diversion System was constructed in the Pit 7 Complex area of OU 5 in 2007-2008 (Section 2.6). The Pit 7 Drainage Diversion System is inspected and maintained per the requirements of the Inspection and Maintenance Plan (Taffet et al., 2008).

3.6.1. Drainage Diversion System Inspection Results

Monthly rainy season inspections were performed during 2015. The drainage diversion system was inspected on January 15, February 9, March 12, April 16, October 13, November 3, November 17, and December 14.

3.6.2. Drainage Diversion System Maintenance

Vegetative debris was removed from basins, channels and rip-rap areas during 2015.

3.7. Building 850 CAMU

A CAMU was constructed in the Building 850 area of OU 5 in 2009 as part of the Building 850 Removal Action (Section 2.5). The Building 850 CAMU is inspected and maintained per the requirements of the Inspection and Maintenance Plan (SCS Engineers, 2010).

3.7.1. Building 850 CAMU Inspection Results

During 2015, the CAMU was inspected on February 9, November 3, November 10, and December 14, immediately following rainfall events. No evidence of excess vegetation, erosion, or sedimentation was observed and all controls were working as intended. CAMU inspections are typically conducted during second semester in July (post-season), immediately after major storms, and October (pre-season).

3.7.2. Building 850 CAMU Maintenance

Maintenance was not required during 2015.

4. Risk and Hazard Management Program

The goal of the Site 300 Risk and Hazard Management Program is to protect human health and the environment by controlling exposure to contaminants during remediation. Risk and hazard management is conducted in areas of Site 300 where the exposure point risk exceeded 1×10^{-6} or the hazard index exceeded 1 in the baseline risk assessment. Institutional controls have been implemented to manage risks. The CMP/CP requires that the institution controls in place at Site 300 be evaluated annually. The completed Institutional Controls Monitoring Checklist for 2015 is presented in Appendix D.

4.1. Human Health Risk and Hazard Management

The CMP/CP requires that the risk and hazard associated with volatile contaminants in the subsurface migrating upward into indoor and outdoor ambient air and being inhaled by workers be re-evaluated annually using current data, where the risk exceeds 10^{-6} and the hazard indices exceeds 1.

The onsite worker inhalation risk associated with vapor intrusion from the subsurface into indoor and outdoor air is discussed in Section 4.1.1. The onsite worker inhalation risk associated with springs is discussed in Section 4.1.2.

4.1.1. Annual Inhalation Risk Evaluation

The CMP (Ferry et al., 2002 and Dibley et. al., 2009a) requires that the risk and hazard associated with volatile contaminants in the subsurface migrating upward into indoor and outdoor ambient air and being inhaled by workers be re-evaluated annually using current data. The following risk evaluations were performed during 2015:

- Indoor Ambient Air in Building 834D

- Indoor Ambient Air in Building 830

The risk and hazard management is complete for a building when the estimated risk is below 10^{-6} and the hazard index is below 1 for two consecutive years. The risk and hazard management is complete and will no longer be evaluated for the following:

- Outdoor Ambient Air Near Building 834D (2003 and 2004)
- Outdoor Ambient Air Near Building 815 (2003 and 2004)
- Outdoor Ambient Air in Building 854F (2003 and 2004)
- Outdoor Ambient Air Near Building 830 (2003 and 2004)
- Indoor Ambient Air Near Building 832F (2003 and 2004, building demolished in 2005)
- Indoor Ambient Air in Building 854F (building demolished in 2005)
- Indoor Ambient Air in Building 854A (2005 and 2006)
- Indoor Ambient Air in Building 833 (2010 and 2011)

Building 875 was not included in the 2002 CMP/CP, however, the risk was re-evaluated in 2000 and was below 10-6 (9.5 x 10-7) (DOE, 2000 and Ferry, 2001b).

Institutional controls, such as restricting access to or activities in areas of elevated risk, remained in place during 2015 to prevent unacceptable exposure to contaminants during remediation for those buildings and areas that continue to show an unacceptable risk and/or hazard. Annual ground water to indoor air inhalation pathway assessments at Site 300 have changed several times from 2003 to present and a chronology can be found in Table 4.1-1.

The following conservative methodology is used in developing the input values for each model. A representative soil column was developed combining the borehole geology information from wells and boreholes that are within a 100 ft radius of the modeled building or site. The resulting soil column was simplified into a maximum of three different strata as input to the Johnson-Ettinger Model by conservatively selecting the most permeable soil types for each stratum. The highest observed ground water elevation at the site was used as the source depth. The highest observed VOC ground water concentration in a well located in close proximity to the building or site being modeled was selected as the source concentration. If the VOC of interest was not detected in any nearby wells, then the highest detection limit was used as the source concentration. For the Johnson-Ettinger Model, site-specific building dimensions were used.

The individual chemical risk, hazard index, and cumulative risk values estimated for the indoor ambient air are reported in Table 4.1-2 for those buildings that were evaluated in 2015. Generally, the concentrations of VOCs in wells show a declining trend, specifically in areas where there are ground water and soil vapor treatment systems in operation.

As shown in Table 4.1-2, the estimated risk in 2015 remained above 10^{-6} and/or the hazard quotient remained above 1 for the indoor ambient air exposure pathway evaluated at Building 834D. At Building 830, the estimated risk in 2015 did not exceed 10^{-6} and/or the hazard quotient was less than 1 for the indoor ambient air exposure pathway evaluated. As a result, the building occupancy restrictions, engineered controls, monitoring, and annual risk evaluations will continue for Buildings 834D and 830, in accordance with the CMP/CP for the Interim Remedies at LLNL Site 300. This is the first year that Building 830 has achieved an estimated risk below 10^{-6} and hazard quotient that was below 1. In addition, during 2015, active remediation using ground water and soil vapor extraction continued at both locations. However, Building 830 ground water and soil vapor extraction systems were under construction for facility upgrades that were completed and then began operation in September 2015.

4.1.2. Spring Ambient Air Inhalation Risk Evaluation

4.1.2.1. VOC-Contaminated Springs

The CMP requires annual sampling of outdoor air above VOC-contaminated surface water, when surface water is present to determine VOC concentrations.

An unacceptable risk or hazard was identified during the baseline risk assessment (Webster-Scholten, 1994) for the inhalation of VOCs at four locations:

1. Spring 3 (Building 832 Canyon OU) – Cumulative risk 7 x 10^{-5}, hazard index 2.3 due to TCE and PCE.
2. Spring 5 (HEPA OU) – Cumulative risk 1 x 10^{-5}, due to 1,1-DCE and TCE.
3. Spring 7 (Pit 6 Landfill OU) – Cumulative risk 4 x 10^{-5}, hazard index 1.5 due to TCE, PCE 1,2-DCA, and chloroform.
4. The Carnegie State Vehicular Recreation Area pond (offsite, east of the Pit 6 Landfill) – Cumulative risk 3 x 10^{-6} (hypothetical), due to TCE.

The risk and hazard management evaluation for Spring 3 was completed in 2009. The estimated risk has remained below 10^{-6} and the hazard index remained below 1 for two consecutive years. No unacceptable risk or hazard to onsite workers exists. Therefore, the annual ambient air inhalation risk evaluation was continued for the following springs in 2015:

- Ambient Air Near Spring 5 in the HEPA OU
- Ambient Air Near Spring 7 in the Pit 6 Landfill OU

No surface water or green hydrophilic vegetation was present at Springs 5 and 7 during 2015, therefore no ambient air VOC sampling was performed. Springs 5 and 7 have been devoid of surface water or green hydrophilic vegetation since monitoring began in 2003. These springs will be monitored for the presence of surface water or green hydrophilic vegetation in 2016 and air samples will be collected if water is present.

Water-supply well CARNRW-2 is used to fill the Carnegie State Vehicular Recreation Area pond. The baseline risk assessment indicated that if the VOC source in the Pit 6 Landfill OU was not controlled, contaminated ground water could migrate to well CARNRW-2 and result in an unacceptable risk from inhaling VOC vapors volatilizing from the pond. However, an engineered cap was placed over the Pit 6 Landfill preventing infiltration of precipitation and further releases of contaminants from the landfill. The VOC plume originating from the Pit 6 Landfill has not impacted CARNRW-2. No unacceptable risk or hazard exists.

4.1.2.2. Tritium-Contaminated Springs

An unacceptable cumulative risk of 1 x 10^{-3} was identified in the baseline risk assessment for the inhalation of tritium at Well 8 Spring in the Building 850 area. The risk associated with the inhalation of tritium vapors volatilizing from Well 8 Spring is based on the maximum tritium activity detected (770,000 pCi/L) in 1972. The tritium activities in Well 8 Spring have steadily declined over the decades. The 2009 CMP/CP indicated that the inhalation risk associated with tritium in surface water volatilizing into outdoor ambient air would be re-evaluated annually when surface water is present. The surface water will be sampled and analyzed for tritium semi-annually. The maximum activity will be compared to the current tritium vapor PRG for tap water.

The risk re-evaluation of Well 8 Spring was performed in 2015 based on the water sample collected in October 2015 with a tritium activity concentration of 13,800 pCi/L. There is no current tritium vapor PRG for tap water defined by EPA. However, the current activity concentration of tritium in Well 8 Spring is below the drinking water standard of 20,000 pCi/L. Sampling and risk re-evaluation will be conducted in 2016 if surface water is present. Workers do not occupy or plan to occupy the site in the near future, therefore site use restrictions will be maintained and the annual sampling continued until the activity remains below the acceptable levels for two years.

4.2. Ecological Risk and Hazard Management

4.2.1. Ecological Risk and Hazard Management Measures and Contingency Plan Actions Required by the 2009 Compliance Monitoring Report/Contingency Plan

The ecological risk and hazard management measures described in the 2009 CMP/CP (Dibley et al., 2009a) were developed to meet the Remedial Action Objectives for environmental protection. These objectives are designed to:

1. Ensure ecological receptors important at the individual level of ecological organization (special-status species, i.e., State of California or federally-listed threatened or endangered species or State of California species of special concern) do not reside in areas where relevant hazard indices exceed 1.
2. Ensure changes in contaminant conditions do not threaten wildlife populations and vegetation communities.

The ecological risk and hazard management measures required by the 2009 CMP/CP include:

- Periodically evaluating available biological survey data from the Buildings 801, 851 and the HEPA to determine potential population-level impacts to ground squirrel and deer exposed to cadmium in surface soil in these areas, as well as re-evaluating the ecological hazard associated with cadmium in surface soil in these areas. Subsequent evaluations reported on in the 2011 and 2012 Annual CMRs showed the presence of cadmium to no longer be a potential ecological hazard to the deer and ground squirrel populations, or to burrowing or ground dwelling special-status species. Therefore, cadmium is no longer considered an ecological contaminant of concern in these areas, and has been dropped from further consideration.
- Ensuring the integrity of the Pit 7 Complex landfill caps to prevent exposure to burrowing animals from uranium.
- Evaluating changes in existing contaminant and ecological conditions in OUs 1 through 8 every five years, including re-evaluating VOCs in burrow air in the event that ground water VOC concentrations increase to levels that previously posed a risk to burrowing animals.

This report, and subsequent compliance monitoring reports prepared during the reporting period in which the 2009 CMP/CP is active, will report on ecological risk and hazard management measures and ecological contingency plan actions required by the 2009 CMP/CP.

As part of the contingency plan presented in the 2009 CMP/CP, periodic review of available biological survey data (e.g., biological data collected when surveying ground-disturbing programmatic activities, biological monitoring data, surveys conducted for environmental impact statement [EIS] or environmental impact report [EIR] preparation, etc.) for the presence of new special-status species is required. Any new special-status species identified is to be evaluated for potential impact from the presence of contamination using the process described in the 2009 CMP/CP. The results of the periodic review are reported on in the annual CMRs.

As described above, the 2009 CMP/CP requires an evaluation of changes in contaminant and ecological conditions in OUs 1 through 8 every five years. Five-year ecological reviews were conducted in 2008 (reported on in Dibley et al., 2009b; referred to as the 2008 Five-Year Ecological Review), and 2013 (reported on in Dibley et al., 2014; referred to as the 2013 Five-Year Ecological review). The 2008 Five-Year Ecological Review evaluated chemical data collected from January 1, 1999 through December 31, 2007, and ecological data collected from January 1, 1999 through December 31, 2008. The 2013 Five-Year Ecological Review evaluated chemical data collected from January 1, 2008 through December 31, 2012, and biological data collected between January 1, 2009 and December 31, 2012 (four years of biological data). By adjusting the biological review period in the 2013 Five-Year Ecological Review, future five-year ecological reviews will have consistent biological and chemical data review periods.

The 2008 Five-Year Ecological Review identified several new constituents in surface soil and surface water for which ecological hazard could not be adequately evaluated due to either a limited data set or the lack of background data. Most of these constituents have been addressed and reported on in CMRs subsequent to the 2008 Five-Year Ecological Review. The remaining constituents (all in surface water) were also noted in the 2013 Five-Year Ecological Review as requiring on-going monitoring. As discussed below, these constituents will be addressed as new monitoring information becomes available, and added to the ecological risk and hazard management program as necessary.

4.2.2. Uranium in Subsurface Soil within the Pit 7 Complex Landfills

The 2009 CMP/CP requires the Pit 7 Complex landfills to be inspected and any burrows or holes in the cover filled to prevent unacceptable exposure of animals to uranium in the pit waste. This is done as part of the inspection and maintenance program for the Pit 7 Complex. Section 3.5.3 describes the landfill annual engineering inspection results, Section 3.5.4 describes the annual subsidence monitoring results, and Section 3.5.5 describes any maintenance performed. Abri Environmental Engineering performs the annual inspection of the Pit 7 Complex landfills (Abri Environmental Engineering, Inc., 2015). No evidence of cracking, erosion, seepage or subsidence was observed on the Pit 7 cap surface during the annual inspection conducted on April 21, 2015. The cap was covered with well-established and thick vegetation, and no evidence of burrowing animal holes was observed.

4.2.3. Identification and Evaluation of New Special-Status Species

Contingency actions that are described in the 2009 CMP/CP include periodically evaluating available biological survey data (e.g., pre-construction survey data, biological monitoring data, surveys conducted for EIR/EIS preparation) for the presence of new special-status species and reporting the results of the evaluation in the annual compliance monitoring reports. The 2013 Annual CMR contained an evaluation of biological data collected from 2009 through 2012 as part of the 2013 Five-Year Ecological Review. New biological information collected during 2013 and 2014 were evaluated in the 2014 Annual CMR (Buscheck and Ferry, 2015). New biological information collected during 2015 is discussed in this report. The results of biological surveys and any changes in the regulatory status of species occurring at Site 300 were provided by wildlife biologists from the LLNL Environmental Functional Area (EFA) (Paterson, 2016) and are discussed below.

The State of California emergency listing of the tricolored blackbird *(Agelaius tricolor)* under the California Endangered Species Act (CESA) expired in June 2015. However, the California Fish and Game Commission is currently conducting a status review for the species and advanced the tricolored blackbird to candidacy under the CESA in December 2015. As a candidate species, the tricolored blackbird receives the same protection afforded to species listed as threatened or endangered under the CESA. The U.S. Fish and Wildlife Service (FWS) is also currently reviewing a petition to list the tricolored blackbird under the federal Endangered Species Act. EFA wildlife biologists observed tricolored blackbirds attempting to nest in Elk Ravine near Building 812 in 2015, but the colony abandoned the nest site (Paterson, 2016). This is likely due to limited food supply in the area as a result of the ongoing drought in California. The Building 812 area is currently undergoing a remedial investigation/feasibility study for uranium contamination, and is not covered under the 2009 CMP/CP.

In October 2015, EFA wildlife biologists found a young of the year coast horned lizard *(Phrynosoma blainvillii)* impaled on a barbed-wire fence located approximately 180 meters northwest of Building 851 (Paterson, 2016). Loggerhead shrikes *(Lanius ludovicianus)* frequently impale prey items on barbed-wire fences and other sharp objects (Shuford and Gardali 2008). Both the loggerhead shrike and the coast horned lizard are California Species of Special Concern (California Department of Fish and Wildlife, 2016). Loggerhead shrikes have been observed in the Building 851 area in the past (Dibley et al., 2009b; Dibley et al., 2014), and the coast horned lizard was observed in this area for the first time in 2014 (Buscheck and Ferry, 2014). The 2015 observation suggest both coast horned lizards and loggerhead shrikes routinely use this area. While there are currently no known ecological concerns surrounding the Building 851 area, the area is under investigation for potential uranium contamination.

4.2.4. Constituents Identified in the 2013 Five-Year Ecological Review Requiring Additional Monitoring

The 2013 Five-Year Ecological Review identified several constituents in surface water for which data were not sufficient to determine potential ecological hazard. These constituents are chloride in Spring 14 (HEPA OU, Figure 2.4-1), total phosphorus as P and ammonia in Spring 4 (Building 832 Canyon OU, Figure 2.7-1), and total uranium in Springs 10 and 11 (Building 854 OU, Figure 2.6-1). Due to the ongoing drought in California, only Spring 11 had available surface water in 2015, the remaining springs were dry.

The historic chloride concentrations detected in Spring 14 in samples collected through May 2001 (ranging from 160 to 420 mg/L) periodically exceeded the maximum concentration observed in Site 300 background springs (210 mg/L). However, the chloride concentration in the two most recent samples (collected in December 2003 and March 2013) contained chloride concentration at or below this background level (170 and 210 mg/L, respectively). While it appears that chloride in Spring 14 is not of ecological concern, chloride concentrations in this spring will be periodically monitored when water is available to ensure concentrations remain within background levels.

The single sample from Spring 4 analyzed for total phosphorus as P (4 mg/L, sampled in June 2000) exceeded the maximum concentration of total phosphorus observed in the Site 300 background springs (0.3 mg/L). The maximum concentration of ammonia nitrogen (8.7 mg/L) in Spring 4 was also detected in the June 2000 sample, which is the most recent sample available that was analyzed for this constituent. Spring 17, a Site 300 background spring, was sampled for ammonia nitrogen in August 2012. Ammonia nitrogen was detected in this spring at a concentration of 0.52 mg/L. Spring 4 will be periodically sampled for ammonia nitrogen and total phosphorus when water is available to provide additional data on these constituents.

The maximum total uranium concentration as mg/L (estimated from uranium-238 results) in Spring 10 and Spring 11 exceeded the Site 300 background concentration in the June 2002 (Spring 11) and the June 2003 (Spring 10) samples. Both samples were analyzed for uranium isotopes using mass spectrometry, and results from both springs showed a $^{235}U/^{238}U$ ratio of 0.0072. This is the natural ratio for these uranium isotopes, and indicates no added depleted uranium is present.

Spring 11 was sampled for uranium in August 2012. Spring 10 was dry at this time, and thus a sample could not be obtained. Spring 11 continued to show high concentrations of uranium (0.074 mg/L) compared to the Site 300 maximum background concentration of 0.028 mg/L (detected in Spring 16). The uranium-235/uranium-238 ratio was again 0.0072. Spring 16, a Site 300 background spring located in the same canyon as Springs 10 and 11, was also dry, and therefore a sample could not be obtained from this spring. Both Springs 10 and 16 will be sampled for uranium when water is again available from these springs.

Data from the additional spring sampling will be reported on in future compliance monitoring reports as they become available.

5. Data Management Program

The management of data collected during second semester 2015 was subject to Environmental Restoration Department (ERD) data management process and standard operating procedures (Goodrich and Lorega, 2012). This data management process tracks sample and analytical information from initial sampling plan through data storage in a relational database. As part of the standard operating procedures for data quality, this process includes sample planning, chain of custody tracking, sample collection history, electronic and hard copy analytical results receipt, strict data validation and verification, data quality control procedures, and data retrieval and presentation. Data management and data retrieval is facilitated by a web-based system known as The Environmental Information Management System (TEIMS). The use of this system promotes and provides a consistent data set of known quality. Quality assurance and quality control are performed consistently on all data.

The relational database used to maintain the data for the CMR continued to be Oracle version 11.2.0.3 on Linux servers. General maintenance and refinements continued in both the database and the web application programming. Improvements and additions to the ERD data management process are continuously implemented in an ongoing effort to automate and upgrade the applications, including updating and adding verifications, improving authentication processes, and refining the recently improved water level collection process to use a mobile application for collection. Other changes include:

- The TEIMS error reporting and improvement request tool was converted to the LLNL-institutional project tracking tool Atlassian JIRA™.
- Templates for submitting ad hoc sampling plans were improved.
- Scripts run on incoming electronic data were modified to update sample date/time from the sampling plan data instead of using the incomplete sample date supplied by the analytical laboratories. This modification also included updating the requester from the sampling plan, thus eliminating errors inadvertently sent by the analytical laboratories.
- Receipt tracking of short turnaround results was implemented.

The Treatment Facility Real Time (TFRT) application, a high frequency data acquisition system for treatment facilities and associated extraction wells, continued to be improved by converting several installations from legacy software to Standard Treatment Facility Control System (STFCS). Improvements also included: increasing communication speed, updating scripts for target flow, average flow and control method, and adding functionality for plotting STFCS vapor data.

The application known as Well Track is used to monitor requests for maintenance of wells. Capabilities were extended to include use of Binary Large Objects (BLOBS) for storing relevant PDF documents in the database. Standard Operating Procedures are up to date.

6. Quality Assurance/Quality Control Program

LLNL conducted all compliance monitoring in accordance with the approved Quality Assurance Project Plan (QAPP) (Dibley, 1999) requirements for planning, performing, documenting, and verifying the quality of activities and data. The QAPP was prepared for CERCLA compliance and ensures that the precision, accuracy, completeness, and representativeness of project data are known and are of acceptable quality. The QAPP is used in conjunction with the LLNL ERD Standard Operating Procedures (SOPs), Operations and Maintenance Manuals (O&Ms), Work Plans, Sampling Plans, Integration Work Sheets (IWSs), and Site Safety Plans. Modifications to existing LLNL ERD quality assurance/quality control (QA/QC) procedures, new QA/QC procedures that were implemented during this reporting period, self-assessments, work planning and control, quality issues and corrective actions, analytical and field quality control, and contract analytical laboratory services are discussed in this section.

6.1. Modifications to Existing Procedures

Some ERD SOPs scheduled for release with the previous issue of Revision 14 and the currently planned release of Revision 15 remain in the review and update process as listed:

- SOP 1.8: Disposal of Investigation-Derived Wastes (Drill Cuttings, Core Samples, and Drilling Mud), Revision 3, 1999.

- SOP 1.14: Final Well Development/Specific Capacity Tests at LLNL Livermore Site and Site 300, Revision 2, 2006.
- SOP 2.8: Installation of Dedicated Sampling Devices, Revision 5, 2003.
- SOP 3.1: Water-Level Measurements, Revision 7, 2006.
- SOP 3.2: Pressure Transducer Field Calibration, Revision 3, 2003.
- SOP 3.3: Hydraulic Testing (Slug/Bail), Revision 3, 2003.
- SOP 3.4: Hydraulic Testing (Pumping), Revision 3, 2003.
- SOP 4.14: Mapping with the Trimble Pathfinder Pro XR GPS System, Revision 0, 1999.

Twenty-five SOPs are in the final review and approval process as follows:

- SOP 1.2 Borehole Sampling of Unconsolidated Sediments and Rock
- SOP 1.5: Initial Well Development
- SOP 1.18: Site 300 Treatment Media Acceptance Testing and Usage Tracking Process.
- SOP 1.19: Conditioning Treatment for Ion Exchange Resin.
- SOP 1.20: Carbon canister Removal and Carbon Conditioning.
- SOP 2.1: Pre-sample Purging of Wells.
- SOP 2.2: Field Measurements on Surface and Ground Waters.
- SOP 2.3: Sampling Monitor Wells with Electric Submersible Pumps, and Specific-Depth Grab Sampling Devices.
- SOP 2.4: Sampling Monitor Wells with a Bailer.
- SOP 2.5: Surface Water Sampling.
- SOP 2.6: Sampling for Volatile Organic Compounds.
- SOP 2.7: Pre-sample Purging and Sampling of Low-Yielding Monitor Wells.
- SOP 2.9: Sampling for Tritium in Ground Water.
- SOP 2.10: Well Disinfection and Coliform Bacteria Sampling.
- SOP 4.3: Sample Containers and Preservation.
- SOP 4.7A: Livermore Site Treatment and Disposal of Well Development and Well Purge Fluids.
- SOP 4.10: Records Management.
- SOP 5.1: Data Management Chain of Custody and Printed Analytical Result Receipt and Processing.
- SOP 5.3: Data Management Electronic Analytical Result Receipt and Processing for Sample, Analysis, and QC Data.
- SOP 5.4: Data Management Hand Entry of Analytical Results.
- SOP 5.5: Data Management Revision Receipt and Processing.
- SOP 5.8: Field Logbook Control.
- SOP 5.10: Data Management Receipt and Processing Lithology by Electronic Transfer.

- SOP 5.15: Preparation of Required Routine Ground Water and Treatment Facilities Sampling Plans.
- SOP 5.20: Cost Effective Sampling (CES) Algorithm Preparation.

Once approved the twenty-five procedures will be released as Revision 15.

6.2. New Procedures

A new procedure, SOP 1.18: Site 300 Treatment Media Acceptance Testing and Usage Tracking has been developed, finalized, and approved for release with Revision 15.

6.3. Self-assessments

ERD participates in self-assessments, both formal and informal. Assessments are conducted to evaluate work activities to procedural, QA, management, and Integrated Safety Management System (ISMS) practices. External regulatory agencies and management performs frequent assessments and management work observations, verifications, and inspections (MOVIs) of ERD work activities. There were a total of 16 assessments consisting of MOVIs, Storm Water Pollution Prevention Program (SWPPP) and regulatory inspections conducted for the Site 300 CERCLA program during 2015. Issues and deficiencies observed during assessments are tracked from inception to resolution using the institutional Issues Tracking System (ITS). There were no deficiencies associated with the assessments performed for the Site 300 program during this reporting period. Findings and observations noted during contract analytical laboratory audits are managed through the DOECAP system.

6.4. Work Planning and Control

The Institutional-Wide Work Planning and Control (WP&C) process is undergoing a major overhaul. A key component of the new process is that it will be a risk-based approach and will replace the current IWS system. LLNL continues to use the existing IWS system while the new WP&C process is underway.

The periodic scheduled reviews for the IWSs required under the current WP&C process have been completed for the ERD Site 300 IWSs.

6.5. Quality Issues and Corrective Actions

Quality improvement, nonconformance, and corrective action reporting is documented using the Quality Improvement Form (QIF).

Two QIFs were submitted during 2015. QIF-15-001 was created to properly describe the method used to analyze ERD samples for volatile organic compounds (VOCs) by BC Laboratories. ERD and the Environmental Functional Area (EFA) organizations have historically used the requested analysis code “E601” when requesting environmental samples to be analyzed for VOCs. BC Labs has historically performed the VOCs analysis using a 624 column, which is a GC/MS method and not a GC method as denoted by the “E601” requested analysis code. The QIF describes a process as to how the data set will be defined in the TEIMS database. The QIF was approved, successfully implemented, and closed out.

QIF-15-002 was developed to address incorrect Practical Quantitation Limits (PQL) being periodically reported by BC Labs. BC Labs IT Department is addressing the issue by isolating the PQLs for the analytes within the LLNL group tests. This change ensures that the PQL for a specific analyte in the LLNL group test will not be overwritten by new reporting requirements as they are added to the Laboratory Information Management System (LIMS).

6.6. Analytical Quality Control

Data review, validation, and verification are conducted on 100% of the incoming analytical data in accordance with ERD SOP 4.6: Validation and Verification of Radiological and Nonradiological Data Generated by Analytical Laboratories. Contract analytical laboratories are contractually required to provide internal QC checks in the form of method blanks, laboratory control samples, matrix spikes, and matrix spike or sample duplicate results with every analysis. During the data validation process, the analytical QC data and associated QC acceptance criteria (control limits) are reviewed. Data qualifier flags are assigned to analytical data that fall outside the QC acceptance criteria. Data qualifier flags and their definitions are listed in the Acronyms and Abbreviations in the Tables section of this report. The qualifier flags, when they exist, appear next to the analytical data presented in the treatment facility compliance tables of this report. Because rejected data are not used for decision-making, the rejected analytical data are not displayed in the tables, only the “R” flag is presented. Data are qualified as rejected only when there is a serious deficiency in the ability to analyze the sample and meet QC criteria. There were no off normal occurrences to report in relation to data validation and verification performed this semester other than what was addressed by the QIFs described above.

6.7. Field Quality Control

During the 2015 reporting period, there were no problems with field QC samples to report.

6.8. Contract Analytical Laboratory Services

Blanket Agreements (BAs) for analytical laboratory services for Bid Package 1 (chemical analyses only, no radiological tests) were recently awarded to BC Laboratories Inc., (an incumbent laboratory) in Bakersfield, CA, and two new analytical laboratories. ERD first used the new laboratories, Accutest Laboratories (San Jose, CA) and Test America (West Sacramento, CA), in late 2014. A pilot study designed to assess laboratory performance was conducted in November 2014 by collecting and submitting duplicate ground water samples and vapor samples to the new laboratories for analysis. The first quarter 2015 sampling plan and usage of laboratories for analysis of routine ground water and treatment facility samples was developed based on laboratory performance assessed during the pilot study. Test America’s performance met LLNL’s expectations and contractual obligations, and only required some fine-tuning which Test America personnel were proactive to develop and implement all additional requests made by LLNL.

Due to laboratory QC and reporting issues encountered during the pilot study, Accutest Laboratories was scheduled to receive a small selection of inter laboratory collocated samples during the first sampling quarter of 2015. The inter laboratory collocated samples were submitted as part of a continued effort on behalf of LLNL to assist the laboratory in trying to meet the QC and reporting obligations specified in the contract. Thus far, Accutest has not been successful in meeting those obligations. The Analytical Contract Management Team discussed the possible discontinuance of the contract with Accutest due to the laboratory not being able to meet contract requirements.

Two ERD Department of Energy Consolidated Audit Program (DOECAP) auditors participated in the BC Labs audit performed in April 2015. There were no priority 1 findings resulting from the audit but there were 13 priority 2 findings and one observation. The only technical finding consisted of continuing calibration verifications (CCVs) for VOCs testing not being performed according to requirements set forth in the DOE/DOD Consolidated Quality Systems Manual for Environmental Laboratories. It is required that when a CCV fails to meet acceptance criteria (±20% of the true value) then the sample must be re-analyzed. The value can be flagged and reported only when it is not possible to reanalyze the sample. The rate at which CCVs fail have decreased significantly since the audit in April.

The previous BC Labs Priority 1 finding reported during second semester 2014 was determined to have been successfully corrected during a surveillance audit conducted in October 2014 and then closed out ahead of the April 2015 audit. The finding had been issued due to the laboratory's inability to analyze a performance test (PT) sample for antimony in soil and report a concentration within the acceptable limits. There were no other open findings from previous audits. Findings and observations noted during contract analytical laboratory audits are managed through the DOECAP system.

An initial DOECAP audit was performed at Test America in June 2015. The audit findings were ones to be expected from conducting an initial DOECAP audit. The majority of findings and observations were observed during the general laboratory practices and quality assurance management portion of the audit. Even though there were a large number of priority 2 findings (a total of 20) and some observations (a total of three), these were not technical in nature and overall, it was determined that the lab is technically sound and producing quality data.

7. References

Abri Environmental Engineering, Inc. (2015), *LLNL Site 300 Pit 6 Cap Annual Engineering Inspection,* Lawrence Livermore National Laboratory Site 300, Abri Environmental Engineering, Inc., Livermore, Calif.

Blake, M., and J. Valett (2011), *Compliance Monitoring Program for the CERCLA-Closed Pit 6 Landfill, Fourth Quarter/Annual Report for 2011*, Lawrence Livermore National Laboratory, Livermore, Calif. (LLNL-AR-132057-11-4).

Buscheck, M., J. Valett, M. Taffet, V. Dibley, V. Madrid, and L. Ferry (2013), *First Five-Year Review Report for Operable Units 3 and 8 at Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (LLNL-AR-579495).

Buscheck, M., and L. Ferry Ed. (2015), *2014 Annual Compliance Monitoring Report, Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-AR-206319-14).

California Department of Fish and Wildlife (2016), *Natural Diversity Database, Special Animals List*. Periodic publication. 51 pp. Accessed on February 2, 2016 from https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline.

Campbell, C., and M. Taffet (2007), *Compliance Monitoring Program for the CERCLA-Closed Pit 6 Landfill, Annual Report 2007*, Lawrence Livermore National Laboratory, Livermore, Calif. (LLNL-AR-132057-07-4).

Dibley, V. R. (1999), *Livermore Site and Site 300 Environmental Restoration Projects Quality Assurance Project Plan*, Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-AR-103160 Rev. 2).

Dibley, V., L. Ferry, M. Taffet (2008), *Action Memorandum for the Removal Action at the Building 850 Firing Table, Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (LLNL-AR-403206).

Dibley V., L. Ferry, S. Gregory, L. Hall, V. Madrid, L. Martello, E.N. Shiroma, M. Taffet, K.S. Wells (2009a), *Compliance Monitoring Plan/Contingency Plan for Environmental Restoration at Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (LLNL-AR-411239).

Dibley, V., L. Ferry, and M. Buscheck Ed. (2009b), *2008 Annual Compliance Monitoring Report, Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-AR-206319-09).

Dibley, V, and L. Ferry (2012), *Draft Final Close Out Report for the Eastern General Services Area Subarea of Operable Unit 1 at Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (LLNL-AR-607015-DRAFT).

Dibley, V., L. Ferry, and M. Buscheck Ed. (2013), *2012 Annual Compliance Monitoring Report, Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-AR-206319-12).

Dibley, V., L. Ferry, and M. Buscheck Ed. (2014), *2013 Annual Compliance Monitoring Report, Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-AR-206319-13).

DTSC (2005) Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, California EPA – DTSC.

Environmental Quality Management, Inc. (2004), *User's Guide for Evaluation Subsurface Vapor Intrusion into Buildings*, Prepared for the USEPA Superfund Office of Emergency Response and Remediation, Washington, D.C.

Environmental Quality Management, Inc. (2014), *2013 Supplemental Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathways*, Prepared for the USEPA Superfund Office of Emergency Response and Remediation, Washington, D.C.

Ferry R., W. Daily, and G. Aarons (2001b), *Five-Year Review Report for the General Services Area Operable Unit at Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-AR-144104).

Ferry R., L. Ferry, M. Dresen, and T. Carlsen (2002), *Compliance Monitoring Plan/Contingency Plan for Interim Remedies at Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (LLNL-AR-147570).

Ferry L., and M. Buscheck Ed. (2015), *First Semester 2015 Compliance Monitoring Report, Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-AR-206769-15).

Goodrich, R., and G. Lorega (Eds.) (2012), *LLNL Livermore Site and Site 300 Environmental Restoration Project Standard Operating Procedures (SOPs)*, Lawrence Livermore National Laboratory Livermore, Calif. (UCRL-AM-109115 Rev. 14).

Johnson, P. C, and R. A. Ettinger (1991), "Heuristic Model for Predicting the Intrusion Rate of Contaminant Vapors in Buildings," *Environ. Sci. Technol.* **25**, 1445–1452.

Johnson, P. C. (2002), "Identification of Critical Parameters for the Johnson and Ettinger (1991) Vapor Intrusion Model," American Petroleum Institute *Bulletin No. 17*, Washington, D.C.

Jury, W. A., W. F. Spencer, and W. J. Farmer (1983), "Behavior Assessment Models for Trace Organics in Soil: I Model description," *J. Environ. Qual.* **12**, 558–564. (Errata see: *J. Environ. Qual.* **16**, 448).

LLNL (2015), *Draft Phase 2 Pilot Study Work Plan for Enhanced In Situ Bioremediation at Building 834, Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (LLNL-AR-655958-DRAFT FINAL).

MacQueen, D., V. Dibley, L. Ferry (2013), *Addendum to the Compliance Monitoring Plan and Contingency Plan for Environmental Restoration at Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (LLNL-AR-411239-ADD).

Madrid, V. and M. Taffet (2015), *Draft Work Plan for Subsurface Soil and Ground Water Characterization at the Building 850 Firing Table Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (LLNL-AR-671022-DRAFT).

Office of Environmental Health and Hazard Assessment. (2004), Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soil. Integrated Risk Assessment Section.

Paterson, L. (2016), *Personal communication with T. Carlsen, senior ecologist, February 2, 2016*, Lawrence Livermore National Laboratory, Livermore, CA.

SCS Engineers (2009), *Excavation and Remediation Plan (100% Submittal) Building 850 Soil Remediation,* Lawrence Livermore National Laboratory Site 300 LLNL Subcontract No. B575171, SCS Engineers, Pleasanton, Calif.

SCS Engineers (2010), *Inspection and Maintenance Plan, Building 850 Containment Embankment*, Lawrence Livermore National Laboratory Site 300 LLNL Subcontract No. B575171, SCS Engineers, Pleasanton, Calif.

Shuford, W.D. and T. Gardali, Ed. (2008), *California Bird Species of Special Concern*, Western Field Ornithologists, Camarillo, CA and the California Department of Fish and Game, Sacramento, CA.

Taffet, M. J. and A. L. Lamarre (1989), *Remedial Investigation of Landfill Pit 7 Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (UCID-21764).

Taffet, M., V. Dibley, L., Ferry, W. Daily, and Z. Demir, (2008), *Interim Remedial Design Document for the Pit 7 Complex at Lawrence Livermore National Laboratory Site 300*, Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-AR-234697). U.S. DOE (1997), *Final Record of Decision for the General Services Area Operable Unit at Lawrence Livermore National Laboratory Site 300,* Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-AR-124061).

U.S. DOE (1997), *Final Record of Decision for the General Services Area Operable Unit at Lawrence Livermore National Laboratory Site 300,* Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-AR-124061).

U.S. DOE (2000), *Building 875 Inhalation Risk Mitigation Evaluation at the Central GSA at Lawrence Livermore National Laboratory Site 300, Lawrence Livermore National Laboratory Site 300,* Lawrence Livermore National Laboratory, Livermore, Calif.

U.S. DOE (2008), *Final Site-Wide Record of Decision for Lawrence Livermore National Laboratory Site 300,* Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-AR-236665).

U.S. EPA (2002), OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance), EPA530-D-02-004.

U.S. EPA (2004), *User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings* U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington, D.C. 20460, 2004.

U.S. EPA (2015), *Regional Screening Levels Table (Formerly PRGs), Screening Levels for Chemical Contaminants*, June 2015, http://www.epa.gov/region9/superfund/prg/

U.S. FWS (2005), *Endangered and Threated Wildlife and Plants; Designation of Critical Habitat for the California Tiger Salamander, Central Population*. Final Rule. U.S. Fish and Wildlife Service (Federal Register 70:49380-49458).

Valett, J., Dibley, V., Madrid, V., and Ferry, L. (2011), *Five-Year Review Report for the General Services Area Operable Unit at Lawrence Livermore National Laboratory Site 300,* Lawrence Livermore National Laboratory, Livermore, Calif. (LLNL-AR-486703).

Valett, J., Dibley, V., Madrid, V., and Ferry, L. (2012), *Five-Year Review Report for the Building 834 Operable Unit at Lawrence Livermore National Laboratory Site 300,* Lawrence Livermore National Laboratory, Livermore, Calif. (LLNL-AR-499272).

Figures

List of Figures

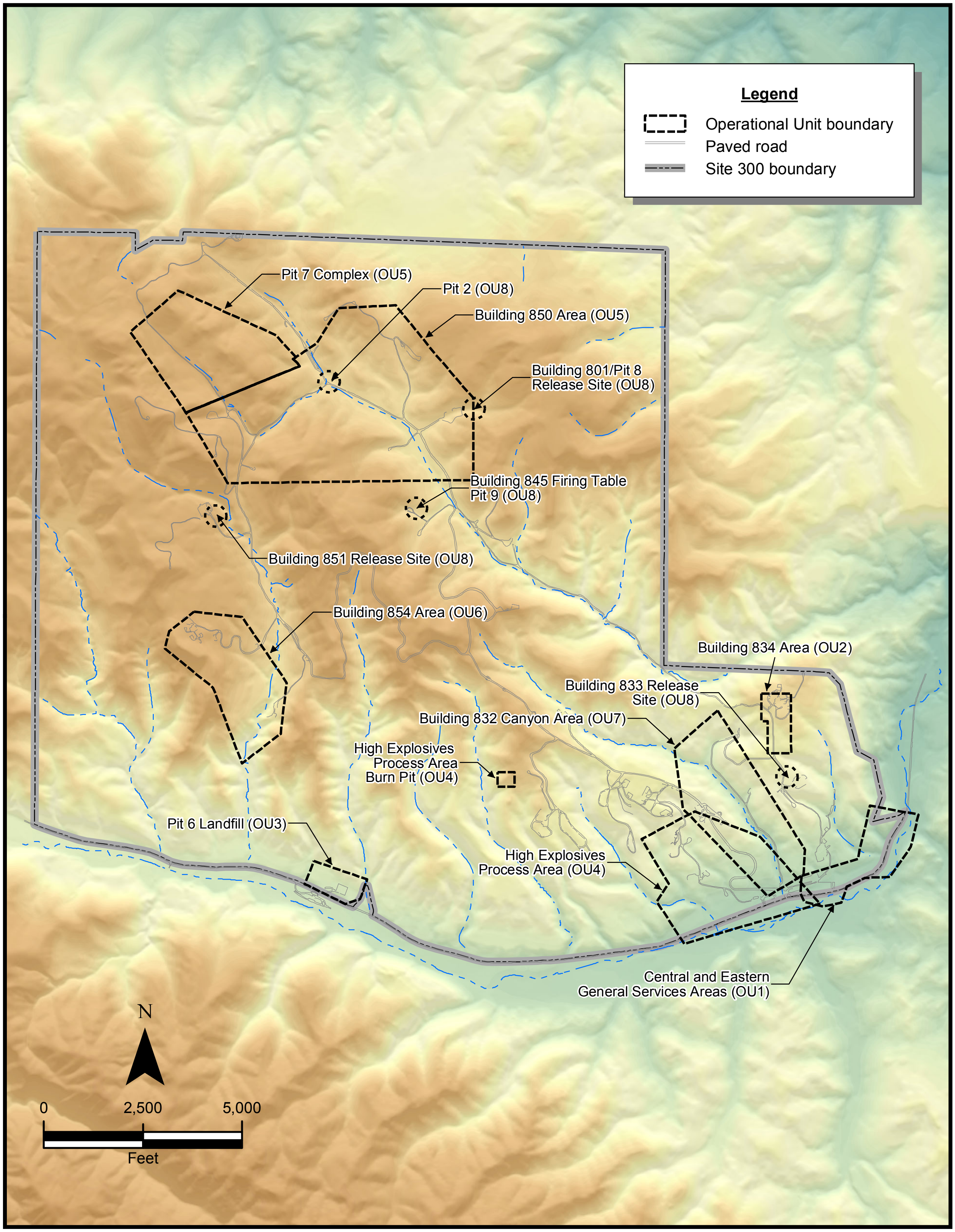

Figure 2-1. Site 300 map showing Operable Unit locations.

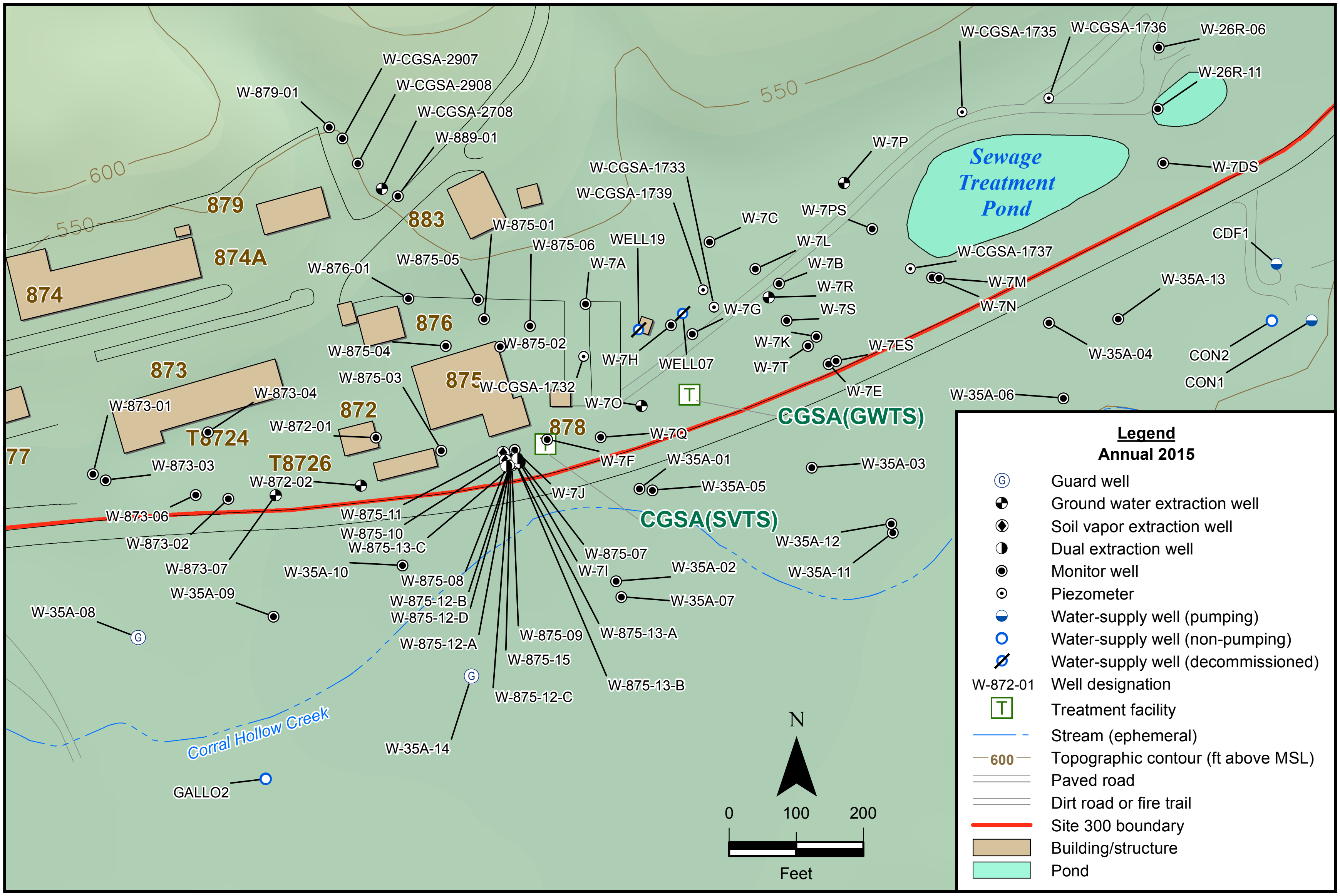

Figure 2.1-1. Central General Services Area Operable Unit site map showing monitor, extraction and water-supply wells, and treatment facilities.

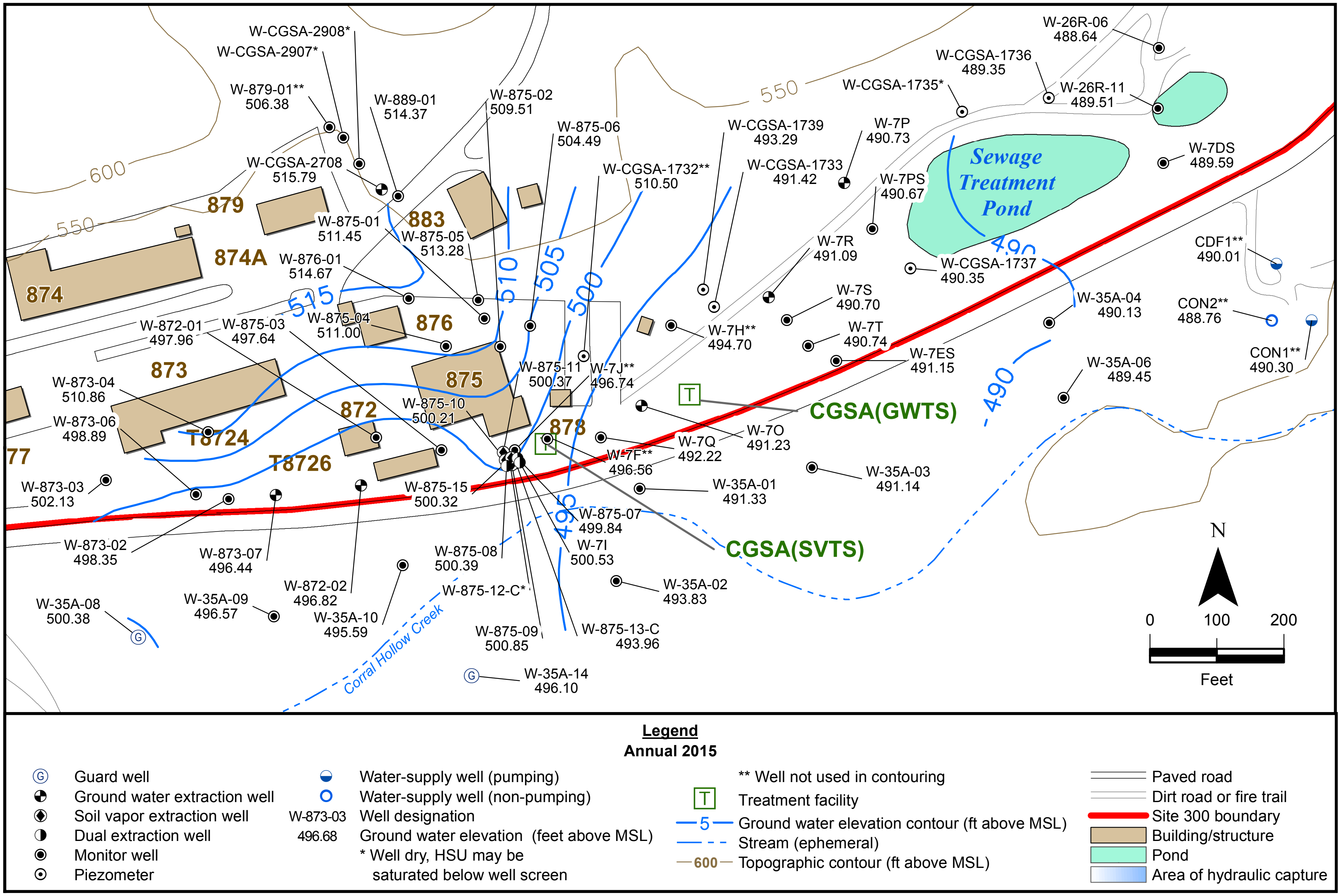

Figure 2.1-2. Central General Services Area Operable Unit ground water potentiometric surface map for the Qt-Tnsc$_1$ and Qal-Tnbs$_1$ hydrostratigraphic units.

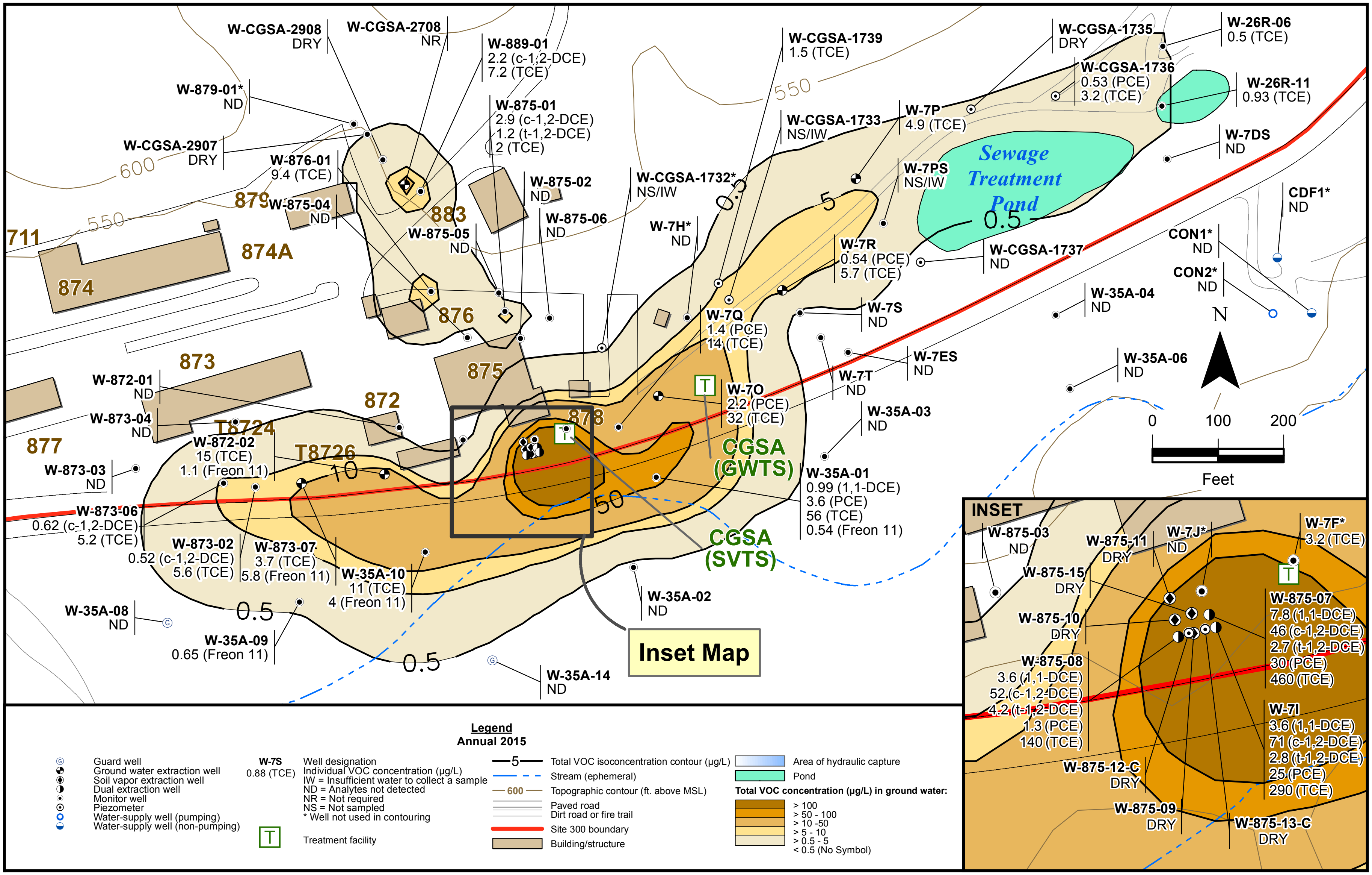

Figure 2.1-3 Central General Services Area Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the Qt-Tnsc$_1$ and Qal-Tnbs$_1$ hydrostratigraphic units.

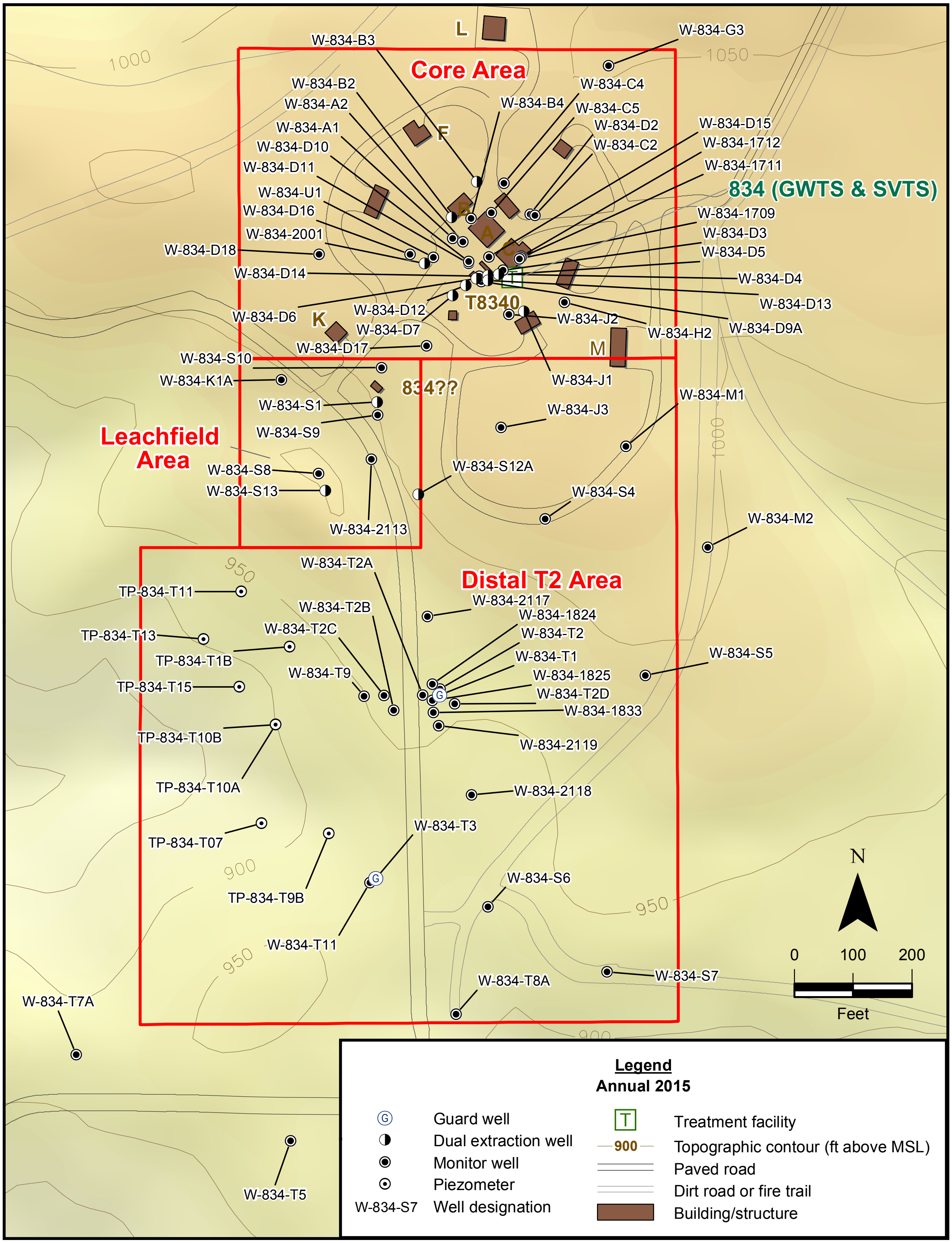

Figure 2.2-1. Building 834 Operable Unit site map showing monitor and extraction wells, and treatment facilities.

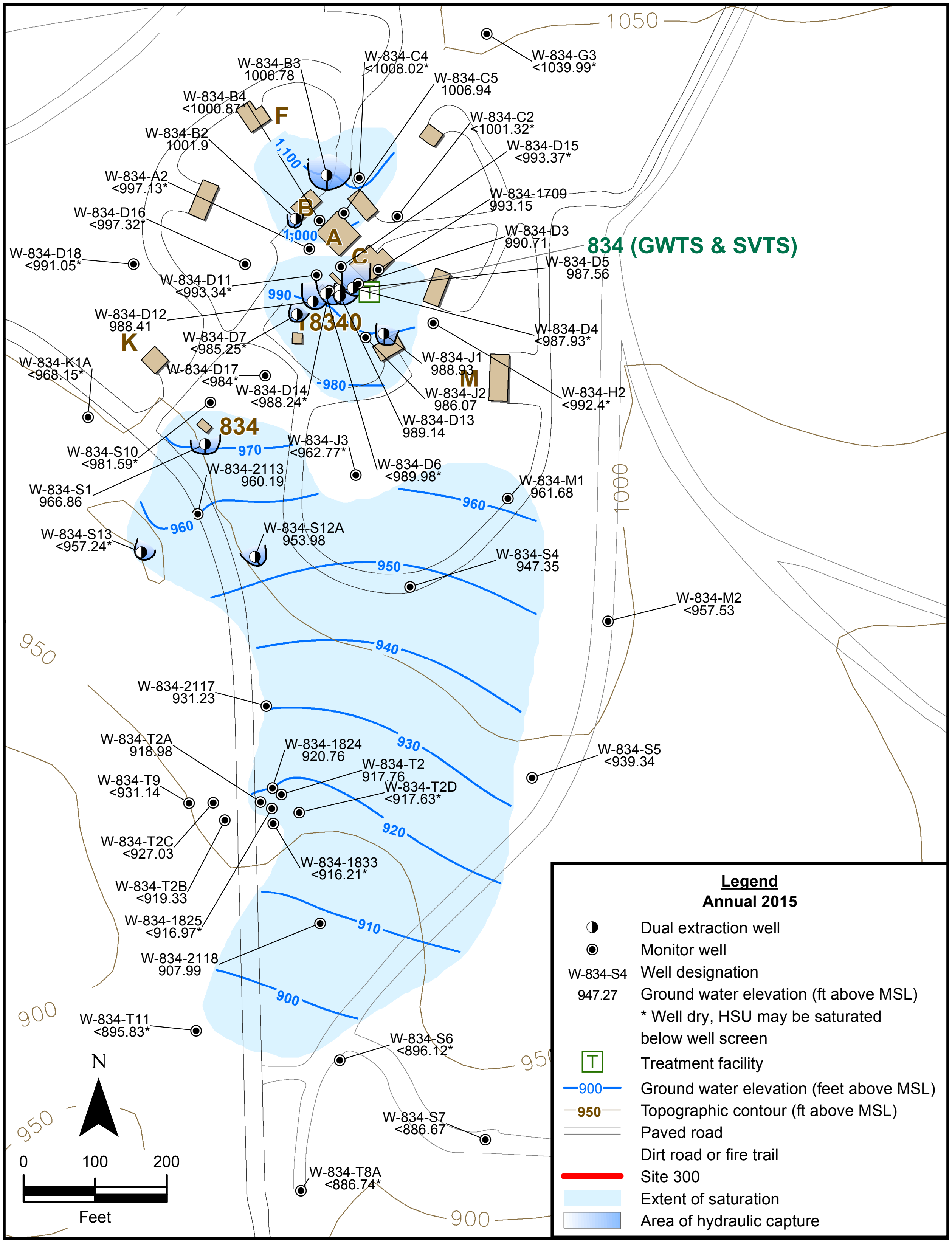

Figure 2.2-2. Building 834 Operable Unit ground water potentiometric surface map for the Tpsg perched water-bearing zone.

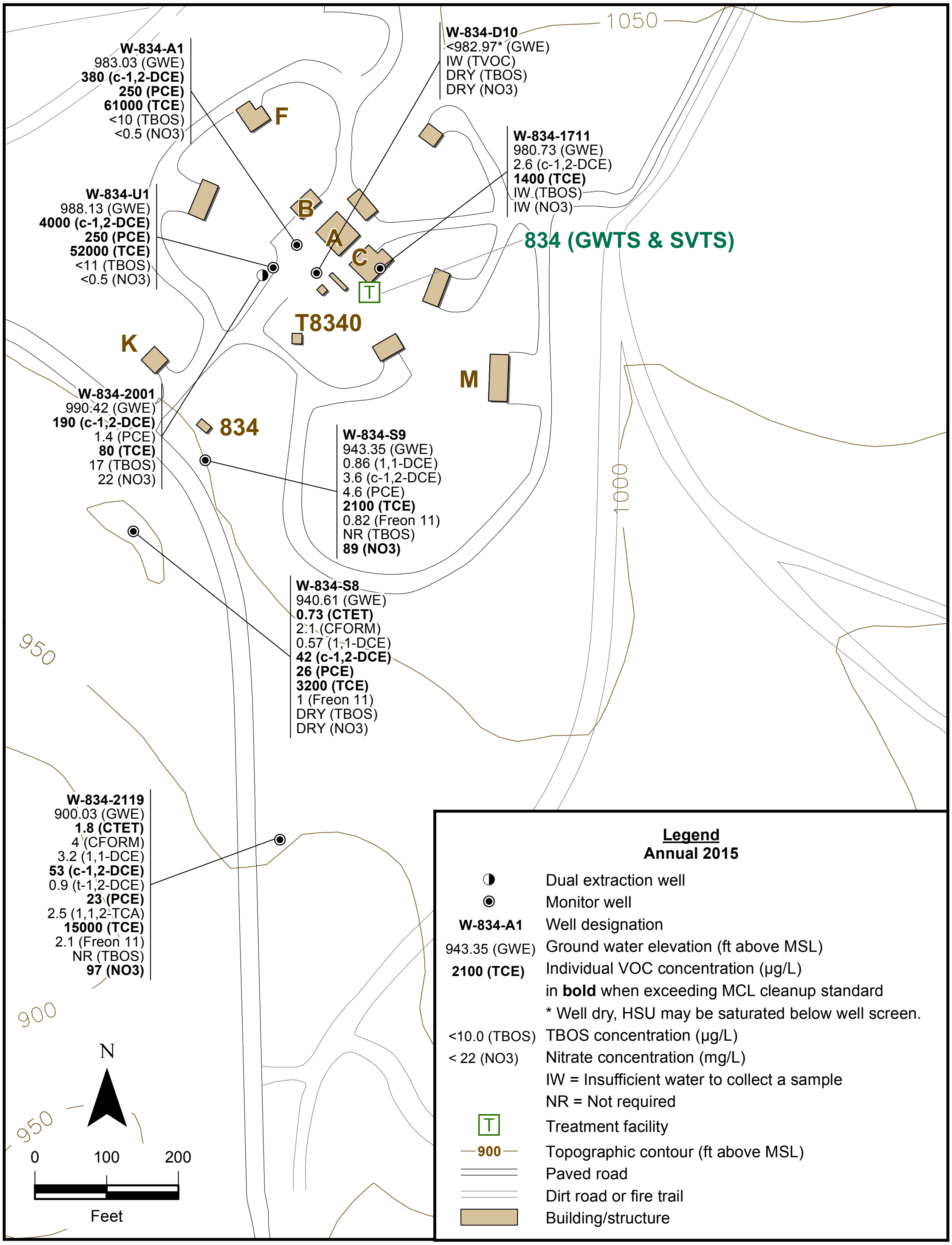

Figure 2.2-3. Building 834 Operable Unit map showing ground water elevations, and individual VOC, TBOS/TKEBS, and nitrate concentrations for the Tps-Tnsc$_2$ hydrostratigraphic unit.

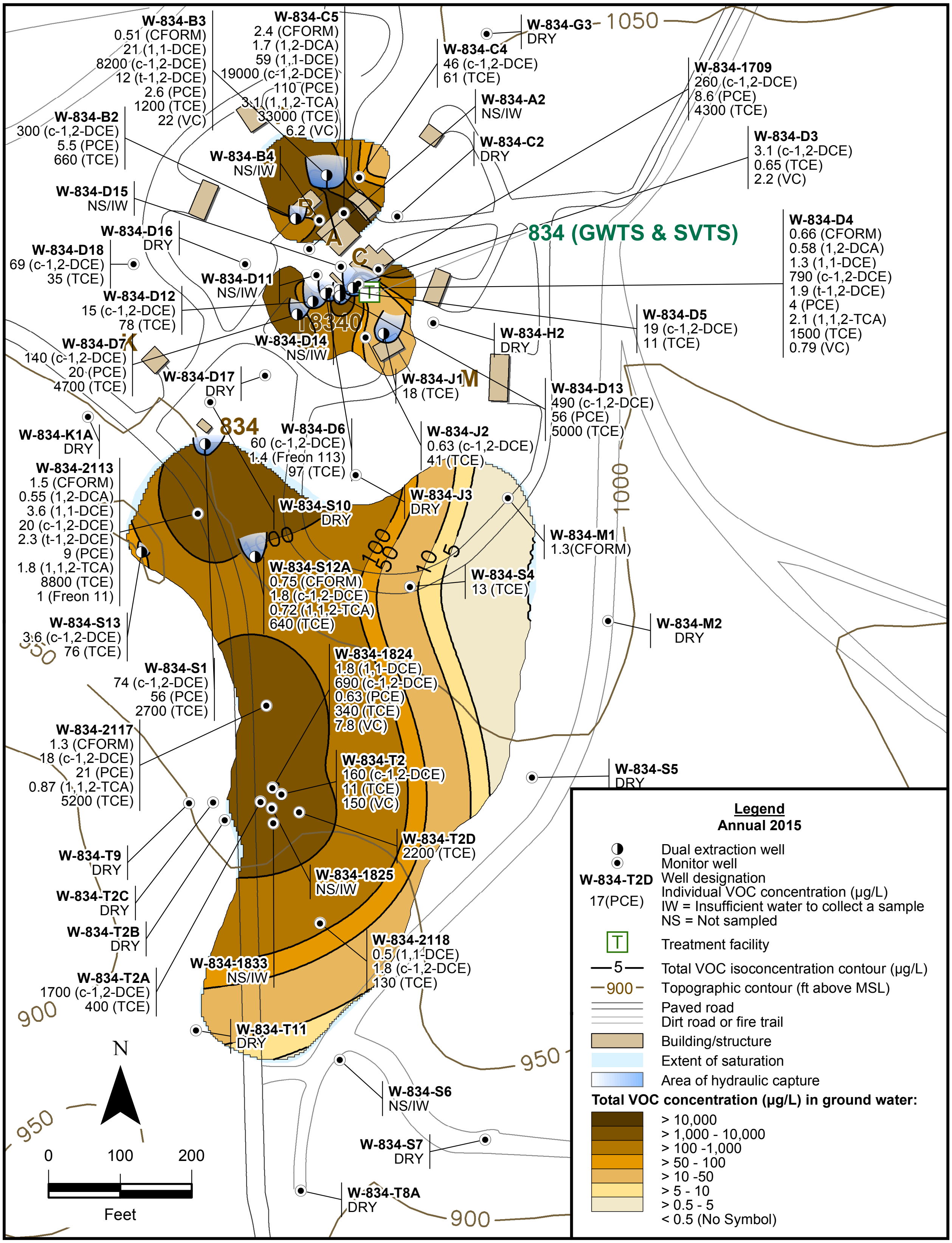

Figure 2.2-4. Building 834 Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the Tpsg perched water-bearing zone.

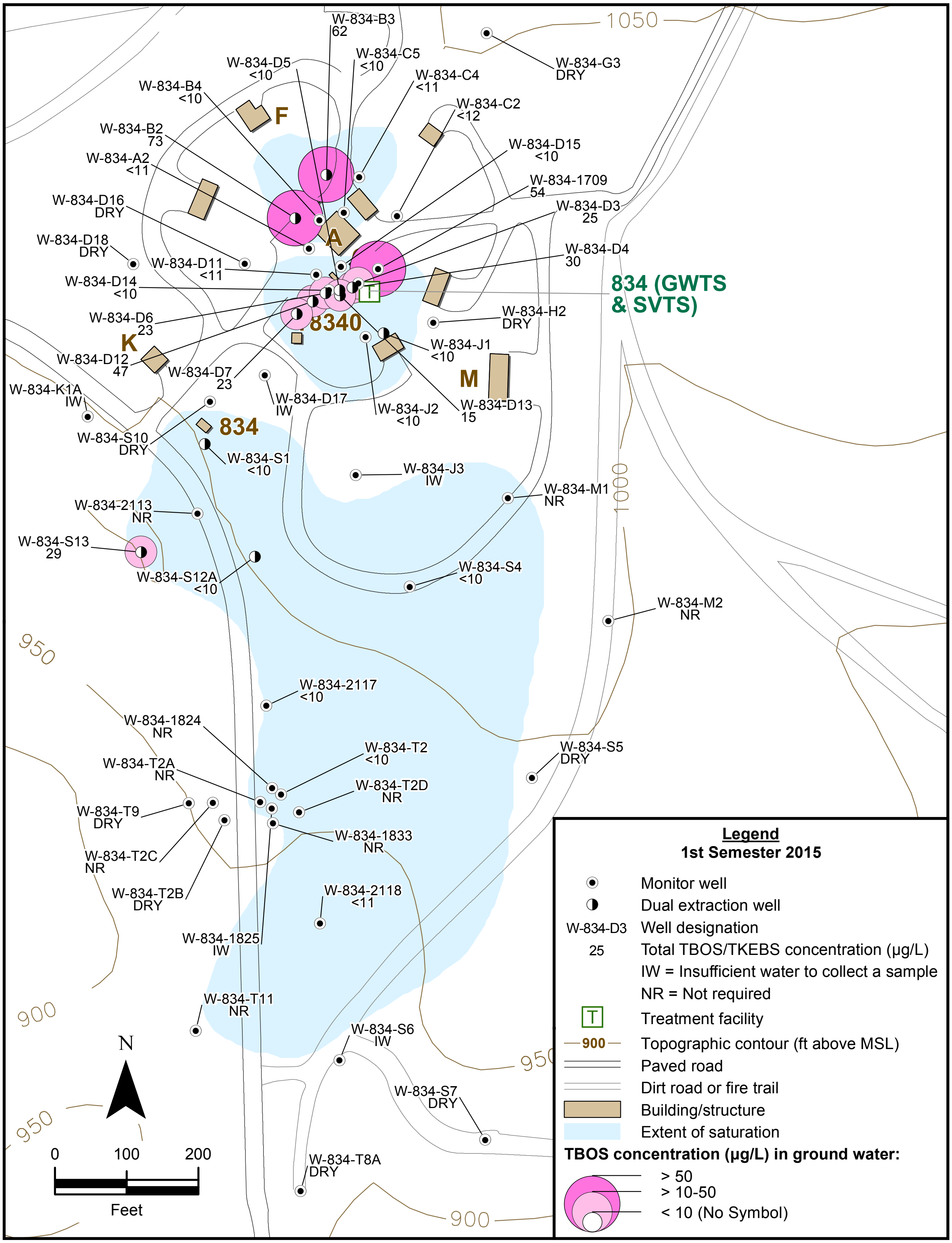

Figure 2.2-5. Building 834 Operable Unit map showing TBOS/TKEBS concentrations for the Tpsg perched water-bearing zone.

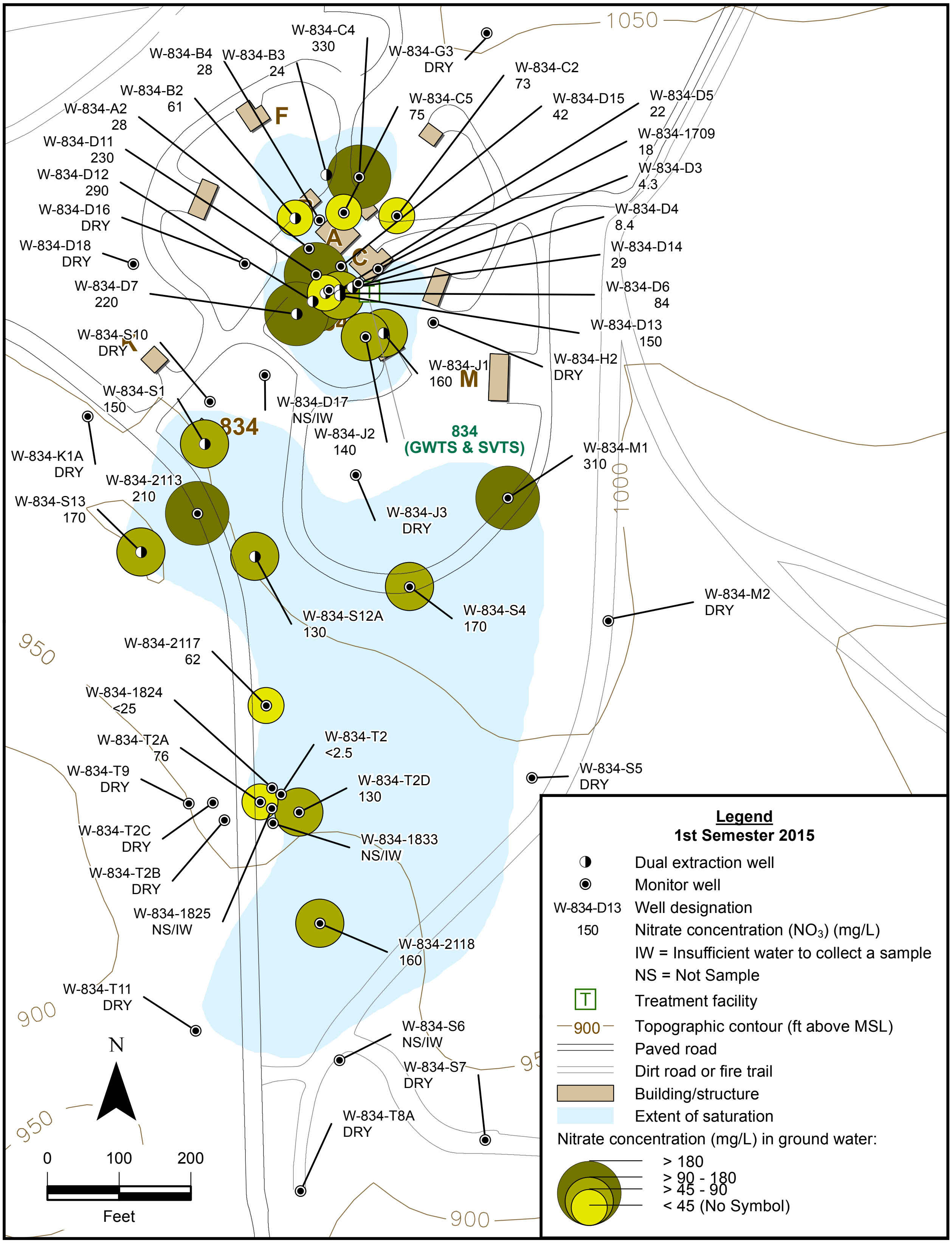

Figure 2.2-6. Building 834 Operable Unit map showing nitrate concentrations for the Tpsg perched water-bearing zone.

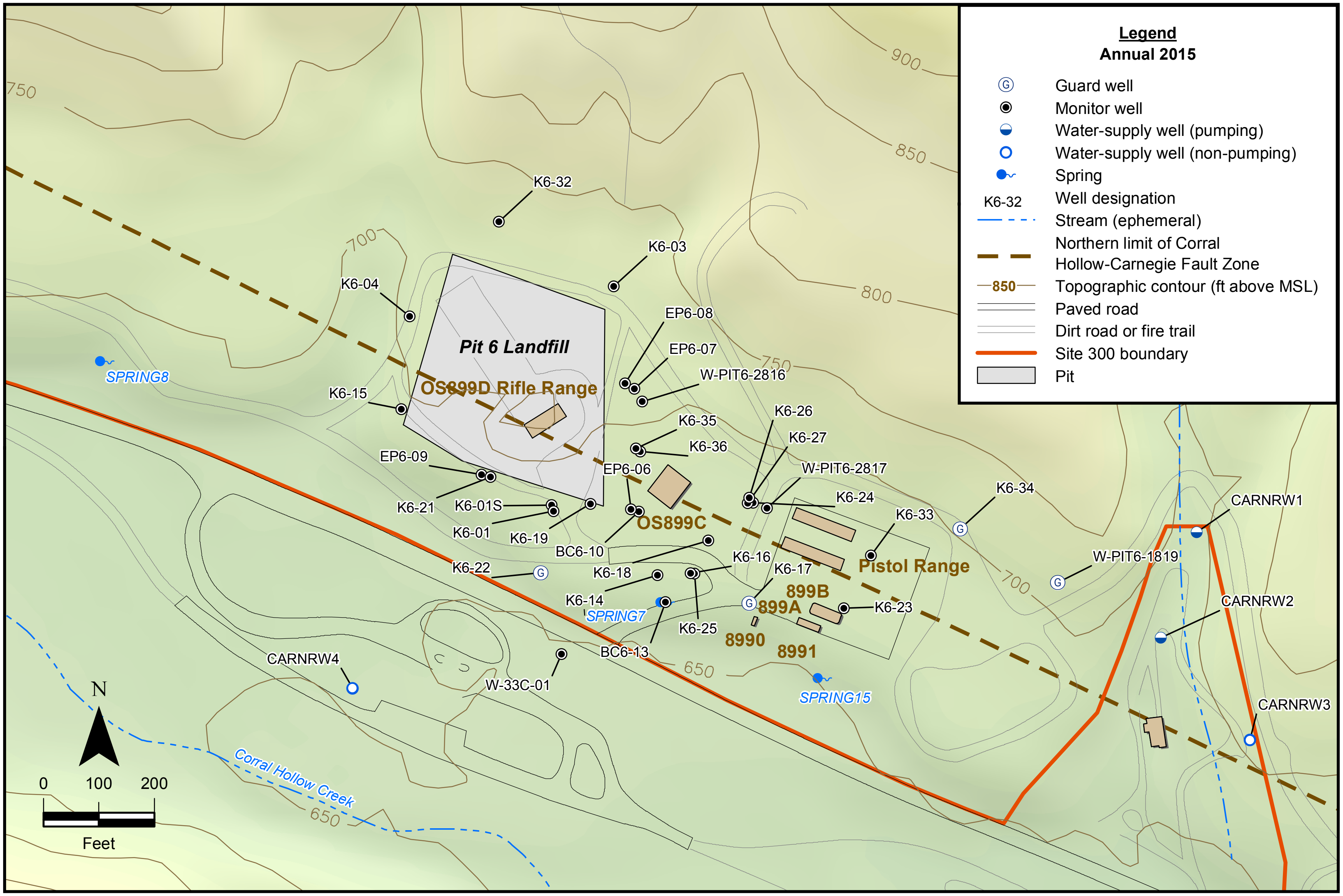

Figure 2.3-1. Pit 6 Landfill Operable Unit site map showing monitor and water-supply wells.

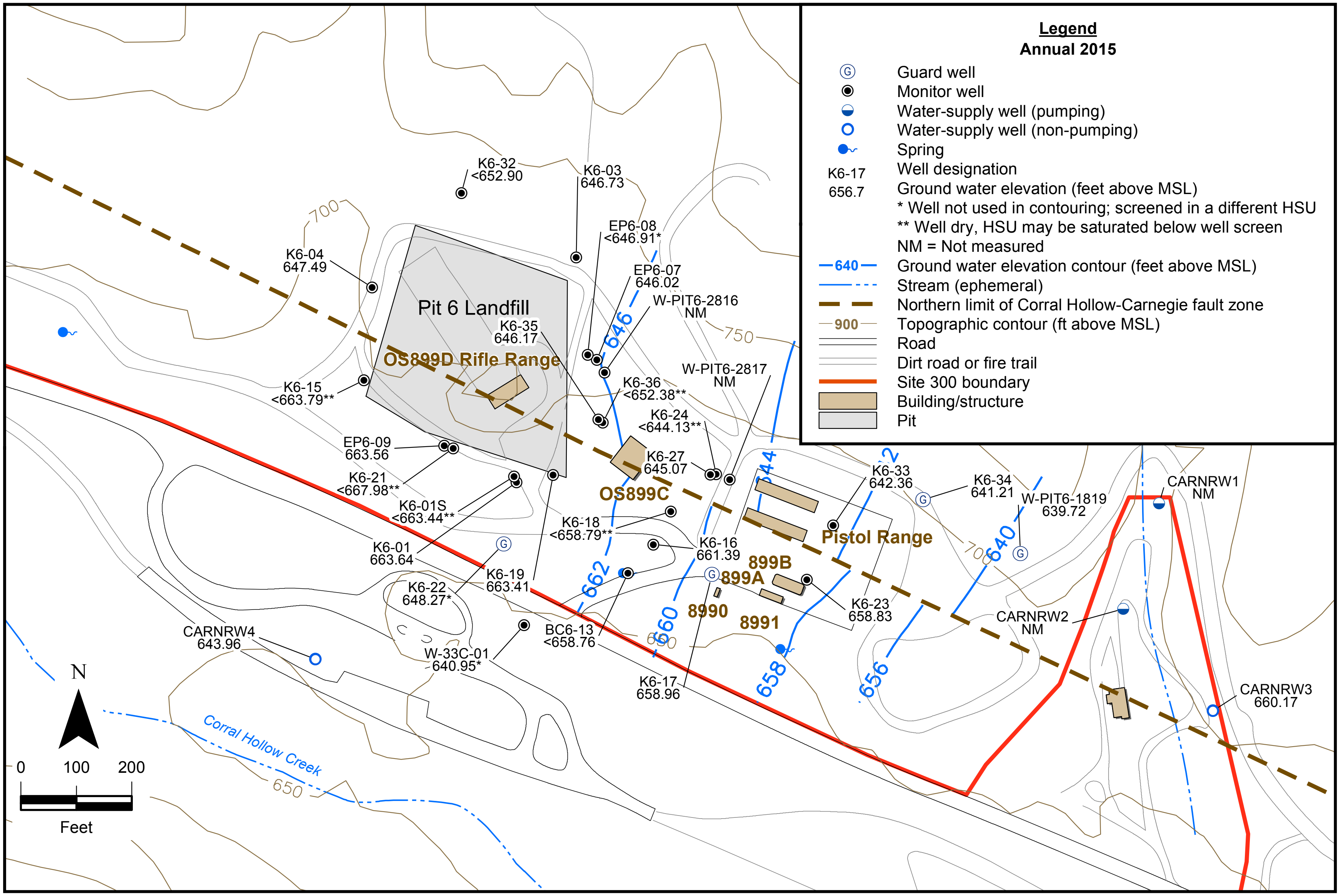

Figure 2.3-2. Pit 6 Landfill Operable Unit ground water potentiometric surface map for the Qt-Tnbs$_1$ hydrostratigraphic unit.

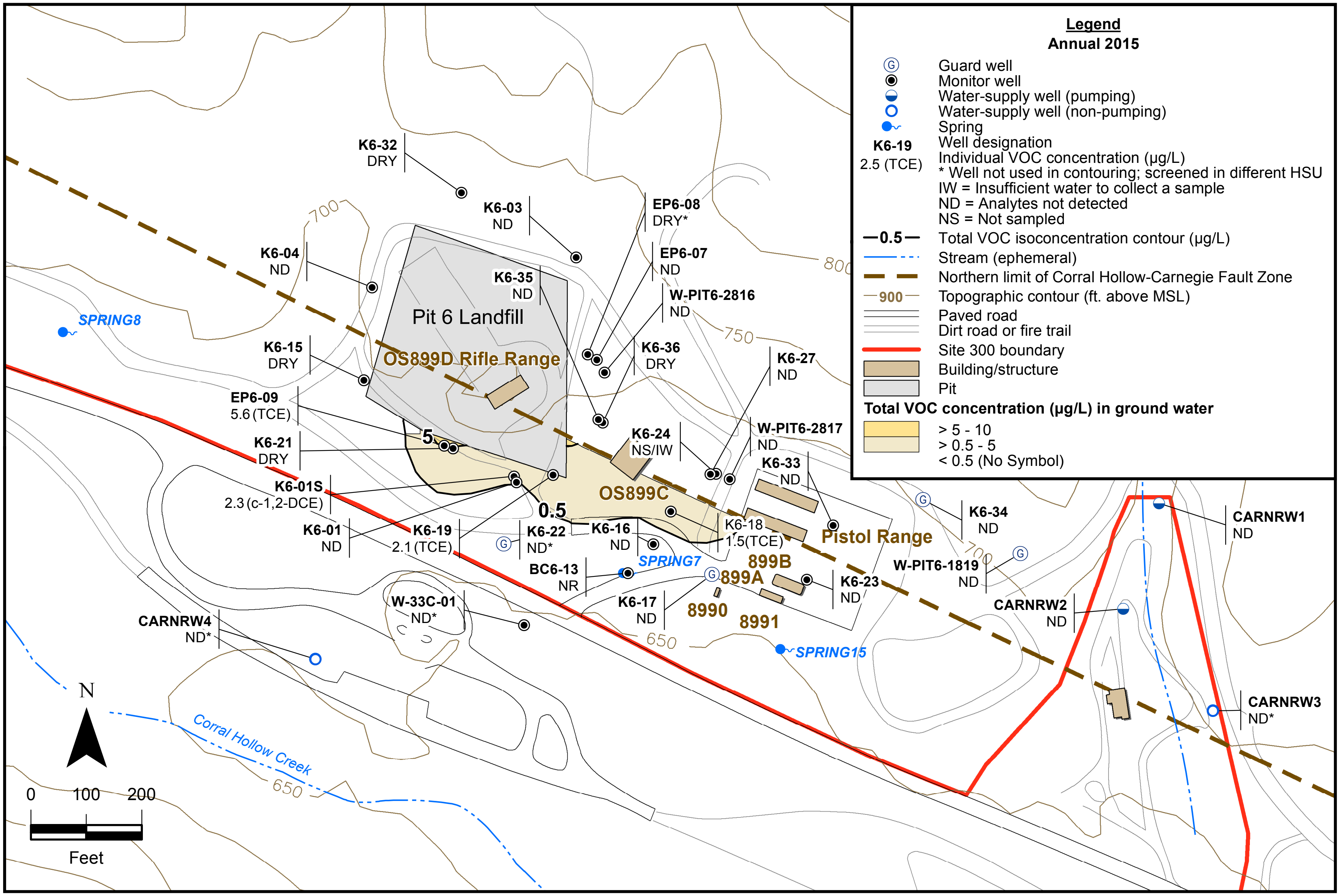

Figure 2.3-3. Pit 6 Landfill Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the Qt-Tnbs$_1$ hydrostratigraphic unit.

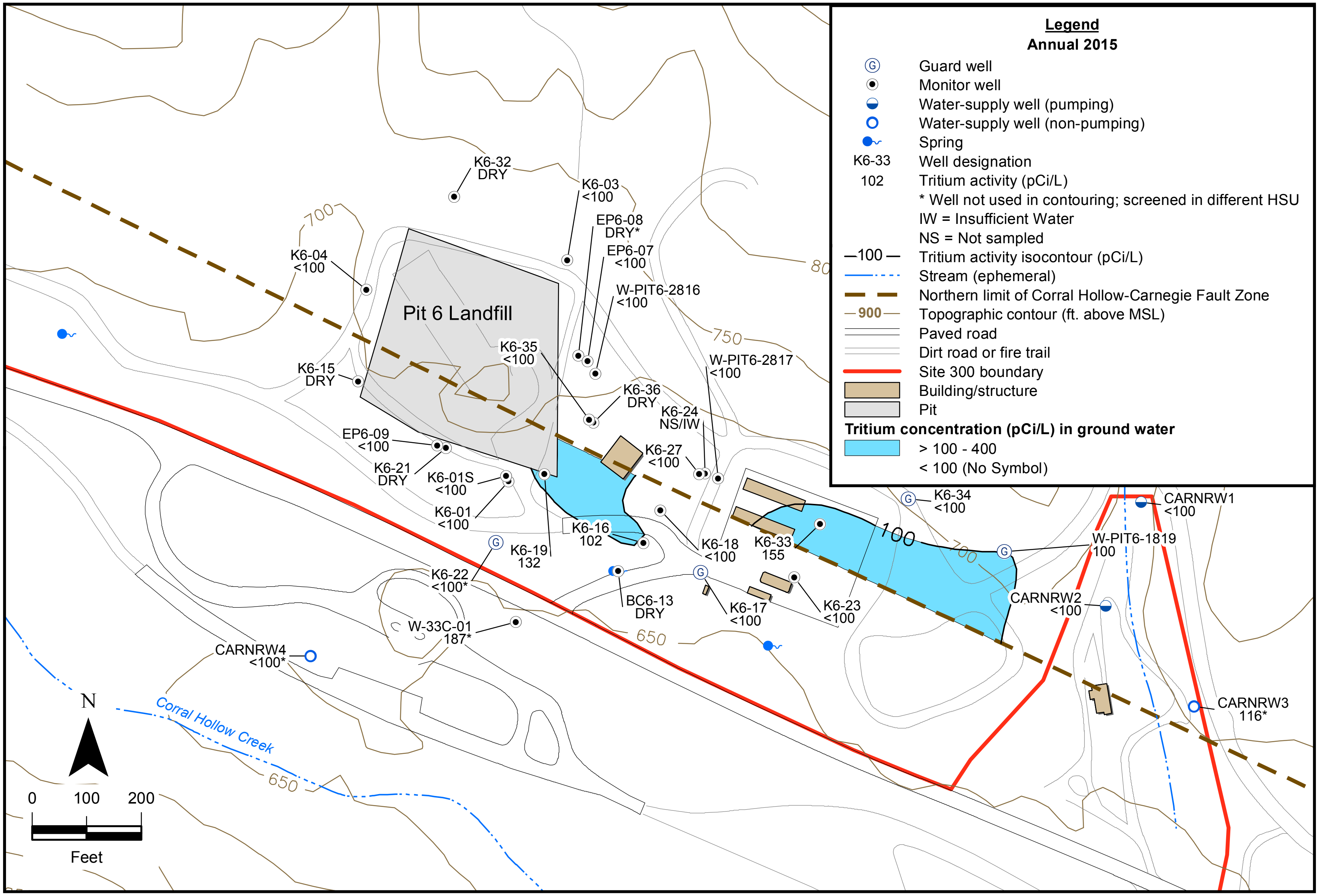

Figure 2.3-4. Pit 6 Landfill Operable Unit tritium activity isocontour map for the Qt-Tnbs$_1$ hydrostratigraphic unit.

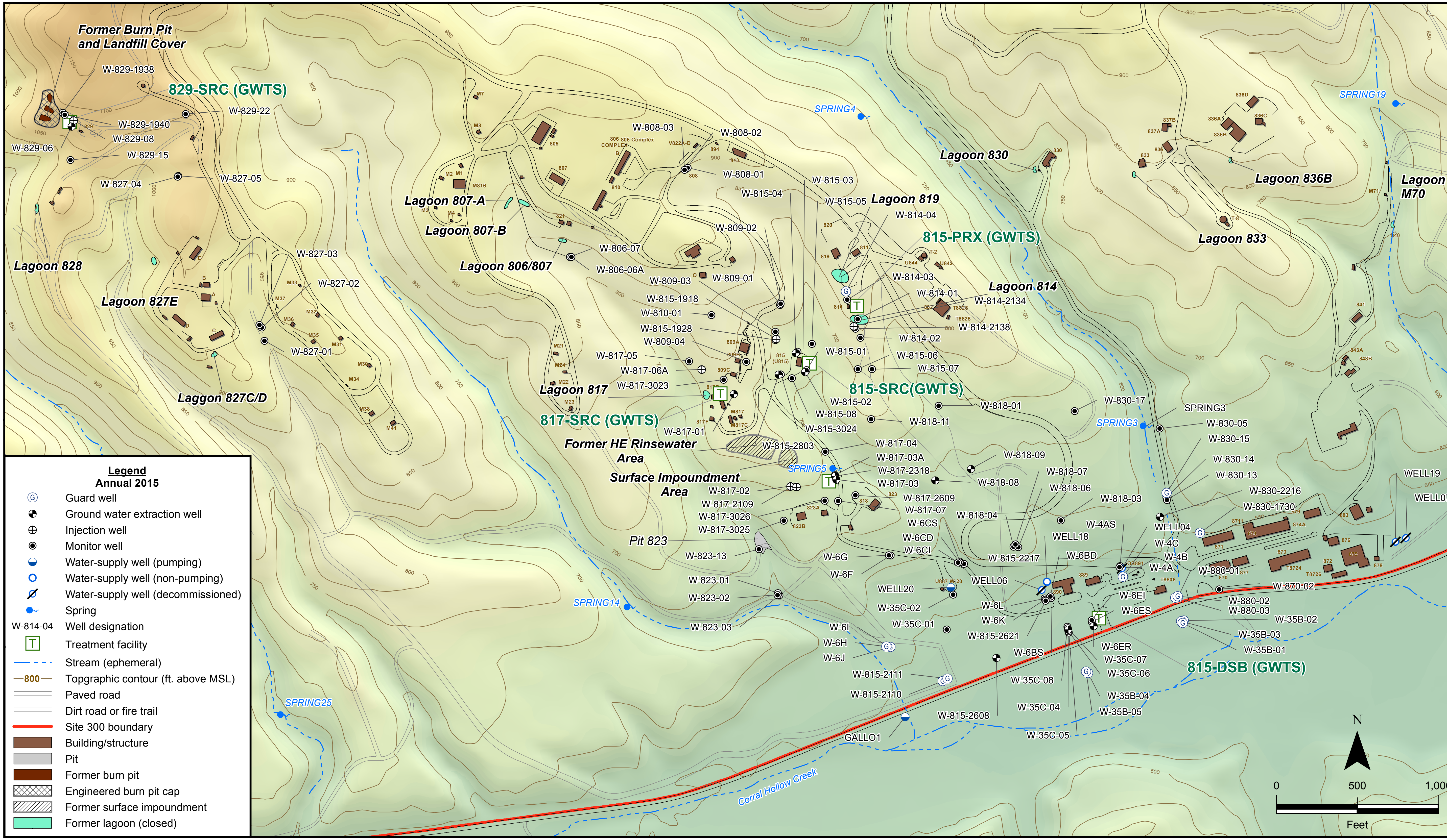

Figure 2.4-1. High Explosives Process Area Operable Unit site map showing monitor, extraction, injection and water-supply wells, and treatment facilities.

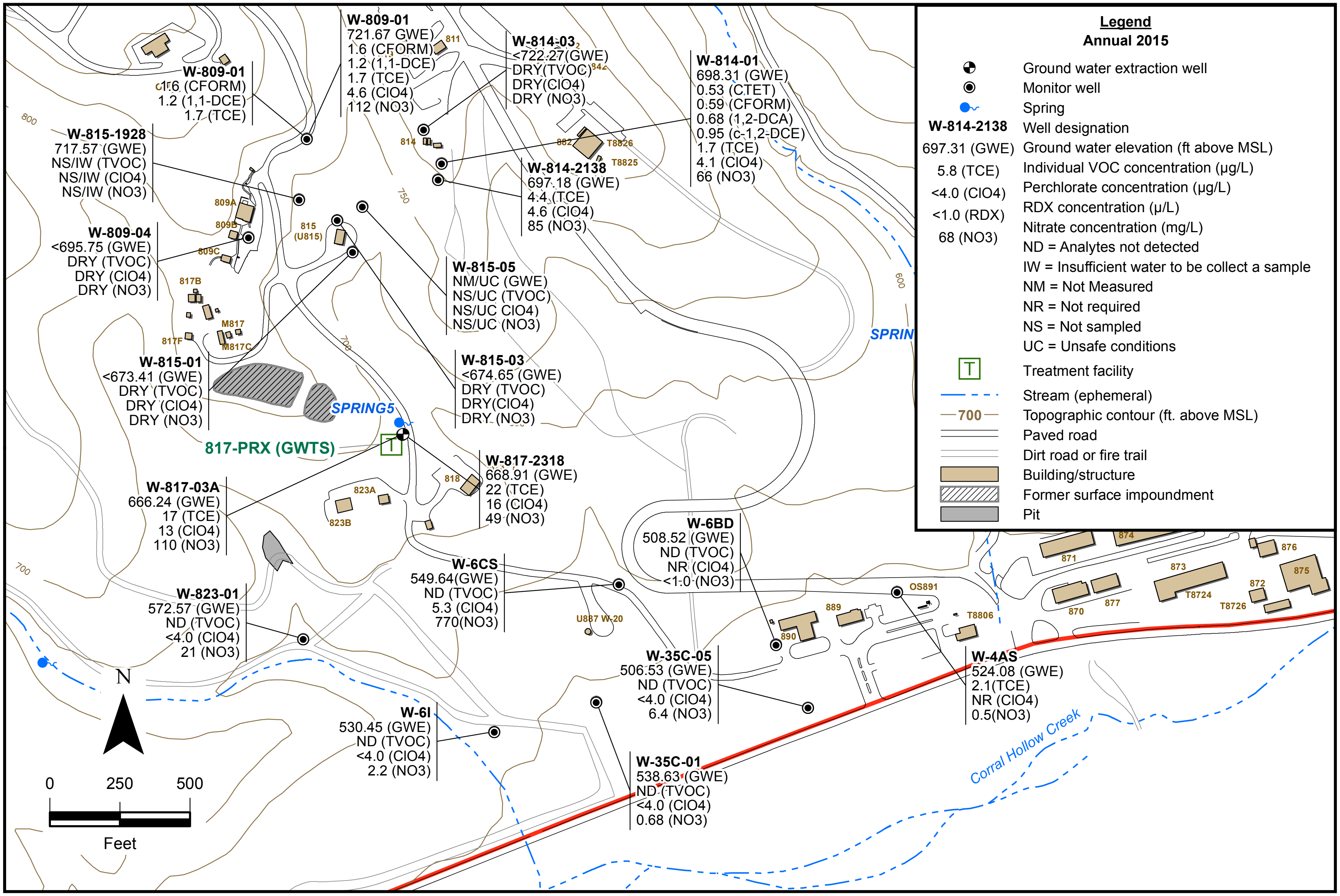

Figure 2.4-2. High Explosives Process Area Operable Unit map showing ground water elevations and individual VOC, perchlorate, RDX, and nitrate concentrations for the Tpsg-Tps hydrostratigraphic unit.

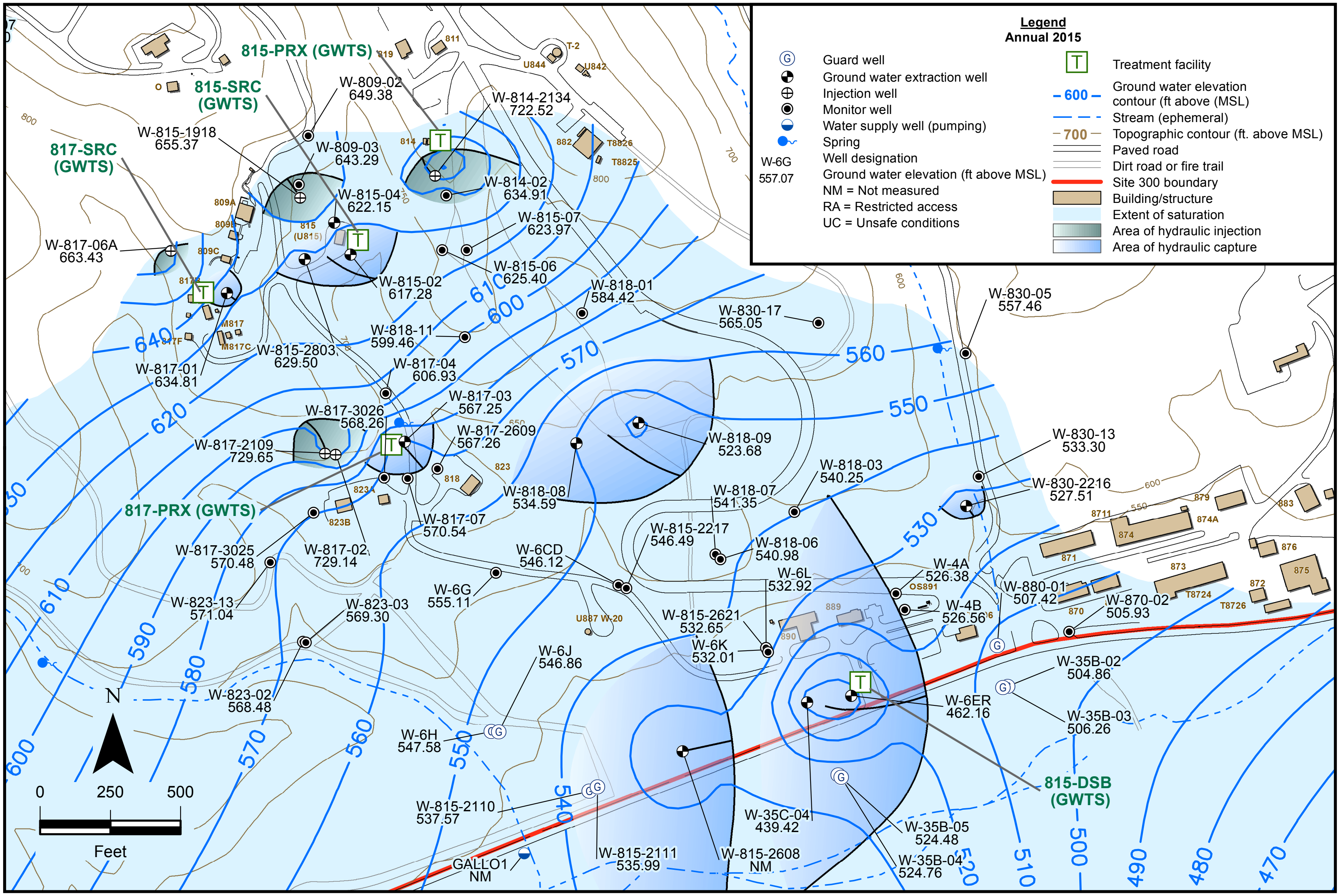

Figure 2.4-3. High Explosives Process Area Operable Unit ground water potentiometric surface map for the Tnbs$_2$ hydrostratigraphic unit.

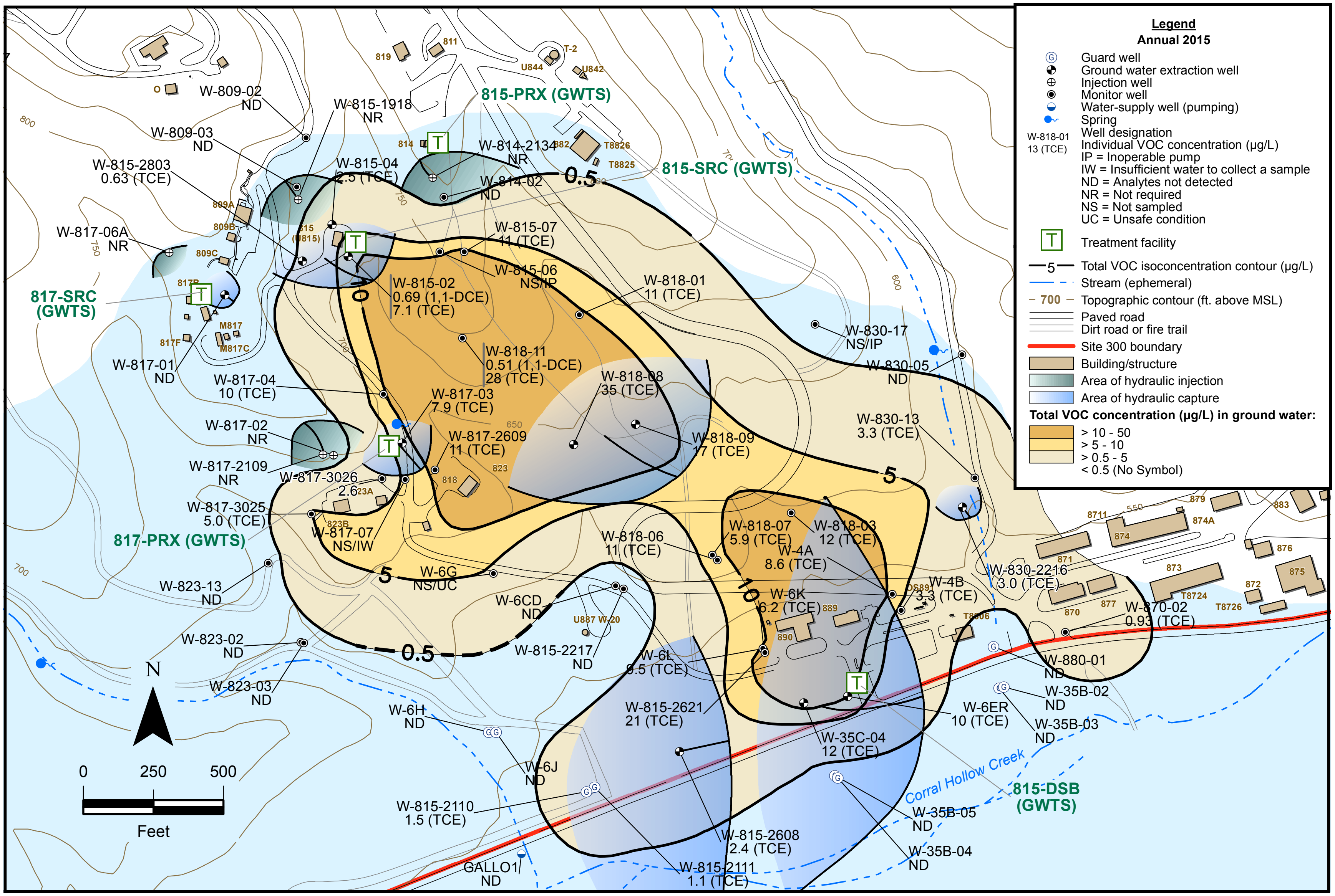

Figure 2.4-4. High Explosives Process Area Operable Unit total VOC isoconcentration contour map for the Tnbs$_2$ hydrostratigraphic unit.

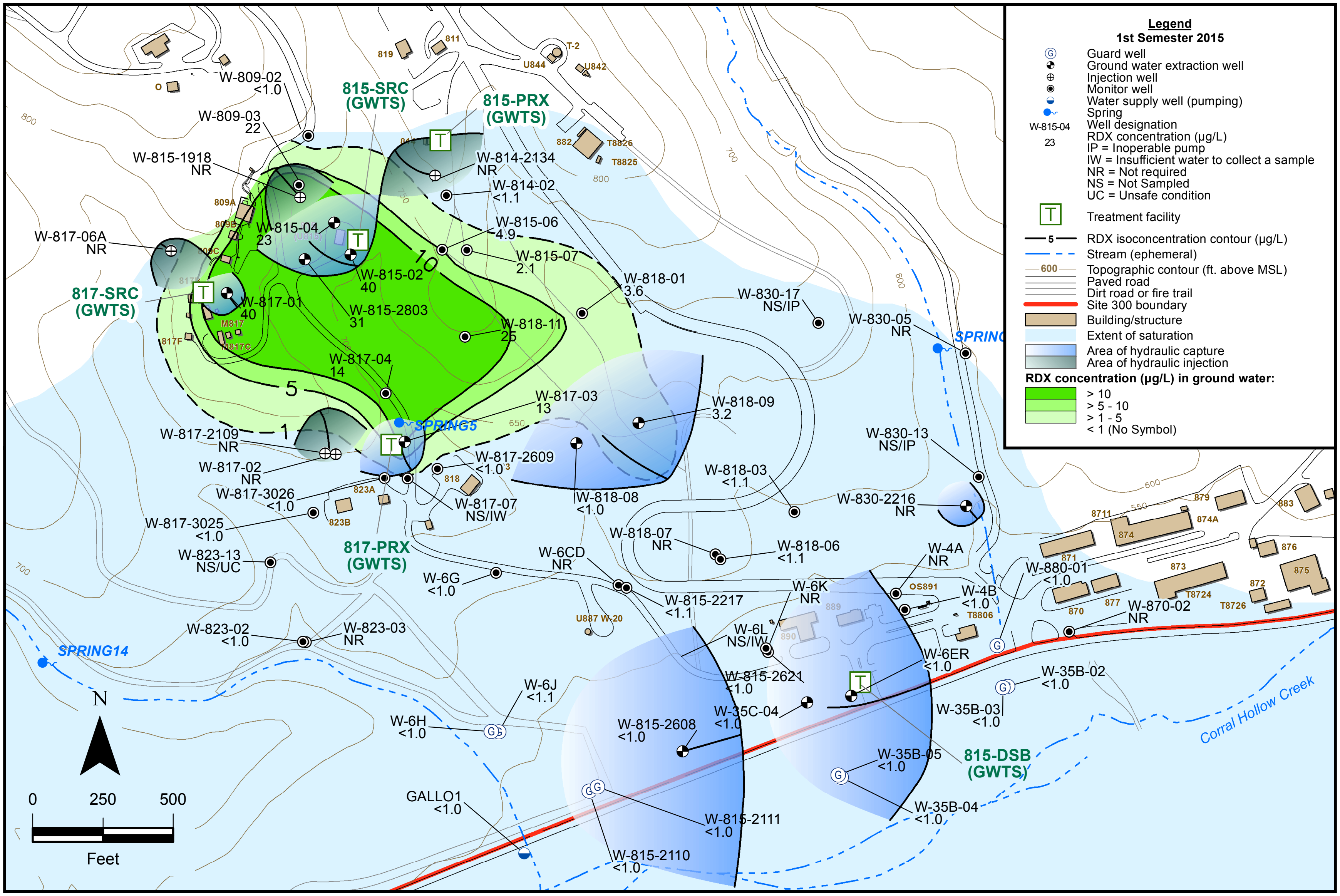

Figure 2.4-5. High Explosives Process Area Operable Unit RDX isoconcentration contour map for the $Tnbs_2$ hydrostratigraphic unit.

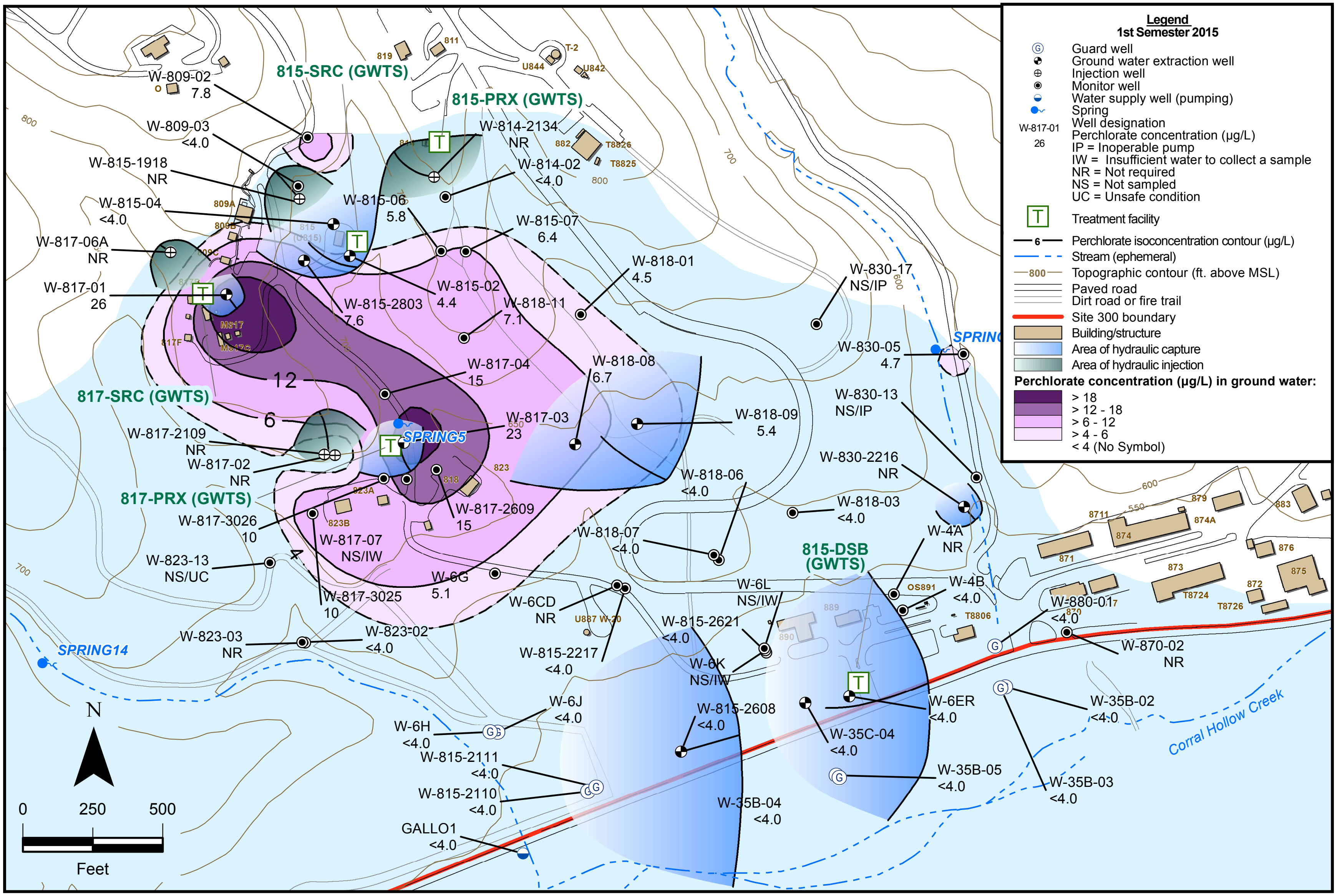

Figure 2.4-6. High Explosives Process Area Operable Unit perchlorate isoconcentration contour map for the Tnbs$_2$ hydrostratigraphic unit.

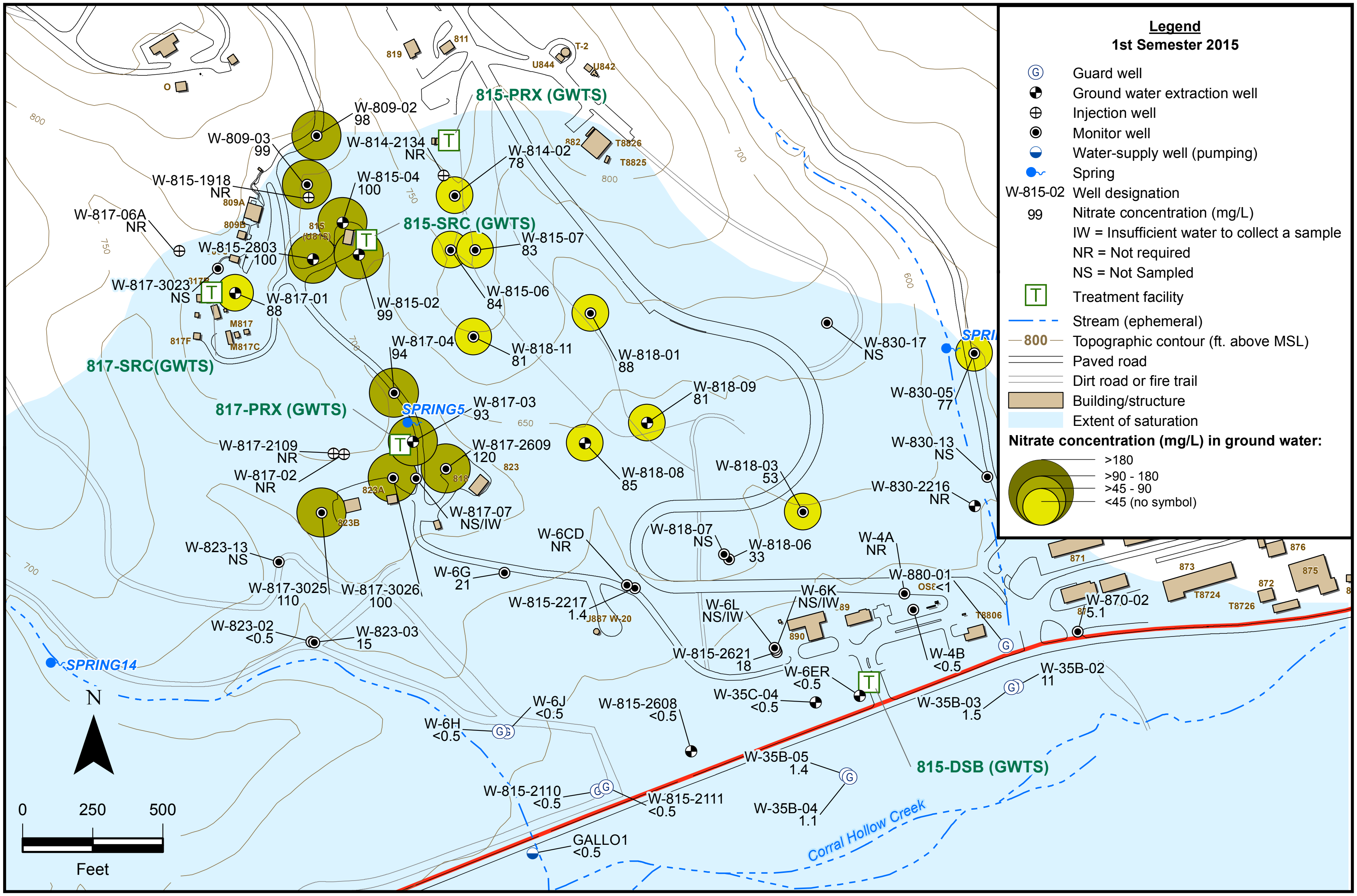

Figure 2.4-7. High Explosives Process Area Operable Unit map showing nitrate concentrations for the Tnbs$_2$ hydrostratigraphic unit.

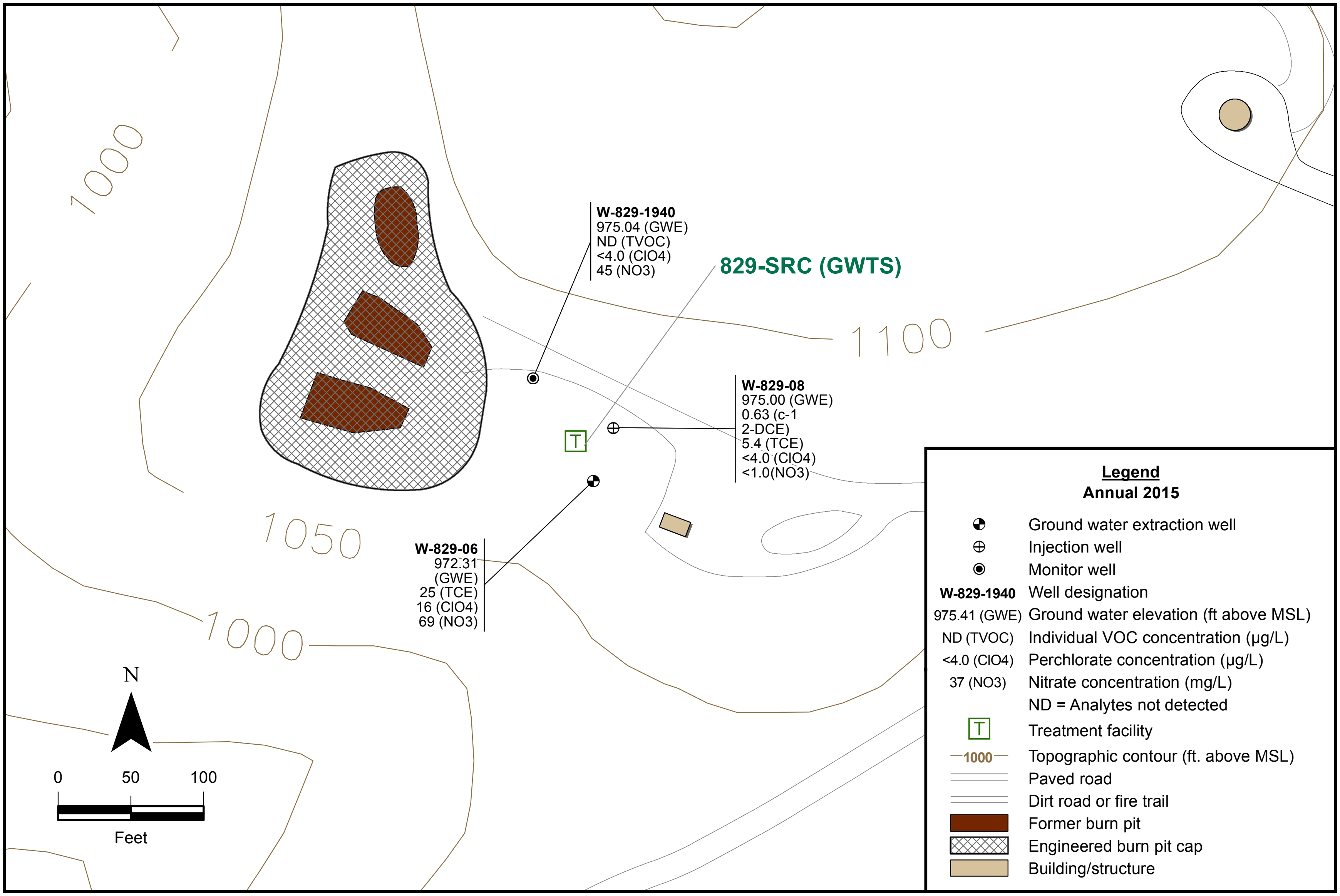

Figure 2.4-8. Building 829 burn pit site map showing monitor, extraction, and injection wells; ground water elevations; and individual VOC, perchlorate, and nitrate concentrations for the Tnsc$_{1b}$ hydrostratigraphic unit.

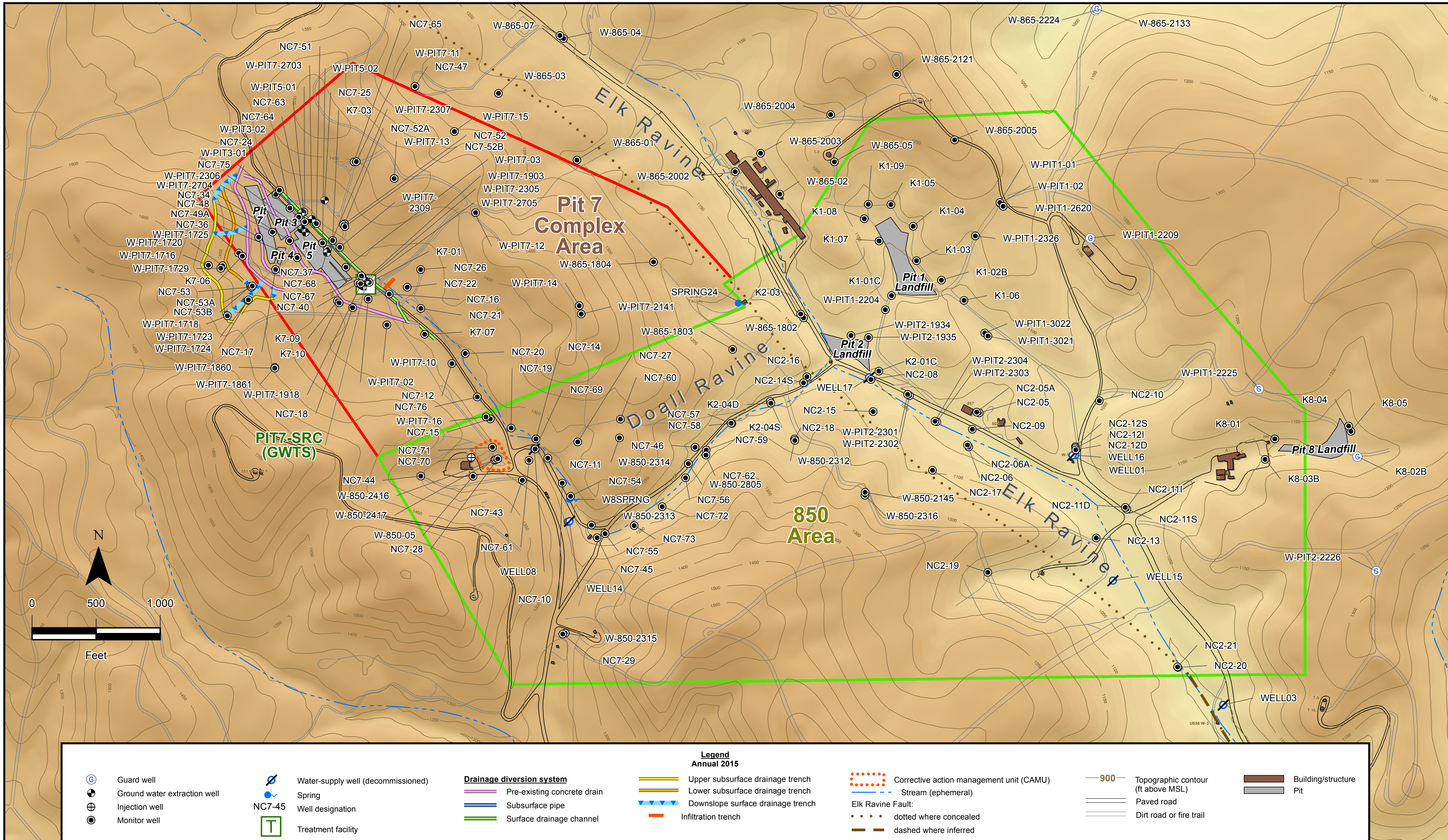

Figure 2.5-1. Building 850 and Pit 7 Complex area site map showing monitor, extraction, and injection wells, treatment facility and other remediation features.

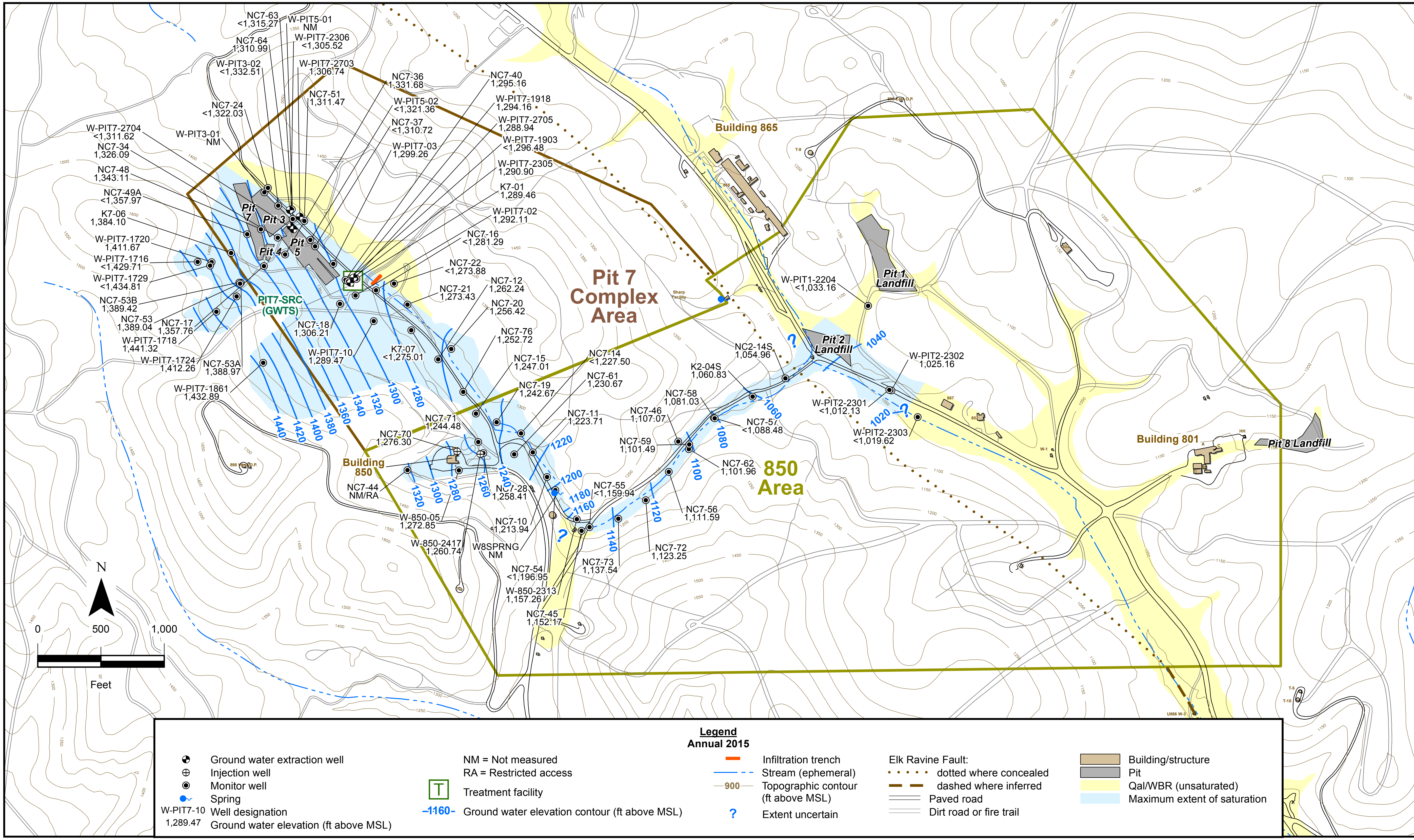

Figure 2.5-2. Building 850 and Pit 7 Complex area ground water potentiometric surface map for the Qal/WBR hydrostratigraphic unit.

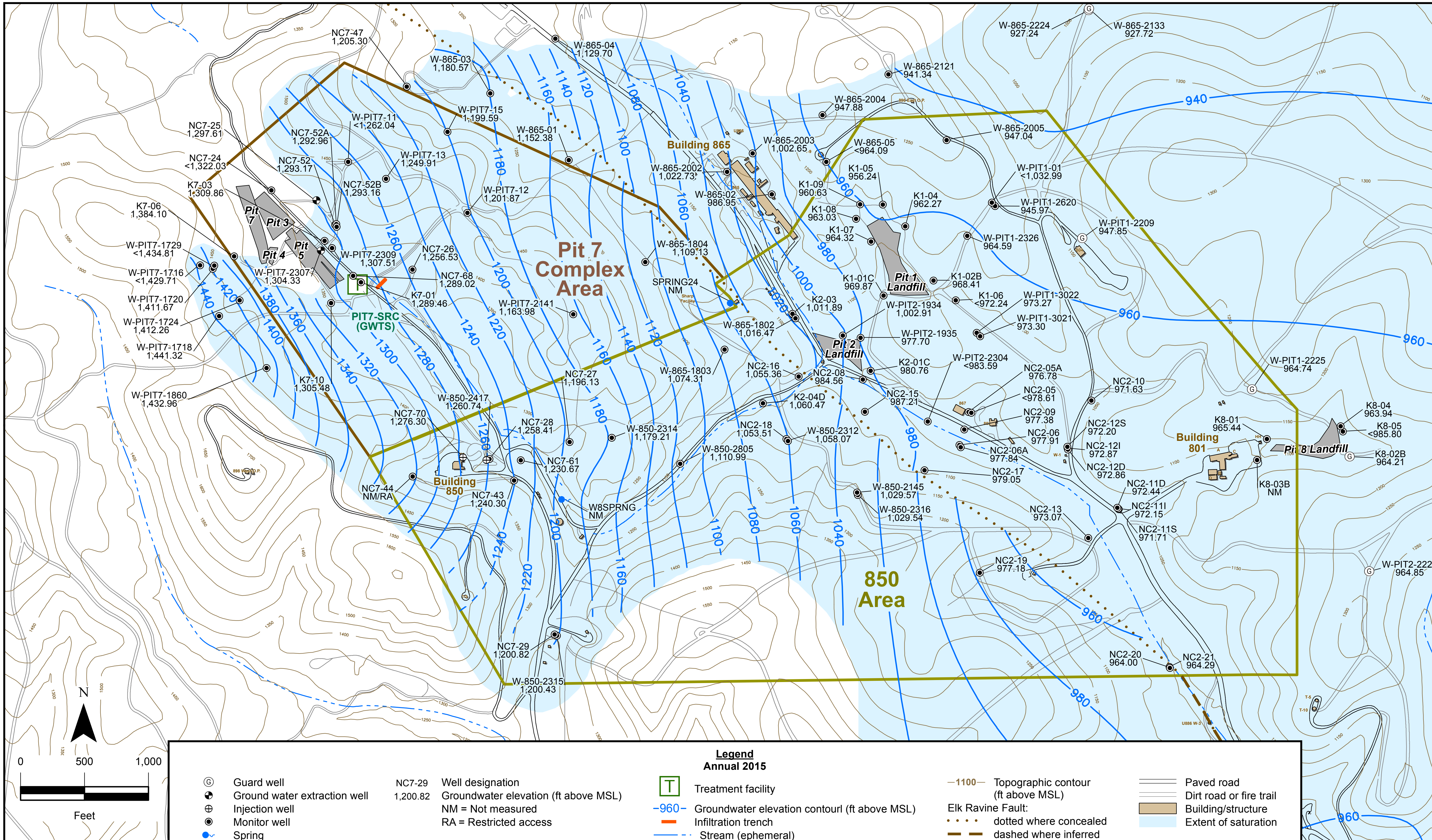

Figure 2.5-3. Building 850 and Pit 7 Complex area ground water potentiometric surface map for the $Tnbs_1/Tnbs_0$ hydrostratigraphic unit.

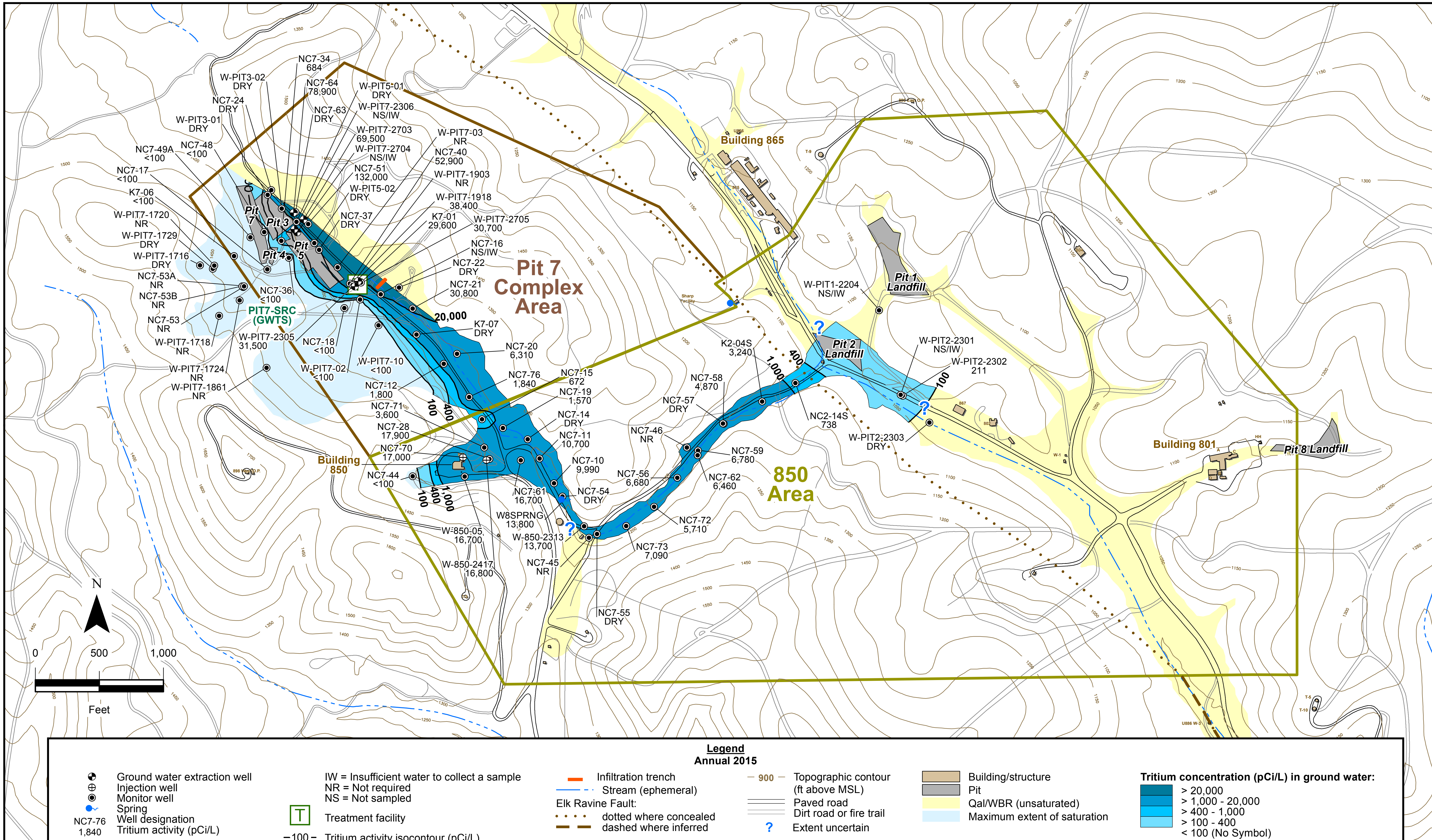

Figure 2.5-4. Building 850 and Pit 7 Complex area tritium activity isocontour map for the Qal/WBR hydrostratigraphic unit.

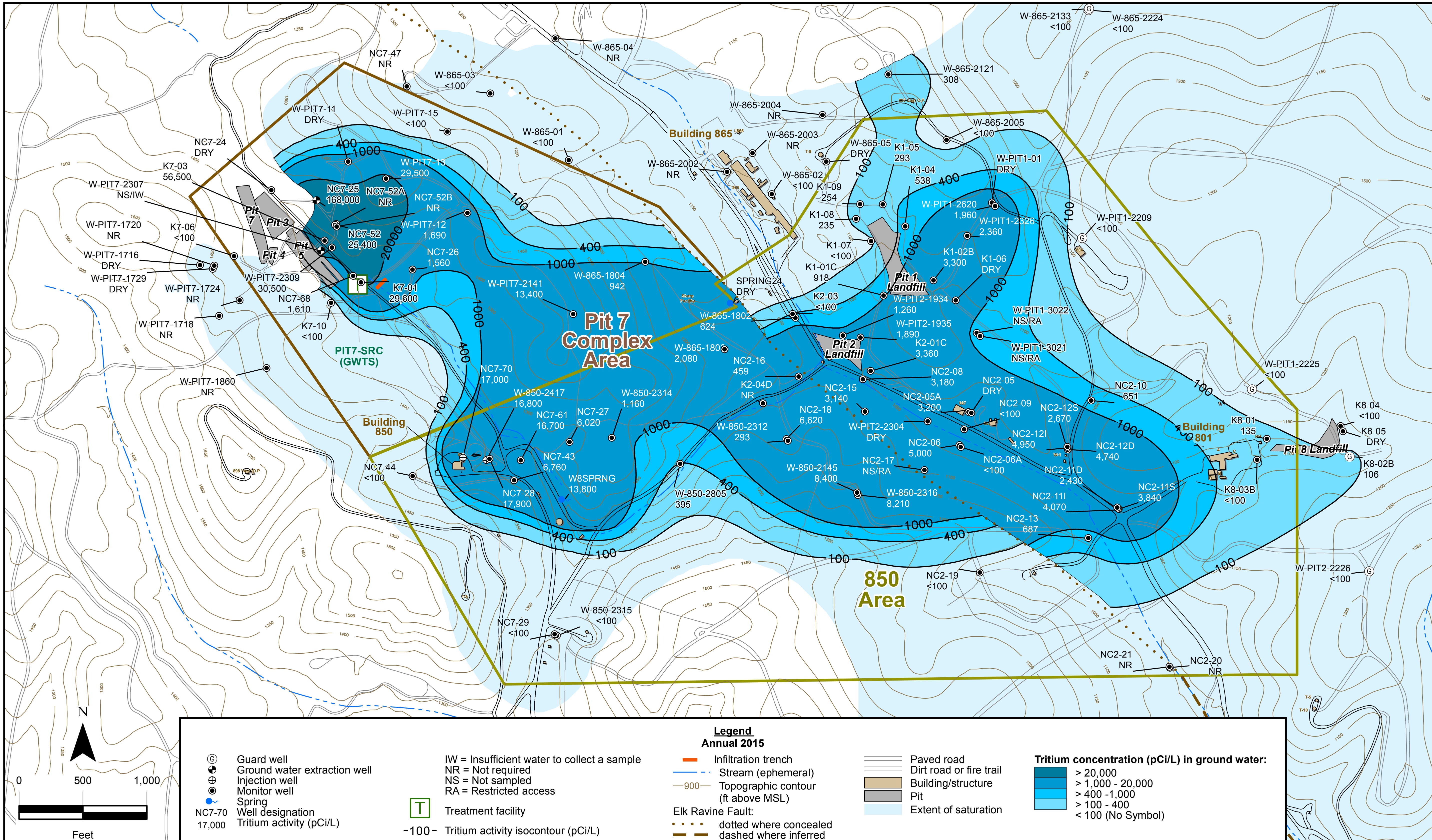

Figure 2.5-5. Building 850 and Pit 7 Complex area tritium activity isocontour map for the $Tnbs_1/Tnbs_0$ hydrostratigraphic unit.

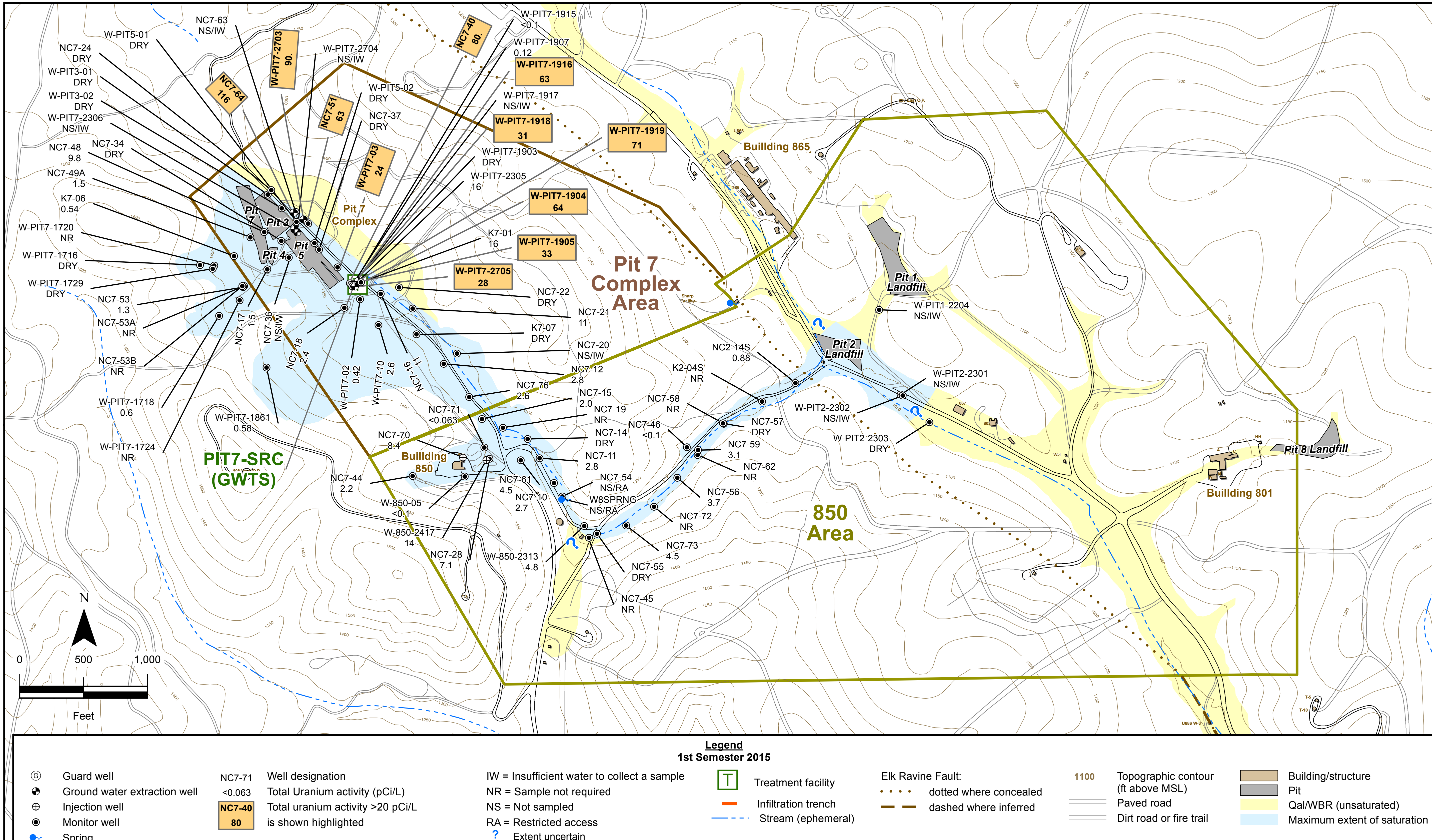

Figure 2.5-6. Building 850 and Pit 7 Complex area map showing ground water uranium activities for the Qal/WBR hydrostratigraphic unit.

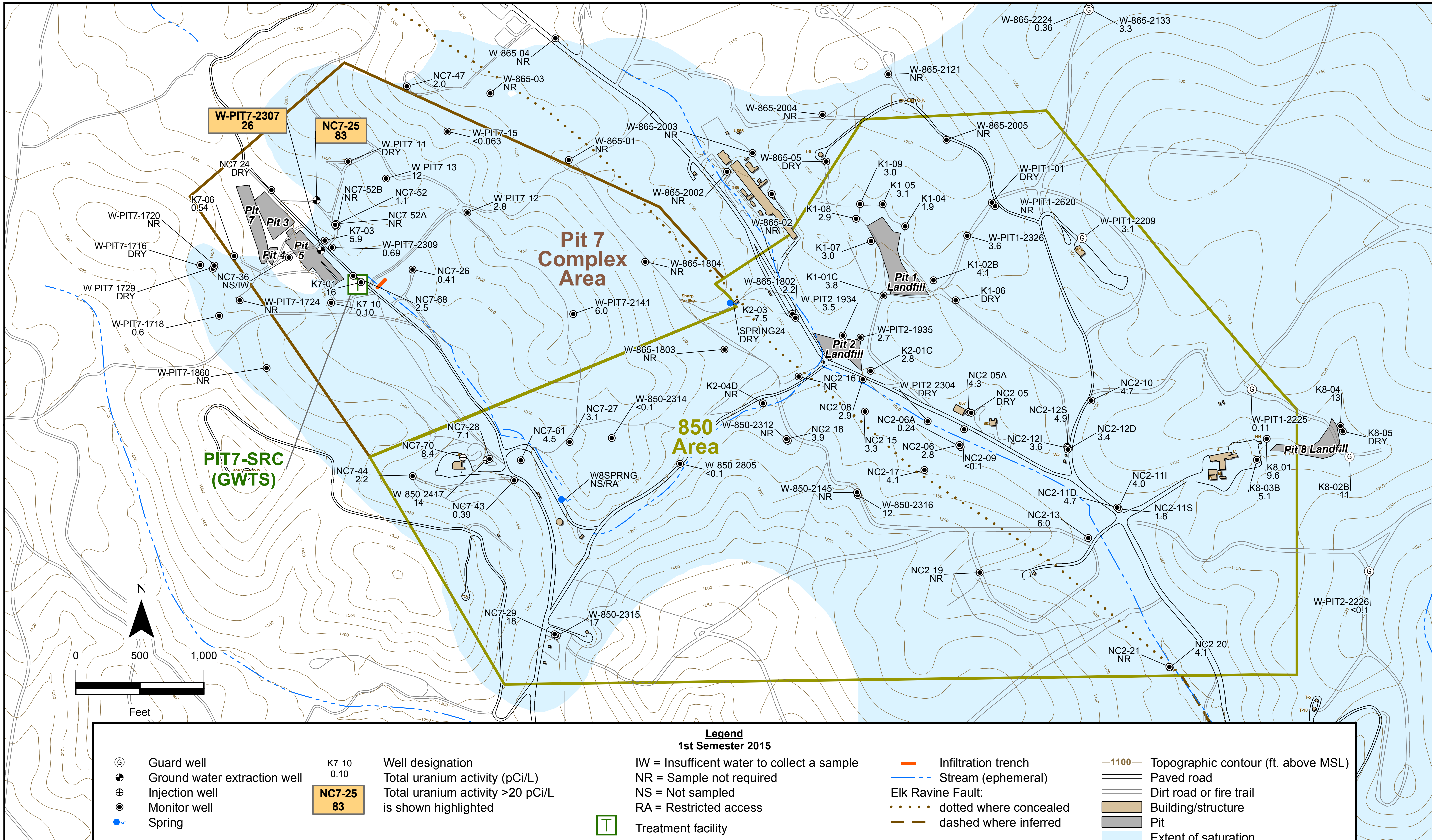

Figure 2.5-7. Building 850 and Pit 7 Complex area map showing ground water uranium activities for the $Tnbs_1/Tnbs_0$ hydrostratigraphic unit.

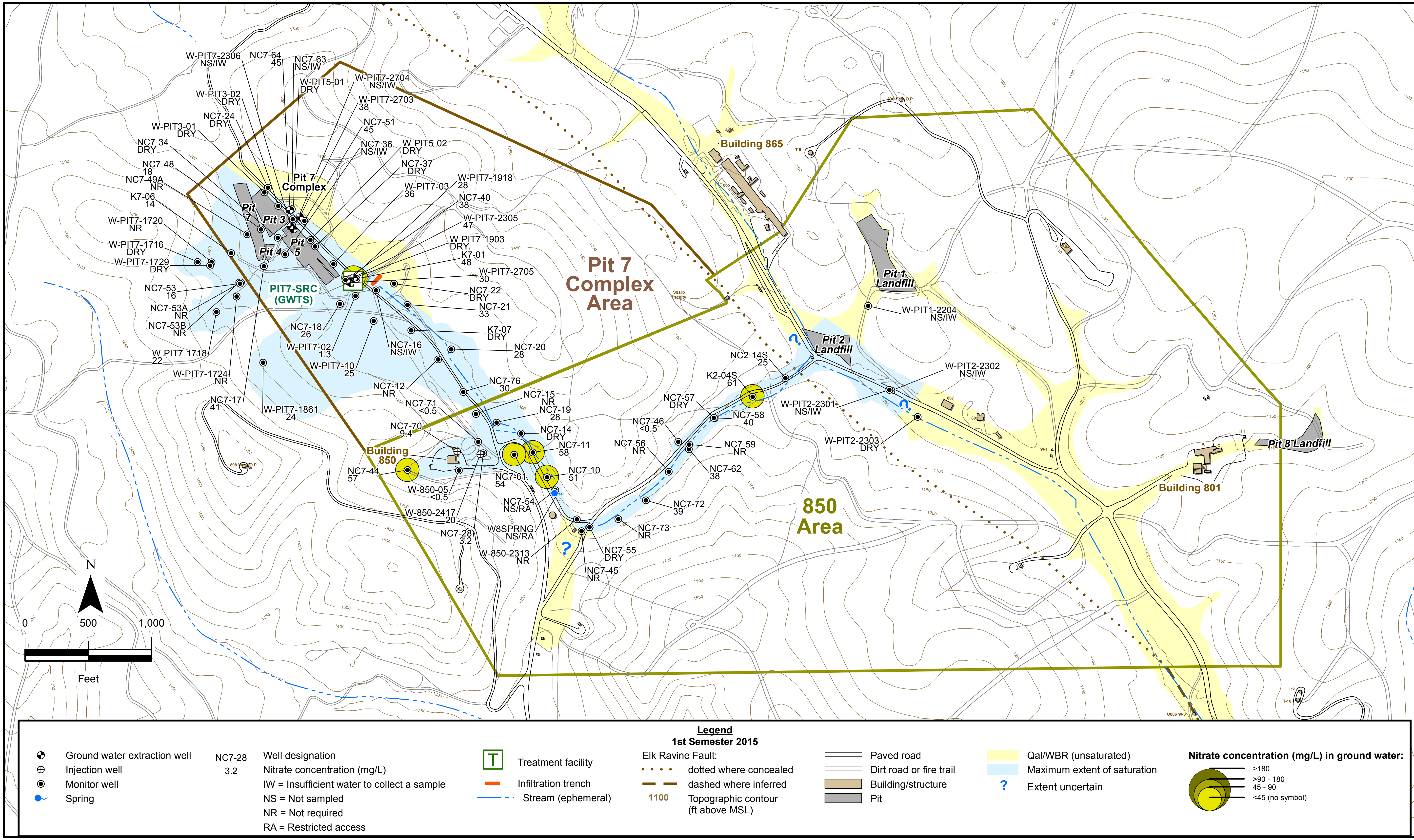

Figure 2.5-8. Building 850 and Pit 7 Complex area map showing nitrate concentrations for the Qal/WBR hydrostratigraphic unit.

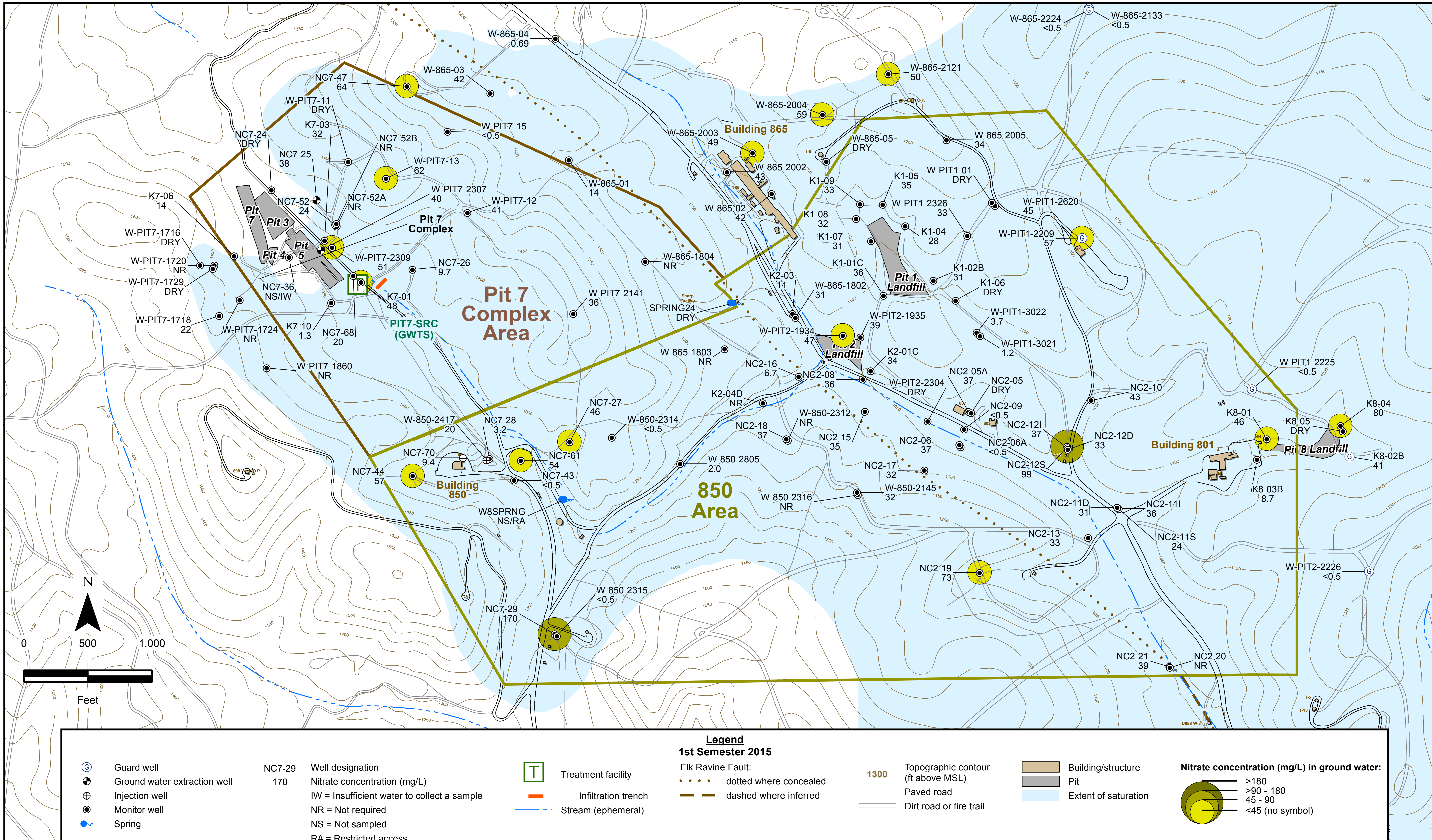

Figure 2.5-9. Building 850 and Pit 7 Complex area map showing nitrate concentrations for the $Tnbs_1/Tnbs_0$ hydrostratigraphic unit.

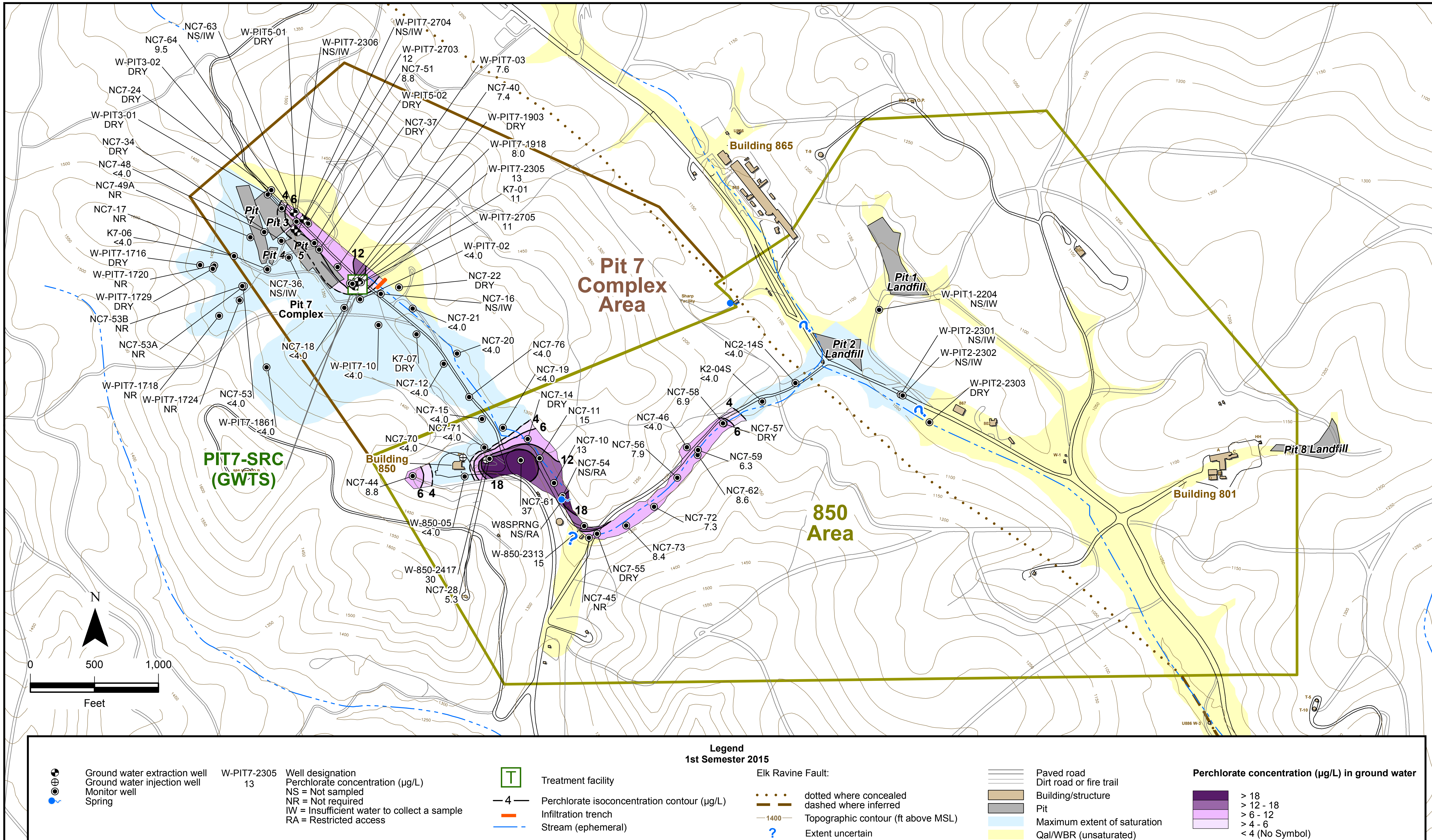

Figure 2.5-10. Building 850 and Pit 7 Complex area perchlorate isoconcentration contour map for the Qal/WBR hydrostratigraphic unit.

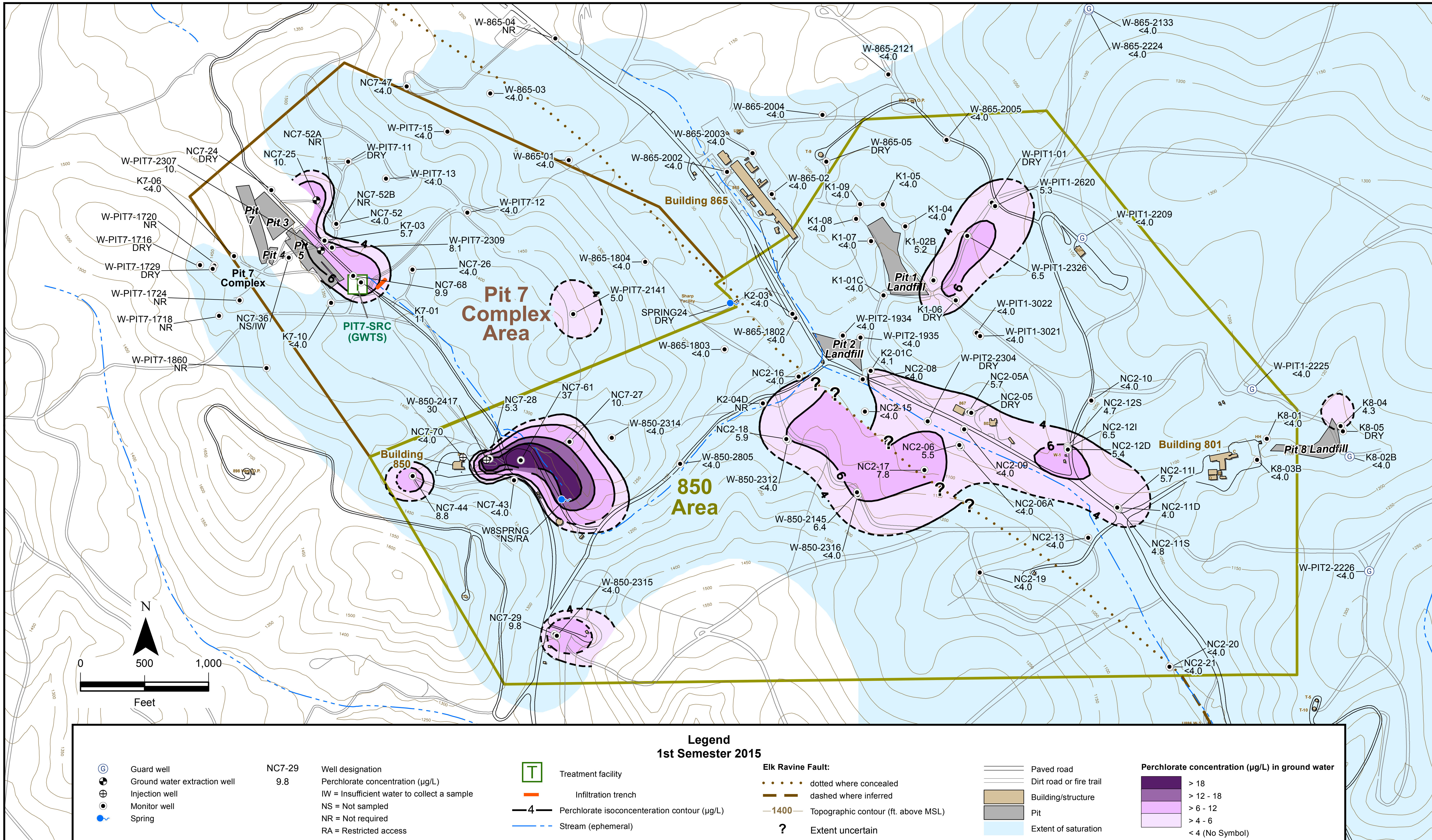

Figure 2.5-11. Building 850 and Pit 7 Complex area perchlorate isoconcentration contour map for the $Tnbs_1/Tnbs_0$ hydrostratigraphic unit.

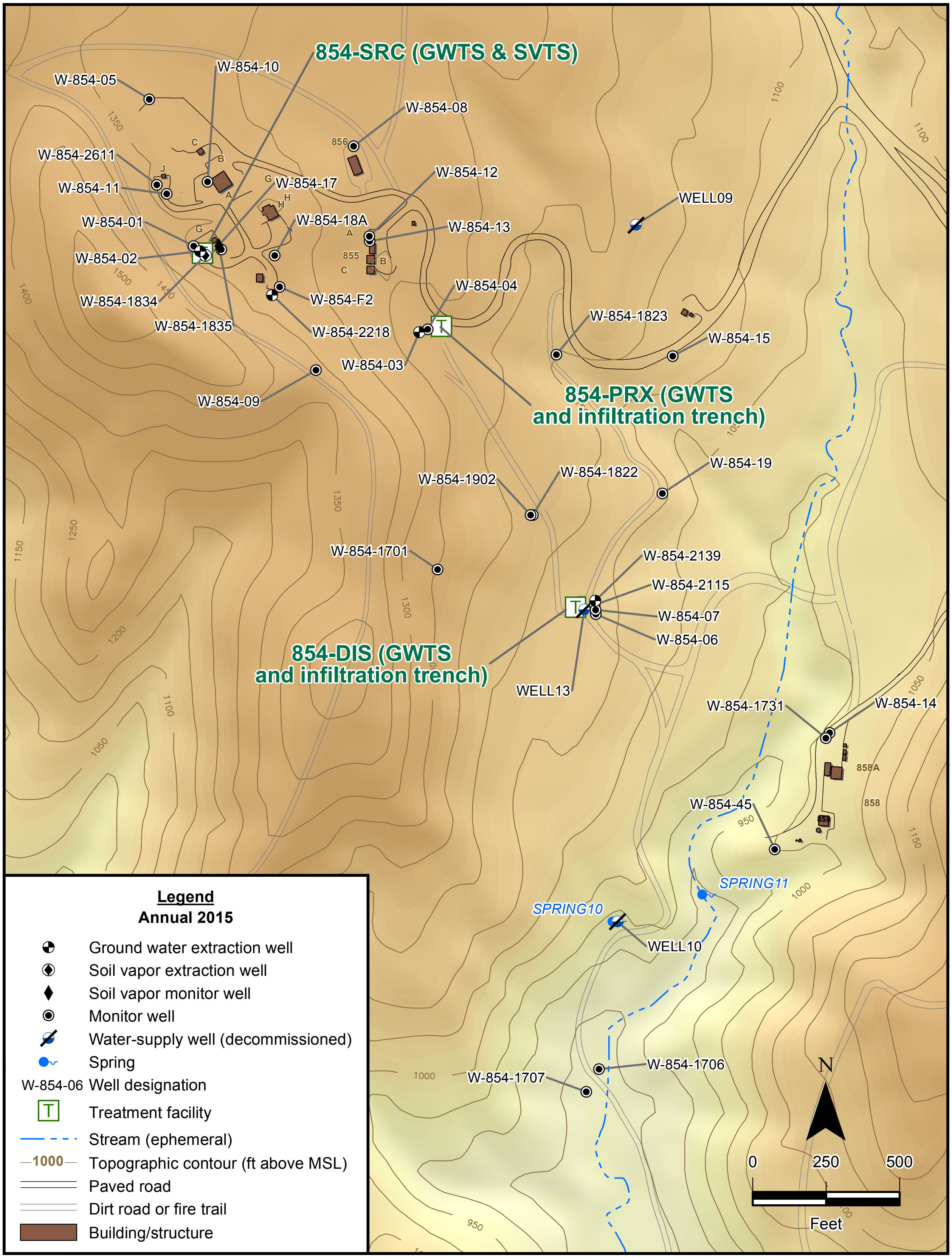

Figure 2.6-1. Building 854 Operable Unit site map showing monitor and extraction wells, and treatment facilities.

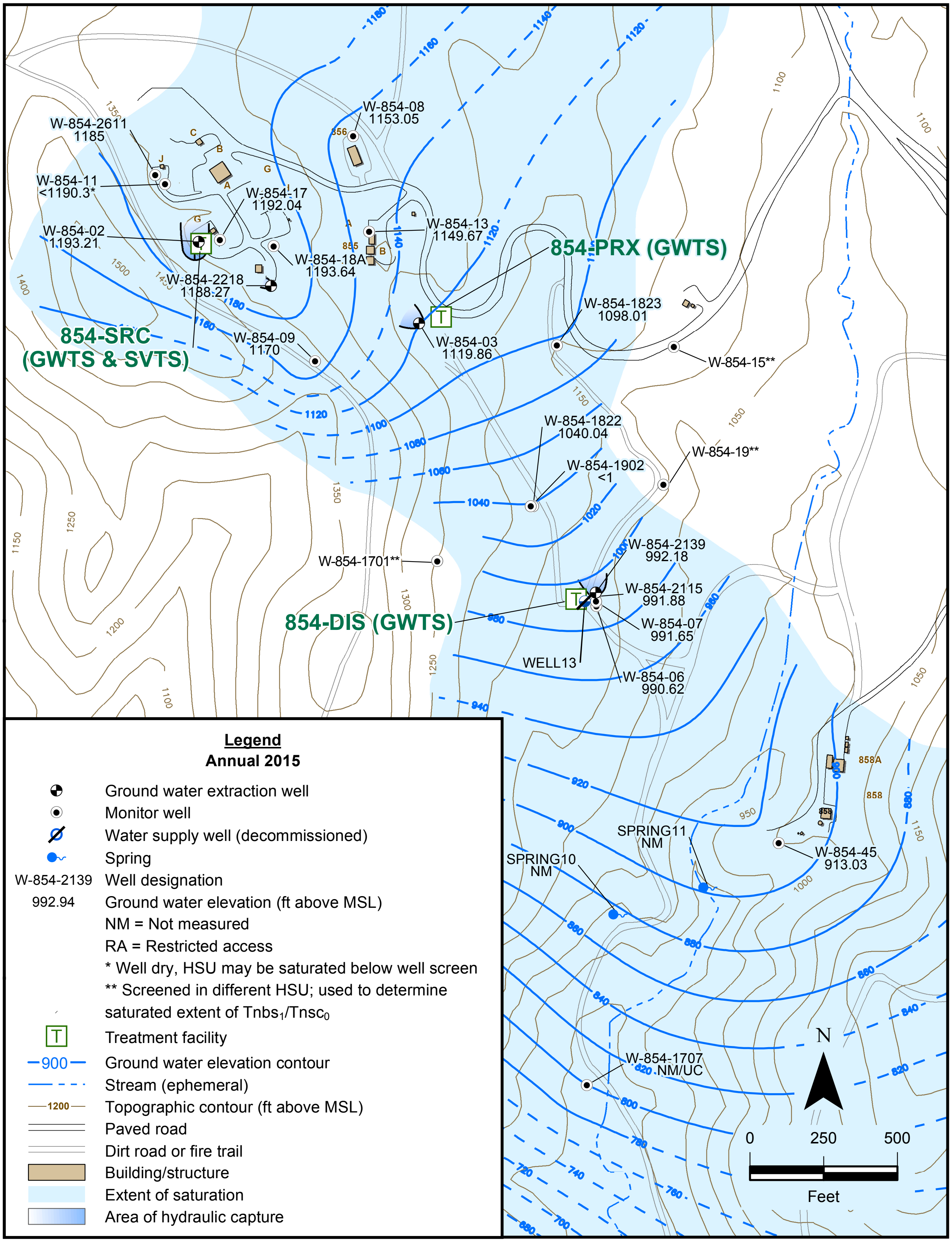

Figure 2.6-2. Building 854 Operable Unit ground water potentiometric surface map for the $Tnbs_1/Tnsc_0$ hydrostratigraphic unit.

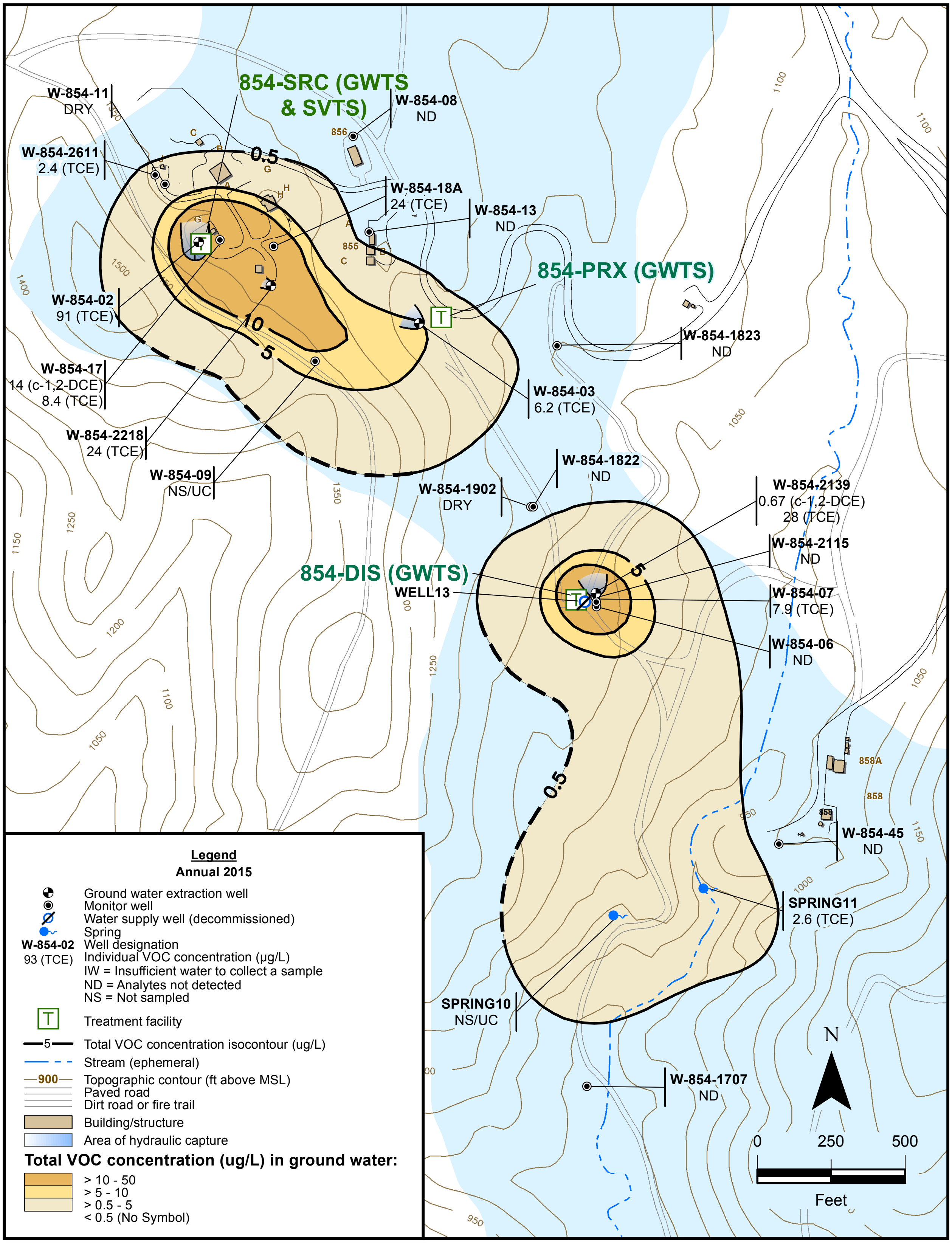

Figure 2.6-3. Building 854 Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the $Tnbs_1/Tnsc_0$ hydrostratigraphic unit.

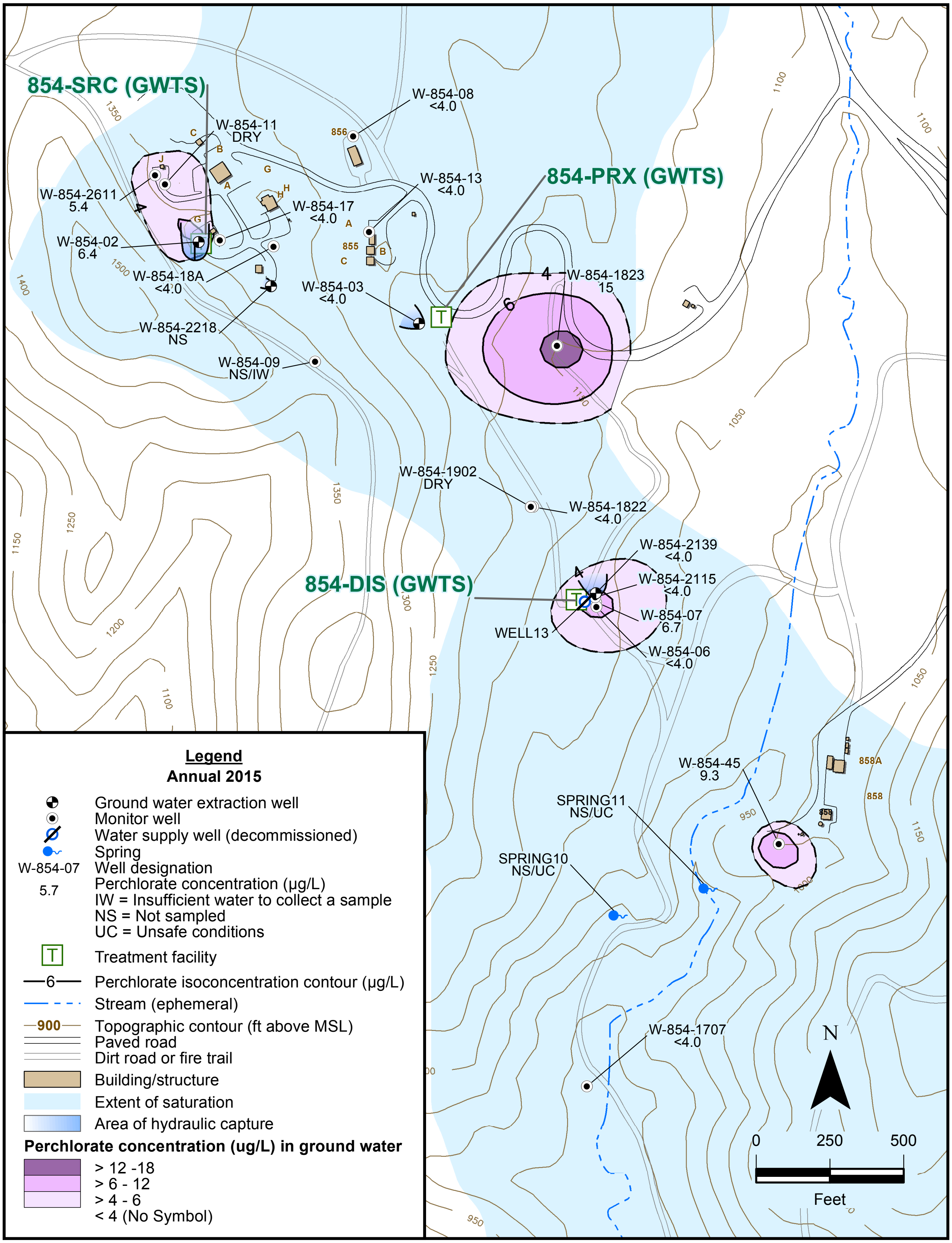

Figure 2.6-4. Building 854 Operable Unit perchlorate isoconcentration contour map for the $Tnbs_1/Tnsc_0$ hydrostratigraphic unit.

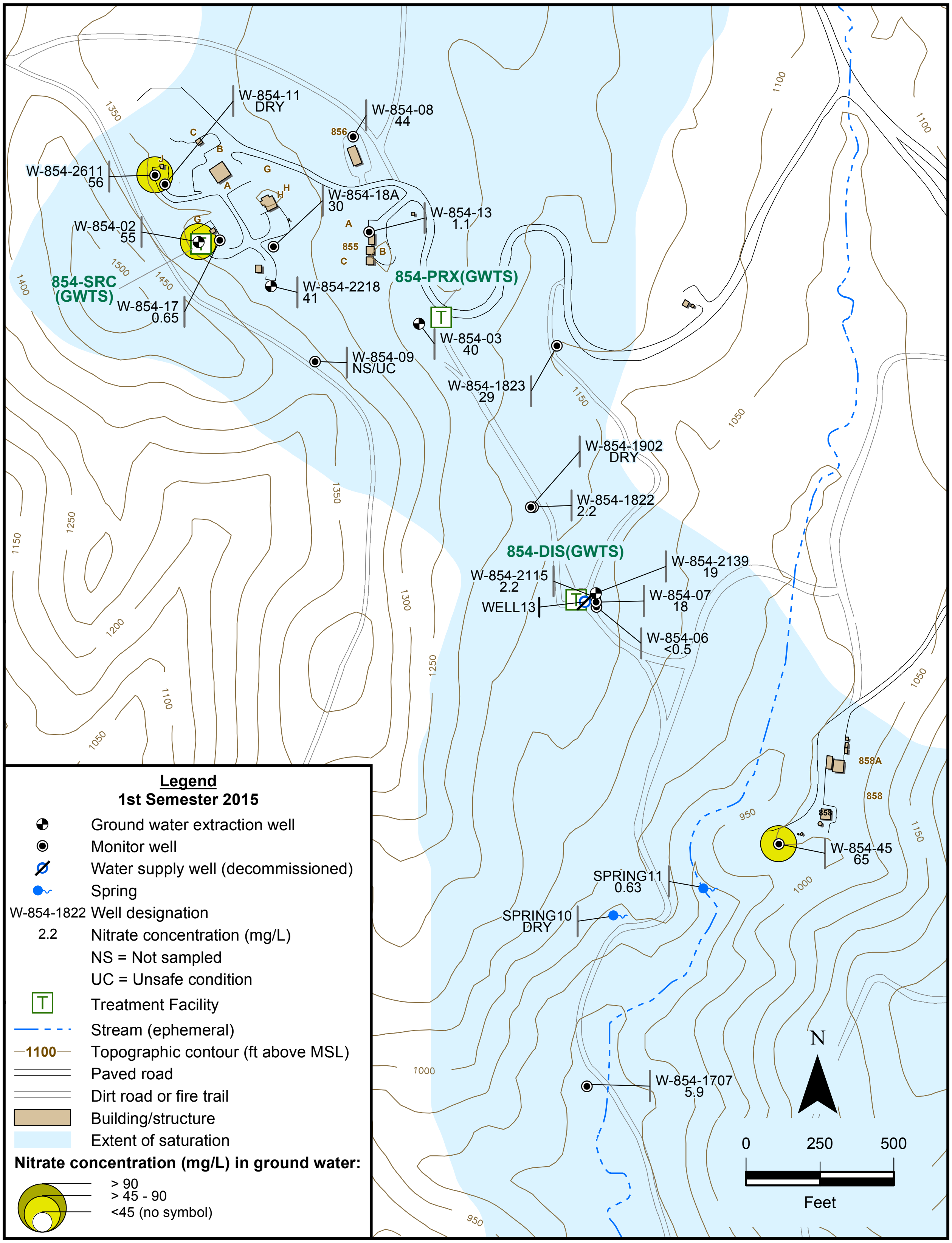

Figure 2.6-5. Building 854 Operable Unit map showing nitrate concentrations for the Tnbs$_1$/Tnsc$_0$ hydrostratigraphic unit.

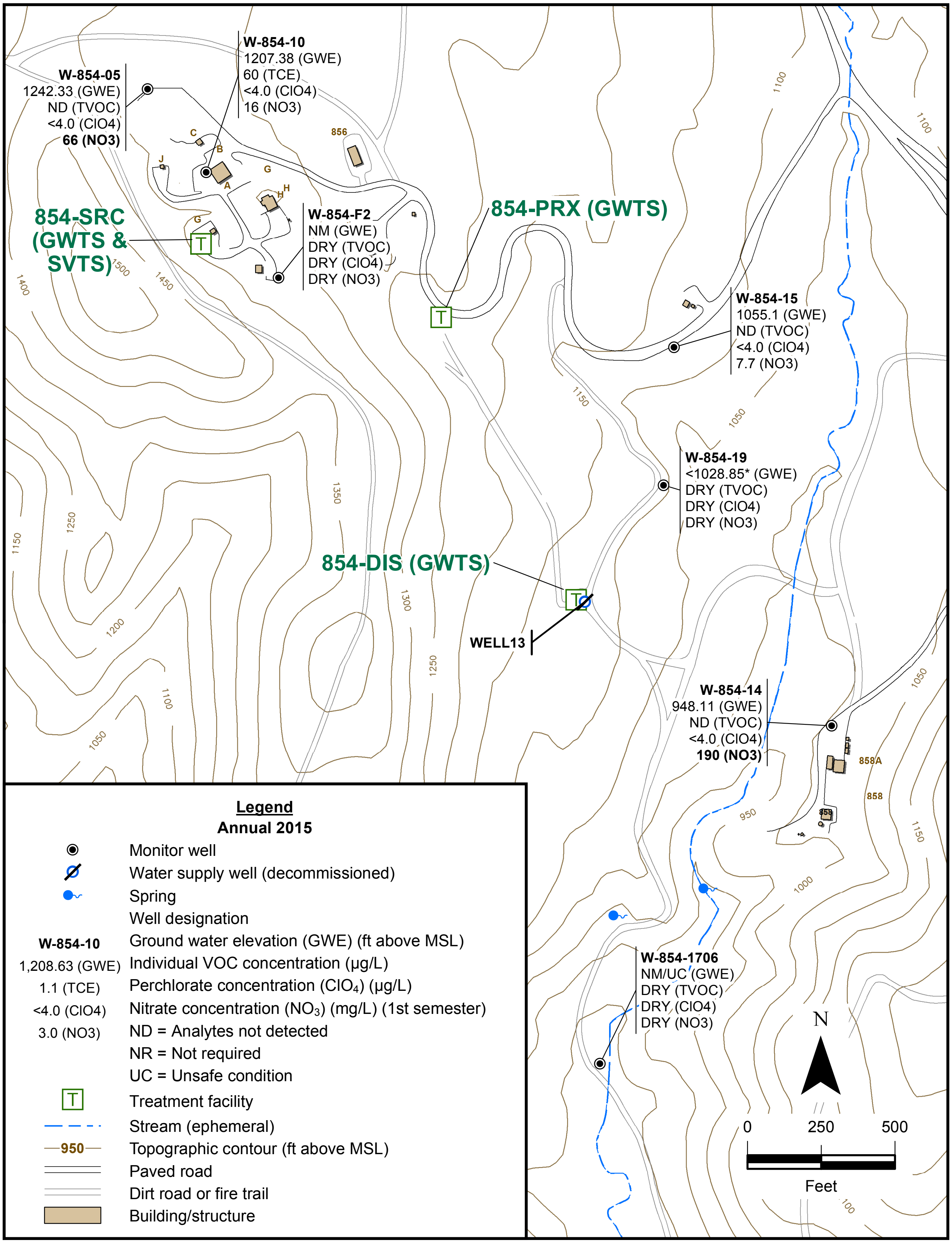

Figure 2.6-6. Building 854 Operable Unit map showing ground water elevations, individual VOC, perchlorate, and nitrate concentrations for the combined Qls and $Tnbs_1$ hydrostratigraphic units.

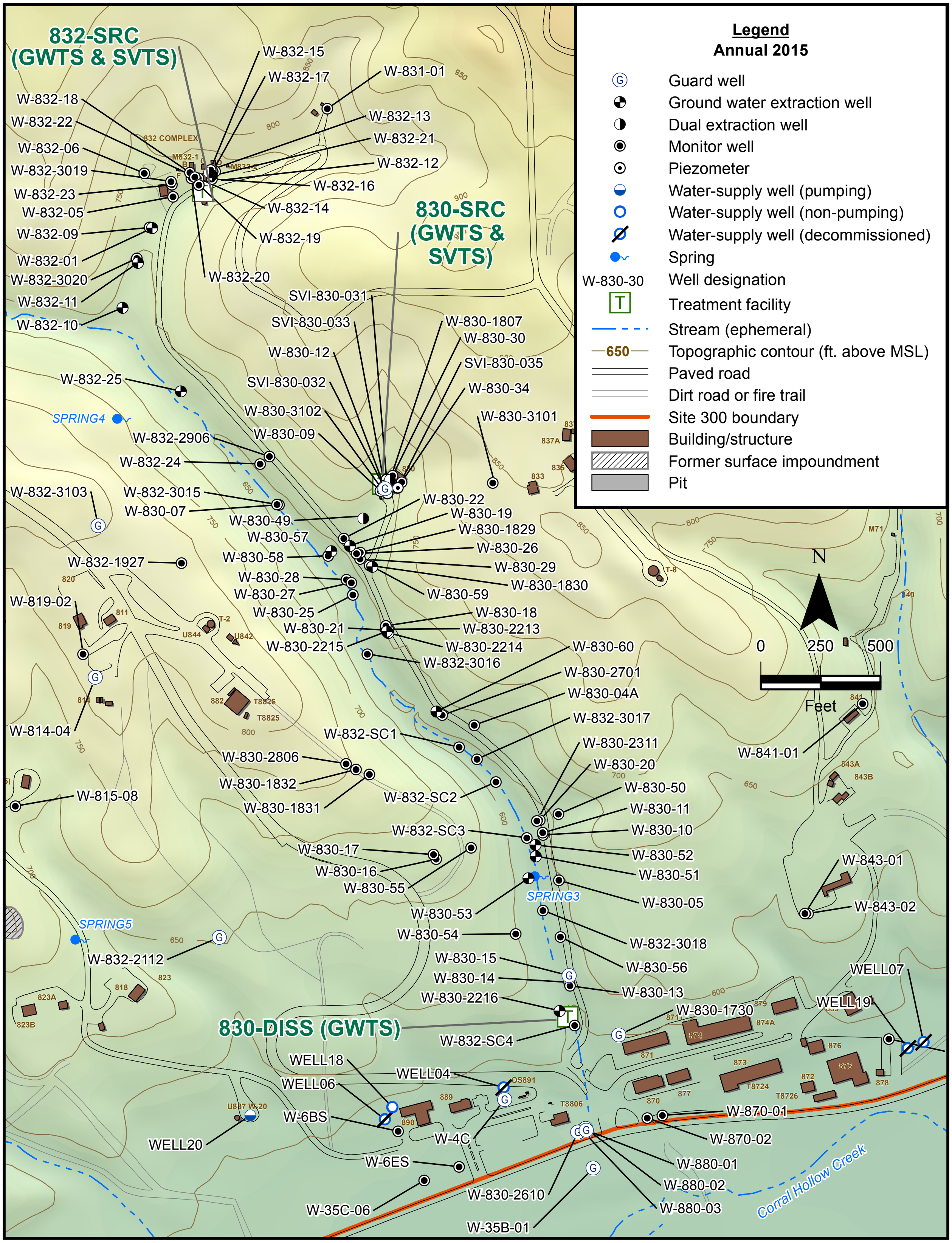

Figure 2.7-1. Building 832 Canyon Operable Unit site map showing monitor, extraction and water-supply wells, and treatment facilities.

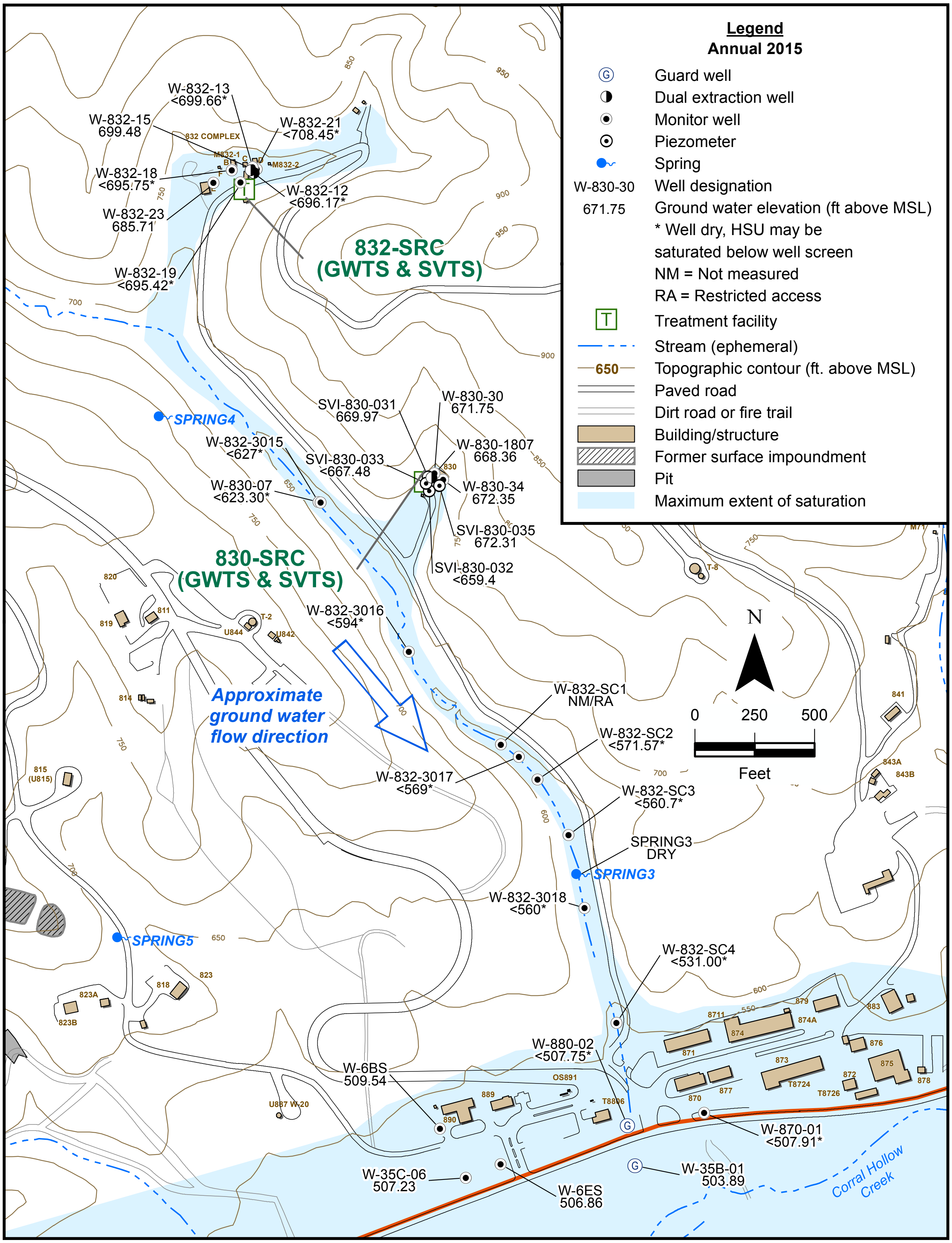

Figure 2.7-2. Building 832 Canyon Operable Unit map showing ground water elevations and ground water flow direction for the Qal/WBR hydrostratigraphic unit.

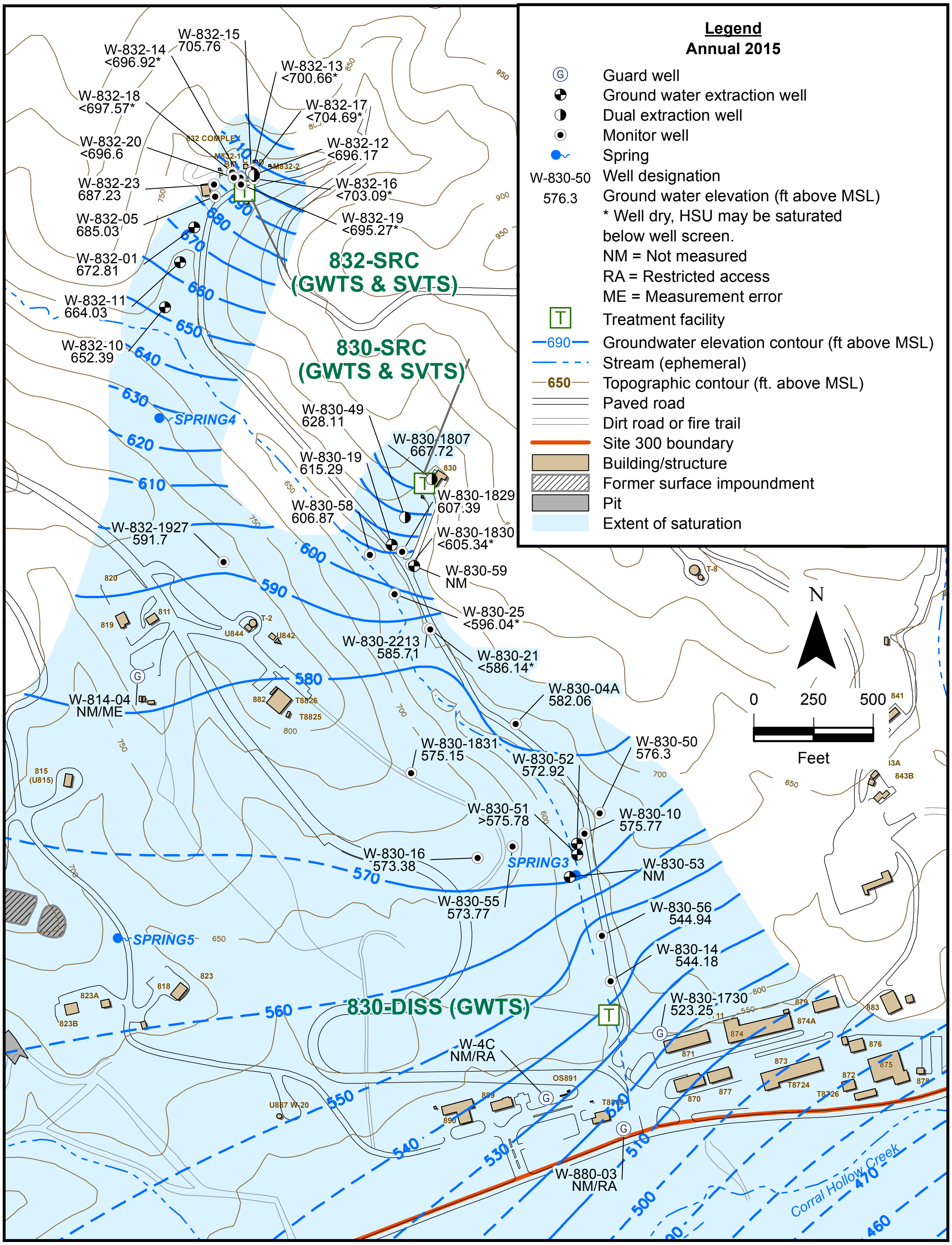

Figure 2.7-3. Building 832 Canyon Operable Unit ground water potentiometric surface map for the Tnsc$_{1b}$ hydrostratigraphic unit.

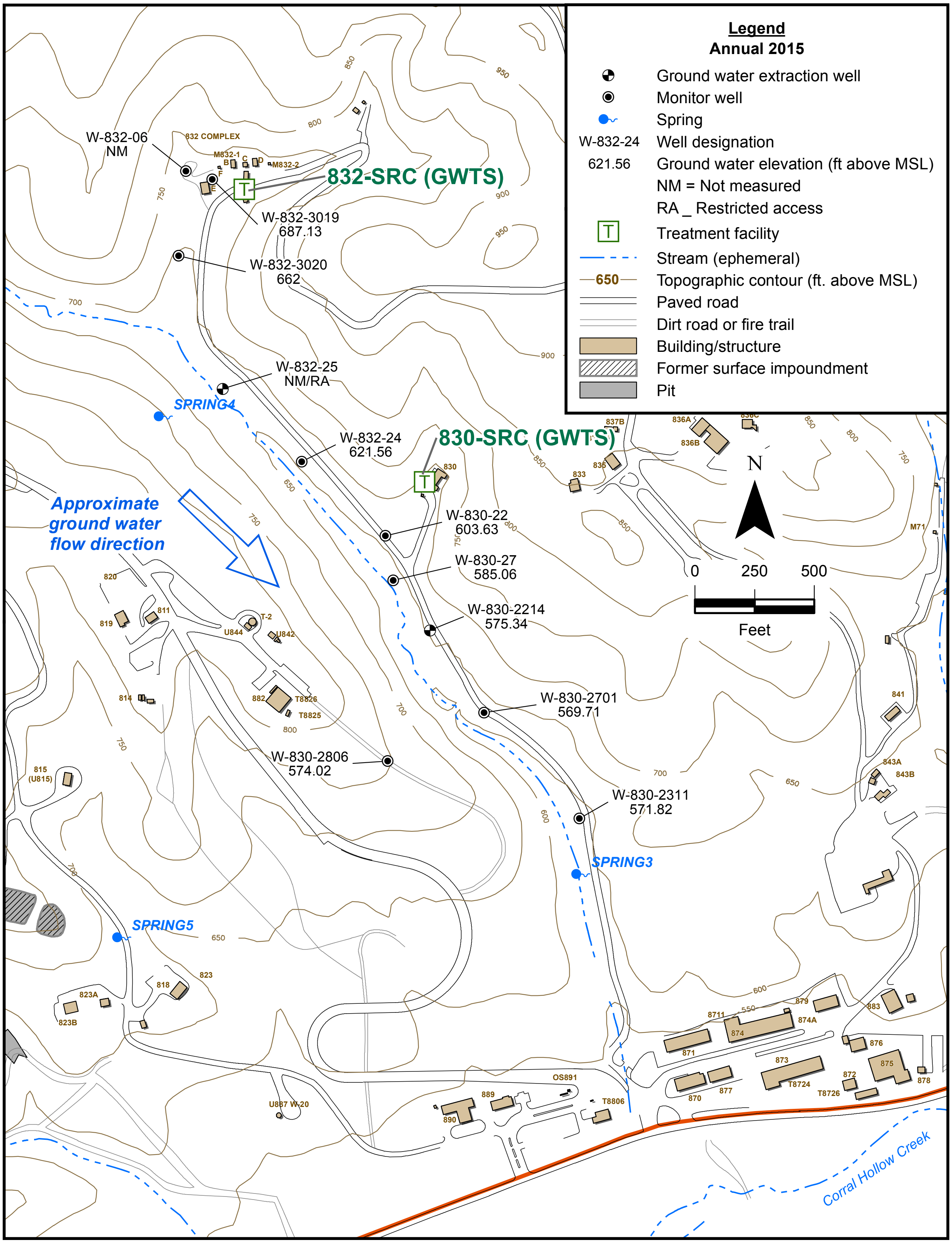

Figure 2.7-4. Building 832 Canyon Operable Unit map showing ground water elevations and ground water flow direction for the Tnsc$_{1a}$ hydrostratigraphic unit.

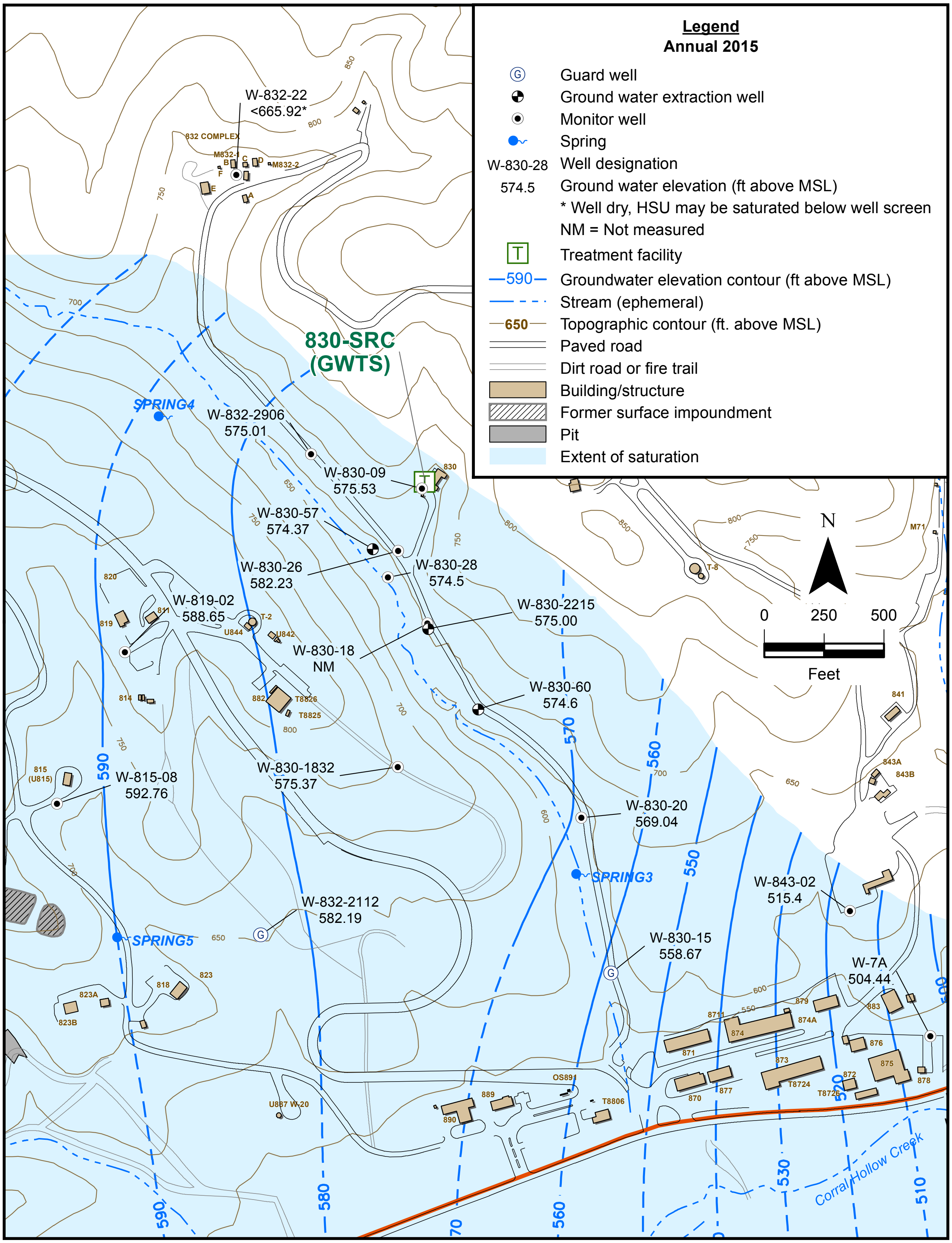

Figure 2.7-5. Building 832 Canyon Operable Unit ground water potentiometric surface map for the Upper Tnbs$_1$ hydrostratigraphic unit.

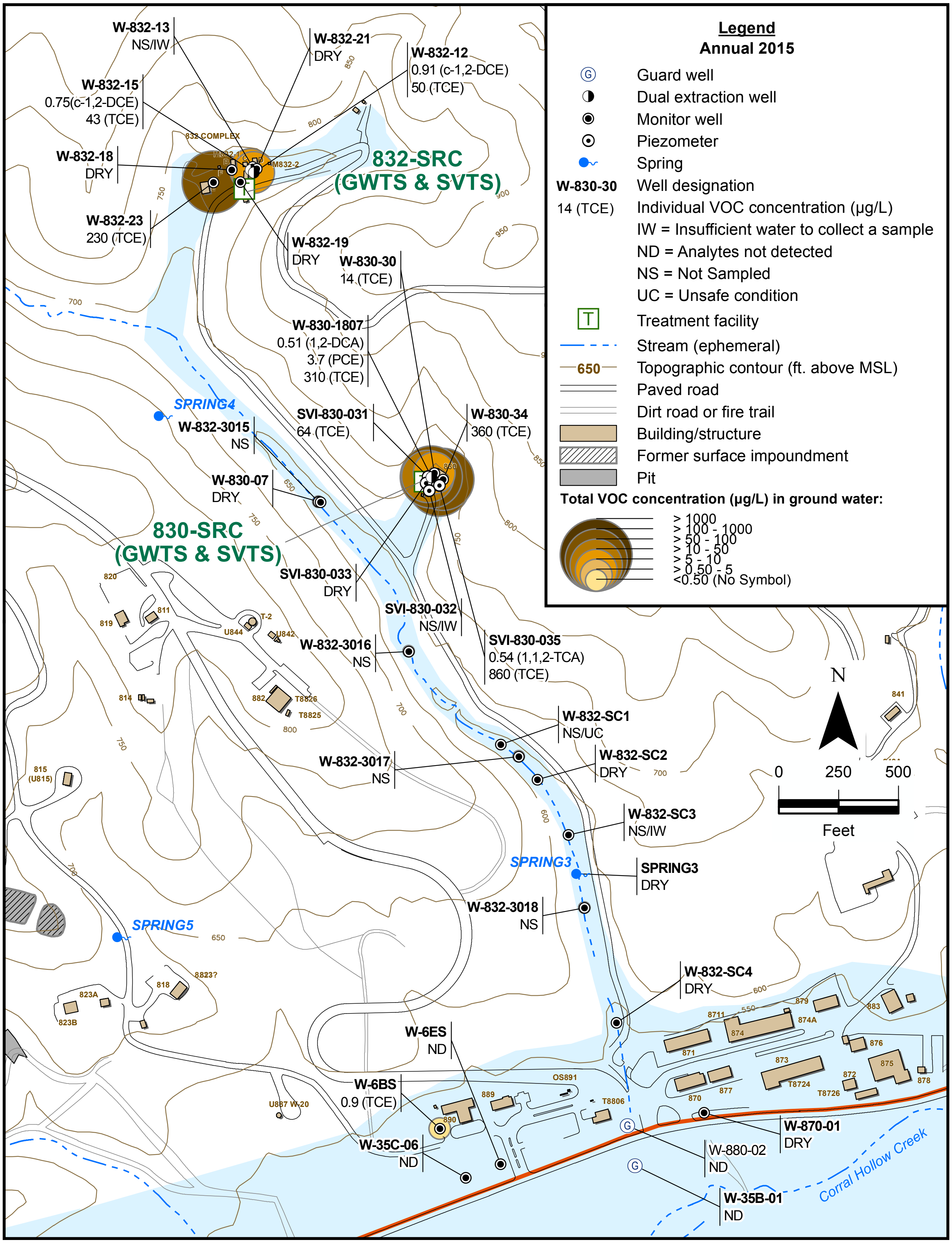

Figure 2.7-6. Building 832 Canyon Operable Unit map showing individual VOC concentrations for the Qal/WBR hydrostratigraphic unit.

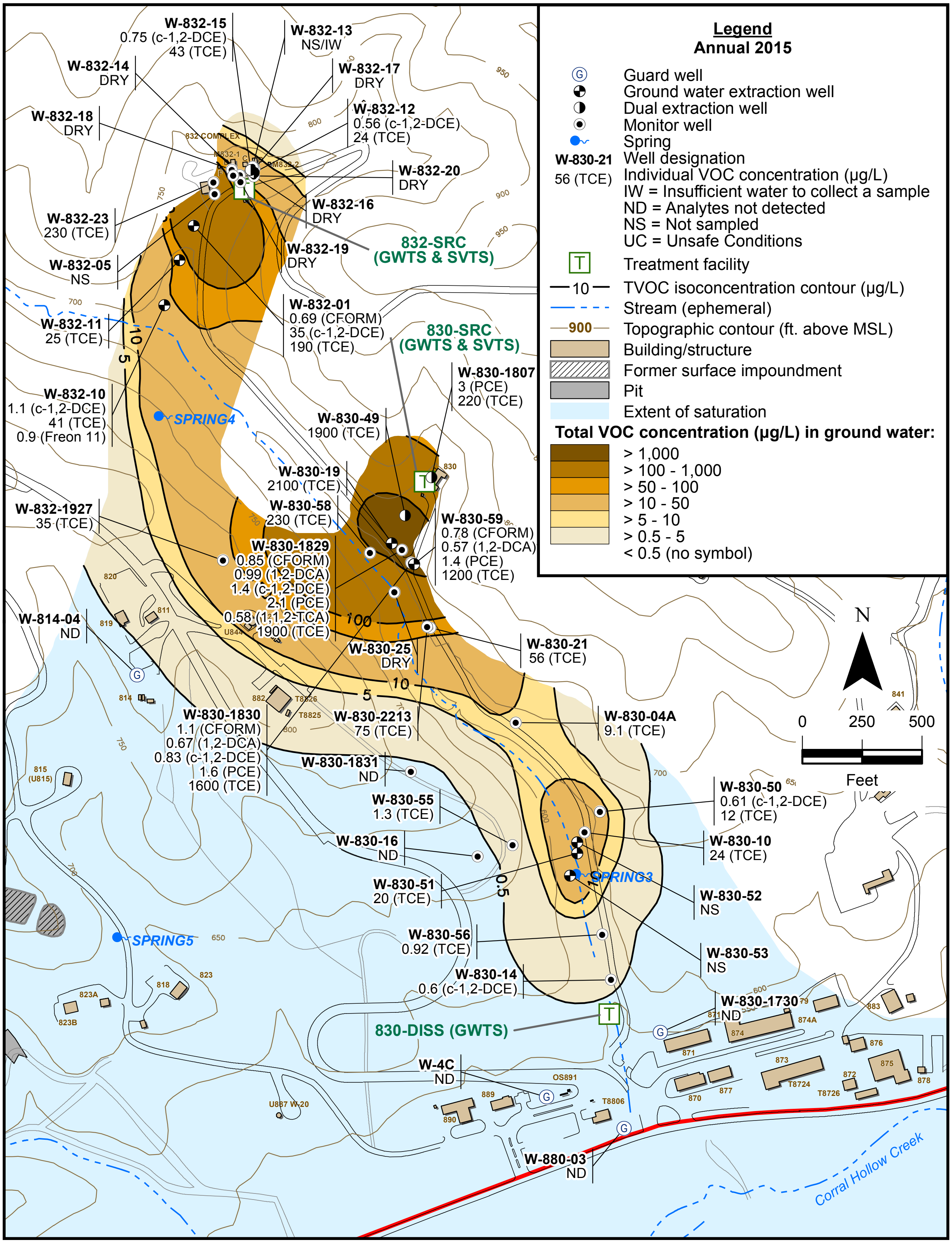

Figure 2.7-7. Building 832 Canyon Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the Tnsc$_{1b}$ hydrostratigraphic unit.

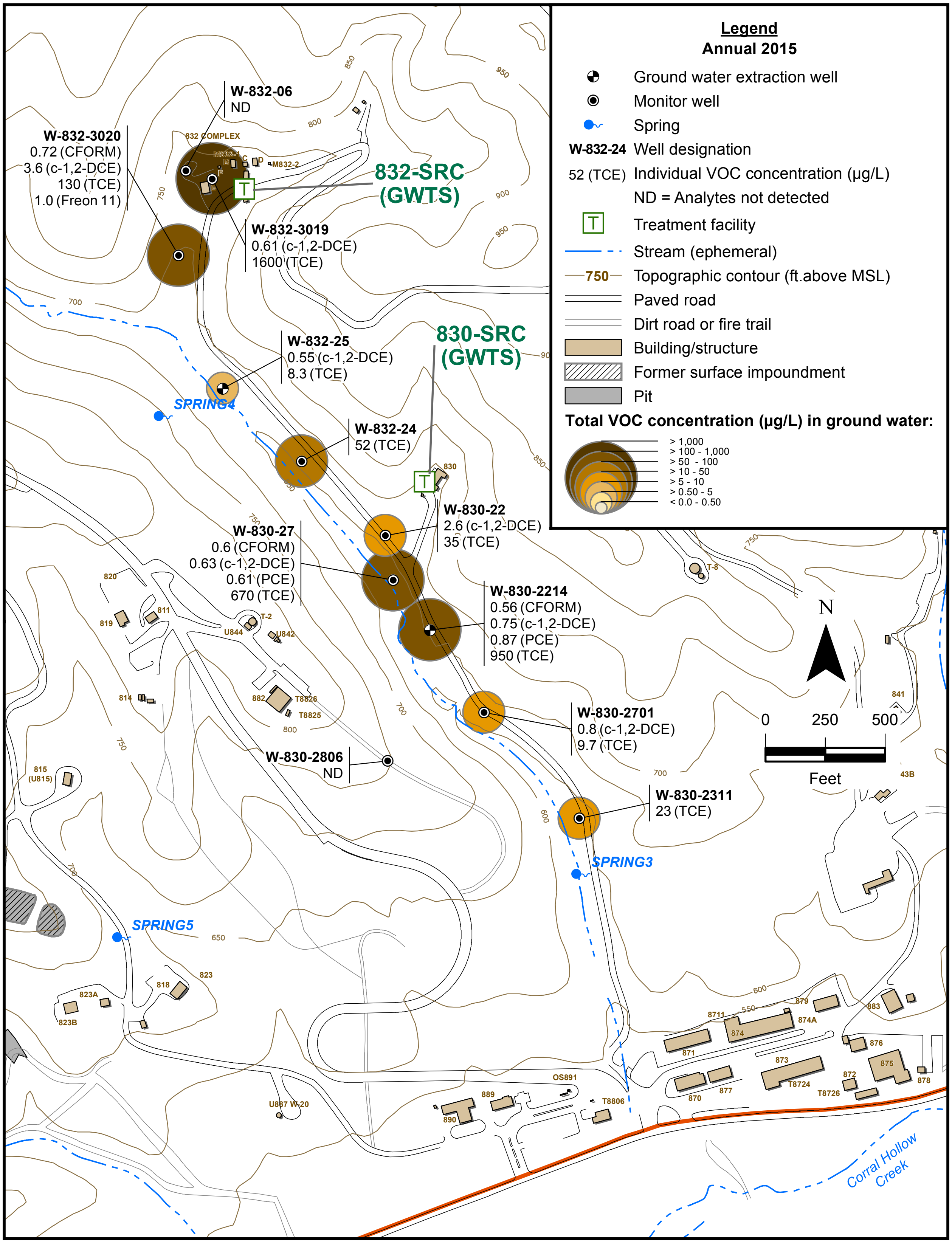

Figure 2.7-8. Building 832 Canyon Operable Unit map showing individual VOC concentrations for the Tnsc$_{1a}$ hydrostratigraphic unit.

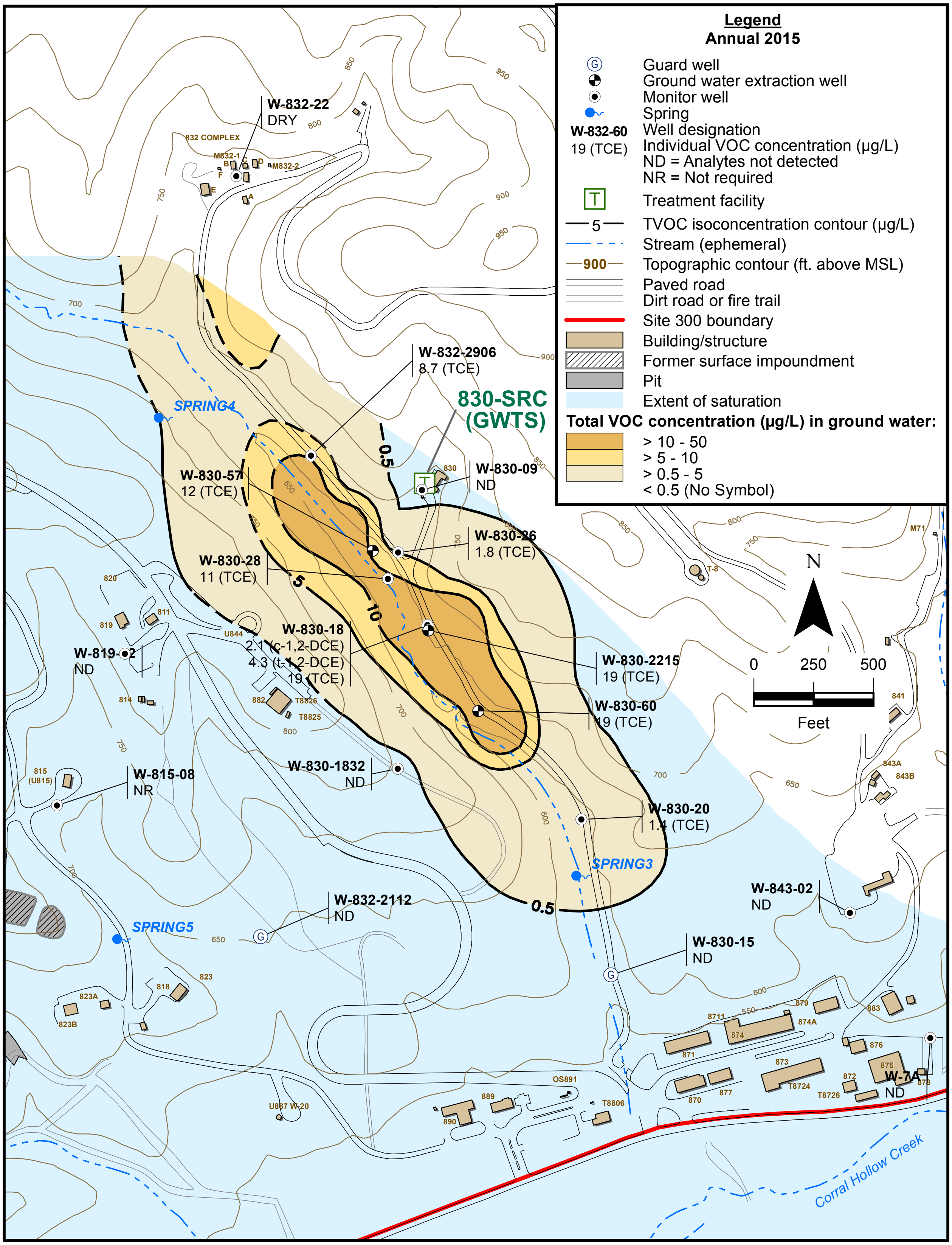

Figure 2.7-9. Building 832 Canyon Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the Upper Tnbs$_1$ hydrostratigraphic unit.

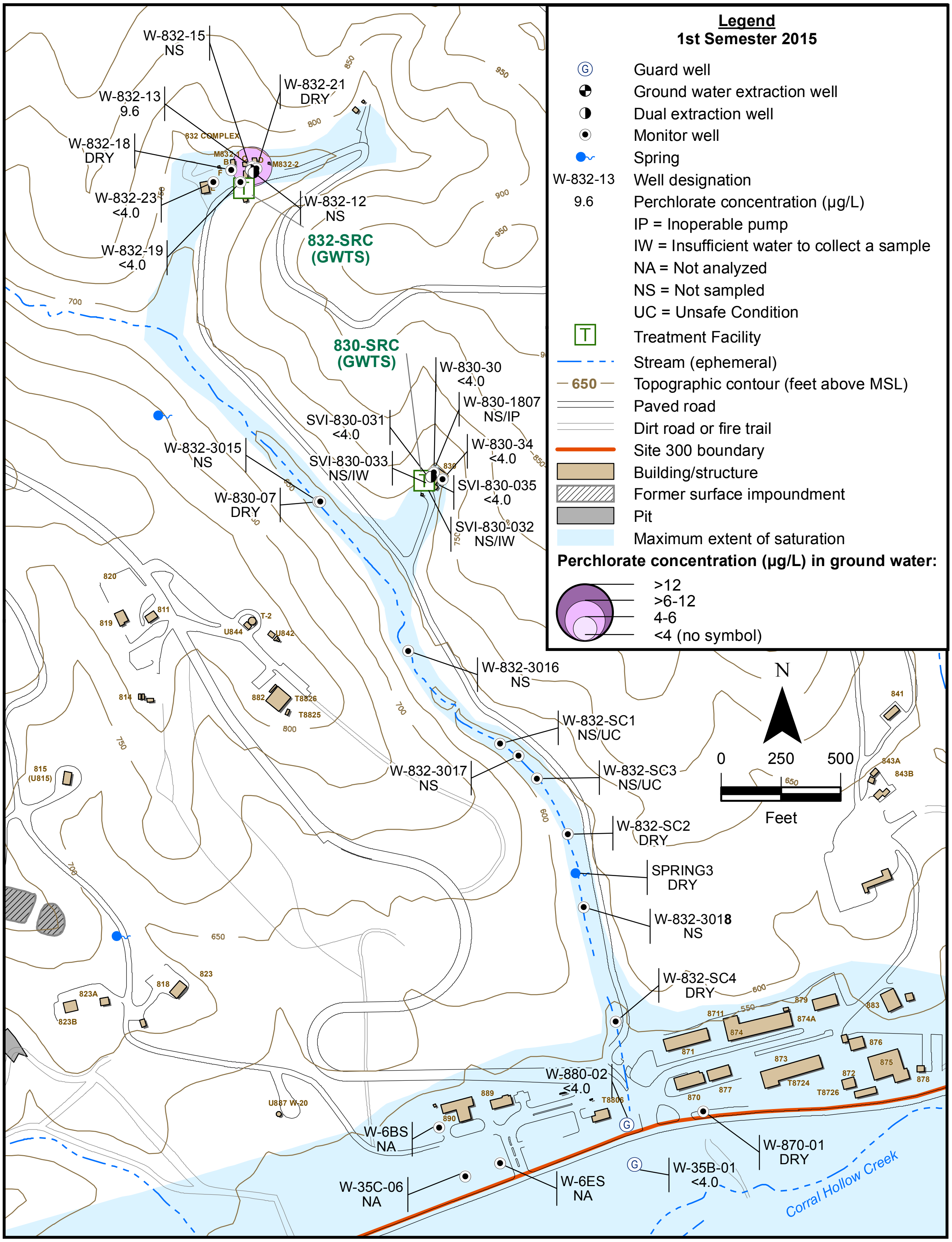

Figure 2.7-10. Building 832 Canyon Operable Unit map showing perchlorate concentrations for the Qal/WBR hydrostratigraphic unit.

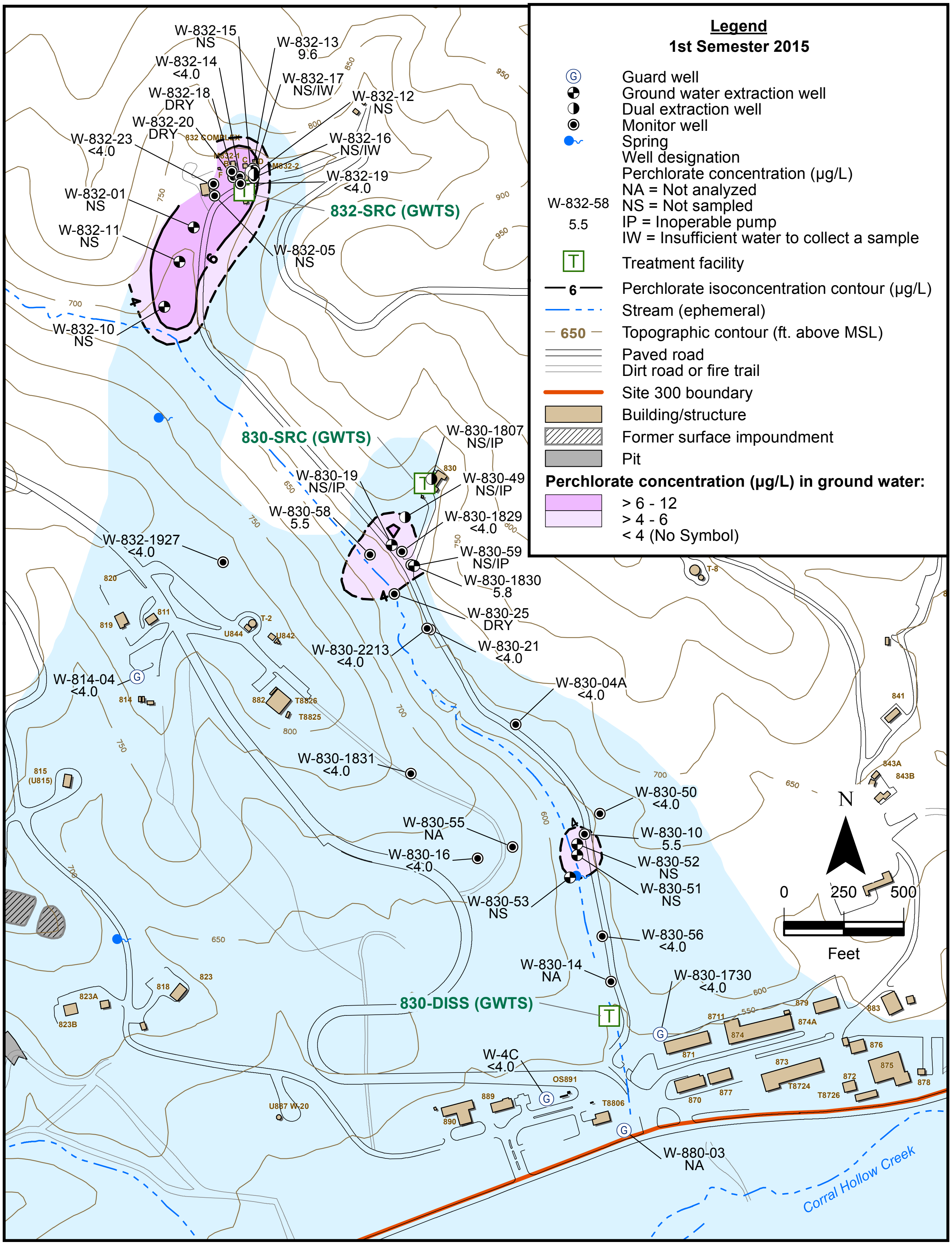

Figure 2.7-11. Building 832 Canyon Operable Unit perchlorate isoconcentration contour map for the Tnsc$_{1b}$ hydrostratigraphic unit.

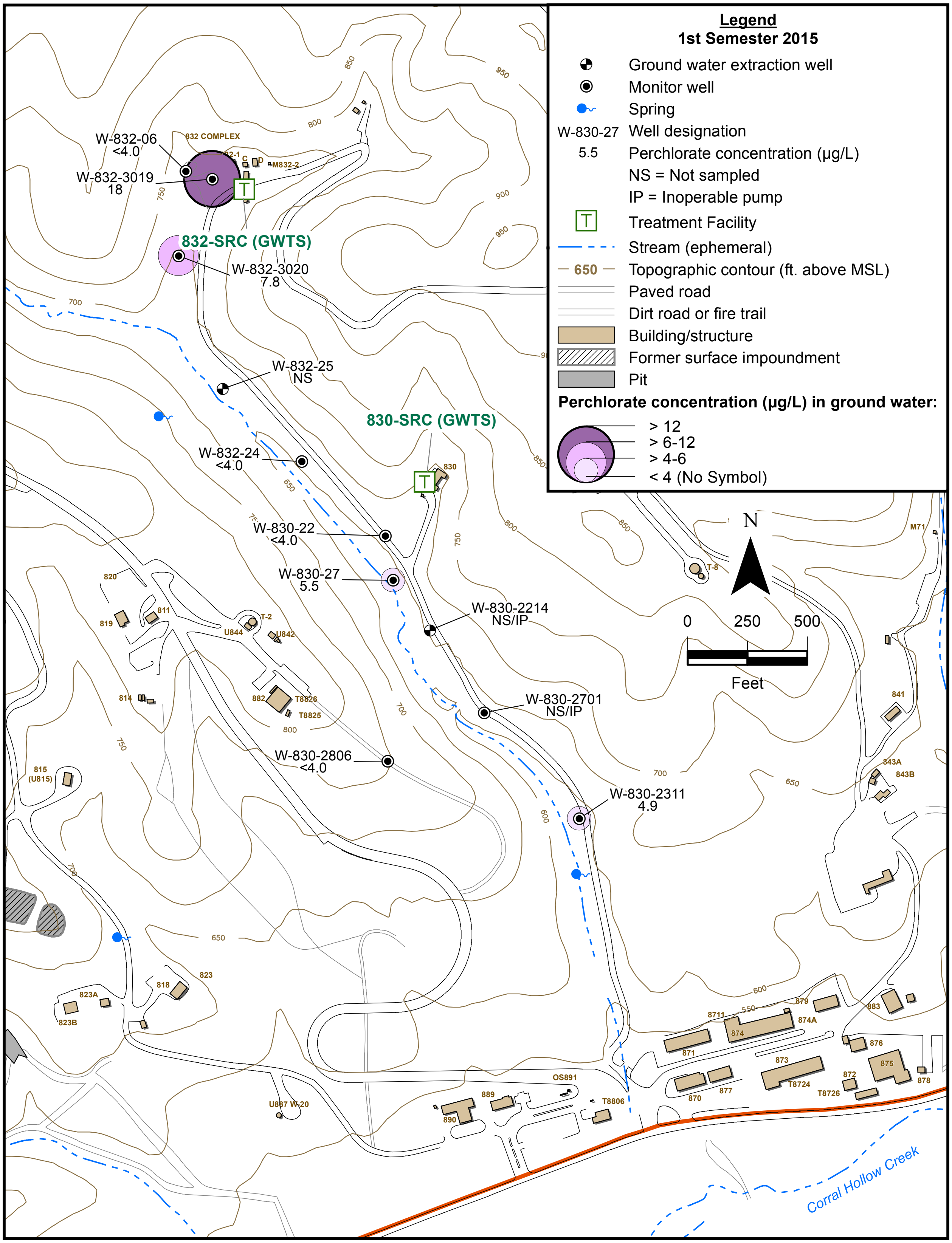

Figure 2.7-12. Building 832 Canyon Operable Unit map showing perchlorate concentrations for the $Tnsc_{1a}$ hydrostratigraphic unit.

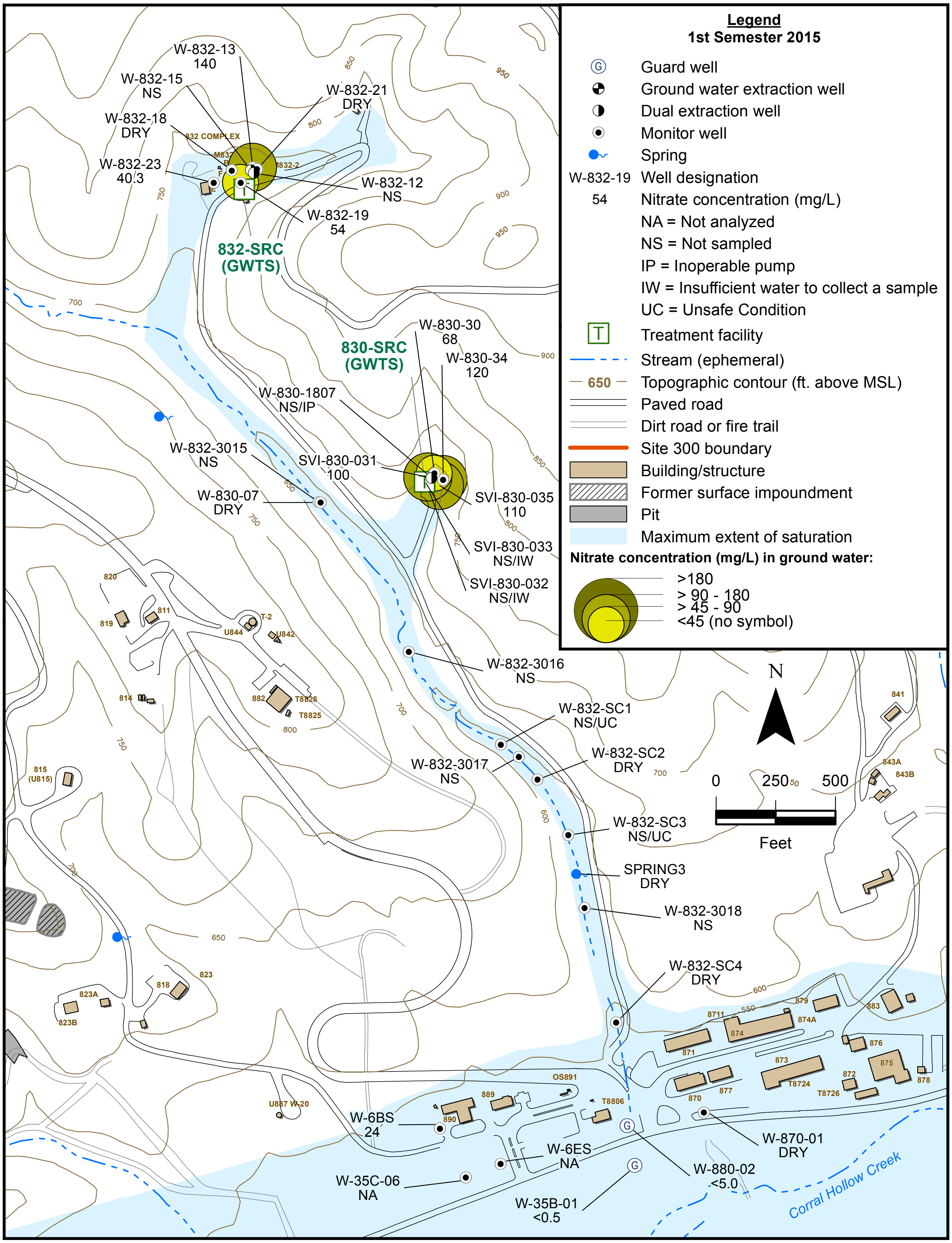

Figure 2.7-13. Building 832 Canyon Operable Unit map showing nitrate concentrations for the Qal/WBR hydrostratigraphic unit.

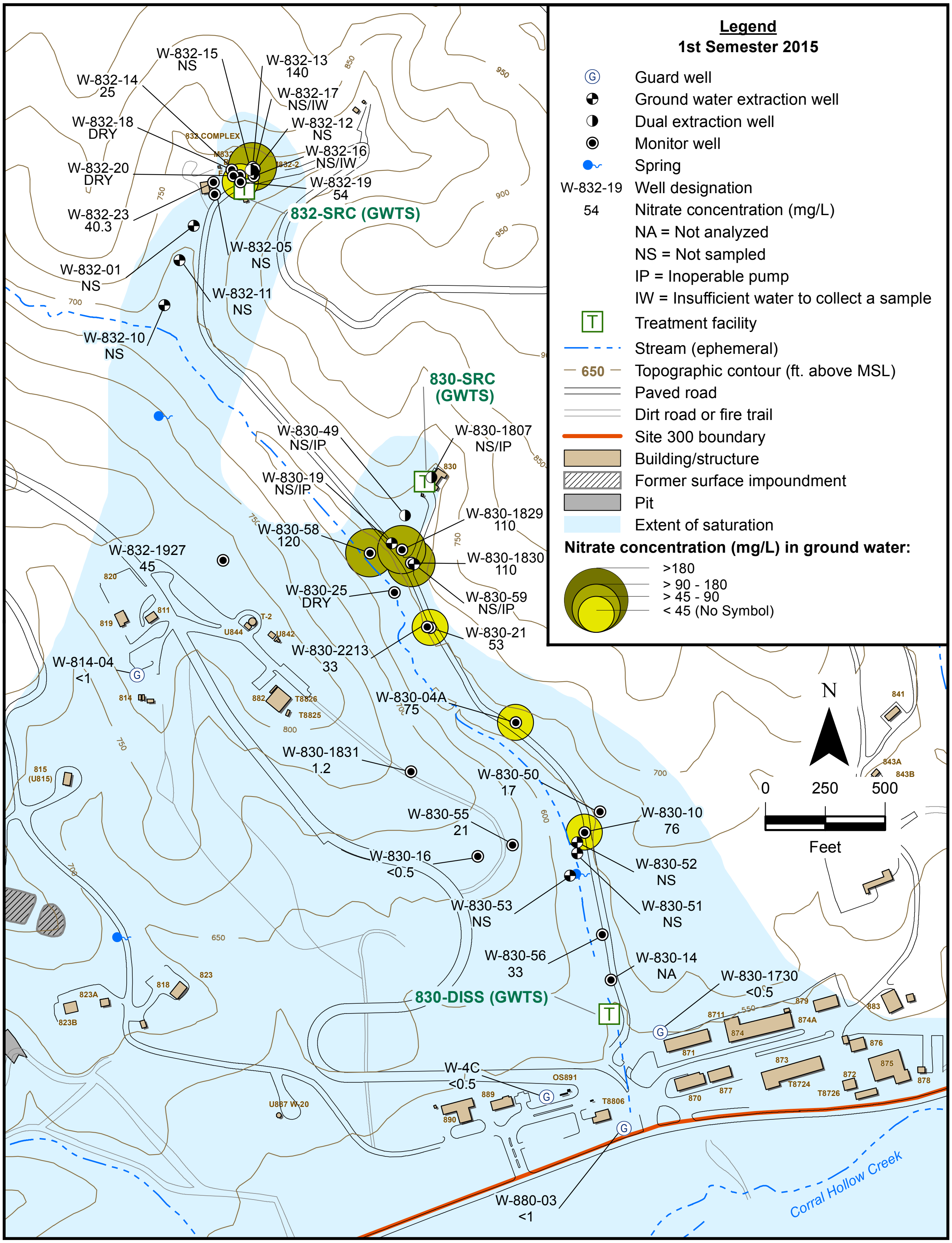

Figure 2.7-14. Building 832 Canyon Operable Unit map showing nitrate concentrations for the Tnsc$_{1b}$ hydrostratigraphic unit.

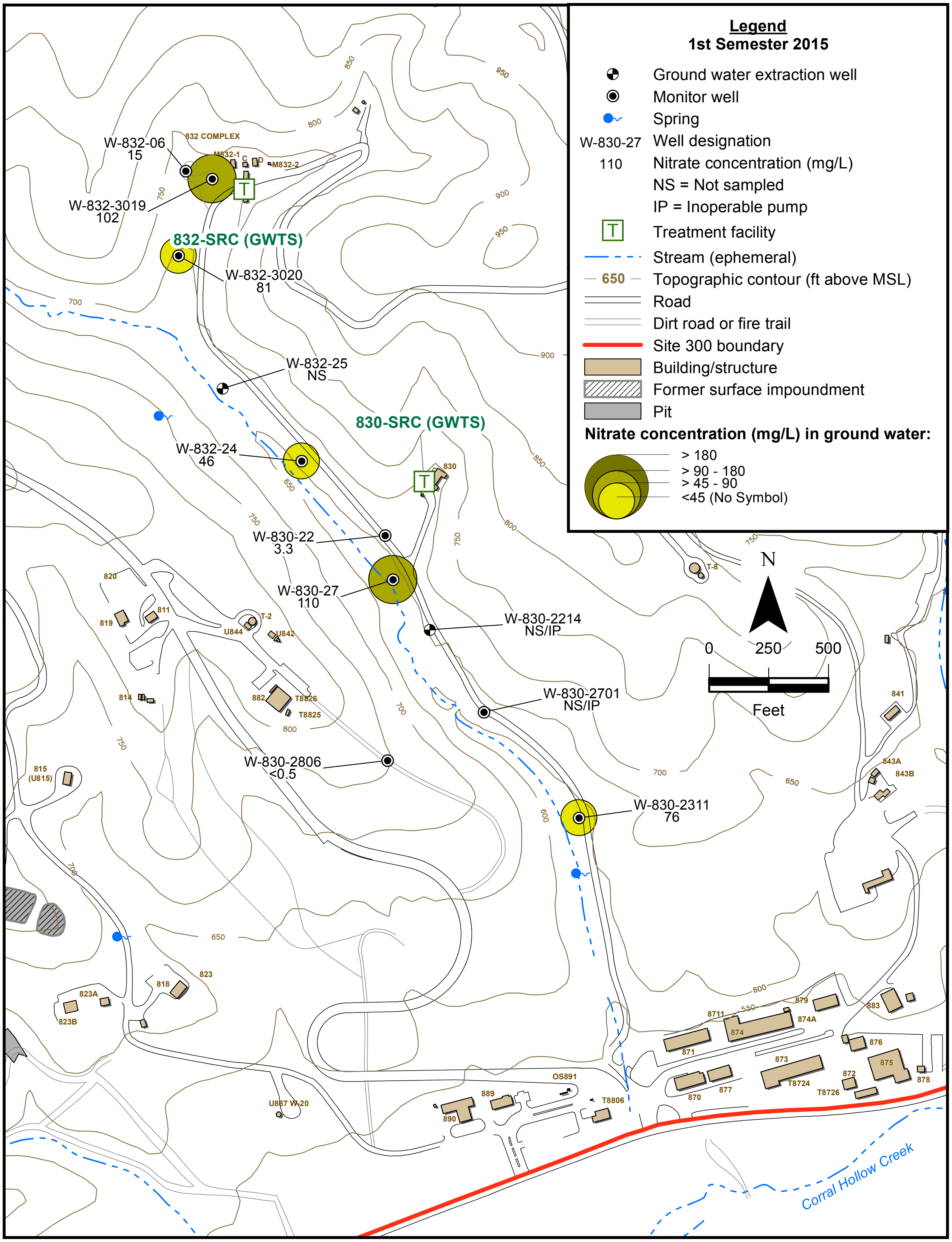

Figure 2.7-15. Building 832 Canyon Operable Unit map showing nitrate concentrations for the Tnsc$_{1a}$ hydrostratigraphic unit.

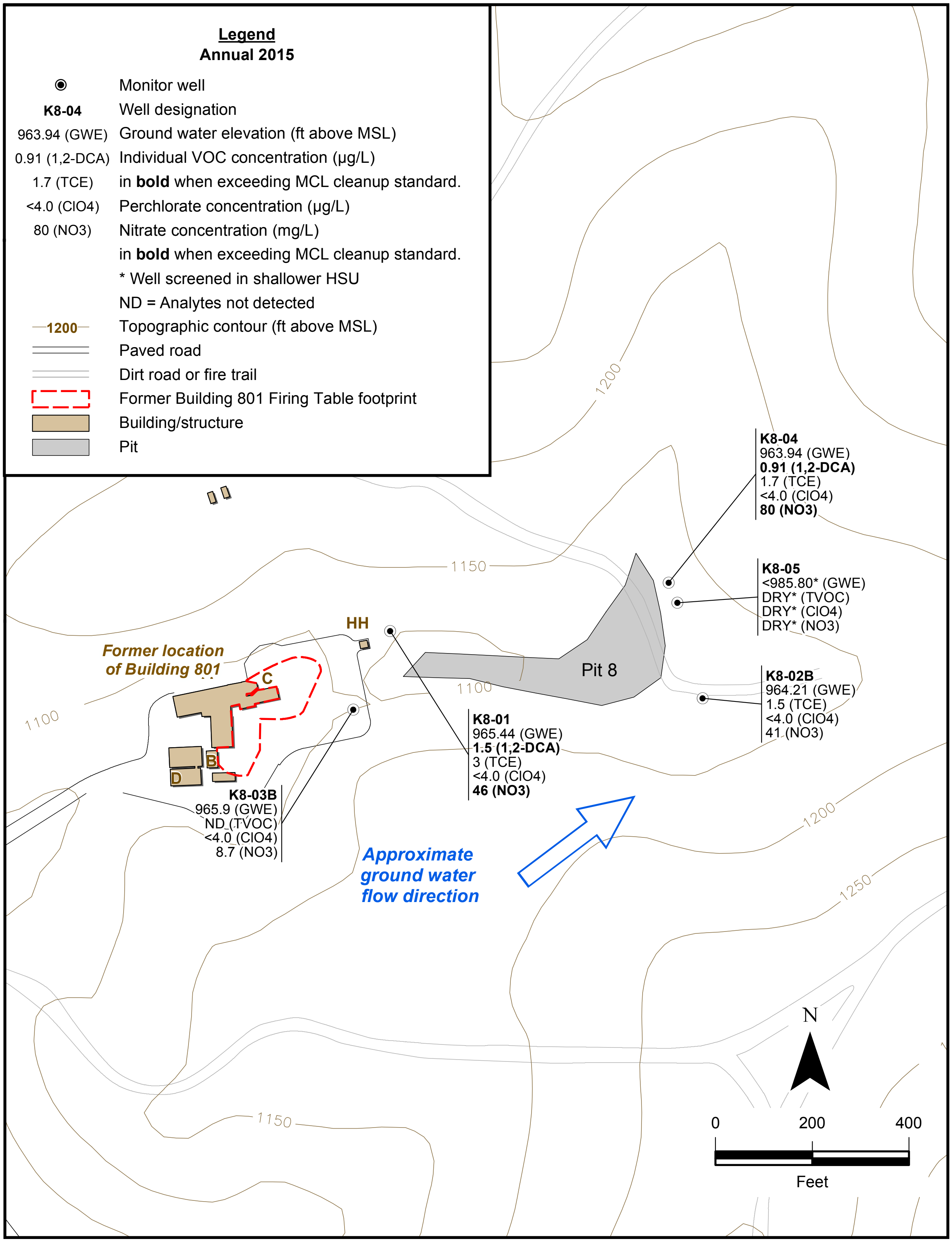

Figure 2.8-1. Building 801 Firing Table and Pit 8 Landfill site map showing monitor well locations, ground water elevations, approximate ground water flow direction, and nitrate, perchlorate and individual VOC concentrations, for the $Tnbs_1/Tnbs_0$ hydrostratigraphic unit.

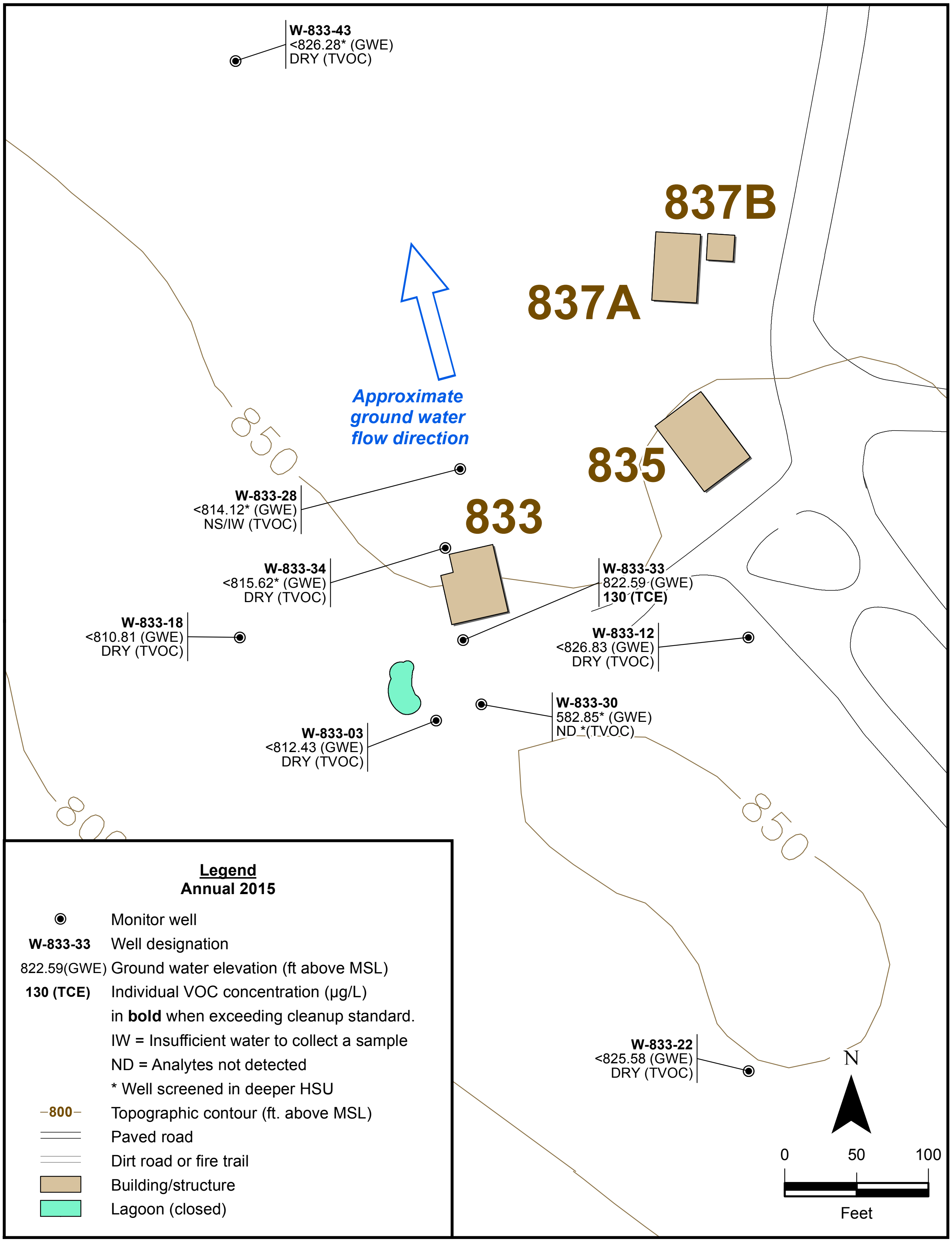

Figure 2.8-2. Building 833 site map showing monitor well locations, ground water elevations, approximate ground water flow direction, and individual VOC concentrations for the Tpsg hydrostratigraphic unit.

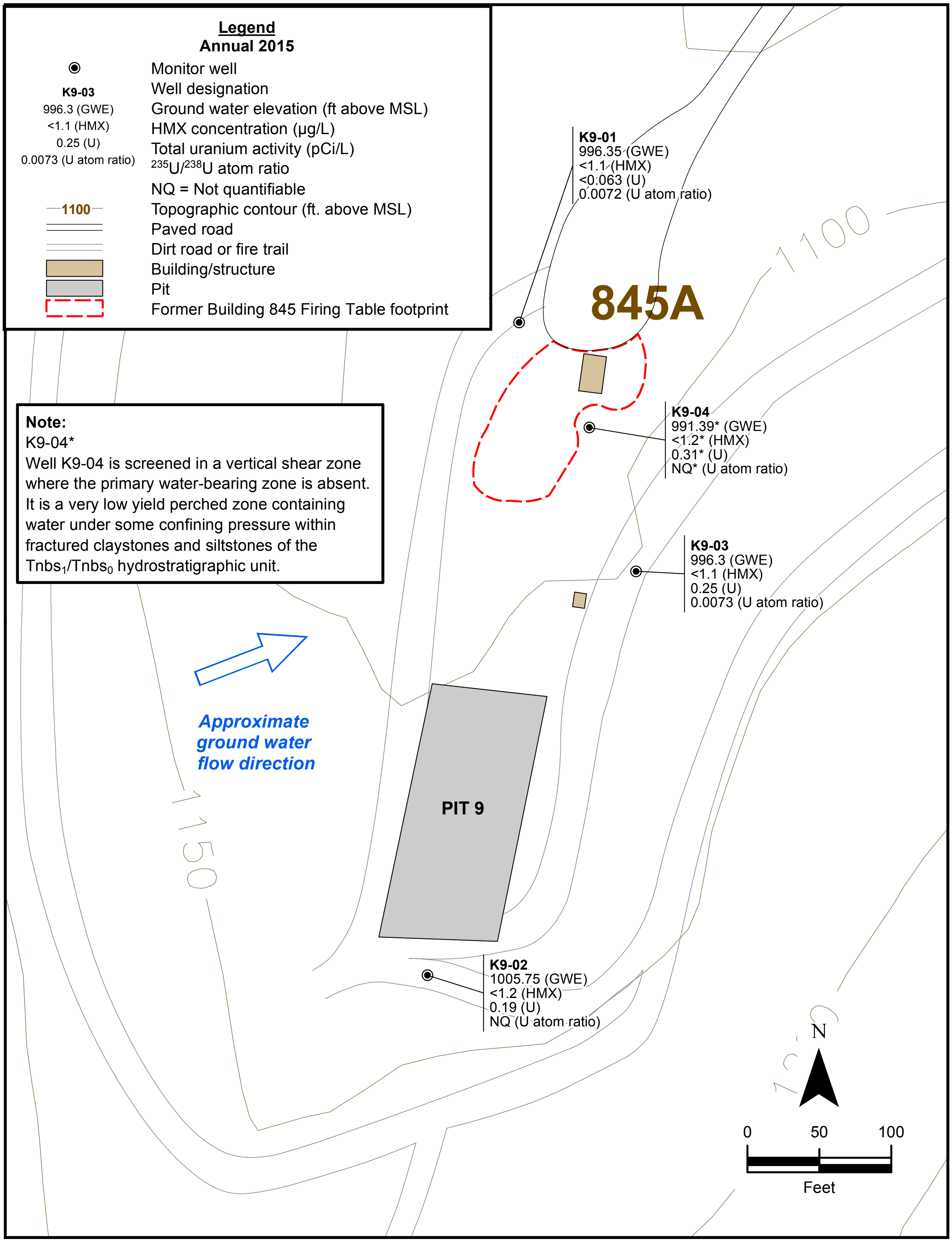

Figure 2.8-3. Building 845 Firing Table and Pit 9 Landfill site map showing monitor well locations, ground water elevations, approximate ground water flow direction, and High Melting Point Explosive concentrations, uranium activities and $^{235}U/^{238}U$ isotope atom ratios for the $Tnbs_1/Tnbs_0$ hydrostratigraphic unit.

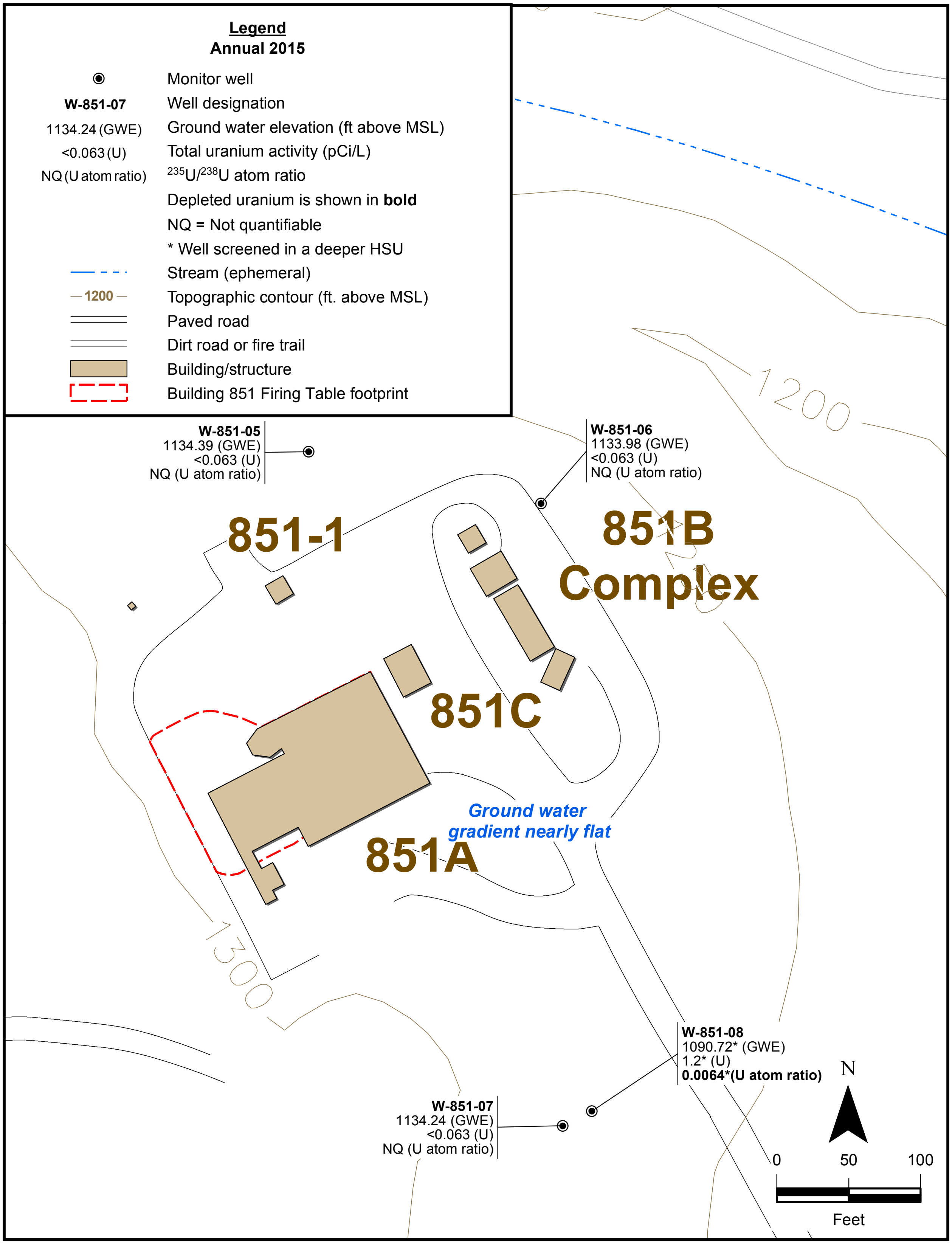

Figure 2.8-4. Building 851 Firing Table site map showing monitor well locations, ground water elevations, approximate ground water flow direction, uranium activities, and $^{235}U/^{238}U$ isotope atom ratios for the Tmss hydrostratigraphic unit.

Tables

Acronyms and Abbreviations

1,1-DCA	1,1-Dichloroethane
1,2-DCA	1,2-Dichloroethane
1,1-DCE	1,1-Dichloroethene
1,2-DCE	1,2-Dichloroethene (total)
1,1,1-TCA	1,1,1-Trichloroethane
1,1,2-TCA	1,1,2-Trichloroethane
2-ADNT	4-Amino-2,6-dinitrotoluene
4-ADNT	4-Amino-2,6-dinitrotoluene
815	Building 815
817	Building 817
829	Building 829
832	Building 832
834	Building 834
845	Building 845
850	Building 850
851	Building 851
854	Building 854
A	Annual
As N	As nitrogen
As $CaCO_3$	As calcium carbonate
BA	Blanket agreement
BTEX	Benzene, toluene, ethyl benzene, and xylene
°C	Degrees Celsius
C12-C24	Diesel range organic compounds in the carbon 12 to carbon 24 range
CAL	Contracted analytical laboratories
CAMU	Corrective Action Management Unit
CAP	Corrective and Preventative Action Program
CCVs	Continuing calibration verifications
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFE	Carbon filter effluent
CFI	Carbon filter influent
CF2I	Second aqueous phase granular carbon filter influent
CF3I	Third aqueous phase granular carbon filter influent
cf	Cubic feet
cfm	Cubic feet per minute
CFORM	Chloroform
CFV2	Second vapor phase granular activated carbon filter effluent
CGSA	Central General Services Area
CHC	Corral Hollow Creek
c-1,2-DCE	cis-1,2-Dichloroethene
cis-1,2-DCE	cis-1,2-Dichloroethene
CMP/CP	Compliance Monitoring Plan/Contingency Plan
CMR	Compliance Monitoring Report
CO_2	Carbon dioxide
COC	Contaminants of Concern
CT	Carbon Tetrachloride

CTET	Carbon tetrachloride
DEET	n,n-diethyl-meta-toluamide
DIS	Discretionary sampling (not required by the CMP)
DISS	Distal south
DMW	Detection monitor well
DOE	Department of Energy
DOECAP	Department of Energy Consolidated Audit Program
DSB	Distal Site Boundary
DTSC	Department of Toxic Substances Control
DUP	Duplicate or collocated QC sample
E	Effluent (acronym found in Treatment Facility Sampling Plan Tables)
E	Sample to be collected during even numbered years (i.e., 2016) (acronym found in Sampling Plan Tables)
EcoSSLs	Ecological Soil Screening Levels
EFA	Environmental Functional Area
EGSA	Eastern General Services Area
EIS/EIR	Environmental Impact Statement/Environmental Impact Report
EMS	Environmental Management System
EPA	Environmental Protection Agency
ERD	Environmental Restoration Department
ES&H	Environmental Safety and Health
EV	Effluent vapor
EW	Extraction well
Freon 11	Trichlorofluoromethane
Freon 113	1,1,2-trichloro-1,2,2-trifluoroethane
ft	Feet
ft^3	Cubic feet
g	Gram(s)
GAC	Granular activated carbon
gal	Gallon(s)
GIS	Geographic Information Systems
gpd	Gallons per day
gpm	Gallons per minute
GSA	General Services Area
GTU	Ground Water Treatment Unit.
GW	Guard well
GWTS	Ground Water Treatment System
HE	High Explosives
HEPA	High Explosives Process Area
H-H	Hetch-Hetchy
HMX	High-Melting Explosive
HQ	Hazard quotient
HSU	Hydrostratigraphic unit
I	Influent
ICP-MS	Inductively Coupled Plasma - Mass Spectrometry
ISMA	*In Situ* Microcosm Array
ISMS	Integrated Safety Management System
ISO	International Organization for Standardization
ITS	Issues Tracking System
IV	Influent vapor

IW	Injection well
IWS	Integrated Work Sheet
K-40	Potassium-40
kft^3	Thousands of cubic feet
kg	Kilograms
kgal	Thousands of gallons
km	Kilometers
LCS	Laboratory Control Sample
LHC	Light hydrocarbon
LLNL	Lawrence Livermore National Laboratory
µg/L	Micrograms per liter
$\mu g/m^3$	Micrograms per meters cubed
µmhos/cm	Micro ohms per centimeter
µS	Microsiemens
M	Monthly
MCL	Maximum Contaminant Level
MeCL	Methylene chloride
Mgal	Millions of gallons
Mg/kg/d	Milligram per kilogram per day
mg/L	Milligrams per liter
MNA	Monitored Natural Attenuation
MOVI	Management observations, verifications, and inspections
MSA	Management self-assessment
MSA	Mean Sea Level
MTU	Miniature Treatment Unit
mV	Millivolts
MWB	Monitor well used for background
N	No
NB	Nitrobenzene
N_2	Nitrogen
NO_3	Nitrate
NA	Not applicable
NT	Nitrotoluene
NTU	Nephelometric turbidity units
O	Sample to be collected during odd numbered years (i.e., 2015)
OR	Occurrence Report
ORP	Oxidation/reduction potential
OU	Operable unit
O&M	Operations and Maintenance
P/PO_4	Phosphorous
PCBs	Polychlorinated biphenyls
PCE	Tetrachloroethene
pCi/L	PicoCuries per liter
pH	A measure of the acidity or alkalinity of an aqueous solution
PHG	Public Health Goal
PLC	Programmatic logic control
ppb_v	Parts per billion by volume
ppm_v	Parts per million on a volume-to-volume basis
PBA	Programmatic Biological Assessment
PPCP	Pharmaceutical and Personal Care Product analytes

PRX	Proximal
PRXN	Proximal north
PSDMP	Post-Monitoring Shutdown Plan
PTMW	Plume Tracking Monitor Well
PTU	Portable Treatment Unit
PVC	Polyvinyl chloride
Q	Quarterly
QAL	Quaternary alluvium
QAPP	Quality Assurance Project Plan
QA/QC	Quality assurance/quality control
QIF	Quality Improvement Form
RAOs	Remedial Action Objectives
R1	Receiving water sampling point located 100 ft upstream
R2	Receiving water sampling point located 100 ft downstream
RCRA	Resource Conservation and Recovery Act
RDX	Research Department explosive
REA	Reanalysis
Redox	Reduction-oxidation reaction
REVAL	Remediation Evaluation Process
REX	Resample
ROD	Record of Decision
RPM	Remedial Project Manager
RWQCB	Regional Water Quality Control Board
S	Semi-annual
Scfm	Standard cubic feet per minute
SLs	Statistical Limits
SOP	Standard Operating Procedure
SOW	Statement of work
SPACT	Sample Planning and Chain of Custody Tracking
SPR	Spring
SRC	Source
STU	Solar-powered Treatment Unit
SVE	Soil Vapor Extraction
SVTS	Soil Vapor Treatment System
SVI	Soil Vapor Influent
SWEIS	Site-Wide Environmental Impact Statement
SWFS	Site Wide Feasibility Study
SWRI	Site-Wide Remedial Investigation
TBOS	Tetrabutyl orthosilicate
TCE	Trichloroethene
TCEP	tris (2-chloroethyl) phosphate
TDS	Total dissolved solids
TF	Treatment facility
TFRT	Treatment Facility Real Time
THMs	Trihalomethanes
TKEBS	Tetrakis (2-ethylbutyl) silane
TNB	Trinitrobenzene
TNT	Trinitrotoluene
Total-1,2-DCE	1,2-Dichloroethene (total)
Trans-1,2-DCE	Trans-1,2-dichloroethene

TRV	Toxicity Reference Value
TVOC	Total volatile organic compounds
t-1,2-DCE	trans-1,2-Dichloroethene
$^{235}U/^{238}U$	Atom ratio of the isotopes uranium-235 and uranium-238
U.S.	United States
VC	Vinyl chloride
VCF4I	Fourth vapor phase granular activated carbon filter influent
VE	Vapor effluent
VES	Vapor extraction system
VI	Vapor influent
VOC	Volatile organic compound
WAA	waste accumulation area
WBR	Weathered bedrock
WGMG	Water Guidance and Monitoring Group
WS	Water supply well
Y	Yes

Hydrogeologic Units

Lower $Tnbs_1$ = Lower member of the Neroly lower blue sandstone, below claystone marker bed (regional aquifer).
Qal = Quaternary alluvium.
Qls = Quaternary landslide.
Qt = Quaternary terrace.
Tmss = Miocene Cierbo Formation—lower siltstone/claystone member.
$Tnsc_{1a}$, $Tnsc_{1b}$, $Tnsc_{1c}$ = Sandstone bodies within the $Tnsc_1$ Neroly middle siltstone/claystone (1a = deepest).
$Tnbs_1$ = Lower member of the Neroly lower blue sandstone.
$Tnbs_0$ = Neroly silty sandstone.
$Tnbs_2$ = Miocene Neroly upper blue sandstone.
$Tnsc_0$ = Tertiary Neroly Formation—lower siltstone/claystone member.
$Tnsc_2$ = Miocene Neroly Formation—upper siltstone/claystone member.
Tps = Pliocene non-marine unit.
Tpsg = Miocene non-marine unit (gravel facies).
Tts = Tesla Formation.
$UTnbs_1$ = Upper member of the Neroly lower blue sandstone, above claystone marker bed.
WBR = Weathered bedrock.

Data Qualifier Flag Definitions

B = Analyte found in method blank, sample results should be evaluated.

D = Analysis performed at a secondary dilution or concentration (i.e., vapor samples).

E = The analyte was detected below the LLNL reporting limit, but above the analytical laboratory minimum detection limit.

F = Analyte found in field blank, trip blank, or equipment blank.

G = Quantitated using fuel calibration, but does not match typical fuel fingerprint.

H = Sample analyzed outside of holding time, sample results should be evaluated.

I = Surrogate recoveries were outside of QC limits.

J = Analyte was positively identified; the associated numerical value is the proximate concentration of the analyte in the sample.

L = Spike accuracy not within control limits.

O = Duplicate spike or sample precision not within control limits.

R = Sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

S = Analytical results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.

T = Analyte is tentatively identified compound; result is approximate.

Requested Analyses

AS:UISO =	Uranium isotopes performed by alpha spectrometry.
DWMETALS:ALL =	Drinking water metals suite performed by various analytical methods.
E200.7:FE =	Iron performed by EPA Method 200.7.
E200.7:Li =	Lithium performed by EPA Method 200.7.
E200.7:SI =	Silica performed by EPA Method 200.7.
E200.8:AS =	Arsenic performed by EPA Method 200.8.
E200.8:CR =	Chromium performed by EPA Method 200.8.
E200.8:MN =	Manganese performed by EPA Method 200.8.
E200.8:SE =	Selenium performed by EPA Method 200.8.
E300.0:NO3 =	Nitrate performed by EPA Method 300.0.
E300.0:PERC =	Perchlorate performed by EPA Method 300.0.
E300.0:O-PO2 =	Orthophosphate performed by EPA Method 300.0.
E340.2:ALL =	Fluoride performed by EPA method 340.2.
E502.2:ALL =	Volatile organic compounds performed by EPA Method 502.2.
E601:ALL =	Halogenated volatile organic compounds performed by EPA Method 601.
E624:ALL =	Volatile organic compounds performed by EPA Method 624.
E8082A =	Polychlorinated biphenyls performed by EPA Method 8082A.
E8260:ALL =	Volatile organic compounds performed by EPA Method 8260.
E8330LOW:ALL =	High explosive compounds performed by EPA Method 8330.
E8330:R+H =	High explosive compounds RDX and HMX performed by EPA Method 8330.
E8330:TNT =	Trinitrotoluene performed by EPA Method 8330.
E906:ALL =	Tritium performed by EPA Method 906.
EM8015:DIESEL =	Diesel range organic compounds performed by modified EPA Method 8015.
GENMIN:ALL =	General minerals suite performed by various analytical methods.
MS:UISO =	Uranium isotopes performed by mass spectrometry.
T26METALS:ALL =	Title 26 metals.
TBOS:ALL =	Tetrabutylorthosilicate/ Tetrakis (2-ethylbutyl) silane.

Ground Water Elevation Table Notes

ABD =	Abandoned.
AD =	Drilling of adjacent new wells disturbed water level.
BLOC =	Well Blocked.
BS =	Water detected below bottom of screened interval.
CB =	Installation completed as a Christy box.
DRY =	No water detected in well casing at time of measurement.
FA =	Flowing artesian well, water elevation converted.
FL =	Flowing.
ME =	Measuring error suspected.
MSL =	Mean Sea Level.
MT =	Measured twice.
NA =	Information not available.
NM =	Not Measured.
NOM =	Not on field map.
PD =	Predevelopment measurement.
PE =	Pump Extraction.
PF =	Pump not running at time of measurement.
PS =	Measurement taken just before sampling.
PT =	Pump test interfered with measurement.
RA =	Restricted access.
UC =	Unsafe conditions.
VE =	Vacuum Extraction.
WE =	Well equilibrium suspect.
WR =	Well recovery.

List of Tables

Table Summ-1. Mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Volume of ground water treated (thousands of gal)	Volume of soil vapor treated (thousands of cf)	Estimated total VOC mass removed (g)	Estimated total perchlorate mass removed (g)	Estimated total nitrate mass removed (kg)	Estimated total RDX mass removed (g)	Estimated total TBOS/ TKEBS mass removed (g)	Estimated total Uranium mass removed (g)
CGSA GWTS	972	NA	85	NA	NA	NA	NA	NA
CGSA SVTS	NA	18,260	300	NA	NA	NA	NA	NA
834 GWTS	120	NA	360	NA	59	NA	5.5	NA
834 SVTS	NA	41,632	3,200	NA	NA	NA	NA	NA
815-SRC GWTS	464	NA	8.5	8.2	170	82	NA	NA
815-PRX GWTS	365	NA	30	8.7	110	3.2	NA	NA
815-DSB GWTS	1,655	NA	35	NA	NA	NA	NA	NA
817-SRC GWTS	1	NA	0	0.14	0.46	0.21	NA	NA
817-PRX GWTS	336	NA	10	28	120	14	NA	NA
829-SRC GWTS	<1	NA	0.058	0.036	0.18	NA	NA	NA
PIT7-SRC GWTS	20	NA	0.024	0.88	2.9	NA	NA	2.9
854-SRC GWTS	219	NA	75	5.2	45	NA	NA	NA
854-SRC SVTS	NA	20,023	420	NA	NA	NA	NA	NA
854-PRX GWTS	2,397	NA	51	0	350	NA	NA	NA
854-DIS GWTS	2	NA	0.32	0	0.17	NA	NA	NA
832-SRC GWTS	28	NA	10	0.64	12	NA	NA	NA
832-SRC SVTS	NA	1,231	12	NA	NA	NA	NA	NA
830-SRC GWTS	781	NA	150	0.54	36	NA	NA	NA
830-SRC SVTS	NA	1,670	270	NA	NA	NA	NA	NA
830-DISS GWTS	242	NA	12	2.1	59	NA	NA	NA
Total	7,604	82,816	5,000	54	960	99	5.5	2.9

Notes:

815 = Building 815.
817 = Building 817.
829 = Building 829.
830 = Building 830.
832 = Building 832.
834 = Building 834.
854 = Building 854.
cf = Cubic feet.
CGSA = Central General Services Area.
DIS = Distal.
DISS = Distal south.
DSB = Distal site boundary.
g = Grams.
gal = Gallons.
GWTS = Ground water treatment system.
kg = Kilograms.
NA = Not applicable.
PRX = Proximal.
RDX = Research Department Explosive.
SRC = Source.
SVTS = Soil vapor treatment system.
TBOS = Tetra 2-ethylbutylorthosilicate.
TKEBS = Tetrakis (2-ethylbutyl) silane.
VOC = Volatile organic compound.

Nitrate re-injected into the $Tnbs_2$ HSU undergoes *in situ* biotransformation to benign N_2 gas by anaerobic denitrifying bacteria. Nitrate mass removal is calculated assuming complete removal of nitrate from treated ground water. At Pit7, re-injected effluent may contain nitrate concentrations below the discharge limit but above the detection limit. Thus, nitrate mass removal calculations at Pit7 are overestimated.

Table Summ-2. Summary of cumulative remediation.

Treatment facility	Volume of ground water treated (thousands of gallons)	Volume of soil vapor treated (thousands of Cubic feet)	Estimated total VOC mass removed (kg)	Estimated total perchlorate mass removed (g)	Estimated total nitrate mass removed (kg)	Estimated total RDX mass removed (kg)	Estimated total TBOS/ TKEBS mass removed (kg)	Estimated total Uranium mass removed (kg)
EGSA GWTS	309,379	NA	7.6	NA	NA	NA	NA	NA
CGSA GWTS	27,325	NA	26	NA	NA	NA	NA	NA
CGSA SVTS	NA	219,332	78	NA	NA	NA	NA	NA
834 GWTS	1,531	NA	47	NA	420	NA	9.5	NA
834 SVTS	NA	515,173	360	NA	NA	NA	NA	NA
815-SRC GWTS*	8,705	NA	0.21	290	3,100	2.0	NA	NA
815-PRX GWTS*	9,534	NA	0.98	230	2,800	0.0032	NA	NA
815-DSB GWTS	21,942	NA	0.72	NA	NA	NA	NA	NA
817-SRC GWTS*	67	NA	0	6.9	21	0.011	NA	NA
817-PRX GWTS*	5,984	NA	0.23	510	2,100	0.17	NA	NA
829-SRC GWTS	9	NA	0.00058	0.33	2.5	NA	NA	NA
PIT7-SRC GWTS	192	NA	0.0025	8.6	27	NA	NA	0.024
854-SRC GWTS	13,072	NA	6.0	170	2,400	NA	NA	NA
854-SRC SVTS	NA	155,858	14	NA	NA	NA	NA	NA
854-PRX GWTS	6,953	NA	0.77	180	1,100	NA	NA	NA
854-DIS GWTS	76	NA	0.0094	1.2	5.9	NA	NA	NA
832-SRC GWTS	986	NA	0.29	25	380	NA	NA	NA
832-SRC SVTS	NA	28,308	2.1	NA	NA	NA	NA	NA
830-SRC GWTS	15,193	NA	8.7	27	1,000	NA	NA	NA
830-SRC SVTS	NA	83,853	54	NA	NA	NA	NA	NA
830-PRXN GWTS	1,949	NA	0.26	NA	22	NA	NA	NA
830-DISS GWTS	10,520	NA	1.7	81	2,600	NA	NA	NA
Total	433,419	1,002,525	610	1,500	16,000	2.2	9.5	0.024

Notes:
815 = Building 815.
817 = Building 817.
829 = Building 829.
830 = Building 830.
832 = Building 832.
834 = Building 834.
854 = Building 854.
CGSA = Central General Services Area.
DIS = Distal.
DISS = Distal south.
DSB = Distal site boundary.
EGSA = Eastern General Services Area.
GWTS = Ground water treatment system.
kg = Kilograms.
NA = Not applicable.
PRX = Proximal.
PRXN = Proximal North.
RDX = Research Department Explosive.
SRC = Source.
SVTS = Soil vapor treatment system.
TBOS = Tetra 2-ethylbutylorthosilicate.
TKEBS = Tetrakis (2-ethylbutyl) silane.
VOC = Volatile organic compound.
Nitrate re-injected into the $Tnbs_2$ HSU undergoes *in situ* biotransformation to benign N_2 gas by anaerobic denitrifying bacteria.
Nitrate mass removal is calculated assuming complete removal of nitrate from treated ground water. At Pit7, re-injected effluent may contain nitrate concentrations below the discharge limit but above the detection limit. Thus, nitrate mass removal calculations at Pit7 are overestimated.

Table 2-1. Wells installed during 2015.

Well name	Planned well type	OU	Well installation date	HSU	Drill Depth (ft-bgs)	Casing depth (ft-bgs)	Screened interval(s) (ft-bgs)	Primary COCs	Primary COC sampling frequency	Secondary COCs	Secondary COC sampling frequency
W-830-3102	IW	OU7	5/13/15	$UTnbs_1$	145	130.8	90-130	VOCs	Semi-annually	Perchlorate, Nitrate	Annually
W-830-3101	IW	OU7	7/1/15	$UTnbs_1$/$LTnbs_1$	357	345	204-239 & 269-344[a]	VOCs	Semi-annually	Perchlorate, Nitrate	Annually
W-832-3103	MW	OU7	8/12/15	$UTnbs_1$	315	310.5	290-310	VOCs	Semi-annually	Perchlorate, Nitrate	Annually

Notes:

bgs = Below ground surface.
COC = Contaminant of concern.
ft = Feet.
HSU = Hydrostratigraphic unit.
OU = Operable Unit.
IW = Injection Well.
MW = Monitor Well.

[a] Well has two screened intervals.

Table 2.1-1. Central General Services Area (CGSA) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
CGSA	July	696	0	1,479	0
	August	792	360	1,660	241,969
	September	720	192	1,516	87,987
	October	696	0	1,415	0
	November	768	0	1,589	0
	December	696	0	1,330	0
Total		4,368	552	8,989	329,956

Table 2.1-2. General Services Area Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro-form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
CGSA-I	8/19/15	18	0.97	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CGSA-I	8/19/15 DUP	18	0.98	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CGSA-E	8/19/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CGSA-E	9/1/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

No samples collected in July, October, November, or December due to shut down misting tower motor evaluation .

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.1-2 (Con't). Analyte detected but not reported in main table.

Location	Date	Detection frequency	1,2-DCE (total) (µg/L)
CGSA-I	8/19/15	1 of 18	1.3
CGSA-I	8/19/15 DUP	1 of 18	1.4
CGSA-E	8/19/15	0 of 18	-
CGSA-E	9/1/15	0 of 18	-

Notes:

No samples collected in July, October, November, or December due to shut down misting tower motor evaluation .

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.1-3. Central General Services Area Operable Unit treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
CGSA GWTS			
Influent Port	**CGSA-I**	**VOCs**	**Quarterly**
		pH	**Quarterly**
Effluent Port	**CGSA-E**	**VOCs**	**Monthly**
		pH	**Monthly**
CGSA SVTS			
Influent Port	**CGSA-VI**	**No Monitoring Requirements**	
Effluent Port	**CGSA-VE**	**VOCs**	**Weekly**[a]
Intermediate GAC	**CGSA-VCF2I**	**VOCs**	**Weekly**[a]

Notes:

[a] Weekly monitoring for VOCs will consist of the use of a flame-ionization detector, photo-ionization detector, or other District-approved VOC detection device.

One duplicate and one blank (given fictitious labels) shall be taken for every 12 samples.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.1-4. General Services Area Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
CDF1	WS	LTnbs1	A	WGMG	E502.2:ALL	1	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CDF1	WS	LTnbs1	M	CMP	E624MOD:ALL	2	Y	
CDF1	WS	LTnbs1	M	CMP	E624MOD:ALL	2	Y	
CDF1	WS	LTnbs1	M	CMP	E624MOD:ALL	2	Y	
CDF1	WS	LTnbs1	M	CMP	E624MOD:ALL	3	Y	
CDF1	WS	LTnbs1	M	CMP	E624MOD:ALL	3	Y	
CDF1	WS	LTnbs1	M	CMP	E624MOD:ALL	3	Y	
CDF1	WS	LTnbs1	M	CMP	E624MOD:ALL	4	Y	
CDF1	WS	LTnbs1	M	CMP	E624MOD:ALL	4	Y	
CDF1	WS	LTnbs1	M	CMP	E624MOD:ALL	4	Y	
CON1	WS	LTnbs1	A	WGMG	E502.2:ALL	1	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CON1	WS	LTnbs1	M	CMP	E624MOD:ALL	2	Y	
CON1	WS	LTnbs1	M	CMP	E624MOD:ALL	2	Y	
CON1	WS	LTnbs1	M	CMP	E624MOD:ALL	2	Y	
CON1	WS	LTnbs1	M	CMP	E624MOD:ALL	3	Y	
CON1	WS	LTnbs1	M	CMP	E624MOD:ALL	3	Y	
CON1	WS	LTnbs1	M	CMP	E624MOD:ALL	3	Y	
CON1	WS	LTnbs1	M	CMP	E624MOD:ALL	4	Y	
CON1	WS	LTnbs1	M	CMP	E624MOD:ALL	4	Y	
CON1	WS	LTnbs1	M	CMP	E624MOD:ALL	4	Y	
CON2	WS	LTnbs1	A	WGMG	E601:ALL	1	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CON2	WS	LTnbs1	M	CMP	E624MOD:ALL	2	Y	
CON2	WS	LTnbs1	M	CMP	E624MOD:ALL	2	Y	
CON2	WS	LTnbs1	M	CMP	E624MOD:ALL	2	Y	
CON2	WS	LTnbs1	M	CMP	E624MOD:ALL	3	Y	
CON2	WS	LTnbs1	M	CMP	E624MOD:ALL	3	Y	
CON2	WS	LTnbs1	M	CMP	E624MOD:ALL	3	Y	
CON2	WS	LTnbs1	M	CMP	E624MOD:ALL	4	Y	
CON2	WS	LTnbs1	M	CMP	E624MOD:ALL	4	Y	
CON2	WS	LTnbs1	M	CMP	E624MOD:ALL	4	Y	
W-26R-01	PTMW	Qal-Tnbs1	1	UK	D-15N(NO3):ALL	2	Y	
W-26R-01	PTMW	Qal-Tnbs1	1	UK	D-18O(NO3):ALL	2	Y	
W-26R-01	PTMW	Qal-Tnbs1	1	UK	EXCESSN2:ALL	2	Y	
W-26R-06	PTMW	Qal-Tnbs1	S	CMP	E624MOD:ALL	2	Y	
W-26R-06	PTMW	Qal-Tnbs1	S	CMP	E624MOD:ALL	4	Y	
W-26R-11	PTMW	Qal-Tnbs1	S	DIS	E624MOD:ALL	2	Y	
W-26R-11	PTMW	Qal-Tnbs1	S	DIS	E624MOD:ALL	4	Y	
W-35A-01	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-35A-01	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-35A-02	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-35A-02	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-35A-03	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-35A-03	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-35A-04	PTMW	Qt-Tnsc1	A	WGMG	E524.2MOD:ALL	4	Y	
W-35A-04	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-35A-04	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-35A-05	PTMW	UTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-35A-05	PTMW	UTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-35A-06	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-35A-06	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-35A-07	PTMW	LTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-35A-07	PTMW	LTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-35A-08	GW	Qt-Tnsc1	Q	CMP	E601:ALL	1	Y	
W-35A-08	GW	Qt-Tnsc1	Q	CMP	E624MOD:ALL	2	Y	
W-35A-08	GW	Qt-Tnsc1	Q	CMP	E624MOD:ALL	3	Y	
W-35A-08	GW	Qt-Tnsc1	Q	CMP	E624MOD:ALL	4	Y	

Table 2.1-4. General Services Area Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-35A-09	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-35A-09	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-35A-10	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-35A-10	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-35A-11	PTMW	LTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-35A-11	PTMW	LTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-35A-12	PTMW	UTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-35A-12	PTMW	UTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-35A-13	PTMW	UTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-35A-13	PTMW	UTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-35A-14	GW	Qt-Tnsc1	Q	CMP	E601:ALL	1	Y	
W-35A-14	GW	Qt-Tnsc1	Q	CMP	E624MOD:ALL	2	Y	
W-35A-14	GW	Qt-Tnsc1	Q	CMP	E624MOD:ALL	3	Y	
W-35A-14	GW	Qt-Tnsc1	Q	CMP	E624MOD:ALL	4	Y	
W-7A	PTMW	UTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-7A	PTMW	UTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-7B	PTMW	UTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-7B	PTMW	UTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-7C	PTMW	UTnbs1	S	CMP	E624MOD:ALL	2	N	Inoperable pump.
W-7C	PTMW	UTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-7DS	PTMW	Qal-Tnbs1	S	CMP	E624MOD:ALL	2	Y	
W-7DS	PTMW	Qal-Tnbs1	S	CMP	E624MOD:ALL	4	Y	
W-7E	PTMW	UTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-7E	PTMW	UTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-7ES	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-7ES	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-7F	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-7F	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-7G	PTMW	LTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-7G	PTMW	LTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-7H	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-7H	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-7I	EW	Qt-Tnsc1	Q	DIS-TF	AS:UISO	1	Y	
W-7I	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	Y	
W-7I	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	2	Y	
W-7I	EW	Qt-Tnsc1	S	DIS-TF	E624MOD:ALL	3	Y	
W-7I	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	4	N	Unit off.
W-7J	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-7J	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-7K	PTMW	LTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-7K	PTMW	LTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-7L	PTMW	UTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-7L	PTMW	UTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-7M	PTMW	LTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-7M	PTMW	LTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-7N	PTMW	UTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-7N	PTMW	UTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-7O	EW	Qt-Tnsc1	Q	DIS-TF	AS:UISO	1	Y	
W-7O	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	Y	
W-7O	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	2	Y	
W-7O	EW	Qt-Tnsc1	S	DIS-TF	E624MOD:ALL	3	Y	
W-7O	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	4	N	Unit off.
W-7P	EW	Qal-Tnbs1	Q	DIS-TF	AS:UISO	1	Y	
W-7P	EW	Qal-Tnbs1	S	DIS-TF	E601:ALL	1	Y	
W-7P	EW	Qal-Tnbs1	S	CMP-TF	E624MOD:ALL	2	Y	
W-7P	EW	Qal-Tnbs1	S	DIS-TF	E624MOD:ALL	3	Y	
W-7P	EW	Qal-Tnbs1	S	CMP-TF	E624MOD:ALL	4	N	Unit off.
W-7PS	PTMW	Qal-Tnbs1	S	CMP	E624MOD:ALL	2	N	Dry.
W-7PS	PTMW	Qal-Tnbs1	S	CMP	E624MOD:ALL	4	N	Insufficient water.
W-7Q	PTMW	Qt-Tnsc1	S	DIS	E624MOD:ALL	2	Y	
W-7Q	PTMW	Qt-Tnsc1	S	DIS	E624MOD:ALL	4	Y	
W-7R	EW	Qt-Tnsc1	Q	DIS-TF	AS:UISO	1	Y	
W-7R	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	Y	
W-7R	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	2	Y	

Table 2.1-4. General Services Area Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-7R	EW	Qt-Tnsc1	S	DIS-TF	E624MOD:ALL	3	Y	
W-7R	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	4	N	Unit off.
W-7S	PTMW	Qt-Tnsc1	S	DIS	E624MOD:ALL	2	Y	
W-7S	PTMW	Qt-Tnsc1	S	DIS	E624MOD:ALL	4	Y	
W-7T	PTMW	Qt-Tnsc1	S	DIS	E624MOD:ALL	2	Y	
W-7T	PTMW	Qt-Tnsc1	S	DIS	E624MOD:ALL	4	Y	
W-843-01	PTMW	LTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-843-01	PTMW	LTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-843-02	PTMW	UTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-843-02	PTMW	UTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-872-01	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	N	Insufficient water.
W-872-01	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-872-02	EW	Qt-Tnsc1	Q	DIS-TF	AS:UISO	1	Y	
W-872-02	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	Y	
W-872-02	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	2	Y	
W-872-02	EW	Qt-Tnsc1	S	DIS-TF	E624MOD:ALL	3	Y	
W-872-02	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	4	N	Unit off.
W-873-01	PTMW	LTnbs1	S	CMP	E624MOD:ALL	2	Y	
W-873-01	PTMW	LTnbs1	S	CMP	E624MOD:ALL	4	Y	
W-873-02	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-873-02	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-873-03	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-873-03	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-873-04	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-873-04	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-873-06	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-873-06	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-873-07	EW	Qt-Tnsc1	Q	DIS-TF	AS:UISO	1	N	Inoperable pump.
W-873-07	EW	Qt-Tnsc1	Q	DIS-TF	AS:UISO	2	Y	
W-873-07	EW	Qt-Tnsc1	Q	DIS-TF	AS:UISO	3	Y	
W-873-07	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	N	Inoperable pump.
W-873-07	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	2	Y	
W-873-07	EW	Qt-Tnsc1	S	DIS-TF	E624MOD:ALL	3	Y	
W-873-07	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	4	N	Unit off.
W-875-01	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-875-01	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-875-02	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-875-02	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-875-03	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	N	Insufficient water.
W-875-03	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-875-04	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-875-04	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-875-05	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-875-05	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-875-06	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-875-06	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-875-07	EW	Qt-Tnsc1	Q	DIS-TF	AS:UISO	1	Y	
W-875-07	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	Y	
W-875-07	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	2	Y	
W-875-07	EW	Qt-Tnsc1	S	DIS-TF	E624MOD:ALL	3	Y	
W-875-07	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	4	N	Unit off.
W-875-08	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	Y	
W-875-08	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	2	Y	
W-875-08	EW	Qt-Tnsc1	S	DIS-TF	E624MOD:ALL	3	Y	
W-875-08	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	4	N	Unit off.
W-875-09	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	N	Dry.
W-875-09	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	2	N	Dry.
W-875-09	EW	Qt-Tnsc1	S	DIS-TF	E624MOD:ALL	3	N	Insufficient water.
W-875-09	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	4	N	Unit off.
W-875-10	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	N	Dry.
W-875-10	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	2	N	Dry.
W-875-10	EW	Qt-Tnsc1	S	DIS-TF	E624MOD:ALL	3	N	Insufficient water.
W-875-10	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	4	N	Unit off.
W-875-11	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	N	Dry.

Table 2.1-4. General Services Area Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-875-11	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	2	N	Dry.
W-875-11	EW	Qt-Tnsc1	S	DIS-TF	E624MOD:ALL	3	N	Insufficient water.
W-875-11	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	4	N	Unit off.
W-875-15	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	N	Dry.
W-875-15	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	2	N	Dry.
W-875-15	EW	Qt-Tnsc1	S	DIS-TF	E624MOD:ALL	3	N	Insufficient water.
W-875-15	EW	Qt-Tnsc1	S	CMP-TF	E624MOD:ALL	4	N	Unit off.
W-876-01	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-876-01	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-879-01	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-879-01	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-889-01	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-889-01	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-CGSA-1732	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	N	Insufficient water.
W-CGSA-1732	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	N	Insufficient water.
W-CGSA-1733	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	N	Insufficient water.
W-CGSA-1733	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	N	Insufficient water.
W-CGSA-1735	PTMW	Qal-Tnbs1	S	CMP	E624MOD:ALL	2	N	Dry.
W-CGSA-1735	PTMW	Qal-Tnbs1	S	CMP	E624MOD:ALL	4	N	Dry.
W-CGSA-1736	PTMW	Qal-Tnbs1	S	CMP	E624MOD:ALL	2	Y	
W-CGSA-1736	PTMW	Qal-Tnbs1	S	CMP	E624MOD:ALL	4	Y	
W-CGSA-1737	PTMW	Qal-Tnbs1	S	CMP	E624MOD:ALL	2	Y	
W-CGSA-1737	PTMW	Qal-Tnbs1	S	CMP	E624MOD:ALL	4	Y	
W-CGSA-1739	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	2	Y	
W-CGSA-1739	PTMW	Qt-Tnsc1	S	CMP	E624MOD:ALL	4	Y	
W-CGSA-2708	PTMW	Qt-Tnsc1	Q	DIS-TF	E624MOD:ALL	2	N	Unit off.
W-CGSA-2708	PTMW	Qt-Tnsc1	Q	DIS-TF	E624MOD:ALL	3	N	Inoperable pump.
W-CGSA-2708	PTMW	Qt-Tnsc1	Q	DIS-TF	E624MOD:ALL	4	N	Unit off for freeze protection.

Table 2.1-5. Central General Services Area (CGSA) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
CGSA	July	21	0	NA	NA	NA	NA
	August	24	18	NA	NA	NA	NA
	September	38	5.7	NA	NA	NA	NA
	October	35	0	NA	NA	NA	NA
	November	40	0	NA	NA	NA	NA
	December	0.097	0	NA	NA	NA	NA
Total		160	23	NA	NA	NA	NA

Table 2.2-1. Building 834 (834) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
834	July	648	648	4,968	12,466
	August	681	672	5,135	13,197
	September	672	672	5,209	14,942
	October	672	672	5,369	15,211
	November	528	528	4,364	12,574
	December	0	0	0	0
Total		3,201	3,192	25,045	68,390

Table 2.2-2. Building 834 Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro-form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
834-I	7/6/15	1,200 D	12 D	140 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
834-I	7/6/15 DUP	1,200 D	14	140 D	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	0.52	0.7	<0.5	<0.5
834-I	10/5/15	1,400 D	14	130 D	<12 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
834-E	7/6/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
834-E	8/3/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
834-E	9/1/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
834-E	10/5/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
834-E	11/4/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

No samples collected in December due to shut down for freeze protection.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.2-2 (Con't). Analyte detected but not reported in main table.

Location	Date	Detection frequency	1,2-DCE (total) (µg/L)	Bromodi chloro methane (µg/L)	Bromo-form (µg/L)	Dibromo chloro methane (µg/L)
834-I	7/6/15	1 of 18	140 D	-	-	-
834-I	7/6/15 DUP	4 of 18	140	0.92	2.4	1.2
834-I	10/5/15	1 of 18	130 D	-	-	-
834-E	7/6/15	0 of 18	-	-	-	-
834-E	8/3/15	0 of 18	-	-	-	-
834-E	9/1/15	0 of 18	-	-	-	-
834-E	10/5/15	0 of 18	-	-	-	-
834-E	11/4/15	0 of 18	-	-	-	-

Notes:

No samples collected in December due to shut down for freeze protection.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.2-3. Building 834 Operable Unit diesel range organic compounds in ground water extraction and treatment system influent and effluent.

Location	Date	Diesel Fuel (µg/L)	Diesel Range Organics (C12-C24) (µg/L)
834-I	7/6/15	-	<200
834-I	7/6/15 DUP	<210	-
834-I	10/5/15	-	<200
834-E	7/6/15	-	<200
834-E	8/3/15	-	<200
834-E	9/1/15	-	<200
834-E	10/5/15	-	<200
834-E	11/4/15	-	<200

Notes:
No samples collected in December due to shut down for freeze protection.
See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.2-4. Building 834 Operable Unit tetrabutyl orthosilicate/tetrakis (2-ethylbutyl) silane (TBOS/TKEBS) in ground water extraction and treatment system influent and effluent.

Location	Date	TBOS/TKEBS (µg/L)
834-I	7/6/15	23
834-I	10/5/15	<10
834-E	7/6/15	<10
834-E	8/3/15	<10
834-E	9/1/15	<10
834-E	10/5/15	<10
834-E	11/4/15	<10

Notes:
No samples collected in December due to shut down for freeze protection.
See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.2-5. Building 834 Operable Unit treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
834 GWTS			
Influent Port	834-I	VOCs	Quarterly
		TBOS/TKEBS	Quarterly
		Diesel	Quarterly
		pH	Quarterly
Effluent Port	834-E	VOCs	Monthly
		TBOS/TKEBS	Monthly
		Diesel	Monthly
		pH	Monthly
834 SVTS			
Influent Port	834-VI	No Monitoring Requirements	
Effluent Port	834-VE	VOCs	Weekly[a]
Intermediate GAC	834-VCF4I	VOCs	Weekly[a]

Notes:

[a] **Weekly monitoring for VOCs will consist of the use of a flame-ionization detector, photo-ionization detector, or other District-approved VOC detection device.**

One duplicate and one blank (given fictitious labels) shall be taken for every 12 samples.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.2-6. Building 834 Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-834-1709	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-1709	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-1709	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-1709	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-1711	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-1711	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	N	Insufficient water.
W-834-1711	PTMW	Tps-Tnsc2	S	CMP	E624MOD:ALL	3	Y	
W-834-1711	PTMW	Tps-Tnsc2	A	CMP	TBOS:ALL	1	N	Insufficient water.
W-834-1824	PTMW	Tpsg	A	DIS	E200.7:FE	1	Y	
W-834-1824	PTMW	Tpsg	A	DIS	E200.8:MN	1	Y	
W-834-1824	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-1824	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-1824	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-1824	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	To be sampled in 2016.
W-834-1825	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-1825	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Insufficient water.
W-834-1825	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Insufficient water.
W-834-1825	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	Insufficient water.
W-834-1833	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-1833	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Insufficient water.
W-834-1833	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Insufficient water.
W-834-1833	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	To be sampled in 2016.
W-834-2001	EW	Tps-Tnsc2	A	CMP-TF	E300.0:NO3	1	Y	
W-834-2001	EW	Tps-Tnsc2	S	CMP-TF	E601:ALL	1	Y	
W-834-2001	EW	Tps-Tnsc2	S	DIS-TF	E624:ALL	2	Y	
W-834-2001	EW	Tps-Tnsc2	S	DIS-TF	E624:ALL	4	Y	
W-834-2001	EW	Tps-Tnsc2	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-2001	EW	Tps-Tnsc2	S	DIS-TF	EM8015:DIESEL	1	Y	
W-834-2001	EW	Tps-Tnsc2	S	DIS-TF	EM8015:DIESEL	3	Y	
W-834-2001	EW	Tps-Tnsc2	A	CMP-TF	TBOS:ALL	1	Y	
W-834-2001	EW	Tps-Tnsc2	A	DIS-TF	TBOS:ALL	3	Y	
W-834-2113	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-2113	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-2113	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-2113	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	To be sampled in 2016.
W-834-2117	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-2117	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-2117	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-2117	PTMW	Tpsg	Q	DIS	NPDESMETAL:ALL	2	Y	
W-834-2117	PTMW	Tpsg	Q	DIS	NPDESMETAL:ALL	3	Y	
W-834-2117	PTMW	Tpsg	O	CMP	TBOS:ALL	1	Y	
W-834-2118	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-2118	PTMW	Tpsg	S	DIS	E300.0:PERC	1	Y	
W-834-2118	PTMW	Tpsg	S	DIS	E300.0:PERC	3	Y	
W-834-2118	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-2118	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-2118	PTMW	Tpsg	Q	DIS	NPDESMETAL:ALL	2	Y	
W-834-2118	PTMW	Tpsg	Q	DIS	NPDESMETAL:ALL	3	Y	
W-834-2118	PTMW	Tpsg	O	CMP	TBOS:ALL	1	Y	
W-834-2119	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-834-2119	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	Y	
W-834-2119	PTMW	Tps-Tnsc2	S	CMP	E624MOD:ALL	3	Y	
W-834-2119	PTMW	Tps-Tnsc2	Q	DIS	NPDESMETAL:ALL	2	Y	
W-834-2119	PTMW	Tps-Tnsc2	Q	DIS	NPDESMETAL:ALL	3	Y	
W-834-2119	PTMW	Tps-Tnsc2	E	CMP	TBOS:ALL	1	N	To be sampled in 2016.
W-834-A1	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-834-A1	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	Y	
W-834-A1	PTMW	Tps-Tnsc2	S	CMP	E624MOD:ALL	3	Y	
W-834-A1	PTMW	Tps-Tnsc2	A	CMP	TBOS:ALL	1	Y	
W-834-A2	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-A2	PTMW	Tpsg	S	DIS	E300.0:PERC	1	Y	
W-834-A2	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-A2	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-A2	PTMW	Tpsg	O	DIS	EM8015:DRANGE	1	Y	

Table 2.2-6. Building 834 Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-834-A2	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-B2	EW	Tpsg	Q	DIS-TF	AS:UISO	1	Y	
W-834-B2	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-B2	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-B2	EW	Tpsg	S	DIS-TF	E624MOD:ALL	2	Y	
W-834-B2	EW	Tpsg	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-B2	EW	Tpsg	S	DIS-TF	E624MOD:ALL	4	Y	
W-834-B2	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-B2	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-B3	EW	Tpsg	Q	DIS-TF	AS:UISO	1	Y	
W-834-B3	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-B3	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-B3	EW	Tpsg	S	DIS-TF	E624MOD:ALL	2	Y	
W-834-B3	EW	Tpsg	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-B3	EW	Tpsg	S	DIS-TF	E624MOD:ALL	4	Y	
W-834-B3	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-B3	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-B4	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-B4	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-B4	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Insufficient water.
W-834-B4	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-C2	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-C2	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-C2	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-C2	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-C4	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-C4	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-C4	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-C4	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-C5	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-C5	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-C5	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-C5	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-D2	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D2	PTMW	LTnbs1	A	CMP	E601:ALL	1	N	Dry.
W-834-D2	PTMW	LTnbs1	A	CMP	TBOS:ALL	1	N	Dry.
W-834-D3	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-D3	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-D3	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-D3	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-D4	EW	Tpsg	Q	DIS-TF	AS:UISO	1	Y	
W-834-D4	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-D4	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-D4	EW	Tpsg	S	DIS-TF	E624MOD:ALL	2	Y	
W-834-D4	EW	Tpsg	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-D4	EW	Tpsg	S	DIS-TF	E624MOD:ALL	4	Y	
W-834-D4	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-D4	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-D5	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-D5	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-D5	EW	Tpsg	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-D5	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-D6	EW	Tpsg	Q	DIS-TF	AS:UISO	1	Y	
W-834-D6	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-D6	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-D6	EW	Tpsg	S	DIS-TF	E624MOD:ALL	2	Y	
W-834-D6	EW	Tpsg	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-D6	EW	Tpsg	S	DIS-TF	E624MOD:ALL	4	Y	
W-834-D6	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-D6	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-D7	EW	Tpsg	Q	DIS-TF	AS:UISO	1	Y	
W-834-D7	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-D7	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-D7	EW	Tpsg	S	DIS-TF	E624MOD:ALL	2	Y	

Table 2.2-6. Building 834 Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-834-D7	EW	Tpsg	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-D7	EW	Tpsg	S	DIS-TF	E624MOD:ALL	4	Y	
W-834-D7	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-D7	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-D9A	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D9A	PTMW	Tnbs2	A	CMP	E601:ALL	1	N	Dry.
W-834-D9A	PTMW	Tnbs2	A	CMP	TBOS:ALL	1	N	Dry.
W-834-D10	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D10	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	N	Dry.
W-834-D10	PTMW	Tps-Tnsc2	S	CMP	E624MOD:ALL	3	N	Insufficient water.
W-834-D10	PTMW	Tps-Tnsc2	A	CMP	TBOS:ALL	1	N	Dry.
W-834-D11	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-D11	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-D11	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Insufficient water.
W-834-D11	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-D12	EW	Tpsg	Q	DIS-TF	AS:UISO	1	Y	
W-834-D12	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-D12	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-D12	EW	Tpsg	S	DIS-TF	E624MOD:ALL	2	Y	
W-834-D12	EW	Tpsg	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-D12	EW	Tpsg	S	DIS-TF	E624MOD:ALL	4	Y	
W-834-D12	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-D12	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-D13	EW	Tpsg	Q	DIS-TF	AS:UISO	1	Y	
W-834-D13	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-D13	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-D13	EW	Tpsg	S	DIS-TF	E624MOD:ALL	2	Y	
W-834-D13	EW	Tpsg	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-D13	EW	Tpsg	S	DIS-TF	E624MOD:ALL	4	Y	
W-834-D13	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-D13	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-D14	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-D14	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-D14	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Insufficient water.
W-834-D14	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-D15	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-D15	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-D15	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Insufficient water.
W-834-D15	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-D16	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D16	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-D16	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-D16	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-D17	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-D17	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Insufficient water.
W-834-D17	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-D17	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Insufficient water.
W-834-D18	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D18	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-D18	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-D18	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-G3	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-G3	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-834-G3	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-H2	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-H2	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-H2	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-H2	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-J1	EW	Tpsg	Q	DIS-TF	AS:UISO	1	Y	
W-834-J1	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-J1	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-J1	EW	Tpsg	S	DIS-TF	E624MOD:ALL	2	Y	
W-834-J1	EW	Tpsg	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-J1	EW	Tpsg	S	DIS-TF	E624MOD:ALL	4	Y	

Table 2.2-6. Building 834 Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-834-J1	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-J1	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-J2	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-J2	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-J2	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-J2	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-J3	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-J3	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-J3	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-J3	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	Dry.
W-834-K1A	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-K1A	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Insufficient water.
W-834-K1A	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-K1A	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Insufficient water.
W-834-M1	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-M1	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-M1	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-M1	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	Insufficient water.
W-834-M2	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-M2	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-M2	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-M2	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	Insufficient water.
W-834-S1	EW	Tpsg	Q	DIS-TF	AS:UISO	1	Y	
W-834-S1	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-S1	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-S1	EW	Tpsg	S	DIS-TF	E624MOD:ALL	2	Y	
W-834-S1	EW	Tpsg	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-S1	EW	Tpsg	S	DIS-TF	E624MOD:ALL	4	Y	
W-834-S1	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-S1	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-S10	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-S10	PTMW	Tpsg	S	CMP	E624:ALL	1	N	Dry.
W-834-S10	PTMW	Tpsg	S	CMP	E624:ALL	3	N	Dry.
W-834-S10	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-S12A	EW	Tpsg	Q	DIS-TF	AS:UISO	1	Y	
W-834-S12A	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-S12A	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-S12A	EW	Tpsg	S	DIS-TF	E624MOD:ALL	2	Y	
W-834-S12A	EW	Tpsg	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-S12A	EW	Tpsg	S	DIS-TF	E624MOD:ALL	4	Y	
W-834-S12A	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-S12A	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-S13	EW	Tpsg	Q	DIS-TF	AS:UISO	1	Y	
W-834-S13	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-S13	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-S13	EW	Tpsg	S	DIS-TF	E624MOD:ALL	2	Y	
W-834-S13	EW	Tpsg	S	CMP-TF	E624MOD:ALL	3	Y	
W-834-S13	EW	Tpsg	S	DIS-TF	E624MOD:ALL	4	Y	
W-834-S13	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-S13	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-S4	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-S4	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-S4	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-S4	PTMW	Tpsg	O	CMP	TBOS:ALL	1	Y	
W-834-S5	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-S5	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-S5	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-S5	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	Dry.
W-834-S6	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-S6	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Insufficient water.
W-834-S6	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Insufficient water.
W-834-S6	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	To be sampled in 2016.
W-834-S7	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-S7	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.

Table 2.2-6. Building 834 Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-834-S7	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-S7	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	To be sampled in 2016.
W-834-S8	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	N	Dry.
W-834-S8	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	N	Dry.
W-834-S8	PTMW	Tps-Tnsc2	S	CMP	E624MOD:ALL	3	Y	
W-834-S8	PTMW	Tps-Tnsc2	O	CMP	TBOS:ALL	1	N	Dry.
W-834-S9	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-834-S9	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	Y	
W-834-S9	PTMW	Tps-Tnsc2	S	CMP	E624MOD:ALL	3	Y	
W-834-S9	PTMW	Tps-Tnsc2	E	CMP	TBOS:ALL	1	N	To be sampled in 2016.
W-834-T1	GW	LTnbs1	S	CMP	E300.0:NO3	1	Y	
W-834-T1	GW	LTnbs1	S	CMP	E300.0:NO3	3	Y	
W-834-T1	GW	LTnbs1	Q	CMP	E601:ALL	1	Y	
W-834-T1	GW	LTnbs1	Q	CMP	E624MOD:ALL	2	Y	
W-834-T1	GW	LTnbs1	Q	CMP	E624MOD:ALL	3	Y	
W-834-T1	GW	LTnbs1	Q	CMP	E624MOD:ALL	4	Y	
W-834-T1	GW	LTnbs1	Q	DIS	NPDESMETAL:ALL	2	Y	
W-834-T1	GW	LTnbs1	Q	DIS	NPDESMETAL:ALL	3	Y	
W-834-T1	GW	LTnbs1	S	CMP	TBOS:ALL	1	Y	
W-834-T1	GW	LTnbs1	S	CMP	TBOS:ALL	3	Y	
W-834-T11	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T11	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-T11	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-T11	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	To be sampled in 2016.
W-834-T2	PTMW	Tpsg	A	DIS	E200.7:FE	1	Y	
W-834-T2	PTMW	Tpsg	A	DIS	E200.8:MN	1	Y	
W-834-T2	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-T2	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-T2	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-T2	PTMW	Tpsg	O	CMP	TBOS:ALL	1	Y	
W-834-T2A	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-T2A	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-T2A	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-T2A	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	To be sampled in 2016.
W-834-T2B	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T2B	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-T2B	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-T2B	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	Dry.
W-834-T2C	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	
W-834-T2C	PTMW	Tpsg	S	CMP	E601:ALL	1	N	
W-834-T2C	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-T2C	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	To be sampled in 2016.
W-834-T2D	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-T2D	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-T2D	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	Y	
W-834-T2D	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	To be sampled in 2016.
W-834-T3	GW	LTnbs1	S	CMP	E300.0:NO3	1	N	Restricted access.
W-834-T3	GW	LTnbs1	S	CMP	E300.0:NO3	3	Y	
W-834-T3	GW	LTnbs1	Q	CMP	E601:ALL	1	N	Restricted access.
W-834-T3	GW	LTnbs1	Q	CMP	E624MOD:ALL	2	Y	
W-834-T3	GW	LTnbs1	Q	CMP	E624MOD:ALL	3	Y	
W-834-T3	GW	LTnbs1	Q	CMP	E624MOD:ALL	4	Y	
W-834-T3	GW	LTnbs1	S	CMP	TBOS:ALL	1	N	Restricted access.
W-834-T3	GW	LTnbs1	S	CMP	TBOS:ALL	3	Y	
W-834-T5	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-834-T5	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	Y	
W-834-T5	PTMW	Tps-Tnsc2	S	CMP	E624MOD:ALL	3	Y	
W-834-T5	PTMW	Tps-Tnsc2	E	CMP	TBOS:ALL	1	N	To be sampled in 2016.
W-834-T7A	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T7A	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	N	Dry.
W-834-T7A	PTMW	Tps-Tnsc2	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-T7A	PTMW	Tps-Tnsc2	O	CMP	TBOS:ALL	1	N	Dry.
W-834-T8A	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T8A	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.

Table 2.2-6. Building 834 Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-834-T8A	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-T8A	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	Dry.
W-834-T9	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T9	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-T9	PTMW	Tpsg	S	CMP	E624MOD:ALL	3	N	Dry.
W-834-T9	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	Dry.
W-834-U1	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-834-U1	PTMW	Tps-Tnsc2	S	CMP	E624:ALL	1	Y	
W-834-U1	PTMW	Tps-Tnsc2	S	CMP	E624:ALL	3	Y	
W-834-U1	PTMW	Tps-Tnsc2	A	DIS	EM8015:DIESEL	1	Y	
W-834-U1	PTMW	Tps-Tnsc2	A	CMP	TBOS:ALL	1	Y	

Table 2.2-7. Building 834 (834) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
834	July	270	53	NA	6.1	NA	0.95
	August	280	66	NA	6.5	NA	0.69
	September	490	50	NA	7.2	NA	0
	October	570	41	NA	7.4	NA	0
	November	460	30	NA	6.2	NA	0
	December	0	0	NA	0	NA	0
Total		2,100	240	NA	33	NA	1.6

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
BC6-10	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
BC6-10	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
BC6-10	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
BC6-10	PTMW	LTnbs1	S	CMP	E624MOD:ALL	3	Y	
BC6-10	PTMW	LTnbs1	S	CMP	E906:ALL	1	Y	
BC6-10	PTMW	LTnbs1	S	CMP	E906:ALL	3	Y	
BC6-13	PTMW	Qt-Tnbs1	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.
BC6-13	PTMW	Qt-Tnbs1	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
BC6-13	PTMW	Qt-Tnbs1	E	CMP	E624MOD:ALL	1	N	To be sampled in 2016.
BC6-13	PTMW	Qt-Tnbs1	E	CMP	E906:ALL	1	N	To be sampled in 2016.
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E624:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E624:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E624:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E624:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E8330:R+H	1	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E8330:R+H	2	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E8330:R+H	3	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E8330:R+H	4	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	WGMGMET3:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	WGMGMET3:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	WGMGMET3:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	WGMGMET3:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	AS:UISO	1	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	AS:UISO	2	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	AS:UISO	3	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	AS:UISO	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E502.2:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E524.2MOD:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E524.2MOD:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E524.2MOD:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E8330:R+H	1	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E8330:R+H	2	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E8330:R+H	3	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E8330:R+H	4	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	WGMGMET3:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	WGMGMET3:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	WGMGMET3:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	WGMGMET3:ALL	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E624MOD:ALL	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
EP6-06	DMW	LTnbs1	A	WGMG	AS:UISO	1	Y	
EP6-06	DMW	LTnbs1	A	WGMG	E160.1:ALL	1	Y	
EP6-06	DMW	LTnbs1	A	WGMG	E210.2:ALL	1	Y	
EP6-06	DMW	LTnbs1	A	WGMG	E245.2:ALL	1	Y	
EP6-06	DMW	LTnbs1	A	WGMG	E300.0:NO3	1	Y	
EP6-06	DMW	LTnbs1	A	WGMG	E300.0:PERC	1	Y	
EP6-06	DMW	LTnbs1	S	WGMG	E601:ALL	1	Y	
EP6-06	DMW	LTnbs1	A	WGMG	E602:ALL	1	Y	
EP6-06	DMW	LTnbs1	S	WGMG	E624MOD:ALL	3	Y	
EP6-06	DMW	LTnbs1	A	WGMG	E900:ALL	1	Y	
EP6-06	DMW	LTnbs1	S	WGMG	E906:ALL	1	Y	
EP6-06	DMW	LTnbs1	S	WGMG	E906:ALL	3	Y	
EP6-07	PTMW	Qt-Tnbs1	A	WGMG	AS:UISO	1	Y	
EP6-07	PTMW	Qt-Tnbs1	A	WGMG	E160.1:ALL	1	Y	
EP6-07	PTMW	Qt-Tnbs1	A	WGMG	E210.2:ALL	1	Y	
EP6-07	PTMW	Qt-Tnbs1	A	WGMG	E245.2:ALL	1	Y	
EP6-07	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
EP6-07	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
EP6-07	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
EP6-07	PTMW	Qt-Tnbs1	A	WGMG	E602:ALL	1	Y	
EP6-07	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	Y	
EP6-07	PTMW	Qt-Tnbs1	A	WGMG	E900:ALL	1	Y	
EP6-07	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
EP6-07	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
EP6-08	DMW	Qt-Tnbs1	A	WGMG	AS:UISO	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	A	WGMG	E160.1:ALL	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	A	WGMG	E210.2:ALL	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	A	WGMG	E245.2:ALL	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	A	WGMG	E300.0:NO3	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	A	WGMG	E300.0:PERC	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	S	WGMG	E601:ALL	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	A	WGMG	E602:ALL	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	S	WGMG	E624MOD:ALL	3	N	Dry.
EP6-08	DMW	Qt-Tnbs1	A	WGMG	E900:ALL	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	S	WGMG	E906:ALL	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	S	WGMG	E906:ALL	3	N	Dry.
EP6-09	DMW	Qt-Tnbs1	A	WGMG	AS:UISO	1	Y	
EP6-09	DMW	Qt-Tnbs1	A	WGMG	E160.1:ALL	1	Y	
EP6-09	DMW	Qt-Tnbs1	A	WGMG	E210.2:ALL	1	Y	
EP6-09	DMW	Qt-Tnbs1	A	WGMG	E245.2:ALL	1	Y	
EP6-09	DMW	Qt-Tnbs1	A	WGMG	E300.0:NO3	1	Y	
EP6-09	DMW	Qt-Tnbs1	A	WGMG	E300.0:PERC	1	Y	
EP6-09	DMW	Qt-Tnbs1	S	WGMG	E601:ALL	1	Y	
EP6-09	DMW	Qt-Tnbs1	A	WGMG	E602:ALL	1	Y	
EP6-09	DMW	Qt-Tnbs1	S	WGMG	E624MOD:ALL	3	Y	
EP6-09	DMW	Qt-Tnbs1	A	WGMG	E900:ALL	1	Y	
EP6-09	DMW	Qt-Tnbs1	S	WGMG	E906:ALL	1	Y	
EP6-09	DMW	Qt-Tnbs1	S	WGMG	E906:ALL	3	Y	
K6-01	DMW	Qt-Tnbs1	A	WGMG	AS:UISO	1	Y	
K6-01	DMW	Qt-Tnbs1	A	WGMG	E160.1:ALL	1	Y	
K6-01	DMW	Qt-Tnbs1	A	WGMG	E210.2:ALL	1	Y	
K6-01	DMW	Qt-Tnbs1	A	WGMG	E245.2:ALL	1	Y	
K6-01	DMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
K6-01	DMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-01	DMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-01	DMW	Qt-Tnbs1	A	WGMG	E602:ALL	1	Y	
K6-01	DMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	Y	
K6-01	DMW	Qt-Tnbs1	A	WGMG	E900:ALL	1	Y	
K6-01	DMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-01	DMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
K6-01S	DMW	Qt-Tnbs1	A	WGMG	AS:UISO	1	Y	
K6-01S	DMW	Qt-Tnbs1	A	WGMG	E160.1:ALL	1	Y	
K6-01S	DMW	Qt-Tnbs1	A	WGMG	E210.2:ALL	1	Y	
K6-01S	DMW	Qt-Tnbs1	A	WGMG	E245.2:ALL	1	Y	
K6-01S	DMW	Qt-Tnbs1	A	WGMG	E300.0:NO3	1	Y	
K6-01S	DMW	Qt-Tnbs1	A	WGMG	E300.0:PERC	1	Y	
K6-01S	DMW	Qt-Tnbs1	S	WGMG	E601:ALL	1	Y	
K6-01S	DMW	Qt-Tnbs1	A	WGMG	E602:ALL	1	Y	
K6-01S	DMW	Qt-Tnbs1	S	WGMG	E624MOD:ALL	3	Y	
K6-01S	DMW	Qt-Tnbs1	A	WGMG	E900:ALL	1	Y	
K6-01S	DMW	Qt-Tnbs1	S	WGMG	E906:ALL	1	Y	
K6-01S	DMW	Qt-Tnbs1	S	WGMG	E906:ALL	3	Y	
K6-03	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
K6-03	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-03	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-03	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	Y	
K6-03	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-03	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
K6-04	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
K6-04	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-04	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-04	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K6-04	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-04	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
K6-14	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
K6-14	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
K6-14	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
K6-14	PTMW	LTnbs1	S	CMP	E624MOD:ALL	3	Y	
K6-14	PTMW	LTnbs1	S	CMP	E906:ALL	1	Y	
K6-14	PTMW	LTnbs1	S	CMP	E906:ALL	3	Y	
K6-15	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	N	Dry.
K6-15	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	N	Dry.
K6-15	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	N	Dry.
K6-15	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	N	Dry.
K6-15	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	N	Dry.
K6-15	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	N	Dry.
K6-16	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
K6-16	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-16	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-16	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	Y	
K6-16	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-16	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
K6-17	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	1	Y	
K6-17	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	3	Y	
K6-17	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	1	Y	
K6-17	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	3	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E601:ALL	1	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E624MOD:ALL	2	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E624MOD:ALL	3	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E624MOD:ALL	4	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E906:ALL	1	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E906:ALL	2	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E906:ALL	3	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E906:ALL	4	Y	
K6-17	GW	Qt-Tnbs1	S	WGMG	SM9221:ALL	1	Y	
K6-17	GW	Qt-Tnbs1	S	WGMG	SM9221:ALL	3	Y	
K6-18	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
K6-18	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-18	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-18	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	Y	
K6-18	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-18	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
K6-19	DMW	Qt-Tnbs1	A	WGMG	AS:UISO	1	Y	
K6-19	DMW	Qt-Tnbs1	A	WGMG	E160.1:ALL	1	Y	
K6-19	DMW	Qt-Tnbs1	A	WGMG	E210.2:ALL	1	Y	
K6-19	DMW	Qt-Tnbs1	A	WGMG	E245.2:ALL	1	Y	
K6-19	DMW	Qt-Tnbs1	A	WGMG	E300.0:NO3	1	Y	
K6-19	DMW	Qt-Tnbs1	A	WGMG	E300.0:PERC	1	Y	
K6-19	DMW	Qt-Tnbs1	S	WGMG	E601:ALL	1	Y	
K6-19	DMW	Qt-Tnbs1	A	WGMG	E602:ALL	1	Y	
K6-19	DMW	Qt-Tnbs1	S	WGMG	E624MOD:ALL	3	Y	
K6-19	DMW	Qt-Tnbs1	A	WGMG	E900:ALL	1	Y	
K6-19	DMW	Qt-Tnbs1	S	WGMG	E906:ALL	1	Y	
K6-19	DMW	Qt-Tnbs1	S	WGMG	E906:ALL	3	Y	
K6-21	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	N	Dry.
K6-21	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	N	Dry.
K6-21	PTMW	LTnbs1	A	CMP	E601:ALL	1	N	Dry.
K6-21	PTMW	LTnbs1	A	CMP	E906:ALL	1	N	Dry.
K6-22	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	1	Y	
K6-22	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	3	Y	
K6-22	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	1	Y	
K6-22	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	3	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E601:ALL	1	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E624MOD:ALL	2	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E624MOD:ALL	3	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E624MOD:ALL	4	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K6-22	GW	Qt-Tnbs1	Q	CMP	E906:ALL	1	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E906:ALL	2	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E906:ALL	3	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E906:ALL	4	Y	
K6-23	PTMW	Qt-Tnbs1	S	CMP	E300.0:NO3	1	Y	
K6-23	PTMW	Qt-Tnbs1	S	CMP	E300.0:NO3	3	Y	
K6-23	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-23	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-23	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	Y	
K6-23	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-23	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
K6-23	PTMW	Qt-Tnbs1	S	WGMG	SM9221:ALL	1	Y	
K6-23	PTMW	Qt-Tnbs1	S	WGMG	SM9221:ALL	3	Y	
K6-24	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	N	Dry.
K6-24	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	N	Dry.
K6-24	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	N	Dry.
K6-24	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	N	Insufficient water.
K6-24	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	N	Dry.
K6-24	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	N	Insufficient water.
K6-25	PTMW	Tmss	A	CMP	E300.0:NO3	1	Y	
K6-25	PTMW	Tmss	A	CMP	E300.0:PERC	1	Y	
K6-25	PTMW	Tmss	S	CMP	E601:ALL	1	Y	
K6-25	PTMW	Tmss	S	CMP	E624MOD:ALL	3	Y	
K6-25	PTMW	Tmss	S	CMP	E906:ALL	1	Y	
K6-25	PTMW	Tmss	S	CMP	E906:ALL	3	Y	
K6-26	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
K6-26	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
K6-26	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
K6-26	PTMW	LTnbs1	S	CMP	E624MOD:ALL	3	Y	
K6-26	PTMW	LTnbs1	S	CMP	E906:ALL	1	Y	
K6-26	PTMW	LTnbs1	S	CMP	E906:ALL	3	Y	
K6-27	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
K6-27	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-27	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-27	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	Y	
K6-27	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-27	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
K6-32	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	N	Dry.
K6-32	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	N	Dry.
K6-32	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	N	Dry.
K6-32	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	N	Dry.
K6-32	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	N	Dry.
K6-32	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	N	Dry.
K6-33	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
K6-33	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-33	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-33	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	Y	
K6-33	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-33	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
K6-34	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	1	Y	
K6-34	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	3	Y	
K6-34	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	1	Y	
K6-34	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	3	Y	
K6-34	GW	Qt-Tnbs1	Q	CMP	E601:ALL	1	Y	
K6-34	GW	Qt-Tnbs1	Q	CMP	E624MOD:ALL	2	Y	
K6-34	GW	Qt-Tnbs1	Q	CMP	E624MOD:ALL	3	Y	
K6-34	GW	Qt-Tnbs1	Q	CMP	E624MOD:ALL	4	Y	
K6-34	GW	Qt-Tnbs1	Q	CMP	E906:ALL	1	Y	
K6-34	GW	Qt-Tnbs1	Q	CMP	E906:ALL	2	Y	
K6-34	GW	Qt-Tnbs1	Q	CMP	E906:ALL	3	Y	
K6-34	GW	Qt-Tnbs1	Q	CMP	E906:ALL	4	Y	
K6-35	PTMW	Qt-Tnbs1	A	WGMG	AS:UISO	1	Y	
K6-35	PTMW	Qt-Tnbs1	A	WGMG	E160.1:ALL	1	Y	
K6-35	PTMW	Qt-Tnbs1	A	WGMG	E210.2:ALL	1	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K6-35	PTMW	Qt-Tnbs1	A	WGMG	E245.2:ALL	1	Y	
K6-35	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
K6-35	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-35	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-35	PTMW	Qt-Tnbs1	A	WGMG	E602:ALL	1	Y	
K6-35	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	Y	
K6-35	PTMW	Qt-Tnbs1	A	WGMG	E900:ALL	1	Y	
K6-35	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-35	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
K6-36	DMW	Qt-Tnbs1	A	WGMG	AS:UISO	1	N	Insufficient water.
K6-36	DMW	Qt-Tnbs1	A	WGMG	E160.1:ALL	1	N	Insufficient water.
K6-36	DMW	Qt-Tnbs1	A	WGMG	E210.2:ALL	1	N	Insufficient water.
K6-36	DMW	Qt-Tnbs1	A	WGMG	E245.2:ALL	1	N	Insufficient water.
K6-36	DMW	Qt-Tnbs1	A	WGMG	E300.0:NO3	1	N	Insufficient water.
K6-36	DMW	Qt-Tnbs1	A	WGMG	E300.0:PERC	1	N	Insufficient water.
K6-36	DMW	Qt-Tnbs1	S	WGMG	E601:ALL	1	N	Insufficient water.
K6-36	DMW	Qt-Tnbs1	A	WGMG	E602:ALL	1	N	Insufficient water.
K6-36	DMW	Qt-Tnbs1	S	WGMG	E624MOD:ALL	3	N	Dry.
K6-36	DMW	Qt-Tnbs1	A	WGMG	E900:ALL	1	N	Insufficient water.
K6-36	DMW	Qt-Tnbs1	S	WGMG	E906:ALL	1	N	Insufficient water.
K6-36	DMW	Qt-Tnbs1	S	WGMG	E906:ALL	3	N	Dry.
W-33C-01	PTMW	Tts	A	CMP	E300.0:NO3	1	Y	
W-33C-01	PTMW	Tts	A	CMP	E300.0:PERC	1	Y	
W-33C-01	PTMW	Tts	S	CMP	E601:ALL	1	Y	
W-33C-01	PTMW	Tts	S	CMP	E624MOD:ALL	3	Y	
W-33C-01	PTMW	Tts	S	CMP	E906:ALL	1	Y	
W-33C-01	PTMW	Tts	S	CMP	E906:ALL	3	Y	
SPRING15	SPR	Qt-Tnbs1	O	CMP	E300.0:NO3	1	N	Dry.
SPRING15	SPR	Qt-Tnbs1	O	CMP	E300.0:PERC	1	N	Dry.
SPRING15	SPR	Qt-Tnbs1	O	CMP	E601:ALL	1	N	Dry.
SPRING15	SPR	Qt-Tnbs1	O	CMP	E906:ALL	1	N	Dry.
SPRING15	SPR	Qt-Tnbs1	Q	WGMG	NUTRIENTS:ALL	1	N	Dry.
SPRING15	SPR	Qt-Tnbs1	Q	WGMG	NUTRIENTS:ALL	2	N	Dry.
SPRING15	SPR	Qt-Tnbs1	Q	WGMG	NUTRIENTS:ALL	3	N	Dry.
SPRING15	SPR	Qt-Tnbs1	Q	WGMG	NUTRIENTS:ALL	4	N	Dry.
W-PIT6-1819	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	1	Y	
W-PIT6-1819	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	3	Y	
W-PIT6-1819	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	1	Y	
W-PIT6-1819	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	3	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E601:ALL	1	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E624MOD:ALL	2	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E624MOD:ALL	3	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E624MOD:ALL	4	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E906:ALL	1	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E906:ALL	2	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E906:ALL	3	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E906:ALL	4	Y	
W-PIT6-2816	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
W-PIT6-2816	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
W-PIT6-2816	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
W-PIT6-2816	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	Y	
W-PIT6-2816	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
W-PIT6-2816	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
W-PIT6-2817	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
W-PIT6-2817	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
W-PIT6-2817	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
W-PIT6-2817	PTMW	Qt-Tnbs1	S	CMP	E624MOD:ALL	3	Y	
W-PIT6-2817	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
W-PIT6-2817	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	

Table 2.4-1. Building 815-Source (815-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
815-SRC	July	NA	692	NA	67,930
	August	NA	790	NA	78,054
	September	NA	641	NA	57,459
	October	NA	692	NA	56,787
	November	NA	441	NA	35,544
	December	NA	0	NA	0
Total		NA	3,256	NA	295,774

Table 2.4-2. Building 815-Proximal (815-PRX) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
815-PRX	July	NA	657	NA	55,228
	August	NA	700	NA	46,126
	September	NA	0	NA	0
	October	NA	0	NA	0
	November	NA	0	NA	0
	December	NA	0	NA	0
Total		NA	1,357	NA	101,354

Table 2.4-3. Building 815-Distal Site Boundary (815-DSB) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
815-DSB	July	NA	696	NA	144,568
	August	NA	792	NA	160,921
	September	NA	709	NA	140,978
	October	NA	668	NA	93,162
	November	NA	639	NA	128,726
	December	NA	696	NA	128,610
Total		NA	4,200	NA	796,965

Table 2.4-4. Building 817-Source (817-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
817-SRC	July	NA	5	NA	302
	August	NA	5	NA	286
	September	NA	0	NA	0
	October	NA	0	NA	0
	November	NA	0	NA	0
	December	NA	0	NA	0
Total		NA	10	NA	588

Table 2.4-5. Building 817-Proximal (817-PRX) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
817-PRX	July	NA	728	NA	63,483
	August	NA	779	NA	66,768
	September	NA	725	NA	59,651
	October	NA	671	NA	48,590
	November	NA	493	NA	37,985
	December	NA	0	NA	0
Total		NA	3,396	NA	276,477

Table 2.4-6. Building 829-Source (829-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
829-SRC	July	NA	334	NA	60
	August	NA	836	NA	91
	September	NA	627	NA	64
	October	NA	670	NA	87
	November	NA	529	NA	61
	December	NA	0	NA	0
Total		NA	2,996	NA	363

Table 2.4-7. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
Building 815-Distal Site Boundary															
815-DSB-I	7/6/15	5.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-I	10/5/15	5.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-E	7/6/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-E	8/3/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-E	9/1/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-E	10/5/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-E	11/4/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-E	12/1/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 815-Proximal[a]															
815-PRX-I	7/6/15	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-PRX-I	7/6/15 DUP	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-PRX-E	7/6/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-PRX-E	8/3/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 815-Source[b]															
815-SRC-I	7/7/15	7.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.59	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-I	7/7/15 DUP	6.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-I	10/5/15	4.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-E	7/7/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-E	8/3/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-E	9/1/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-E	10/5/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-E	11/4/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 817-Proximal[b]															
817-PRX-I	7/13/15	7.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-I	7/13/15 DUP	7.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-I	10/6/15	7.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	7/13/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	8/3/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	9/1/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	10/6/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	11/4/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.4-7. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
Building 817-Source[c]															
817-SRC-I	7/7/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-SRC-I	7/7/15 DUP	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-SRC-E	7/7/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-SRC-E[d]	7/13/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-SRC-E[d]	7/16/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-SRC-E	8/3/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 829-Source[e]															
829-SRC-I	7/6/15	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
829-SRC-I	7/6/15 DUP	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
829-SRC-I	10/5/15	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

[a] No samples collected after August due to system shutdown for construction activities.

[b] No samples collected in December due to shut down for freeze protection.

[c] No samples collected after August due to system shutdown for extraction well evaluation.

[d] Extra effluent samples collected due to Methylene chloride detection.

[e] Only influent sampling required quaterly. Extracted water fron 829-SRC is treated at 815-SRC.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.4-7 (Con't). Analyte detected but not reported in main table.

Location	Date	Detection frequency	Methylene chloride (µg/L)
Building 815-Distal Site Boundary			
815-DSB-I	42191	0 of 18	-
815-DSB-I	42282	0 of 18	-
815-DSB-E	42191	0 of 18	-
815-DSB-E	42219	0 of 18	-
815-DSB-E	42248	0 of 18	-
815-DSB-E	42282	0 of 18	-
815-DSB-E	42312	0 of 18	-
815-DSB-E	42339	0 of 18	-
Building 815-Proximal			
815-PRX-I	42191	0 of 18	-
815-PRX-I	7/6/15 DUP	0 of 18	-
815-PRX-E	42191	0 of 18	-
815-PRX-E	42219	0 of 18	-
Building 815-Source			
815-SRC-I	42192	0 of 18	-
815-SRC-I	7/7/15 DUP	0 of 18	-
815-SRC-I	42282	0 of 18	-
815-SRC-E	42192	0 of 18	-
815-SRC-E	42219	0 of 18	-
815-SRC-E	42248	0 of 18	-
815-SRC-E	42282	0 of 18	-
815-SRC-E	42312	0 of 18	-
Building 817-Proximal			
817-PRX-I	42198	0 of 18	-
817-PRX-I	7/13/15 DUP	0 of 18	-
817-PRX-I	42283	0 of 18	-
817-PRX-E	42198	0 of 18	-
817-PRX-E	42219	0 of 18	-
817-PRX-E	42248	0 of 18	-
817-PRX-E	42283	0 of 18	-
817-PRX-E	42312	0 of 18	-
Building 817-Source[c]			
817-SRC-I	42192	0 of 18	-
817-SRC-I	7/7/15 DUP	0 of 18	-
817-SRC-E	42192	1 of 18	1
817-SRC-E[d]	42198	0 of 18	-
817-SRC-E[d]	42201	0 of 18	-
817-SRC-E	42219	0 of 18	-
Building 829-Source[e]			
829-SRC-I	42191	0 of 18	-
829-SRC-I	7/6/15 DUP	0 of 18	-
829-SRC-I	42282	0 of 18	-

Notes:

[a] No samples collected after August due to system shutdown for construction activities.

[b] No samples collected in December due to shut down for freeze protection.

[c] Extra effluent samples collected due to Methylene chloride detection.

[d] Only influent sampling required quaterly. Extracted water fron 829-SRC is treated at 815-SRC.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.4-8. High Explosives Process Area Operable Unit nitrate and perchlorate in ground water extraction and treatment system influent and effluent.

Location	Date	Nitrate as NO3 (mg/L)	Perchlorate (µg/L)
Building 815-Distal Site Boundary[a]			
815-DSB-I	7/6/15	<1 D	-
815-DSB-I	7/6/15 DUP	<0.5	-
815-DSB-I	10/5/15	<0.5	-
Building 815-Proximal[b]			
815-PRX-I	7/6/15	-	6.5
815-PRX-I	7/6/15 DUP	-	9
815-PRX-E	7/6/15	-	<4
815-PRX-E	8/3/15	-	<4
Building 815-Source[c]			
815-SRC-I	7/7/15	-	5.8
815-SRC-I	7/7/15 DUP	-	<4
815-SRC-I	10/5/15	-	4
815-SRC-E	7/7/15	-	<4
815-SRC-E	8/3/15	-	<4
815-SRC-E	9/1/15	-	<4
815-SRC-E	10/5/15	-	<4
815-SRC-E	11/4/15	-	<4
Building 817-Proximal[c]			
817-PRX-I	7/13/15	-	21 D
817-PRX-I	7/13/15 DUP	-	19
817-PRX-I	10/6/15	-	23 D
817-PRX-E	7/13/15	-	<4
817-PRX-E	8/3/15	-	<4
817-PRX-E	9/1/15	-	<4
817-PRX-E	10/6/15	-	<4 H
817-PRX-E	11/4/15	-	<4
Building 817-Source[d]			
817-SRC-I	7/7/15	-	32 D
817-SRC-I	7/7/15 DUP	-	14
817-SRC-E	7/7/15	-	<4
817-SRC-E	8/3/15	-	<4
Building 829-Source[e]			
829-SRC-I	7/6/15	69 D	16
829-SRC-I	7/6/15 DUP	67 DH	12
829-SRC-I	10/5/15	74 D	15

Notes:

[a] No nitrate or perchlorate monitoring required. Nitrate measured for trend analysis only.

[b] No samples collected after August due to system shutdown for construction activities.

[c] No samples collected in December due to shut down for freeze protection.

[d] No samples collected after August due to system shutdown for extraction well evaluation.

[e] Only influent sampling required quaterly. Extracted water fron 829-SRC is treated at 815-SRC.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.4-9. High Explosives Process Area Operable Unit high explosive compounds in ground water extraction and treatment system influent and effluent.

Location	Date	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
Building 815-Distal Site Boundary[a]														
Building 815-Proximal[a]														
Building 815-Source[b]														
815-SRC-I	7/7/15	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	6.3 D	<2 D	33 D	<2 D
815-SRC-I	7/7/15 DUP	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	4.6	<2.1	8.2	<2.1	61 D	<2.1
815-SRC-I	10/5/15	<2	<2	<2	<2	<2	<2.3	<2	<2	<2.2	6	<2	37	<2
815-SRC-E	7/7/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
815-SRC-E	8/3/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
815-SRC-E	9/1/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
815-SRC-E	10/5/15	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	<1	<2	<1	<2
815-SRC-E	11/4/15	<2 O	<2 O	<2 O	<2.1 O	<2 O	<2.6 O	<2 O	<2 O	<2.5 O	<1 O	<2 O	<1 O	<2 O
Building 817-Proximal[b]														
817-PRX-I	7/13/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	7.3	<2
817-PRX-I	7/13/15 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	9.7	<2
817-PRX-I	10/6/15	79	<2	<2	<2.1	<2	<2.6	<2	2.5	<2.5	<1	<2	<1	2.1
817-PRX-I	10/26/15	<2	<2	<2	<2	<2	<2.3	<2	<2	<2.2	<1	<2	9.7	<2
817-PRX-E	7/13/15	<2	<2 O	<2	<2	<2 O	<2	<2	<2	<2	<1 O	<2 O	<1 O	<2
817-PRX-E	8/3/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-PRX-E	9/1/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-PRX-E	10/6/15	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	<1	<2	<1	<2
817-PRX-E	11/4/15	<2 O	<2 O	<2 O	<2.1 O	<2 O	<2.6 O	<2 O	<2 O	<2.5 O	<1 O	<2 O	<1 O	<2 O
Building 817-Source[c]														
817-SRC-I	7/7/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	16	<2	39	<2
817-SRC-I	7/7/15 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	13	<2	32	<2
817-SRC-E	7/7/15	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<1 D	<2 D	<1 D	<2 D
817-SRC-E	8/3/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
Building 829-Source[d]														

Notes:

[a] No high explosive compound monitoring required.

[b] No samples collected in December due to shut down for freeze protection.

[c] No samples collected after August due to system shutdown for extraction well evaluation.

[d] Only influent sampling required; collected annually in March 2015. Extracted water fron 829-SRC is treated at 815-SRC.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.4-10. High Explosives Process Area Operable Unit treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
815-SRC GWTS			
Influent Port	**815-SRC-I**	**VOCs**	**Quarterly**
		HE Compounds	**Quarterly**
		Perchlorate	**Quarterly**
Effluent Port	**815-SRC-E**	**VOCs**	**Monthly**
		HE Compounds	**Monthly**
		Perchlorate	**Monthly**
		pH	**Monthly**
815-PRX GWTS			
Influent Port	**815-PRX-I**	**VOCs**	**Quarterly**
		Perchlorate	**Quarterly**
Effluent Port	**815-PRX-E**	**VOCs**	**Monthly**
		HE Compounds	**Quarterly**
		Perchlorate	**Monthly**
		pH	**Monthly**
815-DSB GWTS			
Influent Port	**815-DSB-I**	**VOCs**	**Quarterly**
Effluent Port	**815-DSB-E**	**VOCs**	**Monthly**
		pH	**Monthly**
817-SRC GWTS			
Influent Port	**W-817-01-817-SRC-I**	**VOCs**	**Quarterly**
		HE Compounds	**Quarterly**
		Perchlorate	**Quarterly**
Effluent Port	**817-SRC-E**	**VOCs**	**Monthly**
		HE Compounds	**Monthly**
		Perchlorate	**Monthly**
		pH	**Monthly**

Table 2.4-10 (Con't.). High Explosives Process Area Operable Unit treatment facility sampling and analysis plans.

Sample location	Sample identification	Parameter	Frequency
817-PRX GWTS			
Influent Port	817-PRX-I	VOCs	Quarterly
		HE Compounds	Quarterly
		Perchlorate	Quarterly
Effluent Port	817-PRX-E	VOCs	Monthly
		HE Compounds	Monthly
		Perchlorate	Monthly
		pH	Monthly
829-SRC GWTS			
Influent Port	W-829-06-829-SRC-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
Effluent Port[a]	829-SRC-E	NA	NA

Notes:
[a] Effluent monitoring no longer required due to extracted water being treated at 815-SRC GWTS.
One duplicate and one blank (given fictitious labels) shall be taken for every 12 samples.
See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	4	Y	
GALLO1	WS	Tnbs2	Q	WGMG	E502.2:ALL	1	Y	
GALLO1	WS	Tnbs2	Q	WGMG	E524.2MOD:ALL	2	Y	
GALLO1	WS	Tnbs2	Q	WGMG	E524.2MOD:ALL	3	Y	
GALLO1	WS	Tnbs2	Q	WGMG	E524.2MOD:ALL	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E624MOD:ALL	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E624MOD:ALL	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E624MOD:ALL	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E624MOD:ALL	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E624MOD:ALL	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E624MOD:ALL	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E624MOD:ALL	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E624MOD:ALL	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E624MOD:ALL	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	4	Y	
SPRING14	SPR	Tpsg-Tps	O	CMP	E300.0:NO3	1	N	Dry.
SPRING14	SPR	Tpsg-Tps	O	CMP	E300.0:PERC	1	N	Dry.
SPRING14	SPR	Tpsg-Tps	O	CMP	E601:ALL	1	N	Dry.
SPRING14	SPR	Tpsg-Tps	O	CMP	E8330LOW:ALL	1	N	Dry.
SPRING5	SPR	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Dry.
SPRING5	SPR	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Dry.
SPRING5	SPR	Tpsg-Tps	S	CMP	E601:ALL	1	N	Dry.
SPRING5	SPR	Tpsg-Tps	S	CMP	E624MOD:ALL	3	N	Dry.
SPRING5	SPR	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	N	Dry.
W-35B-01	GW	Qal/WBR	S	CMP	E300.0:NO3	1	Y	
W-35B-01	GW	Qal/WBR	S	CMP	E300.0:NO3	3	Y	
W-35B-01	GW	Qal/WBR	S	CMP	E300.0:PERC	1	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-35B-01	GW	Qal/WBR	S	CMP	E300.0:PERC	3	Y	
W-35B-01	GW	Qal/WBR	Q	CMP	E601:ALL	1	Y	
W-35B-01	GW	Qal/WBR	Q	CMP	E624MOD:ALL	2	Y	
W-35B-01	GW	Qal/WBR	Q	CMP	E624MOD:ALL	3	Y	
W-35B-01	GW	Qal/WBR	Q	CMP	E624MOD:ALL	4	Y	
W-35B-01	GW	Qal/WBR	S	CMP	E8330LOW:ALL	1	Y	
W-35B-01	GW	Qal/WBR	S	CMP	E8330LOW:ALL	3	Y	
W-35B-02	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-35B-02	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-35B-02	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-35B-02	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-35B-02	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-35B-02	GW	Tnbs2	Q	CMP	E624MOD:ALL	2	Y	
W-35B-02	GW	Tnbs2	Q	CMP	E624MOD:ALL	3	Y	
W-35B-02	GW	Tnbs2	Q	CMP	E624MOD:ALL	4	Y	
W-35B-02	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-35B-02	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-35B-03	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-35B-03	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-35B-03	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-35B-03	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-35B-03	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-35B-03	GW	Tnbs2	Q	CMP	E624MOD:ALL	2	Y	
W-35B-03	GW	Tnbs2	Q	CMP	E624MOD:ALL	3	Y	
W-35B-03	GW	Tnbs2	Q	CMP	E624MOD:ALL	4	Y	
W-35B-03	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-35B-03	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-35B-04	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-35B-04	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-35B-04	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-35B-04	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-35B-04	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-35B-04	GW	Tnbs2	Q	CMP	E624MOD:ALL	2	Y	
W-35B-04	GW	Tnbs2	Q	CMP	E624MOD:ALL	3	Y	
W-35B-04	GW	Tnbs2	Q	CMP	E624MOD:ALL	4	Y	
W-35B-04	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-35B-04	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-35B-05	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-35B-05	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-35B-05	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-35B-05	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-35B-05	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-35B-05	GW	Tnbs2	Q	CMP	E624MOD:ALL	2	Y	
W-35B-05	GW	Tnbs2	Q	CMP	E624MOD:ALL	3	Y	
W-35B-05	GW	Tnbs2	Q	CMP	E624MOD:ALL	4	Y	
W-35B-05	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-35B-05	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-35C-01	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-35C-01	PTMW	Tpsg-Tps	O	CMP	E300.0:PERC	1	Y	
W-35C-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-35C-01	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	Y	
W-35C-01	PTMW	Tpsg-Tps	O	CMP	E8330LOW:ALL	1	Y	
W-35C-02	PTMW	Tnbs1	O	CMP	E300.0:NO3	1	Y	
W-35C-02	PTMW	Tnbs1	O	CMP	E300.0:PERC	1	Y	
W-35C-02	PTMW	Tnbs1	S	CMP	E601:ALL	1	Y	
W-35C-02	PTMW	Tnbs1	S	CMP	E624MOD:ALL	3	Y	
W-35C-02	PTMW	Tnbs1	A	CMP	E8330LOW:ALL	1	Y	
W-35C-04	EW	Tnbs2	Q	DIS-TF	AS:UISO	1	Y	
W-35C-04	EW	Tnbs2	O	CMP-TF	E300.0:NO3	1	Y	
W-35C-04	EW	Tnbs2	O	CMP-TF	E300.0:PERC	1	Y	
W-35C-04	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-35C-04	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	2	Y	
W-35C-04	EW	Tnbs2	S	CMP-TF	E624MOD:ALL	3	Y	
W-35C-04	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	4	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-35C-04	EW	Tnbs2	O	CMP-TF	E8330LOW:ALL	1	Y	
W-35C-05	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-35C-05	PTMW	Tpsg-Tps	O	CMP	E300.0:PERC	1	Y	
W-35C-05	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-35C-05	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	Y	
W-35C-05	PTMW	Tpsg-Tps	O	CMP	E8330LOW:ALL	1	Y	
W-35C-06	PTMW	Qal/WBR	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.
W-35C-06	PTMW	Qal/WBR	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-35C-06	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
W-35C-06	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	Y	
W-35C-06	PTMW	Qal/WBR	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-35C-07	PTMW	Tnsc2	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.
W-35C-07	PTMW	Tnsc2	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-35C-07	PTMW	Tnsc2	S	CMP	E601:ALL	1	Y	
W-35C-07	PTMW	Tnsc2	S	CMP	E624MOD:ALL	3	Y	
W-35C-07	PTMW	Tnsc2	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-35C-08	PTMW	Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-35C-08	PTMW	Tnsc2	A	CMP	E300.0:PERC	1	Y	
W-35C-08	PTMW	Tnsc2	S	CMP	E601:ALL	1	Y	
W-35C-08	PTMW	Tnsc2	S	CMP	E624MOD:ALL	3	Y	
W-35C-08	PTMW	Tnsc2	O	CMP	E8330LOW:ALL	1	Y	
W-4A	PTMW	Tnbs2	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.
W-4A	PTMW	Tnbs2	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-4A	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-4A	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-4A	PTMW	Tnbs2	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-4AS	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-4AS	PTMW	Tpsg-Tps	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-4AS	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-4AS	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	Y	
W-4AS	PTMW	Tpsg-Tps	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-4B	PTMW	Tnbs2	O	CMP	E300.0:NO3	1	Y	
W-4B	PTMW	Tnbs2	O	CMP	E300.0:PERC	1	Y	
W-4B	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-4B	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-4B	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	Y	
W-4C	GW	Tnsc1b	S	CMP	E300.0:NO3	1	Y	
W-4C	GW	Tnsc1b	S	CMP	E300.0:NO3	3	Y	
W-4C	GW	Tnsc1b	S	CMP	E300.0:PERC	1	Y	
W-4C	GW	Tnsc1b	S	CMP	E300.0:PERC	3	Y	
W-4C	GW	Tnsc1b	Q	CMP	E601:ALL	1	Y	
W-4C	GW	Tnsc1b	Q	CMP	E624MOD:ALL	2	Y	
W-4C	GW	Tnsc1b	Q	CMP	E624MOD:ALL	3	Y	
W-4C	GW	Tnsc1b	Q	CMP	E624MOD:ALL	4	Y	
W-6BD	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-6BD	PTMW	Tpsg-Tps	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-6BD	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-6BD	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	Y	
W-6BD	PTMW	Tpsg-Tps	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-6BS	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
W-6BS	PTMW	Qal/WBR	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-6BS	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
W-6BS	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	Y	
W-6BS	PTMW	Qal/WBR	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-6CD	PTMW	Tnbs2	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.
W-6CD	PTMW	Tnbs2	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-6CD	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-6CD	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-6CD	PTMW	Tnbs2	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-6CI	PTMW	Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-6CI	PTMW	Tnsc2	A	CMP	E300.0:PERC	1	Y	
W-6CI	PTMW	Tnsc2	S	CMP	E601:ALL	1	Y	
W-6CI	PTMW	Tnsc2	S	CMP	E624MOD:ALL	3	Y	
W-6CI	PTMW	Tnsc2	A	CMP	E8330LOW:ALL	1	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-6CS	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-6CS	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-6CS	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-6CS	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	Y	
W-6CS	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-6EI	PTMW	Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-6EI	PTMW	Tnsc2	A	CMP	E300.0:PERC	1	Y	
W-6EI	PTMW	Tnsc2	S	CMP	E601:ALL	1	Y	
W-6EI	PTMW	Tnsc2	S	CMP	E624MOD:ALL	3	Y	
W-6EI	PTMW	Tnsc2	A	CMP	E8330LOW:ALL	1	Y	
W-6ER	EW	Tnbs2	Q	DIS-TF	AS:UISO	1	Y	
W-6ER	EW	Tnbs2	O	CMP-TF	E300.0:NO3	1	Y	
W-6ER	EW	Tnbs2	O	CMP-TF	E300.0:PERC	1	Y	
W-6ER	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-6ER	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	2	Y	
W-6ER	EW	Tnbs2	S	CMP-TF	E624MOD:ALL	3	Y	
W-6ER	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	4	Y	
W-6ER	EW	Tnbs2	O	CMP-TF	E8330LOW:ALL	1	Y	
W-6ER	EW	Tnbs2	1	UK	EXCESSN2:ALL	2	Y	
W-6ES	PTMW	Qal/WBR	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.
W-6ES	PTMW	Qal/WBR	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-6ES	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
W-6ES	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	Y	
W-6ES	PTMW	Qal/WBR	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-6F	PTMW	Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-6F	PTMW	Tnsc2	A	CMP	E300.0:PERC	1	Y	
W-6F	PTMW	Tnsc2	S	CMP	E601:ALL	1	Y	
W-6F	PTMW	Tnsc2	S	CMP	E624MOD:ALL	3	N	Restricted access.
W-6F	PTMW	Tnsc2	A	CMP	E8330LOW:ALL	1	Y	
W-6G	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-6G	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-6G	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-6G	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	N	Restricted access.
W-6G	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-6H	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-6H	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-6H	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-6H	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-6H	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-6H	GW	Tnbs2	Q	CMP	E624MOD:ALL	2	Y	
W-6H	GW	Tnbs2	Q	CMP	E624MOD:ALL	3	Y	
W-6H	GW	Tnbs2	Q	CMP	E624MOD:ALL	4	Y	
W-6H	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-6H	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-6I	PTMW	Tpsg-Tps	O	CMP	E300.0:NO3	1	Y	
W-6I	PTMW	Tpsg-Tps	O	CMP	E300.0:PERC	1	Y	
W-6I	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-6I	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	Y	
W-6I	PTMW	Tpsg-Tps	O	CMP	E8330LOW:ALL	1	Y	
W-6J	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-6J	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-6J	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-6J	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-6J	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-6J	GW	Tnbs2	Q	CMP	E624MOD:ALL	2	Y	
W-6J	GW	Tnbs2	Q	CMP	E624MOD:ALL	3	Y	
W-6J	GW	Tnbs2	Q	CMP	E624MOD:ALL	4	Y	
W-6J	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-6J	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-6K	PTMW	Tnbs2	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.
W-6K	PTMW	Tnbs2	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-6K	PTMW	Tnbs2	S	CMP	E601:ALL	1	N	Insufficient water.
W-6K	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-6K	PTMW	Tnbs2	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-6L	PTMW	Tnbs2	O	CMP	E300.0:NO3	1	N	Insufficient water.
W-6L	PTMW	Tnbs2	O	CMP	E300.0:PERC	1	N	Insufficient water.
W-6L	PTMW	Tnbs2	S	CMP	E601:ALL	1	N	Insufficient water.
W-6L	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-6L	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	N	Insufficient water.
W-806-06A	PTMW	Tnsc1b	O	CMP	E300.0:NO3	1	N	Unsafe conditions.
W-806-06A	PTMW	Tnsc1b	O	CMP	E300.0:PERC	1	N	Unsafe conditions.
W-806-06A	PTMW	Tnsc1b	O	CMP	E601:ALL	1	N	Unsafe conditions.
W-806-06A	PTMW	Tnsc1b	O	CMP	E8330LOW:ALL	1	N	Unsafe conditions.
W-806-07	PTMW	Tnbs2	O	CMP	E300.0:NO3	1	N	Unsafe conditions.
W-806-07	PTMW	Tnbs2	O	CMP	E300.0:PERC	1	N	Unsafe conditions.
W-806-07	PTMW	Tnbs2	O	CMP	E601:ALL	1	N	Unsafe conditions.
W-806-07	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	N	Unsafe conditions.
W-808-01	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-808-01	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-808-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-808-01	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	Y	
W-808-01	PTMW	Tpsg-Tps	O	CMP	E8330LOW:ALL	1	Y	
W-808-02	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Dry.
W-808-02	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Dry.
W-808-02	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	N	Dry.
W-808-02	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	N	Dry.
W-808-02	PTMW	Tpsg-Tps	O	CMP	E8330LOW:ALL	1	N	Dry.
W-808-03	PTMW	UTnbs1	A	CMP	E300.0:NO3	1	Y	
W-808-03	PTMW	UTnbs1	A	CMP	E300.0:PERC	1	Y	
W-808-03	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-808-03	PTMW	UTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-808-03	PTMW	UTnbs1	O	CMP	E8330LOW:ALL	1	Y	
W-809-01	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-809-01	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-809-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-809-01	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	Y	
W-809-01	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-809-02	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-809-02	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-809-02	PTMW	Tnbs2	A	DIS	E300.0:PERC	3	Y	
W-809-02	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-809-02	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-809-02	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-809-03	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-809-03	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-809-03	PTMW	Tnbs2	A	DIS	E300.0:PERC	3	Y	
W-809-03	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-809-03	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-809-03	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-809-03	PTMW	Tnbs2	A	DIS	E8330LOW:ALL	3	Y	
W-809-04	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Dry.
W-809-04	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Dry.
W-809-04	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	N	Dry.
W-809-04	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	N	Dry.
W-809-04	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	N	Dry.
W-810-01	PTMW	UTnbs1	A	CMP	E300.0:NO3	1	Y	
W-810-01	PTMW	UTnbs1	A	CMP	E300.0:PERC	1	Y	
W-810-01	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-810-01	PTMW	UTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-810-01	PTMW	UTnbs1	A	CMP	E8330LOW:ALL	1	Y	
W-814-01	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-814-01	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-814-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-814-01	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	Y	
W-814-01	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-814-02	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-814-02	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-814-02	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-814-02	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-814-02	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-814-03	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Dry.
W-814-03	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Dry.
W-814-03	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	N	Dry.
W-814-03	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	N	Dry.
W-814-03	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	N	Dry.
W-814-04	GW	Tnsc1b	S	CMP	E300.0:NO3	1	Y	
W-814-04	GW	Tnsc1b	S	CMP	E300.0:NO3	3	Y	
W-814-04	GW	Tnsc1b	S	CMP	E300.0:PERC	1	Y	
W-814-04	GW	Tnsc1b	S	CMP	E300.0:PERC	3	Y	
W-814-04	GW	Tnsc1b	Q	CMP	E601:ALL	1	Y	
W-814-04	GW	Tnsc1b	Q	CMP	E624MOD:ALL	2	Y	
W-814-04	GW	Tnsc1b	Q	CMP	E624MOD:ALL	3	Y	
W-814-04	GW	Tnsc1b	Q	CMP	E624MOD:ALL	4	Y	
W-814-2138	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-814-2138	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-814-2138	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-814-2138	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	Y	
W-814-2138	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-815-01	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Dry.
W-815-01	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Dry.
W-815-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	N	Dry.
W-815-01	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	N	Dry.
W-815-01	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	N	Dry.
W-815-02	EW	Tnbs2	Q	DIS-TF	AS:UISO	1	Y	
W-815-02	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-815-02	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-815-02	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-815-02	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-815-02	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	2	Y	
W-815-02	EW	Tnbs2	S	CMP-TF	E624MOD:ALL	3	Y	
W-815-02	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	4	Y	
W-815-02	EW	Tnbs2	A	CMP-TF	E8330LOW:ALL	1	Y	
W-815-02	EW	Tnbs2	A	DIS-TF	E8330LOW:ALL	3	Y	
W-815-03	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Dry.
W-815-03	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Dry.
W-815-03	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	N	Dry.
W-815-03	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	N	Dry.
W-815-03	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	N	Dry.
W-815-04	EW	Tnbs2	Q	DIS-TF	AS:UISO	1	Y	
W-815-04	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-815-04	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-815-04	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-815-04	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-815-04	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	2	Y	
W-815-04	EW	Tnbs2	S	CMP-TF	E624MOD:ALL	3	Y	
W-815-04	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	4	Y	
W-815-04	EW	Tnbs2	A	CMP-TF	E8330LOW:ALL	1	Y	
W-815-04	EW	Tnbs2	A	DIS-TF	E8330LOW:ALL	3	Y	
W-815-05	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Unsafe conditions.
W-815-05	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Unsafe conditions.
W-815-05	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	N	Unsafe conditions.
W-815-05	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	N	Unsafe conditions.
W-815-06	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-815-06	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-815-06	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-815-06	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	N	Inoperable pump.
W-815-06	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-815-07	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-815-07	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-815-07	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-815-07	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-815-07	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-815-08	PTMW	UTnbs1	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.
W-815-08	PTMW	UTnbs1	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-815-08	PTMW	UTnbs1	A	CMP	E601:ALL	1	Y	
W-815-08	PTMW	UTnbs1	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-815-1928	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-815-1928	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Insufficient water.
W-815-1928	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	N	Insufficient water.
W-815-1928	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	N	Insufficient water.
W-815-1928	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	N	Insufficient water.
W-815-2110	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-815-2110	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-815-2110	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-815-2110	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-815-2110	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-815-2110	GW	Tnbs2	Q	CMP	E624MOD:ALL	2	Y	
W-815-2110	GW	Tnbs2	Q	CMP	E624MOD:ALL	3	Y	
W-815-2110	GW	Tnbs2	Q	CMP	E624MOD:ALL	4	Y	
W-815-2110	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-815-2110	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-815-2111	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-815-2111	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-815-2111	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-815-2111	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-815-2111	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-815-2111	GW	Tnbs2	Q	CMP	E624MOD:ALL	2	Y	
W-815-2111	GW	Tnbs2	Q	CMP	E624MOD:ALL	3	Y	
W-815-2111	GW	Tnbs2	Q	CMP	E624MOD:ALL	4	Y	
W-815-2111	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-815-2111	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-815-2111	GW	Tnbs2	1	UK	EXCESSN2:ALL	2	Y	
W-815-2217	PTMW	Tnbs2	O	CMP	E300.0:NO3	1	Y	
W-815-2217	PTMW	Tnbs2	O	CMP	E300.0:PERC	1	Y	
W-815-2217	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-815-2217	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-815-2217	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	Y	
W-815-2608	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-815-2608	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-815-2608	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-815-2608	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	2	Y	
W-815-2608	EW	Tnbs2	S	CMP-TF	E624MOD:ALL	3	Y	
W-815-2608	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	4	Y	
W-815-2608	EW	Tnbs2	A	CMP-TF	E8330LOW:ALL	1	Y	
W-815-2621	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-815-2621	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-815-2621	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-815-2621	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-815-2621	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-815-2803	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-815-2803	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-815-2803	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-815-2803	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-815-2803	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	2	Y	
W-815-2803	EW	Tnbs2	S	CMP-TF	E624MOD:ALL	3	Y	
W-815-2803	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	4	Y	
W-815-2803	EW	Tnbs2	A	CMP-TF	E8330LOW:ALL	1	Y	
W-815-2803	EW	Tnbs2	A	DIS-TF	E8330LOW:ALL	3	Y	
W-817-01	EW	Tnbs2	A	DIS-TF	E300.0:NO3	1	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E300.0:PERC	1	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E300.0:PERC	2	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E300.0:PERC	3	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E300.0:PERC	4	N	Unit off for freeze protection.
W-817-01	EW	Tnbs2	Q	DIS-TF	E601:ALL	1	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E624MOD:ALL	2	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E624MOD:ALL	3	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-817-01	EW	Tnbs2	Q	DIS-TF	E624MOD:ALL	4	N	Unit off for freeze protection.
W-817-01	EW	Tnbs2	Q	DIS-TF	E8330LOW:ALL	1	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E8330LOW:ALL	2	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E8330LOW:ALL	3	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E8330LOW:ALL	4	N	Unit off for freeze protection.
W-817-03	EW	Tnbs2	Q	DIS-TF	AS:UISO	1	Y	
W-817-03	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-817-03	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-817-03	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-817-03	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-817-03	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	2	Y	
W-817-03	EW	Tnbs2	S	CMP-TF	E624MOD:ALL	3	Y	
W-817-03	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	4	Y	
W-817-03	EW	Tnbs2	A	CMP-TF	E8330LOW:ALL	1	Y	
W-817-03	EW	Tnbs2	A	DIS-TF	E8330LOW:ALL	3	Y	
W-817-03A	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-817-03A	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-817-03A	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-817-03A	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	Y	
W-817-03A	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-817-04	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-817-04	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-817-04	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-817-04	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-817-04	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-817-05	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-817-05	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-817-05	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-817-05	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-817-05	PTMW	Tnsc1b	A	CMP	E8330LOW:ALL	1	Y	
W-817-07	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-817-07	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	N	Insufficient water.
W-817-07	PTMW	Tnbs2	S	CMP	E601:ALL	1	N	Insufficient water.
W-817-07	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	N	Insufficient water.
W-817-07	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	N	Insufficient water.
W-817-2318	EW	Tpsg-Tps	A	CMP-TF	E300.0:NO3	1	Y	
W-817-2318	EW	Tpsg-Tps	A	CMP-TF	E300.0:PERC	1	Y	
W-817-2318	EW	Tpsg-Tps	A	DIS-TF	E300.0:PERC	3	Y	
W-817-2318	EW	Tpsg-Tps	S	CMP-TF	E601:ALL	1	Y	
W-817-2318	EW	Tpsg-Tps	S	DIS-TF	E624MOD:ALL	2	Y	
W-817-2318	EW	Tpsg-Tps	S	CMP-TF	E624MOD:ALL	3	Y	
W-817-2318	EW	Tpsg-Tps	S	DIS-TF	E624MOD:ALL	4	Y	
W-817-2318	EW	Tpsg-Tps	A	CMP-TF	E8330LOW:ALL	1	Y	
W-817-2318	EW	Tpsg-Tps	A	DIS-TF	E8330LOW:ALL	3	Y	
W-817-2609	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-817-2609	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-817-2609	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-817-2609	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-817-2609	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-817-3025	PTMW	Tnbs2	1	DIS-TF	DWMETALS:ALL	2	Y	New well baseline sampling.
W-817-3025	PTMW	Tnbs2	1	DIS-TF	E200.7:SI	2	Y	New well baseline sampling.
W-817-3025	PTMW	Tnbs2	1	DIS-TF	E300.0:PERC	2	Y	New well baseline sampling.
W-817-3025	PTMW	Tnbs2	1	DIS-TF	E300.0:PERC	2	Y	New well baseline sampling.
W-817-3025	PTMW	Tnbs2	1	DIS-TF	E300.0:PERC	2	Y	New well baseline sampling.
W-817-3025	PTMW	Tnbs2	1	DIS-TF	E624B:ALL	2	Y	New well baseline sampling.
W-817-3025	PTMW	Tnbs2	1	DIS-TF	E8330LOW:ALL	2	Y	New well baseline sampling.
W-817-3025	PTMW	Tnbs2	1	DIS-TF	E900:ALL	2	Y	New well baseline sampling.
W-817-3025	PTMW	Tnbs2	1	DIS-TF	E906:ALL	2	Y	New well baseline sampling.
W-817-3025	PTMW	Tnbs2	1	DIS-TF	GENMIN:ALL	2	Y	New well baseline sampling.
W-817-3025	PTMW	Tnbs2	1	DIS-TF	KPA:UTOT	2	Y	New well baseline sampling.
W-817-3025	PTMW	Tnbs2	1	DIS-TF	MS:UISO	2	Y	New well baseline sampling.
W-817-3026	PTMW	Tnbs2	1	DIS-TF	DWMETALS:ALL	2	Y	New well baseline sampling.
W-817-3026	PTMW	Tnbs2	1	DIS-TF	E200.7:SI	2	Y	New well baseline sampling.
W-817-3026	PTMW	Tnbs2	1	DIS-TF	E300.0:PERC	2	Y	New well baseline sampling.

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-817-3026	PTMW	Tnbs2	1	DIS-TF	E300.0:PERC	2	Y	New well baseline sampling.
W-817-3026	PTMW	Tnbs2	1	DIS-TF	E300.0:PERC	2	Y	New well baseline sampling.
W-817-3026	PTMW	Tnbs2	1	DIS-TF	E624B:ALL	2	Y	New well baseline sampling.
W-817-3026	PTMW	Tnbs2	1	DIS-TF	E8330LOW:ALL	2	Y	New well baseline sampling.
W-817-3026	PTMW	Tnbs2	1	DIS-TF	E900:ALL	2	Y	New well baseline sampling.
W-817-3026	PTMW	Tnbs2	1	DIS-TF	E906:ALL	2	Y	New well baseline sampling.
W-817-3026	PTMW	Tnbs2	1	DIS-TF	GENMIN:ALL	2	Y	New well baseline sampling.
W-817-3026	PTMW	Tnbs2	1	DIS-TF	KPA:UTOT	2	Y	New well baseline sampling.
W-817-3026	PTMW	Tnbs2	1	DIS-TF	MS:UISO	2	Y	New well baseline sampling.
W-818-01	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-818-01	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-818-01	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-818-01	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-818-01	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-818-03	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-818-03	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-818-03	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-818-03	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-818-03	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	Y	
W-818-04	PTMW	Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-818-04	PTMW	Tnsc2	A	CMP	E300.0:PERC	1	Y	
W-818-04	PTMW	Tnsc2	S	CMP	E601:ALL	1	Y	
W-818-04	PTMW	Tnsc2	S	CMP	E624MOD:ALL	3	Y	
W-818-04	PTMW	Tnsc2	A	CMP	E8330LOW:ALL	1	Y	
W-818-06	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-818-06	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-818-06	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-818-06	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-818-06	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	Y	
W-818-07	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-818-07	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-818-07	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-818-07	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-818-07	PTMW	Tnbs2	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-818-08	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-818-08	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-818-08	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-818-08	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-818-08	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	2	Y	
W-818-08	EW	Tnbs2	S	CMP-TF	E624MOD:ALL	3	Y	
W-818-08	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	4	N	Unit off for REVAL.
W-818-08	EW	Tnbs2	A	CMP-TF	E8330LOW:ALL	1	Y	
W-818-09	EW	Tnbs2	1	UK	D-15N(NO3):ALL	2	Y	
W-818-09	EW	Tnbs2	1	UK	D-18O(NO3):ALL	2	Y	
W-818-09	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-818-09	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-818-09	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-818-09	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-818-09	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	2	Y	
W-818-09	EW	Tnbs2	S	CMP-TF	E624MOD:ALL	3	Y	
W-818-09	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	4	N	Unit off for REVAL.
W-818-09	EW	Tnbs2	A	CMP-TF	E8330LOW:ALL	1	Y	
W-818-09	EW	Tnbs2	1	UK	EXCESSN2:ALL	2	Y	
W-818-11	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-818-11	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-818-11	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-818-11	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-818-11	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-819-02	PTMW	UTnbs1	A	CMP	E300.0:NO3	1	Y	
W-819-02	PTMW	UTnbs1	A	CMP	E300.0:PERC	1	Y	
W-819-02	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-819-02	PTMW	UTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-819-02	PTMW	UTnbs1	A	CMP	E8330LOW:ALL	1	Y	
W-823-01	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-823-01	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-823-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-823-01	PTMW	Tpsg-Tps	S	CMP	E624MOD:ALL	3	Y	
W-823-01	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-823-01	PTMW	Tpsg-Tps	O	DIS	EM8015:DIESEL	1	Y	
W-823-02	PTMW	Tnbs2	O	CMP	E300.0:NO3	1	Y	
W-823-02	PTMW	Tnbs2	O	CMP	E300.0:PERC	1	Y	
W-823-02	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-823-02	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-823-02	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	Y	
W-823-02	PTMW	Tnbs2	O	DIS	EM8015:DIESEL	1	Y	
W-823-03	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-823-03	PTMW	Tnbs2	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-823-03	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-823-03	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-823-03	PTMW	Tnbs2	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-823-03	PTMW	Tnbs2	O	DIS	EM8015:DIESEL	1	Y	
W-823-13	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	N	Unsafe condition.
W-823-13	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	N	Unsafe condition.
W-823-13	PTMW	Tnbs2	S	CMP	E601:ALL	1	N	Unsafe condition.
W-823-13	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-823-13	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	N	Unsafe condition.
W-827-01	PTMW	Tnbs2	O	CMP	E300.0:NO3	1	N	Dry.
W-827-01	PTMW	Tnbs2	O	CMP	E300.0:PERC	1	N	Dry.
W-827-01	PTMW	Tnbs2	O	CMP	E601:ALL	1	N	Dry.
W-827-01	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	N	Dry.
W-827-02	PTMW	Tnsc1	O	CMP	E300.0:NO3	1	Y	
W-827-02	PTMW	Tnsc1	O	CMP	E300.0:PERC	1	Y	
W-827-02	PTMW	Tnsc1	O	CMP	E601:ALL	1	Y	
W-827-02	PTMW	Tnsc1	O	CMP	E8330LOW:ALL	1	Y	
W-827-03	PTMW	UTnbs1	O	CMP	E300.0:NO3	1	N	Dry.
W-827-03	PTMW	UTnbs1	O	CMP	E300.0:PERC	1	N	Dry.
W-827-03	PTMW	UTnbs1	O	CMP	E601:ALL	1	N	Dry.
W-827-03	PTMW	UTnbs1	O	CMP	E8330LOW:ALL	1	N	Dry.
W-827-04	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	N	Dry.
W-827-04	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	N	Dry.
W-827-04	PTMW	LTnbs1	S	CMP	E601:ALL	1	N	Dry.
W-827-04	PTMW	LTnbs1	S	CMP	E624MOD:ALL	3	N	Dry.
W-827-04	PTMW	LTnbs1	A	CMP	E8330LOW:ALL	1	N	Dry.
W-827-05	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
W-827-05	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
W-827-05	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
W-827-05	PTMW	LTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-827-05	PTMW	LTnbs1	A	CMP	E8330LOW:ALL	1	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:NO3	1	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:NO3	2	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:NO3	3	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:NO3	4	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:PERC	1	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:PERC	2	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:PERC	3	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:PERC	4	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E601:ALL	1	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E624MOD:ALL	2	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E624MOD:ALL	3	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E624MOD:ALL	4	Y	
W-829-06	EW	Tnsc1b	A	DIS-TF	E8330LOW:ALL	1	Y	
W-829-08	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-829-08	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-829-08	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-829-08	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	N	Dry.
W-829-08	PTMW	Tnsc1b	A	CMP	E8330LOW:ALL	1	Y	
W-829-15	DMW	LTnbs1	A	WGMG	E300.0:PERC	2	Y	
W-829-15	DMW	LTnbs1	A	WGMG	E624:ALL	2	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-829-15	DMW	LTnbs1	A	WGMG	E8330:R+H	2	Y	
W-829-15	DMW	LTnbs1	A	WGMG	E8330:TNT	2	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E300.0:PERC	1	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E300.0:PERC	2	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E300.0:PERC	3	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E300.0:PERC	4	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E624:ALL	1	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E624:ALL	2	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E624:ALL	3	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E624:ALL	4	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:R+H	1	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:R+H	2	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:R+H	3	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:R+H	4	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:TNT	1	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:TNT	2	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:TNT	3	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:TNT	4	Y	
W-829-1940	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-829-1940	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-829-1940	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-829-1940	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-829-1940	PTMW	Tnsc1b	A	CMP	E8330LOW:ALL	1	Y	
W-829-22	DMW	LTnbs1	A	WGMG	E300.0:PERC	2	Y	
W-829-22	DMW	LTnbs1	A	WGMG	E624:ALL	2	Y	
W-829-22	DMW	LTnbs1	A	WGMG	E8330:R+H	2	Y	
W-829-22	DMW	LTnbs1	A	WGMG	E8330:TNT	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	1	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	1	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	1	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	3	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	3	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	3	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	4	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	4	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	4	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	1	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	1	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	1	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	3	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	3	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	3	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	4	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	4	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	4	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	1	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	1	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	1	Y	
WELL18	WS	Tnbs1	M	CMP	E624MOD:ALL	2	Y	
WELL18	WS	Tnbs1	M	CMP	E624MOD:ALL	2	Y	
WELL18	WS	Tnbs1	M	CMP	E624MOD:ALL	2	Y	
WELL18	WS	Tnbs1	M	CMP	E624MOD:ALL	3	Y	
WELL18	WS	Tnbs1	M	CMP	E624MOD:ALL	3	Y	
WELL18	WS	Tnbs1	M	CMP	E624MOD:ALL	3	Y	
WELL18	WS	Tnbs1	M	CMP	E624MOD:ALL	4	Y	
WELL18	WS	Tnbs1	M	CMP	E624MOD:ALL	4	Y	
WELL18	WS	Tnbs1	M	CMP	E624MOD:ALL	4	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	1	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	1	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	1	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	2	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	2	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	2	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	3	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	3	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	3	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	4	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	4	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	4	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	1	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	1	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	1	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	2	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	2	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	2	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	3	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	3	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	3	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	4	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	4	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	4	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	1	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	1	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	1	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	2	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	2	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	2	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	3	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	3	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	3	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	4	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	4	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	4	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	1	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	1	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	1	Y	
WELL20	WS	Tnbs1	M	WGMG	E524.2MOD:ALL	2	Y	
WELL20	WS	Tnbs1	M	WGMG	E524.2MOD:ALL	2	Y	
WELL20	WS	Tnbs1	M	WGMG	E524.2MOD:ALL	2	Y	
WELL20	WS	Tnbs1	M	WGMG	E524.2MOD:ALL	3	Y	
WELL20	WS	Tnbs1	M	WGMG	E524.2MOD:ALL	3	Y	
WELL20	WS	Tnbs1	M	WGMG	E524.2MOD:ALL	3	Y	
WELL20	WS	Tnbs1	M	WGMG	E524.2MOD:ALL	4	Y	
WELL20	WS	Tnbs1	M	WGMG	E524.2MOD:ALL	4	Y	
WELL20	WS	Tnbs1	M	WGMG	E524.2MOD:ALL	4	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	1	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	1	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	1	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	2	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	2	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	2	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	3	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	3	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	3	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	4	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	4	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	4	Y	

Table 2.4-12. Building 815-Source (815-SRC) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
815-SRC	July	NA	1.5	1.4	26	14	NA
	August	NA	1.7	1.6	29	16	NA
	September	NA	1.2	1.2	22	12	NA
	October	NA	1.1	1.2	21	11	NA
	November	NA	0.69	0.71	13	7.2	NA
	December	NA	0	0	0	0	NA
Total		NA	6.2	6.1	110	61	NA

Notes:

*Nitrate re-injected into the $Tnbs_2$ HSU undergoes in-situ biotransformation to benign N_2 gas by anaerobic denitrifying bacteria.

Table 2.4-13. Building 815-Proximal (815-PRX) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
815-PRX	July	NA	4.5	1.7	17	0.51	NA
	August	NA	3.2	1.2	14	0.51	NA
	September	NA	0	0	0	0	NA
	October	NA	0	0	0	0	NA
	November	NA	0	0	0	0	NA
	December	NA	0	0	0	0	NA
Total		NA	7.7	2.9	31	1.0	NA

Notes:

*Nitrate re-injected into the $Tnbs_2$ HSU undergoes in-situ biotransformation to benign N_2 gas by anaerobic denitrifying bacteria.

Table 2.4-14. Building 815-Distal Site Boundary (815-DSB) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
815-DSB	July	NA	3.1	NA	NA	NA	NA
	August	NA	3.4	NA	NA	NA	NA
	September	NA	3.0	NA	NA	NA	NA
	October	NA	2.2	NA	NA	NA	NA
	November	NA	3.0	NA	NA	NA	NA
	December	NA	3.1	NA	NA	NA	NA
Total		NA	18	NA	NA	NA	NA

Table 2.4-15. Building 817-Source (817-SRC) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
817-SRC	July	NA	0	0.037	0.10	0.045	NA
	August	NA	0	0.035	0.095	0.042	NA
	September	NA	0	0	0	0	NA
	October	NA	0	0	0	0	NA
	November	NA	0	0	0	0	NA
	December	NA	0	0	0	0	NA
Total		NA	0	0.071	0.20	0.087	NA

Notes:

***Nitrate re-injected into the $Tnbs_2$ HSU undergoes in-situ biotransformation to benign N_2 gas by anaerobic denitrifying bacteria.**

Table 2.4-16. Building 817-Proximal (817-PRX) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
817-PRX	July	NA	1.9	5.3	22	2.6	NA
	August	NA	2.0	5.6	24	2.8	NA
	September	NA	1.8	5.0	21	2.5	NA
	October	NA	1.4	4.1	17	2.0	NA
	November	NA	1.1	3.2	13	1.6	NA
	December	NA	0	0	0	0	NA
Total		NA	8.3	23	97	11	NA

Notes:

***Nitrate re-injected into the $Tnbs_2$ HSU undergoes in-situ biotransformation to benign N_2 gas by anaerobic denitrifying bacteria.**

Table 2.4-17. Building 829-Source (829-SRC) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
829-SRC	July	NA	0.0057	0.0036	0.016	NA	NA
	August	NA	0.0086	0.0055	0.024	NA	NA
	September	NA	0.0061	0.0039	0.017	NA	NA
	October	NA	0.0072	0.0049	0.024	NA	NA
	November	NA	0.0051	0.0035	0.017	NA	NA
	December	NA	0	0	0	NA	NA
Total		NA	0.033	0.021	0.098	NA	NA

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K1-06	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	N	Dry.
K1-06	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	N	Dry.
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	N	Dry.
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	N	Dry.
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	N	Dry.
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	N	Dry.
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	N	Dry.
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	N	Dry.
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	N	Dry.
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	N	Dry.
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K1-07	DMW	Tnbs1-Tnbs0	A	DIS	MS:UISO	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K2-03	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
K2-03	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K2-03	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
K2-03	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
K2-03	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K2-03	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K2-04D	PTMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	2	N	Inoperable pump.
K2-04D	PTMW	Tnbs1-Tnbs0	A	WGMG	E300.0:PERC	2	N	Inoperable pump.
K2-04D	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	N	Inoperable pump.
K2-04D	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Inoperable pump.
K2-04D	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Inoperable pump.
K2-04S	PTMW	Qal/WBR	E	CMP	AS:UISO	2	N	To be sampled in 2016.
K2-04S	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K2-04S	PTMW	Qal/WBR	A	WGMG	E300.0:PERC	2	Y	
K2-04S	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
K2-04S	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
K2-04S	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC2-05	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	N	Dry.
NC2-05	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	N	Dry.
NC2-05	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	N	Dry.
NC2-05	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	N	Dry.
NC2-05	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Dry.
NC2-05	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Dry.
NC2-05A	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-05A	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-05A	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-05A	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-05A	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-05A	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-06	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-06	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-06	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-06	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-06	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-06	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-06A	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-06A	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-06A	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-06A	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-06A	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-06A	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
NC2-09	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-09	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-09	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:PERC	2	Y	
NC2-09	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-09	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-10	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-10	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-10	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:PERC	2	Y	
NC2-10	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-10	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-11D	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-11D	PTMW	Tnbs1-Tnbs0	S	WGMG	E300.0:PERC	2	Y	
NC2-11D	PTMW	Tnbs1-Tnbs0	S	WGMG	E300.0:PERC	4	Y	
NC2-11D	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-11D	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-11D	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
NC2-11I	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-11I	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-11I	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-11I	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-11I	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-11I	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-11S	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-11S	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-11S	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-11S	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-11S	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-11S	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-12D	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-12D	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-12D	PTMW	Tnbs1-Tnbs0	A	WGMG	E300.0:PERC	2	Y	
NC2-12D	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-12D	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-12D	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-12I	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-12I	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC2-12I	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-12I	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-12I	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-12I	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-12S	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-12S	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-12S	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-12S	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-12S	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-12S	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-13	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-13	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-13	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-13	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-13	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-13	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-14S	PTMW	Qal/WBR	O	CMP	AS:UISO	2	Y	
NC2-14S	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	Y	
NC2-14S	PTMW	Qal/WBR	S	CMP	E300.0:PERC	1	Y	
NC2-14S	PTMW	Qal/WBR	S	CMP	E300.0:PERC	3	Y	
NC2-14S	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC2-14S	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC2-15	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-15	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-15	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-15	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-15	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-15	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-16	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	N	To be sampled in 2016.
NC2-16	PTMW	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	Y	
NC2-16	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	1	Y	
NC2-16	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	3	Y	
NC2-16	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-16	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-17	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-17	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-17	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-17	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	N	Restricted access.
NC2-17	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-17	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Restricted access.
NC2-18	PTMW	Tnbs1-Tnbs0	S	CMP	AS:UISO	2	Y	
NC2-18	PTMW	Tnbs1-Tnbs0	S	CMP	AS:UISO	4	Y	
NC2-18	PTMW	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	Y	
NC2-18	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-18	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-18	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-18	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-19	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	N	To be sampled in 2016.
NC2-19	PTMW	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	Y	
NC2-19	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-19	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-19	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-19	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-20	PTMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	2	Y	
NC2-20	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
NC2-20	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC2-20	PTMW	Tnbs1-Tnbs0	A	CMP	E906:ALL	2	Y	
NC2-21	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	N	To be sampled in 2016.
NC2-21	PTMW	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	Y	
NC2-21	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC2-21	PTMW	Tnbs1-Tnbs0	A	CMP	E906:ALL	2	Y	
NC7-10	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-10	PTMW	Qal/WBR	S	DIS	E300.0:PERC	1	Y	
NC7-10	PTMW	Qal/WBR	S	DIS	E300.0:PERC	3	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-10	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-10	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-10	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-10	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-10	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
NC7-11	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-11	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-11	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-11	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-11	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-11	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-11	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-14	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
NC7-14	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
NC7-14	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Dry.
NC7-14	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Dry.
NC7-14	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-14	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-15	PTMW	Qal/WBR	O	CMP	AS:UISO	2	Y	
NC7-15	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
NC7-15	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-15	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-15	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-15	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-15	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-19	PTMW	Qal/WBR	E	CMP	AS:UISO	2	N	To be sampled in 2016.
NC7-19	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-19	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-19	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-19	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-19	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-19	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-19	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	DIS	DWMETALS:ALL	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	DIS	DWMETALS:ALL	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	1	DIS	DWMETALS:ALL	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:NO3	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E300.0:PERC	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E300.0:PERC	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	DIS	KPA:UTOT	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	DIS	KPA:UTOT	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	A	DIS	MS:UISO	4	Y	
NC7-29	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-29	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-29	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC7-29	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC7-29	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-29	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-29	PTMW	Tnbs1-Tnbs0	A	DIS	MS:UISO	4	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	1	DIS	DWMETALS:ALL	4	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-46	PTMW	Qal/WBR	O	CMP	AS:UISO	2	Y	
NC7-46	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	Y	
NC7-46	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-46	PTMW	Qal/WBR	A	CMP	E906:ALL	2	Y	
NC7-54	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Restricted access.
NC7-54	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Restricted access.
NC7-54	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Dry
NC7-54	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Restricted access.
NC7-54	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-55	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
NC7-55	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	Dry.
NC7-55	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Dry.
NC7-55	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Dry.
NC7-55	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-55	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-56	PTMW	Qal/WBR	O	CMP	AS:UISO	2	Y	
NC7-56	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
NC7-56	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-56	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-56	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-56	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-56	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-56	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-57	PTMW	Qal/WBR	O	CMP	AS:UISO	2	N	Dry.
NC7-57	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
NC7-57	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Dry.
NC7-57	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Dry.
NC7-57	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-57	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-58	PTMW	Qal/WBR	E	CMP	AS:UISO	2	N	To be sampled in 2016.
NC7-58	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	Y	
NC7-58	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-58	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-58	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-58	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-59	PTMW	Qal/WBR	O	CMP	AS:UISO	2	Y	
NC7-59	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
NC7-59	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-59	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-59	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-59	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-60	PTMW	Tnsc0	E	CMP	AS:UISO	2	N	To be sampled in 2016.

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-60	PTMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
NC7-60	PTMW	Tnsc0	S	CMP	E300.0:PERC	1	Y	
NC7-60	PTMW	Tnsc0	S	CMP	E300.0:PERC	3	Y	
NC7-60	PTMW	Tnsc0	S	DIS	E8330LOW:ALL	2	Y	
NC7-60	PTMW	Tnsc0	S	DIS	E8330LOW:ALL	4	Y	
NC7-60	PTMW	Tnsc0	S	CMP	E906:ALL	2	Y	
NC7-60	PTMW	Tnsc0	S	CMP	E906:ALL	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	S	DIS	DWMETALS:ALL	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	S	DIS	DWMETALS:ALL	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	1	DIS	DWMETALS:ALL	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	O	DIS	E8082A:ALL	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	S	WGMG	E906:ALL	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	S	WGMG	E906:ALL	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	S	DIS	KPA:UTOT	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	S	DIS	KPA:UTOT	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
NC7-62	PTMW	Qal/WBR	E	CMP	AS:UISO	2	N	To be sampled in 2016.
NC7-62	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	Y	
NC7-62	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-62	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-62	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-62	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-69	PTMW	Tmss	A	CMP	AS:UISO	2	Y	
NC7-69	PTMW	Tmss	A	CMP	E300.0:NO3	2	Y	
NC7-69	PTMW	Tmss	S	CMP	E300.0:PERC	2	Y	
NC7-69	PTMW	Tmss	S	CMP	E300.0:PERC	4	N	Inoperable pump.
NC7-69	PTMW	Tmss	S	DIS	E8330LOW:ALL	2	Y	
NC7-69	PTMW	Tmss	S	CMP	E906:ALL	2	Y	
NC7-69	PTMW	Tmss	S	CMP	E906:ALL	4	N	Inoperable pump.
NC7-70	PTMW	Tnbs1-Tnbs0	S	DIS	DWMETALS:ALL	1	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	DIS	DWMETALS:ALL	3	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	1	DIS	DWMETALS:ALL	4	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	1	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	3	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:PERC	1	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:PERC	3	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	O	CMP	E8082A:ALL	2	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	1	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	2	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	3	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	4	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	DIS	KPA:UTOT	1	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	DIS	KPA:UTOT	3	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	A	DIS	MS:UISO	4	Y	
NC7-71	PTMW	Qal/WBR	S	DIS	DWMETALS:ALL	1	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-71	PTMW	Qal/WBR	S	DIS	DWMETALS:ALL	3	Y	
NC7-71	PTMW	Qal/WBR	1	DIS	DWMETALS:ALL	4	Y	
NC7-71	PTMW	Qal/WBR	S	DIS	E300.0:NO3	1	Y	
NC7-71	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-71	PTMW	Qal/WBR	S	DIS	E300.0:NO3	3	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	E300.0:PERC	1	Y	
NC7-71	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	E300.0:PERC	3	Y	
NC7-71	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-71	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-71	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	E9060:ALL	1	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	E9060:ALL	2	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	E9060:ALL	3	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	E9060:ALL	4	Y	
NC7-71	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-71	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-71	PTMW	Qal/WBR	S	DIS	KPA:UTOT	1	Y	
NC7-71	PTMW	Qal/WBR	S	DIS	KPA:UTOT	3	Y	
NC7-71	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
NC7-71	PTMW	Qal/WBR	A	DIS	MS:UISO	4	Y	
NC7-72	PTMW	Qal/WBR	E	CMP	AS:UISO	2	N	To be sampled in 2016.
NC7-72	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	Y	
NC7-72	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-72	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-72	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-72	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-72	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-72	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-73	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-73	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
NC7-73	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-73	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-73	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-73	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-73	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-73	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
SPRING24	SPR	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	N	To be sampled in 2016.
SPRING24	SPR	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	N	Dry
SPRING24	SPR	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	N	Dry
SPRING24	SPR	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	N	Dry
SPRING24	SPR	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Dry
SPRING24	SPR	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Dry
W-850-05	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
W-850-05	PTMW	Qal/WBR	1	DIS	DWMETALS:ALL	4	Y	
W-850-05	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-850-05	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
W-850-05	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
W-850-05	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
W-850-05	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
W-850-05	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-850-05	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-850-05	PTMW	Qal/WBR	A	DIS	MS:UISO	4	Y	
W-850-2145	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	N	To be sampled in 2016.
W-850-2145	PTMW	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	Y	
W-850-2145	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2145	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-850-2145	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-850-2145	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-850-2312	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	N	To be sampled in 2016.
W-850-2312	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
W-850-2312	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2312	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-850-2312	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-850-2312	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-850-2313	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
W-850-2313	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
W-850-2313	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
W-850-2313	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
W-850-2313	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
W-850-2313	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
W-850-2313	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-850-2313	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-850-2313	PTMW	Qal/WBR	A	DIS	MS:UISO	2	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	2	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	A	DIS	MS:UISO	4	Y	
W-850-2316	PTMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	2	Y	
W-850-2316	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
W-850-2316	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2316	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-850-2316	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-850-2316	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-850-2416	PTMW	Tnsc0	S	DIS	DWMETALS:ALL	1	Y	
W-850-2416	PTMW	Tnsc0	S	DIS	DWMETALS:ALL	3	Y	
W-850-2416	PTMW	Tnsc0	1	DIS	DWMETALS:ALL	4	Y	
W-850-2416	PTMW	Tnsc0	S	DIS	E300.0:NO3	1	Y	
W-850-2416	PTMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-850-2416	PTMW	Tnsc0	S	DIS	E300.0:PERC	1	Y	
W-850-2416	PTMW	Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-850-2416	PTMW	Tnsc0	S	DIS	E300.0:PERC	3	Y	
W-850-2416	PTMW	Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-850-2416	PTMW	Tnsc0	S	DIS	E8330LOW:ALL	2	Y	
W-850-2416	PTMW	Tnsc0	S	DIS	E8330LOW:ALL	4	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	E9060:ALL	1	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	E9060:ALL	2	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	E9060:ALL	3	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	E9060:ALL	4	Y	
W-850-2416	PTMW	Tnsc0	S	CMP	E906:ALL	2	Y	
W-850-2416	PTMW	Tnsc0	S	CMP	E906:ALL	4	Y	
W-850-2416	PTMW	Tnsc0	S	DIS	KPA:UTOT	1	Y	
W-850-2416	PTMW	Tnsc0	S	DIS	KPA:UTOT	3	Y	
W-850-2416	PTMW	Tnsc0	A	CMP	MS:UISO	2	Y	
W-850-2416	PTMW	Tnsc0	A	DIS	MS:UISO	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	DIS	DWMETALS:ALL	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	DIS	DWMETALS:ALL	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	1	DIS	DWMETALS:ALL	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E300.0:PERC	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E300.0:PERC	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E9060:ALL	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	DIS	KPA:UTOT	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	DIS	KPA:UTOT	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	DIS	MS:UISO	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	DIS	MS:UISO	3	Y	
W-850-2805	PTMW	Tnbs1/Tnbs0	A	CMP	AS:UISO	2	Y	
W-850-2805	PTMW	Tnbs1/Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-850-2805	PTMW	Tnbs1/Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2805	PTMW	Tnbs1/Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-850-2805	PTMW	Tnbs1/Tnbs0	S	CMP	E906:ALL	2	Y	
W-850-2805	PTMW	Tnbs1/Tnbs0	S	CMP	E906:ALL	4	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	A	DIS	DWMETALS:ALL	1	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	1	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	3	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	1	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	3	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	1	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	3	Y	
W-865-05	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	1	N	Dry.
W-865-05	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	1	N	Dry.
W-865-05	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	3	N	Dry.
W-865-1802	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
W-865-1802	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:NO3	2	Y	
W-865-1802	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
W-865-1802	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-1802	PTMW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	3	Y	
W-865-1802	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-865-1802	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-865-1803	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	N	To be sampled in 2016.
W-865-1803	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
W-865-1803	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-865-1803	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-865-1803	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-865-1803	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	A	DIS	DWMETALS:ALL	1	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	1	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	3	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	3	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	A	DIS	DWMETALS:ALL	1	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	1	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	3	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	1	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	3	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-865-2133	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	1	Y	
W-865-2133	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	3	Y	
W-865-2133	GW	Tnbs1-Tnbs0	A	DIS	DWMETALS:ALL	1	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-865-2133	GW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	1	Y	
W-865-2133	GW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	3	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	1	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	2	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	3	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	4	Y	
W-865-2133	GW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-2133	GW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	3	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	1	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	2	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	3	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	4	Y	
W-865-2224	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	2	Y	
W-865-2224	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	4	Y	
W-865-2224	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	2	Y	
W-865-2224	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	4	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	1	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	2	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	3	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	4	Y	
W-865-2224	GW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	2	Y	
W-865-2224	GW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	4	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	1	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	2	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	3	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	4	Y	
W-PIT1-01	PTMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	1	N	Dry.
W-PIT1-01	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	1	N	Dry.
W-PIT1-01	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	3	N	Dry.
W-PIT1-01	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	1	N	Dry.
W-PIT1-01	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	3	N	Dry.
W-PIT1-2204	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Insufficient water.
W-PIT1-2204	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Insufficient water.
W-PIT1-2204	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Insufficient water.
W-PIT1-2204	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Insufficient water.
W-PIT1-2204	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Insufficient water.
W-PIT1-2204	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Insufficient water.
W-PIT1-2209	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	2	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	4	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	2	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	4	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	2	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	4	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	2	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	4	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	2	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	4	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	1	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	2	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	3	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	4	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	1	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	2	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	3	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	4	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	N	To be sampled in 2016.
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	A	DIS	DWMETALS:ALL	2	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:NO3	2	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	2	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	4	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
W-PIT1-3021	PTMW	Tnbs1/Tnbs0	1	DIS	DWMETALS:ALL	2	Y	New well baseline sampling.
W-PIT1-3021	PTMW	Tnbs1/Tnbs0	1	DIS	E200.7:SI	2	Y	New well baseline sampling.
W-PIT1-3021	PTMW	Tnbs1/Tnbs0	1	DIS	E300.0:PERC	2	Y	New well baseline sampling.
W-PIT1-3021	PTMW	Tnbs1/Tnbs0	S	CMP	E300.0:PERC	4	N	Restricted access.
W-PIT1-3021	PTMW	Tnbs1/Tnbs0	1	DIS	E624B:ALL	2	Y	New well baseline sampling.
W-PIT1-3021	PTMW	Tnbs1/Tnbs0	1	DIS	E8330LOW:ALL	2	Y	New well baseline sampling.
W-PIT1-3021	PTMW	Tnbs1/Tnbs0	1	DIS	E900:ALL	2	Y	New well baseline sampling.
W-PIT1-3021	PTMW	Tnbs1/Tnbs0	1	DIS	E906:ALL	2	Y	New well baseline sampling.
W-PIT1-3021	PTMW	Tnbs1/Tnbs0	S	CMP	E906:ALL	4	N	Restricted access.
W-PIT1-3021	PTMW	Tnbs1/Tnbs0	1	DIS	GENMIN:ALL	2	Y	New well baseline sampling.
W-PIT1-3021	PTMW	Tnbs1/Tnbs0	1	DIS	KPA:UTOT	2	Y	New well baseline sampling.
W-PIT1-3021	PTMW	Tnbs1/Tnbs0	1	DIS	MS:UISO	2	Y	New well baseline sampling.
W-PIT1-3022	PTMW	Tnbs1/Tnbs0	1	DIS	DWMETALS:ALL	2	Y	New well baseline sampling.
W-PIT1-3022	PTMW	Tnbs1/Tnbs0	1	DIS	E200.7:SI	2	Y	New well baseline sampling.
W-PIT1-3022	PTMW	Tnbs1/Tnbs0	1	DIS	E300.0:PERC	2	Y	New well baseline sampling.
W-PIT1-3022	PTMW	Tnbs1/Tnbs0	S	CMP	E300.0:PERC	4	N	Restricted access.
W-PIT1-3022	PTMW	Tnbs1/Tnbs0	1	DIS	E624B:ALL	2	Y	New well baseline sampling.
W-PIT1-3022	PTMW	Tnbs1/Tnbs0	1	DIS	E8330LOW:ALL	2	Y	New well baseline sampling.
W-PIT1-3022	PTMW	Tnbs1/Tnbs0	1	DIS	E900:ALL	2	Y	New well baseline sampling.
W-PIT1-3022	PTMW	Tnbs1/Tnbs0	1	DIS	E906:ALL	2	Y	New well baseline sampling.
W-PIT1-3022	PTMW	Tnbs1/Tnbs0	S	CMP	E906:ALL	4	N	Restricted access.
W-PIT1-3022	PTMW	Tnbs1/Tnbs0	1	DIS	GENMIN:ALL	2	Y	New well baseline sampling.
W-PIT1-3022	PTMW	Tnbs1/Tnbs0	1	DIS	KPA:UTOT	2	Y	New well baseline sampling.
W-PIT1-3022	PTMW	Tnbs1/Tnbs0	1	DIS	MS:UISO	2	Y	New well baseline sampling.
W-PIT7-16	PTMW	Tnsc0	A	CMP	AS:UISO	2	Y	
W-PIT7-16	PTMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-PIT7-16	PTMW	Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-PIT7-16	PTMW	Tnsc0	S	CMP	E300.0:PERC	4	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-PIT7-16	PTMW	Tnsc0	S	DIS	E8330LOW:ALL	2	Y	
W-PIT7-16	PTMW	Tnsc0	S	DIS	E8330LOW:ALL	4	Y	
W-PIT7-16	PTMW	Tnsc0	S	CMP	E906:ALL	2	Y	
W-PIT7-16	PTMW	Tnsc0	S	CMP	E906:ALL	4	Y	
W8SPRNG	SPR	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	N	Restricted access.
W8SPRNG	SPR	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	N	Restricted access.
W8SPRNG	SPR	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	N	Restricted access.
W8SPRNG	SPR	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W8SPRNG	SPR	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	
W8SPRNG	SPR	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Restricted access.
W8SPRNG	SPR	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	

Table 2.5-2. PIT 7-Source (PIT7-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
PIT7-SRC	July	NA	715	NA	1,690
	August	NA	768	NA	1,542
	September	NA	702	NA	1,315
	October	NA	243	NA	599
	November	NA	0	NA	0
	December	NA	672	NA	1,404
Total		NA	3,100	NA	6,550

Table 2.5-3. Pit 7-Source (PIT7-SRC) volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location[a]	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
PIT7-SRC-I	7/6/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-I	7/6/15 DUP	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-I	10/7/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-E	7/6/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-E	8/3/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-E	9/1/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-E	10/7/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-E	12/7/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

[a] No effluent samples collected in November; system offline due to compressor problems.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.5-3 (Con't). Analyte detected but not reported in main table.

Location[a]	Date	Detection frequency
PIT7-SRC-I	7/6/15	0 of 18
PIT7-SRC-I	7/6/15 DUP	0 of 18
PIT7-SRC-I	10/7/15	0 of 18
PIT7-SRC-E	7/6/15	0 of 18
PIT7-SRC-E	8/3/15	0 of 18
PIT7-SRC-E	9/1/15	0 of 18
PIT7-SRC-E	10/7/15	0 of 18
PIT7-SRC-E	12/7/15	0 of 18

Notes:

[a] No effluent samples collected in November; system offline due to compressor problems.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.5-4. Pit 7-Source (PIT7-SRC) nitrate and perchlorate in ground water extraction and treatment system influent and effluent.

Location[a]	Date	Nitrate as NO3 (mg/L)	Perchlorate (µg/L)
PIT7-SRC-I	7/6/15	38	12
PIT7-SRC-I	7/6/15 DUP	39	14
PIT7-SRC-I	10/7/15	37	10
PIT7-SRC-E	7/6/15	35	<4
PIT7-SRC-E	8/3/15	2.5	<4
PIT7-SRC-E	9/1/15	<0.5	<4
PIT7-SRC-E	10/7/15	<0.5	<4
PIT7-SRC-E	12/7/15	<0.5 H	<4

Notes:

[a] **No effluent samples collected in November; system offline due to compressor problems.**

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.5-5. Pit 7-Source (PIT7-SRC) total uranium in ground water extraction and treatment system influent and effluent.

Location[a]	Date	Uranium 234 and 233 (in activity) (pCi/L)	Uranium 235 and 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Total Uranium (calculated) (pCi/L)
PIT7-SRC-I	7/6/15	12.2 ± 2.21	0.745 ± 0.262	15.3 ± 2.73	28.2 ± 3.52
PIT7-SRC-I	7/6/15 DUP	10.8 ± 1.87	1.02 ± 0.295	14.1 ± 2.40	25.9 ± 3.06
PIT7-SRC-I	10/7/15	10.4 ± 1.36	0.559 ± 0.119	12.7 ± 1.65	23.7 ± 2.14
PIT7-SRC-E	7/6/15	<0.1	<0.1	<0.1	<0.3
PIT7-SRC-E	8/3/15	<0.1	<0.1	<0.1	<0.3
PIT7-SRC-E	9/1/15	0.291 ± 0.161	0.146 ± 0.129 J	0.150 ± 0.117	0.587 ± 0.237
PIT7-SRC-E	10/7/15	<0.1	<0.1	<0.1	<0.3
PIT7-SRC-E	12/7/15	<0.1	<0.1	<0.1	<0.3

Notes:

[a] **No effluent samples collected in November; system offline due to compressor problems.**

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.5-6. Pit 7-Source (PIT7-SRC) tritium in ground water extraction and treatment system influent and effluent.

Location[a]	Date	Tritium (pCi/L)
PIT7-SRC-I	7/6/15	42000 ± 8160
PIT7-SRC-I	7/6/15 DUP	41100 ± 7980
PIT7-SRC-I	10/7/15	39800 ± 7730
PIT7-SRC-E	7/6/15	38800 ± 7530
PIT7-SRC-E	8/3/15	42700 ± 8300
PIT7-SRC-E	9/1/15	40100 ± 7800
PIT7-SRC-E	10/7/15	40300 ± 7840
PIT7-SRC-E	12/7/15	40400 ± 7850

Notes:

[a] **No effluent samples collected in November; system offline due to compressor problems.**

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.5-7. Pit 7-Source (PIT7-SRC) treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
PIT7-SRC GWTS			
Influent Port	PIT7-SRC-I	VOCs	Quarterly
		Uranium	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		Tritium[a]	Quarterly
		pH	Quarterly
Effluent Port	PIT7-SRC-E	VOCs	Monthly
		Uranium	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		Tritium[a]	Monthly
		pH	Monthly

Notes:

[a] Although tritium is not treated/removed by the PIT7-SRC GWTS, tritium activities will be monitoring to determine levels that are being discharged to the infiltration trench.

One duplicate and one blank (given fictitious labels) shall be taken for every 12 samples.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	ANIONS:FL	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E8082A:ALL	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	ANIONS:FL	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E8082A:ALL	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	ANIONS:FL	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	E8082A:ALL	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
K7-07	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
K7-07	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
K7-07	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
K7-07	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	N	Dry.
K7-07	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
K7-07	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
K7-09	DMW	Tnsc0	A	CMP	ANIONS:FL	2	Y	
K7-09	DMW	Tnsc0	A	CMP	AS:UISO	2	Y	
K7-09	DMW	Tnsc0	A	CMP	E200.7:LI	2	Y	
K7-09	DMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
K7-09	DMW	Tnsc0	S	CMP	E300.0:PERC	2	Y	
K7-09	DMW	Tnsc0	S	CMP	E300.0:PERC	4	Y	
K7-09	DMW	Tnsc0	A	CMP	E624MOD:ALL	2	Y	
K7-09	DMW	Tnsc0	A	CMP	E8082A:ALL	2	Y	
K7-09	DMW	Tnsc0	A	CMP	E8330LOW:ALL	2	Y	
K7-09	DMW	Tnsc0	S	CMP	E906:ALL	2	Y	
K7-09	DMW	Tnsc0	S	CMP	E906:ALL	4	Y	
K7-09	DMW	Tnsc0	A	CMP	T26METALS:ALL	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	ANIONS:FL	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E8082A:ALL	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
NC7-12	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-12	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
NC7-12	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-12	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	Y	
NC7-12	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-12	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-12	PTMW	Qal/WBR	A	DIS	MS:UISO	2	Y	
NC7-16	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Insufficient water.
NC7-16	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Insufficient water.
NC7-16	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	N	Insufficient water.
NC7-16	PTMW	Qal/WBR	S	DIS	E906:ALL	1	Y	
NC7-16	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Insufficient water.
NC7-16	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Insufficient water.
NC7-16	PTMW	Qal/WBR	Q	DIS	MS:UISO	1	Y	
NC7-17	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	
NC7-17	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	
NC7-17	PTMW	Qal/WBR	E	CMP	E300.0:PERC	2	N	To be sampled in 2016.
NC7-17	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	N	
NC7-17	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	
NC7-17	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-18	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-18	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-18	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-18	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	Y	
NC7-18	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-18	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-20	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Insufficient water.
NC7-20	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	Insufficient water.
NC7-20	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Insufficient water.
NC7-20	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	N	Insufficient water.
NC7-20	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Insufficient water.
NC7-20	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-21	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-21	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-21	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-21	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	Y	
NC7-21	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-21	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-22	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
NC7-22	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
NC7-22	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
NC7-22	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	N	Dry.
NC7-22	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-22	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-24	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
NC7-24	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
NC7-24	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
NC7-24	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-24	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-25	EW	Tnbs1-Tnbs0	A	CMP-TF	AS:UISO	2	Y	
NC7-25	EW	Tnbs1-Tnbs0	A	CMP-TF	E300.0:NO3	2	Y	
NC7-25	EW	Tnbs1-Tnbs0	A	CMP-TF	E300.0:PERC	2	Y	
NC7-25	EW	Tnbs1-Tnbs0	A	DIS-TF	E300.0:PERC	4	Y	
NC7-25	EW	Tnbs1-Tnbs0	A	CMP-TF	E624MOD:ALL	2	Y	
NC7-25	EW	Tnbs1-Tnbs0	A	DIS-TF	E624MOD:ALL	4	Y	
NC7-25	EW	Tnbs1-Tnbs0	S	CMP-TF	E906:ALL	2	Y	
NC7-25	EW	Tnbs1-Tnbs0	S	CMP-TF	E906:ALL	4	Y	
NC7-25	EW	Tnbs1-Tnbs0	S	DIS-TF	KPA:UTOT	2	Y	
NC7-25	EW	Tnbs1-Tnbs0	S	DIS-TF	KPA:UTOT	4	Y	
NC7-25	EW	Tnbs1-Tnbs0	A	DIS-TF	MS:UISO	4	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	ANIONS:FL	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	DIS	E300.0:PERC	4	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E8082A:ALL	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
NC7-34	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
NC7-34	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
NC7-34	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
NC7-34	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	N	Dry.
NC7-34	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-34	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-36	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	N	Insufficient water.
NC7-36	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	N	Insufficient water.
NC7-36	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	N	Insufficient water.
NC7-36	PTMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	N	Insufficient water.
NC7-36	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Insufficient water.
NC7-36	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-37	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
NC7-37	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
NC7-37	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
NC7-37	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	N	Dry.
NC7-37	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-37	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-40	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-40	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-40	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	Y	
NC7-40	PTMW	Qal/WBR	S	DIS	E906:ALL	1	Y	
NC7-40	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-40	PTMW	Qal/WBR	S	DIS	E906:ALL	3	Y	
NC7-40	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-40	PTMW	Qal/WBR	Q	DIS	MS:UISO	1	Y	
NC7-40	PTMW	Qal/WBR	Q	DIS	MS:UISO	2	Y	
NC7-40	PTMW	Qal/WBR	Q	DIS	MS:UISO	3	Y	
NC7-40	PTMW	Qal/WBR	Q	DIS	MS:UISO	4	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	ANIONS:FL	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E8082A:ALL	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E906:ALL	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	ANIONS:FL	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E200.7:LI	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E624MOD:ALL	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E8082A:ALL	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E8330LOW:ALL	2	Y	
NC7-48	DMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-48	DMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-48	DMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	T26METALS:ALL	2	Y	
NC7-49A	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-49A	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	N	To be sampled in 2016.
NC7-49A	PTMW	Qal/WBR	E	CMP	E300.0:PERC	2	N	To be sampled in 2016.
NC7-49A	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-49A	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-51	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-51	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-51	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	Y	
NC7-51	PTMW	Qal/WBR	S	DIS	E906:ALL	1	Y	
NC7-51	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-51	PTMW	Qal/WBR	S	DIS	E906:ALL	3	Y	
NC7-51	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-51	PTMW	Qal/WBR	Q	DIS	MS:UISO	1	Y	
NC7-51	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
NC7-51	PTMW	Qal/WBR	Q	DIS	MS:UISO	3	Y	
NC7-51	PTMW	Qal/WBR	Q	DIS	MS:UISO	4	Y	
NC7-52	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-52	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-52	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC7-52	PTMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
NC7-52	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	1	Y	
NC7-52	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	3	Y	
NC7-53	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
NC7-53	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	Y	
NC7-53	PTMW	Qal/WBR	O	CMP	E300.0:PERC	2	Y	
NC7-53	PTMW	Qal/WBR	O	DIS	E906:ALL	2	Y	
NC7-63	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Insufficient water.
NC7-63	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Insufficient water.
NC7-63	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	N	Insufficient water.
NC7-63	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Insufficient water.
NC7-63	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-63	PTMW	Qal/WBR	A	CMP	MS:UISO	2	N	Insufficient water.
NC7-64	EW	Qal/WBR	A	CMP-TF	AS:UISO	2	Y	
NC7-64	EW	Qal/WBR	A	CMP-TF	E300.0:NO3	2	Y	
NC7-64	EW	Qal/WBR	A	CMP-TF	E300.0:PERC	2	Y	
NC7-64	EW	Qal/WBR	A	DIS-TF	E300.0:PERC	4	Y	
NC7-64	EW	Qal/WBR	A	CMP-TF	E624MOD:ALL	2	Y	
NC7-64	EW	Qal/WBR	A	DIS-TF	E624MOD:ALL	4	Y	
NC7-64	EW	Qal/WBR	S	CMP-TF	E906:ALL	2	Y	
NC7-64	EW	Qal/WBR	S	CMP-TF	E906:ALL	4	Y	
NC7-64	EW	Qal/WBR	S	DIS-TF	KPA:UTOT	2	Y	
NC7-64	EW	Qal/WBR	S	DIS-TF	KPA:UTOT	4	Y	
NC7-64	EW	Qal/WBR	A	DIS-TF	MS:UISO	4	Y	
NC7-65	PTMW	Tnsc0	A	CMP	AS:UISO	2	Y	
NC7-65	PTMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
NC7-65	PTMW	Tnsc0	A	CMP	E300.0:PERC	2	Y	
NC7-65	PTMW	Tnsc0	A	CMP	E624MOD:ALL	2	Y	
NC7-65	PTMW	Tnsc0	S	CMP	E906:ALL	2	Y	
NC7-65	PTMW	Tnsc0	S	CMP	E906:ALL	4	Y	
NC7-65	PTMW	Tnsc0	A	DIS	MS:UISO	2	Y	
NC7-67	PTMW	Tnsc0	A	CMP	AS:UISO	2	Y	
NC7-67	PTMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
NC7-67	PTMW	Tnsc0	A	CMP	E300.0:PERC	2	Y	
NC7-67	PTMW	Tnsc0	A	CMP	E624MOD:ALL	2	Y	
NC7-67	PTMW	Tnsc0	S	CMP	E906:ALL	2	Y	
NC7-67	PTMW	Tnsc0	S	CMP	E906:ALL	4	Y	
NC7-68	PTMW	Tnbs1-Tnbs0	A	DIS	AS:UISO	2	Y	
NC7-68	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-68	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC7-68	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-68	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-75	PTMW	Tnsc0	A	CMP	AS:UISO	2	Y	
NC7-75	PTMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
NC7-75	PTMW	Tnsc0	S	CMP	E300.0:PERC	2	Y	
NC7-75	PTMW	Tnsc0	S	CMP	E300.0:PERC	4	Y	
NC7-75	PTMW	Tnsc0	A	CMP	E624MOD:ALL	2	Y	
NC7-75	PTMW	Tnsc0	S	CMP	E906:ALL	2	Y	
NC7-75	PTMW	Tnsc0	S	CMP	E906:ALL	4	Y	
NC7-76	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-76	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	Y	
NC7-76	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-76	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-76	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	A	DIS	DWMETALS:ALL	1	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	1	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	1	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	3	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	1	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	3	Y	
W-865-03	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:NO3	1	Y	
W-865-03	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	1	Y	
W-865-03	PTMW	Tnbs1-Tnbs0	A	DIS	E906:ALL	1	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.
W-865-1804	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	1	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:PERC	3	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	S	DIS	E624MOD:ALL	3	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	1	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	3	Y	
W-PIT3-01	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT3-01	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
W-PIT3-01	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
W-PIT3-01	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
W-PIT3-01	PTMW	Qal/WBR	A	CMP	MS:UISO	2	N	Dry.
W-PIT3-02	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
W-PIT3-02	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT3-02	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
W-PIT3-02	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
W-PIT3-02	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
W-PIT5-01	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
W-PIT5-01	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT5-01	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
W-PIT5-01	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
W-PIT5-01	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
W-PIT5-02	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
W-PIT5-02	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT5-02	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
W-PIT5-02	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
W-PIT5-02	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
W-PIT7-02	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
W-PIT7-02	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-02	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-02	PTMW	Qal/WBR	S	CMP	E906:ALL	1	Y	
W-PIT7-02	PTMW	Qal/WBR	S	CMP	E906:ALL	3	Y	
W-PIT7-03	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
W-PIT7-03	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-03	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-03	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	2	Y	
W-PIT7-03	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	4	Y	
W-PIT7-03	PTMW	Qal/WBR	A	CMP	E906:ALL	1	Y	
W-PIT7-10	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
W-PIT7-10	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-10	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-10	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	Y	
W-PIT7-10	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-PIT7-10	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-PIT7-11	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	N	Dry.
W-PIT7-11	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT7-11	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	N	Dry.
W-PIT7-11	PTMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	N	Dry.
W-PIT7-11	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Dry.
W-PIT7-11	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Dry.
W-PIT7-12	PTMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	2	Y	
W-PIT7-12	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-PIT7-12	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
W-PIT7-12	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:PERC	4	Y	
W-PIT7-12	PTMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
W-PIT7-12	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-PIT7-12	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-PIT7-13	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
W-PIT7-13	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-PIT7-13	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
W-PIT7-13	PTMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
W-PIT7-13	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-PIT7-13	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-PIT7-14	PTMW	Tnsc0	O	DIS	AS:UISO	2	Y	
W-PIT7-14	PTMW	Tnsc0	A	CMP	E300.0:PERC	2	Y	
W-PIT7-14	PTMW	Tnsc0	A	CMP	E906:ALL	2	Y	
W-PIT7-14	PTMW	Tnsc0	A	DIS	MS:UISO	2	Y	
W-PIT7-15	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-PIT7-15	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
W-PIT7-15	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-PIT7-15	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-PIT7-15	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
W-PIT7-1860	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:PERC	2	N	To be sampled in 2016.
W-PIT7-1860	PTMW	Tnbs1-Tnbs0	E	CMP	E906:ALL	2	N	To be sampled in 2016.
W-PIT7-1861	PTMW	Qal/WBR	O	CMP	AS:UISO	2	Y	
W-PIT7-1861	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	Y	
W-PIT7-1861	PTMW	Qal/WBR	O	CMP	E300.0:PERC	2	Y	
W-PIT7-1861	PTMW	Qal/WBR	O	CMP	E906:ALL	2	Y	
W-PIT7-1904	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1904	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1905	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1905	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1907	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1907	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1915	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1915	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1916	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1916	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	DIS	E300.0:PERC	4	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	DIS	E624MOD:ALL	4	Y	
W-PIT7-1918	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-PIT7-1918	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
W-PIT7-1919	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1919	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-2141	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-PIT7-2141	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-PIT7-2141	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:PERC	4	Y	
W-PIT7-2141	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-PIT7-2141	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-PIT7-2141	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
W-PIT7-2305	EW	Qal/WBR	A	CMP-TF	AS:UISO	2	Y	
W-PIT7-2305	EW	Qal/WBR	A	CMP-TF	E300.0:NO3	2	Y	
W-PIT7-2305	EW	Qal/WBR	A	CMP-TF	E300.0:PERC	2	Y	
W-PIT7-2305	EW	Qal/WBR	A	DIS-TF	E300.0:PERC	4	Y	
W-PIT7-2305	EW	Qal/WBR	A	CMP-TF	E624MOD:ALL	2	Y	
W-PIT7-2305	EW	Qal/WBR	A	DIS-TF	E624MOD:ALL	4	Y	
W-PIT7-2305	EW	Qal/WBR	S	CMP-TF	E906:ALL	2	Y	
W-PIT7-2305	EW	Qal/WBR	S	CMP-TF	E906:ALL	4	Y	
W-PIT7-2305	EW	Qal/WBR	S	DIS-TF	KPA:UTOT	2	Y	
W-PIT7-2305	EW	Qal/WBR	S	DIS-TF	KPA:UTOT	4	Y	
W-PIT7-2305	EW	Qal/WBR	A	DIS-TF	MS:UISO	4	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-PIT7-2306	EW	Qal/WBR	A	CMP-TF	AS:UISO	2	N	Insufficient water.
W-PIT7-2306	EW	Qal/WBR	A	CMP-TF	E300.0:NO3	2	N	Insufficient water.
W-PIT7-2306	EW	Qal/WBR	A	CMP-TF	E300.0:PERC	2	N	Insufficient water.
W-PIT7-2306	EW	Qal/WBR	A	DIS-TF	E300.0:PERC	4	N	Insufficient water.
W-PIT7-2306	EW	Qal/WBR	A	CMP-TF	E624MOD:ALL	2	N	Insufficient water.
W-PIT7-2306	EW	Qal/WBR	A	DIS-TF	E624MOD:ALL	4	N	Insufficient water.
W-PIT7-2306	EW	Qal/WBR	S	CMP-TF	E906:ALL	2	N	Insufficient water.
W-PIT7-2306	EW	Qal/WBR	S	CMP-TF	E906:ALL	4	N	Insufficient water.
W-PIT7-2306	EW	Qal/WBR	A	DIS-TF	KPA:UTOT	3	N	Insufficient water.
W-PIT7-2306	EW	Qal/WBR	A	DIS-TF	MS:UISO	4	N	Insufficient water.
W-PIT7-2307	EW	Qal/WBR	A	CMP-TF	AS:UISO	2	Y	
W-PIT7-2307	EW	Qal/WBR	A	CMP-TF	E300.0:NO3	2	Y	
W-PIT7-2307	EW	Qal/WBR	A	CMP-TF	E300.0:PERC	2	Y	
W-PIT7-2307	EW	Qal/WBR	A	DIS-TF	E300.0:PERC	4	N	Insufficient water.
W-PIT7-2307	EW	Qal/WBR	A	CMP-TF	E624MOD:ALL	2	Y	
W-PIT7-2307	EW	Qal/WBR	A	DIS-TF	E624MOD:ALL	4	N	Insufficient water.
W-PIT7-2307	EW	Qal/WBR	S	CMP-TF	E906:ALL	2	Y	
W-PIT7-2307	EW	Qal/WBR	S	CMP-TF	E906:ALL	4	N	Insufficient water.
W-PIT7-2307	EW	Qal/WBR	A	DIS-TF	KPA:UTOT	3	N	Insufficient water.
W-PIT7-2307	EW	Qal/WBR	A	DIS-TF	MS:UISO	4	N	Insufficient water.
W-PIT7-2309	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-2309	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-2309	PTMW	Qal/WBR	A	CMP	E624MOD:ALL	2	Y	
W-PIT7-2309	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-PIT7-2309	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-PIT7-2309	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	CMP-TF	AS:UISO	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	CMP-TF	E300.0:NO3	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	CMP-TF	E300.0:PERC	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	DIS-TF	E300.0:PERC	4	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	CMP-TF	E624MOD:ALL	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	DIS-TF	E624MOD:ALL	4	Y	
W-PIT7-2703	PTMW	Qal/WBR	S	CMP-TF	E906:ALL	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	S	CMP-TF	E906:ALL	4	Y	
W-PIT7-2703	PTMW	Qal/WBR	S	CMP-TF	KPA:UTOT	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	S	CMP-TF	KPA:UTOT	4	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	DIS-TF	MS:UISO	4	Y	
W-PIT7-2704	PTMW	Qal/WBR	A	CMP-TF	AS:UISO	2	N	Insufficient water.
W-PIT7-2704	PTMW	Qal/WBR	A	CMP-TF	E300.0:NO3	2	N	Insufficient water.
W-PIT7-2704	PTMW	Qal/WBR	A	CMP-TF	E300.0:PERC	2	N	Insufficient water.
W-PIT7-2704	PTMW	Qal/WBR	A	DIS-TF	E300.0:PERC	4	N	Insufficient water.
W-PIT7-2704	PTMW	Qal/WBR	A	CMP-TF	E624MOD:ALL	2	N	Insufficient water.
W-PIT7-2704	PTMW	Qal/WBR	A	DIS-TF	E624MOD:ALL	4	N	Insufficient water.
W-PIT7-2704	PTMW	Qal/WBR	S	CMP-TF	E906:ALL	2	N	Insufficient water.
W-PIT7-2704	PTMW	Qal/WBR	S	CMP-TF	E906:ALL	4	N	Insufficient water.
W-PIT7-2704	PTMW	Qal/WBR	A	CMP-TF	KPA:UTOT	3	N	Insufficient water.
W-PIT7-2704	PTMW	Qal/WBR	A	DIS-TF	MS:UISO	4	N	Insufficient water.
W-PIT7-2705	PTMW	Qal/WBR	A	CMP-TF	AS:UISO	2	Y	
W-PIT7-2705	PTMW	Qal/WBR	A	CMP-TF	E300.0:NO3	2	Y	
W-PIT7-2705	PTMW	Qal/WBR	A	CMP-TF	E300.0:PERC	2	Y	
W-PIT7-2705	PTMW	Qal/WBR	A	DIS-TF	E300.0:PERC	4	Y	
W-PIT7-2705	PTMW	Qal/WBR	A	CMP-TF	E624MOD:ALL	2	Y	
W-PIT7-2705	PTMW	Qal/WBR	A	DIS-TF	E624MOD:ALL	4	Y	
W-PIT7-2705	PTMW	Qal/WBR	S	CMP-TF	E906:ALL	2	Y	
W-PIT7-2705	PTMW	Qal/WBR	S	CMP-TF	E906:ALL	4	Y	
W-PIT7-2705	PTMW	Qal/WBR	S	CMP-TF	KPA:UTOT	2	Y	
W-PIT7-2705	PTMW	Qal/WBR	S	CMP-TF	KPA:UTOT	4	Y	
W-PIT7-2705	PTMW	Qal/WBR	A	DIS-TF	MS:UISO	4	Y	

Table 2.5-9. PIT 7-Source (PIT7-SRC) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	Total Uranium mass removed (g)
PIT7-SRC	July	NA	0	0.077	0.26	0.26
	August	NA	0	0.071	0.24	0.23
	September	NA	0	0.060	0.20	0.20
	October	NA	0	0.027	0.090	0.094
	November	NA	0	0	0	0
	December	NA	0	0.056	0.21	0.20
Total		NA	0	0.29	1.0	0.98

Table 2.6-1. Building 854-Source (854-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
854-SRC	July	720	85	1,984	18,679
	August	768	73	2,115	16,276
	September	707	97	1,943	20,376
	October	694	85	1,923	18,499
	November	414	54	1,159	11,278
	December	0	0	0	0
Total		3,303	394	9,124	85,108

Table 2.6-2. Building 854-Proximal (854-PRX) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
854-PRX	July	NA	720	NA	237,842
	August	NA	768	NA	249,019
	September	NA	587	NA	187,194
	October	NA	695	NA	209,670
	November	NA	446	NA	148,896
	December	NA	0	NA	0
Total		NA	3,216	NA	1,032,621

Table 2.6-3. Building 854-Distal (854-DIS) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
854-DIS	July	NA	15	NA	322
	August	NA	8	NA	270
	September	NA	0	NA	0
	October	NA	0	NA	0
	November	NA	0	NA	0
	December	NA	0	NA	0
Total		NA	23	NA	592

Table 2.6-4. Building 854 Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
Building 854-Distal[a]															
854-DIS-I	7/7/15	28	<0.5	0.67	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-DIS-I	7/7/15 DUP	27	<0.5	0.59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-DIS-E	7/7/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-DIS-E	8/3/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 854-Proximal[b]															
854-PRX-I	7/6/15	4.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-PRX-I	7/6/15 DUP	3.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-PRX-I	10/5/15	6.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-PRX-E	7/6/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-PRX-E	8/3/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-PRX-E	9/9/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-PRX-E	10/5/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-PRX-E	11/4/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 854-Source[b]															
854-SRC-I	7/6/15	99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-SRC-I	7/6/15 DUP	77 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-SRC-I	10/5/15	79	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-SRC-E	7/6/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-SRC-E	8/3/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-SRC-E	9/1/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-SRC-E	10/5/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-SRC-E	11/4/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

[a] No samples collected after August; system offline due to extraction well pump problems.

[b] No samples collected December; system offline for freeze protection.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.6-4 (Con't). Analyte detected but not reported in main table.

Location	Date	Detection frequency
Building 854-Distal[a]		
854-DIS-I	7/7/15	0 of 18
854-DIS-I	7/7/15 DUP	0 of 18
854-DIS-E	7/7/15	0 of 18
854-DIS-E	8/3/15	0 of 18
Building 854-Proximal[b]		
854-PRX-I	7/6/15	0 of 18
854-PRX-I	7/6/15 DUP	0 of 18
854-PRX-I	10/5/15	0 of 18
854-PRX-E	7/6/15	0 of 18
854-PRX-E	8/3/15	0 of 18
854-PRX-E	9/9/15	0 of 18
854-PRX-E	10/5/15	0 of 18
854-PRX-E	11/4/15	0 of 18
Building 854-Source[b]		
854-SRC-I	7/6/15	0 of 18
854-SRC-I	7/6/15 DUP	0 of 18
854-SRC-I	10/5/15	0 of 18
854-SRC-E	7/6/15	0 of 18
854-SRC-E	8/3/15	0 of 18
854-SRC-E	9/1/15	0 of 18
854-SRC-E	10/5/15	0 of 18
854-SRC-E	11/4/15	0 of 18

Notes:

[a] No samples collected after August; system offline due to extraction well pump problems.

[b] No samples collected December; system offline for freeze protection.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.6-5. Building 854 Operable Unit nitrate and perchlorate in ground water extraction and treatment system influent and effluent.

Location	Date	Nitrate as NO3 (mg/L)	Perchlorate (µg/L)
Building 854-Distal[a]			
854-DIS-I	7/7/15	19	<4
854-DIS-I	7/7/15 DUP	19	<4
854-DIS-E	7/7/15	11	<4
854-DIS-E	8/3/15	9.5	<4
Building 854-Proximal[b,c]			
854-PRX-I	7/6/15	39	<4
854-PRX-I	7/6/15 DUP	37	<4
854-PRX-I	8/3/15	40	-
854-PRX-I	8/3/15 DUP	38	-
854-PRX-I	9/9/15	39	-
854-PRX-I	9/9/15 DUP	38 D	<4
854-PRX-I	10/5/15	39 D	<4
854-PRX-I	11/4/15	40	-
854-PRX-E	7/6/15	39	<4
854-PRX-E	8/3/15	39 D	<4
854-PRX-E	9/9/15	40	<4
854-PRX-E	9/9/15 DUP	38 D	-
854-PRX-E	10/5/15	38 D	<4
854-PRX-E	11/4/15	41 H	<4
Building 854-Source[b]			
854-SRC-I	7/6/15	-	7
854-SRC-I	7/6/15 DUP	-	5.7
854-SRC-I	10/5/15	-	8
854-SRC-E	7/6/15	-	<4
854-SRC-E	8/3/15	-	<4
854-SRC-E	9/1/15	-	<4
854-SRC-E	10/5/15	-	<4
854-SRC-E	11/4/15	-	<4

Notes:

[a] No samples collected after August; system offline due to extraction well pump problems.

[b] No samples collected December; system offline for freeze protection.

[c] Extra nitrate samples collected to check nitrate sensor.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.6-6. Building 854 Operable Unit treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
854-SRC GWTS			
Influent Port	854-SRC-I	VOCs	Quarterly
		Perchlorate	Quarterly
		pH	Quarterly
Effluent Port	854-SRC-E	VOCs	Monthly
		Perchlorate	Monthly
		pH	Monthly
854-SRC SVTS			
Influent Port	W-854-1834-854-SRC-VI	No Monitoring Requirements	
Effluent Port	854-SRC-VE	VOCs	Weekly[a]
Intermediate GAC	854-SRC-VCF3I	VOCs	Weekly[a]
854-PRX GWTS			
Influent Port	W-854-03-854-PRX-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		pH	Quarterly
Effluent Port	854-PRX-E	VOCs	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		pH	Monthly
854-DIS GWTS			
Influent Port	W-854-2139-854-DIS-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		pH	Quarterly
Effluent Port	854-DIS-E	VOCs	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		pH	Monthly

Notes:

[a] **Weekly monitoring for VOCs will consist of the use of a flame-ionization detector, photo-ionization detector, or other District-approved VOC detection device.**

One duplicate and one blank (given fictitious labels) shall be taken for every 12 samples.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.6-7. Building 854 Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-854-01	PTWM	Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-01	PTWM	Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-01	PTWM	Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-01	PTWM	Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-01	PTWM	Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-02	EW	Tnbs1-Tnsc0	A	CMP-TF	E300.0:NO3	2	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	DIS-TF	E300.0:PERC	1	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	CMP-TF	E300.0:PERC	2	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	DIS-TF	E300.0:PERC	3	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	CMP-TF	E300.0:PERC	4	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	DIS-TF	E601:ALL	1	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	CMP-TF	E624MOD:ALL	2	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	DIS-TF	E624MOD:ALL	3	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	CMP-TF	E624MOD:ALL	4	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	AS:UISO	2	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	1	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	1	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	1	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	2	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	2	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	2	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	3	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	3	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	3	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	4	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	4	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	4	N	Unit off for freeze protection.
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	1	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	2	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	3	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	4	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E601:ALL	1	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E624MOD:ALL	2	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E624MOD:ALL	3	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E624MOD:ALL	4	Y	
W-854-04	PTWM	Tmss	A	CMP	E300.0:NO3	2	Y	
W-854-04	PTWM	Tmss	S	CMP	E300.0:PERC	2	Y	
W-854-04	PTWM	Tmss	S	CMP	E300.0:PERC	4	Y	
W-854-04	PTWM	Tmss	S	CMP	E624MOD:ALL	2	Y	
W-854-04	PTWM	Tmss	S	CMP	E624MOD:ALL	4	Y	
W-854-05	PTWM	Qls-Tnbs1	A	CMP	E300.0:NO3	2	Y	
W-854-05	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	2	Y	
W-854-05	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	4	Y	
W-854-05	PTWM	Qls-Tnbs1	S	CMP	E624MOD:ALL	2	Y	
W-854-05	PTWM	Qls-Tnbs1	S	CMP	E624MOD:ALL	4	Y	
W-854-06	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-06	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-06	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-06	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-06	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-07	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-07	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-07	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-07	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-07	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-08	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-08	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-08	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-08	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	Y	

Table 2.6-7. Building 854 Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-854-08	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-09	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	N	Insufficient water.
W-854-09	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	N	Insufficient water.
W-854-09	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	N	Insufficient water.
W-854-09	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	N	Insufficient water.
W-854-09	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	N	Restricted access
W-854-10	PTWM	Qls-Tnbs1	A	CMP	E300.0:NO3	2	Y	
W-854-10	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	2	Y	
W-854-10	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	4	Y	
W-854-10	PTWM	Qls-Tnbs1	S	CMP	E624MOD:ALL	2	Y	
W-854-10	PTWM	Qls-Tnbs1	S	CMP	E624MOD:ALL	4	Y	
W-854-11	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	N	Dry.
W-854-11	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	N	Dry.
W-854-11	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	N	Dry.
W-854-11	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	N	Dry.
W-854-11	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	N	Dry.
W-854-12	PTWM	Tmss	A	CMP	E300.0:NO3	2	N	Insufficient water.
W-854-12	PTWM	Tmss	S	CMP	E300.0:PERC	2	N	Insufficient water.
W-854-12	PTWM	Tmss	S	CMP	E300.0:PERC	4	N	Insufficient water.
W-854-12	PTWM	Tmss	S	CMP	E624MOD:ALL	2	N	Insufficient water.
W-854-12	PTWM	Tmss	S	CMP	E624MOD:ALL	4	N	Insufficient water.
W-854-13	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-13	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-13	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-13	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-13	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-14	PTWM	Qls-Tnbs1	A	CMP	E300.0:NO3	2	Y	
W-854-14	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	2	Y	
W-854-14	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	4	Y	
W-854-14	PTWM	Qls-Tnbs1	S	CMP	E624MOD:ALL	2	Y	
W-854-14	PTWM	Qls-Tnbs1	S	CMP	E624MOD:ALL	4	Y	
W-854-15	PTWM	Qls-Tnbs1	A	CMP	E300.0:NO3	2	Y	
W-854-15	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	2	Y	
W-854-15	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	4	Y	
W-854-15	PTWM	Qls-Tnbs1	S	CMP	E624MOD:ALL	2	Y	
W-854-15	PTWM	Qls-Tnbs1	S	CMP	E624MOD:ALL	4	Y	
W-854-17	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-17	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-17	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-17	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-17	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-18A	PTMW	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-18A	PTMW	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-18A	PTMW	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-18A	PTMW	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-18A	PTMW	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-19	PTWM	Qls-Tnbs1	O	CMP	E300.0:NO3	2	N	Dry.
W-854-19	PTWM	Qls-Tnbs1	O	CMP	E300.0:PERC	2	N	Dry.
W-854-19	PTWM	Qls-Tnbs1	O	CMP	E624MOD:ALL	2	N	Dry.
W-854-45	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-45	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-45	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-45	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-45	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-1701	PTWM	Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-1701	PTWM	Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-1701	PTWM	Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-1701	PTWM	Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-1701	PTWM	Tnsc0	S	CMP	E624MOD:ALL	4	Y	

Table 2.6-7. Building 854 Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-854-1706	PTWM	Qls-Tnbs1	A	CMP	E300.0:NO3	2	N	Dry.
W-854-1706	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	2	N	Dry.
W-854-1706	PTWM	Qls-Tnbs1	S	CMP	E624MOD:ALL	2	N	Dry.
W-854-1707	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-1707	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-1707	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	N	Restricted access.
W-854-1707	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-1707	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	N	Restricted access.
W-854-1731	PTWM	Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-1731	PTWM	Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-1731	PTWM	Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-1731	PTWM	Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-1731	PTWM	Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-1822	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-1822	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-1822	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-1822	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-1822	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-1823	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-1823	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-1823	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-1823	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-1823	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-1902	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	N	Dry.
W-854-1902	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	N	Dry.
W-854-1902	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	N	Dry.
W-854-1902	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	N	Dry.
W-854-1902	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	N	Dry.
W-854-2115	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-2115	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-2115	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-2115	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-2115	PTWM	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:NO3	1	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:NO3	2	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:NO3	3	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:NO3	4	N	Unit off for freeze protection.
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	1	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	2	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	3	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	4	N	Unit off for freeze protection.
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E601:ALL	1	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E624MOD:ALL	2	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E624MOD:ALL	3	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E624MOD:ALL	4	N	Unit off for freeze protection.
W-854-2218	EW	Tnbs1-Tnsc0	A	CMP-TF	E300.0:NO3	2	Y	
W-854-2218	EW	Tnbs1-Tnsc0	S	DIS-TF	E300.0:PERC	1	N	Inoperable Pump.
W-854-2218	EW	Tnbs1-Tnsc0	S	CMP-TF	E300.0:PERC	2	Y	
W-854-2218	EW	Tnbs1-Tnsc0	S	DIS-TF	E300.0:PERC	3	N	Inoperable Pump.
W-854-2218	EW	Tnbs1-Tnsc0	S	CMP-TF	E300.0:PERC	4	N	Inoperable Pump.
W-854-2218	EW	Tnbs1-Tnsc0	S	DIS-TF	E601:ALL	1	N	Inoperable Pump.
W-854-2218	EW	Tnbs1-Tnsc0	S	CMP-TF	E624MOD:ALL	2	Y	
W-854-2218	EW	Tnbs1-Tnsc0	S	DIS-TF	E624MOD:ALL	3	N	Inoperable Pump.
W-854-2218	EW	Tnbs1-Tnsc0	S	CMP-TF	E624MOD:ALL	4	N	Inoperable Pump.
W-854-2611	PTMW	Tnbs1/Tnsc0	1	UK	D-15N(NO3):ALL	2	Y	
W-854-2611	PTMW	Tnbs1/Tnsc0	1	UK	D-18O(NO3):ALL	2	Y	
W-854-2611	PTMW	Tnbs1/Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-2611	PTMW	Tnbs1/Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-2611	PTMW	Tnbs1/Tnsc0	S	CMP	E300.0:PERC	4	Y	

Table 2.6-7. Building 854 Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-854-2611	PTMW	Tnbs1/Tnsc0	S	CMP	E624MOD:ALL	2	Y	
W-854-2611	PTMW	Tnbs1/Tnsc0	S	CMP	E624MOD:ALL	4	Y	
W-854-2611	PTMW	Tnbs1/Tnsc0	1	UK	EXCESSN2:ALL	2	Y	
W-854-F2	PTWM	Qls-Tnbs1	O	CMP	E300.0:NO3	2	N	Dry.
W-854-F2	PTWM	Qls-Tnbs1	O	CMP	E300.0:PERC	2	N	Dry.
W-854-F2	PTWM	Qls-Tnbs1	O	CMP	E624MOD:ALL	2	N	Dry.
SPRING10	SPR	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	N	Dry.
SPRING10	SPR	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	N	Dry.
SPRING10	SPR	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	N	Restricted access.
SPRING10	SPR	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	N	Dry.
SPRING10	SPR	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	N	Restricted access.
SPRING11	SPR	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
SPRING11	SPR	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
SPRING11	SPR	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	N	Restricted access.
SPRING11	SPR	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	2	Y	
SPRING11	SPR	Tnbs1-Tnsc0	S	CMP	E624MOD:ALL	4	N	Restricted access.

Table 2.6-8. Building 854-Source (854-SRC) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
854-SRC	July	39	7.1	0.44	3.9	NA	NA
	August	42	6.2	0.38	3.4	NA	NA
	September	38	7.7	0.48	4.2	NA	NA
	October	73	6.4	0.45	3.9	NA	NA
	November	44	3.9	0.27	2.4	NA	NA
	December	0	0	0	0	NA	NA
Total		240	31	2.0	18	NA	NA

Table 2.6-9. Building 854-Proximal (854-PRX) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
854-PRX	July	NA	3.9	0	35	NA	NA
	August	NA	4.1	0	38	NA	NA
	September	NA	3.1	0	28	NA	NA
	October	NA	4.9	0	31	NA	NA
	November	NA	3.5	0	23	NA	NA
	December	NA	0	0	0	NA	NA
Total		NA	19	0	150	NA	NA

Table 2.6-10. Building 854-Distal (854-DIS) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
854-DIS	July	NA	0.035	0	0.023	NA	NA
	August	NA	0.029	0	0.019	NA	NA
	September	NA	0	0	0	NA	NA
	October	NA	0	0	0	NA	NA
	November	NA	0	0	0	NA	NA
	December	NA	0	0	0	NA	NA
Total		NA	0.064	0	0.043	NA	NA

Table 2.7-1. Building 832-Source (832-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
832-SRC	July	648	648	195	3,096
	August	840	840	221	4,938
	September	720	720	203	6,189
	October	624	624	186	3,706
	November	528	528	159	3,575
	December	0	0	0	0
Total		3,360	3,360	964	21,504

Table 2.7-2. Building 830-Source (830-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
830-SRC	July	0	36	0	31,510
	August	6	203	15	68,850
	September	306	490	473	252,601
	October	674	667	746	269,512
	November	392	411	436	158,639
	December	0	0	0	0
Total		1,378	1,807	1,670	781,112

Table 2.7-3. Building 830-Distal South (830-DISS) volumes of ground water and soil vapor extracted and discharged, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
830-DISS	July	NA	0	NA	0
	August	NA	336	NA	58,436
	September	NA	192	NA	37,945
	October	NA	0	NA	0
	November	NA	0	NA	0
	December	NA	0	NA	0
Total		NA	528	NA	96,381

Table 2.7-4. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
Building 830-Distal South[a]															
Building 830-Source[b]															
830-SRC-I	7/15/15	1,200 D	1.3	0.62	<0.5	<0.5	0.65	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-I[c]	7/28/15	1,300 D	0.96	<0.5	<0.5	<0.5	0.58	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-I	7/28/15 DUP	1,200 DIJ	1.4	0.84	<0.5	<0.5	0.68	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-I	10/5/15	1,600 D	2.8	<0.5	<0.5	<0.5	0.63	<0.5	0.75	<0.5	<0.5	0.5	<0.5	<0.5	<0.5
830-SRC-I2	7/15/15	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-I2[c]	7/28/15	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-I2	7/28/15 DUP	17	<0.5	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-I2	10/5/15	16	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-E	7/15/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-E[c]	7/28/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-E	8/17/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-E	9/9/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-E	10/5/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-E	11/4/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 832-Source[b]															
832-SRC-I	7/6/15	89	<0.5	8.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-I	7/6/15 DUP	94	<0.5	8.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-I	10/5/15	33	<0.5	0.65	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-E	7/6/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-E	8/3/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-E	9/1/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-E	10/5/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-E	11/4/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

[a] No influent or effluent monitoring required; VOC treatment at CGSA GWTS.

[b] No samples collected December; system offline for freeze protection.

[c] Extra influent and effluent samples for system startup requirements.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.7-4 (Con't). Analyte detected but not reported in main table.

Location	Date	Detection frequency	1,2-DCE (total) (µg/L)
Building 830-Distal South[a]			
Building 830-Source[b]			
830-SRC-I	7/15/15	0 of 18	-
830-SRC-I	7/28/15	0 of 18	-
830-SRC-I	7/28/15 DUP	1 of 18	0.84
830-SRC-I	10/5/15	0 of 18	-
830-SRC-I2	7/15/15	0 of 18	-
830-SRC-I2	7/28/15	0 of 18	-
830-SRC-I2	7/28/15 DUP	1 of 18	0.52
830-SRC-I2	10/5/15	0 of 18	-
830-SRC-E	7/15/15	0 of 18	-
830-SRC-E	7/28/15	0 of 18	-
830-SRC-E	8/17/15	0 of 18	-
830-SRC-E	9/9/15	0 of 18	-
830-SRC-E	10/5/15	0 of 18	-
830-SRC-E	11/4/15	0 of 18	-
Building 832-Source[b]			
832-SRC-I	7/6/15	1 of 18	8.1
832-SRC-I	7/6/15 DUP	1 of 18	8.7
832-SRC-I	10/5/15	0 of 18	-
832-SRC-E	7/6/15	0 of 18	-
832-SRC-E	8/3/15	0 of 18	-
832-SRC-E	9/1/15	0 of 18	-
832-SRC-E	10/5/15	0 of 18	-
832-SRC-E	11/4/15	0 of 18	-

Notes:

[a] No influent or effluent monitoring required; VOC treatment at CGSA GWTS.

[b] No samples collected December; system offline for freeze protection.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.7-5. Building 832 Canyon Operable Unit perchlorate in ground water extraction and treatment system influent and effluent.

Location	Date	Perchlorate (µg/L)
Building 830-Distal South[a]		
830-DISS-I	8/19/15	4
830-DISS-I	8/19/15 DUP	4.7
830-DISS-E	8/19/15	<4
830-DISS-E	9/1/15	<4
Building 830-Source[b]		
830-SRC-I	7/15/15	5.6 O
830-SRC-I[c]	7/28/15	5.4
830-SRC-I	7/28/15 DUP	5.5
830-SRC-I	10/5/15	<4
830-SRC-E	7/15/15	<4
830-SRC-E[c]	7/28/15	<4
830-SRC-E	8/17/15	<4
830-SRC-E	9/9/15	<4
830-SRC-E	10/5/15	<4
830-SRC-E	11/4/15	<4
Building 832-Source[b]		
832-SRC-I	7/6/15	5.6
832-SRC-I	7/6/15 DUP	6.3
832-SRC-I	10/5/15	9
832-SRC-E	7/6/15	<4
832-SRC-E	8/3/15	<4
832-SRC-E	9/1/15	<4
832-SRC-E	10/5/15	<4
832-SRC-E	11/4/15	<4

Notes:

[a] No samples collected in July or after September due to shutdown of CGSA GWTS.

[b] No samples collected December; system offline for freeze protection.

[c] Extra influent and effluent samples for system startup requirements.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.7-6. Building 832 Canyon Operable Unit treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
832-SRC GWTS			
Influent Port	**832-SRC-I**	**VOCs**	**Quarterly**
		Perchlorate	**Quarterly**
		pH	**Quarterly**
Effluent Port	**832-SRC-E**	**VOCs**	**Monthly**
		Perchlorate	**Monthly**
		PH	**Monthly**
832-SRC SVTS			
Influent Port	**832-SRC-VI**	**No Monitoring Requirements**	
Effluent Port	**832-SRC-VE**	**VOCs**	**Weekly**[a]
Intermediate GAC	**832-SRC-VCF3I**	**VOCs**	**Weekly**[a]
830-SRC GWTS			
Influent Port	**830-SRC-I**	**VOCs**	**Quarterly**
		Perchlorate	**Quarterly**
		PH	**Quarterly**
Effluent Port	**830-SRC-E**	**VOCs**	**Monthly**
		Perchlorate	**Monthly**
		PH	**Monthly**
830-SRC SVTS			
Influent Port	**830-SRC-VI**	**No Monitoring Requirements**	
Effluent Port	**830-SRC-VE**	**VOCs**	**Weekly**[a]
Intermediate GAC	**830-SRC-VCF3I**	**VOCs**	**Weekly**[a]
830-DISS GWTS			
Influent Port	**830-DISS-I**	**Perchlorate**	**Quarterly**
		pH	**Quarterly**
Effluent Port	**830-DISS-E**	**Perchlorate**	**Monthly**
		pH	**Monthly**

Notes:

[a] Weekly monitoring for VOCs will consist of the use of a flame-ionization detector, photo-ionization detector, or other District-approved VOC detection device.

One duplicate and one blank (given fictitious labels) shall be taken for every 12 samples.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
SPRING3	SPR	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.
SPRING3	SPR	Qal/WBR	A	CMP	E300.0:PERC	1	N	Dry.
SPRING3	SPR	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
SPRING3	SPR	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Dry.
SPRING4	SPR	Tpsg-Tps	O	CMP	E300.0:NO3	1	N	Dry.
SPRING4	SPR	Tpsg-Tps	O	CMP	E300.0:PERC	1	N	Dry.
SPRING4	SPR	Tpsg-Tps	O	CMP	E601:ALL	1	N	Dry.
SVI-830-031	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
SVI-830-031	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	Y	
SVI-830-031	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
SVI-830-031	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	Y	
SVI-830-032	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Insufficient water.
SVI-830-032	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	N	Insufficient water.
SVI-830-032	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Insufficient water.
SVI-830-032	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Insufficient water.
SVI-830-033	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.
SVI-830-033	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	N	Dry.
SVI-830-033	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
SVI-830-033	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Dry.
SVI-830-035	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
SVI-830-035	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	Y	
SVI-830-035	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
SVI-830-035	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	Y	
W-830-04A	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-04A	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-04A	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-04A	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-05	PTMW	Tnsc1c	A	CMP	E300.0:NO3	1	Y	
W-830-05	PTMW	Tnsc1c	A	CMP	E300.0:PERC	1	Y	
W-830-05	PTMW	Tnsc1c	S	CMP	E601:ALL	1	Y	
W-830-05	PTMW	Tnsc1c	S	CMP	E624MOD:ALL	3	Y	
W-830-07	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.
W-830-07	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	N	Dry.
W-830-07	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
W-830-07	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Dry.
W-830-09	PTMW	UTnbs1	1	UK	D-15N(NO3):ALL	2	Y	
W-830-09	PTMW	UTnbs1	1	UK	D-18O(NO3):ALL	2	Y	
W-830-09	PTMW	UTnbs1	O	CMP	E300.0:NO3	1	Y	
W-830-09	PTMW	UTnbs1	O	CMP	E300.0:PERC	1	Y	
W-830-09	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-830-09	PTMW	UTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-830-09	PTMW	UTnbs1	1	UK	EXCESSN2:ALL	2	Y	
W-830-10	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-10	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-10	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-10	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-11	PTMW	Tnsc1c	A	CMP	E300.0:NO3	1	Y	
W-830-11	PTMW	Tnsc1c	A	CMP	E300.0:PERC	1	Y	
W-830-11	PTMW	Tnsc1c	S	CMP	E601:ALL	1	Y	
W-830-11	PTMW	Tnsc1c	S	CMP	E624MOD:ALL	3	Y	
W-830-12	GW	LTnbs1	S	CMP	E300.0:NO3	1	Y	
W-830-12	GW	LTnbs1	S	CMP	E300.0:NO3	3	Y	
W-830-12	GW	LTnbs1	S	CMP	E300.0:PERC	1	Y	
W-830-12	GW	LTnbs1	S	CMP	E300.0:PERC	3	Y	
W-830-12	GW	LTnbs1	Q	CMP	E601:ALL	1	Y	
W-830-12	GW	LTnbs1	Q	CMP	E624MOD:ALL	2	Y	
W-830-12	GW	LTnbs1	Q	CMP	E624MOD:ALL	3	Y	
W-830-12	GW	LTnbs1	Q	CMP	E624MOD:ALL	4	Y	
W-830-13	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	N	Inoperable Pump.
W-830-13	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	N	Inoperable Pump.
W-830-13	PTMW	Tnbs2	S	CMP	E601:ALL	1	N	Inoperable Pump.
W-830-13	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-830-13	PTMW	Tnbs2	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-830-14	PTMW	Tnsc1b	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-830-14	PTMW	Tnsc1b	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-830-14	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-14	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-15	GW	UTnbs1	S	CMP	E300.0:NO3	1	Y	
W-830-15	GW	UTnbs1	S	CMP	E300.0:NO3	3	Y	
W-830-15	GW	UTnbs1	S	CMP	E300.0:PERC	1	Y	
W-830-15	GW	UTnbs1	S	CMP	E300.0:PERC	3	Y	
W-830-15	GW	UTnbs1	Q	CMP	E601:ALL	1	Y	
W-830-15	GW	UTnbs1	Q	CMP	E624MOD:ALL	2	Y	
W-830-15	GW	UTnbs1	Q	CMP	E624MOD:ALL	3	Y	
W-830-15	GW	UTnbs1	Q	CMP	E624MOD:ALL	4	Y	
W-830-16	PTMW	Tnsc1b	O	CMP	E300.0:NO3	1	Y	
W-830-16	PTMW	Tnsc1b	O	CMP	E300.0:PERC	1	Y	
W-830-16	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-16	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-17	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	N	Restricted access.
W-830-17	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	N	Restricted access.
W-830-17	PTMW	Tnbs2	S	CMP	E601:ALL	1	N	Restricted access.
W-830-17	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	N	Inoperable Pump.
W-830-18	PTMW	UTnbs1	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.
W-830-18	PTMW	UTnbs1	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-830-18	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-830-18	PTMW	UTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-830-19	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Unit Off.
W-830-19	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit Off.
W-830-19	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-830-19	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit Off.
W-830-19	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	2	N	Unit Off.
W-830-19	EW	Tnsc1b	S	CMP-TF	E624MOD:ALL	3	Y	
W-830-19	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	4	Y	
W-830-20	PTMW	UTnbs1	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.
W-830-20	PTMW	UTnbs1	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-830-20	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-830-20	PTMW	UTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-830-20	PTMW	UTnbs1	1	UK	EXCESSN2:ALL	2	Y	
W-830-21	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-21	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-21	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-21	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-22	PTMW	Tnsc1a	A	CMP	E300.0:NO3	1	Y	
W-830-22	PTMW	Tnsc1a	A	CMP	E300.0:PERC	1	Y	
W-830-22	PTMW	Tnsc1a	S	CMP	E601:ALL	1	Y	
W-830-22	PTMW	Tnsc1a	S	CMP	E624MOD:ALL	3	Y	
W-830-25	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	N	Dry.
W-830-25	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	N	Dry.
W-830-25	PTMW	Tnsc1b	S	CMP	E601:ALL	1	N	Dry.
W-830-25	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	N	Dry.
W-830-26	PTMW	UTnbs1	E	CMP	E300.0:NO3	1	N	To be sampled in 2016.
W-830-26	PTMW	UTnbs1	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-830-26	PTMW	UTnbs1	S	CMP	E601:ALL	1	N	Inoperable Pump.
W-830-26	PTMW	UTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-830-27	PTMW	Tnsc1a	A	CMP	E300.0:NO3	1	Y	
W-830-27	PTMW	Tnsc1a	A	CMP	E300.0:PERC	1	Y	
W-830-27	PTMW	Tnsc1a	S	CMP	E601:ALL	1	Y	
W-830-27	PTMW	Tnsc1a	S	CMP	E624MOD:ALL	3	Y	
W-830-28	PTMW	UTnbs1	O	CMP	E300.0:NO3	1	Y	
W-830-28	PTMW	UTnbs1	O	CMP	E300.0:PERC	1	Y	
W-830-28	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-830-28	PTMW	UTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-830-29	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	N	Inoperable Pump.
W-830-29	PTMW	LTnbs1	Q	DIS	E300.0:NO3	3	Y	
W-830-29	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	N	Inoperable Pump.
W-830-29	PTMW	LTnbs1	Q	DIS	E300.0:PERC	3	Y	
W-830-29	PTMW	LTnbs1	S	CMP	E601:ALL	1	N	Inoperable Pump.

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-830-29	PTMW	LTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-830-30	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
W-830-30	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	Y	
W-830-30	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
W-830-30	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	Y	
W-830-34	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
W-830-34	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	Y	
W-830-34	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
W-830-34	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	Y	
W-830-34	PTMW	Qal/WBR	E	CMP	E8330LOW:ALL	1	N	To be sampled in 2016.
W-830-49	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Unit off.
W-830-49	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit off.
W-830-49	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-830-49	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off.
W-830-49	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	2	N	Unit off.
W-830-49	EW	Tnsc1b	S	CMP-TF	E624MOD:ALL	3	Y	
W-830-49	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	4	Y	
W-830-50	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-50	PTMW	Tnsc1b	O	CMP	E300.0:PERC	1	Y	
W-830-50	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-50	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-51	EW	Tnsc1b	1	UK	D-15N(NO3):ALL	2	Y	
W-830-51	EW	Tnsc1b	1	UK	D-18O(NO3):ALL	2	Y	
W-830-51	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Unit off.
W-830-51	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit off.
W-830-51	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-830-51	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off.
W-830-51	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	2	Y	
W-830-51	EW	Tnsc1b	S	CMP-TF	E624MOD:ALL	3	Y	
W-830-51	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	4	N	Unit off.
W-830-51	EW	Tnsc1b	1	UK	EXCESSN2:ALL	2	Y	
W-830-52	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Unit off.
W-830-52	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit off.
W-830-52	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	N	No/low flow.
W-830-52	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off.
W-830-52	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	2	N	Unit off.
W-830-52	EW	Tnsc1b	S	CMP-TF	E624MOD:ALL	3	N	No/low flow.
W-830-52	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	4	N	No/low flow.
W-830-53	EW	Tnsc1b	1	UK	D-15N(NO3):ALL	2	Y	
W-830-53	EW	Tnsc1b	1	UK	D-18O(NO3):ALL	2	Y	
W-830-53	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Unit off.
W-830-53	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit off.
W-830-53	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	N	No/low flow.
W-830-53	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off.
W-830-53	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	2	N	Unit off.
W-830-53	EW	Tnsc1b	S	CMP-TF	E624MOD:ALL	3	N	No/low flow.
W-830-53	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	4	N	No/low flow.
W-830-53	EW	Tnsc1b	1	UK	EXCESSN2:ALL	2	Y	
W-830-54	PTMW	Tnsc1c	O	CMP	E300.0:NO3	1	Y	
W-830-54	PTMW	Tnsc1c	Q	DIS	E300.0:NO3	3	Y	
W-830-54	PTMW	Tnsc1c	O	CMP	E300.0:PERC	1	Y	
W-830-54	PTMW	Tnsc1c	S	CMP	E601:ALL	1	Y	
W-830-54	PTMW	Tnsc1c	S	CMP	E624MOD:ALL	3	Y	
W-830-55	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-55	PTMW	Tnsc1b	Q	DIS	E300.0:NO3	3	Y	
W-830-55	PTMW	Tnsc1b	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-830-55	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-55	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-56	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-56	PTMW	Tnsc1b	O	CMP	E300.0:PERC	1	Y	
W-830-56	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-56	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-57	EW	UTnbs1	A	CMP-TF	E300.0:NO3	1	N	Unit off.
W-830-57	EW	UTnbs1	A	CMP-TF	E300.0:PERC	1	N	Unit off.

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-830-57	EW	UTnbs1	S	CMP-TF	E601:ALL	1	N	Unit off.
W-830-57	EW	UTnbs1	S	DIS-TF	E624MOD:ALL	2	N	Unit off.
W-830-57	EW	UTnbs1	S	CMP-TF	E624MOD:ALL	3	Y	
W-830-57	EW	UTnbs1	S	DIS-TF	E624MOD:ALL	4	Y	
W-830-58	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-58	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-58	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-58	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-59	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Unit off.
W-830-59	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit off.
W-830-59	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-830-59	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off.
W-830-59	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	2	N	Unit off.
W-830-59	EW	Tnsc1b	S	CMP-TF	E624MOD:ALL	3	Y	
W-830-59	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	4	Y	
W-830-60	EW	UTnbs1	A	CMP-TF	E300.0:NO3	1	N	Unit off.
W-830-60	EW	UTnbs1	A	CMP-TF	E300.0:PERC	1	N	Unit off.
W-830-60	EW	UTnbs1	S	CMP-TF	E601:ALL	1	N	Unit off.
W-830-60	EW	UTnbs1	S	DIS-TF	E624MOD:ALL	2	N	Unit off.
W-830-60	EW	UTnbs1	S	CMP-TF	E624MOD:ALL	3	Y	
W-830-60	EW	UTnbs1	S	DIS-TF	E624MOD:ALL	4	Y	
W-830-1730	GW	Tnsc1b	S	CMP	E300.0:NO3	1	Y	
W-830-1730	GW	Tnsc1b	S	CMP	E300.0:NO3	3	Y	
W-830-1730	GW	Tnsc1b	S	CMP	E300.0:PERC	1	Y	
W-830-1730	GW	Tnsc1b	S	CMP	E300.0:PERC	3	Y	
W-830-1730	GW	Tnsc1b	Q	CMP	E601:ALL	1	Y	
W-830-1730	GW	Tnsc1b	Q	CMP	E624MOD:ALL	2	Y	
W-830-1730	GW	Tnsc1b	Q	CMP	E624MOD:ALL	3	Y	
W-830-1730	GW	Tnsc1b	Q	CMP	E624MOD:ALL	4	Y	
W-830-1807	EW	Qal/WBR-Tnsc1b	Q	DIS-TF	AS:UISO	1	N	Unit off.
W-830-1807	EW	Qal/WBR-Tnsc1b	Q	DIS-TF	AS:UISO	2	N	Unit off.
W-830-1807	EW	Qal/WBR-Tnsc1b	Q	DIS-TF	AS:UISO	3	Y	
W-830-1807	EW	Qal/WBR-Tnsc1b	Q	DIS-TF	AS:UISO	4	Y	
W-830-1807	EW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Unit off.
W-830-1807	EW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit off.
W-830-1807	EW	Qal/WBR-Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-830-1807	EW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off.
W-830-1807	EW	Qal/WBR-Tnsc1b	S	DIS-TF	E624MOD:ALL	2	N	Unit off.
W-830-1807	EW	Qal/WBR-Tnsc1b	S	CMP-TF	E624MOD:ALL	3	Y	
W-830-1807	EW	Qal/WBR-Tnsc1b	S	DIS-TF	E624MOD:ALL	4	Y	
W-830-1829	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-1829	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-1829	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-1829	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-1830	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-1830	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-1830	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-1830	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-1831	PTMW	Tnsc1b	O	CMP	E300.0:NO3	1	Y	
W-830-1831	PTMW	Tnsc1b	Q	DIS	E300.0:NO3	3	Y	
W-830-1831	PTMW	Tnsc1b	O	CMP	E300.0:PERC	1	Y	
W-830-1831	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-1831	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-1832	PTMW	UTnbs1	A	CMP	E300.0:NO3	1	Y	
W-830-1832	PTMW	UTnbs1	Q	DIS	E300.0:NO3	3	Y	
W-830-1832	PTMW	UTnbs1	A	CMP	E300.0:PERC	1	Y	
W-830-1832	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-830-1832	PTMW	UTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-830-2213	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-2213	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-2213	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-2213	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-830-2214	EW	Tnsc1a	A	CMP-TF	E300.0:NO3	1	N	Unit off.
W-830-2214	EW	Tnsc1a	A	CMP-TF	E300.0:PERC	1	N	Unit off.

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-830-2214	EW	Tnsc1a	A	DIS-TF	E300.0:PERC	3	Y	
W-830-2214	EW	Tnsc1a	S	CMP-TF	E601:ALL	1	N	Unit off.
W-830-2214	EW	Tnsc1a	S	DIS-TF	E624MOD:ALL	2	N	Unit off.
W-830-2214	EW	Tnsc1a	S	CMP-TF	E624MOD:ALL	3	Y	
W-830-2214	EW	Tnsc1a	S	DIS-TF	E624MOD:ALL	4	Y	
W-830-2215	EW	UTnbs1	A	CMP-TF	E300.0:NO3	1	N	Unit off.
W-830-2215	EW	UTnbs1	A	CMP-TF	E300.0:PERC	1	N	Unit off.
W-830-2215	EW	UTnbs1	S	CMP-TF	E601:ALL	1	N	Unit off.
W-830-2215	EW	UTnbs1	S	DIS-TF	E624MOD:ALL	2	N	Unit off.
W-830-2215	EW	UTnbs1	S	CMP-TF	E624MOD:ALL	3	Y	
W-830-2215	EW	UTnbs1	S	DIS-TF	E624MOD:ALL	4	Y	
W-830-2216	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	N	Unit off.
W-830-2216	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	N	Unit off.
W-830-2216	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-830-2216	EW	Tnbs2	S	CMP-TF	E601:ALL	1	N	Unit off.
W-830-2216	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	2	Y	
W-830-2216	EW	Tnbs2	S	CMP-TF	E624MOD:ALL	3	Y	
W-830-2216	EW	Tnbs2	S	DIS-TF	E624MOD:ALL	4	N	Inoperable pump.
W-830-2216	EW	Tnbs2	O	CMP-TF	E8330LOW:ALL	1	N	Unit off.
W-830-2311	PTMW	Tnsc1a	A	CMP	E300.0:NO3	1	Y	
W-830-2311	PTMW	Tnsc1a	A	CMP	E300.0:PERC	1	Y	
W-830-2311	PTMW	Tnsc1a	S	CMP	E601:ALL	1	Y	
W-830-2311	PTMW	Tnsc1a	S	CMP	E624MOD:ALL	3	Y	
W-830-2701	PTMW	Tnsc1a	A	CMP-TF	E300.0:NO3	1	N	Unit off.
W-830-2701	PTMW	Tnsc1a	A	CMP-TF	E300.0:PERC	1	N	Unit off.
W-830-2701	PTMW	Tnsc1a	A	DIS-TF	E300.0:PERC	3	Y	
W-830-2701	PTMW	Tnsc1a	S	CMP-TF	E601:ALL	1	N	Unit off.
W-830-2701	PTMW	Tnsc1a	S	DIS-TF	E624MOD:ALL	2	N	Unit off.
W-830-2701	PTMW	Tnsc1a	S	CMP-TF	E624MOD:ALL	3	Y	
W-830-2701	PTMW	Tnsc1a	S	DIS-TF	E624MOD:ALL	4	Y	
W-830-2806	PTMW	Tnsc1a	S	CMP	E300.0:NO3	1	Y	
W-830-2806	PTMW	Tnsc1a	S	CMP	E300.0:NO3	3	Y	
W-830-2806	PTMW	Tnsc1a	S	CMP	E300.0:PERC	1	Y	
W-830-2806	PTMW	Tnsc1a	S	CMP	E300.0:PERC	3	Y	
W-830-2806	PTMW	Tnsc1a	Q	CMP	E601:ALL	1	Y	
W-830-2806	PTMW	Tnsc1a	Q	CMP	E624MOD:ALL	2	Y	
W-830-2806	PTMW	Tnsc1a	Q	CMP	E624MOD:ALL	3	Y	
W-830-2806	PTMW	Tnsc1a	Q	CMP	E624MOD:ALL	4	Y	
W-830-3101	PTMW	LTnbs1	1	DIS	DWMETALS:ALL	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	1	DIS	E200.7:SI	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	1	DIS	E300.0:PERC	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	1	DIS	E300.0:PERC	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	1	DIS	E624B:ALL	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	U	DIS	E624B:ALL	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	1	DIS	E624MOD:ALL	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	1	DIS	E8330LOW:ALL	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	1	DIS	E900:ALL	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	1	DIS	E906:ALL	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	1	DIS	GENMIN:ALL	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	1	DIS	KPA:UTOT	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	1	DIS	MS:UISO	3	Y	New well baseline sampling.
W-830-3101	PTMW	LTnbs1	1	DIS	TBOS:ALL	3	Y	New well baseline sampling.
W-832-3103	PTMW	UTnbs1	1	UK	DWMETALS:ALL	3	Y	New well baseline sampling.
W-832-3103	PTMW	UTnbs1	1	UK	E200.7:SI	3	Y	New well baseline sampling.
W-832-3103	PTMW	UTnbs1	U	UK	E300.0:PERC	3	Y	New well baseline sampling.
W-832-3103	PTMW	UTnbs1	1	UK	E300.0:PERC	3	Y	New well baseline sampling.
W-832-3103	PTMW	UTnbs1	1	UK	E624B:ALL	3	Y	New well baseline sampling.
W-832-3103	PTMW	UTnbs1	U	UK	E624MOD:ALL	3	Y	New well baseline sampling.
W-832-3103	PTMW	UTnbs1	1	UK	E8330LOW:ALL	3	Y	New well baseline sampling.
W-832-3103	PTMW	UTnbs1	1	UK	E900:ALL	3	Y	New well baseline sampling.
W-832-3103	PTMW	UTnbs1	1	UK	E906:ALL	3	Y	New well baseline sampling.
W-832-3103	PTMW	UTnbs1	1	UK	GENMIN:ALL	3	Y	New well baseline sampling.
W-832-3103	PTMW	UTnbs1	1	UK	KPA:UTOT	3	Y	New well baseline sampling.
W-832-3103	PTMW	UTnbs1	1	UK	MS:UISO	3	Y	New well baseline sampling.

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-831-01	PTMW	LTnbs1	O	CMP	E300.0:NO3	1	Y	
W-831-01	PTMW	LTnbs1	O	CMP	E300.0:PERC	1	Y	
W-831-01	PTMW	LTnbs1	O	CMP	E601:ALL	1	Y	
W-832-01	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Unit off for freeze protection.
W-832-01	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit off for freeze protection.
W-832-01	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-832-01	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off for freeze protection.
W-832-01	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	2	Y	
W-832-01	EW	Tnsc1b	S	CMP-TF	E624MOD:ALL	3	Y	
W-832-01	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	4	Y	
W-832-06	PTMW	Tnsc1a	A	CMP	E300.0:NO3	1	Y	
W-832-06	PTMW	Tnsc1a	A	CMP	E300.0:PERC	1	Y	
W-832-06	PTMW	Tnsc1a	S	CMP	E601:ALL	1	Y	
W-832-06	PTMW	Tnsc1a	S	CMP	E624MOD:ALL	3	Y	
W-832-09	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	N	Inoperable pump.
W-832-09	PTMW	LTnbs1	Q	DIS	E300.0:NO3	3	Y	
W-832-09	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	N	Inoperable pump.
W-832-09	PTMW	LTnbs1	Q	DIS	E300.0:PERC	3	Y	
W-832-09	PTMW	LTnbs1	S	CMP	E601:ALL	1	N	Inoperable pump.
W-832-09	PTMW	LTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-832-10	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Unit off for freeze protection.
W-832-10	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit off for freeze protection.
W-832-10	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit off for freeze protection
W-832-10	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-832-10	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off for freeze protection.
W-832-10	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off for freeze protection.
W-832-10	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	2	Y	
W-832-10	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	2	Y	
W-832-10	EW	Tnsc1b	S	CMP-TF	E624MOD:ALL	3	Y	
W-832-10	EW	Tnsc1b	S	CMP-TF	E624MOD:ALL	3	Y	
W-832-10	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	4	Y	
W-832-11	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Unit off for freeze protection.
W-832-11	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit off for freeze protection.
W-832-11	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-832-11	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off for freeze protection.
W-832-11	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off for freeze protection.
W-832-11	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	2	Y	
W-832-11	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	2	Y	
W-832-11	EW	Tnsc1b	S	CMP-TF	E624MOD:ALL	3	Y	
W-832-11	EW	Tnsc1b	S	CMP-TF	E624MOD:ALL	3	Y	
W-832-11	EW	Tnsc1b	S	DIS-TF	E624MOD:ALL	4	Y	
W-832-12	EW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Unit off for freeze protection.
W-832-12	EW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit off for freeze protection.
W-832-12	EW	Qal/WBR-Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-832-12	EW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off for freeze protection.
W-832-12	EW	Qal/WBR-Tnsc1b	S	DIS-TF	E624MOD:ALL	2	Y	
W-832-12	EW	Qal/WBR-Tnsc1b	S	CMP-TF	E624MOD:ALL	3	Y	
W-832-12	EW	Qal/WBR-Tnsc1b	S	DIS-TF	E624MOD:ALL	4	Y	
W-832-13	PTMW	Qal/WBR-Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-832-13	PTMW	Qal/WBR-Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-832-13	PTMW	Qal/WBR-Tnsc1b	S	CMP	E601:ALL	1	Y	
W-832-13	PTMW	Qal/WBR-Tnsc1b	S	CMP	E624MOD:ALL	3	N	Insufficient water.
W-832-14	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-832-14	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-832-14	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-832-14	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	N	Dry.
W-832-15	EW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Unit off for freeze protection.
W-832-15	EW	Qal/WBR-Tnsc1b	A	DIS-TF	E300.0:NO3	3	Y	
W-832-15	EW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Unit off for freeze protection.
W-832-15	EW	Qal/WBR-Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-832-15	EW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	1	N	Unit off for freeze protection.
W-832-15	EW	Qal/WBR-Tnsc1b	S	DIS-TF	E624MOD:ALL	2	Y	
W-832-15	EW	Qal/WBR-Tnsc1b	S	CMP-TF	E624MOD:ALL	3	Y	
W-832-15	EW	Qal/WBR-Tnsc1b	S	DIS-TF	E624MOD:ALL	4	Y	

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-832-15	EW	Qal/WBR-Tnsc1b	E	CMP-TF	E8330LOW:ALL	2	N	To be sampled in 2016.
W-832-16	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	N	Dry.
W-832-16	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	N	Dry.
W-832-16	PTMW	Tnsc1b	S	CMP	E601:ALL	1	N	Dry.
W-832-16	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	N	Dry.
W-832-17	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	N	Dry.
W-832-17	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	N	Dry.
W-832-17	PTMW	Tnsc1b	S	CMP	E601:ALL	1	N	Dry.
W-832-17	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	N	Dry.
W-832-18	PTMW	Qal/WBR-Tnsc1b	A	CMP	E300.0:NO3	1	N	Dry.
W-832-18	PTMW	Qal/WBR-Tnsc1b	A	CMP	E300.0:PERC	1	N	Dry.
W-832-18	PTMW	Qal/WBR-Tnsc1b	S	CMP	E601:ALL	1	N	Dry.
W-832-18	PTMW	Qal/WBR-Tnsc1b	S	CMP	E624MOD:ALL	3	N	Dry.
W-832-19	PTMW	Qal/WBR-Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-832-19	PTMW	Qal/WBR-Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-832-19	PTMW	Qal/WBR-Tnsc1b	S	CMP	E601:ALL	1	Y	
W-832-19	PTMW	Qal/WBR-Tnsc1b	S	CMP	E624MOD:ALL	3	N	Dry.
W-832-20	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	N	Dry.
W-832-20	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	N	Dry.
W-832-20	PTMW	Tnsc1b	S	CMP	E601:ALL	1	N	Dry.
W-832-20	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	N	Dry.
W-832-21	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.
W-832-21	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	N	Dry.
W-832-21	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
W-832-21	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Dry.
W-832-22	PTMW	UTnbs1	A	CMP	E300.0:NO3	1	N	Dry.
W-832-22	PTMW	UTnbs1	A	CMP	E300.0:PERC	1	N	Dry.
W-832-22	PTMW	UTnbs1	A	CMP	E601:ALL	1	N	Dry.
W-832-23	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-832-23	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-832-23	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-832-23	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-832-24	PTMW	Tnsc1a	A	CMP	E300.0:NO3	1	Y	
W-832-24	PTMW	Tnsc1a	A	CMP	E300.0:PERC	1	Y	
W-832-24	PTMW	Tnsc1a	S	CMP	E601:ALL	1	Y	
W-832-24	PTMW	Tnsc1a	S	CMP	E624MOD:ALL	3	Y	
W-832-25	EW	Tnsc1a	A	CMP-TF	E300.0:NO3	1	N	Unit off for freeze protection.
W-832-25	EW	Tnsc1a	A	CMP-TF	E300.0:PERC	1	N	Unit off for freeze protection.
W-832-25	EW	Tnsc1a	A	CMP-TF	E300.0:PERC	1	N	Unit off for freeze protection.
W-832-25	EW	Tnsc1a	A	DIS-TF	E300.0:PERC	3	Y	
W-832-25	EW	Tnsc1a	S	CMP-TF	E601:ALL	1	N	Unit off for freeze protection.
W-832-25	EW	Tnsc1a	S	CMP-TF	E601:ALL	1	N	Unit off for freeze protection.
W-832-25	EW	Tnsc1a	S	DIS-TF	E624MOD:ALL	2	Y	
W-832-25	EW	Tnsc1a	S	DIS-TF	E624MOD:ALL	2	Y	
W-832-25	EW	Tnsc1a	S	CMP-TF	E624MOD:ALL	3	N	Restricted access.
W-832-25	EW	Tnsc1a	S	CMP-TF	E624MOD:ALL	3	Y	
W-832-25	EW	Tnsc1a	S	DIS-TF	E624MOD:ALL	4	Y	
W-832-1927	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-832-1927	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-832-1927	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-832-1927	PTMW	Tnsc1b	S	CMP	E624MOD:ALL	3	Y	
W-832-2112	GW	UTnbs1	S	CMP	E300.0:NO3	1	Y	
W-832-2112	GW	UTnbs1	S	CMP	E300.0:NO3	3	Y	
W-832-2112	GW	UTnbs1	S	CMP	E300.0:PERC	1	Y	
W-832-2112	GW	UTnbs1	S	CMP	E300.0:PERC	3	Y	
W-832-2112	GW	UTnbs1	Q	CMP	E601:ALL	1	Y	
W-832-2112	GW	UTnbs1	Q	CMP	E624MOD:ALL	2	Y	
W-832-2112	GW	UTnbs1	Q	CMP	E624MOD:ALL	3	Y	
W-832-2112	GW	UTnbs1	Q	CMP	E624MOD:ALL	4	Y	
W-832-2906	PTMW	UTnbs1	S	CMP	E300.0:NO3	1	Y	
W-832-2906	PTMW	UTnbs1	S	CMP	E300.0:NO3	3	Y	
W-832-2906	PTMW	UTnbs1	S	CMP	E300.0:PERC	1	Y	
W-832-2906	PTMW	UTnbs1	S	CMP	E300.0:PERC	3	Y	
W-832-2906	PTMW	UTnbs1	Q	CMP	E601:ALL	1	Y	

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-832-2906	PTMW	UTnbs1	Q	CMP	E624MOD:ALL	2	Y	
W-832-2906	PTMW	UTnbs1	Q	CMP	E624MOD:ALL	3	Y	
W-832-2906	PTMW	UTnbs1	Q	CMP	E624MOD:ALL	4	Y	
W-832-3015	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Dry.
W-832-3016	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Dry.
W-832-3017	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Restricted access.
W-832-3018	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Dry.
W-832-3019	EW	Tnsc1a	1	DIS	DWMETALS:ALL	2	Y	New well baseline sampling.
W-832-3019	EW	Tnsc1a	1	DIS	E200.7:SI	2	Y	New well baseline sampling.
W-832-3019	EW	Tnsc1a	S	CMP	E300.0:NO3	1	Y	
W-832-3019	EW	Tnsc1a	S	CMP	E300.0:PERC	1	Y	
W-832-3019	EW	Tnsc1a	1	DIS	E300.0:PERC	2	Y	New well baseline sampling.
W-832-3019	EW	Tnsc1a	1	DIS	E624B:ALL	2	Y	New well baseline sampling.
W-832-3019	EW	Tnsc1a	S	CMP	E624MOD:ALL	3	Y	
W-832-3019	EW	Tnsc1a	1	DIS	E8330LOW:ALL	2	Y	New well baseline sampling.
W-832-3019	EW	Tnsc1a	1	DIS	E900:ALL	2	Y	New well baseline sampling.
W-832-3019	EW	Tnsc1a	1	DIS	E906:ALL	2	Y	New well baseline sampling.
W-832-3019	EW	Tnsc1a	1	DIS	GENMIN:ALL	2	Y	New well baseline sampling.
W-832-3019	EW	Tnsc1a	1	DIS	KPA:UTOT	2	Y	New well baseline sampling.
W-832-3019	EW	Tnsc1a	1	DIS	MS:UISO	2	Y	New well baseline sampling.
W-832-3019	EW	Tnsc1a	1	DIS	TBOS:ALL	2	Y	New well baseline sampling.
W-832-3020	PTMW	Tnsc1a	1	DIS	DWMETALS:ALL	2	Y	New well baseline sampling.
W-832-3020	PTMW	Tnsc1a	1	DIS	E200.7:SI	2	Y	New well baseline sampling
W-832-3020	PTMW	Tnsc1a	S	CMP	E300.0:NO3	1	N	Restricted access.
W-832-3020	PTMW	Tnsc1a	S	CMP	E300.0:PERC	1	N	Restricted access.
W-832-3020	PTMW	Tnsc1a	1	DIS	E300.0:PERC	2	Y	New well baseline sampling.
W-832-3020	PTMW	Tnsc1a	1	DIS	E624B:ALL	2	Y	New well baseline sampling.
W-832-3020	PTMW	Tnsc1a	S	CMP	E624MOD:ALL	3	Y	
W-832-3020	PTMW	Tnsc1a	1	DIS	E8330LOW:ALL	2	Y	New well baseline sampling.
W-832-3020	PTMW	Tnsc1a	1	DIS	E900:ALL	2	Y	New well baseline sampling.
W-832-3020	PTMW	Tnsc1a	1	DIS	E906:ALL	2	Y	New well baseline sampling.
W-832-3020	PTMW	Tnsc1a	1	DIS	GENMIN:ALL	2	Y	New well baseline sampling.
W-832-3020	PTMW	Tnsc1a	1	DIS	KPA:UTOT	2	Y	New well baseline sampling.
W-832-3020	PTMW	Tnsc1a	1	DIS	MS:UISO	2	Y	New well baseline sampling.
W-832-3020	PTMW	Tnsc1a	1	DIS	TBOS:ALL	2	Y	New well baseline sampling.
W-832-SC1	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Unsafe condition.
W-832-SC1	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	N	Unsafe condition.
W-832-SC1	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Unsafe condition.
W-832-SC1	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Restricted access.
W-832-SC2	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.
W-832-SC2	PTMW	Qal/WBR	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-832-SC2	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
W-832-SC2	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Dry.
W-832-SC3	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Unsafe condition.
W-832-SC3	PTMW	Qal/WBR	O	CMP	E300.0:PERC	1	N	Unsafe condition.
W-832-SC3	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Unsafe condition.
W-832-SC3	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Insufficient water.
W-832-SC4	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.
W-832-SC4	PTMW	Qal/WBR	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-832-SC4	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
W-832-SC4	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Dry.
W-870-01	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.
W-870-01	PTMW	Qal/WBR	O	CMP	E300.0:PERC	1	N	Dry.
W-870-01	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
W-870-01	PTMW	Qal/WBR	S	CMP	E624MOD:ALL	3	N	Dry.
W-870-02	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-870-02	PTMW	Tnbs2	E	CMP	E300.0:PERC	1	N	To be sampled in 2016.
W-870-02	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-870-02	PTMW	Tnbs2	S	CMP	E624MOD:ALL	3	Y	
W-880-01	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-880-01	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-880-01	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-880-01	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-880-01	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-880-01	GW	Tnbs2	Q	CMP	E624MOD:ALL	2	Y	
W-880-01	GW	Tnbs2	Q	CMP	E624MOD:ALL	3	Y	
W-880-01	GW	Tnbs2	Q	CMP	E624MOD:ALL	4	Y	
W-880-01	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-880-01	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-880-02	GW	Qal/WBR	S	CMP	E300.0:NO3	1	N	Insufficient water.
W-880-02	GW	Qal/WBR	S	CMP	E300.0:NO3	3	N	Insufficient water.
W-880-02	GW	Qal/WBR	S	CMP	E300.0:PERC	1	N	Insufficient water.
W-880-02	GW	Qal/WBR	S	CMP	E300.0:PERC	3	N	Insufficient water.
W-880-02	GW	Qal/WBR	Q	CMP	E601:ALL	1	N	Insufficient water.
W-880-02	GW	Qal/WBR	Q	CMP	E624MOD:ALL	2	Y	
W-880-02	GW	Qal/WBR	Q	CMP	E624MOD:ALL	3	N	Insufficient water.
W-880-02	GW	Qal/WBR	Q	CMP	E624MOD:ALL	4	Y	
W-880-02	GW	Qal/WBR	S	CMP	E8330LOW:ALL	1	N	Insufficient water.
W-880-02	GW	Qal/WBR	S	CMP	E8330LOW:ALL	3	N	Insufficient water.
W-880-03	GW	Tnsc1b	S	CMP	E300.0:NO3	1	Y	
W-880-03	GW	Tnsc1b	S	CMP	E300.0:NO3	3	Y	
W-880-03	GW	Tnsc1b	S	CMP	E300.0:PERC	1	Y	
W-880-03	GW	Tnsc1b	S	CMP	E300.0:PERC	3	Y	
W-880-03	GW	Tnsc1b	Q	CMP	E601:ALL	1	Y	
W-880-03	GW	Tnsc1b	Q	CMP	E624MOD:ALL	2	Y	
W-880-03	GW	Tnsc1b	Q	CMP	E624MOD:ALL	3	Y	
W-880-03	GW	Tnsc1b	Q	CMP	E624MOD:ALL	4	Y	
W-880-03	GW	Tnsc1b	S	CMP	E8330LOW:ALL	1	Y	
W-880-03	GW	Tnsc1b	S	CMP	E8330LOW:ALL	3	Y	.

Table 2.7-8. Building 832-Source (832-SRC) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
832-SRC	July	0.41	1.6	0.065	1.3	NA	NA
	August	0.47	1.7	0.13	2.1	NA	NA
	September	0.77	0.96	0.16	2.8	NA	NA
	October	5.1	0.93	0.095	1.6	NA	NA
	November	4.4	0.73	0.091	1.6	NA	NA
	December	0	0	0	0	NA	NA
Total		11	6.0	0.53	9.4	NA	NA

Table 2.7-9. Building 830-Source (830-SRC) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
830-SRC	July	0	23	0.12	3.2	NA	NA
	August	1.1	9.2	0.031	4.3	NA	NA
	September	34	32	0.047	9.9	NA	NA
	October	150	34	0.046	9.9	NA	NA
	November	86	56	0.30	9.1	NA	NA
	December	0	0	0	0	NA	NA
Total		270	150	0.54	36	NA	NA

Table 2.7-10. Building 830-Distal South (830-DISS) mass removed, July 1, 2015 through December 31, 2015.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
830-DISS	July	NA	0	0	0	NA	NA
	August	NA	2.5	0.63	14	NA	NA
	September	NA	1.7	0.45	8.9	NA	NA
	October	NA	0	0	0	NA	NA
	November	NA	0	0	0	NA	NA
	December	NA	0	0	0	NA	NA
Total		NA	4.2	1.1	22	NA	NA

Table 2.8-1. Building 801 and Pit 8 Landfill area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K8-01	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
K8-01	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K8-01	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
K8-01	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
K8-01	PTMW	Tnbs1-Tnbs0	S	CMP	E624MOD:ALL	2	Y	
K8-01	PTMW	Tnbs1-Tnbs0	S	CMP	E624MOD:ALL	4	Y	
K8-01	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K8-01	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	ANIONS:FL	2	Y	
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	4	Y	
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
K8-02B	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	2	Y	
K8-02B	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	4	Y	
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	1	Y	
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	2	Y	
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	3	Y	
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	4	Y	
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	1	Y	
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	2	Y	
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	3	Y	
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	4	Y	
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	S	CMP	E624MOD:ALL	2	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	S	CMP	E624MOD:ALL	4	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	ANIONS:FL	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	ANIONS:FL	2	N	Dry.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	2	N	Dry.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E200.7:LI	2	N	Dry.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	N	Dry.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E300.0:PERC	2	N	Dry.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E624MOD:ALL	2	N	Dry.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E8330LOW:ALL	2	N	Dry.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E906:ALL	2	N	Dry.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	T26METALS:ALL	2	N	Dry.

Table 2.8-2. Building 833 area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-833-03	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-833-12	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-833-18	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-833-22	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-833-28	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Insufficient water.
W-833-30	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
W-833-30	PTMW	LTnbs1	S	CMP	E624MOD:ALL	3	Y	
W-833-33	PTMW	Tpsg	A	CMP	E601:ALL	1	Y	
W-833-34	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-833-43	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-840-01	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
W-840-01	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
W-840-01	PTMW	LTnbs1	A	CMP	E601:ALL	1	Y	
W-841-01	PTMW	UTnbs1	O	CMP	E300.0:NO3	1	N	Inoperable pump.
W-841-01	PTMW	UTnbs1	O	CMP	E300.0:PERC	1	N	Inoperable pump.
W-841-01	PTMW	UTnbs1	A	CMP	E601:ALL	1	N	Inoperable pump.

Table 2.8-3. Building 845 Firing Table and Pit 9 Landfill area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K9-01	DMW	Tnbs1/Tnbs0	A	CMP	ANIONS:FL	2	Y	
K9-01	DMW	Tnbs1/Tnbs0	A	CMP	E200.7:LI	2	Y	
K9-01	DMW	Tnbs1/Tnbs0	A	CMP	E300.0:NO3	2	Y	
K9-01	DMW	Tnbs1/Tnbs0	A	CMP	E300.0:PERC	2	Y	
K9-01	DMW	Tnbs1/Tnbs0	A	CMP	E624MOD:ALL	2	Y	
K9-01	DMW	Tnbs1/Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K9-01	DMW	Tnbs1/Tnbs0	A	CMP	E906:ALL	2	Y	
K9-01	DMW	Tnbs1/Tnbs0	A	CMP	MS:UISO	2	Y	
K9-01	DMW	Tnbs1/Tnbs0	A	CMP	T26METALS:ALL	2	Y	
K9-02	DMW	Tnbs1/Tnbs0	A	CMP	ANIONS:FL	2	Y	
K9-02	DMW	Tnbs1/Tnbs0	A	CMP	E200.7:LI	2	Y	
K9-02	DMW	Tnbs1/Tnbs0	A	CMP	E300.0:NO3	2	Y	
K9-02	DMW	Tnbs1/Tnbs0	A	CMP	E300.0:PERC	2	Y	
K9-02	DMW	Tnbs1/Tnbs0	A	CMP	E624MOD:ALL	2	Y	
K9-02	DMW	Tnbs1/Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K9-02	DMW	Tnbs1/Tnbs0	A	CMP	E906:ALL	2	Y	
K9-02	DMW	Tnbs1/Tnbs0	A	DIS	MS:UISO	2	Y	
K9-02	DMW	Tnbs1/Tnbs0	A	CMP	T26METALS:ALL	2	Y	
K9-03	DMW	Tnbs1/Tnbs0	A	CMP	ANIONS:FL	2	Y	
K9-03	DMW	Tnbs1/Tnbs0	A	CMP	E200.7:LI	2	Y	
K9-03	DMW	Tnbs1/Tnbs0	A	CMP	E300.0:NO3	2	Y	
K9-03	DMW	Tnbs1/Tnbs0	A	CMP	E300.0:PERC	2	Y	
K9-03	DMW	Tnbs1/Tnbs0	A	CMP	E624MOD:ALL	2	Y	
K9-03	DMW	Tnbs1/Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K9-03	DMW	Tnbs1/Tnbs0	A	CMP	E906:ALL	2	Y	
K9-03	DMW	Tnbs1/Tnbs0	A	CMP	MS:UISO	2	Y	
K9-03	DMW	Tnbs1/Tnbs0	A	CMP	T26METALS:ALL	2	Y	
K9-04	DMW	Tnbs1/Tnbs0	A	CMP	ANIONS:FL	2	Y	
K9-04	DMW	Tnbs1/Tnbs0	A	CMP	E200.7:LI	2	Y	
K9-04	DMW	Tnbs1/Tnbs0	A	CMP	E300.0:NO3	2	Y	
K9-04	DMW	Tnbs1/Tnbs0	A	CMP	E300.0:PERC	2	Y	
K9-04	DMW	Tnbs1/Tnbs0	A	CMP	E624MOD:ALL	2	Y	
K9-04	DMW	Tnbs1/Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K9-04	DMW	Tnbs1/Tnbs0	A	CMP	E906:ALL	2	Y	
K9-04	DMW	Tnbs1/Tnbs0	A	CMP	MS:UISO	2	Y	
K9-04	DMW	Tnbs1/Tnbs0	A	CMP	T26METALS:ALL	2	Y	

Table 2.8-4. Building 851 area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-851-05	PTMW	Tmss	A	CMP	AS:UISO	4	Y	
W-851-05	PTMW	Tmss	Q	DIS	E300.0:PERC	2	Y	
W-851-05	PTMW	Tmss	O	CMP	E624MOD:ALL	2	Y	
W-851-05	PTMW	Tmss	A	CMP	MS:UISO	2	Y	
W-851-06	PTMW	Tmss	A	CMP	AS:UISO	4	Y	
W-851-06	PTMW	Tmss	Q	DIS	E300.0:PERC	2	Y	
W-851-06	PTMW	Tmss	A	CMP	MS:UISO	2	Y	
W-851-07	PTMW	Tmss	A	CMP	AS:UISO	4	Y	
W-851-07	PTMW	Tmss	Q	DIS	E300.0:PERC	2	Y	
W-851-07	PTMW	Tmss	A	CMP	MS:UISO	2	Y	
W-851-08	PTMW	Tmss	A	CMP	AS:UISO	4	Y	
W-851-08	PTMW	Tmss	A	CMP	MS:UISO	2	Y	

Table 3.1-1. Pit 2 Landfill area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	ANIONS:FL	2	Y	
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K2-01C	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
K2-01C	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K2-01C	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K2-01C	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	ANIONS:FL	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	DIS	MS:UISO	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	ANIONS:FL	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	ANIONS:FL	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	E624MOD:ALL	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	2	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	4	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	2	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	4	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	1	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	2	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	3	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	4	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	1	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	2	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	3	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	4	Y	
W-PIT2-2301	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Insufficient water.
W-PIT2-2301	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Insufficient water.
W-PIT2-2301	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Insufficient water.
W-PIT2-2301	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Insufficient water.
W-PIT2-2301	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Insufficient water.
W-PIT2-2301	PTMW	Qal/WBR	A	CMP	MS:UISO	2	N	Insufficient water.
W-PIT2-2302	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Insufficient water.

Table 3.1-1. Pit 2 Landfill area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-PIT2-2302	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Insufficient water.
W-PIT2-2302	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
W-PIT2-2302	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Insufficient water.
W-PIT2-2302	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-PIT2-2302	PTMW	Qal/WBR	A	CMP	MS:UISO	2	N	Insufficient water.
W-PIT2-2303	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT2-2303	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Dry.
W-PIT2-2303	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Dry.
W-PIT2-2303	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
W-PIT2-2303	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
W-PIT2-2303	PTMW	Qal/WBR	A	CMP	MS:UISO	2	N	Dry.
W-PIT2-2304	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	N	Dry.
W-PIT2-2304	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT2-2304	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	N	Dry.
W-PIT2-2304	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	N	Dry.
W-PIT2-2304	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Dry.
W-PIT2-2304	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Dry.

Table 4.1-1. Chronology of changes made to the annual ground water to indoor air inhalation pathway assessment at Site 300.

Year	Model	Notes
2003 - 2005	**JEM 2002** **(GW-ADV version 3.0 02/03)**	**Residential site exposure scenario.** **LLNL identified and corrected the error in the JEM 2002 version that was later identified in 2004 (Wannamaker 2004).**
2006 - 2011	**JEM 2002** **(GW-ADV version 3.0 02/03)**	**Residential site exposure scenario.** **The JEM 2002 version was updated to reflect the chemical-specific toxicity criteria, inhalation unit risk (IUR) and reference concentration (RfC) values that were referenced in the "Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air" (DTSC, 2005).**
2012 - 2014	**JEM 2004** **(GW-ADV version 3.1 02/04)**	**Residential site exposure scenario.** **The JEM 2004 version was updated to reflect the chemical-specific toxicity criteria, IUR and RfC values, that were referenced in the "Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance) (DTSC, 2011).**
2015	**JEM 2004** **(GW-ADV version 3.1 02/04)**	**Updated residential to industrial site exposure scenario.** **The JEM 2004 version was updated with DTSC HERO 2014 version IUR, RfC, and chemical property values including organic carbon partition coefficient (K_{OC}), diffusivity in air (D_a), diffusivity of water (D_w), pure component water solubility (S), Henry's law constant (H'), and Henry's law constant at reference temperature (H).**

Notes:

JEM = Johnson and Ettinger Model.

GW-ADV = Groundwater to indoor air pathway, advanced version.

DTSC = Department of Toxic Substances Control.

Table 4.1-2. Summary of inhalation risks and hazards resulting from transport of contaminant vapors to indoor and outdoor ambient air.

Area	Pathway and Model	Contaminant	Incremental Risk	Hazard Quotient	Comment
Building 834D	Indoor – JEM	TCE	4.7×10^{-5}	1.6×10^{1}	Based on a TCE concentration of 66,000 ug/L (2-Feb-2015) in well W-834-A1
	Indoor – JEM	PCE	3.8×10^{-7}	5.1×10^{-3}	Based on a PCE concentration of 300 ug/L (2-Feb-2015) in well W-834-A1
Cumulative risk and hazard index			**4.7×10^{-5}**	**1.6×10^{1}**	**Institutional controls in place, building only used for storage.**
Building 830	Indoor – JEM	Vinyl Chloride	4.1×10^{-9}	1.3×10^{-5}	Based on the vinyl chloride detection limit of 2.5 ug/L (4-Mar-2015) in well W-830-34
	Indoor – JEM	TCE	6.1×10^{-7}	2.1×10^{-1}	Based on a TCE concentration of 860 ug/L (18-Aug-2015) in well SVI-830-35
Cumulative risk and hazard index			**6.1×10^{-7}**	**2.1×10^{-1}**	**Institutional controls in place.**

Note:

JEM = Johnson-Ettinger Model for indoor air pathway (U.S. EPA, 2004) incorporates the updated risk values and chemical properties in DTSC (2014) Final Vapor Intrusion Guidance.

Appendix A

Results of Influent and Effluent pH Monitoring

Appendix A

Results of Influent and Effluent pH Monitoring

Table A-1. Results of influent and effluent pH, July through December 2015.

A-1. Results of infuent and effluent pH, July through December 2015.

Sample Location	Sample Date	Effluent pH Result
GSA OU		
CGSA GWTS	07/31/2015	NM
CGSA GWTS	08/19/2015	7.2
CGSA GWTS	09/01/2015	7.2
CGSA GWTS	10/31/2015	NM
CGSA GWTS	11/30/2015	NM
CGSA GWTS	12/31/2015	NM
Building 834 OU		
834 GWTS	07/06/2015	8.1
834 GWTS	08/03/2015	7.7
834 GWTS	09/01/2015	7.5
834 GWTS	10/05/2015	7.5
834 GWTS	11/04/2015	7.5
834 GWTS	12/31/2015	NM
HEPA OU		
815-SRC GWTS	07/07/2015	7.0
815-SRC GWTS	08/03/2015	7.0
815-SRC GWTS	09/01/2015	7.0
815-SRC GWTS	10/05/2015	7.0
815-SRC GWTS	11/04/2015	7.0
815-SRC GWTS	12/31/2015	NM
815-PRX GWTS	07/06/2015	7.5
815-PRX GWTS	08/03/2015	7.5
815-PRX GWTS	09/30/2015	NM
815-PRX GWTS	10/31/2015	NM
815-PRX GWTS	11/30/2015	NM
815-PRX GWTS	12/31/2015	NM
815-DSB GWTS	07/06/2015	7.0
815-DSB GWTS	08/03/2015	7.0

A-1. Results of infuent and effluent pH, July through December 2015.

Sample Location	Sample Date	Effluent pH Result
815-DSB GWTS	09/01/2015	7.0
815-DSB GWTS	10/05/2015	7.0
815-DSB GWTS	11/04/2015	7.0
815-DSB GWTS	12/01/2015	7.0
817-SRC GWTS	07/07/2015	7.0
817-SRC GWTS	08/03/2015	7.0
817-SRC GWTS	09/30/2015	NM
817-SRC GWTS	10/31/2015	NM
817-SRC GWTS	11/30/2015	NM
817-SRC GWTS	12/31/2015	NM
817-PRX GWTS	07/13/2015	7.0
817-PRX GWTS	08/03/2015	7.0
817-PRX GWTS	09/01/2015	7.0
817-PRX GWTS	10/06/2015	7.0
817-PRX GWTS	11/04/2015	7.0
817-PRX GWTS	12/31/2015	NM
829-SRC GWTS	07/31/2015	NM
829-SRC GWTS	08/31/2015	NM
829-SRC GWTS	09/30/2015	NM
829-SRC GWTS	10/31/2015	NM
829-SRC GWTS	11/30/2015	NM
829-SRC GWTS	12/31/2015	NM
Building 850/Pit 7 Complex OU		
PIT7-SRC GWTS	07/06/2015	7.0
PIT7-SRC GWTS	08/03/2015	7.0
PIT7-SRC GWTS	09/01/2015	7.0
PIT7-SRC GWTS	10/07/2015	7.0
PIT7-SRC GWTS	11/30/2015	NM
PIT7-SRC GWTS	12/07/2015	7.0

A-1. Results of infuent and effluent pH, July through December 2015.

Sample Location	Sample Date	Effluent pH Result
Building 854 OU		
854-SRC GWTS	**07/06/2015**	**7.0**
854-SRC GWTS	**08/03/2015**	**7.0**
854-SRC GWTS	**09/01/2015**	**7.0**
854-SRC GWTS	**10/05/2015**	**7.0**
854-SRC GWTS	**11/04/2015**	**7.0**
854-SRC GWTS	**12/31/2015**	**NM**
854-PRX GWTS	**07/01/2015**	**7.0**
854-PRX GWTS	**08/03/2015**	**7.0**
854-PRX GWTS	**09/09/2015**	**7.0**
854-PRX GWTS	**10/05/2015**	**7.0**
854-PRX GWTS	**11/04/2015**	**7.0**
854-PRX GWTS	**12/31/2015**	**NM**
854-DIS GWTS	**07/07/2015**	**7.0**
854-DIS GWTS	**08/03/2015**	**7.0**
854-DIS GWTS	**09/30/2015**	**NM**
854-DIS GWTS	**10/31/2015**	**NM**
854-DIS GWTS	**11/30/2015**	**NM**
854-DIS GWTS	**12/31/2015**	**NM**
832 Canyon OU		
832-SRC GWTS	**07/06/2015**	**7.0**
832-SRC GWTS	**08/03/2015**	**7.2**
832-SRC GWTS	**09/01/2015**	**7.0**
832-SRC GWTS	**10/05/2015**	**7.0**
832-SRC GWTS	**11/04/2015**	**7.5**
832-SRC GWTS	**12/31/2015**	**NM**
830-SRC GWTS	**07/28/2015**	**7.5**
830-SRC GWTS	**08/17/2015**	**7.2**
830-SRC GWTS	**09/09/2015**	**7.0**

A-1. Results of infuent and effluent pH, July through December 2015.

Sample Location	Sample Date	Effluent pH Result
830-SRC GWTS	10/05/2015	7.0
830-SRC GWTS	11/04/2015	7.5
830-SRC GWTS	12/31/2015	NM
830-DISS GWTS	07/31/2015	NM
830-DISS GWTS	08/19/2015	7.0
830-DISS GWTS	09/01/2015	7.0
830-DISS GWTS	10/31/2015	NM
830-DISS GWTS	11/30/2015	NM
830-DISS GWTS	12/31/2015	NM

Notes:

834 = Building 834.
815 = Building 815.
817 = Building 817.
829 = Building 829.
854 = Building 854.
832 = Building 832.
830 = Building 830.
CGSA = Central General Services Area.
EGSA = Eastern General Services Area.
DISS = Distal south.
DSB = Distal site boundary.
GWTS = Ground water treatment system.
PRX = Proximal.
PRXN = Proximal North.
SRC = Source.
NA = Not applicable.
NM = Not measured due to facility not operating during this period.
NR = Not required.
OU = Operable unit.
pH = A measure of the acidity or alkalinity of an aqueous solution.
mg/L = Milligrams per liter.

Appendix B

Analytical Results for Routine Monitoring During 2015

Appendix B

Analytical Results for Routine Monitoring During 2015

Table B-1.01. General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
CDF1	1/15/15	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	1/15/15	E601	<0.5 JO	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	1/15/15 DUP	E502.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
CDF1	1/15/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	2/24/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	2/24/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	3/31/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	3/31/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	4/20/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	4/20/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	5/28/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	5/28/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	6/24/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	6/24/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	7/22/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	7/22/15 DUP	E624MOD	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H
CDF1	8/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	8/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	9/23/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	9/23/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	10/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	10/14/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	11/18/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	11/18/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	12/21/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	12/21/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	1/15/15	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	1/15/15	E601	<0.5 JO	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	1/15/15 DUP	E502.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
CON1	1/15/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	2/24/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	2/24/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	3/31/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	3/31/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	4/20/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	4/20/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	5/28/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-1.01. General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
CON1	5/28/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	6/24/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	6/24/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	7/22/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	7/22/15 DUP	E624MOD	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H
CON1	8/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	8/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	9/23/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	9/23/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	10/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	10/14/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	11/18/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	11/18/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	12/21/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	12/21/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	1/15/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	1/15/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	2/24/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	2/24/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	3/31/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	3/31/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	4/20/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	4/20/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	5/28/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	5/28/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	6/24/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	6/24/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	7/22/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	7/22/15 DUP	E624MOD	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H
CON2	8/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	8/27/15 DUP	E624MOD	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H
CON2	9/23/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	9/23/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	10/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	10/14/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	11/18/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	11/18/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-1.01. General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
CON2	12/21/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	12/21/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-06	6/29/15	E624MOD	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-06	12/17/15	E624MOD	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-11	6/1/15	E624MOD	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-11	11/10/15	E624MOD	0.93	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-11	11/10/15 DUP	E624MOD	0.92	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-01	6/25/15	E624MOD	58	3.7	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	0.51	<0.5	<0.5
W-35A-01	6/25/15 DUP	E624MOD	58 L	3.9	0.54	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-01	12/17/15	E624MOD	56	3.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.99	<0.5	<0.5	0.54	<0.5	<0.5
W-35A-02	6/29/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-02	12/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-03	6/25/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-03	12/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-04	6/3/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-04	11/11/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-04	11/11/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-05	6/25/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-05	12/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-06	6/29/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-06	12/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-07	6/29/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-07	12/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-08	3/24/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-08	6/29/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-08	9/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-08	12/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-09	6/29/15	E624MOD	0.67	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.9	<0.5	<0.5
W-35A-09	12/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.65	<0.5	<0.5
W-35A-10	6/29/15	E624MOD	9.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.3	<0.5	<0.5
W-35A-10	6/29/15 DUP	E624MOD	9.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.3	<0.5	<0.5
W-35A-10	12/14/15	E624MOD	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4	<0.5	<0.5
W-35A-11	6/25/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-11	12/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-12	6/25/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-12	12/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-13	6/29/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-1.01. General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-35A-13	12/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-14	3/24/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-14	6/29/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-14	9/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-14	12/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7A	6/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7A	12/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7B	6/17/15	E624MOD	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7B	12/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7C	12/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7DS	6/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7DS	11/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7E	6/3/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7E	11/11/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7ES	6/3/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7ES	6/3/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7ES	11/11/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7ES	11/11/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7F	6/16/15	E624MOD	3.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7F	12/7/15	E624MOD	3.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7G	6/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7G	12/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7H	6/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7H	12/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7I	3/17/15	E601	360 D	23	32	0.95	<0.5	<0.5	0.72	<0.5	3.8	<0.5	<0.5	<0.5	<0.5	<0.5
W-7I	4/21/15	E624MOD	180 D	14	52	1.9	<0.5	<0.5	<0.5	<0.5	0.81	<0.5	<0.5	<0.5	<0.5	<0.5
W-7I	8/19/15	E624MOD	290 D	25	71	2.8	<0.5	<0.5	<0.5	<0.5	3.6	<0.5	<0.5	<0.5	<0.5	<0.5
W-7J	6/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7J	12/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7K	6/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7K	12/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7L	6/17/15	E624MOD	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7L	12/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7M	6/17/15	E624MOD	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7M	12/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7N	6/17/15	E624MOD	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7N	12/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-1.01. General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-7O	3/17/15	E601	87	6.7	0.64	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	<0.5	<0.5	0.71	<0.5	<0.5
W-7O	4/21/15	E624MOD	33	2.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7O	8/19/15	E624MOD	32	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7O	8/19/15 DUP	E624MOD	280 DS	26 S	72 S	2.9 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	3.8 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S
W-7P	3/17/15	E601	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7P	4/21/15	E624MOD	3.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7P	8/19/15	E624MOD	4.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7P	8/19/15 DUP	E624MOD	32 S	2.2 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S
W-7Q	6/16/15	E624MOD	7.1	0.88	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7Q	12/7/15	E624MOD	14	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7R	3/17/15	E601	16	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7R	4/21/15	E624MOD	9.8	0.78	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7R	8/19/15	E624MOD	5.7	0.54	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7S	6/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7S	12/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7T	6/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7T	12/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-843-01	6/11/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-843-01	12/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-843-02	6/11/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-843-02	12/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-872-01	12/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-872-02	3/17/15	E601	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.9	<0.5	<0.5
W-872-02	4/21/15	E624MOD	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.4	<0.5	<0.5
W-872-02	8/19/15	E624MOD	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<0.5
W-873-01	6/11/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-01	12/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-02	6/11/15	E624MOD	5.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-02	12/9/15	E624MOD	5.6	<0.5	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-02	12/9/15 DUP	E624MOD	3.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-03	6/11/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-03	12/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-04	6/11/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-04	12/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-06	6/11/15	E624MOD	3.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-06	12/9/15	E624MOD	3.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-06	12/9/15 DUP	E624MOD	5.2	<0.5	0.62	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-1.01. General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-873-07	4/21/15	E624MOD	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.68	<0.5	<0.5
W-873-07	8/19/15	E624MOD	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.8	<0.5	<0.5
W-873-07	8/19/15 DUP	E624MOD	3.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.3	<0.5	<0.5
W-875-01	6/15/15	E624MOD	0.95	<0.5	3.2	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-01	6/15/15 DUP	E624MOD	0.82	<0.5	3	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-01	12/16/15	E624MOD	2	<0.5	2.9	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-01	12/16/15 DUP	E624MOD	2	<0.5	2.8	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-02	6/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-02	12/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-03	12/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-04	6/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-04	12/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-05	6/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-05	12/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-06	6/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-06	12/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-07	3/17/15	E601	99	3.3	21	1.7	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-07	4/21/15	E624MOD	370 D	16	55	4.1	<0.5	<0.5	<0.5	<0.5	6.4	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-07	8/19/15	E624MOD	460 D	30	46	2.7	<0.5	<0.5	<0.5	<0.5	7.8	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-08	3/17/15	E601	97	2.9	24	2	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-08	4/21/15	E624MOD	290 D	1.3	62	5.1	<0.5	<0.5	<0.5	<0.5	6.4	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-08	8/19/15	E624MOD	140 D	1.3	52	4.2	<0.5	<0.5	<0.5	<0.5	3.6	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-08	8/19/15 DUP	E624MOD	130 D	1.3	54	4.5	<0.5	<0.5	<0.5	<0.5	3.8	<0.5	<0.5	<0.5	<0.5	<0.5
W-876-01	6/15/15	E624MOD	5.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-876-01	12/10/15	E624MOD	9.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-879-01	6/18/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-879-01	12/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-889-01	6/18/15	E624MOD	6.8	<0.5	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-889-01	6/18/15 DUP	E624MOD	6.7	<0.5	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-889-01	12/7/15	E624MOD	7.2	<0.5	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1736	6/18/15	E624MOD	2.8	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1736	12/17/15	E624MOD	3.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1736	12/17/15 DUP	E624MOD	3.2	0.53	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1737	6/18/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1737	12/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1739	6/17/15	E624MOD	1.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1739	12/14/15	E624MOD	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-1.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
CDF1	1/15/15	E502.2	0 of 46	-
CDF1	1/15/15	E601	0 of 18	-
CDF1	1/15/15 DUP	E502.2	0 of 45	-
CDF1	1/15/15 DUP	E601	0 of 18	-
CDF1	2/24/15	E601	0 of 18	-
CDF1	2/24/15 DUP	E601	0 of 18	-
CDF1	3/31/15	E601	0 of 18	-
CDF1	3/31/15 DUP	E601	0 of 18	-
CDF1	4/20/15	E624MOD	0 of 18	-
CDF1	4/20/15 DUP	E624MOD	0 of 18	-
CDF1	5/28/15	E624MOD	0 of 18	-
CDF1	5/28/15 DUP	E624MOD	0 of 18	-
CDF1	6/24/15	E624MOD	0 of 18	-
CDF1	6/24/15 DUP	E624MOD	0 of 18	-
CDF1	7/22/15	E624MOD	0 of 18	-
CDF1	7/22/15 DUP	E624MOD	0 of 18	-
CDF1	8/27/15	E624MOD	0 of 18	-
CDF1	8/27/15 DUP	E624MOD	0 of 18	-
CDF1	9/23/15	E624MOD	0 of 18	-
CDF1	9/23/15 DUP	E624MOD	0 of 18	-
CDF1	10/14/15	E624MOD	0 of 18	-
CDF1	10/14/15 DUP	E624MOD	0 of 18	-
CDF1	11/18/15	E624MOD	0 of 18	-
CDF1	11/18/15 DUP	E624MOD	0 of 18	-
CDF1	12/21/15	E624MOD	0 of 18	-
CDF1	12/21/15 DUP	E624MOD	0 of 18	-
CON1	1/15/15	E502.2	0 of 46	-
CON1	1/15/15	E601	0 of 18	-
CON1	1/15/15 DUP	E502.2	0 of 45	-
CON1	1/15/15 DUP	E601	0 of 18	-
CON1	2/24/15	E601	0 of 18	-
CON1	2/24/15 DUP	E601	0 of 18	-
CON1	3/31/15	E601	0 of 18	-
CON1	3/31/15 DUP	E601	0 of 18	-
CON1	4/20/15	E624MOD	0 of 18	-
CON1	4/20/15 DUP	E624MOD	0 of 18	-
CON1	5/28/15	E624MOD	0 of 18	-
CON1	5/28/15 DUP	E624MOD	0 of 18	-

Table B-1.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
CON1	6/24/15	E624MOD	0 of 18	-
CON1	6/24/15 DUP	E624MOD	0 of 18	-
CON1	7/22/15	E624MOD	0 of 18	-
CON1	7/22/15 DUP	E624MOD	0 of 18	-
CON1	8/27/15	E624MOD	0 of 18	-
CON1	8/27/15 DUP	E624MOD	0 of 18	-
CON1	9/23/15	E624MOD	0 of 18	-
CON1	9/23/15 DUP	E624MOD	0 of 18	-
CON1	10/14/15	E624MOD	0 of 18	-
CON1	10/14/15 DUP	E624MOD	0 of 18	-
CON1	11/18/15	E624MOD	0 of 18	-
CON1	11/18/15 DUP	E624MOD	0 of 18	-
CON1	12/21/15	E624MOD	0 of 18	-
CON1	12/21/15 DUP	E624MOD	0 of 18	-
CON2	1/15/15	E601	0 of 18	-
CON2	1/15/15 DUP	E601	0 of 18	-
CON2	2/24/15	E601	0 of 18	-
CON2	2/24/15 DUP	E601	0 of 18	-
CON2	3/31/15	E601	0 of 18	-
CON2	3/31/15 DUP	E601	0 of 18	-
CON2	4/20/15	E624MOD	0 of 18	-
CON2	4/20/15 DUP	E624MOD	0 of 18	-
CON2	5/28/15	E624MOD	0 of 18	-
CON2	5/28/15 DUP	E624MOD	0 of 18	-
CON2	6/24/15	E624MOD	0 of 18	-
CON2	6/24/15 DUP	E624MOD	0 of 18	-
CON2	7/22/15	E624MOD	0 of 18	-
CON2	7/22/15 DUP	E624MOD	0 of 18	-
CON2	8/27/15	E624MOD	0 of 18	-
CON2	8/27/15 DUP	E624MOD	0 of 18	-
CON2	9/23/15	E624MOD	0 of 18	-
CON2	9/23/15 DUP	E624MOD	0 of 18	-
CON2	10/14/15	E624MOD	0 of 18	-
CON2	10/14/15 DUP	E624MOD	0 of 18	-
CON2	11/18/15	E624MOD	0 of 18	-
CON2	11/18/15 DUP	E624MOD	0 of 18	-
CON2	12/21/15	E624MOD	0 of 18	-
CON2	12/21/15 DUP	E624MOD	0 of 18	-

Table B-1.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
W-26R-06	6/29/15	E624MOD	0 of 18	-
W-26R-06	12/17/15	E624MOD	0 of 18	-
W-26R-11	6/1/15	E624MOD	0 of 18	-
W-26R-11	11/10/15	E624MOD	0 of 18	-
W-26R-11	11/10/15 DUP	E624MOD	0 of 18	-
W-35A-01	6/25/15	E624MOD	0 of 18	-
W-35A-01	6/25/15 DUP	E624MOD	1 of 18	0.54
W-35A-01	12/17/15	E624MOD	0 of 18	-
W-35A-02	6/29/15	E624MOD	0 of 18	-
W-35A-02	12/14/15	E624MOD	0 of 18	-
W-35A-03	6/25/15	E624MOD	0 of 18	-
W-35A-03	12/17/15	E624MOD	0 of 18	-
W-35A-04	6/3/15	E624MOD	0 of 18	-
W-35A-04	11/11/15	E524.2MOD	0 of 46	-
W-35A-04	11/11/15	E624MOD	0 of 18	-
W-35A-05	6/25/15	E624MOD	0 of 18	-
W-35A-05	12/17/15	E624MOD	0 of 18	-
W-35A-06	6/29/15	E624MOD	0 of 18	-
W-35A-06	12/17/15	E624MOD	0 of 18	-
W-35A-07	6/29/15	E624MOD	0 of 18	-
W-35A-07	12/14/15	E624MOD	0 of 18	-
W-35A-08	3/24/15	E601	0 of 18	-
W-35A-08	6/29/15	E624MOD	0 of 18	-
W-35A-08	9/16/15	E624MOD	0 of 18	-
W-35A-08	12/14/15	E624MOD	0 of 18	-
W-35A-09	6/29/15	E624MOD	0 of 18	-
W-35A-09	12/14/15	E624MOD	0 of 18	-
W-35A-10	6/29/15	E624MOD	0 of 18	-
W-35A-10	6/29/15 DUP	E624MOD	0 of 18	-
W-35A-10	12/14/15	E624MOD	0 of 18	-
W-35A-11	6/25/15	E624MOD	0 of 18	-
W-35A-11	12/17/15	E624MOD	0 of 18	-
W-35A-12	6/25/15	E624MOD	0 of 18	-
W-35A-12	12/17/15	E624MOD	0 of 18	-
W-35A-13	6/29/15	E624MOD	0 of 18	-
W-35A-13	12/17/15	E624MOD	0 of 18	-
W-35A-14	3/24/15	E601	0 of 18	-
W-35A-14	6/29/15	E624MOD	0 of 18	-

Table B-1.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
W-35A-14	9/16/15	E624MOD	0 of 18	-
W-35A-14	12/14/15	E624MOD	0 of 18	-
W-7A	6/16/15	E624MOD	0 of 18	-
W-7A	12/8/15	E624MOD	0 of 18	-
W-7B	6/17/15	E624MOD	0 of 18	-
W-7B	12/16/15	E624MOD	0 of 18	-
W-7DS	11/10/15	E624MOD	0 of 18	-
W-7E	6/3/15	E624MOD	0 of 18	-
W-7E	11/11/15	E624MOD	0 of 18	-
W-7ES	6/3/15	E624MOD	0 of 18	-
W-7ES	6/3/15 DUP	E624MOD	0 of 18	-
W-7ES	11/11/15	E624MOD	0 of 18	-
W-7ES	11/11/15 DUP	E624MOD	0 of 18	-
W-7F	6/16/15	E624MOD	0 of 18	-
W-7F	12/7/15	E624MOD	0 of 18	-
W-7G	6/16/15	E624MOD	0 of 18	-
W-7G	12/7/15	E624MOD	0 of 18	-
W-7H	6/16/15	E624MOD	0 of 18	-
W-7H	12/7/15	E624MOD	0 of 18	-
W-7I	3/17/15	E601	1 of 18	33
W-7I	4/21/15	E624MOD	1 of 18	54
W-7I	8/19/15	E624MOD	1 of 18	73
W-7J	6/16/15	E624MOD	0 of 18	-
W-7J	12/8/15	E624MOD	0 of 18	-
W-7K	6/17/15	E624MOD	0 of 18	-
W-7K	12/14/15	E624MOD	0 of 18	-
W-7L	6/17/15	E624MOD	0 of 18	-
W-7L	12/16/15	E624MOD	0 of 18	-
W-7M	6/17/15	E624MOD	0 of 18	-
W-7M	12/16/15	E624MOD	0 of 18	-
W-7N	6/17/15	E624MOD	0 of 18	-
W-7N	12/16/15	E624MOD	0 of 18	-
W-7O	3/17/15	E601	0 of 18	-
W-7O	4/21/15	E624MOD	0 of 18	-
W-7O	8/19/15	E624MOD	0 of 18	-
W-7O	8/19/15 DUP	E624MOD	1 of 18	75 S
W-7P	3/17/15	E601	0 of 18	-
W-7P	4/21/15	E624MOD	0 of 18	-
W-7P	8/19/15	E624MOD	0 of 18	-

Table B-1.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
W-7P	8/19/15 DUP	E624MOD	0 of 18	-
W-7Q	6/16/15	E624MOD	0 of 18	-
W-7Q	12/7/15	E624MOD	0 of 18	-
W-7R	3/17/15	E601	0 of 18	-
W-7R	4/21/15	E624MOD	0 of 18	-
W-7R	8/19/15	E624MOD	0 of 18	-
W-7S	6/17/15	E624MOD	0 of 18	-
W-7S	12/14/15	E624MOD	0 of 18	-
W-7T	6/17/15	E624MOD	0 of 18	-
W-7T	12/14/15	E624MOD	0 of 18	-
W-843-01	6/11/15	E624MOD	0 of 18	-
W-843-01	12/7/15	E624MOD	0 of 18	-
W-843-02	6/11/15	E624MOD	0 of 18	-
W-843-02	12/7/15	E624MOD	0 of 18	-
W-872-01	12/10/15	E624MOD	0 of 18	-
W-872-02	3/17/15	E601	0 of 18	-
W-872-02	4/21/15	E624MOD	0 of 18	-
W-872-02	8/19/15	E624MOD	0 of 18	-
W-873-01	6/11/15	E624MOD	0 of 18	-
W-873-01	12/9/15	E624MOD	0 of 18	-
W-873-02	6/11/15	E624MOD	0 of 18	-
W-873-02	12/9/15	E624MOD	0 of 18	-
W-873-02	12/9/15 DUP	E624MOD	0 of 18	-
W-873-03	6/11/15	E624MOD	0 of 18	-
W-873-03	12/9/15	E624MOD	0 of 18	-
W-873-04	6/11/15	E624MOD	0 of 18	-
W-873-04	12/9/15	E624MOD	0 of 18	-
W-873-06	6/11/15	E624MOD	0 of 18	-
W-873-06	12/9/15	E624MOD	0 of 18	-
W-873-06	12/9/15 DUP	E624MOD	0 of 18	-
W-873-07	4/21/15	E624MOD	0 of 18	-
W-873-07	8/19/15	E624MOD	0 of 18	-
W-873-07	8/19/15 DUP	E624MOD	0 of 18	-
W-875-01	6/15/15	E624MOD	1 of 18	4.6
W-875-01	6/15/15 DUP	E624MOD	1 of 18	4.4
W-875-01	12/16/15	E624MOD	1 of 18	4.1
W-875-01	12/16/15 DUP	E624MOD	1 of 18	4
W-875-02	6/15/15	E624MOD	0 of 18	-

Table B-1.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
W-875-02	12/10/15	E624MOD	0 of 18	-
W-875-03	12/10/15	E624MOD	0 of 18	-
W-875-04	6/15/15	E624MOD	0 of 18	-
W-875-04	12/10/15	E624MOD	0 of 18	-
W-875-05	6/15/15	E624MOD	0 of 18	-
W-875-05	12/10/15	E624MOD	0 of 18	-
W-875-06	6/15/15	E624MOD	0 of 18	-
W-875-06	12/10/15	E624MOD	0 of 18	-
W-875-07	3/17/15	E601	1 of 18	23
W-875-07	4/21/15	E624MOD	1 of 18	59
W-875-07	8/19/15	E624MOD	1 of 18	49
W-875-08	3/17/15	E601	1 of 18	26
W-875-08	4/21/15	E624MOD	1 of 18	67
W-875-08	8/19/15	E624MOD	1 of 18	56
W-875-08	8/19/15 DUP	E624MOD	1 of 18	58
W-876-01	6/15/15	E624MOD	0 of 18	-
W-876-01	12/10/15	E624MOD	0 of 18	-
W-879-01	6/18/15	E624MOD	0 of 18	-
W-879-01	12/7/15	E624MOD	0 of 18	-
W-889-01	6/18/15	E624MOD	1 of 18	2.1
W-889-01	6/18/15 DUP	E624MOD	1 of 18	2
W-889-01	12/7/15	E624MOD	1 of 18	2.2
W-CGSA-1736	6/18/15	E624MOD	0 of 18	-
W-CGSA-1736	12/17/15	E624MOD	0 of 18	-
W-CGSA-1736	12/17/15 DUP	E624MOD	0 of 18	-
W-CGSA-1737	6/18/15	E624MOD	0 of 18	-
W-CGSA-1737	12/17/15	E624MOD	0 of 18	-
W-CGSA-1739	6/17/15	E624MOD	0 of 18	-
W-CGSA-1739	12/14/15	E624MOD	0 of 18	-

Table B-2.01. Building 834 Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-834-1709	2/2/15	E601	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-1709	7/30/15	E624MOD	4,300 D	8.6 D	260 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-1711	7/30/15	E624MOD	1,400 D	<2.5 D	2.6 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-1824	2/11/15	E601	230 D	0.59	320 D	<5 D	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	7.8
W-834-1824	8/5/15	E624MOD	340 D	0.63	690 D	<25 D	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	<0.5	<0.5	<0.5	7.8 IJ
W-834-2001	3/24/15	E601	23	1.4	290 D	<2.5 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-2001	6/3/15	E624	160 D	1.5	1,600 D	<50 D	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-834-2001	9/1/15	E624MOD	80	1.4	190 D	<5 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-2001	10/6/15	E624	34	<1	84	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-834-2113	2/10/15	E601	5,400 DL	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D
W-834-2113	8/5/15	E624MOD	8,800 L	9	20 L	2.3	<0.5	1.5	<0.5	0.55	3.6	<0.5	1.8	1	<0.5	<0.5
W-834-2113	8/5/15 DUP	E624MOD	7,600 L	9.5	20 L	2.6	<0.5	1.5	<0.5	0.56	4	<0.5	1.7	1	<0.5	<0.5
W-834-2117	2/11/15	E601	4,300 D	20 D	18 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-2117	8/6/15	E624MOD	5,200 DHL	21	18	<0.5	<0.5	1.3 F	<0.5	<0.5 L	<0.5	<0.5	0.87	<0.5	<0.5	<0.5
W-834-2118	2/4/15	E601	98	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-2118	2/4/15 DUP	E601	99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-2118	8/11/15	E624MOD	130 DL	<0.5	1.8	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-2119	2/12/15	E601	15,000 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D
W-834-2119	2/12/15 DUP	E601	15,000 D	20	53	0.8	1.8	4.1	<0.5	<0.5	2.7	<0.5	2.2	1.8	<0.5	<0.5
W-834-2119	8/6/15	E624MOD	15,000 DHIJL	23 H	53 H	0.9 H	1.8 HIJ	4 HF	<0.5 H	<0.5 HL	3.2 H	<0.5 H	2.5 H	2.1 H	<0.5 H	<0.5 H
W-834-2119	8/6/15 DUP	E624MOD	12,000 D	14	41	0.64	1.4	2.9	<0.5	<0.5	2.4	<0.5	1.6	1.3	<0.5	<0.5
W-834-2119	8/6/15 DUP	E624MOD	15,000 DHIJL	24 H	57 H	0.91 H	1.9 HIJ	4.3 HF	<0.5 H	<0.5 HL	3.5 H	<0.5 H	2.5 H	2.3 H	<0.5 H	<0.5 H
W-834-A1	2/2/15	E601	66,000 D	300 D	2,400 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D
W-834-A1	7/30/15	E624MOD	61,000 D	250 D	380 D	<120 D	<120 D	<120 D	<120 D	<120 D	<120 D	<120 D	<120 D	<120 D	<120 D	<120 D
W-834-A2	2/2/15	E601	1,200 D	<5 D	480 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-B2	3/24/15	E601	520 D	12	530 D	<12 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-B2	6/3/15	E624MOD	650 D	5.2 D	230 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-B2	9/1/15	E624MOD	660 D	5.5	300 D	<25 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-B2	10/6/15	E624MOD	1,000 D	6.7 D	890 D	<25 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-B3	3/24/15	E601	89	<0.5	680 D	<5 D	<0.5	<0.5	<0.5	<0.5	1.9	<0.5	<0.5	<0.5	<0.5	0.88
W-834-B3	6/3/15	E624MOD	590 D	0.95	1,800 D	59 D	<0.5	<0.5	<0.5	<0.5	5	<0.5	<0.5	<0.5	<0.5	1.5
W-834-B3	9/1/15	E624MOD	920 D	<25 D	6,700 D	<100 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-834-B3	9/1/15 DUP	E624MOD	1,200 DIJL	2.6	8,200 D	12	<0.5	0.51	<0.5	<0.5	21	<0.5	<0.5	<0.5	<0.5	22
W-834-B3	10/6/15	E624MOD	230 D	<0.5	1,300 D	<25 D	<0.5	<0.5	<0.5	<0.5	3.6	<0.5	<0.5	<0.5	<0.5	0.66
W-834-B4	2/2/15	E601	470 D	0.93	870 D	<5 D	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-C2	2/2/15	E601	620 D	4.6	33	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-C4	2/2/15	E601	30	<0.5	36	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-2.01. Building 834 Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-834-C4	7/30/15	E624MOD	63	<0.5	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-C4	7/30/15 DUP	E624MOD	61 DIJ	<0.5	46 IJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-C5	2/2/15	E601	11,000 D	36 D	5,500 D	<100 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-834-C5	7/30/15	E624MOD	33,000 D	110 D	19,000 D	<500 D	<0.5	2.4	<0.5	1.7	59	<0.5	3.1	<0.5	<0.5	6.2
W-834-D3	2/3/15	E601	91	1.7	110 D	<2.5 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.94
W-834-D3	8/3/15	E624MOD	0.65	<0.5	3.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.2
W-834-D4	3/24/15	E601	1,300 D	16	850 D	<5 D	<0.5	0.51	<0.5	<0.5	1.7	<0.5	1.8	<0.5	<0.5	18
W-834-D4	6/3/15	E624MOD	560 D	6	1,500 D	<25 D	<0.5	<0.5	<0.5	0.76	1.7	<0.5	1.4	<0.5	<0.5	58
W-834-D4	9/1/15	E624MOD	1,100 D	3.5	620 D	<12 D	<0.5	<0.5	<0.5	0.52	1.2	<0.5	2	<0.5	<0.5	<0.5
W-834-D4	9/1/15 DUP	E624MOD	1,500 DL	4	790 D	1.9	<0.5	0.66	<0.5	0.58	1.3	<0.5	2.1	<0.5	<0.5	0.79
W-834-D4	10/6/15	E624MOD	1,300 D	2.9	710 D	<25 D	<0.5	<0.5	<0.5	0.57	1.4	<0.5	1.9	<0.5	<0.5	<0.5
W-834-D5	3/24/15	E601	820 D	2.5	670 D	<5 D	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	0.85	<0.5	<0.5	1
W-834-D5	8/3/15	E624MOD	11	<0.5	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D6	3/24/15	E601	350 D	1.3	140 D	<2.5 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	<0.5
W-834-D6	6/3/15	E624MOD	600 D	1.4	370 D	<5 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	3.2	<0.5
W-834-D6	8/3/15	E624MOD	97	<0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	<0.5
W-834-D6	10/6/15	E624MOD	180 D	0.62	85	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.5	<0.5
W-834-D7	3/24/15	E601	390 D	4.2	28	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D7	6/3/15	E624MOD	750 D	4.9 D	74 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D
W-834-D7	8/3/15	E624MOD	4,700 D	20 D	140 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D7	10/6/15	E624MOD	5,500 D	28	140 D	<25 D	1.2	0.76	<0.5	<0.5	2.3	<0.5	<0.5	4	<0.5	<0.5
W-834-D11	2/3/15	E601	1,800 D	2.8 D	55 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-D12	3/24/15	E601	88	<0.5	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D12	6/3/15	E624MOD	140 D	0.54	38	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D12	8/3/15	E624MOD	78	<0.5	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D12	10/6/15	E624MOD	73	<0.5	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D13	3/24/15	E601	470 D	7.5	29	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D13	6/3/15	E624MOD	4,600 D	43 D	310 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D13	8/3/15	E624MOD	5,000 D	56 D	490 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D13	10/6/15	E624MOD	4,400 D	48 D	530 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D14	2/3/15	E601	310 D	2	74 D	<5 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D15	2/3/15	E601	3,600 D	5.5 D	220 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D18	8/3/15	E624MOD	35	<0.5	69	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-J1	3/24/15	E601	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-J1	6/3/15	E624MOD	91	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-J1	9/1/15	E624MOD	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-J1	9/1/15 DUP	E624MOD	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-2.01. Building 834 Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-834-J1	10/6/15	E624MOD	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-J2	2/9/15	E601	100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-J2	8/4/15	E624MOD	41	<0.5	0.63	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-M1	2/10/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-M1	2/10/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-M1	8/4/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S1	3/24/15	E601	980 D	20 D	25 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-S1	6/3/15	E624MOD	2,700 D	54 D	89 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-S1	9/1/15	E624MOD	2,700 D	56 D	74 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-S1	10/6/15	E624MOD	2,600 D	48 D	82 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-S12A	3/24/15	E601	700 D	0.54	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.75	<0.5	<0.5	<0.5
W-834-S12A	6/3/15	E624MOD	580 D	<0.5	1.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.61	<0.5	<0.5	<0.5
W-834-S12A	9/1/15	E624MOD	490 D	<0.5	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.64	<0.5	<0.5	<0.5
W-834-S12A	9/1/15 DUP	E624MOD	640 DIJL	<0.5	1.8	<0.5	<0.5	0.75	<0.5	<0.5	<0.5	<0.5	0.72	<0.5	<0.5	<0.5
W-834-S12A	10/6/15	E624MOD	510 D	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.63	<0.5	<0.5	<0.5
W-834-S13	3/24/15	E601	68	<0.5	3.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S13	6/3/15	E624MOD	130 D	1.2	5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S13	9/1/15	E624MOD	76	<0.5	3.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S13	10/6/15	E624MOD	34	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S4	2/9/15	E601	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S4	8/4/15	E624MOD	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S8	8/5/15	E624MOD	3,200 L	26	42 L	<0.5	0.73	2.1	<0.5	<0.5	0.57	<0.5	<0.5	1	<0.5	<0.5
W-834-S9	2/10/15	E601	2,000 DL	4.2	3.3	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	0.72	<0.5	<0.5
W-834-S9	2/10/15 DUP	E601	1,570 D	4.1	3.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.71	<0.5	<0.5	0.69	<0.5	<0.5
W-834-S9	8/5/15	E624MOD	2,100 DIJL	4.6	3.6 L	<0.5	<0.5	<0.5	<0.5	<0.5	0.86	<0.5	<0.5	0.82	<0.5	<0.5
W-834-S9	8/5/15 DUP	E624MOD	1,800 D	3.6 D	6 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-T1	2/11/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T1	6/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T1	8/5/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T1	12/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T1	12/1/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T2	2/11/15	E601	20	<0.5	230 D	<5 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	180 D
W-834-T2	8/5/15	E624MOD	11	<0.5	160 D	<25 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	150 D
W-834-T2A	2/11/15	E601	3,700 D	13 D	12 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-T2A	8/5/15	E624MOD	400 D	<2.5 D	1,700 D	<25 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-T2D	2/4/15	E601	2,700 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-T2D	8/11/15	E624MOD	2,200 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D

Table B-2.01. Building 834 Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-834-T3	6/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T3	8/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T3	12/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T5	2/12/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T5	8/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-U1	2/3/15	E624	31,000 D	200 D	3,600 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D
W-834-U1	2/3/15 DUP	E624	17,000 DHL	<250 DHL	2,690 DLH	9.8	<1	15.6	<1	1.4	34.2	<1	7.6	3.5	<1	6.6
W-834-U1	8/4/15	E624	52,000 D	250 D	4,000 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D

Table B-2.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total) (µg/L)	Benzene (µg/L)	Chloro ethane (µg/L)	Ethyl benzene (µg/L)	Methylene chloride (µg/L)	Toluene (µg/L)	o- and p-Xylene isomers (µg/L)
W-834-1709	2/2/15	E601	0 of 18	-	-	-	-	-	-	-
W-834-1709	7/30/15	E624MOD	1 of 18	260 D	-	-	-	-	-	-
W-834-1711	7/30/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-1824	2/11/15	E601	1 of 18	320 D	-	-	-	-	-	-
W-834-1824	8/5/15	E624MOD	1 of 18	690 D	-	-	-	-	-	-
W-834-2001	3/24/15	E601	1 of 18	290 D	-	-	-	-	-	-
W-834-2001	6/3/15	E624	1 of 30	1,600 D	-	-	-	-	-	-
W-834-2001	9/1/15	E624MOD	1 of 18	190 D	-	-	-	-	-	-
W-834-2001	10/6/15	E624	1 of 32	84	-	-	-	-	-	-
W-834-2113	2/10/15	E601	0 of 18	-	-	-	-	-	-	-
W-834-2113	8/5/15	E624MOD	1 of 18	22 L	-	-	-	-	-	-
W-834-2113	8/5/15 DUP	E624MOD	1 of 18	23 L	-	-	-	-	-	-
W-834-2117	2/11/15	E601	1 of 18	18 D	-	-	-	-	-	-
W-834-2117	8/6/15	E624MOD	1 of 18	18	-	-	-	-	-	-
W-834-2118	2/4/15	E601	0 of 18	-	-	-	-	-	-	-
W-834-2118	2/4/15 DUP	E601	0 of 18	-	-	-	-	-	-	-
W-834-2118	8/11/15	E624MOD	1 of 18	2.2	-	-	-	-	-	-
W-834-2119	2/12/15	E601	0 of 18	-	-	-	-	-	-	-
W-834-2119	2/12/15 DUP	E601	1 of 18	54	-	-	-	-	-	-
W-834-2119	8/6/15	E624MOD	1 of 18	54 H	-	-	-	-	-	-

Table B-2.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total) (µg/L)	Benzene (µg/L)	Chloro ethane (µg/L)	Ethyl benzene (µg/L)	Methylene chloride (µg/L)	Toluene (µg/L)	o- and p-Xylene isomers (µg/L)
W-834-2119	8/6/15 DUP	E624MOD	1 of 18	42	-	-	-	-	-	-
W-834-2119	8/6/15 DUP	E624MOD	1 of 18	58 H	-	-	-	-	-	-
W-834-A1	2/2/15	E601	1 of 18	2,400 D	-	-	-	-	-	-
W-834-A1	7/30/15	E624MOD	1 of 18	380 D	-	-	-	-	-	-
W-834-A2	2/2/15	E601	1 of 18	480 D	-	-	-	-	-	-
W-834-B2	3/24/15	E601	1 of 18	530 D	-	-	-	-	-	-
W-834-B2	6/3/15	E624MOD	1 of 18	230 D	-	-	-	-	-	-
W-834-B2	9/1/15	E624MOD	1 of 18	300 D	-	-	-	-	-	-
W-834-B2	10/6/15	E624MOD	1 of 18	890 D	-	-	-	-	-	-
W-834-B3	3/24/15	E601	1 of 18	680 D	-	-	-	-	-	-
W-834-B3	6/3/15	E624MOD	1 of 18	1,900 D	-	-	-	-	-	-
W-834-B3	9/1/15	E624MOD	1 of 18	6,700 D	-	-	-	-	-	-
W-834-B3	9/1/15 DUP	E624MOD	1 of 18	8,200 D	-	-	-	-	-	-
W-834-B3	10/6/15	E624MOD	1 of 18	1,300 D	-	-	-	-	-	-
W-834-B4	2/2/15	E601	1 of 18	870 D	-	-	-	-	-	-
W-834-C2	2/2/15	E601	1 of 18	33	-	-	-	-	-	-
W-834-C4	2/2/15	E601	1 of 18	36	-	-	-	-	-	-
W-834-C4	7/30/15	E624MOD	1 of 18	41	-	-	-	-	-	-
W-834-C4	7/30/15 DUP	E624MOD	1 of 18	46 IJ	-	-	-	-	-	-
W-834-C5	2/2/15	E601	1 of 18	5,500 D	-	-	-	-	-	-
W-834-C5	7/30/15	E624MOD	2 of 18	19,000 D	-	-	-	1.8	-	-
W-834-D3	2/3/15	E601	1 of 18	110 D	-	-	-	-	-	-
W-834-D3	8/3/15	E624MOD	1 of 18	3.4	-	-	-	-	-	-
W-834-D4	3/24/15	E601	1 of 18	850 D	-	-	-	-	-	-
W-834-D4	6/3/15	E624MOD	1 of 18	1,500 D	-	-	-	-	-	-
W-834-D4	9/1/15	E624MOD	1 of 18	620 D	-	-	-	-	-	-
W-834-D4	9/1/15 DUP	E624MOD	1 of 18	800 D	-	-	-	-	-	-
W-834-D4	10/6/15	E624MOD	1 of 18	710 D	-	-	-	-	-	-
W-834-D5	3/24/15	E601	1 of 18	680 D	-	-	-	-	-	-
W-834-D5	8/3/15	E624MOD	1 of 18	19	-	-	-	-	-	-
W-834-D6	3/24/15	E601	1 of 18	140 D	-	-	-	-	-	-
W-834-D6	6/3/15	E624MOD	1 of 18	370 D	-	-	-	-	-	-
W-834-D6	8/3/15	E624MOD	1 of 18	60	-	-	-	-	-	-
W-834-D6	10/6/15	E624MOD	1 of 18	85	-	-	-	-	-	-
W-834-D7	3/24/15	E601	1 of 18	28	-	-	-	-	-	-
W-834-D7	6/3/15	E624MOD	1 of 18	74 D	-	-	-	-	-	-

Table B-2.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total) (µg/L)	Benzene (µg/L)	Chloro ethane (µg/L)	Ethyl benzene (µg/L)	Methylene chloride (µg/L)	Toluene (µg/L)	o- and p-Xylene isomers (µg/L)
W-834-D7	8/3/15	E624MOD	1 of 18	140 D	-	-	-	-	-	-
W-834-D7	10/6/15	E624MOD	1 of 18	140 D	-	-	-	-	-	-
W-834-D11	2/3/15	E601	1 of 18	55 D	-	-	-	-	-	-
W-834-D12	3/24/15	E601	1 of 18	24	-	-	-	-	-	-
W-834-D12	6/3/15	E624MOD	1 of 18	38	-	-	-	-	-	-
W-834-D12	8/3/15	E624MOD	1 of 18	15	-	-	-	-	-	-
W-834-D12	10/6/15	E624MOD	1 of 18	12	-	-	-	-	-	-
W-834-D13	3/24/15	E601	1 of 18	29	-	-	-	-	-	-
W-834-D13	6/3/15	E624MOD	1 of 18	310 D	-	-	-	-	-	-
W-834-D13	8/3/15	E624MOD	1 of 18	490 D	-	-	-	-	-	-
W-834-D13	10/6/15	E624MOD	1 of 18	530 D	-	-	-	-	-	-
W-834-D14	2/3/15	E601	1 of 18	74 D	-	-	-	-	-	-
W-834-D15	2/3/15	E601	1 of 18	220 D	-	-	-	-	-	-
W-834-D18	8/3/15	E624MOD	1 of 18	69	-	-	-	-	-	-
W-834-J1	3/24/15	E601	0 of 18	-	-	-	-	-	-	-
W-834-J1	6/3/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-J1	9/1/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-J1	9/1/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-J1	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-J2	2/9/15	E601	0 of 18	-	-	-	-	-	-	-
W-834-J2	8/4/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-M1	2/10/15	E601	0 of 18	-	-	-	-	-	-	-
W-834-M1	2/10/15 DUP	E601	0 of 18	-	-	-	-	-	-	-
W-834-M1	8/4/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-S1	3/24/15	E601	1 of 18	25 D	-	-	-	-	-	-
W-834-S1	6/3/15	E624MOD	1 of 18	89 D	-	-	-	-	-	-
W-834-S1	9/1/15	E624MOD	1 of 18	74 D	-	-	-	-	-	-
W-834-S1	10/6/15	E624MOD	1 of 18	82 D	-	-	-	-	-	-
W-834-S12A	3/24/15	E601	1 of 18	1.6	-	-	-	-	-	-
W-834-S12A	6/3/15	E624MOD	1 of 18	1.8	-	-	-	-	-	-
W-834-S12A	9/1/15	E624MOD	1 of 18	1.4	-	-	-	-	-	-
W-834-S12A	9/1/15 DUP	E624MOD	1 of 18	1.8	-	-	-	-	-	-
W-834-S12A	10/6/15	E624MOD	1 of 18	1.1	-	-	-	-	-	-
W-834-S13	3/24/15	E601	1 of 18	3.1	-	-	-	-	-	-
W-834-S13	6/3/15	E624MOD	1 of 18	5.4	-	-	-	-	-	-
W-834-S13	9/1/15	E624MOD	1 of 18	3.6	-	-	-	-	-	-

Table B-2.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total) (µg/L)	Benzene (µg/L)	Chloro ethane (µg/L)	Ethyl benzene (µg/L)	Methylene chloride (µg/L)	Toluene (µg/L)	o- and p-Xylene isomers (µg/L)
W-834-S13	10/6/15	E624MOD	1 of 18	1.3	-	-	-	-	-	-
W-834-S4	2/9/15	E601	0 of 18	-	-	-	-	-	-	-
W-834-S4	8/4/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-S8	8/5/15	E624MOD	1 of 18	43 L	-	-	-	-	-	-
W-834-S9	2/10/15	E601	1 of 18	3.7	-	-	-	-	-	-
W-834-S9	2/10/15 DUP	E601	1 of 18	4	-	-	-	-	-	-
W-834-S9	8/5/15	E624MOD	1 of 18	4.1 L	-	-	-	-	-	-
W-834-S9	8/5/15 DUP	E624MOD	1 of 18	6 D	-	-	-	-	-	-
W-834-T1	2/11/15	E601	0 of 18	-	-	-	-	-	-	-
W-834-T1	6/8/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-T1	8/5/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-T1	12/1/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-T1	12/1/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-T2	2/11/15	E601	2 of 18	230 D	-	68	-	-	-	-
W-834-T2	8/5/15	E624MOD	2 of 18	160 D	-	54	-	-	-	-
W-834-T2A	2/11/15	E601	1 of 18	12 D	-	-	-	-	-	-
W-834-T2A	8/5/15	E624MOD	1 of 18	1,700 D	-	-	-	-	-	-
W-834-T2D	2/4/15	E601	0 of 18	-	-	-	-	-	-	-
W-834-T2D	8/11/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-T3	6/8/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-T3	8/10/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-T3	12/1/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-T5	2/12/15	E601	0 of 18	-	-	-	-	-	-	-
W-834-T5	8/10/15	E624MOD	0 of 18	-	-	-	-	-	-	-
W-834-U1	2/3/15	E624	1 of 30	3,600 D	-	-	-	-	-	-
W-834-U1	2/3/15 DUP	E624	5 of 32	2,690 DHL	10.3	-	2.2	-	9.7	15.8
W-834-U1	8/4/15	E624	1 of 30	4,000 D	-	-	-	-	-	-

Table B-2.02. Building 834 Operable Unit nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-834-1709	2/2/15	18	-
W-834-1824	2/11/15	<25 D	-
W-834-2001	3/24/15	22	-
W-834-2113	2/10/15	210 D	-
W-834-2117	2/11/15	62 D	-
W-834-2118	2/4/15	160 D	5.4
W-834-2118	2/4/15 DUP	160 D	5.9
W-834-2118	8/11/15	-	5.3
W-834-2119	2/12/15	97 D	-
W-834-2119	2/12/15 DUP	97 D	-
W-834-A1	2/2/15	<0.5	-
W-834-A2	2/2/15	28	<4
W-834-B2	3/24/15	61	-
W-834-B3	3/24/15	24	-
W-834-B4	2/2/15	28	-
W-834-C2	2/2/15	73	-
W-834-C4	2/2/15	330 D	-
W-834-C5	2/2/15	75	-
W-834-D3	2/3/15	4.3	-
W-834-D4	3/24/15	8.4	-
W-834-D5	3/24/15	22	-
W-834-D6	3/24/15	84 D	-
W-834-D7	3/24/15	220 D	-
W-834-D11	2/3/15	230 D	-
W-834-D12	3/24/15	290 D	-
W-834-D13	3/24/15	150 D	-
W-834-D14	2/3/15	29	-
W-834-D15	2/3/15	42	-
W-834-J1	3/24/15	160 D	-
W-834-J2	2/9/15	140 D	-
W-834-M1	2/10/15	310 D	-
W-834-M1	2/10/15 DUP	307 D	-
W-834-S1	3/24/15	150 D	-
W-834-S12A	3/24/15	130 D	-
W-834-S13	3/24/15	170 D	-
W-834-S4	2/9/15	170 D	-
W-834-S9	2/10/15	89 D	-
W-834-S9	2/10/15 DUP	75.3 D	-
W-834-T1	2/11/15	<0.5	-
W-834-T1	8/5/15	<0.5	-
W-834-T2	2/11/15	<2.5 D	-
W-834-T2A	2/11/15	76 D	-
W-834-T2D	2/4/15	130 D	-
W-834-T3	8/10/15	<0.5	-
W-834-T5	2/12/15	100 D	-
W-834-U1	2/3/15	<0.5	-
W-834-U1	2/3/15 DUP	<2.2	-

Table B-2.03. Building 834 Operable Unit tetrabutyl orthosilicate/tetrakis (2-ethylbutyl) silane (TBOS/TKEBS) in ground water.

Location	Date	C24H52O4Si (µg/L)
W-834-1709	2/2/15	54 D
W-834-2001	3/24/15	17
W-834-2001	9/1/15	<10
W-834-2117	2/11/15	<10
W-834-2118	2/4/15	<11 D
W-834-2118	2/4/15 DUP	<11 D
W-834-A1	2/2/15	<10
W-834-A2	2/2/15	<11 D
W-834-B2	3/24/15	73
W-834-B2	9/1/15	<10
W-834-B3	3/24/15	62
W-834-B3	9/1/15	<10
W-834-B4	2/2/15	<10 D
W-834-C2	2/2/15	<12 D
W-834-C4	2/2/15	<11 D
W-834-C5	2/2/15	<10 D
W-834-D3	2/3/15	25 D
W-834-D4	3/24/15	30
W-834-D4	9/1/15	<10
W-834-D5	3/24/15	<10
W-834-D6	3/24/15	23
W-834-D6	8/3/15	<10
W-834-D7	3/24/15	23
W-834-D7	8/3/15	<10
W-834-D11	2/3/15	<11 D
W-834-D12	3/24/15	47
W-834-D12	8/3/15	<10
W-834-D13	3/24/15	15
W-834-D13	8/3/15	<10
W-834-D14	2/3/15	<10 D
W-834-D15	2/3/15	<10 D
W-834-J1	3/24/15	<10
W-834-J1	9/1/15	<10
W-834-J2	2/9/15	<10
W-834-S1	3/24/15	<10
W-834-S1	9/1/15	<10
W-834-S12A	3/24/15	<10
W-834-S12A	9/1/15	<10
W-834-S13	3/24/15	29
W-834-S13	9/1/15	<10
W-834-S4	2/9/15	<10
W-834-T1	2/11/15	<10
W-834-T1	8/5/15	<10
W-834-T2	2/11/15	<10
W-834-T3	8/10/15	<10
W-834-U1	2/3/15	<11 D
W-834-U1	2/3/15 DUP	<12 D

Table B-2.04. Building 834 Operable Unit diesel range organic compounds in ground water.

Location	Date	Diesel Fuel (µg/L)	Diesel Range Organics (C12-C24) (µg/L)
W-834-2001	3/24/15	4,900	-
W-834-2001	9/1/15	500	-
W-834-A2	2/2/15	-	<200
W-834-U1	2/3/15	440 D	-
W-834-U1	2/3/15 DUP	524	-

Table B-2.05. Building 834 Operable Unit metals in ground water.

Constituents of concern	W-834-1824	W-834-2117	W-834-2117	W-834-2117	W-834-2118	W-834-2118	W-834-2118	W-834-2118	W-834-2119	W-834-2119	W-834-2119	W-834-2119	W-834-2119	W-834-T1	W-834-T1	W-834-T1	W-834-T2
	2/11/15	2/11/15	6/8/15	8/6/15	2/4/15	2/4/15 DUP	6/8/15	8/11/15	2/12/15	6/8/15	6/8/15 DUP	8/6/15	8/6/15 DUP	2/11/15	6/8/15	8/5/15	2/11/15
Aluminum (mg/L)	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-
Antimony (mg/L)	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-
Arsenic (mg/L)	-	0.027	0.02	0.021	0.012	0.014	0.011	0.012	0.013	0.012	0.012	0.01	0.013	0.014	0.015	0.015	-
Barium (mg/L)	-	0.075	0.045	0.047	0.093	0.095	0.094	0.097	0.11	0.1	0.11	0.094	0.11	0.053	0.029	0.034	-
Beryllium (mg/L)	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0002	<0.0002	<0.002	<0.002	<0.002	<0.002	-
Boron (mg/L)	-	2.1	2.4	2.2	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.55	0.53	0.52	-
Cadmium (mg/L)	-	<0.0005	<0.0005	<0.0005	0.00079	0.00071	0.00059	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	-
Chromium (mg/L)	-	0.0036	0.0037	0.0035	<0.001	<0.001	<0.001	0.0012	0.0034	0.0033	<0.0045	<0.0045	0.0023	<0.001	<0.001	<0.001	-
Hexavalent Chromium (mg/L)	-	0.0024	0.0031	0.003	<0.002	<0.002	<0.002	<0.002	0.0022	0.0029	<0.01 H	<0.01 H	0.0029	<0.002	<0.002	<0.002	-
Cobalt (mg/L)	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-
Copper (mg/L)	-	0.0012	0.0014	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	-
Iron (mg/L)	180 D	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05
Lead (mg/L)	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-
Manganese (mg/L)	14 D	<0.03	<0.03	<0.03	0.14 L	0.035 L	0.17	0.072	<0.03	<0.03	<0.03	<0.03	<0.03	0.13	0.12	0.12	0.42
Mercury (mg/L)	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-
Molybdenum (mg/L)	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	-
Nickel (mg/L)	-	0.003	0.0033	0.0036	<0.002	<0.002	<0.002	<0.002	0.0039	0.0036	0.004	0.0033	0.0041	<0.002	<0.002	<0.002	-
Selenium (mg/L)	-	0.0038	0.0038	0.0052	0.0099	0.011	0.0084	0.011	0.0059	0.0048	0.0032	0.0033	0.0069	<0.002	<0.002	<0.002	-
Silver (mg/L)	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
Thallium (mg/L)	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
Vanadium (mg/L)	-	0.16	0.13	0.12	0.074	0.085	0.072	0.085	0.035	0.04	0.04	0.035	0.039	<0.02	<0.02	<0.02	-
Zinc (mg/L)	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	-

Table B-3.01. Pit 6 Landfill Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
BC6-10	1/6/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BC6-10	7/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	1/20/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	1/20/15	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	1/20/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	1/20/15 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	2/19/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	2/19/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	3/12/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	3/12/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	4/27/15	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	4/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	4/27/15 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	4/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	5/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	5/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	6/23/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	6/23/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	7/15/15	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	7/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	7/15/15 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	7/15/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5
CARNRW1	8/19/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	8/19/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	9/3/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	9/3/15 DUP	E624MOD	<0.5	<0.5 L	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5 L	<0.5	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5
CARNRW1	10/27/15	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	10/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	10/27/15 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	10/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	11/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	11/17/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	12/29/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	12/29/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	1/27/15	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	1/27/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	1/27/15 DUP	E502.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25

Table B-3.01. Pit 6 Landfill Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
CARNRW2	1/27/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	2/19/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	2/19/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	3/10/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	3/10/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	4/27/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	4/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	4/27/15 DUP	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5
CARNRW2	4/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	5/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	5/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	6/23/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	6/23/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	7/30/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	7/30/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	7/30/15 DUP	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5
CARNRW2	7/30/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	8/19/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	8/19/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	9/3/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	9/3/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
CARNRW2	10/27/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	10/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	10/27/15 DUP	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	10/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	11/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	11/17/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	12/29/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	12/29/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	1/20/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	1/20/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	2/19/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	2/19/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	3/12/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	3/12/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	4/28/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	4/28/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-3.01. Pit 6 Landfill Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
CARNRW3	5/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	5/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	6/23/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	6/23/15 DUP	E624MOD	<0.5	<0.5 IJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 IJ	<0.5	<0.5	<0.5
CARNRW3	7/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	7/15/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	8/19/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	8/19/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	9/3/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	9/3/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
CARNRW3	10/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	10/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	11/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	11/17/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	12/29/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	12/29/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	1/20/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	1/20/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	2/19/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	2/19/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	3/12/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	3/12/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	4/28/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	4/28/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	5/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	5/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	6/23/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	6/23/15 DUP	E624MOD	<0.5	<0.5 IJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 IJ	<0.5	<0.5	<0.5
CARNRW4	7/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	7/15/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	8/19/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	8/19/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	9/3/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	9/3/15 DUP	E624MOD	<0.5	<0.5 L	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5 L	<0.5	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5
CARNRW4	10/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	10/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	11/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-3.01. Pit 6 Landfill Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
CARNRW4	11/17/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	12/29/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	12/29/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-06	1/7/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-06	7/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-07	1/12/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-07	1/12/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-07	7/6/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	1/14/15	E601	3.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	1/14/15 DUP	E601	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	7/8/15	E624MOD	5.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	7/8/15 DUP	E624MOD	5.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01	1/12/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01	7/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01S	1/8/15	E601	<0.5	<0.5	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01S	7/8/15	E624MOD	<0.5	<0.5	2.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-03	2/9/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-03	7/6/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-04	3/23/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-04	7/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-14	1/7/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-14	7/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-16	1/8/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-16	1/8/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-16	7/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	1/8/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	4/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	7/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	10/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-18	1/8/15	E601	1 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S
K6-18	1/8/15 DUP	E601	1.1 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S
K6-18	7/7/15	E624MOD	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-19	1/7/15	E601	2.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-19	7/8/15	E624MOD	0.56	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-19	7/8/15 DUP	E624MOD	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-22	1/6/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-22	4/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-3.01. Pit 6 Landfill Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra chloride (µg/L)	Chloro form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
K6-22	7/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-22	10/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-23	1/8/15	E601	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S
K6-23	7/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-25	1/7/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-25	7/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-26	1/7/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-26	7/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-27	1/7/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-27	7/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-33	1/6/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-33	7/6/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-34	1/6/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-34	4/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-34	7/6/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-34	10/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-35	1/7/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-35	7/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-33C-01	1/7/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-33C-01	7/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	1/5/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	4/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	7/6/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	10/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-2816	1/6/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-2816	7/6/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-2816	7/6/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-2817	1/7/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-2817	7/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-3.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
BC6-10	1/6/15	E601	0 of 18	-
BC6-10	7/8/15	E624MOD	0 of 18	-
CARNRW1	1/20/15	E601	0 of 18	-
CARNRW1	1/20/15	E624	0 of 30	-
CARNRW1	1/20/15 DUP	E601	0 of 18	-
CARNRW1	1/20/15 DUP	E624	0 of 32	-
CARNRW1	2/19/15	E601	0 of 18	-
CARNRW1	2/19/15 DUP	E601	0 of 18	-
CARNRW1	3/12/15	E601	0 of 18	-
CARNRW1	3/12/15 DUP	E601	0 of 18	-
CARNRW1	4/27/15	E624	0 of 30	-
CARNRW1	4/27/15	E624MOD	0 of 18	-
CARNRW1	4/27/15 DUP	E624	0 of 34	-
CARNRW1	4/27/15 DUP	E624MOD	0 of 18	-
CARNRW1	5/27/15	E624MOD	0 of 18	-
CARNRW1	5/27/15 DUP	E624MOD	0 of 18	-
CARNRW1	6/23/15	E624MOD	0 of 18	-
CARNRW1	6/23/15 DUP	E624MOD	0 of 18	-
CARNRW1	7/15/15	E624	0 of 30	-
CARNRW1	7/15/15	E624MOD	0 of 18	-
CARNRW1	7/15/15 DUP	E624	0 of 34	-
CARNRW1	7/15/15 DUP	E624MOD	0 of 18	-
CARNRW1	8/19/15	E624MOD	0 of 18	-
CARNRW1	8/19/15 DUP	E624MOD	0 of 18	-
CARNRW1	9/3/15	E624MOD	0 of 18	-
CARNRW1	9/3/15 DUP	E624MOD	0 of 18	-
CARNRW1	10/27/15	E624	0 of 32	-
CARNRW1	10/27/15	E624MOD	0 of 18	-
CARNRW1	10/27/15 DUP	E624	0 of 32	-
CARNRW1	10/27/15 DUP	E624MOD	0 of 18	-
CARNRW1	11/17/15	E624MOD	0 of 18	-
CARNRW1	11/17/15 DUP	E624MOD	0 of 18	-
CARNRW1	12/29/15	E624MOD	0 of 18	-
CARNRW1	12/29/15 DUP	E624MOD	0 of 18	-
CARNRW2	1/27/15	E502.2	0 of 46	-
CARNRW2	1/27/15	E601	0 of 18	-
CARNRW2	1/27/15 DUP	E502.2	0 of 45	-
CARNRW2	1/27/15 DUP	E601	0 of 18	-

Table B-3.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
CARNRW2	2/19/15	E601	0 of 18	-
CARNRW2	2/19/15 DUP	E601	0 of 18	-
CARNRW2	3/10/15	E601	0 of 18	-
CARNRW2	3/10/15 DUP	E601	0 of 18	-
CARNRW2	4/27/15	E524.2MOD	0 of 46	-
CARNRW2	4/27/15	E624MOD	0 of 18	-
CARNRW2	4/27/15 DUP	E524.2MOD	0 of 44	-
CARNRW2	4/27/15 DUP	E624MOD	0 of 18	-
CARNRW2	5/27/15	E624MOD	0 of 18	-
CARNRW2	5/27/15 DUP	E624MOD	0 of 18	-
CARNRW2	6/23/15	E624MOD	0 of 18	-
CARNRW2	6/23/15 DUP	E624MOD	0 of 18	-
CARNRW2	7/30/15	E524.2MOD	0 of 46	-
CARNRW2	7/30/15	E624MOD	0 of 18	-
CARNRW2	7/30/15 DUP	E524.2MOD	0 of 45	-
CARNRW2	7/30/15 DUP	E624MOD	0 of 18	-
CARNRW2	8/19/15	E624MOD	0 of 18	-
CARNRW2	8/19/15 DUP	E624MOD	0 of 18	-
CARNRW2	9/3/15	E624MOD	0 of 18	-
CARNRW2	9/3/15 DUP	E624MOD	0 of 18	-
CARNRW2	10/27/15	E524.2MOD	0 of 46	-
CARNRW2	10/27/15	E624MOD	0 of 18	-
CARNRW2	10/27/15 DUP	E524.2MOD	0 of 46	-
CARNRW2	10/27/15 DUP	E624MOD	0 of 18	-
CARNRW2	11/17/15	E624MOD	0 of 18	-
CARNRW2	11/17/15 DUP	E624MOD	0 of 18	-
CARNRW2	12/29/15	E624MOD	0 of 18	-
CARNRW2	12/29/15 DUP	E624MOD	0 of 18	-
CARNRW3	1/20/15	E601	0 of 18	-
CARNRW3	1/20/15 DUP	E601	0 of 18	-
CARNRW3	2/19/15	E601	0 of 18	-
CARNRW3	2/19/15 DUP	E601	0 of 18	-
CARNRW3	3/12/15	E601	0 of 18	-
CARNRW3	3/12/15 DUP	E601	0 of 18	-
CARNRW3	4/28/15	E624MOD	0 of 18	-
CARNRW3	4/28/15 DUP	E624MOD	0 of 18	-
CARNRW3	5/27/15	E624MOD	0 of 18	-
CARNRW3	5/27/15 DUP	E624MOD	0 of 18	-

Table B-3.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
CARNRW3	6/23/15	E624MOD	0 of 18	-
CARNRW3	6/23/15 DUP	E624MOD	0 of 18	-
CARNRW3	7/15/15	E624MOD	0 of 18	-
CARNRW3	7/15/15 DUP	E624MOD	0 of 18	-
CARNRW3	8/19/15	E624MOD	0 of 18	-
CARNRW3	8/19/15 DUP	E624MOD	0 of 18	-
CARNRW3	9/3/15	E624MOD	0 of 18	-
CARNRW3	9/3/15 DUP	E624MOD	0 of 18	-
CARNRW3	10/27/15	E624MOD	0 of 18	-
CARNRW3	10/27/15 DUP	E624MOD	0 of 18	-
CARNRW3	11/17/15	E624MOD	0 of 18	-
CARNRW3	11/17/15 DUP	E624MOD	0 of 18	-
CARNRW3	12/29/15	E624MOD	0 of 18	-
CARNRW3	12/29/15 DUP	E624MOD	0 of 18	-
CARNRW4	1/20/15	E601	0 of 18	-
CARNRW4	1/20/15 DUP	E601	0 of 18	-
CARNRW4	2/19/15	E601	0 of 18	-
CARNRW4	2/19/15 DUP	E601	0 of 18	-
CARNRW4	3/12/15	E601	0 of 18	-
CARNRW4	3/12/15 DUP	E601	0 of 18	-
CARNRW4	4/28/15	E624MOD	0 of 18	-
CARNRW4	4/28/15 DUP	E624MOD	0 of 18	-
CARNRW4	5/27/15	E624MOD	0 of 18	-
CARNRW4	5/27/15 DUP	E624MOD	0 of 18	-
CARNRW4	6/23/15	E624MOD	0 of 18	-
CARNRW4	6/23/15 DUP	E624MOD	0 of 18	-
CARNRW4	7/15/15	E624MOD	0 of 18	-
CARNRW4	7/15/15 DUP	E624MOD	0 of 18	-
CARNRW4	8/19/15	E624MOD	0 of 18	-
CARNRW4	8/19/15 DUP	E624MOD	0 of 18	-
CARNRW4	9/3/15	E624MOD	0 of 18	-
CARNRW4	9/3/15 DUP	E624MOD	0 of 18	-
CARNRW4	10/27/15	E624MOD	0 of 18	-
CARNRW4	10/27/15 DUP	E624MOD	0 of 18	-
CARNRW4	11/17/15	E624MOD	0 of 18	-
CARNRW4	11/17/15 DUP	E624MOD	0 of 18	-
CARNRW4	12/29/15	E624MOD	0 of 18	-
CARNRW4	12/29/15 DUP	E624MOD	0 of 18	-

Table B-3.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
EP6-06	1/7/15	E601	0 of 18	-
EP6-06	1/7/15	E602	0 of 10	-
EP6-06	7/8/15	E624MOD	0 of 18	-
EP6-07	1/12/15	E601	0 of 18	-
EP6-07	1/12/15	E602	0 of 10	-
EP6-07	1/12/15 DUP	E601	0 of 18	-
EP6-07	1/12/15 DUP	E602	0 of 10	-
EP6-07	7/6/15	E624MOD	0 of 18	-
EP6-09	1/14/15	E601	0 of 18	-
EP6-09	1/14/15	E602	0 of 10	-
EP6-09	1/14/15 DUP	E601	0 of 18	-
EP6-09	1/14/15 DUP	E602	0 of 10	-
EP6-09	7/8/15	E624MOD	0 of 18	-
EP6-09	7/8/15 DUP	E624MOD	0 of 18	-
K6-01	1/12/15	E601	0 of 18	-
K6-01	1/12/15	E602	0 of 10	-
K6-01	7/8/15	E624MOD	0 of 18	-
K6-01S	1/8/15	E601	1 of 18	2.1
K6-01S	1/8/15	E602	0 of 10	-
K6-01S	7/8/15	E624MOD	1 of 18	2.3
K6-03	2/9/15	E601	0 of 18	-
K6-03	7/6/15	E624MOD	0 of 18	-
K6-04	3/23/15	E601	0 of 18	-
K6-04	7/8/15	E624MOD	0 of 18	-
K6-14	1/7/15	E601	0 of 18	-
K6-14	7/9/15	E624MOD	0 of 18	-
K6-16	1/8/15	E601	0 of 18	-
K6-16	1/8/15 DUP	E601	0 of 18	-
K6-16	7/9/15	E624MOD	0 of 18	-
K6-17	1/8/15	E601	0 of 18	-
K6-17	4/1/15	E624MOD	0 of 18	-
K6-17	7/7/15	E624MOD	0 of 18	-
K6-17	10/1/15	E624MOD	0 of 18	-
K6-18	1/8/15	E601	0 of 18	-
K6-18	1/8/15 DUP	E601	0 of 18	-
K6-18	7/7/15	E624MOD	0 of 18	-
K6-19	1/7/15	E601	0 of 18	-
K6-19	1/7/15	E602	0 of 10	-

Table B-3.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
K6-19	7/8/15	E624MOD	0 of 18	-
K6-19	7/8/15 DUP	E624MOD	0 of 18	-
K6-22	1/6/15	E601	0 of 18	-
K6-22	4/1/15	E624MOD	0 of 18	-
K6-22	7/9/15	E624MOD	0 of 18	-
K6-22	10/1/15	E624MOD	0 of 18	-
K6-23	1/8/15	E601	0 of 18	-
K6-23	7/7/15	E624MOD	0 of 18	-
K6-25	1/7/15	E601	0 of 18	-
K6-25	7/9/15	E624MOD	0 of 18	-
K6-26	1/7/15	E601	0 of 18	-
K6-26	7/7/15	E624MOD	0 of 18	-
K6-27	1/7/15	E601	0 of 18	-
K6-27	7/7/15	E624MOD	0 of 18	-
K6-33	1/6/15	E601	0 of 18	-
K6-33	7/6/15	E624MOD	0 of 18	-
K6-34	1/6/15	E601	0 of 18	-
K6-34	4/1/15	E624MOD	0 of 18	-
K6-34	7/6/15	E624MOD	0 of 18	-
K6-34	10/1/15	E624MOD	0 of 18	-
K6-35	1/7/15	E601	0 of 18	-
K6-35	1/7/15	E602	0 of 10	-
K6-35	7/8/15	E624MOD	0 of 18	-
W-33C-01	1/7/15	E601	0 of 18	-
W-33C-01	7/9/15	E624MOD	0 of 18	-
W-PIT6-1819	1/5/15	E601	0 of 18	-
W-PIT6-1819	4/1/15	E624MOD	0 of 18	-
W-PIT6-1819	7/6/15	E624MOD	0 of 18	-
W-PIT6-1819	10/1/15	E624MOD	0 of 18	-
W-PIT6-2816	1/6/15	E601	0 of 18	-
W-PIT6-2816	7/6/15	E624MOD	0 of 18	-
W-PIT6-2816	7/6/15 DUP	E624MOD	0 of 18	-
W-PIT6-2817	1/7/15	E601	0 of 18	-
W-PIT6-2817	7/7/15	E624MOD	0 of 18	-

Table B-3.02. Pit 6 Landfill Operable Unit nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
BC6-10	1/6/15	<2.5 D	<4
CARNRW1	1/20/15	<0.5	<4
CARNRW1	1/20/15 DUP	<2.2	<4
CARNRW1	2/19/15	<0.5	<4
CARNRW1	2/19/15 DUP	<2.2	<4
CARNRW1	3/12/15	<0.5	<4
CARNRW1	3/12/15 DUP	<2.2	<4
CARNRW1	4/27/15	<0.5	<4
CARNRW1	4/27/15 DUP	<0.5	<4
CARNRW1	5/27/15	<0.5	<4
CARNRW1	5/27/15 DUP	<0.5	<4
CARNRW1	6/23/15	<0.5	<4
CARNRW1	6/23/15 DUP	<0.5 H	<4
CARNRW1	7/15/15	<0.5	<4
CARNRW1	7/15/15 DUP	<0.5	<4
CARNRW1	8/19/15	<1 D	<4
CARNRW1	8/19/15 DUP	0.51 H	<4
CARNRW1	9/3/15	<0.5	<4
CARNRW1	9/3/15 DUP	<0.5	<4
CARNRW1	10/27/15	<0.5	<4
CARNRW1	10/27/15 DUP	<0.5	<4
CARNRW1	11/17/15	<0.5	<4
CARNRW1	11/17/15 DUP	<0.5	<4
CARNRW1	12/29/15	<0.5	<4
CARNRW1	12/29/15 DUP	<0.5	<4
CARNRW2	1/27/15	<0.5	<4
CARNRW2	1/27/15 DUP	<2.2	<4
CARNRW2	2/19/15	<0.5	<4
CARNRW2	2/19/15 DUP	<2.2	<4
CARNRW2	3/10/15	0.89	<4
CARNRW2	3/10/15 DUP	<2.2	<4
CARNRW2	4/27/15	<1 D	<4
CARNRW2	4/27/15 DUP	0.66	<4
CARNRW2	5/27/15	1	<4
CARNRW2	5/27/15 DUP	0.99	<4
CARNRW2	6/23/15	<0.5	<4
CARNRW2	6/23/15 DUP	<0.5 H	<4
CARNRW2	7/30/15	<1 D	<4
CARNRW2	7/30/15 DUP	<0.5	<4
CARNRW2	8/19/15	<0.5	<4
CARNRW2	8/19/15 DUP	<0.5 H	<4
CARNRW2	9/3/15	<1 D	<4
CARNRW2	9/3/15 DUP	0.57	<4
CARNRW2	10/27/15	<0.5	<4
CARNRW2	10/27/15 DUP	<0.5	<4
CARNRW2	11/17/15	0.53	<4

Table B-3.02. Pit 6 Landfill Operable Unit nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
CARNRW2	11/17/15 DUP	<0.5	<4
CARNRW2	12/29/15	<0.5	<4
CARNRW2	12/29/15 DUP	<0.5	<4
CARNRW3	1/20/15	<0.5	<4
CARNRW3	1/20/15 DUP	<2.2	<4
CARNRW3	2/19/15	<1 D	<4
CARNRW3	2/19/15 DUP	<2.2	<4
CARNRW3	3/12/15	<0.5	<4
CARNRW3	3/12/15 DUP	<2.2	<4
CARNRW3	4/28/15	1.5 D	<4
CARNRW3	4/28/15 DUP	<0.5	<4
CARNRW3	5/27/15	<1 D	<4
CARNRW3	5/27/15 DUP	<0.5	<4
CARNRW3	6/23/15	<0.5	<4
CARNRW3	6/23/15 DUP	<0.5 H	<4
CARNRW3	7/15/15	<0.5	<4
CARNRW3	7/15/15 DUP	<0.5	<4
CARNRW3	8/19/15	<1 D	<4
CARNRW3	8/19/15 DUP	<0.5 H	<4
CARNRW3	9/3/15	<1 D	<4
CARNRW3	9/3/15 DUP	<0.5	<4
CARNRW3	10/27/15	<1 D	<4
CARNRW3	10/27/15 DUP	<1 D	<4
CARNRW3	11/17/15	0.57	<4
CARNRW3	11/17/15 DUP	<0.5	<4
CARNRW3	12/29/15	<1 D	<4
CARNRW3	12/29/15 DUP	<0.5	<4
CARNRW4	1/20/15	17	<4
CARNRW4	1/20/15 DUP	17.3	<4
CARNRW4	2/19/15	15 D	<4
CARNRW4	2/19/15 DUP	14.2	<4
CARNRW4	3/12/15	13	<4
CARNRW4	3/12/15 DUP	12.4	<4
CARNRW4	4/28/15	8.6 D	<4
CARNRW4	4/28/15 DUP	8.2	<4
CARNRW4	5/27/15	3.5 D	<4
CARNRW4	5/27/15 DUP	3.4	<4
CARNRW4	6/23/15	4.4 D	<4
CARNRW4	6/23/15 DUP	3.8 H	<4
CARNRW4	7/15/15	<0.5	<4
CARNRW4	7/15/15 DUP	<0.5	<4
CARNRW4	8/19/15	<1 D	<4
CARNRW4	8/19/15 DUP	<0.5 H	<4
CARNRW4	9/3/15	<1 D	<4
CARNRW4	9/3/15 DUP	<0.5	<4
CARNRW4	10/27/15	<0.5	<4

Table B-3.02. Pit 6 Landfill Operable Unit nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
CARNRW4	10/27/15 DUP	<0.5	<4
CARNRW4	11/17/15	<0.5	<4
CARNRW4	11/17/15 DUP	<0.5	<4
CARNRW4	12/29/15	<0.5	<4
CARNRW4	12/29/15 DUP	<0.5	<4
EP6-06	1/7/15	<1 D	<4
EP6-07	1/12/15	0.91 O	<4
EP6-07	1/12/15 DUP	0.67 O	<4
EP6-09	1/14/15	10 D	<4
EP6-09	1/14/15 DUP	9.6 D	<4
K6-01	1/12/15	<0.5 O	<4
K6-01S	1/8/15	<2.5 D	<4
K6-03	2/9/15	<0.5	<4
K6-04	3/23/15	3.3 D	<4
K6-14	1/7/15	<1 D	<4
K6-16	1/8/15	11 D	<4
K6-16	1/8/15 DUP	18.2	45.2 DS
K6-17	1/8/15	<2.5 D	<4
K6-17	7/7/15	<0.5	<4
K6-18	1/8/15	210 D	7.9
K6-18	1/8/15 DUP	233 S	<16 DS
K6-19	1/7/15	<1 D	<4
K6-22	1/6/15	<5 D	<4 O
K6-22	7/9/15	<2.5 DO	<8 D
K6-23	1/8/15	86 D	<4
K6-23	7/7/15	110 D	-
K6-25	1/7/15	<1 D	<4
K6-26	1/7/15	<0.5	<4
K6-27	1/7/15	<0.5	<4
K6-33	1/6/15	0.56	<4
K6-34	1/6/15	<0.5	<4
K6-34	7/6/15	<0.5	<4
K6-35	1/7/15	<0.5	<4
W-33C-01	1/7/15	<1 D	<4
W-PIT6-1819	1/5/15	0.91	<4
W-PIT6-1819	7/6/15	0.69	<4
W-PIT6-2816	1/6/15	0.53	<4
W-PIT6-2817	1/7/15	1	<4

Table B-3.03. Pit 6 Landfill Operable Unit tritium in ground water.

Location	Date	Tritium (pCi/L)
BC6-10	1/6/15	<100
BC6-10	7/8/15	<100
CARNRW1	1/20/15	<100
CARNRW1	1/20/15 DUP	<100
CARNRW1	2/19/15	<100
CARNRW1	2/19/15 DUP	<100
CARNRW1	3/12/15	<100
CARNRW1	3/12/15 DUP	<100
CARNRW1	4/27/15	<100
CARNRW1	4/27/15 DUP	<100
CARNRW1	5/27/15	<100
CARNRW1	5/27/15 DUP	<100
CARNRW1	6/23/15	<100
CARNRW1	6/23/15 DUP	<100
CARNRW1	7/15/15	<100
CARNRW1	7/15/15 DUP	<100
CARNRW1	8/19/15	<100 O
CARNRW1	8/19/15 DUP	<100
CARNRW1	9/3/15	<100
CARNRW1	9/3/15 DUP	<100
CARNRW1	10/27/15	<100
CARNRW1	10/27/15 DUP	<100
CARNRW1	11/17/15	<100
CARNRW1	11/17/15 DUP	<100
CARNRW1	12/29/15	<100
CARNRW1	12/29/15 DUP	<100
CARNRW2	1/27/15	<100
CARNRW2	1/27/15 DUP	<100 L
CARNRW2	2/19/15	<100
CARNRW2	2/19/15 DUP	<100
CARNRW2	3/10/15	109 ± 83.0
CARNRW2	3/10/15 DUP	<100
CARNRW2	4/27/15	<100
CARNRW2	4/27/15 DUP	<100
CARNRW2	5/27/15	<100
CARNRW2	5/27/15 DUP	<100
CARNRW2	6/23/15	<100
CARNRW2	6/23/15 DUP	<100
CARNRW2	7/30/15	<100
CARNRW2	7/30/15 DUP	<100
CARNRW2	8/19/15	<100 O
CARNRW2	8/19/15 DUP	<100
CARNRW2	9/3/15	<100
CARNRW2	9/3/15 DUP	<100
CARNRW2	10/27/15	<100
CARNRW2	10/27/15 DUP	<100

Table B-3.03. Pit 6 Landfill Operable Unit tritium in ground water.

Location	Date	Tritium (pCi/L)
CARNRW2	11/17/15	<100
CARNRW2	11/17/15 DUP	<100
CARNRW2	12/29/15	<100
CARNRW2	12/29/15 DUP	<100
CARNRW3	1/20/15	<100
CARNRW3	1/20/15 DUP	<100
CARNRW3	2/19/15	<100
CARNRW3	2/19/15 DUP	<100
CARNRW3	3/12/15	<100
CARNRW3	3/12/15 DUP	<100
CARNRW3	4/28/15	<100
CARNRW3	4/28/15 DUP	<100
CARNRW3	5/27/15	<100
CARNRW3	5/27/15 DUP	<100
CARNRW3	6/23/15	<100
CARNRW3	6/23/15 DUP	<100
CARNRW3	7/15/15	116 ± 76.0
CARNRW3	7/15/15 DUP	<100
CARNRW3	8/19/15	<100 O
CARNRW3	8/19/15 DUP	<100
CARNRW3	9/3/15	<100
CARNRW3	9/3/15 DUP	<100
CARNRW3	10/27/15	<100
CARNRW3	10/27/15 DUP	<100
CARNRW3	11/17/15	<100
CARNRW3	11/17/15 DUP	<100
CARNRW3	12/29/15	<100
CARNRW3	12/29/15 DUP	<100
CARNRW4	1/20/15	<100
CARNRW4	1/20/15 DUP	<100
CARNRW4	2/19/15	<100
CARNRW4	2/19/15 DUP	<100
CARNRW4	3/12/15	<100
CARNRW4	3/12/15 DUP	<100
CARNRW4	4/28/15	<100
CARNRW4	4/28/15 DUP	<100
CARNRW4	5/27/15	<100
CARNRW4	5/27/15 DUP	<100
CARNRW4	6/23/15	<100
CARNRW4	6/23/15 DUP	<100
CARNRW4	7/15/15	<100
CARNRW4	7/15/15 DUP	<100
CARNRW4	8/19/15	<100 O
CARNRW4	8/19/15 DUP	<100
CARNRW4	9/3/15	<100
CARNRW4	9/3/15 DUP	<100

Table B-3.03. Pit 6 Landfill Operable Unit tritium in ground water.

Location	Date	Tritium (pCi/L)
CARNRW4	10/27/15	<100
CARNRW4	10/27/15 DUP	<100
CARNRW4	11/17/15	<100
CARNRW4	11/17/15 DUP	<100
CARNRW4	12/29/15	<100
CARNRW4	12/29/15 DUP	<100
EP6-06	1/7/15	<100
EP6-06	7/8/15	<100
EP6-07	1/12/15	<100
EP6-07	1/12/15 DUP	<100
EP6-07	7/6/15	<100
EP6-09	1/14/15	<100
EP6-09	1/14/15 DUP	<100
EP6-09	7/8/15	<100
EP6-09	7/8/15 DUP	<100
K6-01	1/12/15	<100
K6-01	7/8/15	<100
K6-01S	1/8/15	<100
K6-01S	7/8/15	<100
K6-03	2/9/15	<100
K6-03	7/6/15	<100
K6-04	3/23/15	<100
K6-04	7/8/15	<100
K6-14	1/7/15	<100
K6-14	7/9/15	122 ± 74.8
K6-16	1/8/15	<100
K6-16	1/8/15 DUP	<100 LS
K6-16	7/9/15	102 ± 72.6
K6-17	1/8/15	<100
K6-17	4/1/15	<100
K6-17	7/7/15	<100
K6-17	10/1/15	<100
K6-18	1/8/15	<100 S
K6-18	1/8/15 DUP	<100 LS
K6-18	7/7/15	<100
K6-19	1/7/15	<100
K6-19	7/8/15	206 ± 88.0 S
K6-19	7/8/15 DUP	132 ± 58.0
K6-22	1/6/15	<100
K6-22	4/1/15	<100
K6-22	7/9/15	<100
K6-22	10/1/15	<100
K6-23	1/8/15	<100 S
K6-23	7/7/15	<100
K6-25	1/7/15	<100
K6-25	7/9/15	<100

Table B-3.03. Pit 6 Landfill Operable Unit tritium in ground water.

Location	Date	Tritium (pCi/L)
K6-26	1/7/15	<100
K6-26	7/7/15	<100
K6-27	1/7/15	<100
K6-27	7/7/15	<100
K6-33	1/6/15	162 ± 91.5
K6-33	7/6/15	155 ± 79.2
K6-34	1/6/15	<100
K6-34	4/1/15	<100
K6-34	7/6/15	<100
K6-34	10/1/15	<100
K6-35	1/7/15	<100
K6-35	7/8/15	<100
W-33C-01	1/7/15	<100
W-33C-01	7/9/15	187 ± 83.5
W-PIT6-1819	1/5/15	127 ± 85.7
W-PIT6-1819	4/1/15	137 ± 74.6
W-PIT6-1819	7/6/15	100 ± 70.3
W-PIT6-1819	10/1/15	101 ± 80.5
W-PIT6-2816	1/6/15	<100
W-PIT6-2816	7/6/15	<100
W-PIT6-2816	7/6/15 DUP	<100
W-PIT6-2817	1/7/15	<100
W-PIT6-2817	7/7/15	<100

Table B-3.04. Pit 6 Landfill Operable Unit total uranium and uranium isotopes in ground water.

Location	Date	AS	AS	AS
		Uranium 234 and 233 (in activity) (pCi/L)	Uranium 235 and 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)
CARNRW2	1/27/15	<0.1	<0.1	<0.1
CARNRW2	1/27/15 DUP	<0.1	<0.1	<0.1
CARNRW2	4/27/15	<0.1	<0.1	<0.1
CARNRW2	4/27/15 DUP	<0.1	<0.1	<0.1
CARNRW2	7/30/15	0.123 ± 0.0600	<0.1 J	<0.1
CARNRW2	7/30/15 DUP	0.134 ± 0.0610 J	<0.1	<0.1
CARNRW2	10/27/15	<0.1	<0.1 O	<0.1
CARNRW2	10/27/15 DUP	<0.1	<0.1	<0.1
EP6-06	1/7/15	0.506 ± 0.202	<0.1	0.426 ± 0.181
EP6-07	1/12/15	0.188 ± 0.0579	<0.1	0.138 ± 0.0471
EP6-07	1/12/15 DUP	0.231 ± 0.0746	<0.1	0.155 ± 0.0542
EP6-09	1/14/15	1.83 ± 0.277	<0.1	1.64 ± 0.253
EP6-09	1/14/15 DUP	2.31 ± 0.341	<0.1	2.14 ± 0.317
K6-01	1/12/15	0.393 ± 0.0895	<0.1	0.287 ± 0.0720
K6-01S	1/8/15	2.15 ± 0.321	<0.1	1.51 ± 0.238
K6-19	1/7/15	1.84 ± 0.480	<0.1	1.11 ± 0.338
K6-35	1/7/15	0.185 ± 0.119	<0.1	<0.1

Table B-3.05. Pit 6 Landfill Post-closure Monitoring Plan constituents of concern, detection monitoring wells, SLs, MCLs, and analytical results for 2015.

COC	Well	SL	MCL	1/7/15	1/8/15	1/12/15	1/12/15 DUP	1/14/15	1/14/15 DUP	7/6/15	7/8/15	7/8/15 DUP
Beryllium (mg/L)	EP6-06	0.0002	0.004	<0.0005	-	-	-	-	-	-	-	-
	EP6-07	-	0.004	-	-	<0.0005	<0.0005	-	-	-	-	-
	EP6-09	0.0002	0.004	-	-	-	-	<0.0005	<0.0005	-	-	-
	K6-01S	0.0002	0.004	-	<0.0005	-	-	-	-	-	-	-
	K6-19	0.0002	0.004	<0.0005	-	-	-	-	-	-	-	-
	K6-35	-	0.004	<0.0005	-	-	-	-	-	-	-	-
Mercury (mg/L)	EP6-06	0.0002	0.002	<0.0002	-	-	-	-	-	-	-	-
	EP6-07	-	0.002	-	-	<0.0002	<0.0002	-	-	-	-	-
	EP6-09	0.0002	0.002	-	-	-	-	<0.0002	<0.0002	-	-	-
	K6-01S	0.0002	0.002	-	<0.0002	-	-	-	-	-	-	-
	K6-19	0.0002	0.002	<0.0002	-	-	-	-	-	-	-	-
	K6-35	-	0.002	<0.0002	-	-	-	-	-	-	-	-
Tritium (pCi/L)	EP6-06	100	20000	<100	-	-	-	-	-	-	<100	-
	EP6-07	141	20000	-	-	<100	<100	-	-	<100	-	-
	EP6-09	138	20000	-	-	-	-	<100	<100	-	<100	<100
	K6-01S	167	20000	-	<100	-	-	-	-	-	<100	-
	K6-19	317	20000	<100	-	-	-	-	-	-	206 ± 88 S	132 ± 58
	K6-35	157	20000	<100	-	-	-	-	-	-	<100	-
Total Uranium (calculated) (pCi/L)	EP6-06	-	-	0.971 ± 0.28	-	-	-	-	-	-	-	-
	EP6-07	-	-	-	-	0.338 ± 0.0768	0.399 ± 0.0943	-	-	-	-	-
	EP6-09	-	-	-	-	-	-	3.56 ± 0.377	4.54 ± 0.468	-	-	-
	K6-01S	-	-	-	3.75 ± 0.402	-	-	-	-	-	-	-
	K6-19	-	-	3.04 ± 0.595	-	-	-	-	-	-	-	-
	K6-35	-	-	0.248 ± 0.149	-	-	-	-	-	-	-	-
Gross alpha (pCi/L)	EP6-06	7.7	15	<2	-	-	-	-	-	-	-	-
	EP6-07	-	15	-	-	<2	<2	-	-	-	-	-
	EP6-09	4.9	15	-	-	-	-	2.05 ± 2.81	3.45 ± 2.91	-	-	-
	K6-01S	26	15	-	6.42 ± 7.24	-	-	-	-	-	-	-
	K6-19	9.2	15	<2	-	-	-	-	-	-	-	-
	K6-35	-	15	<2	-	-	-	-	-	-	-	-
Gross beta (pCi/L)	EP6-06	21.3	50	10.3 ± 2.3	-	-	-	-	-	-	-	-
	EP6-07	-	50	-	-	7.19 ± 2.11	5.98 ± 1.47	-	-	-	-	-
	EP6-09	21.3	50	-	-	-	-	8.46 ± 2.47	9.09 ± 2.15	-	-	-
	K6-01S	57.7	50	-	20.5 ± 5.99	-	-	-	-	-	-	-
	K6-19	21.3	50	7.77 ± 1.97	-	-	-	-	-	-	-	-
	K6-35	-	50	5.3 ± 1.46	-	-	-	-	-	-	-	-
Benzene (µg/L)	EP6-06	0.5	1	<0.5	-	-	-	-	-	-	-	-
	EP6-07	-	1	-	-	<0.5	<0.5	-	-	-	-	-
	EP6-09	0.5	1	-	-	-	-	<0.5	<0.5	-	-	-

Table B-3.05. Pit 6 Landfill Post-closure Monitoring Plan constituents of concern, detection monitoring wells, SLs, MCLs, and analytical results for 2015.

COC	Well	SL	MCL	1/7/15	1/8/15	1/12/15	1/12/15 DUP	1/14/15	1/14/15 DUP	7/6/15	7/8/15	7/8/15 DUP
	K6-01S	0.5	1	-	<0.5	-	-	-	-	-	-	-
	K6-19	0.5	1	<0.5	-	-	-	-	-	-	-	-
	K6-35	-	1	<0.5	-	-	-	-	-	-	-	-
Chloroform (µg/L)	EP6-06	0.5	80	<0.5	-	-	-	-	-	-	<0.5	-
	EP6-07	-	80	-	-	<0.5	<0.5	-	-	<0.5	-	-
	EP6-09	0.5	80	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	0.5	80	-	<0.5	-	-	-	-	-	<0.5	-
	K6-19	1.5	80	<0.5	-	-	-	-	-	-	<0.5	<0.5
	K6-35	-	80	<0.5	-	-	-	-	-	-	<0.5	-
1,2-Dichloroethane (µg/L)	EP6-06	0.5	0.5	<0.5	-	-	-	-	-	-	<0.5	-
	EP6-07	-	0.5	-	-	<0.5	<0.5	-	-	<0.5	-	-
	EP6-09	0.5	0.5	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	0.5	0.5	-	<0.5	-	-	-	-	-	<0.5	-
	K6-19	0.5	0.5	<0.5	-	-	-	-	-	-	<0.5	<0.5
	K6-35	-	0.5	<0.5	-	-	-	-	-	-	<0.5	-
cis-1,2-Dichloroethene (µg/L)	EP6-06	0.5	6	<0.5	-	-	-	-	-	-	<0.5	-
	EP6-07	-	6	-	-	<0.5	<0.5	-	-	<0.5	-	-
	EP6-09	0.5	6	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	7	6	-	2.1	-	-	-	-	-	2.3	-
	K6-19	0.5	6	<0.5	-	-	-	-	-	-	<0.5	<0.5
	K6-35	-	6	<0.5	-	-	-	-	-	-	<0.5	-
Ethylbenzene (µg/L)	EP6-06	0.5	700	<0.5	-	-	-	-	-	-	-	-
	EP6-07	-	700	-	-	<0.5	<0.5	-	-	-	-	-
	EP6-09	0.5	700	-	-	-	-	<0.5	<0.5	-	-	-
	K6-01S	0.5	700	-	<0.5	-	-	-	-	-	-	-
	K6-19	0.5	700	<0.5	-	-	-	-	-	-	-	-
	K6-35	-	700	<0.5	-	-	-	-	-	-	-	-
Methylene chloride (µg/L)	EP6-06	1	5	<1	-	-	-	-	-	-	<1	-
	EP6-07	-	5	-	-	<1	<1	-	-	<1	-	-
	EP6-09	1	5	-	-	-	-	<1	<1	-	<1	<1
	K6-01S	1	5	-	<1	-	-	-	-	-	<1	-
	K6-19	1	5	<1	-	-	-	-	-	-	<1	<0.5
	K6-35	-	5	<1	-	-	-	-	-	-	<1	-
Tetrachloroethene (µg/L)	EP6-06	0.5	5	<0.5	-	-	-	-	-	-	<0.5	-
	EP6-07	-	5	-	-	<0.5	<0.5	-	-	<0.5	-	-
	EP6-09	0.5	5	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	0.5	5	-	<0.5	-	-	-	-	-	<0.5	-
	K6-19	0.5	5	<0.5	-	-	-	-	-	-	<0.5	<0.5
	K6-35	-	5	<0.5	-	-	-	-	-	-	<0.5	-

Table B-3.05. Pit 6 Landfill Post-closure Monitoring Plan constituents of concern, detection monitoring wells, SLs, MCLs, and analytical results for 2015.

COC	Well	SL	MCL	1/7/15	1/8/15	1/12/15	1/12/15 DUP	1/14/15	1/14/15 DUP	7/6/15	7/8/15	7/8/15 DUP
Toluene (µg/L)	EP6-06	0.5	150	<0.5	-	-	-	-	-	-	-	-
	EP6-07	-	150	-	-	<0.5	<0.5	-	-	-	-	-
	EP6-09	0.5	150	-	-	-	-	<0.5	<0.5	-	-	-
	K6-01S	0.5	150	-	<0.5	-	-	-	-	-	-	-
	K6-19	0.5	150	<0.5	-	-	-	-	-	-	-	-
	K6-35	-	150	<0.5	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane (µg/L)	EP6-06	0.5	200	<0.5	-	-	-	-	-	-	<0.5	-
	EP6-07	-	200	-	-	<0.5	<0.5	-	-	<0.5	-	-
	EP6-09	0.5	200	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	0.5	200	-	<0.5	-	-	-	-	-	<0.5	-
	K6-19	0.5	200	<0.5	-	-	-	-	-	-	<0.5	<0.5
	K6-35	-	200	<0.5	-	-	-	-	-	-	<0.5	-
Trichloroethene (TCE) (µg/L)	EP6-06	0.5	5	<0.5	-	-	-	-	-	-	<0.5	-
	EP6-07	-	5	-	-	<0.5	<0.5	-	-	<0.5	-	-
	EP6-09	17	5	-	-	-	-	3.2	3	-	5.6	5.5
	K6-01S	1.5	5	-	<0.5	-	-	-	-	-	<0.5	-
	K6-19	13	5	2.3	-	-	-	-	-	-	0.56	2.1
	K6-35	-	5	<0.5	-	-	-	-	-	-	<0.5	-
Total xylene isomers (µg/L)	EP6-06	1	1750	<1	-	-	-	-	-	-	-	-
	EP6-07	-	1750	-	-	<1	<1	-	-	-	-	-
	EP6-09	1	1750	-	-	-	-	<1	<1	-	-	-
	K6-01S	1	1750	-	<1	-	-	-	-	-	-	-
	K6-19	1	1750	<1	-	-	-	-	-	-	-	-
	K6-35	-	1750	<1	-	-	-	-	-	-	-	-

Table B-3.06. Pit 6 Landfill detection monitoring physical parameters for 2015.

Location	Date	Field Temperature (Degrees C)	Field pH (Units)	Field Specific Conductance (µmhos/cm)	Total dissolved solids (TDS) (mg/L)
EP6-06	1/7/15	20	8.61	1,241	840 D
EP6-06	7/8/15	22.6	7.78	1,231	-
EP6-07	1/12/15	20.1	7.46	1,056	740 D
EP6-07	1/12/15 DUP	-	-	-	730 D
EP6-07	7/6/15	23.4	7.87	1,055	-
EP6-09	1/14/15	20	7.69	1,671	1,200 D
EP6-09	1/14/15 DUP	-	-	-	1,200 D
EP6-09	7/8/15	23.1	7.64	1,657	-
K6-01S	1/8/15	21.6	8.08	3,279	2,600 D
K6-01S	7/8/15	23.2	7.2	3,310	-
K6-19	1/7/15	21	8.41	1,224	810 D
K6-19	7/8/15	22.3	7.59	1,196	-
K6-35	1/7/15	20.2	8.61	1,042	710 D
K6-35	7/8/15	21.1	7.96	1,052	-

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
GALLO1	1/13/15	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	1/13/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	1/13/15 DUP	E502.2	0.29	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
GALLO1	1/13/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	2/3/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	2/3/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	3/10/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	3/10/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	4/21/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	4/21/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	4/21/15 DUP	E524.2MOD	<0.5	<0.5 O	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5
GALLO1	4/21/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	5/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	5/27/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	6/24/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	6/24/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	7/14/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	7/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	7/14/15 DUP	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10 LO	<0.5
GALLO1	7/14/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	8/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	8/27/15 DUP	E624MOD	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H
GALLO1	9/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	9/1/15 DUP	E624MOD	<0.5 L	<0.5 IJL	<0.5	<0.5	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5	<0.5 L	<0.5 IJL	<0.5 L	<0.5	<0.5
GALLO1	10/6/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	10/6/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	10/6/15 DUP	E524.2MOD	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<1 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<10 H	<0.5 H
GALLO1	10/6/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	11/19/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	11/19/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	12/22/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	12/22/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-01	1/21/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-01	6/10/15	E624MOD	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-01	9/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-01	12/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-02	1/21/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-02	6/10/15	E624MOD	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-02	9/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-02	12/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-03	1/21/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-03	6/10/15	E624MOD	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-03	9/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-03	12/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-35B-04	1/21/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-04	6/10/15	E624MOD	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-04	9/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-04	12/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-05	1/21/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-05	6/10/15	E624MOD	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-05	9/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-05	12/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-01	3/16/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-01	9/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-02	3/17/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-02	9/29/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-04	1/6/15	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-04	4/8/15	E624MOD	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-04	7/6/15	E624MOD	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-04	10/5/15	E624MOD	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-05	3/11/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-05	9/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-06	3/23/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-06	9/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-07	3/11/15	E601	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.66
W-35C-07	9/9/15	E624MOD	0.85	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-07	9/9/15 DUP	E624MOD	0.79	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-08	3/11/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-08	9/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4A	3/19/15	E601	5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4A	3/19/15 DUP	E601	6.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4A	9/17/15	E624MOD	8.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4AS	3/19/15	E601	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4AS	9/17/15	E624MOD	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4B	3/16/15	E601	3.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4B	9/15/15	E624MOD	3.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4C	3/16/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4C	6/18/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4C	9/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4C	12/3/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6BD	3/24/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6BD	9/29/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6BS	3/25/15	E601	2.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6BS	3/25/15 DUP	E601	2.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6BS	9/29/15	E624MOD	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6CD	3/23/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6CD	3/23/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6CD	9/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-6CI	3/17/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6CI	9/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6CS	3/17/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6CS	9/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6EI	3/16/15	E601	2.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6EI	9/9/15	E624MOD	2.8	<0.5	0.72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6EI	9/9/15 DUP	E624MOD	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ER	1/6/15	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ER	4/8/15	E624MOD	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ER	7/6/15	E624MOD	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ER	10/5/15	E624MOD	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ES	3/16/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ES	9/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6F	3/17/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6G	3/17/15	E601	4.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6H	3/16/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6H	6/3/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6H	9/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6H	12/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6I	3/16/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6I	9/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6J	3/16/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6J	6/3/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6J	9/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6J	12/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6K	9/10/15	E624MOD	4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6K	9/10/15 DUP	E624MOD	6.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6L	9/10/15	E624MOD	9.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-808-01	3/9/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-808-01	9/1/15	E624MOD	<0.5 L	<0.5 L	<0.5	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5
W-808-03	3/9/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-808-03	9/1/15	E624MOD	<0.5 L	<0.5 L	<0.5	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5
W-809-01	3/10/15	E601	1.7	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-01	3/10/15 DUP	E601	1.5	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-01	9/1/15	E624MOD	1.7 L	<0.5 L	<0.5	<0.5 L	<0.5 L	1.6 L	<0.5 L	<0.5 L	1.2	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5
W-809-02	3/9/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-02	9/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-03	3/9/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-03	9/2/15	E624MOD	<0.5	<0.5 L	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5 L	<0.5	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5
W-810-01	3/9/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-810-01	9/1/15	E624MOD	<0.5 L	<0.5 L	<0.5	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5
W-814-01	3/12/15	E601	1.8	<0.5	0.92	<0.5	0.54	0.56	<0.5	0.72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-01	9/9/15	E624MOD	1.7	<0.5	0.95	<0.5	0.53	0.59	<0.5	0.68	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5
W-814-02	3/12/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-814-02	9/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-04	3/17/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-04	6/3/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-04	9/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5
W-814-04	12/3/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-2138	3/12/15	E601	5.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-2138	9/9/15	E624MOD	4.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5
W-815-02	3/9/15	E601	3.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-02	4/8/15	E624MOD	5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.62	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-02	7/7/15	E624MOD	6.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.59	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-02	7/7/15 DUP	E624MOD	7.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.69	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-02	10/5/15	E624MOD	6.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.59	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-04	3/9/15	E601	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-04	4/8/15	E624MOD	1.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-04	7/7/15	E624MOD	2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-04	10/5/15	E624MOD	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-06	3/12/15	E601	9.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-07	3/12/15	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-07	3/12/15 DUP	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-07	9/9/15	E624MOD	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5
W-815-08	3/10/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2110	3/17/15	E601	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2110	6/3/15	E624MOD	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2110	9/16/15	E624MOD	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2110	12/3/15	E624MOD	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2111	3/17/15	E601	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2111	6/3/15	E624MOD	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2111	6/3/15 DUP	E624MOD	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2111	9/16/15	E624MOD	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2111	12/3/15	E624MOD	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2111	12/3/15 DUP	E624MOD	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2217	3/17/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2217	9/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2608	1/6/15	E601	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2608	4/8/15	E624MOD	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2608	7/6/15	E624MOD	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2608	7/6/15 DUP	E624MOD	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2608	10/5/15	E624MOD	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2621	3/11/15	E601	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2621	9/2/15	E624MOD	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2621	9/2/15 DUP	E624MOD	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2803	3/9/15	E601	0.84	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2803	4/8/15	E624MOD	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2803	7/7/15	E624MOD	0.63	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-815-2803	10/5/15	E624MOD	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	3/9/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	5/12/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	7/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	7/7/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03	3/11/15	E601	7.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03	5/11/15	E624MOD	8.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03	7/13/15	E624MOD	7.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03	7/13/15 DUP	E624MOD	7.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03	10/6/15	E624MOD	7.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03A	3/11/15	E601	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03A	9/8/15	E624MOD	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5
W-817-04	3/11/15	E601	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-04	3/11/15 DUP	E601	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-04	9/8/15	E624MOD	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-05	3/11/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-05	9/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5
W-817-2318	3/11/15	E601	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2318	5/11/15	E624MOD	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2318	7/13/15	E624MOD	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2318	10/6/15	E624MOD	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2609	3/10/15	E601	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2609	9/8/15	E624MOD	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2609	9/8/15 DUP	E624MOD	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-3025	4/30/15	E624B	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-3026	4/22/15	E624B	2.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-01	3/12/15	E601	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-01	9/9/15	E624MOD	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5
W-818-03	3/19/15	E601	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-03	9/14/15	E624MOD	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-04	3/19/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-04	9/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-06	3/19/15	E601	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-06	9/14/15	E624MOD	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-07	3/19/15	E601	6.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-07	3/19/15 DUP	E601	6.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-07	9/14/15	E624MOD	5.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-08	3/10/15	E601	34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-08	4/7/15	E624MOD	35	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-08	7/6/15	E624MOD	35	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-08	7/6/15 DUP	E624MOD	35	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-09	3/10/15	E601	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-09	4/7/15	E624MOD	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-09	7/6/15	E624MOD	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-818-11	3/12/15	E601	29	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-11	9/9/15	E624MOD	28	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.51	<0.5	<0.5 L	<0.5	<0.5	<0.5
W-818-11	9/9/15 DUP	E624MOD	28	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-819-02	3/17/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-819-02	9/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5
W-823-01	3/16/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-01	9/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-02	3/16/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-02	9/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-03	3/16/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-03	9/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-13	9/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-827-02	3/18/15	E601	1.1	<0.5	<0.5	<0.5	<0.5	0.96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-827-05	3/18/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-827-05	9/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	3/16/15	E601	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	4/9/15	E624MOD	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	7/6/15	E624MOD	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	7/6/15 DUP	E624MOD	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	10/5/15	E624MOD	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-08	3/18/15	E601	5.4	<0.5	0.63	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-15	5/6/15	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	1/28/15	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	1/28/15 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	4/29/15	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	4/29/15 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	7/29/15	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	7/29/15 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	10/21/15	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	10/21/15 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1940	3/18/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-1940	9/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-22	5/7/15	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
WELL18	1/13/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	1/13/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	2/3/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	2/3/15 DUP	E601	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	3/10/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	3/10/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	4/21/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	4/21/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	5/5/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	5/5/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	6/2/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
WELL18	6/2/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	7/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	7/7/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	8/18/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	8/18/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	9/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	9/1/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	10/6/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	10/6/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	11/19/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	11/19/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	12/22/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	12/22/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	1/13/15	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	1/13/15 DUP	E502.2	<0.25 H	<0.25 H	<0.25 H	<0.25 H	<0.25 H	<0.25 H	<0.25 H	<0.25 H	<0.25 H	<0.25 H	<0.25 H	<0.25 H	<0.25 H	<0.25 H
WELL20	2/3/15	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	2/3/15 DUP	E502.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
WELL20	3/10/15	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	3/10/15 DUP	E502.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
WELL20	4/21/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	4/21/15 DUP	E524.2MOD	<0.5	<0.5 O	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5
WELL20	5/5/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	5/5/15 DUP	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5
WELL20	6/2/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	6/2/15 DUP	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5
WELL20	7/14/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	7/14/15 DUP	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5
WELL20	8/18/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	8/18/15 DUP	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5
WELL20	9/1/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	9/1/15 DUP	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10 O	<0.5
WELL20	10/6/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	10/6/15 DUP	E524.2MOD	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<1 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<10 H	<0.5 H
WELL20	11/19/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	11/19/15 DUP	E524.2MOD	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<1 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<10 HO	<0.5 H
WELL20	12/22/15	E524.2MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	12/22/15 DUP	E524.2MOD	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<1 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<10 H	<0.5 H

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total) (µg/L)	Methylene chloride (µg/L)
GALLO1	1/13/15	E502.2	0 of 46	-	-
GALLO1	1/13/15	E601	0 of 18	-	-
GALLO1	1/13/15 DUP	E502.2	0 of 45	-	-
GALLO1	1/13/15 DUP	E601	0 of 18	-	-
GALLO1	2/3/15	E601	0 of 18	-	-
GALLO1	2/3/15 DUP	E601	0 of 18	-	-
GALLO1	3/10/15	E601	0 of 18	-	-
GALLO1	3/10/15 DUP	E601	0 of 18	-	-
GALLO1	4/21/15	E524.2MOD	0 of 46	-	-
GALLO1	4/21/15	E624MOD	0 of 18	-	-
GALLO1	4/21/15 DUP	E524.2MOD	0 of 44	-	-
GALLO1	4/21/15 DUP	E624MOD	0 of 18	-	-
GALLO1	5/27/15	E624MOD	0 of 18	-	-
GALLO1	5/27/15 DUP	E624MOD	0 of 18	-	-
GALLO1	6/24/15	E624MOD	0 of 18	-	-
GALLO1	6/24/15 DUP	E624MOD	0 of 18	-	-
GALLO1	7/14/15	E524.2MOD	0 of 46	-	-
GALLO1	7/14/15	E624MOD	0 of 18	-	-
GALLO1	7/14/15 DUP	E524.2MOD	0 of 45	-	-
GALLO1	7/14/15 DUP	E624MOD	0 of 18	-	-
GALLO1	8/27/15	E624MOD	0 of 18	-	-
GALLO1	8/27/15 DUP	E624MOD	0 of 18	-	-
GALLO1	9/1/15	E624MOD	0 of 18	-	-
GALLO1	9/1/15 DUP	E624MOD	0 of 18	-	-
GALLO1	10/6/15	E524.2MOD	0 of 46	-	-
GALLO1	10/6/15	E624MOD	0 of 18	-	-
GALLO1	10/6/15 DUP	E524.2MOD	0 of 45	-	-
GALLO1	10/6/15 DUP	E624MOD	0 of 18	-	-
GALLO1	11/19/15	E624MOD	0 of 18	-	-
GALLO1	11/19/15 DUP	E624MOD	0 of 18	-	-
GALLO1	12/22/15	E624MOD	0 of 18	-	-
GALLO1	12/22/15 DUP	E624MOD	0 of 18	-	-
W-35B-01	1/21/15	E601	0 of 18	-	-
W-35B-01	6/10/15	E624MOD	0 of 18	-	-
W-35B-01	9/15/15	E624MOD	0 of 18	-	-
W-35B-01	12/7/15	E624MOD	0 of 18	-	-
W-35B-02	1/21/15	E601	0 of 18	-	-
W-35B-02	6/10/15	E624MOD	0 of 18	-	-
W-35B-02	9/15/15	E624MOD	0 of 18	-	-
W-35B-02	12/7/15	E624MOD	0 of 18	-	-
W-35B-03	1/21/15	E601	0 of 18	-	-
W-35B-03	6/10/15	E624MOD	0 of 18	-	-
W-35B-03	9/15/15	E624MOD	0 of 18	-	-

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total) (µg/L)	Methylene chloride (µg/L)
W-35B-03	12/7/15	E624MOD	0 of 18	-	-
W-35B-04	1/21/15	E601	0 of 18	-	-
W-35B-04	6/10/15	E624MOD	0 of 18	-	-
W-35B-04	9/15/15	E624MOD	0 of 18	-	-
W-35B-04	12/7/15	E624MOD	0 of 18	-	-
W-35B-05	1/21/15	E601	0 of 18	-	-
W-35B-05	6/10/15	E624MOD	0 of 18	-	-
W-35B-05	9/15/15	E624MOD	0 of 18	-	-
W-35B-05	12/7/15	E624MOD	0 of 18	-	-
W-35C-01	3/16/15	E601	0 of 18	-	-
W-35C-01	9/15/15	E624MOD	0 of 18	-	-
W-35C-02	3/17/15	E601	0 of 18	-	-
W-35C-02	9/29/15	E624MOD	0 of 18	-	-
W-35C-04	1/6/15	E601	0 of 18	-	-
W-35C-04	4/8/15	E624MOD	0 of 18	-	-
W-35C-04	7/6/15	E624MOD	0 of 18	-	-
W-35C-04	10/5/15	E624MOD	0 of 18	-	-
W-35C-05	3/11/15	E601	0 of 18	-	-
W-35C-05	9/9/15	E624MOD	0 of 18	-	-
W-35C-06	3/23/15	E601	0 of 18	-	-
W-35C-06	9/9/15	E624MOD	0 of 18	-	-
W-35C-07	3/11/15	E601	1 of 18	-	0.79
W-35C-07	9/9/15	E624MOD	0 of 18	-	-
W-35C-07	9/9/15 DUP	E624MOD	0 of 18	-	-
W-35C-08	3/11/15	E601	0 of 18	-	-
W-35C-08	9/9/15	E624MOD	0 of 18	-	-
W-4A	3/19/15	E601	0 of 18	-	-
W-4A	3/19/15 DUP	E601	0 of 18	-	-
W-4A	9/17/15	E624MOD	0 of 18	-	-
W-4AS	3/19/15	E601	0 of 18	-	-
W-4AS	9/17/15	E624MOD	0 of 18	-	-
W-4B	3/16/15	E601	0 of 18	-	-
W-4B	9/15/15	E624MOD	0 of 18	-	-
W-4C	3/16/15	E601	0 of 18	-	-
W-4C	6/18/15	E624MOD	0 of 18	-	-
W-4C	9/15/15	E624MOD	0 of 18	-	-
W-4C	12/3/15	E624MOD	0 of 18	-	-
W-6BD	3/24/15	E601	0 of 18	-	-
W-6BD	9/29/15	E624MOD	0 of 18	-	-
W-6BS	3/25/15	E601	0 of 18	-	-
W-6BS	3/25/15 DUP	E601	0 of 18	-	-
W-6BS	9/29/15	E624MOD	0 of 18	-	-
W-6CD	3/23/15	E601	0 of 18	-	-

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total) (µg/L)	Methylene chloride (µg/L)
W-6CD	3/23/15 DUP	E601	0 of 18	-	-
W-6CD	9/10/15	E624MOD	0 of 18	-	-
W-6CI	3/17/15	E601	0 of 18	-	-
W-6CI	9/10/15	E624MOD	0 of 18	-	-
W-6CS	3/17/15	E601	0 of 18	-	-
W-6CS	9/10/15	E624MOD	0 of 18	-	-
W-6EI	3/16/15	E601	0 of 18	-	-
W-6EI	9/9/15	E624MOD	0 of 18	-	-
W-6EI	9/9/15 DUP	E624MOD	0 of 18	-	-
W-6ER	1/6/15	E601	0 of 18	-	-
W-6ER	4/8/15	E624MOD	0 of 18	-	-
W-6ER	7/6/15	E624MOD	0 of 18	-	-
W-6ER	10/5/15	E624MOD	0 of 18	-	-
W-6ES	3/16/15	E601	0 of 18	-	-
W-6ES	9/9/15	E624MOD	0 of 18	-	-
W-6F	3/17/15	E601	0 of 18	-	-
W-6G	3/17/15	E601	0 of 18	-	-
W-6H	3/16/15	E601	0 of 18	-	-
W-6H	6/3/15	E624MOD	0 of 18	-	-
W-6H	9/16/15	E624MOD	0 of 18	-	-
W-6H	12/9/15	E624MOD	0 of 18	-	-
W-6I	3/16/15	E601	0 of 18	-	-
W-6I	9/16/15	E624MOD	0 of 18	-	-
W-6J	3/16/15	E601	0 of 18	-	-
W-6J	6/3/15	E624MOD	0 of 18	-	-
W-6J	9/16/15	E624MOD	0 of 18	-	-
W-6J	12/9/15	E624MOD	0 of 18	-	-
W-6K	9/10/15	E624MOD	0 of 18	-	-
W-6K	9/10/15 DUP	E624MOD	0 of 18	-	-
W-6L	9/10/15	E624MOD	0 of 18	-	-
W-808-01	3/9/15	E601	0 of 18	-	-
W-808-01	9/1/15	E624MOD	0 of 18	-	-
W-808-03	3/9/15	E601	0 of 18	-	-
W-808-03	9/1/15	E624MOD	0 of 18	-	-
W-809-01	3/10/15	E601	0 of 18	-	-
W-809-01	3/10/15 DUP	E601	0 of 18	-	-
W-809-01	9/1/15	E624MOD	0 of 18	-	-
W-809-02	3/9/15	E601	0 of 18	-	-
W-809-02	9/1/15	E624MOD	0 of 18	-	-
W-809-03	3/9/15	E601	0 of 18	-	-
W-809-03	9/2/15	E624MOD	0 of 18	-	-
W-810-01	3/9/15	E601	0 of 18	-	-
W-810-01	9/1/15	E624MOD	0 of 18	-	-

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total) (µg/L)	Methylene chloride (µg/L)
W-814-01	3/12/15	E601	1 of 18	0.92	-
W-814-01	9/9/15	E624MOD	0 of 18	-	-
W-814-02	3/12/15	E601	0 of 18	-	-
W-814-02	9/14/15	E624MOD	0 of 18	-	-
W-814-04	3/17/15	E601	0 of 18	-	-
W-814-04	6/3/15	E624MOD	0 of 18	-	-
W-814-04	9/9/15	E624MOD	0 of 18	-	-
W-814-04	12/3/15	E624MOD	0 of 18	-	-
W-814-2138	3/12/15	E601	0 of 18	-	-
W-814-2138	9/9/15	E624MOD	0 of 18	-	-
W-815-02	3/9/15	E601	0 of 18	-	-
W-815-02	4/8/15	E624MOD	0 of 18	-	-
W-815-02	7/7/15	E624MOD	0 of 18	-	-
W-815-02	7/7/15 DUP	E624MOD	0 of 18	-	-
W-815-02	10/5/15	E624MOD	0 of 18	-	-
W-815-04	3/9/15	E601	0 of 18	-	-
W-815-04	4/8/15	E624MOD	0 of 18	-	-
W-815-04	7/7/15	E624MOD	0 of 18	-	-
W-815-04	10/5/15	E624MOD	0 of 18	-	-
W-815-06	3/12/15	E601	0 of 18	-	-
W-815-07	3/12/15	E601	0 of 18	-	-
W-815-07	3/12/15 DUP	E601	0 of 18	-	-
W-815-07	9/9/15	E624MOD	0 of 18	-	-
W-815-08	3/10/15	E601	0 of 18	-	-
W-815-2110	3/17/15	E601	0 of 18	-	-
W-815-2110	6/3/15	E624MOD	0 of 18	-	-
W-815-2110	9/16/15	E624MOD	0 of 18	-	-
W-815-2110	12/3/15	E624MOD	0 of 18	-	-
W-815-2111	3/17/15	E601	0 of 18	-	-
W-815-2111	6/3/15	E624MOD	0 of 18	-	-
W-815-2111	6/3/15 DUP	E624MOD	0 of 18	-	-
W-815-2111	9/16/15	E624MOD	0 of 18	-	-
W-815-2111	12/3/15	E624MOD	0 of 18	-	-
W-815-2111	12/3/15 DUP	E624MOD	0 of 18	-	-
W-815-2217	3/17/15	E601	0 of 18	-	-
W-815-2217	9/10/15	E624MOD	0 of 18	-	-
W-815-2608	1/6/15	E601	0 of 18	-	-
W-815-2608	4/8/15	E624MOD	0 of 18	-	-
W-815-2608	7/6/15	E624MOD	0 of 18	-	-
W-815-2608	7/6/15 DUP	E624MOD	0 of 18	-	-
W-815-2608	10/5/15	E624MOD	0 of 18	-	-
W-815-2621	3/11/15	E601	0 of 18	-	-
W-815-2621	9/2/15	E624MOD	0 of 18	-	-

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total) (µg/L)	Methylene chloride (µg/L)
W-815-2621	9/2/15 DUP	E624MOD	0 of 18	-	-
W-815-2803	3/9/15	E601	0 of 18	-	-
W-815-2803	4/8/15	E624MOD	0 of 18	-	-
W-815-2803	7/7/15	E624MOD	0 of 18	-	-
W-815-2803	10/5/15	E624MOD	0 of 18	-	-
W-817-01	3/9/15	E601	0 of 18	-	-
W-817-01	5/12/15	E624MOD	0 of 18	-	-
W-817-01	7/7/15	E624MOD	0 of 18	-	-
W-817-01	7/7/15 DUP	E624MOD	0 of 18	-	-
W-817-03	3/11/15	E601	0 of 18	-	-
W-817-03	5/11/15	E624MOD	0 of 18	-	-
W-817-03	7/13/15	E624MOD	0 of 18	-	-
W-817-03	7/13/15 DUP	E624MOD	0 of 18	-	-
W-817-03	10/6/15	E624MOD	0 of 18	-	-
W-817-03A	3/11/15	E601	0 of 18	-	-
W-817-03A	9/8/15	E624MOD	0 of 18	-	-
W-817-04	3/11/15	E601	0 of 18	-	-
W-817-04	3/11/15 DUP	E601	0 of 18	-	-
W-817-04	9/8/15	E624MOD	0 of 18	-	-
W-817-05	3/11/15	E601	0 of 18	-	-
W-817-05	9/8/15	E624MOD	0 of 18	-	-
W-817-2318	3/11/15	E601	0 of 18	-	-
W-817-2318	5/11/15	E624MOD	0 of 18	-	-
W-817-2318	7/13/15	E624MOD	0 of 18	-	-
W-817-2318	10/6/15	E624MOD	0 of 18	-	-
W-817-2609	3/10/15	E601	0 of 18	-	-
W-817-2609	9/8/15	E624MOD	0 of 18	-	-
W-817-2609	9/8/15 DUP	E624MOD	0 of 18	-	-
W-817-3025	4/30/15	E624B	0 of 32	-	-
W-817-3026	4/22/15	E624B	0 of 32	-	-
W-818-01	3/12/15	E601	0 of 18	-	-
W-818-01	9/9/15	E624MOD	0 of 18	-	-
W-818-03	3/19/15	E601	0 of 18	-	-
W-818-03	9/14/15	E624MOD	0 of 18	-	-
W-818-04	3/19/15	E601	0 of 18	-	-
W-818-04	9/14/15	E624MOD	0 of 18	-	-
W-818-06	3/19/15	E601	0 of 18	-	-
W-818-06	9/14/15	E624MOD	0 of 18	-	-
W-818-07	3/19/15	E601	0 of 18	-	-
W-818-07	3/19/15 DUP	E601	0 of 18	-	-
W-818-07	9/14/15	E624MOD	0 of 18	-	-
W-818-08	3/10/15	E601	0 of 18	-	-
W-818-08	4/7/15	E624MOD	0 of 18	-	-

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total) (µg/L)	Methylene chloride (µg/L)
W-818-08	7/6/15	E624MOD	0 of 18	-	-
W-818-08	7/6/15 DUP	E624MOD	0 of 18	-	-
W-818-09	3/10/15	E601	0 of 18	-	-
W-818-09	4/7/15	E624MOD	0 of 18	-	-
W-818-09	7/6/15	E624MOD	0 of 18	-	-
W-818-11	3/12/15	E601	0 of 18	-	-
W-818-11	9/9/15	E624MOD	0 of 18	-	-
W-818-11	9/9/15 DUP	E624MOD	0 of 18	-	-
W-819-02	3/17/15	E601	0 of 18	-	-
W-819-02	9/8/15	E624MOD	0 of 18	-	-
W-823-01	3/16/15	E601	0 of 18	-	-
W-823-01	9/15/15	E624MOD	0 of 18	-	-
W-823-02	3/16/15	E601	0 of 18	-	-
W-823-02	9/15/15	E624MOD	0 of 18	-	-
W-823-03	3/16/15	E601	0 of 18	-	-
W-823-03	9/15/15	E624MOD	0 of 18	-	-
W-823-13	9/15/15	E624MOD	0 of 18	-	-
W-827-02	3/18/15	E601	0 of 18	-	-
W-827-05	3/18/15	E601	0 of 18	-	-
W-827-05	9/10/15	E624MOD	0 of 18	-	-
W-829-06	3/16/15	E601	0 of 18	-	-
W-829-06	4/9/15	E624MOD	0 of 18	-	-
W-829-06	7/6/15	E624MOD	0 of 18	-	-
W-829-06	7/6/15 DUP	E624MOD	0 of 18	-	-
W-829-06	10/5/15	E624MOD	0 of 18	-	-
W-829-08	3/18/15	E601	0 of 18	-	-
W-829-15	5/6/15	E624	0 of 30	-	-
W-829-1938	1/28/15	E624	0 of 30	-	-
W-829-1938	1/28/15 DUP	E624	0 of 30	-	-
W-829-1938	4/29/15	E624	0 of 30	-	-
W-829-1938	4/29/15 DUP	E624	0 of 30	-	-
W-829-1938	7/29/15	E624	0 of 32	-	-
W-829-1938	7/29/15 DUP	E624	0 of 32	-	-
W-829-1938	10/21/15	E624	0 of 32	-	-
W-829-1938	10/21/15 DUP	E624	0 of 32	-	-
W-829-1940	3/18/15	E601	0 of 18	-	-
W-829-1940	9/10/15	E624MOD	0 of 18	-	-
W-829-22	5/7/15	E624	0 of 30	-	-
WELL18	1/13/15	E601	0 of 18	-	-
WELL18	1/13/15 DUP	E601	0 of 18	-	-
WELL18	2/3/15	E601	0 of 18	-	-
WELL18	2/3/15 DUP	E601	0 of 18	-	-
WELL18	3/10/15	E601	0 of 18	-	-

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total) (µg/L)	Methylene chloride (µg/L)
WELL18	3/10/15 DUP	E601	0 of 18	-	-
WELL18	4/21/15	E624MOD	0 of 18	-	-
WELL18	4/21/15 DUP	E624MOD	0 of 18	-	-
WELL18	5/5/15	E624MOD	0 of 18	-	-
WELL18	5/5/15 DUP	E624MOD	0 of 18	-	-
WELL18	6/2/15	E624MOD	0 of 18	-	-
WELL18	6/2/15 DUP	E624MOD	0 of 18	-	-
WELL18	7/7/15	E624MOD	0 of 18	-	-
WELL18	7/7/15 DUP	E624MOD	0 of 18	-	-
WELL18	8/18/15	E624MOD	0 of 18	-	-
WELL18	8/18/15 DUP	E624MOD	0 of 18	-	-
WELL18	9/1/15	E624MOD	0 of 18	-	-
WELL18	9/1/15 DUP	E624MOD	0 of 18	-	-
WELL18	10/6/15	E624MOD	0 of 18	-	-
WELL18	10/6/15 DUP	E624MOD	0 of 18	-	-
WELL18	11/19/15	E624MOD	0 of 18	-	-
WELL18	11/19/15 DUP	E624MOD	0 of 18	-	-
WELL18	12/22/15	E624MOD	0 of 18	-	-
WELL18	12/22/15 DUP	E624MOD	0 of 18	-	-
WELL20	1/13/15	E502.2	0 of 46	-	-
WELL20	1/13/15 DUP	E502.2	0 of 45	-	-
WELL20	2/3/15	E502.2	0 of 46	-	-
WELL20	2/3/15 DUP	E502.2	0 of 45	-	-
WELL20	3/10/15	E502.2	0 of 46	-	-
WELL20	3/10/15 DUP	E502.2	0 of 45	-	-
WELL20	4/21/15	E524.2MOD	0 of 46	-	-
WELL20	4/21/15 DUP	E524.2MOD	0 of 44	-	-
WELL20	5/5/15	E524.2MOD	0 of 46	-	-
WELL20	5/5/15 DUP	E524.2MOD	0 of 44	-	-
WELL20	6/2/15	E524.2MOD	0 of 46	-	-
WELL20	6/2/15 DUP	E524.2MOD	0 of 44	-	-
WELL20	7/14/15	E524.2MOD	0 of 46	-	-
WELL20	7/14/15 DUP	E524.2MOD	0 of 45	-	-
WELL20	8/18/15	E524.2MOD	0 of 46	-	-
WELL20	8/18/15 DUP	E524.2MOD	0 of 45	-	-
WELL20	9/1/15	E524.2MOD	0 of 46	-	-
WELL20	9/1/15 DUP	E524.2MOD	0 of 45	-	-
WELL20	10/6/15	E524.2MOD	0 of 46	-	-
WELL20	10/6/15 DUP	E524.2MOD	0 of 45	-	-
WELL20	11/19/15	E524.2MOD	0 of 46	-	-
WELL20	11/19/15 DUP	E524.2MOD	0 of 45	-	-
WELL20	12/22/15	E524.2MOD	0 of 46	-	-
WELL20	12/22/15 DUP	E524.2MOD	0 of 45	-	-

Table B-4.02. High Explosives Process Area Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
GALLO1	1/13/15	<0.5	<4
GALLO1	1/13/15 DUP	<2.2 J	<4
GALLO1	2/3/15	<0.5	<4
GALLO1	2/3/15 DUP	<2.2	<4
GALLO1	3/10/15	<0.5	<4
GALLO1	3/10/15 DUP	<2.2	<4
GALLO1	4/21/15	<0.5	<4
GALLO1	4/21/15 DUP	<0.5	<4
GALLO1	5/27/15	<0.5	<4
GALLO1	5/27/15 DUP	<0.5	<4
GALLO1	6/24/15	<1 D	<4
GALLO1	6/24/15 DUP	<0.5 H	<4
GALLO1	7/14/15	<0.5	<4
GALLO1	7/14/15 DUP	<0.5	<4
GALLO1	8/27/15	<0.5	<4
GALLO1	8/27/15 DUP	<0.5	<4
GALLO1	9/1/15	<0.5	<4
GALLO1	9/1/15 DUP	<0.5	<4
GALLO1	10/6/15	<0.5	<4
GALLO1	10/6/15 DUP	<0.5	<4
GALLO1	11/19/15	<0.5	<4
GALLO1	11/19/15 DUP	<0.5	<4
GALLO1	12/22/15	<0.5	<4
GALLO1	12/22/15 DUP	<0.5	<4
W-35B-01	1/21/15	<0.5 D	<4
W-35B-01	9/15/15	<0.5	<4
W-35B-02	1/21/15	11	<4
W-35B-02	9/15/15	<0.5	<4
W-35B-03	1/21/15	1.5	<4
W-35B-03	9/15/15	1.1	<4
W-35B-04	1/21/15	1.1	<4
W-35B-04	9/15/15	1.1	<4
W-35B-05	1/21/15	1.4	<4
W-35B-05	9/15/15	1.4	<4
W-35C-01	3/16/15	0.68	<4
W-35C-02	3/17/15	<0.5	<4
W-35C-04	1/6/15	<0.5	<4 L
W-35C-05	3/11/15	6.4	<4
W-35C-08	3/11/15	1.2	<4
W-4AS	3/19/15	0.5	-
W-4B	3/16/15	<0.5	<4
W-4C	3/16/15	<0.5	<4
W-4C	9/15/15	<0.5	<4
W-6BD	3/24/15	<1 D	-
W-6BS	3/25/15	11	-
W-6BS	3/25/15 DUP	24 D	-

Table B-4.02. High Explosives Process Area Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-6CI	3/17/15	<0.5	<4
W-6CS	3/17/15	770 DH	5.3
W-6EI	3/16/15	<0.5	<4
W-6ER	1/6/15	<0.5	<4 L
W-6F	3/17/15	1.4	<4
W-6G	3/17/15	21 D	5.1
W-6H	3/16/15	<0.5	<4
W-6H	9/16/15	<0.5	<4
W-6I	3/16/15	2.2	<4
W-6J	3/16/15	<0.5	<4
W-6J	9/16/15	<0.5	<4
W-808-01	3/9/15	91 D	<4 H
W-808-03	3/9/15	<0.5	<4 H
W-809-01	3/10/15	100 D	<4
W-809-01	3/10/15 DUP	112 D	4.6
W-809-02	3/9/15	98 D	7.8 H
W-809-02	9/1/15	-	11
W-809-03	3/9/15	99 D	<4 H
W-809-03	9/2/15	-	<4
W-810-01	3/9/15	<0.5	<4 H
W-814-01	3/12/15	66 DL	4.1
W-814-02	3/12/15	78 DL	<4
W-814-04	3/17/15	<1 D	<4
W-814-04	9/9/15	<0.5	<4
W-814-2138	3/12/15	85 DL	4.6
W-815-02	3/9/15	99 D	4.4
W-815-02	7/7/15	-	6.4
W-815-04	3/9/15	100 D	<4
W-815-04	7/7/15	-	<4
W-815-06	3/12/15	84 DL	5.8
W-815-07	3/12/15	83 DL	6.4
W-815-07	3/12/15 DUP	81 DL	4.2
W-815-2110	3/17/15	<0.5	<4
W-815-2110	9/16/15	<1 D	<4
W-815-2111	3/17/15	<0.5	<4
W-815-2111	9/16/15	<1 D	<4
W-815-2217	3/17/15	1.4	<4
W-815-2608	1/6/15	<0.5	<4 L
W-815-2621	3/11/15	18 D	<4
W-815-2803	3/9/15	100 D	7.6
W-815-2803	7/7/15	-	18
W-817-01	3/9/15	88 D	26 D
W-817-01	5/12/15	-	23 D
W-817-01	7/7/15	-	32 D
W-817-01	7/7/15 DUP	-	14
W-817-03	3/11/15	93 D	23 D

Table B-4.02. High Explosives Process Area Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-817-03	7/13/15	-	22 D
W-817-03	7/13/15 DUP	-	20 D
W-817-03A	3/11/15	110 D	13
W-817-04	3/11/15	94 D	15
W-817-04	3/11/15 DUP	94 D	15
W-817-05	3/11/15	1.6	<4
W-817-2318	3/11/15	49 D	16
W-817-2318	7/13/15	-	13
W-817-2609	3/10/15	120 D	15
W-817-3025	4/30/15	-	10
W-817-3025	6/3/15	-	12
W-817-3025	6/3/15 DUP	-	7.1
W-817-3026	4/22/15	-	10
W-817-3026	6/3/15	-	15
W-817-3026	6/3/15 DUP	-	10
W-818-01	3/12/15	88 DL	4.5
W-818-03	3/19/15	53 D	<4
W-818-04	3/19/15	<0.5	<4
W-818-06	3/19/15	33	<4
W-818-07	3/19/15	<0.5	<4
W-818-07	3/19/15 DUP	<0.5	<4
W-818-08	3/10/15	85 D	6.7
W-818-08	7/6/15	-	9
W-818-08	7/6/15 DUP	-	13
W-818-09	3/10/15	81 D	5.4
W-818-09	7/6/15	-	6.4
W-818-11	3/12/15	81 DL	7.1
W-819-02	3/17/15	<1 D	<4
W-823-01	3/16/15	21	<4
W-823-02	3/16/15	<0.5	<4
W-823-03	3/16/15	15 D	-
W-827-02	3/18/15	5.1	<4
W-827-05	3/18/15	<0.5	<4
W-829-06	3/16/15	71 D	11
W-829-06	4/9/15	73 D	13
W-829-06	7/6/15	69 D	16
W-829-06	7/6/15 DUP	67 DH	12
W-829-06	10/5/15	74 D	15
W-829-08	3/18/15	<1 D	<4
W-829-15	5/6/15	-	<4
W-829-1938	1/28/15	-	<4
W-829-1938	1/28/15 DUP	-	<4
W-829-1938	4/29/15	-	<4
W-829-1938	4/29/15 DUP	-	<4
W-829-1938	7/29/15	-	<4
W-829-1938	7/29/15 DUP	-	<4

Table B-4.02. High Explosives Process Area Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-829-1938	10/21/15	-	<4
W-829-1938	10/21/15 DUP	-	<4
W-829-1940	3/18/15	45 D	<4
W-829-22	5/7/15	-	<4 O
WELL18	1/13/15	<0.5	<4
WELL18	1/13/15 DUP	<2.2 J	<4
WELL18	2/3/15	<0.5	<4
WELL18	2/3/15 DUP	<2.2	<4
WELL18	3/10/15	<0.5	<4
WELL18	3/10/15 DUP	<2.2	<4
WELL18	4/21/15	0.68	<4
WELL18	4/21/15 DUP	<0.5	<4
WELL18	5/5/15	<0.5	<4
WELL18	5/5/15 DUP	<0.5	<4
WELL18	6/2/15	<0.5	<4
WELL18	6/2/15 DUP	<0.5	<4
WELL18	7/7/15	<0.5	<4
WELL18	7/7/15 DUP	<0.5	<4
WELL18	8/18/15	<0.5	<4
WELL18	8/18/15 DUP	<0.5	<4
WELL18	9/1/15	<0.5	<4
WELL18	9/1/15 DUP	<0.5	<4
WELL18	10/6/15	<0.5	<4
WELL18	10/6/15 DUP	<0.5	<4
WELL18	11/19/15	<0.5	<4
WELL18	11/19/15 DUP	<0.5	<4
WELL18	12/22/15	<0.5	<4
WELL18	12/22/15 DUP	<0.5	<4
WELL20	1/13/15	<0.5	<4
WELL20	1/13/15 DUP	<2.2 J	<4
WELL20	2/3/15	<0.5	<4
WELL20	2/3/15 DUP	<2.2	<4
WELL20	3/10/15	<0.5	<4
WELL20	3/10/15 DUP	<2.2	<4
WELL20	4/21/15	<0.5	<4
WELL20	4/21/15 DUP	<0.5	<4
WELL20	5/5/15	<0.5	<4
WELL20	5/5/15 DUP	<0.5	<4
WELL20	6/2/15	<0.5	<4
WELL20	6/2/15 DUP	<0.5	<4
WELL20	7/14/15	<0.5	<4
WELL20	7/14/15 DUP	<0.5	<4
WELL20	8/18/15	<0.5	<4
WELL20	8/18/15 DUP	<0.5	<4
WELL20	9/1/15	<0.5	<4
WELL20	9/1/15 DUP	<0.5	<4

Table B-4.02. High Explosives Process Area Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
WELL20	10/6/15	<0.5	<4
WELL20	10/6/15 DUP	<0.5	<4
WELL20	11/19/15	<0.5	<4
WELL20	11/19/15 DUP	<0.5	<4
WELL20	12/22/15	<0.5	<4
WELL20	12/22/15 DUP	<0.5	<4

Table B-4.03. High Explosives Process Area Operable Unit high explosive compounds in ground and surface water.

Location	Date	Requested Analysis Code	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-Dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-Dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
GALLO1	1/13/15	E8330LOW	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<1 D	<2 DO	<1 D	<2 DO
GALLO1	1/13/15 DUP	E8330LOW	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<0.95	<1.9	<0.95	<1.9
GALLO1	2/3/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	2/3/15 DUP	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	3/10/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	3/10/15 DUP	E8330LOW	<1.9 L	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<0.95	<1.9	<0.95	<1.9
GALLO1	4/21/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	4/21/15 DUP	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1	<2.1	<1	<2.1
GALLO1	5/27/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	5/27/15 DUP	E8330LOW	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<1.2	<2.4	<1.2	<2.4
GALLO1	6/24/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	6/24/15 DUP	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
GALLO1	7/14/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	7/14/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
GALLO1	8/27/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	8/27/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
GALLO1	9/1/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	9/1/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
GALLO1	10/6/15	E8330LOW	<2	<2	<2	<2	<2	<2.1	<2	<2	<2	<1	<2	<1	<2
GALLO1	10/6/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
GALLO1	11/19/15	E8330LOW	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	<1	<2	<1	<2
GALLO1	11/19/15 DUP	E8330LOW	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.2	<2.3	<1.2	<2.3
GALLO1	12/22/15	E8330LOW	<2	<2	<2	<2	<2	<2.2	<2	<2	<2.1	<1	<2	<1	<2
GALLO1	12/22/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
W-35B-01	1/21/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 LO	<2	<1	<2
W-35B-01	9/15/15	E8330	-	-	-	-	-	-	-	-	-	<1.1	-	<1.1	-
W-35B-01	9/15/15	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
W-35B-02	1/21/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 LO	<2	<1	<2
W-35B-02	9/15/15	E8330	-	-	-	-	-	-	-	-	-	<1.1	-	<1.1	-
W-35B-02	9/15/15	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
W-35B-03	1/21/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 LO	<2	<1	<2
W-35B-03	9/15/15	E8330	-	-	-	-	-	-	-	-	-	<1.1	-	<1.1	-
W-35B-03	9/15/15	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
W-35B-04	1/21/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 LO	<2	<1	<2
W-35B-04	9/15/15	E8330	-	-	-	-	-	-	-	-	-	<1.1	-	<1.1	-
W-35B-04	9/15/15	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
W-35B-05	1/21/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 LO	<2	<1	<2
W-35B-05	9/15/15	E8330	-	-	-	-	-	-	-	-	-	<1.1	-	<1.1	-
W-35B-05	9/15/15	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
W-35C-01	3/16/15	E8330LOW	<2	<2 L	<2	<2	<2	<2	<2	<2	<2	<1 L	<2	<1	<2
W-35C-02	3/17/15	E8330LOW	<2.2	<2.2 L	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1 L	<2.2	<1.1	<2.2
W-35C-04	1/6/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35C-05	3/11/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35C-08	3/11/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table B-4.03. High Explosives Process Area Operable Unit high explosive compounds in ground and surface water.

Location	Date	Requested Analysis Code	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-Dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-Dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
W-4B	3/16/15	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1	<2.1	<1	<2.1
W-6CI	3/17/15	E8330LOW	<2.1	<2.1 L	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1 L	<2.1	<1.1	<2.1
W-6CS	3/17/15	E8330LOW	<2.3	<2.3 L	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.2 L	<2.3	<1.2	<2.3
W-6EI	3/16/15	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
W-6ER	1/6/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6F	3/17/15	E8330LOW	<2.1	<2.1 L	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1 L	<2.1	<1	<2.1
W-6G	3/17/15	E8330LOW	<2	<2 L	<2	<2	<2	<2	<2	<2	<2	<1 L	<2	<1	<2
W-6H	3/16/15	E8330LOW	<2	<2 L	<2	<2	<2	<2	<2	<2	<2	<1 L	<2	<1	<2
W-6H	9/16/15	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
W-6I	3/16/15	E8330LOW	<2	<2 L	<2	<2	<2	<2	<2	<2	<2	<1 L	<2	<1	<2
W-6J	3/16/15	E8330LOW	<2.1	<2.1 L	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1 L	<2.1	<1.1	<2.1
W-6J	9/16/15	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
W-808-01	3/9/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-808-03	3/9/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-809-01	3/10/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-809-01	3/10/15 DUP	E8330LOW	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5 O	<2.5 O	<2.5	<2.5 O	<1.3	<2.5	<1.3	<2.5
W-809-02	3/9/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-809-03	3/9/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	2.7	<2	4.8	<2	22 D	<2
W-809-03	9/2/15	E8330LOW	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	5.5	<2.3	8.3	<2.3	54 D	<2.3
W-810-01	3/9/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-814-01	3/12/15	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1	<2.1	<1	<2.1
W-814-02	3/12/15	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
W-814-2138	3/12/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-02	3/9/15	E8330LOW	<2 O	<2 O	<2	<2	<2	<2	<2	<2	<2	3.9	<2 O	40	<2 O
W-815-02	7/7/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	6.6	<2	41	<2
W-815-02	7/7/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	5.8	<2.2	9.7	<2.2	74 D	<2.2
W-815-04	3/9/15	E8330LOW	<2 O	<2 O	<2	<2	<2	<2	<2	<2	<2	9.1	<2 O	23	<2 O
W-815-04	7/7/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	4.2	<2	20	<2
W-815-06	3/12/15	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1	<2.1	4.9	<2.1
W-815-07	3/12/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	2.1	<2
W-815-07	3/12/15 DUP	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1	<2.1	2.1	<2.1
W-815-2110	3/17/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-2110	9/16/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-2111	3/17/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-2111	9/16/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-2217	3/17/15	E8330LOW	<2.3	<2.3 L	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.1 L	<2.3	<1.1	<2.3
W-815-2608	1/6/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-2621	3/11/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-2803	3/9/15	E8330LOW	<2 O	<2 O	<2	<2	<2	<2	<2	<2	<2	25	<2 O	31	<2 O
W-815-2803	7/7/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	3.9	<2	29	<2
W-817-01	3/9/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	35	<2	40	<2
W-817-01	5/12/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	12	<2	39	<2
W-817-01	7/7/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	16	<2	39	<2
W-817-01	7/7/15 DUP	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	13	<2	32	<2

Table B-4.03. High Explosives Process Area Operable Unit high explosive compounds in ground and surface water.

Location	Date	Requested Analysis Code	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-Dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-Dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
W-817-03	3/11/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	3.6	<2	13	<2
W-817-03	7/13/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	11	<2
W-817-03	7/13/15 DUP	E8330LOW	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<0.86	<1.7	8	<1.7
W-817-03A	3/11/15	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1	<2.1	<1	<2.1
W-817-04	3/11/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	11	<2
W-817-04	3/11/15 DUP	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	14	<2
W-817-05	3/11/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-817-2318	3/11/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-817-2318	7/13/15	E8330LOW	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<0.77	<1.5	<0.77	<1.5
W-817-2609	3/10/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-817-3025	4/30/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-817-3026	4/22/15	E8330LOW	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<0.89	<1.8	<0.89	<1.8
W-818-01	3/12/15	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1	<2.1	3.6	<2.1
W-818-03	3/19/15	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
W-818-04	3/19/15	E8330LOW	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<1.2	<2.4	<1.2	<2.4
W-818-06	3/19/15	E8330LOW	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.1	<2.3	<1.1	<2.3
W-818-08	3/10/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-818-09	3/10/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	3.2	<2
W-818-11	3/12/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	25 D	<2
W-819-02	3/17/15	E8330LOW	<2.4	<2.4 L	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<1.2 L	<2.4	<1.2	<2.4
W-823-01	3/16/15	E8330LOW	<2	<2 L	<2	<2	<2	<2	<2	<2	<2	<1 L	<2	<1	<2
W-823-02	3/16/15	E8330LOW	<2	<2 L	<2	<2	<2	<2	<2	<2	<2	<1 L	<2	<1	<2
W-827-02	3/18/15	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
W-827-05	3/18/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-829-06	3/16/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-829-08	3/18/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-829-15	5/6/15	E625	-	-	<5	<5	-	-	-	-	-	-	<5	-	-
W-829-15	5/6/15	E8330	-	-	-	-	-	-	-	-	-	<1	-	<1	<5
W-829-1938	1/28/15	E625	-	-	<5	<5	-	-	-	-	-	-	<5	-	-
W-829-1938	1/28/15	E8330	-	-	-	-	-	-	-	-	-	<1	-	<1	<5
W-829-1938	1/28/15 DUP	E625	-	-	<5	<5	-	-	-	-	-	-	<5	-	-
W-829-1938	1/28/15 DUP	E8330	-	-	-	-	-	-	-	-	-	<1	-	<1	<5
W-829-1938	4/29/15	E625	-	-	<5	<5	-	-	-	-	-	-	<5	-	-
W-829-1938	4/29/15	E8330	-	-	-	-	-	-	-	-	-	<0.89	-	<0.89	<4.4
W-829-1938	4/29/15 DUP	E625	-	-	<5	<5	-	-	-	-	-	-	<5	-	-
W-829-1938	4/29/15 DUP	E8330	-	-	-	-	-	-	-	-	-	<0.89	-	<0.89	<4.5
W-829-1938	7/29/15	E625	-	-	<5	<5	-	-	-	-	-	-	<5	-	-
W-829-1938	7/29/15	E8330	-	-	-	-	-	-	-	-	-	<1	-	<1	<5
W-829-1938	7/29/15 DUP	E625	-	-	<5	<5	-	-	-	-	-	-	<5	-	-
W-829-1938	7/29/15 DUP	E8330	-	-	-	-	-	-	-	-	-	<1	-	<1	<5
W-829-1938	10/21/15	E625	-	-	<5	<5	-	-	-	-	-	-	<5	-	-
W-829-1938	10/21/15	E8330	-	-	-	-	-	-	-	-	-	<1	-	<1	<5
W-829-1938	10/21/15 DUP	E625	-	-	<5	<5	-	-	-	-	-	-	<5	-	-
W-829-1938	10/21/15 DUP	E8330	-	-	-	-	-	-	-	-	-	<0.87	-	<0.87	<4.3

Table B-4.03. High Explosives Process Area Operable Unit high explosive compounds in ground and surface water.

Location	Date	Requested Analysis Code	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-Dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-Dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
W-829-1940	3/18/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-829-22	5/7/15	E625	-	-	<5	<5	-	-	-	-	-	-	<5	-	-
W-829-22	5/7/15	E8330	-	-	-	-	-	-	-	-	-	<1	-	<1	<5
WELL18	1/13/15	E8330LOW	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<1 D	<2 DO	<1 D	<2 DO
WELL18	1/13/15 DUP	E8330LOW	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<0.94	<1.9	<0.94	<1.9
WELL18	2/3/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	2/3/15 DUP	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.99	<2	<0.99	<2
WELL18	3/10/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	3/10/15 DUP	E8330LOW	<1.9 L	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<0.95	<1.9	<0.95	<1.9
WELL18	4/21/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	4/21/15 DUP	E8330LOW	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.1	<2.3	<1.1	<2.3
WELL18	5/5/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	5/5/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
WELL18	6/2/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	6/2/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
WELL18	7/7/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	7/7/15 DUP	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
WELL18	8/18/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	8/18/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
WELL18	9/1/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	9/1/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
WELL18	10/6/15	E8330LOW	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	<1	<2	<1	<2
WELL18	10/6/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
WELL18	11/19/15	E8330LOW	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	<1	<2	<1	<2
WELL18	11/19/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
WELL18	12/22/15	E8330LOW	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	<1	<2	<1	<2
WELL18	12/22/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
WELL20	1/13/15	E8330LOW	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<2 DO	<1 D	<2 DO	<1 D	<2 DO
WELL20	1/13/15 DUP	E8330LOW	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<0.94	<1.9	<0.94	<1.9
WELL20	2/3/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	2/3/15 DUP	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	3/10/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	3/10/15 DUP	E8330LOW	<1.9 L	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<0.94	<1.9	<0.94	<1.9
WELL20	4/21/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	4/21/15 DUP	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
WELL20	5/5/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	5/5/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
WELL20	6/2/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	6/2/15 DUP	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
WELL20	7/14/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	7/14/15 DUP	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
WELL20	8/18/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	8/18/15 DUP	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
WELL20	9/1/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table B-4.03. High Explosives Process Area Operable Unit high explosive compounds in ground and surface water.

Location	Date	Requested Analysis Code	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-Dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-Dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
WELL20	9/1/15 DUP	E8330LOW	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
WELL20	10/6/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	10/6/15 DUP	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
WELL20	11/19/15	E8330LOW	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	<1	<2	<1	<2
WELL20	11/19/15 DUP	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
WELL20	12/22/15	E8330LOW	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	12/22/15 DUP	E8330LOW	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1

Table B-4.04. High Explosives Process Area Operable Unit diesel range organic compounds in ground water.

Location	Date	Diesel Fuel (µg/L)
W-823-01	3/16/15	<50 O
W-823-02	3/16/15	60 O
W-823-03	3/16/15	<50 O

Table B-4.05. High Explosives Process Area Operable Unit total uranium and uranium isotopes in ground water.

Location	Date	Requested Analysis Code	AS	AS	AS	KPA	MS	MS	MS	MS	MS	MS	MS	MS
			Uranium 234 and 233 (in activity) (pCi/L)	Uranium 235 and 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Total Uranium (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Uranium 234 (in activity) (pCi/L)	Uranium 235 (in activity) (pCi/L)	Uranium 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Uranium 238 (in mass) (µg/L)	Uranium 235/238 (atom/atom)
W-35C-04	1/6/15	AS	0.650 ± 0.180 J	<0.1	0.490 ± 0.150 J	-	-	-	-	-	-	-	-	-
W-6ER	1/6/15	AS	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-
W-815-02	3/9/15	AS	16.8 ± 2.80	0.760 ± 0.180	14.6 ± 2.50	-	-	-	-	-	-	-	-	-
W-815-04	3/9/15	AS	15.0 ± 2.60	0.550 ± 0.150	12.1 ± 2.10	-	-	-	-	-	-	-	-	-
W-817-03	3/11/15	AS	16.3 ± 2.70	0.750 ± 0.170	14.2 ± 2.40	-	-	-	-	-	-	-	-	-
W-817-3025	4/30/15	KPA	-	-	-	87.7 ± 9.23 D	-	-	-	-	-	-	-	-
W-817-3025	4/30/15	MS	-	-	-	-	5.70 ± 0.180 S	7.00 ± 0.140 S	3.20 ± 0.180 S	0.110 ± 0.00330 S	<0.00045 S	2.30 ± 0.0480 S	7.00 ± 0.140 S	0.00728 ± 0.000163 S
W-817-3025	4/30/15 REA	MS	-	-	-	-	59.0 ± 1.30	80.0 ± 0.370	31.0 ± 1.30	1.20 ± 0.0120	<0.0061	27.0 ± 0.130	79.0 ± 0.370	0.00726 ± 0.0000630
W-817-3026	4/22/15	KPA	-	-	-	45.5 ± 4.77 D	-	-	-	-	-	-	-	-
W-817-3026	4/22/15	MS	-	-	-	-	36.0 ± 0.710	49.0 ± 0.360	19.0 ± 0.700	0.760 ± 0.00710	<0.0032	16.0 ± 0.120	49.0 ± 0.360	0.00719 ± 0.0000410

Table B-4.06. High Explosives Process Area Operable Unit general minerals in ground water.

Constituents of concern	W-817-3025	W-817-3026
	4/30/15	4/22/15
Total Alkalinity (as CaCO3) (mg/L)	220	250
Aluminum (mg/L)	<0.2	<0.2
Bicarbonate Alk (as CaCO3) (mg/L)	220 D	250 D
Calcium (mg/L)	68	27
Carbonate Alk (as CaCO3) (mg/L)	<8.2 D	<8.2 D
Chloride (mg/L)	380 D	260 D
Copper (mg/L)	<0.05	<0.05
Fluoride (mg/L)	0.68 D	1.1 D
Hydroxide Alk (as CaCO3) (mg/L)	<8.2 D	<8.2 D
Iron (mg/L)	<0.1	<0.1
Magnesium (mg/L)	36	12
Manganese (mg/L)	<0.01	<0.01
Nickel (mg/L)	<0.1	<0.1
Nitrate (as N) (mg/L)	25 D	22 D
Nitrate (as NO3) (mg/L)	110 H	100
Nitrite (as N) (mg/L)	<0.5	<0.5
pH (Units)	8.11 H	7.74 H
Ortho-Phosphate (mg/L)	<1	<1
Total Phosphorus (as PO4) (mg/L)	0.28 H	0.18 H
Potassium (mg/L)	18	13
Sodium (mg/L)	510 L	370 L
Total dissolved solids (TDS) (mg/L)	2,000 DH	1,300 DH
Specific Conductance (µmhos/cm)	2,680 H	2,080 H
Sulfate (mg/L)	490 D	250 D
Surfactants (mg/L)	<0.5	<0.5
Total Hardness (as CaCO3) (mg/L)	320	120
Zinc (mg/L)	<0.05	<0.05

Table B-4.07. High Explosives Process Area Operable Unit metals and silica in ground water.

saerloc	m.d.y	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silica (as SiO2) (mg/L)	Silver (mg/L)	Sodium (mg/L)	Thallium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)
GALLO1	1/13/15	-	0.0028	<0.025	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	-	<0.005	-	-	-	-	-	-	<0.025	<0.02
GALLO1	1/13/15 DUP	-	0.0029	<0.025	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	-	<0.005	-	-	-	-	-	-	<0.025	<0.02
GALLO1	4/21/15	-	0.0039	<0.025	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	-	<0.005	-	-	-	-	-	-	<0.025	<0.02
GALLO1	4/21/15 DUP	-	0.0029	<0.025	<0.0005	<0.001	-	<0.025	<0.01	-	<0.002	-	-	-	<0.005	-	-	-	-	-	-	<0.025	<0.02
GALLO1	7/14/15	-	0.0032	<0.025	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	-	<0.005	-	-	-	-	-	-	<0.025	<0.02
GALLO1	7/14/15 DUP	-	0.0024	<0.025	<0.0005	<0.001	-	<0.025	<0.01	-	<0.002	-	-	-	<0.005	-	-	-	-	-	-	<0.025	<0.02
GALLO1	10/6/15	-	0.0035	<0.025	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	-	<0.005	-	-	-	-	-	-	<0.025	<0.02
GALLO1	10/6/15 DUP	-	0.0032	<0.025	<0.0005	<0.001	-	<0.025	<0.01	-	<0.002	-	-	-	<0.005	-	-	-	-	-	-	<0.025	<0.02
W-817-3025	4/30/15	-	0.048	0.027	-	<0.001	0.0014	-	-	-	<0.005	-	<0.0002	-	-	-	0.12	71	<0.001	-	-	-	-
W-817-3026	4/22/15	-	0.074	<0.025	-	<0.001	0.0026	-	-	-	<0.005	-	<0.0002	-	-	-	0.067	64	<0.001	-	-	-	-
W-829-15	5/6/15	<0.005	0.018	0.054	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	<0.01 O	<0.0002	<0.025	<0.005	20	<0.002	-	<0.0005	180 L	<0.001	<0.025	<0.02
W-829-1938	1/28/15	<0.005	0.028	0.029	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002 O	0.038	<0.0002	0.026	<0.005	13 O	<0.002	-	<0.0005	160	<0.001	<0.025	<0.02
W-829-1938	1/28/15 DUP	<0.005	0.028	0.03	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002 O	0.036	<0.0002	0.037	<0.005	13 O	<0.002	-	<0.0005	160	<0.001	<0.025	<0.02
W-829-1938	4/29/15	<0.005	0.02	0.028	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	0.064	<0.0002	<0.025	<0.005	13	<0.002	-	<0.0005	170 L	<0.001	<0.025	<0.02
W-829-1938	4/29/15 DUP	<0.005	0.02	0.029	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	0.074	<0.0002	<0.025	<0.005	13	<0.002	-	<0.0005	160 L	<0.001	<0.025	<0.02
W-829-1938	7/29/15	<0.005	0.023	0.029	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	0.03	<0.0002	<0.025	<0.005	13	<0.002	-	<0.0005	170 L	<0.001	<0.025	<0.02
W-829-1938	7/29/15 DUP	<0.005	0.024	0.027	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	0.023	<0.0002	<0.025	<0.005	13	<0.002	-	<0.0005	170 L	<0.001	<0.025	<0.02
W-829-1938	10/21/15	<0.005	0.021	<0.025	<0.0005	<0.0005 O	<0.001	<0.025	<0.01	0.093 FO	<0.002	0.039	<0.0002	<0.025	<0.005	11	<0.002	-	<0.0005	140 L	<0.001	<0.025	<0.02
W-829-1938	10/21/15 DUP	<0.005	0.021	<0.025	<0.0005	<0.0005 O	<0.001	<0.025	<0.01	0.14 FO	<0.002	0.037	<0.0002	<0.025	<0.005	11	<0.002	-	<0.0005	140 L	<0.001	<0.025	<0.02
W-829-22	5/7/15	<0.005	<0.002	<0.025	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.025	<0.005	8.5	<0.002	-	<0.0005	210	<0.001	<0.025	<0.02
WELL20	1/13/15	<0.005	<0.002	<0.025	<0.0005	<0.0005	<0.001	<0.025	<0.01	-	<0.002	-	<0.0002	<0.025	<0.005	-	<0.002	-	<0.0005	-	<0.001	<0.025	<0.02
WELL20	1/13/15 DUP	<0.005	<0.002	<0.025	<0.0005	<0.0005	<0.001	<0.025	<0.01	-	<0.002	-	<0.0002	<0.025	<0.005	-	<0.002	-	<0.0005	-	<0.001	<0.025	<0.02
WELL20	4/21/15	<0.005	<0.002	<0.025	<0.0005	<0.0005	<0.001	<0.025	<0.01	-	<0.002	-	<0.0002	<0.025	<0.005	-	<0.002	-	<0.0005	-	<0.001	<0.025	<0.02
WELL20	4/21/15 DUP	<0.005	<0.002	<0.025	<0.0005	<0.001	<0.002	<0.025	<0.01	-	<0.002	-	<0.0002	<0.025	<0.005	-	<0.002	-	<0.0005	-	<0.001	<0.025	<0.02
WELL20	7/14/15	<0.005	<0.002	<0.025	<0.0005	<0.0005	<0.001	<0.025	<0.01	-	<0.002	-	<0.0002	<0.025	<0.005	-	<0.002	-	<0.0005	-	<0.001	<0.025	<0.02
WELL20	7/14/15 DUP	<0.005	<0.002	<0.025	<0.0005	<0.001	<0.002	<0.025	<0.01	-	<0.002	-	<0.0002	<0.025	<0.005	-	<0.002	-	<0.0005	-	<0.001	<0.025	<0.02
WELL20	10/6/15	<0.005	<0.002	<0.025	<0.0005	<0.0005	<0.001	<0.025	<0.01	-	<0.002	-	<0.0002 O	<0.025	<0.005	-	<0.002	-	<0.0005	-	<0.001	<0.025	<0.02
WELL20	10/6/15 DUP	<0.005	<0.002	<0.025	<0.0005	<0.001	<0.002	<0.025	<0.01	-	<0.002	-	0.00022	<0.025	<0.005	-	<0.002	-	<0.0005	-	<0.001	<0.025	<0.02

Table B-4.08. High Explosives Process Area Operable Unit gross alpha and beta in ground water.

Location	Date	Gross alpha (pCi/L)	Gross beta (pCi/L)
GALLO1	1/13/15	<2	<3
GALLO1	1/13/15 DUP	<2	3.6 ± 1.7
GALLO1	4/21/15	<2 O	3.71 ± 1.34
GALLO1	4/21/15 DUP	<2	3.9 ± 1.7
GALLO1	7/14/15	<2	<3
GALLO1	7/14/15 DUP	<2	11.9 ± 3.2
GALLO1	10/6/15	<2	4.39 ± 2.01
GALLO1	10/6/15 DUP	<2	3.3 ± 1.8
W-817-3025	4/30/15	65.4 ± 13.5	28.3 ± 6.07
W-817-3026	4/22/15	29.7 ± 6.97	17.3 ± 4.18
W-829-15	5/6/15	<2	18.5 ± 3.57 O
W-829-1938	1/28/15	<2	8.69 ± 2.04 F
W-829-1938	1/28/15 DUP	<2	11 ± 2.25 F
W-829-1938	4/29/15	<2	10.2 ± 2.66 O
W-829-1938	4/29/15 DUP	<2	10.5 ± 2.35 O
W-829-1938	7/29/15	<2	11.1 ± 2.28
W-829-1938	7/29/15 DUP	<2	10.6 ± 2.36
W-829-1938	10/21/15	<2 O	10.1 ± 2.03
W-829-1938	10/21/15 DUP	<2 O	11.2 ± 2.21
W-829-22	5/7/15	<2	5.21 ± 1.31 O
WELL20	1/13/15	<2	6.02 ± 2
WELL20	1/13/15 DUP	<2	6 ± 1.6
WELL20	4/21/15	<2 O	3.91 ± 1.16
WELL20	4/21/15 DUP	<2	5.4 ± 1.5
WELL20	7/14/15	<2	<3
WELL20	7/14/15 DUP	<2	7.9 ± 2.5
WELL20	10/6/15	<2	6.16 ± 1.5
WELL20	10/6/15 DUP	<2	8.2 ± 1.8

Table B-4.09. High Explosives Process Area Operable Unit tritium in ground water.

Location	Date	Tritium (pCi/L)
GALLO1	1/13/15	<100
GALLO1	1/13/15 DUP	<100
GALLO1	4/21/15	<100
GALLO1	4/21/15 DUP	<100
GALLO1	7/14/15	<100
GALLO1	7/14/15 DUP	<100
GALLO1	10/6/15	<100
GALLO1	10/6/15 DUP	<100
W-817-3025	4/30/15	<100
W-817-3026	4/22/15	<100
WELL20	1/13/15	<100
WELL20	1/13/15 DUP	<100
WELL20	4/21/15	<100
WELL20	4/21/15 DUP	<100 L
WELL20	7/14/15	<100
WELL20	7/14/15 DUP	<100
WELL20	10/6/15	<100
WELL20	10/6/15 DUP	<100

Table B-5.01. Building 850 area in Operable Unit 5 volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
K1-01C	3/9/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-01C	4/9/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-01C	8/17/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-01C	10/29/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	2/4/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	2/4/15 DUP	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	4/1/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	7/28/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	10/19/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	3/9/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	5/12/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	8/17/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	11/4/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-05	2/26/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	8.5	<0.5
K1-05	5/19/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	14	<0.5
K1-05	5/19/15 DUP	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	15	<0.5
K1-05	8/17/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	14	<0.5
K1-05	11/4/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	9.3	<0.5
K1-07	2/18/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-07	5/14/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-07	8/11/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-07	10/13/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-08	2/25/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	14	<0.5
K1-08	5/12/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	15	<0.5
K1-08	8/13/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	14	<0.5
K1-08	8/13/15 DUP	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	15	<0.5
K1-08	10/20/15	E8260	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	12 H	<0.5 H
K1-09	2/25/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	29	<0.5
K1-09	5/12/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	39	<0.5
K1-09	8/19/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	45	<0.5
K1-09	10/20/15	E8260	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	41 H	<0.5 H
W-865-02	1/14/15	E601	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.62	66	<0.5
W-865-02	7/15/15	E624MOD	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.84	79 L	<0.5
W-865-1802	1/13/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-1802	7/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5
W-865-2005	2/18/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.6	<0.5
W-865-2005	2/18/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4.8	<0.5
W-865-2005	7/21/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.4	<0.5
W-865-2005	7/21/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.9	<0.5
W-865-2121	1/15/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	16	<0.5
W-865-2121	7/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	17	<0.5
W-865-2133	1/14/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-2133	7/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-2224	5/20/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-5.01. Building 850 area in Operable Unit 5 volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-865-2224	10/27/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2209	4/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2209	10/5/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2326	2/5/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2326	5/13/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2326	7/28/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2326	10/28/15	E8260	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2326	10/28/15 DUP	E8260	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2620	4/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2620	10/8/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-3021	5/11/15	E624B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-3022	4/29/15	E624B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-5.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
K1-01C	3/9/15	E8260	0 of 36
K1-01C	4/9/15	E8260	0 of 36
K1-01C	8/17/15	E8260	0 of 36
K1-01C	10/29/15	E8260	0 of 37
K1-02B	2/4/15	E8260	0 of 36
K1-02B	2/4/15 DUP	E8260	0 of 36
K1-02B	4/1/15	E8260	0 of 36
K1-02B	7/28/15	E8260	0 of 36
K1-02B	10/19/15	E8260	0 of 37
K1-04	3/9/15	E8260	0 of 36
K1-04	5/12/15	E8260	0 of 36
K1-04	8/17/15	E8260	0 of 36
K1-04	11/4/15	E8260	0 of 37
K1-05	2/26/15	E8260	0 of 36
K1-05	5/19/15	E8260	0 of 36
K1-05	5/19/15 DUP	E8260	0 of 36
K1-05	8/17/15	E8260	0 of 36
K1-05	11/4/15	E8260	0 of 37
K1-07	2/18/15	E8260	0 of 36
K1-07	5/14/15	E8260	0 of 36
K1-07	8/11/15	E8260	0 of 36
K1-07	10/13/15	E8260	0 of 37
K1-08	2/25/15	E8260	0 of 36
K1-08	5/12/15	E8260	0 of 36
K1-08	8/13/15	E8260	0 of 36
K1-08	8/13/15 DUP	E8260	0 of 36
K1-08	10/20/15	E8260	0 of 37

Table B-5.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
K1-09	2/25/15	E8260	0 of 36
K1-09	5/12/15	E8260	0 of 36
K1-09	8/19/15	E8260	0 of 36
K1-09	10/20/15	E8260	0 of 37
W-865-02	1/14/15	E601	0 of 18
W-865-02	7/15/15	E624MOD	0 of 18
W-865-1802	1/13/15	E601	0 of 18
W-865-1802	7/14/15	E624MOD	0 of 18
W-865-2005	2/18/15	E601	0 of 18
W-865-2005	2/18/15 DUP	E601	0 of 18
W-865-2005	7/21/15	E624MOD	0 of 18
W-865-2005	7/21/15 DUP	E624MOD	0 of 18
W-865-2121	1/15/15	E601	0 of 18
W-865-2121	7/16/15	E624MOD	0 of 18
W-865-2133	1/14/15	E601	0 of 18
W-865-2133	7/15/15	E624MOD	0 of 18
W-865-2224	5/20/15	E624MOD	0 of 18
W-865-2224	10/27/15	E624MOD	0 of 18
W-PIT1-2209	4/8/15	E624MOD	0 of 18
W-PIT1-2209	10/5/15	E624MOD	0 of 18
W-PIT1-2326	2/5/15	E8260	0 of 36
W-PIT1-2326	5/13/15	E8260	0 of 36
W-PIT1-2326	7/28/15	E8260	0 of 36
W-PIT1-2326	10/28/15	E8260	0 of 37
W-PIT1-2326	10/28/15 DUP	E8260	0 of 37
W-PIT1-2620	4/8/15	E624MOD	0 of 18
W-PIT1-2620	10/8/15	E624MOD	0 of 18
W-PIT1-3021	5/11/15	E624B	0 of 32
W-PIT1-3022	4/29/15	E624B	0 of 32

Table B-5.02. Building 850 area in Operable Unit 5 nitrate and perchlorate in ground water.

Location	Date	Nitrate as NO3 (mg/L)	Perchlorate (µg/L)
K1-01C	3/9/15	36	<4
K1-01C	4/9/15	36	<4
K1-01C	8/17/15	35	<4
K1-01C	10/29/15	36	<4
K1-02B	2/4/15	31	5.7
K1-02B	2/4/15 DUP	31	5.6
K1-02B	4/1/15	31	5.2
K1-02B	7/28/15	31	6.4
K1-02B	10/19/15	33	4.6
K1-04	3/9/15	29	<4
K1-04	5/12/15	28	<4
K1-04	8/17/15	27	<4
K1-04	11/4/15	30	<4
K1-05	2/26/15	37	<4
K1-05	5/19/15	35	<4
K1-05	5/19/15 DUP	35	<4
K1-05	8/17/15	35	<4
K1-05	11/4/15	37	<4
K1-07	2/18/15	32	<4
K1-07	5/14/15	31	<4
K1-07	8/11/15	31	<4
K1-07	10/13/15	33 H	<4
K1-08	2/25/15	34	<4
K1-08	5/12/15	32	<4
K1-08	8/13/15	32	<4
K1-08	8/13/15 DUP	32	<4
K1-08	10/20/15	34	<4
K1-09	2/25/15	35	<4
K1-09	5/12/15	33	<4
K1-09	8/19/15	34	<4
K1-09	10/20/15	36	<4
K2-03	5/11/15	11 H	<4
K2-03	10/27/15	-	<4
K2-04S	5/11/15	61	<4
K2-04S	5/11/15 DUP	60	<4
K2-04S	10/28/15	-	<4
NC2-05A	5/12/15	37	5.5
NC2-05A	5/12/15 DUP	37	5.7
NC2-05A	11/2/15	-	5.2
NC2-06	5/13/15	37	5.5 H
NC2-06	11/5/15	-	6.1
NC2-06A	5/13/15	<0.5	<4 H
NC2-06A	11/5/15	-	<4
NC2-09	5/12/15	<0.5	<4
NC2-10	5/20/15	43	<4
NC2-11D	5/11/15	31 H	4

Table B-5.02. Building 850 area in Operable Unit 5 nitrate and perchlorate in ground water.

Location	Date	Nitrate as NO3 (mg/L)	Perchlorate (µg/L)
NC2-11D	10/12/15	-	<4
NC2-11D	10/12/15 DUP	-	<4
NC2-11I	6/2/15	36	5.7
NC2-11I	11/10/15	-	5.7
NC2-11S	6/2/15	24	4.8
NC2-11S	11/10/15	-	4.7
NC2-12D	5/20/15	33	5.4
NC2-12D	5/20/15 DUP	32	4.7
NC2-12D	11/10/15	-	4.4
NC2-12I	6/2/15	37	6.5
NC2-12I	11/10/15	-	9.6
NC2-12S	6/2/15	99 D	4.7
NC2-12S	11/10/15	-	<4
NC2-13	5/18/15	33	<4
NC2-13	10/26/15	-	<4
NC2-14S	1/13/15	-	<4
NC2-14S	5/7/15	25	-
NC2-14S	7/14/15	-	<4
NC2-15	5/13/15	35	<4 H
NC2-15	5/13/15 DUP	35	<4
NC2-15	10/29/15	-	<4
NC2-16	1/13/15	-	<4
NC2-16	5/7/15	6.7	-
NC2-16	7/14/15	-	<4
NC2-17	5/13/15	32	7.8 H
NC2-18	5/26/15	37	5.9
NC2-18	10/28/15	-	7
NC2-18	10/28/15 DUP	-	6.7
NC2-19	5/18/15	73 D	<4
NC2-19	11/4/15	-	<4
NC2-20	5/21/15	-	<4
NC2-21	5/21/15	39	<4
NC7-10	1/13/15	-	12
NC7-10	1/13/15 DUP	-	13.3
NC7-10	4/23/15	51 D	-
NC7-10	7/13/15	-	16
NC7-11	4/23/15	58	15
NC7-11	10/19/15	-	16
NC7-15	4/22/15	-	<4
NC7-19	4/22/15	28	<4
NC7-19	10/14/15	-	<4
NC7-27	4/8/15	46 D	10
NC7-27	10/15/15	-	12
NC7-28	2/12/15	-	13
NC7-28	6/8/15	-	4.8
NC7-28	6/8/15 DUP	3.2	5.3

Table B-5.02. Building 850 area in Operable Unit 5 nitrate and perchlorate in ground water.

Location	Date	Nitrate as NO3 (mg/L)	Perchlorate (µg/L)
NC7-28	9/21/15	-	6.8
NC7-28	12/2/15	5.3	8.4
NC7-28	12/2/15 DUP	-	6.6 H
NC7-29	4/27/15	170 D	9.8
NC7-29	10/19/15	-	9.8
NC7-29	10/19/15 DUP	-	12
NC7-43	4/27/15	<0.5	<4
NC7-43	10/20/15	-	<4
NC7-44	4/27/15	55 D	7.4
NC7-44	4/27/15 DUP	57	8.8
NC7-44	12/3/15	-	4.8
NC7-46	4/27/15	<0.5	<4
NC7-56	4/28/15	-	7.9
NC7-56	10/21/15	-	8.9
NC7-58	4/28/15	40	6.9
NC7-58	10/21/15	-	5.3
NC7-59	4/28/15	-	6.3
NC7-59	10/21/15	-	7.2
NC7-60	1/13/15	-	<4
NC7-60	4/8/15	0.75	-
NC7-60	9/22/15	-	32 S
NC7-61	2/17/15	-	29 D
NC7-61	2/17/15 DUP	-	29 D
NC7-61	5/21/15	54	37 D
NC7-61	5/21/15 DUP	53	35 D
NC7-61	8/31/15	-	37 D
NC7-61	8/31/15 DUP	-	35 D
NC7-61	12/3/15	-	34 D
NC7-61	12/3/15 DUP	-	37 D
NC7-62	4/28/15	38	8.6
NC7-62	10/21/15	-	6.1
NC7-62	10/21/15 DUP	-	7.6
NC7-69	4/29/15	<0.5	<4
NC7-70	2/12/15	<0.5 LO	<4
NC7-70	6/10/15	9.4	DR
NC7-70	9/22/15	22	25 D
NC7-70	12/2/15	-	32 D
NC7-70	12/3/15	-	36 D
NC7-70	12/7/15	-	38 DH
NC7-70	12/14/15	-	<4
NC7-71	2/12/15	<0.5	<4
NC7-71	6/8/15	<0.5	<4
NC7-71	9/22/15	<0.5	<4
NC7-71	12/7/15	-	<4
NC7-72	4/28/15	39	7.3
NC7-72	10/21/15	-	5.5

Table B-5.02. Building 850 area in Operable Unit 5 nitrate and perchlorate in ground water.

Location	Date	Nitrate as NO3 (mg/L)	Perchlorate (µg/L)
NC7-73	4/28/15	-	8.4
NC7-73	10/21/15	-	6.5
W-850-05	4/27/15	<0.5	<4
W-850-05	12/3/15	-	<4
W-850-2145	5/26/15	32	6.4
W-850-2145	10/28/15	-	7.3
W-850-2145	10/28/15 DUP	-	6.3
W-850-2312	5/26/15	-	<4
W-850-2312	10/28/15	-	<4
W-850-2313	4/23/15	-	15
W-850-2313	10/15/15	-	16
W-850-2313	10/15/15 DUP	-	15
W-850-2314	4/8/15	<0.5	<4
W-850-2314	10/15/15	-	<4
W-850-2315	4/27/15	<1 D	<4
W-850-2315	10/19/15	-	<4
W-850-2316	5/26/15	-	<4
W-850-2316	10/28/15	-	<4
W-850-2416	2/12/15	0.75	<4
W-850-2416	6/8/15	1.2	<4
W-850-2416	9/21/15	-	<4
W-850-2416	12/2/15	-	<4
W-850-2417	2/12/15	9.8	28 D
W-850-2417	6/8/15	20	30 D
W-850-2417	9/21/15	5.8	25 D
W-850-2417	12/2/15	-	41 D
W-850-2805	5/19/15	2	<4
W-850-2805	11/4/15	-	<4
W-865-02	1/14/15	42	<4
W-865-02	7/15/15	43	-
W-865-1802	5/11/15	31 H	<4
W-865-1803	5/11/15	-	<4
W-865-1803	10/27/15	-	<4
W-865-2005	2/18/15	34	<4
W-865-2005	2/18/15 DUP	34	<4
W-865-2005	5/20/15	-	<4
W-865-2005	5/20/15 DUP	-	<4
W-865-2005	7/21/15	34	<4
W-865-2005	7/21/15 DUP	34	<4
W-865-2005	10/22/15	-	<4
W-865-2005	10/22/15 DUP	-	<4
W-865-2121	1/15/15	50 D	<4
W-865-2121	7/16/15	50 D	-
W-865-2133	1/14/15	<0.5	-
W-865-2133	3/23/15	-	<4
W-865-2133	5/20/15	-	<4

Table B-5.02. Building 850 area in Operable Unit 5 nitrate and perchlorate in ground water.

Location	Date	Nitrate as NO3 (mg/L)	Perchlorate (µg/L)
W-865-2133	7/15/15	<0.5	<4
W-865-2133	10/27/15	-	<4
W-865-2224	1/14/15	-	<4
W-865-2224	5/20/15	<0.5	<4
W-865-2224	7/15/15	-	<4 O
W-865-2224	10/27/15	<0.5	<4
W-PIT1-2209	1/26/15	-	<4
W-PIT1-2209	4/8/15	57	<4
W-PIT1-2209	7/9/15	-	<4
W-PIT1-2209	10/5/15	58	<4
W-PIT1-2225	1/20/15	-	<4
W-PIT1-2225	5/28/15	<0.5	<4
W-PIT1-2225	7/21/15	-	<4
W-PIT1-2225	11/17/15	<0.5	<4
W-PIT1-2326	2/5/15	34	6
W-PIT1-2326	5/13/15	33	6.5
W-PIT1-2326	7/28/15	33	6.1
W-PIT1-2326	10/28/15	33 H	5.9
W-PIT1-2326	10/28/15 DUP	34 H	5.9
W-PIT1-2620	2/17/15	-	5.7
W-PIT1-2620	4/8/15	45 D	5.3
W-PIT1-2620	7/28/15	-	5.6
W-PIT1-2620	10/8/15	-	5.5
W-PIT1-3021	5/11/15	-	<4
W-PIT1-3022	4/29/15	-	<4
W-PIT7-16	4/22/15	<0.5	<4
W-PIT7-16	10/14/15	-	<4
W8SPRNG	10/19/15	-	17

Table B-5.03. Building 850 area in Operable Unit 5 metals in ground water.

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)
K1-01C	3/9/15	0.012	0.026	<0.0005	<0.0005	0.0019 O	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	0.0024	<0.0005	36	0.068	<0.02
K1-01C	4/9/15	0.012	<0.025	<0.0005	<0.0005 O	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.07	<0.02
K1-01C	8/17/15	0.012	<0.025	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	0.01	0.0025	<0.0005	36	0.063	<0.02
K1-01C	10/29/15	0.013	<0.025	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002 O	-	-	<0.005	-	-	-	0.07	<0.02
K1-02B	2/4/15	0.011	0.029	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	0.0022	<0.0005	47 L	0.047	<0.02
K1-02B	2/4/15 DUP	0.012	0.027	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	0.0023	<0.0005	47 L	0.048	<0.02
K1-02B	4/1/15	0.012	0.026	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.046	<0.02
K1-02B	7/28/15	0.011	<0.025	<0.0005	<0.0005	0.0019	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	0.0026	<0.0005	47 L	0.048	<0.02
K1-02B	10/19/15	0.011	0.025	<0.0005	<0.0005 O	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.046	<0.02
K1-04	3/9/15	0.011	0.03	<0.0005	<0.0005	0.0013 O	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	0.003	<0.0005	40	0.035	<0.02
K1-04	5/12/15	0.012	0.03	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.036	<0.02
K1-04	8/17/15	0.011	0.028	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	0.003	<0.0005	40	0.032	<0.02
K1-04	11/4/15	0.012	0.029	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.035	<0.02
K1-05	2/26/15	0.014	0.041	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	0.0022	<0.0005	47 O	0.064	<0.02
K1-05	5/19/15	0.014	0.036	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.053	<0.02
K1-05	5/19/15 DUP	0.014	0.036	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.056	<0.02
K1-05	8/17/15	0.014	0.037	<0.0005	<0.0005	<0.001	<0.025	<0.01	0.056	<0.002	<0.01	<0.0002	<0.005	0.0021	<0.0005	45	0.061	<0.02
K1-05	11/4/15	0.015	0.036	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.065	<0.02
K1-07	2/18/15	0.011	0.03	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	<0.002	<0.0005	47 L	0.059	<0.02
K1-07	5/14/15	0.013	0.04	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.065	<0.02
K1-07	8/11/15	0.013	0.029	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002 L	<0.005	0.002	<0.0005	46	0.062	<0.02
K1-07	10/13/15	0.012	0.029	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.066	<0.02
K1-08	2/25/15	0.015	0.047	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	0.002	<0.0005	49 L	0.061	<0.02
K1-08	5/12/15	0.014	0.042	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.061	<0.02
K1-08	8/13/15	0.014	0.043	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05 O	<0.002	<0.01	<0.0002	<0.005	0.0022	<0.0005	44 L	0.064	<0.02
K1-08	8/13/15 DUP	0.014	0.043	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05 O	<0.002	<0.01	<0.0002	<0.005	0.0022	<0.0005	44 L	0.065	<0.02
K1-08	10/20/15	0.013	0.041	<0.0005	<0.0005 O	-	<0.025	<0.01	-	<0.002	-	-	0.016	-	-	-	0.056	<0.02
K1-09	2/25/15	0.014	0.048	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	<0.002	<0.0005	49 L	0.058	<0.02
K1-09	5/12/15	0.014	0.045	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.061	<0.02
K1-09	8/19/15	0.014	0.045	<0.0005	<0.0005	<0.001	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	<0.002 L	<0.0005	45	0.059	<0.02
K1-09	10/20/15	0.012	0.043	<0.0005	<0.0005 O	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.056	<0.02
NC7-28	2/12/15	0.019	0.15	-	<0.001	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-28	9/21/15	0.016	0.12	-	<0.001	0.0019	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-28	12/2/15	0.016	0.12	-	<0.0005	0.0022	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-44	12/3/15	0.019	0.16	-	<0.0005	0.001	-	-	-	<0.005	-	<0.0002	-	0.0054	<0.001	-	-	-
NC7-61	2/17/15	0.018	0.093	-	<0.001	0.0018	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-61	2/17/15 DUP	0.017	0.094	-	<0.001	0.0013	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-61	8/31/15	0.02	0.093	-	<0.001	<0.003	-	-	-	<0.001	-	<0.0002	-	0.0024	<0.001	-	-	-
NC7-61	8/31/15 DUP	0.02	0.093	-	<0.001	<0.003	-	-	-	<0.001	-	<0.0002	-	0.0023	<0.001	-	-	-
NC7-61	12/3/15	0.019	0.082	-	<0.0005	0.0023	-	-	-	<0.005	-	<0.0002	-	0.002	<0.001	-	-	-
NC7-61	12/3/15 DUP	0.02	0.085	-	<0.0005	0.0022	-	-	-	<0.005	-	<0.0002	-	0.0021	<0.001	-	-	-
NC7-70	2/12/15	0.019 D	0.16 D	-	<0.002 D	0.0031 D	-	-	-	<0.01 D	-	<0.0002	-	<0.004 D	<0.002 D	-	-	-
NC7-70	9/22/15	0.021	0.14	-	0.0025	0.0018	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-70	12/2/15	0.025	0.12	-	<0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-71	2/12/15	0.0062	0.058	-	0.0027	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-

Table B-5.03. Building 850 area in Operable Unit 5 metals in ground water.

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)
NC7-71	9/22/15	0.0062	0.034	-	<0.001	0.0012	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-71	12/7/15	0.0066	0.039	-	<0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-05	12/3/15	<0.002	0.077	-	<0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-2416	2/12/15	<0.002	0.036	-	<0.001	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-2416	9/21/15	<0.002	0.035	-	<0.001	0.0012	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-2416	12/2/15	0.0021	0.034	-	<0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-2417	2/12/15	0.015	0.097	-	<0.001	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-2417	9/21/15	0.03	0.2	-	<0.001	0.003	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-2417	12/2/15	0.024	0.12	-	<0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-865-02	1/14/15	0.0077	<0.025	-	<0.001	<0.002	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-865-2005	2/18/15	0.013	0.028	-	<0.001	<0.002	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-865-2005	2/18/15 DUP	0.013	0.029	-	<0.001	<0.002	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-865-2121	1/15/15	0.0073	<0.025	-	0.0014	<0.002	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-865-2133	1/14/15	0.017	<0.025	-	<0.001	<0.002	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-PIT1-2326	2/5/15	0.012	0.04	<0.0005	<0.0005	-	<0.025	<0.01 O	-	<0.002	-	-	<0.005	-	-	-	0.052	<0.02
W-PIT1-2326	5/13/15	0.012	0.037	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.05	<0.02
W-PIT1-2326	7/28/15	0.011	0.038	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.052	<0.02
W-PIT1-2326	10/28/15	0.011	0.034	<0.0005	<0.0005	-	<0.025 O	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.048	<0.02
W-PIT1-2326	10/28/15 DUP	0.011	0.034	<0.0005	<0.0005	-	<0.025 O	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.046	<0.02
W-PIT1-2620	4/8/15	0.015	0.046	-	<0.001	<0.002	-	-	-	<0.005	-	<0.0002	-	0.0029	<0.001	-	-	-
W-PIT1-3021	5/11/15	0.018	<0.025	-	<0.001	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-PIT1-3022	4/29/15	0.072	<0.025	-	<0.001	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-

Table B-5.04. Building 850 area in Operable Unit 5 polychlorinated biphenyl (PCB) compounds in ground water.

Location	Date	PCB 1016 (µg/L)	PCB 1221 (µg/L)	PCB 1232 (µg/L)	PCB 1242 (µg/L)	PCB 1248 (µg/L)	PCB 1254 (µg/L)	PCB 1260 (µg/L)
K1-01C	3/9/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-01C	8/17/15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
K1-02B	2/4/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	2/4/15 DUP	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	8/12/15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
K1-04	3/9/15	<0.56 D	<0.56 D	<0.56 D	<0.56 D	<0.56 D	<0.56 D	<0.56 D
K1-04	8/17/15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
K1-05	2/26/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-05	8/17/15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
K1-07	2/18/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-07	8/11/15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
K1-08	2/25/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-08	8/13/15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
K1-09	2/25/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-09	8/19/15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
K1-09	8/19/15 DUP	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
K2-03	8/12/15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NC7-61	5/21/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-61	5/21/15 DUP	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-70	6/10/15	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52 L
W-865-02	10/22/15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
W-865-1802	10/22/15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
W-865-2005	10/22/15	<0.24 D	<0.24 D	<0.24 D	<0.24 D	<0.24 D	<0.24 D	<0.24 D
W-865-2005	10/22/15 DUP	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
W-PIT1-2326	8/12/15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table B-5.05. Building 850 area in Operable Unit 5 total uranium and uranium isotopes in ground water.

Location	Date	Requested Analysis Code	AS	AS	AS	KPA	MS	MS	MS	MS	MS	MS	MS	MS
			Uranium 234 and 233 (in activity) (pCi/L)	Uranium 235 and 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Total Uranium (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Uranium 234 (in activity) (pCi/L)	Uranium 235 (in activity) (pCi/L)	Uranium 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Uranium 238 (in mass) (µg/L)	Uranium 235/238 (atom/atom)
K1-01C	3/9/15	AS	2.44 ± 0.336	<0.1	1.00 ± 0.158	-	-	-	-	-	-	-	-	-
K1-01C	4/9/15	AS	2.57 ± 0.516	0.112 ± 0.0857	1.15 ± 0.284	-	-	-	-	-	-	-	-	-
K1-01C	8/17/15	AS	2.30 ± 0.404 O	0.123 ± 0.0672	1.14 ± 0.234	-	-	-	-	-	-	-	-	-
K1-01C	10/29/15	AS	2.24 ± 0.394	0.158 ± 0.0770	0.981 ± 0.209 O	-	-	-	-	-	-	-	-	-
K1-02B	2/4/15	AS	2.76 ± 0.393	<0.1 O	1.55 ± 0.238	-	-	-	-	-	-	-	-	-
K1-02B	2/4/15 DUP	AS	2.73 ± 0.383	<0.1 O	1.48 ± 0.224	-	-	-	-	-	-	-	-	-
K1-02B	4/1/15	AS	2.71 ± 0.520	<0.1	1.39 ± 0.304	-	-	-	-	-	-	-	-	-
K1-02B	7/28/15	AS	3.22 ± 0.518 J	0.176 ± 0.0782 J	1.93 ± 0.339 J	-	-	-	-	-	-	-	-	-
K1-02B	10/19/15	AS	3.14 ± 0.462	0.128 ± 0.0534	1.68 ± 0.270	-	-	-	-	-	-	-	-	-
K1-04	3/9/15	AS	1.06 ± 0.165	<0.1	0.637 ± 0.111	-	-	-	-	-	-	-	-	-
K1-04	5/12/15	AS	1.20 ± 0.234	<0.1 O	0.704 ± 0.160	-	-	-	-	-	-	-	-	-
K1-04	8/17/15	AS	1.12 ± 0.232 O	<0.1	0.671 ± 0.162	-	-	-	-	-	-	-	-	-
K1-04	11/4/15	AS	1.06 ± 0.236	0.115 ± 0.0703 J	0.689 ± 0.176 O	-	-	-	-	-	-	-	-	-
K1-05	2/26/15	AS	2.56 ± 0.421	<0.1	1.27 ± 0.240	-	-	-	-	-	-	-	-	-
K1-05	5/19/15	AS	2.06 ± 0.431 O	<0.1	0.964 ± 0.249	-	-	-	-	-	-	-	-	-
K1-05	5/19/15 DUP	AS	1.87 ± 0.433 O	0.108 ± 0.0909	1.08 ± 0.293	-	-	-	-	-	-	-	-	-
K1-05	8/17/15	AS	1.81 ± 0.353 O	0.113 ± 0.0728	1.04 ± 0.234	-	-	-	-	-	-	-	-	-
K1-05	11/4/15	AS	1.80 ± 0.345	0.176 ± 0.0886 J	1.00 ± 0.224 O	-	-	-	-	-	-	-	-	-
K1-07	2/18/15	AS	2.02 ± 0.310	<0.1	0.922 ± 0.166	-	-	-	-	-	-	-	-	-
K1-07	5/14/15	AS	1.96 ± 0.423	<0.1 O	0.860 ± 0.236	-	-	-	-	-	-	-	-	-
K1-07	5/14/15	MS	-	-	-	-	3.00 ± 0.0720	2.80 ± 0.0460	2.00 ± 0.0710	0.0430 ± 0.000890	<0.00018	0.930 ± 0.0150	2.80 ± 0.0460	0.00724 ± 0.0000880
K1-07	8/11/15	AS	2.04 ± 0.303	<0.1	1.13 ± 0.186 J	-	-	-	-	-	-	-	-	-
K1-07	10/13/15	AS	1.90 ± 0.291	<0.1	0.958 ± 0.169	-	-	-	-	-	-	-	-	-
K1-08	2/25/15	AS	1.95 ± 0.345	<0.1	0.928 ± 0.197	-	-	-	-	-	-	-	-	-
K1-08	5/12/15	AS	1.88 ± 0.336	<0.1 O	0.978 ± 0.206	-	-	-	-	-	-	-	-	-
K1-08	8/13/15	AS	1.83 ± 0.280	<0.1	0.966 ± 0.167 J	-	-	-	-	-	-	-	-	-
K1-08	8/13/15 DUP	AS	1.87 ± 0.287	<0.1	0.918 ± 0.162 J	-	-	-	-	-	-	-	-	-
K1-08	10/20/15	AS	1.86 ± 0.285	<0.1	0.919 ± 0.161	-	-	-	-	-	-	-	-	-
K1-09	2/25/15	AS	2.17 ± 0.351	<0.1	1.13 ± 0.210	-	-	-	-	-	-	-	-	-
K1-09	5/12/15	AS	2.11 ± 0.384	<0.1 O	0.879 ± 0.199	-	-	-	-	-	-	-	-	-
K1-09	8/19/15	AS	2.22 ± 0.410 JO	<0.1	1.02 ± 0.228 O	-	-	-	-	-	-	-	-	-
K1-09	10/20/15	AS	2.04 ± 0.634	<0.1	1.22 ± 0.449	-	-	-	-	-	-	-	-	-
K2-03	5/11/15	AS	4.48 ± 0.706	0.107 ± 0.0658	2.86 ± 0.478	-	-	-	-	-	-	-	-	-
NC2-05A	5/12/15	AS	2.50 ± 0.436	<0.1 O	1.53 ± 0.296	-	-	-	-	-	-	-	-	-
NC2-05A	5/12/15 DUP	AS	2.63 ± 0.458	<0.1 O	1.65 ± 0.314	-	-	-	-	-	-	-	-	-
NC2-06	5/13/15	AS	1.58 ± 0.340	<0.1 O	1.18 ± 0.273	-	-	-	-	-	-	-	-	-
NC2-06A	5/13/15	MS	-	-	-	-	0.240 ± 0.0110	0.280 ± 0.00660	0.140 ± 0.0110	0.00400 ± 0.000140	<0.000075	0.0930 ± 0.00220	0.280 ± 0.00660	0.00673 ± 0.000172
NC2-09	5/12/15	AS	<0.1	<0.1 O	<0.1	-	-	-	-	-	-	-	-	-
NC2-10	5/20/15	AS	2.89 ± 0.625 O	<0.1	1.70 ± 0.417	-	-	-	-	-	-	-	-	-
NC2-11D	5/11/15	MS	-	-	-	-	4.70 ± 0.140	5.20 ± 0.120	2.90 ± 0.130	0.0810 ± 0.00330	<0.00033	1.70 ± 0.0420	5.20 ± 0.120	0.00724 ± 0.000240
NC2-11I	6/2/15	AS	2.29 ± 0.387	0.108 ± 0.0555	1.58 ± 0.284	-	-	-	-	-	-	-	-	-
NC2-11S	6/2/15	AS	1.14 ± 0.212	<0.1	0.682 ± 0.145	-	-	-	-	-	-	-	-	-
NC2-12D	5/20/15	AS	1.96 ± 0.469 O	<0.1	1.01 ± 0.293	-	-	-	-	-	-	-	-	-
NC2-12D	5/20/15 DUP	AS	2.16 ± 0.507 O	<0.1	1.15 ± 0.322	-	-	-	-	-	-	-	-	-
NC2-12I	6/2/15	AS	2.14 ± 0.333	<0.1	1.34 ± 0.226	-	-	-	-	-	-	-	-	-
NC2-12S	6/2/15	AS	3.19 ± 0.478	0.104 ± 0.0469	1.57 ± 0.259	-	-	-	-	-	-	-	-	-
NC2-13	5/18/15	AS	3.72 ± 0.574 O	0.110 ± 0.0616	2.12 ± 0.356	-	-	-	-	-	-	-	-	-
NC2-14S	5/7/15	AS	0.482 ± 0.148	<0.1 O	0.351 ± 0.122	-	-	-	-	-	-	-	-	-
NC2-15	5/13/15	AS	2.12 ± 0.400	<0.1 O	1.15 ± 0.253	-	-	-	-	-	-	-	-	-
NC2-15	5/13/15 DUP	AS	1.81 ± 0.350	0.119 ± 0.0550 JO	1.11 ± 0.230	-	-	-	-	-	-	-	-	-

Table B-5.05. Building 850 area in Operable Unit 5 total uranium and uranium isotopes in ground water.

Location	Date	Requested Analysis Code	AS	AS	AS	KPA	MS	MS	MS	MS	MS	MS	MS	MS
			Uranium 234 and 233 (in activity) (pCi/L)	Uranium 235 and 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Total Uranium (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Uranium 234 (in activity) (pCi/L)	Uranium 235 (in activity) (pCi/L)	Uranium 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Uranium 238 (in mass) (µg/L)	Uranium 235/238 (atom/atom)
NC2-17	5/13/15	AS	2.55 ± 0.477	<0.1 O	1.51 ± 0.319	-	-	-	-	-	-	-	-	-
NC2-18	5/26/15	AS	2.11 ± 0.331	0.139 ± 0.0540	1.66 ± 0.270	-	-	-	-	-	-	-	-	-
NC2-18	10/28/15	AS	1.91 ± 0.309	0.137 ± 0.0584 O	1.70 ± 0.280	-	-	-	-	-	-	-	-	-
NC2-18	10/28/15 DUP	AS	1.94 ± 0.308	0.114 ± 0.0519 O	1.53 ± 0.255	-	-	-	-	-	-	-	-	-
NC2-20	5/21/15	AS	2.51 ± 0.553 O	<0.1	1.55 ± 0.385	-	-	-	-	-	-	-	-	-
NC7-10	4/23/15	MS	-	-	-	-	2.70 ± 0.0970	3.20 ± 0.0690	1.60 ± 0.0940	0.0470 ± 0.00160	<0.007	1.10 ± 0.0230	3.20 ± 0.0690	0.00681 ± 0.000172
NC7-11	4/23/15	AS	1.59 ± 0.245	<0.1	1.15 ± 0.189	-	-	-	-	-	-	-	-	-
NC7-15	4/22/15	AS	0.997 ± 0.212	<0.1	0.916 ± 0.199	-	-	-	-	-	-	-	-	-
NC7-27	4/8/15	AS	1.67 ± 0.261	<0.1	1.38 ± 0.223	-	-	-	-	-	-	-	-	-
NC7-28	2/12/15	KPA	-	-	-	14.2 ± 1.55 D	-	-	-	-	-	-	-	-
NC7-28	6/8/15	MS	-	-	-	-	7.10 ± 0.240	15.0 ± 0.340	2.00 ± 0.210	0.0870 ± 0.00300	0.0270 ± 0.000350	5.00 ± 0.110	15.0 ± 0.340	0.00274 ± 0.0000710
NC7-28	9/21/15	KPA	-	-	-	10.1 ± 1.07 D	-	-	-	-	-	-	-	-
NC7-28	12/2/15	MS	-	-	-	-	5.00 ± 0.0900	11.0 ± 0.110	1.40 ± 0.0820	0.0610 ± 0.00160	0.0190 ± 0.0000280	3.50 ± 0.0390	11.0 ± 0.110	0.00269 ± 0.0000620
NC7-29	4/27/15	AS	9.63 ± 1.29	0.368 ± 0.0964 B	8.19 ± 1.10	-	-	-	-	-	-	-	-	-
NC7-29	10/19/15	MS	-	-	-	-	17.0 ± 0.240	23.0 ± 0.180	9.20 ± 0.230	0.350 ± 0.00440	<0.0014	7.50 ± 0.0600	22.0 ± 0.180	0.00723 ± 0.0000700
NC7-43	4/27/15	AS	0.175 ± 0.0620	<0.1	0.227 ± 0.0671	-	-	-	-	-	-	-	-	-
NC7-44	4/27/15	AS	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-
NC7-44	4/27/15 DUP	AS	1.44 ± 0.290	<0.1	0.760 ± 0.180	-	-	-	-	-	-	-	-	-
NC7-46	4/27/15	AS	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-
NC7-56	4/28/15	AS	2.03 ± 0.313	0.108 ± 0.0480 B	1.56 ± 0.251	-	-	-	-	-	-	-	-	-
NC7-59	4/28/15	AS	1.62 ± 0.248	<0.1	1.45 ± 0.226	-	-	-	-	-	-	-	-	-
NC7-61	2/17/15	KPA	-	-	-	4.04 ± 0.368	-	-	-	-	-	-	-	-
NC7-61	2/17/15 DUP	KPA	-	-	-	4.00 ± 0.365	-	-	-	-	-	-	-	-
NC7-61	5/21/15	MS	-	-	-	-	4.50 ± 0.180	7.10 ± 0.140	2.00 ± 0.170	0.0640 ± 0.00170	0.00890 ± 0.0000650	2.40 ± 0.0470	7.00 ± 0.140	0.00418 ± 0.0000780
NC7-61	5/21/15 DUP	MS	-	-	-	-	4.50 ± 0.140	7.00 ± 0.170	2.10 ± 0.130	0.0640 ± 0.00190	0.00910 ± 0.0000360	2.40 ± 0.0570	7.00 ± 0.170	0.00419 ± 0.0000760
NC7-61	8/31/15	KPA	-	-	-	7.12 ± 0.758 D	-	-	-	-	-	-	-	-
NC7-61	8/31/15 DUP	KPA	-	-	-	6.68 ± 0.712 D	-	-	-	-	-	-	-	-
NC7-69	4/29/15	AS	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-
NC7-70	2/12/15	KPA	-	-	-	1.65 ± 0.150	-	-	-	-	-	-	-	-
NC7-70	6/10/15	MS	-	-	-	-	6.00 ± 0.250	17.0 ± 0.730	<2.6	0.0980 ± 0.00600	0.0340 ± 0.000600	5.80 ± 0.250	17.0 ± 0.730	0.00260 ± 0.000117
NC7-70	6/10/15 REA	MS	-	-	-	-	8.40 ± 0.0950	18.0 ± 0.0620	2.10 ± 0.0930	0.100 ± 0.000950	0.0350 ± 0.0000970	6.10 ± 0.0210	18.0 ± 0.0620	0.00259 ± 0.0000220
NC7-70	9/22/15	KPA	-	-	-	15.4 ± 1.63 D	-	-	-	-	-	-	-	-
NC7-70	12/2/15	MS	-	-	-	-	6.70 ± 0.130	14.0 ± 0.110	1.90 ± 0.130	0.0790 ± 0.00120	0.0270 ± 0.0000360	4.80 ± 0.0380	14.0 ± 0.110	0.00259 ± 0.0000340
NC7-71	2/12/15	KPA	-	-	-	<0.1	-	-	-	-	-	-	-	-
NC7-71	6/8/15	MS	-	-	-	-	<0.0627	0.0430 ± 0.00160	<0.055	<0.00073	<0.00022	0.0140 ± 0.000520	0.0430 ± 0.00160	<0.007935
NC7-71	9/22/15	KPA	-	-	-	<0.1	-	-	-	-	-	-	-	-
NC7-71	12/7/15	MS	-	-	-	-	<0.0627	0.0340 ± 0.000220	<0.062	0.000490 ± 0.0000110	<0.0000047	0.0110 ± 0.0000540	0.0340 ± 0.000160	0.00669 ± 0.000148
NC7-73	4/28/15	AS	2.47 ± 0.363	<0.1	1.91 ± 0.291	-	-	-	-	-	-	-	-	-
W-850-05	4/27/15	AS	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-
W-850-05	12/3/15	MS	-	-	-	-	0.0890 ± 0.00480	0.120 ± 0.000420	<0.062	0.00120 ± 0.0000130	<0.007	0.0400 ± 0.000140	0.120 ± 0.000420	0.00465 ± 0.0000490
W-850-2313	4/23/15	AS	2.58 ± 0.379	0.119 ± 0.0489 B	2.13 ± 0.321	-	-	-	-	-	-	-	-	-
W-850-2313	4/23/15	MS	-	-	-	-	4.80 ± 0.0980	6.20 ± 0.0240	2.60 ± 0.0970	0.0960 ± 0.000640	<0.0004	2.10 ± 0.00800	6.20 ± 0.0240	0.00726 ± 0.0000390
W-850-2314	4/8/15	AS	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-
W-850-2315	4/27/15	AS	9.46 ± 1.41	0.376 ± 0.125 B	7.37 ± 1.12	-	-	-	-	-	-	-	-	-
W-850-2315	10/19/15	MS	-	-	-	-	23.0 ± 0.540	29.0 ± 0.490	13.0 ± 0.520	0.450 ± 0.0110	<0.0019	9.80 ± 0.160	29.0 ± 0.490	0.00722 ± 0.000119
W-850-2316	5/26/15	AS	6.51 ± 0.931	0.248 ± 0.0778	5.17 ± 0.750	-	-	-	-	-	-	-	-	-
W-850-2416	2/12/15	KPA	-	-	-	<0.1	-	-	-	-	-	-	-	-
W-850-2416	6/8/15	MS	-	-	-	-	<0.0627	0.0570 ± 0.00160	<0.059	0.000800 ± 0.0000390	<0.00005	0.0190 ± 0.000530	0.0570 ± 0.00160	0.00651 ± 0.000262
W-850-2416	9/21/15	KPA	-	-	-	<0.1	-	-	-	-	-	-	-	-
W-850-2416	12/2/15	MS	-	-	-	-	<0.0627	0.0400 ± 0.000280	<0.062	0.000580 ± 0.0000130	<0.000012	0.0130 ± 0.0000800	0.0400 ± 0.000240	0.00668 ± 0.000148
W-850-2417	2/12/15	KPA	-	-	-	14.9 ± 1.62 D	-	-	-	-	-	-	-	-

Table B-5.05. Building 850 area in Operable Unit 5 total uranium and uranium isotopes in ground water.

Location	Date	Requested Analysis Code	AS	AS	AS	KPA	MS	MS	MS	MS	MS	MS	MS	MS
			Uranium 234 and 233 (in activity) (pCi/L)	Uranium 235 and 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Total Uranium (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Uranium 234 (in activity) (pCi/L)	Uranium 235 (in activity) (pCi/L)	Uranium 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Uranium 238 (in mass) (µg/L)	Uranium 235/238 (atom/atom)
W-850-2417	2/12/15	MS	-	-	-	-	14.0 ± 0.190	29.0 ± 0.130	3.80 ± 0.180	0.170 ± 0.000910	0.0560 ± 0.0000590	9.90 ± 0.0440	29.0 ± 0.130	0.00268 ± 0.00000800
W-850-2417	9/21/15	KPA	-	-	-	14.9 ± 1.58 D	-	-	-	-	-	-	-	-
W-850-2417	9/21/15	MS	-	-	-	-	7.80 ± 0.0750	16.0 ± 0.0690	2.30 ± 0.0710	0.0930 ± 0.00130	0.0300 ± 0.0000470	5.30 ± 0.0230	16.0 ± 0.0690	0.00272 ± 0.0000360
W-850-2805	5/19/15	AS	<0.1 O	<0.1	<0.1	-	-	-	-	-	-	-	-	-
W-865-1802	5/11/15	AS	1.50 ± 0.321	<0.1	0.597 ± 0.172	-	-	-	-	-	-	-	-	-
W-865-2133	1/14/15	AS	1.96 ± 0.294	<0.1	1.30 ± 0.208	-	-	-	-	-	-	-	-	-
W-865-2133	7/15/15	AS	1.93 ± 0.358	0.124 ± 0.0700	1.26 ± 0.259	-	-	-	-	-	-	-	-	-
W-865-2224	5/20/15	AS	0.274 ± 0.116 O	<0.1	<0.1	-	-	-	-	-	-	-	-	-
W-865-2224	10/27/15	AS	0.271 ± 0.0818 O	<0.1	0.122 ± 0.0552	-	-	-	-	-	-	-	-	-
W-PIT1-2209	4/8/15	AS	1.99 ± 0.328	<0.1	0.998 ± 0.188	-	-	-	-	-	-	-	-	-
W-PIT1-2209	10/5/15	AS	2.21 ± 0.331	<0.1	1.07 ± 0.184	-	-	-	-	-	-	-	-	-
W-PIT1-2225	5/28/15	AS	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-
W-PIT1-2225	11/17/15	AS	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-
W-PIT1-2326	2/5/15	AS	2.49 ± 0.370	0.131 ± 0.0518	1.46 ± 0.236	-	-	-	-	-	-	-	-	-
W-PIT1-2326	5/13/15	AS	2.32 ± 0.385	<0.1 O	1.17 ± 0.224	-	-	-	-	-	-	-	-	-
W-PIT1-2326	7/28/15	AS	2.41 ± 0.423 J	0.159 ± 0.0770 J	1.24 ± 0.251 J	-	-	-	-	-	-	-	-	-
W-PIT1-2326	10/28/15	AS	2.53 ± 0.369	<0.1 O	1.26 ± 0.206	-	-	-	-	-	-	-	-	-
W-PIT1-2326	10/28/15 DUP	AS	2.40 ± 0.359	0.101 ± 0.0478 O	1.27 ± 0.212	-	-	-	-	-	-	-	-	-
W-PIT1-3021	5/11/15	KPA	-	-	-	0.749 ± 0.0654	-	-	-	-	-	-	-	-
W-PIT1-3021	5/11/15	MS	-	-	-	-	0.550 ± 0.0180	0.570 ± 0.0180	0.350 ± 0.0170	0.00880 ± 0.000340	<0.000037	0.190 ± 0.00610	0.570 ± 0.0180	0.00720 ± 0.000160
W-PIT1-3022	4/29/15	KPA	-	-	-	5.26 ± 0.562 DOI	-	-	-	-	-	-	-	-
W-PIT1-3022	4/29/15	MS	-	-	-	-	60.0 ± 1.20 S	80.0 ± 1.20 S	32.0 ± 1.10 S	1.30 ± 0.0330 S	<0.0052 S	27.0 ± 0.410 S	80.0 ± 1.20 S	0.00728 ± 0.000154 S
W-PIT1-3022	4/29/15 REA	MS	-	-	-	-	5.70 ± 0.0770	7.00 ± 0.0740	3.30 ± 0.0730	0.110 ± 0.00170	<0.00045	2.30 ± 0.0250	7.00 ± 0.0740	0.00718 ± 0.0000880
W-PIT7-16	4/22/15	AS	0.115 ± 0.0881	<0.1	<0.1	-	-	-	-	-	-	-	-	-

Table B-5.06. Building 850 area in Operable Unit 5 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
K1-01C	3/9/15	687 ± 180
K1-01C	4/9/15	766 ± 189
K1-01C	8/17/15	740 ± 185 O
K1-01C	10/29/15	918 ± 219
K1-02B	2/4/15	3530 ± 712
K1-02B	2/4/15 DUP	3250 ± 664
K1-02B	4/1/15	3360 ± 670
K1-02B	7/28/15	3250 ± 663
K1-02B	10/19/15	3300 ± 675
K1-04	3/9/15	258 ± 112
K1-04	5/12/15	488 ± 142
K1-04	8/17/15	411 ± 127 O
K1-04	11/4/15	538 ± 149
K1-05	2/26/15	274 ± 95.6
K1-05	5/19/15	221 ± 92.1
K1-05	5/19/15 DUP	298 ± 105
K1-05	8/17/15	220 ± 94.4 O
K1-05	11/4/15	293 ± 106
K1-07	2/18/15	<100
K1-07	5/14/15	<100
K1-07	8/11/15	<100
K1-07	10/13/15	<100
K1-08	2/25/15	196 ± 83.1
K1-08	5/12/15	225 ± 89.1
K1-08	8/13/15	158 ± 64.7
K1-08	8/13/15 DUP	139 ± 62.3
K1-08	10/20/15	235 ± 95.6
K1-09	2/25/15	257 ± 95.8
K1-09	5/12/15	235 ± 91.5
K1-09	8/19/15	217 ± 93.4 O
K1-09	10/20/15	254 ± 98.6
K2-03	5/11/15	126 ± 84.2
K2-03	10/27/15	<100
K2-04S	5/11/15	3270 ± 668
K2-04S	5/11/15 DUP	3370 ± 686
K2-04S	10/28/15	3240 ± 658
NC2-05A	5/12/15	2620 ± 542
NC2-05A	5/12/15 DUP	2740 ± 566
NC2-05A	11/2/15	3200 ± 657
NC2-06	5/13/15	4570 ± 917
NC2-06	11/5/15	5000 ± 998
NC2-06A	5/13/15	<100
NC2-06A	11/5/15	<100
NC2-09	5/12/15	<100
NC2-09	11/2/15	<100
NC2-10	5/20/15	435 ± 124

Table B-5.06. Building 850 area in Operable Unit 5 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
NC2-10	11/5/15	651 ± 162
NC2-11D	5/11/15	2520 ± 523
NC2-11D	10/12/15	2310 ± 480
NC2-11D	10/12/15 DUP	2430 ± 503
NC2-11I	6/2/15	3600 ± 729
NC2-11I	11/10/15	4070 ± 819
NC2-11S	6/2/15	3480 ± 708
NC2-11S	11/10/15	3840 ± 774
NC2-12D	5/20/15	4420 ± 886
NC2-12D	5/20/15 DUP	4640 ± 928
NC2-12D	11/10/15	4740 ± 949
NC2-12I	6/2/15	4690 ± 941
NC2-12I	11/10/15	4950 ± 988
NC2-12S	6/2/15	2480 ± 513
NC2-12S	11/10/15	2670 ± 549
NC2-13	5/18/15	559 ± 146
NC2-13	10/26/15	687 ± 180
NC2-14S	5/7/15	764 ± 188
NC2-14S	10/20/15	738 ± 185
NC2-15	5/13/15	2780 ± 575
NC2-15	5/13/15 DUP	3610 ± 560 L
NC2-15	10/29/15	3140 ± 644
NC2-16	5/7/15	586 ± 153
NC2-16	10/20/15	459 ± 133
NC2-17	5/13/15	7460 ± 1480
NC2-18	5/26/15	6610 ± 1310
NC2-18	10/28/15	6620 ± 1310
NC2-18	10/28/15 DUP	6450 ± 1280
NC2-19	5/18/15	<100
NC2-19	11/4/15	<100
NC2-20	5/21/15	<100
NC2-21	5/21/15	<100
NC7-10	4/23/15	10100 ± 1990
NC7-10	10/19/15	9990 ± 1970
NC7-11	4/23/15	8420 ± 1660
NC7-11	10/19/15	10700 ± 2090
NC7-15	4/22/15	715 ± 175
NC7-15	10/14/15	672 ± 169
NC7-19	4/22/15	1910 ± 403
NC7-19	10/14/15	1570 ± 337
NC7-27	4/8/15	6670 ± 1410
NC7-27	10/15/15	6020 ± 1190
NC7-28	6/8/15	17000 ± 3310
NC7-28	12/2/15	17900 ± 3500
NC7-29	4/27/15	<100
NC7-29	10/19/15	111 ± 75.0

Table B-5.06. Building 850 area in Operable Unit 5 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
NC7-29	10/19/15 DUP	<100
NC7-43	4/27/15	7250 ± 1430
NC7-43	10/20/15	6760 ± 1330
NC7-44	4/27/15	<100
NC7-44	4/27/15 DUP	<100
NC7-44	12/3/15	<100
NC7-46	4/27/15	<100
NC7-56	4/28/15	6080 ± 1210
NC7-56	10/21/15	6680 ± 1330
NC7-58	4/28/15	4400 ± 885
NC7-58	10/21/15	4870 ± 975
NC7-59	4/28/15	5650 ± 1130
NC7-59	10/21/15	6780 ± 1340
NC7-60	4/8/15	994 ± 215
NC7-60	10/15/15	1040 ± 237
NC7-61	5/21/15	16300 ± 3190
NC7-61	5/21/15 DUP	17200 ± 3370
NC7-61	12/3/15	16700 ± 3250
NC7-61	12/3/15 DUP	16400 ± 3210
NC7-62	4/28/15	5550 ± 1110
NC7-62	10/21/15	6240 ± 1240
NC7-62	10/21/15 DUP	6460 ± 990
NC7-69	4/29/15	<100
NC7-70	6/10/15	18700 ± 3650
NC7-70	12/2/15	17000 ± 3310
NC7-71	6/8/15	3410 ± 690
NC7-71	12/7/15	3600 ± 729
NC7-72	4/28/15	5960 ± 1190
NC7-72	10/21/15	5710 ± 1140
NC7-73	4/28/15	6370 ± 1270
NC7-73	10/21/15	7090 ± 1400
W-850-05	4/27/15	16200 ± 3170
W-850-05	12/3/15	16700 ± 3260
W-850-2145	5/26/15	7500 ± 1480
W-850-2145	10/28/15	7510 ± 1480
W-850-2145	10/28/15 DUP	8400 ± 1300
W-850-2312	5/26/15	396 ± 118
W-850-2312	10/28/15	293 ± 101
W-850-2313	4/23/15	12500 ± 2450
W-850-2313	10/15/15	12300 ± 2400
W-850-2313	10/15/15 DUP	13700 ± 2100
W-850-2314	4/8/15	1270 ± 267
W-850-2314	10/15/15	1160 ± 260
W-850-2315	4/27/15	<100
W-850-2315	10/19/15	<100
W-850-2316	5/26/15	8040 ± 1590

Table B-5.06. Building 850 area in Operable Unit 5 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
W-850-2316	10/28/15	8210 ± 1620
W-850-2416	6/8/15	<100
W-850-2416	12/2/15	<100
W-850-2417	6/8/15	18500 ± 3610
W-850-2417	12/2/15	16800 ± 3280
W-850-2805	5/19/15	316 ± 105
W-850-2805	11/4/15	395 ± 124
W-865-02	1/14/15	<100
W-865-02	7/15/15	<100
W-865-1802	5/11/15	473 ± 133
W-865-1802	10/22/15	624 ± 149
W-865-1803	5/11/15	2180 ± 457
W-865-1803	10/27/15	2080 ± 437
W-865-2005	2/18/15	101 ± 67.9
W-865-2005	2/18/15 DUP	<100
W-865-2005	5/20/15	171 ± 83.4
W-865-2005	5/20/15 DUP	<100
W-865-2005	7/21/15	<100
W-865-2005	7/21/15 DUP	<100
W-865-2005	10/22/15	<100
W-865-2005	10/22/15 DUP	<100
W-865-2121	5/26/15	<100
W-865-2121	11/4/15	308 ± 111
W-865-2133	1/14/15	<100
W-865-2133	5/20/15	<100
W-865-2133	7/15/15	<100
W-865-2133	10/27/15	<100
W-865-2224	1/14/15	<100
W-865-2224	5/20/15	<100
W-865-2224	7/15/15	<100
W-865-2224	10/27/15	<100
W-PIT1-2209	1/26/15	<100
W-PIT1-2209	4/8/15	<100
W-PIT1-2209	7/9/15	100 ± 74.4
W-PIT1-2209	10/5/15	<100
W-PIT1-2225	1/20/15	<100
W-PIT1-2225	5/28/15	<100
W-PIT1-2225	7/21/15	<100
W-PIT1-2225	11/17/15	<100
W-PIT1-2326	2/5/15	2570 ± 531
W-PIT1-2326	5/13/15	2520 ± 522
W-PIT1-2326	7/28/15	2480 ± 514
W-PIT1-2326	10/28/15	2260 ± 469
W-PIT1-2326	10/28/15 DUP	2360 ± 490
W-PIT1-2620	2/17/15	2080 ± 438
W-PIT1-2620	4/8/15	2140 ± 434

Table B-5.06. Building 850 area in Operable Unit 5 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
W-PIT1-2620	7/28/15	2000 ± 422
W-PIT1-2620	10/8/15	1960 ± 410
W-PIT1-3021	5/11/15	205 ± 83.5
W-PIT1-3022	4/29/15	852 ± 204
W-PIT7-16	4/22/15	<100
W-PIT7-16	10/14/15	<100
W8SPRNG	10/19/15	13800 ± 2690

Table B-5.07. Building 850 area in Operable Unit 5 high explosive compounds in ground water water.

Location	Date	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-Dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-Dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
K1-01C	3/9/15	-	-	<5	<5	-	-	-	-	-	<0.89 O	<5	<0.89 O	-
K1-01C	4/9/15	-	-	-	-	-	-	-	-	-	<0.87	-	<0.87	-
K1-01C	8/17/15	-	-	<1	<1	-	-	-	-	-	<1	-	<1	-
K1-01C	10/29/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
K1-02B	2/4/15	-	-	<5.6 D	<5.6 D	-	-	-	-	-	<0.87	<5.6 D	<0.87	-
K1-02B	2/4/15 DUP	-	-	<5	<5	-	-	-	-	-	<1	<5	<1	-
K1-02B	4/1/15	-	-	-	-	-	-	-	-	-	<1	-	<1 O	-
K1-02B	7/28/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
K1-02B	8/12/15	-	-	<1	<1	-	-	-	-	-	-	-	-	-
K1-02B	10/19/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
K1-04	3/9/15	-	-	<5	<5	-	-	-	-	-	<1 O	<5	<1 O	-
K1-04	5/12/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
K1-04	8/17/15	-	-	<1	<1	-	-	-	-	-	<0.77	-	<0.77	-
K1-04	11/4/15	-	-	-	-	-	-	-	-	-	<1 O	-	<1 O	-
K1-05	2/26/15	-	-	<5 D	<5 D	-	-	-	-	-	<1	<5 D	<1	-
K1-05	5/19/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
K1-05	5/19/15 DUP	-	-	-	-	-	-	-	-	-	<1	-	<1	-
K1-05	8/17/15	-	-	<1	<1	-	-	-	-	-	<1	-	<1	-
K1-05	11/4/15	-	-	-	-	-	-	-	-	-	<0.83 O	-	<0.83 O	-
K1-07	2/18/15	-	-	<5 L	<5	-	-	-	-	-	<1	<5	<1	-
K1-07	5/14/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
K1-07	8/11/15	-	-	<1	<1	-	-	-	-	-	<0.71	-	<0.71	-
K1-07	10/13/15	-	-	-	-	-	-	-	-	-	<1 O	-	<1 O	-
K1-08	2/25/15	-	-	<5 L	<5	-	-	-	-	-	<1	<5	<1	-
K1-08	5/12/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
K1-08	8/13/15	-	-	<1	<1	-	-	-	-	-	<0.85	-	<0.85	-
K1-08	8/13/15 DUP	-	-	-	-	-	-	-	-	-	<1	-	<1	-
K1-08	10/20/15	-	-	-	-	-	-	-	-	-	<0.8	-	<0.8	-
K1-09	2/25/15	-	-	<5 DL	<5 D	-	-	-	-	-	<1	<5 D	<1	-
K1-09	5/12/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
K1-09	8/19/15	-	-	<1	<1	-	-	-	-	-	<0.67	-	<0.67	-
K1-09	8/19/15 DUP	-	-	<1	<1	-	-	-	-	-	-	-	-	-
K1-09	10/20/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
K2-03	8/12/15	-	-	<1	<1	-	-	-	-	-	-	-	-	-
NC7-10	4/23/15	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	3.1	<2.3	2.9	<2.3
NC7-10	10/19/15	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1 L	<2.1	<2.1	<2.1 L	3.3	<2.1	3.1	<2.1
NC7-11	10/19/15	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1 L	<2.1	<2.1	<2.1 L	2.9	<2.1	2.8	<2.1
NC7-15	4/22/15	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
NC7-15	10/14/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 LO	<2	<1	<2
NC7-19	4/22/15	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.1	<2.3	<1.1	<2.3
NC7-19	10/14/15	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1 LO	<2.1	<1.1	<2.1
NC7-27	4/8/15	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<1.2	<2.4	<1.2	<2.4
NC7-27	10/15/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-28	6/8/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	5.7	<2	<1	<2

Table B-5.07. Building 850 area in Operable Unit 5 high explosive compounds in ground water water.

Location	Date	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-Dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-Dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
NC7-28	12/2/15	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	6	<2	<1	<2
NC7-43	4/27/15	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.1	<2.3	<1.1	<2.3
NC7-43	10/20/15	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1 L	<2.1	<2.1	<2.1 L	<1	<2.1	<1	<2.1
NC7-44	4/27/15	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
NC7-44	4/27/15 DUP	<2	<2 O	<2	<2	<2 O	<2	<2	<2	<2	<1	<2	<1 O	<2 O
NC7-44	12/3/15	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<1.1	<2.1	<1.1	<2.1
NC7-56	4/28/15	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
NC7-56	10/21/15	<2	<2	<2	<2	<2	<2 L	<2	<2	<2 L	<1	<2	<1	<2
NC7-60	4/8/15	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.2	<2.3	<1.2	<2.3
NC7-60	10/15/15	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<1.2	<2.4	<1.2	<2.4
NC7-61	5/21/15	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	5	<1.8	4.7	<1.8
NC7-61	5/21/15 DUP	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	4.7	<1.7	3.4	<1.7
NC7-61	12/3/15	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	7.2	<2	3.4	<2
NC7-61	12/3/15 DUP	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	4.6	<2	4.5	<2
NC7-69	4/29/15	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.1	<2.3	<1.1	<2.3
NC7-70	6/10/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	6.5	<2	3.5	<2
NC7-70	12/2/15	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	6.9	<2	4.2	<2
NC7-71	6/8/15	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.1	<2.3	<1.1	<2.3
NC7-71	12/7/15	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	<1	<2	<1	<2
NC7-72	4/28/15	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.1	<2.3	<1.1	<2.3
NC7-72	10/21/15	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1 L	<2.1	<2.1	<2.1 L	<1.1	<2.1	<1.1	<2.1
NC7-73	4/28/15	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.1	<2.3	<1.1	<2.3
NC7-73	10/21/15	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1 L	<2.1	<2.1	<2.1 L	<1.1	<2.1	<1.1	<2.1
W-850-05	4/27/15	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
W-850-05	12/3/15	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	<1	<2	<1	<2
W-850-2313	4/23/15	<1.8	<1.8 O	<1.8	<1.8	<1.8 O	<1.8	<1.8	<1.8	<1.8	<0.9	<1.8	<0.9 O	<1.8 O
W-850-2313	10/15/15	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	<1	<2	<1	<2
W-850-2313	10/15/15 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-850-2314	4/8/15	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<0.68	<1.4	<0.68	<1.4
W-850-2314	10/15/15	<1.7	<1.7	<1.7	<1.8	<1.7	<2.3	<1.7	<1.7	<2.2	<0.87	<1.7	<0.87	<1.7
W-850-2416	6/8/15	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<0.75	<1.5	<0.75	<1.5
W-850-2416	12/2/15	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	<1	<2	<1	<2
W-850-2417	6/8/15	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	5.5	<1.5	3.7	<1.5
W-850-2417	12/2/15	<2	<2	<2	<2.1	<2	<2.6	<2	<2	<2.5	8.2	<2	3.9	<2
W-865-02	10/22/15	-	-	<1	<1	-	-	-	-	-	-	-	-	-
W-865-1802	10/22/15	-	-	<1	<1	-	-	-	-	-	-	-	-	-
W-865-2005	10/22/15	-	-	<1	<1	-	-	-	-	-	-	-	-	-
W-865-2005	10/22/15 DUP	-	-	<1	<1	-	-	-	-	-	-	-	-	-
W-PIT1-2326	2/5/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
W-PIT1-2326	5/13/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
W-PIT1-2326	7/28/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
W-PIT1-2326	8/12/15	-	-	<1	<1	-	-	-	-	-	-	-	-	-
W-PIT1-2326	10/28/15	-	-	-	-	-	-	-	-	-	<1	-	<1	-
W-PIT1-2326	10/28/15 DUP	-	-	-	-	-	-	-	-	-	<1	-	<1	-

Table B-5.07. Building 850 area in Operable Unit 5 high explosive compounds in ground water water.

Location	Date	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-Dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-Dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
W-PIT1-3021	5/11/15	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<0.67	<1.3	<0.67	<1.3
W-PIT1-3022	4/29/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-PIT7-16	4/22/15	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<1.2	<2.4	<1.2	<2.4
W-PIT7-16	10/14/15	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.1 LO	<2.3	<1.1	<2.3
W8SPRNG	10/19/15	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2 L	<2.2	<2.2	<2.2 L	2.7	<2.2	2.7	<2.2

Table B-5.08. Building 850 area in Operable Unit 5 general minerals in ground water.

Constituents of concern	NC7-28 2/12/15	NC7-28 6/8/15	NC7-28 9/21/15	NC7-28 12/2/15	NC7-44 12/3/15	NC7-61 2/17/15	NC7-61 2/17/15 DUP	NC7-61 5/21/15	NC7-61 5/21/15 DUP	NC7-61 8/31/15	NC7-61 8/31/15 DUP	NC7-61 12/3/15	NC7-61 12/3/15 DUP	NC7-70 2/12/15	NC7-70 6/10/15	NC7-70 6/10/15 REA	NC7-70 9/22/15	NC7-70 12/2/15	NC7-71 2/12/15	NC7-71 6/8/15	NC7-71 9/22/15	NC7-71 12/7/15
Total Alkalinity (as CaCO3) (mg/L)	220	-	210	200	160	200	200	-	-	200	210	200	200	600	-	-	230	200	160	-	170	170
Aluminum (mg/L)	<0.2	-	<0.05	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.05	<0.2	<0.2	-	<0.05	<0.2
Bicarbonate Alk (as CaCO3) (mg/L)	220	-	210	200	160	200	200	-	-	200	210	200	200	600 D	-	-	230	200	160	-	170	170
Calcium (mg/L)	51 L	-	46 L	43	64	57 L	57 L	-	-	50	50 L	50	51	120 L	-	-	55	47	52 L	-	52	51 L
Carbonate Alk (as CaCO3) (mg/L)	<4.1	-	<4.1	<4.1	<4.1	<4.1	<4.1	-	-	<4.1	<4.1	<4.1	<4.1	<8.2 D	-	-	<4.1	<4.1	<4.1	-	<4.1	<4.1
Chloride (mg/L)	53	-	49	50	130	54	54	-	-	53	53	54	54	59	-	-	51	49	52	-	51	52
Copper (mg/L)	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05
Fluoride (mg/L)	0.6	-	0.6	0.71	0.37	0.42	0.41	-	-	0.38	0.38	0.34	0.33	0.44	-	-	0.64	0.6	0.44	-	0.49	0.44
Hydroxide Alk (as CaCO3) (mg/L)	<4.1	-	<4.1	<4.1	<4.1	<4.1	<4.1	-	-	<4.1	<4.1	<4.1	<4.1	<8.2 D	-	-	<4.1	<4.1	<4.1	-	<4.1	<4.1
Iron (mg/L)	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	1.3	-	-	<0.1	<0.1	<0.1	-	<0.1	<0.1
Magnesium (mg/L)	27	-	24	21	28	28	28	-	-	24	24	25	24	66	-	-	28	21	24	-	23	22
Manganese (mg/L)	0.86	-	0.034	0.069	<0.03	<0.01	<0.01	-	-	<0.03	<0.03	<0.03	<0.03	0.81	-	-	0.52	0.082	0.032	-	<0.03	<0.03
Nickel (mg/L)	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	-	<0.1	<0.1
Nitrate (as N) (mg/L)	3	-	0.91	1.2	14	8.9	9.4	-	-	12	12	12	12	<0.5	-	-	5.3	5.8	<0.5	-	<0.5	<0.5
Nitrate (as NO3) (mg/L)	13	-	4	5.3	62 H	40	42	-	-	51	51	51 H	52 H	<0.5	-	-	23	26	<0.5	-	<0.5	0.54
Nitrite (as N) (mg/L)	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	-	<0.5	<0.5
pH (Units)	7.56 H	-	7.52 H	7.69 H	8.14 H	7.73	7.74	-	-	7.93	7.99	7.96 H	7.73 H	7.67 H	-	-	7.64 H	7.85 H	8.13 H	-	7.91 H	7.96 H
Ortho-Phosphate (mg/L)	<1	-	0.3	0.25	0.25	<1	<1	-	-	0.21 J	0.2 J	0.21	0.2	<1	-	-	<0.05	0.1	<1	-	0.22	0.22
Total Phosphorus (as PO4) (mg/L)	0.27 H	-	0.3 H	0.43	0.28 H	0.23 H	0.23 H	-	-	0.18 H	0.18 H	0.26 H	0.24 H	0.66 H	-	-	0.24	0.21	0.24 H	-	0.23	0.22
Potassium (mg/L)	3.7	-	3.3	3	3	4.1	4	-	-	3.5	3.5	3.7	3.6	7	-	-	4.1	3.4	5.2	-	4.7	4.5
Sodium (mg/L)	60 L	-	57 L	52	75	69 L	68 L	-	-	63	63 L	63	65	79 L	-	-	60	52	48 L	-	48	47 L
Total dissolved solids (TDS) (mg/L)	440 DH	-	450 DH	410 D	550 DH	480 DH	470 DH	-	-	510 DH	520 DH	500 DH	500 DH	780 DH	-	-	450 D	420 D	420 DH	-	430 D	440 DH
Specific Conductance (µmhos/cm)	669 H	-	618 H	629 H	948 H	710	709	-	-	713	717	756 H	766 H	1,240 H	-	-	685 H	656 H	644 H	-	637 H	634 H
Sulfate (mg/L)	36	-	30	31	32	57	53	-	-	40	40	38	39	1.1	-	-	26	28	85	-	74	76
Surfactants (mg/L)	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<2 D	-	-	<0.5	<0.5	<0.5	-	<0.5	<0.5
Total Hardness (as CaCO3) (mg/L)	240	-	210	200	280	260	260	-	-	220	220	230	230	580	-	-	250	200	230	-	230	220
Total Organic Carbon (TOC) (mg/L)	1.1	1.1	1.1 O	1.2	-	1.4	1.4	1.5	1.5	1.1	1.2	1.3	1.2	17 D	9,400 D	8,800 D	3.4	1.4	<1	<1	1.1	<1
Zinc (mg/L)	<0.05	-	<0.02	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.02	<0.05	<0.05	-	<0.02	<0.05

Table B-5.08. Building 850 area in Operable Unit 5 general minerals in ground water. (Continued)

Constituents of concern	W-850-05 12/3/15	W-850-2416 2/12/15	W-850-2416 6/8/15	W-850-2416 9/21/15	W-850-2416 12/2/15	W-850-2417 2/12/15	W-850-2417 6/8/15	W-850-2417 9/21/15	W-850-2417 12/2/15	W-PIT1-3021 5/11/15	W-PIT1-3022 4/29/15
Total Alkalinity (as CaCO3) (mg/L)	170	160	-	160	160	200	-	270	200	140	160
Aluminum (mg/L)	<0.2	<0.2	-	<0.05	<0.2	<0.2	-	<0.05	<0.2	<0.2	<0.2
Bicarbonate Alk (as CaCO3) (mg/L)	170	160	-	160	160	200	-	270	200	140	160
Calcium (mg/L)	59	49 L	-	49 L	46	48 L	-	55 L	47	44	57
Carbonate Alk (as CaCO3) (mg/L)	<4.1	<4.1	-	<4.1	<4.1	<4.1	-	<4.1	<4.1	<4.1	<4.1
Chloride (mg/L)	80	65	-	63	66	53	-	50	50	34	44
Copper (mg/L)	<0.05	<0.05	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05
Fluoride (mg/L)	0.43	0.24	-	0.24	0.3	0.57	-	0.54	0.58	0.37	0.38
Hydroxide Alk (as CaCO3) (mg/L)	<4.1	<4.1	-	<4.1	<4.1	<4.1	-	<4.1	<4.1	<4.1	<4.1
Iron (mg/L)	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	0.7	0.12	<0.1	<0.1
Magnesium (mg/L)	26	22	-	22	19	24	-	28	21	21	23
Manganese (mg/L)	0.28	<0.01	-	<0.03	<0.03	0.46	-	2.1	0.24	0.02	0.015
Nickel (mg/L)	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1
Nitrate (as N) (mg/L)	<0.5	<0.5	-	<0.5	<0.5	2.2	-	1.3	8.1	<0.5	0.83
Nitrate (as NO3) (mg/L)	<0.5 H	0.75	-	1.4	1.7	9.8	-	5.8	36	1.2	3.7
Nitrite (as N) (mg/L)	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
pH (Units)	7.86 H	8.19 H	-	8.01 H	8.13 H	7.19 H	-	7.39 H	7.66 H	7.91 H	8.2 H
Ortho-Phosphate (mg/L)	0.07	<1	-	0.059	0.078	<1	-	<0.05	0.12	<1	<1
Total Phosphorus (as PO4) (mg/L)	<0.15 H	<0.15 H	-	<0.15 H	<0.15	0.34 H	-	<0.15 H	0.17 H	0.59 H	3.4 H
Potassium (mg/L)	3.9	5.5	-	5.5	5	3.6	-	3.9	3.5	3.7	4.5

Table B-5.08. Building 850 area in Operable Unit 5 general minerals in ground water. (Continued)

Constituents of concern	W-850-05	W-850-2416	W-850-2416	W-850-2416	W-850-2416	W-850-2417	W-850-2417	W-850-2417	W-850-2417	W-PIT1-3021	W-PIT1-3022
	12/3/15	2/12/15	6/8/15	9/21/15	12/2/15	2/12/15	6/8/15	9/21/15	12/2/15	5/11/15	4/29/15
Sodium (mg/L)	61	63 L	-	64 L	59	60 L	-	56 L	52	38 L	56 L
Total dissolved solids (TDS) (mg/L)	470 DH	420 DH	-	430 DH	430 D	430 DH	-	460 DH	420 D	330 DH	470 D
Specific Conductance (µmhos/cm)	804 H	679 H	-	680 H	690 H	661 H	-	727 H	672 H	508 H	633 H
Sulfate (mg/L)	97	86	-	76	77	33	-	27	29	62	94
Surfactants (mg/L)	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
Total Hardness (as CaCO3) (mg/L)	260	210	-	210	190	220	-	250	210	200	240
Total Organic Carbon (TOC) (mg/L)	-	<1	<1	<1 O	<1	2.8 D	2.3	1.6 O	1.4	-	-
Zinc (mg/L)	<0.05	<0.05	-	<0.02	<0.05	<0.05	-	<0.02	<0.05	<0.05	<0.05

Table B-5.09. Pit 2 Landfill volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
K2-01C	6/22/15	E624MOD	<0.5	<0.5 IJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 IJ	<0.5	<0.5	<0.5
NC2-08	5/12/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT2-1934	5/21/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT2-1935	5/21/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-5.09 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
K2-01C	6/22/15	E624MOD	0 of 18
NC2-08	5/12/15	E624MOD	0 of 18
W-PIT2-1934	5/21/15	E624MOD	0 of 18
W-PIT2-1935	5/21/15	E624MOD	0 of 18

Table B-5.10. Pit 2 Landfill total uranium and uranium isotopes in ground water.

Location	Date	Requested Analysis Code	AS	AS	AS	MS	MS	MS	MS	MS	MS	MS	MS
			Uranium 234 and 233 (in activity) (pCi/L)	Uranium 235 and 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Total Uranium (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Uranium 234 (in activity) (pCi/L)	Uranium 235 (in activity) (pCi/L)	Uranium 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Uranium 238 (in mass) (µg/L)	Uranium 235/238 (atom/atom)
K2-01C	6/22/15	MS	-	-	-	2.80 ± 0.0850	3.40 ± 0.100	1.70 ± 0.0770	0.0500 ± 0.00230	<0.00078	1.10 ± 0.0350	3.30 ± 0.100	0.00689 ± 0.000236
K2-01C	6/22/15 REA	MS	-	-	-	1.20 ± 0.00390	3.40 ± 0.0120	<3.9	0.0500 ± 0.000300	<0.00055	1.10 ± 0.00390	3.40 ± 0.0120	0.00685 ± 0.0000330
NC2-08	5/12/15	AS	1.78 ± 0.332	<0.1 O	1.22 ± 0.249	-	-	-	-	-	-	-	-
NC2-08	5/12/15	MS	-	-	-	2.90 ± 0.120	3.30 ± 0.100	1.80 ± 0.110	0.0500 ± 0.00230	<0.0004	1.10 ± 0.0350	3.30 ± 0.100	0.00711 ± 0.000237
W-PIT2-1934	5/21/15	MS	-	-	-	3.50 ± 0.0800	4.00 ± 0.0720	2.10 ± 0.0760	0.0560 ± 0.00160	<0.0014	1.30 ± 0.0240	3.90 ± 0.0720	0.00656 ± 0.000139
W-PIT2-1935	5/21/15	MS	-	-	-	2.70 ± 0.0870	2.90 ± 0.0670	1.70 ± 0.0840	0.0440 ± 0.00130	<0.00019	0.960 ± 0.0230	2.90 ± 0.0670	0.00718 ± 0.000137
W-PIT2-2226	5/28/15	AS	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-
W-PIT2-2226	11/17/15	AS	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-

Table B-5.11. Pit 2 Landfill nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
K2-01C	6/22/15	34	4.1
K2-01C	10/29/15	-	4.6
NC2-08	5/12/15	36	<4
NC2-08	10/29/15	-	<4
W-PIT2-1934	5/21/15	47 D	<4
W-PIT2-1934	10/29/15	-	<4
W-PIT2-1935	5/21/15	39	<4
W-PIT2-1935	10/29/15	-	<4
W-PIT2-2226	1/20/15	-	<4
W-PIT2-2226	5/28/15	<0.5	<4
W-PIT2-2226	7/21/15	-	<4
W-PIT2-2226	11/17/15	<0.5	<4
W-PIT2-2302	11/2/15	-	<4

Table B-5.12. Pit 2 Landfill high explosive compounds in ground water.

Location	Date	1,3,5-Trinitro benzene (µg/L)	1,3-Dinitro benzene (µg/L)	2,4-Dinitro toluene (µg/L)	2,6-Dinitro toluene (µg/L)	2-Amino-4,6-Dinitro toluene (µg/L)	2-Nitro toluene (µg/L)	3-Nitro toluene (µg/L)	4-Amino-2,6-Dinitro toluene (µg/L)	4-Nitro toluene (µg/L)	HMX (µg/L)	Nitro benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
K2-01C	6/22/15	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.1	<2.3	<1.1	<2.3
NC2-08	5/12/15	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
W-PIT2-1934	5/21/15	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.1	<2.3	<1.1	<2.3
W-PIT2-1934	8/12/15	-	-	<1	<1	-	-	-	-	-	-	-	-	-
W-PIT2-1935	5/21/15	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<1.2	<2.3	<1.2	<2.3
W-PIT2-1935	8/12/15	-	-	<1	<1	-	-	-	-	-	-	-	-	-

Table B-5.13. Pit 2 Landfill tritium in ground water.

Location	Date	Tritium (pCi/L)
K2-01C	6/22/15	2640 ± 694
K2-01C	10/29/15	3360 ± 687
NC2-08	5/12/15	2870 ± 589
NC2-08	10/29/15	3180 ± 653
W-PIT2-1934	5/21/15	1190 ± 265
W-PIT2-1934	10/29/15	1260 ± 283
W-PIT2-1935	5/21/15	1720 ± 367
W-PIT2-1935	10/29/15	1890 ± 403
W-PIT2-2226	1/20/15	<100
W-PIT2-2226	5/28/15	<100
W-PIT2-2226	7/21/15	<100
W-PIT2-2226	11/17/15	<100
W-PIT2-2302	11/2/15	211 ± 100

Table B-5.14. Pit 2 Landfill fluoride in ground water.

Location	Date	Fluoride (mg/L)
K2-01C	6/22/15	<0.5
NC2-08	5/12/15	<0.5
W-PIT2-1934	5/21/15	<0.5
W-PIT2-1935	5/21/15	<0.5

Table B-5.15. Pit 2 Landfill metals in ground water.

Constituents of concern	K2-01C	NC2-08	W-PIT2-1934	W-PIT2-1935
	6/22/15	5/12/15	5/21/15	5/21/15
Antimony (mg/L)	<0.06	<0.06	<0.06	<0.06
Arsenic (mg/L)	0.01	0.01	0.011	0.009
Barium (mg/L)	0.027	0.089	0.025	0.024
Beryllium (mg/L)	<0.002	<0.002	<0.002	<0.002
Cadmium (mg/L)	<0.005	<0.005	<0.005	<0.005
Chromium (mg/L)	<0.002	<0.002	<0.002	<0.002
Cobalt (mg/L)	<0.02	<0.02	<0.02	<0.02
Copper (mg/L)	<0.01	<0.01	<0.01	<0.01
Lead (mg/L)	<0.003	<0.003	<0.003	<0.003
Lithium (mg/L)	0.04	0.023	0.022	0.023
Mercury (mg/L)	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum (mg/L)	<0.02	0.074	<0.02	<0.02
Nickel (mg/L)	<0.02	<0.02	<0.02	<0.02
Selenium (mg/L)	<0.005	<0.005	<0.005	<0.005
Silver (mg/L)	<0.005	<0.005	<0.005	<0.005
Thallium (mg/L)	<0.005	<0.005	<0.005	<0.005
Vanadium (mg/L)	0.061	0.017	0.073	0.065
Zinc (mg/L)	<0.02	0.021	<0.02	<0.02

Table B-5.16. Pit 7 Complex area in Operable Unit 5 volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
K7-01	4/16/15	E624MOD	0.78	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K7-03	4/29/15	E624MOD	0.92	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K7-03	4/29/15 DUP	E624MOD	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K7-06	4/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K7-09	4/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K7-10	4/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-12	4/21/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-17	4/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-18	4/13/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-20	4/21/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-21	4/21/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-25	4/13/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-25	12/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-26	4/21/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-40	4/22/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-47	5/11/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-48	4/13/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-51	4/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-52	4/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-52	4/16/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-64	4/13/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-64	12/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-65	4/2/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-67	4/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-75	4/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-01	1/13/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-01	7/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5
W-865-1804	1/12/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-1804	7/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5
W-PIT7-03	4/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-03	4/14/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-03	10/12/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-10	4/15/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-12	4/2/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-13	4/2/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-13	4/2/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-1918	4/20/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-1918	10/14/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-1918	10/14/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2305	4/13/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2305	12/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2307	4/14/15	E624MOD	0.63	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2309	4/16/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2703	4/13/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-5.16. Pit 7 Complex area in Operable Unit 5 volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-PIT7-2703	12/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2705	4/13/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2705	12/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-5.16 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	Chloroethane (µg/L)	Methylene chloride (µg/L)
K7-01	4/16/15	E624MOD	0 of 18	-	-
K7-03	4/29/15	E624MOD	0 of 18	-	-
K7-03	4/29/15 DUP	E624MOD	0 of 18	-	-
K7-06	4/9/15	E624MOD	0 of 18	-	-
K7-09	4/15/15	E624MOD	0 of 18	-	-
K7-10	4/15/15	E624MOD	0 of 18	-	-
NC7-12	4/21/15	E624MOD	0 of 18	-	-
NC7-17	4/9/15	E624MOD	0 of 18	-	-
NC7-18	4/13/15	E624MOD	0 of 18	-	-
NC7-20	4/21/15	E624MOD	0 of 18	-	-
NC7-21	4/21/15	E624MOD	0 of 18	-	-
NC7-25	4/13/15	E624MOD	0 of 18	-	-
NC7-25	12/1/15	E624MOD	0 of 18	-	-
NC7-26	4/21/15	E624MOD	0 of 18	-	-
NC7-40	4/22/15	E624MOD	0 of 18	-	-
NC7-47	5/11/15	E624MOD	0 of 18	-	-
NC7-48	4/13/15	E624MOD	0 of 18	-	-
NC7-51	4/16/15	E624MOD	0 of 18	-	-
NC7-52	4/16/15	E624MOD	0 of 18	-	-
NC7-52	4/16/15 DUP	E624MOD	0 of 18	-	-
NC7-64	4/13/15	E624MOD	0 of 18	-	-
NC7-64	12/1/15	E624MOD	0 of 18	-	-
NC7-65	4/2/15	E624MOD	0 of 18	-	-
NC7-67	4/16/15	E624MOD	0 of 18	-	-
NC7-75	4/14/15	E624MOD	0 of 18	-	-
W-865-01	1/13/15	E601	0 of 18	-	-
W-865-01	7/14/15	E624MOD	0 of 18	-	-
W-865-1804	1/12/15	E601	0 of 18	-	-
W-865-1804	7/14/15	E624MOD	0 of 18	-	-
W-PIT7-03	4/14/15	E624MOD	0 of 18	-	-
W-PIT7-03	4/14/15 DUP	E624MOD	0 of 18	-	-
W-PIT7-03	10/12/15	E624MOD	0 of 18	-	-
W-PIT7-10	4/15/15	E624MOD	0 of 18	-	-
W-PIT7-12	4/2/15	E624MOD	0 of 18	-	-

Table B-5.16 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	Chloroethane (µg/L)	Methylene chloride (µg/L)
W-PIT7-13	4/2/15	E624MOD	0 of 18	-	-
W-PIT7-13	4/2/15 DUP	E624MOD	0 of 18	-	-
W-PIT7-1918	4/20/15	E624MOD	0 of 18	-	-
W-PIT7-1918	10/14/15	E624MOD	0 of 18	-	-
W-PIT7-1918	10/14/15 DUP	E624MOD	0 of 18	-	-
W-PIT7-2305	4/13/15	E624MOD	0 of 18	-	-
W-PIT7-2305	12/1/15	E624MOD	2 of 18	3.7	2.5
W-PIT7-2307	4/14/15	E624MOD	0 of 18	-	-
W-PIT7-2309	4/16/15	E624MOD	0 of 18	-	-
W-PIT7-2703	4/13/15	E624MOD	0 of 18	-	-
W-PIT7-2703	12/1/15	E624MOD	0 of 18	-	-
W-PIT7-2705	4/13/15	E624MOD	0 of 18	-	-
W-PIT7-2705	12/1/15	E624MOD	0 of 18	-	-

Table B-5.17. Pit 7 Complex area in Operable Unit 5 nitrate, perchlorate, and orthophosphate in ground water.

Location	Date	Nitrate as NO3 (mg/L)	Perchlorate (µg/L)	Orthophosphate (mg/L)
K7-01	4/16/15	48	11 L	-
K7-03	4/29/15	32	5.7	-
K7-03	4/29/15 DUP	32	5.2	-
K7-06	4/9/15	14	<4	-
K7-06	10/6/15	-	<4	-
K7-09	4/15/15	<0.5	<4	-
K7-09	10/7/15	-	<4	-
K7-10	4/15/15	1.3	<4	-
NC7-12	4/21/15	-	<4	-
NC7-17	4/9/15	41	-	-
NC7-18	4/13/15	26	<4	-
NC7-20	4/21/15	28	<4	-
NC7-21	4/21/15	33	<4	-
NC7-25	4/13/15	38	10	-
NC7-25	12/1/15	-	9.6 D	-
NC7-26	4/21/15	9.7	<4	-
NC7-26	10/13/15	-	<4	-
NC7-40	4/22/15	38	7.4	-
NC7-47	5/11/15	64	<4	-
NC7-48	4/13/15	18	<4	-
NC7-51	4/16/15	45	8.8	-
NC7-52	4/16/15	24	<4	-
NC7-52	4/16/15 DUP	23	<4 L	-
NC7-53	4/9/15	16	<4	-
NC7-64	4/13/15	45	9.5	-
NC7-64	12/1/15	-	<4	-
NC7-65	4/2/15	<0.5 LO	<4	-
NC7-67	4/16/15	1.4	<4	-
NC7-68	4/16/15	20	9.9	-
NC7-75	4/14/15	2.3	<4	-
NC7-75	10/8/15	-	<4	-
NC7-76	4/22/15	30	<4	-
W-865-01	1/13/15	14	<4	-
W-865-03	1/13/15	42	<4	-
W-865-1804	1/12/15	-	<4	-
W-865-1804	7/14/15	-	<4	-
W-PIT7-02	4/15/15	1.3	<4	-
W-PIT7-03	4/14/15	36	5.9	-
W-PIT7-03	4/14/15 DUP	36	7.6	-
W-PIT7-10	4/15/15	25	<4	-
W-PIT7-12	4/2/15	41 LO	<4	-
W-PIT7-12	10/5/15	-	<4	-
W-PIT7-13	4/2/15	59 D	<4	-
W-PIT7-13	4/2/15 DUP	62	<4	-
W-PIT7-14	4/8/15	-	<4	-
W-PIT7-15	5/11/15	<0.5 H	<4	-

Table B-5.17. Pit 7 Complex area in Operable Unit 5 nitrate, perchlorate, and orthophosphate in ground water.

Location	Date	Nitrate as NO3 (mg/L)	Perchlorate (µg/L)	Orthophosphate (mg/L)
W-PIT7-1861	4/9/15	24	<4	-
W-PIT7-1904	4/20/15	-	-	<1
W-PIT7-1905	4/20/15	-	-	<1
W-PIT7-1907	4/20/15	-	-	1.6
W-PIT7-1915	4/20/15	-	-	1.5
W-PIT7-1916	4/20/15	-	-	<1
W-PIT7-1918	4/20/15	28	8	<1
W-PIT7-1918	10/14/15	-	7.1	-
W-PIT7-1918	10/14/15 DUP	-	6.3	-
W-PIT7-1919	4/20/15	-	-	<1
W-PIT7-2141	4/8/15	36	5	-
W-PIT7-2141	10/5/15	-	4.5	-
W-PIT7-2305	4/13/15	47	13	-
W-PIT7-2305	12/1/15	-	14	-
W-PIT7-2307	4/14/15	40	10	-
W-PIT7-2309	4/16/15	51	8.1 L	-
W-PIT7-2703	4/13/15	38	12	-
W-PIT7-2703	12/1/15	-	8.2	-
W-PIT7-2705	4/13/15	30	11	-
W-PIT7-2705	12/1/15	-	6.3	-

Table B-5.18. Pit 7 Complex area in Operable Unit 5 metals and silica in ground water.

Constituents of concern	K7-01	K7-03	K7-03	K7-06	K7-09	K7-10	NC7-17	NC7-26	NC7-47	NC7-48	W-865-01
	4/16/15	4/29/15	4/29/15 DUP	4/9/15	4/15/15	4/15/15	4/9/15	4/21/15	5/11/15	4/13/15	1/13/15
Antimony (mg/L)	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	-	<0.06	<0.06	<0.06	-
Arsenic (mg/L)	0.0081	<0.005	<0.005	0.019	<0.005	<0.005	-	<0.005	0.013	0.0056	0.0037
Barium (mg/L)	0.2	0.068	0.075	0.085	0.024	0.37	-	0.028	0.058	0.13	0.087
Beryllium (mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	<0.002	<0.002	<0.002	-
Cadmium (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.001
Chromium (mg/L)	0.0029	<0.01	<0.002	<0.002	<0.002	0.006	-	0.0049	<0.01	<0.01	<0.002
Cobalt (mg/L)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.02	-
Copper (mg/L)	<0.01	0.01	0.012	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	-
Lead (mg/L)	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	-	<0.003	<0.003	<0.003	<0.005
Lithium (mg/L)	0.046	0.038	0.024	0.037	0.09	0.05	-	0.042 O	0.029	0.082	-
Mercury (mg/L)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum (mg/L)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.02	-
Nickel (mg/L)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.02	-
Selenium (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.002
Silica (as SiO2) (mg/L)	-	-	-	-	-	-	86	-	-	-	-
Silver (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.001
Thallium (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	-
Vanadium (mg/L)	0.015	<0.01	<0.01	0.044	<0.01	<0.01	-	<0.01	0.061	0.017	-
Zinc (mg/L)	<0.02	<0.05	0.031	<0.02	<0.02	<0.02	-	<0.02	<0.05	<0.05	-

Table B-5.19. Pit 7 Complex area in Operable Unit 5 polychlorinated biphenyl (PCBs) compounds in ground water.

Location	Date	PCB 1016 (µg/L)	PCB 1221 (µg/L)	PCB 1232 (µg/L)	PCB 1242 (µg/L)	PCB 1248 (µg/L)	PCB 1254 (µg/L)	PCB 1260 (µg/L)
K7-01	4/16/15	<0.6 D	<0.6 D	<0.6 D	<0.6 D	<0.6 D	<0.6 D	<0.6 D
K7-03	4/29/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K7-03	4/29/15 DUP	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
K7-06	4/9/15	<0.5 D	<0.5 D	<0.5 D	<0.5 D	<0.5 D	<0.5 D	<0.5 D
K7-09	4/15/15	<0.5 D	<0.5 D	<0.5 D	<0.5 D	<0.5 D	<0.5 D	<0.5 D
K7-10	4/15/15	<0.58 D	<0.58 D	<0.58 D	<0.58 D	<0.58 D	<0.58 D	<0.58 D
NC7-26	4/21/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-47	5/11/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-48	4/13/15	<0.5 D	<0.5 D	<0.5 D	<0.5 D	<0.5 D	<0.5 D	<0.5 D
W-865-01	10/22/15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table B-5.20. Pit 7 Complex area in Operable Unit 5 fluoride in ground water.

Location	Date	Fluoride (mg/L)
K7-01	4/16/15	0.45
K7-03	4/29/15	0.28
K7-03	4/29/15 DUP	<0.5
K7-06	4/9/15	<0.5 H
K7-09	4/15/15	0.16
K7-10	4/15/15	<0.5
NC7-26	4/21/15	<0.5 H
NC7-47	5/11/15	0.43
NC7-48	4/13/15	0.18

Table B-5.21. Pit 7 Complex area in Operable Unit 5 total uranium and uranium isotopes in ground water.

Location	Date	Requested Analysis Code	AS	AS	AS	KPA	MS	MS	MS	MS	MS	MS	MS	MS
			Uranium 234 and 233 (in activity) (pCi/L)	Uranium 235 and 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Total Uranium (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Uranium 234 (in activity) (pCi/L)	Uranium 235 (in activity) (pCi/L)	Uranium 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Uranium 238 (in mass) (µg/L)	Uranium 235/238 (atom/ atom)
K7-01	4/16/15	MS	-	-	-	-	16.0 ± 0.230	22.0 ± 0.0910	8.20 ± 0.230	0.340 ± 0.00360	<0.0014	7.40 ± 0.0310	22.0 ± 0.0910	0.00725 ± 0.0000700
K7-03	4/29/15	MS	-	-	-	-	5.90 ± 0.140	8.40 ± 0.160	3.00 ± 0.130	0.130 ± 0.00400	<0.00054	2.80 ± 0.0530	8.30 ± 0.160	0.00726 ± 0.000173
K7-06	4/9/15	AS	0.284 ± 0.113	<0.1	0.248 ± 0.103 O	-	-	-	-	-	-	-	-	-
K7-09	4/15/15	AS	<0.1	<0.1	<0.1 O	-	-	-	-	-	-	-	-	-
K7-10	4/15/15	AS	<0.1	<0.1	<0.1 O	-	-	-	-	-	-	-	-	-
NC7-12	4/21/15	AS	1.38 ± 0.244	<0.1	1.31 ± 0.234	-	-	-	-	-	-	-	-	-
NC7-12	4/21/15	MS	-	-	-	-	2.80 ± 0.0760	3.90 ± 0.120	1.40 ± 0.0650	0.0580 ± 0.00250	<0.0008	1.30 ± 0.0390	3.90 ± 0.120	0.00702 ± 0.000212
NC7-16	1/12/15	MS	-	-	-	-	11.0 ± 0.110	20.0 ± 0.0980	4.00 ± 0.110	0.190 ± 0.00160	0.0210 ± 0.0000340	6.60 ± 0.0330	20.0 ± 0.0980	0.00450 ± 0.0000300
NC7-17	4/9/15	AS	0.790 ± 0.216	<0.1	0.652 ± 0.190 O	-	-	-	-	-	-	-	-	-
NC7-18	4/13/15	AS	1.17 ± 0.280	<0.1	1.18 ± 0.279 O	-	-	-	-	-	-	-	-	-
NC7-21	4/21/15	AS	5.42 ± 0.801	0.230 ± 0.0835	5.48 ± 0.809	-	-	-	-	-	-	-	-	-
NC7-25	4/13/15	AS	41.1 ± 7.96	1.83 ± 0.550	40.1 ± 7.76 O	-	-	-	-	-	-	-	-	-
NC7-25	4/13/15	KPA	-	-	-	56.8 ± 5.96 D	-	-	-	-	-	-	-	-
NC7-25	12/1/15	KPA	-	-	-	49.0 ± 5.29 D	-	-	-	-	-	-	-	-
NC7-25	12/1/15	MS	-	-	-	-	34.0 ± 0.660	44.0 ± 0.430	18.0 ± 0.640	0.680 ± 0.0200	<0.0029	15.0 ± 0.150	44.0 ± 0.430	0.00714 ± 0.000197
NC7-26	4/21/15	MS	-	-	-	-	0.410 ± 0.00660	0.490 ± 0.00360	0.240 ± 0.00650	0.00770 ± 0.0000770	<0.000031	0.160 ± 0.00120	0.490 ± 0.00360	0.00730 ± 0.0000490
NC7-40	1/12/15	MS	-	-	-	-	73.0 ± 0.910	150 ± 0.310	21.0 ± 0.910	1.10 ± 0.00450	0.240 ± 0.000230	51.0 ± 0.110	150 ± 0.310	0.00326 ± 0.0000120
NC7-40	4/22/15	MS	-	-	-	-	80.0 ± 1.70	170 ± 1.30	23.0 ± 1.60	1.10 ± 0.0110	0.270 ± 0.000360	56.0 ± 0.430	170 ± 1.30	0.00314 ± 0.0000210
NC7-40	7/13/15	MS	-	-	-	-	70.0 ± 0.730	150 ± 0.890	19.0 ± 0.670	1.00 ± 0.0100	0.240 ± 0.000180	50.0 ± 0.300	150 ± 0.890	0.00321 ± 0.0000260
NC7-40	10/13/15	MS	-	-	-	-	70.0 ± 1.10	150 ± 0.810	19.0 ± 1.10	1.00 ± 0.0140	0.230 ± 0.000180	50.0 ± 0.270	150 ± 0.810	0.00319 ± 0.0000410
NC7-47	5/11/15	AS	1.29 ± 0.257	<0.1	0.638 ± 0.157	-	-	-	-	-	-	-	-	-
NC7-48	4/13/15	MS	-	-	-	-	9.80 ± 0.0970	21.0 ± 0.200	2.60 ± 0.0700	0.130 ± 0.00190	0.0330 ± 0.000120	7.10 ± 0.0670	21.0 ± 0.200	0.00294 ± 0.0000300
NC7-49A	4/9/15	AS	0.918 ± 0.225	<0.1	0.586 ± 0.169 O	-	-	-	-	-	-	-	-	-
NC7-51	1/12/15	MS	-	-	-	-	75.0 ± 0.660	110 ± 0.250	36.0 ± 0.650	1.50 ± 0.00770	0.0600 ± 0.000390	38.0 ± 0.0830	110 ± 0.250	0.00604 ± 0.0000290
NC7-51	4/16/15	MS	-	-	-	-	63.0 ± 0.850	100 ± 0.620	27.0 ± 0.820	1.10 ± 0.0140	0.0910 ± 0.000710	35.0 ± 0.210	100 ± 0.620	0.00507 ± 0.0000530
NC7-51	7/13/15	MS	-	-	-	-	57.0 ± 0.520	92.0 ± 0.340	25.0 ± 0.510	1.10 ± 0.00530	0.0750 ± 0.000210	31.0 ± 0.120	92.0 ± 0.340	0.00533 ± 0.0000170
NC7-51	10/8/15	MS	-	-	-	-	63.0 ± 0.460	99.0 ± 0.600	28.0 ± 0.410	1.10 ± 0.0200	0.0860 ± 0.000910	33.0 ± 0.200	98.0 ± 0.600	0.00537 ± 0.0000860
NC7-51	10/8/15 DUP	MS	-	-	-	-	65.0 ± 0.680	100 ± 0.630	30.0 ± 0.640	1.20 ± 0.0140	0.0770 ± 0.000250	34.0 ± 0.210	100 ± 0.630	0.00534 ± 0.0000560
NC7-52	4/16/15	AS	0.555 ± 0.114	<0.1	0.391 ± 0.0895 O	-	-	-	-	-	-	-	-	-
NC7-52	4/16/15 DUP	AS	0.580 ± 0.120	<0.1 O	0.480 ± 0.110	-	-	-	-	-	-	-	-	-
NC7-53	4/9/15	AS	0.628 ± 0.180	<0.1	0.669 ± 0.186 O	-	-	-	-	-	-	-	-	-
NC7-64	4/13/15	AS	56.9 ± 11.5	2.43 ± 0.717	56.2 ± 11.4 O	-	-	-	-	-	-	-	-	-
NC7-64	4/13/15	KPA	-	-	-	148 ± 15.5 D	-	-	-	-	-	-	-	-
NC7-64	12/1/15	KPA	-	-	-	101 ± 10.9 D	-	-	-	-	-	-	-	-
NC7-64	12/1/15	MS	-	-	-	-	86.0 ± 1.70	120 ± 0.740	43.0 ± 1.70	1.80 ± 0.0140	0.0350 ± 0.000790	41.0 ± 0.250	120 ± 0.740	0.00667 ± 0.0000320
NC7-65	4/2/15	AS	0.523 ± 0.135	<0.1	0.413 ± 0.114	-	-	-	-	-	-	-	-	-
NC7-65	4/2/15	MS	-	-	-	-	0.930 ± 0.0420	1.20 ± 0.0570	0.540 ± 0.0370	<0.02	<0.000075	0.390 ± 0.0190	1.20 ± 0.0570	<0.007832
NC7-67	4/16/15	AS	<0.1	<0.1	<0.1 O	-	-	-	-	-	-	-	-	-
NC7-68	4/16/15	AS	1.30 ± 0.268	<0.1	1.11 ± 0.238 O	-	-	-	-	-	-	-	-	-
NC7-75	4/14/15	AS	<0.1	<0.1	<0.1 O	-	-	-	-	-	-	-	-	-
NC7-76	4/22/15	AS	1.19 ± 0.257	<0.1	1.28 ± 0.271	-	-	-	-	-	-	-	-	-
W-PIT7-02	4/15/15	AS	0.270 ± 0.134	<0.1	0.123 ± 0.0832 O	-	-	-	-	-	-	-	-	-
W-PIT7-03	4/14/15	AS	12.2 ± 1.64	0.551 ± 0.127	10.8 ± 1.45 O	-	-	-	-	-	-	-	-	-
W-PIT7-03	4/14/15 DUP	AS	11.8 ± 1.90	0.950 ± 0.180 O	10.7 ± 1.70	-	-	-	-	-	-	-	-	-
W-PIT7-10	4/15/15	AS	1.20 ± 0.313	<0.1	1.36 ± 0.340 O	-	-	-	-	-	-	-	-	-
W-PIT7-12	4/2/15	AS	1.78 ± 0.315	<0.1	0.954 ± 0.194	-	-	-	-	-	-	-	-	-
W-PIT7-13	4/2/15	AS	7.06 ± 1.07	0.222 ± 0.0864	4.30 ± 0.679	-	-	-	-	-	-	-	-	-
W-PIT7-13	4/2/15 DUP	AS	4.62 ± 0.820	0.205 ± 0.0750	3.19 ± 0.590	-	-	-	-	-	-	-	-	-
W-PIT7-14	4/8/15	AS	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-
W-PIT7-14	4/8/15	MS	-	-	-	-	<0.06273	0.00370 ± 0.0000530	<0.0019	<0.000053	<0.000013	0.00120 ± 0.0000180	0.00370 ± 0.0000530	<0.006604
W-PIT7-15	5/11/15	MS	-	-	-	-	<0.06273	0.0640 ± 0.00280	<0.045	0.000980 ± 0.0000500	<0.000014	0.0210 ± 0.000940	0.0630 ± 0.00280	0.00721 ± 0.000188
W-PIT7-1861	4/9/15	AS	0.337 ± 0.120	<0.1	0.228 ± 0.0958 O	-	-	#VALUE!	-	-	-	-	-	-
W-PIT7-1904	4/20/15	AS	21.4 ± 3.59	1.21 ± 0.552	41.1 ± 6.42	-	-	-	-	-	-	-	-	-

Table B-5.21. Pit 7 Complex area in Operable Unit 5 total uranium and uranium isotopes in ground water.

Location	Date	Requested Analysis Code	AS Uranium 234 and 233 (in activity) (pCi/L)	AS Uranium 235 and 236 (in activity) (pCi/L)	AS Uranium 238 (in activity) (pCi/L)	KPA Total Uranium (in mass) (µg/L)	MS Total Uranium (in activity) (pCi/L)	MS Total Uranium (in mass) (µg/L)	MS Uranium 234 (in activity) (pCi/L)	MS Uranium 235 (in activity) (pCi/L)	MS Uranium 236 (in activity) (pCi/L)	MS Uranium 238 (in activity) (pCi/L)	MS Uranium 238 (in mass) (µg/L)	MS Uranium 235/238 (atom/ atom)
W-PIT7-1905	4/20/15	AS	8.65 ± 1.49	0.579 ± 0.262	23.9 ± 3.67	-	-	-	-	-	-	-	-	-
W-PIT7-1907	4/20/15	AS	<0.1	<0.1	0.115 ± 0.0626	-	-	-	-	-	-	-	-	-
W-PIT7-1915	4/20/15	AS	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-
W-PIT7-1916	4/20/15	AS	17.5 ± 3.06	0.770 ± 0.475	44.8 ± 6.99	-	-	-	-	-	-	-	-	-
W-PIT7-1918	4/20/15	MS	-	-	-	-	31.0 ± 0.700	60.0 ± 0.290	10.0 ± 0.690	0.510 ± 0.00460	0.0730 ± 0.000270	20.0 ± 0.0980	60.0 ± 0.290	0.00391 ± 0.0000300
W-PIT7-1919	4/20/15	AS	18.7 ± 3.25	1.25 ± 0.567	50.6 ± 7.87	-	-	-	-	-	-	-	-	-
W-PIT7-2141	4/8/15	MS	-	-	-	-	6.00 ± 0.0800	6.90 ± 0.0360	3.60 ± 0.0790	0.110 ± 0.000740	<0.00044	2.30 ± 0.0120	6.80 ± 0.0360	0.00726 ± 0.0000330
W-PIT7-2305	4/13/15	AS	8.18 ± 1.39	0.397 ± 0.158	7.48 ± 1.28 O	-	-	-	-	-	-	-	-	-
W-PIT7-2305	4/13/15	KPA	-	-	-	21.6 ± 2.26 D	-	-	-	-	-	-	-	-
W-PIT7-2305	12/1/15	KPA	-	-	-	19.8 ± 2.13 D	-	-	-	-	-	-	-	-
W-PIT7-2305	12/1/15	MS	-	-	-	-	13.0 ± 0.210	18.0 ± 0.150	6.80 ± 0.200	0.280 ± 0.00350	<0.003	6.10 ± 0.0520	18.0 ± 0.150	0.00707 ± 0.0000660
W-PIT7-2307	4/14/15	AS	10.1 ± 1.76	0.443 ± 0.187	15.1 ± 2.57 O	-	-	-	-	-	-	-	-	-
W-PIT7-2309	4/16/15	MS	-	-	-	-	0.690 ± 0.0130	0.940 ± 0.0170	0.360 ± 0.0110	0.0150 ± 0.000360	<0.000061	0.310 ± 0.00580	0.930 ± 0.0170	0.00729 ± 0.000117
W-PIT7-2703	4/13/15	AS	45.0 ± 6.96	1.90 ± 0.417	43.4 ± 6.73	-	-	-	-	-	-	-	-	-
W-PIT7-2703	4/13/15	KPA	-	-	-	129 ± 13.5 D	-	-	-	-	-	-	-	-
W-PIT7-2703	12/1/15	KPA	-	-	-	115 ± 12.4 D	-	-	-	-	-	-	-	-
W-PIT7-2703	12/1/15	MS	-	-	-	-	74.0 ± 1.60	100 ± 0.750	38.0 ± 1.60	1.50 ± 0.0130	0.0240 ± 0.000810	34.0 ± 0.250	100 ± 0.750	0.00675 ± 0.0000320
W-PIT7-2705	4/13/15	AS	10.4 ± 1.83	0.580 ± 0.212	16.8 ± 2.86	-	-	-	-	-	-	-	-	-
W-PIT7-2705	4/13/15	KPA	-	-	-	49.2 ± 5.20 D	-	-	-	-	-	-	-	-
W-PIT7-2705	12/1/15	KPA	-	-	-	48.2 ± 5.21 D	-	-	-	-	-	-	-	-
W-PIT7-2705	12/1/15	MS	-	-	-	-	24.0 ± 0.190	42.0 ± 0.400	9.20 ± 0.130	0.400 ± 0.00460	0.0450 ± 0.000150	14.0 ± 0.130	42.0 ± 0.400	0.00448 ± 0.0000280

Table B-5.22. Pit 7 Complex area in Operable Unit 5 tritium in ground water.

Location	Date	Tritium (pCi/L)
K7-01	4/16/15	31000 ± 6020
K7-01	10/12/15	26000 ± 5050
K7-01	10/12/15 DUP	29600 ± 4500
K7-03	4/29/15	49900 ± 9690
K7-03	4/29/15 DUP	56900 ± 8600
K7-03	10/8/15	55600 ± 10800
K7-03	10/8/15 DUP	56500 ± 8600
K7-06	4/9/15	<100
K7-06	10/6/15	<100
K7-09	4/15/15	<100
K7-09	10/7/15	<100 L
K7-10	4/15/15	<100
K7-10	10/7/15	<100 L
NC7-12	4/21/15	2030 ± 423
NC7-12	10/13/15	1800 ± 382
NC7-16	1/12/15	20700 ± 4040
NC7-17	4/9/15	<100
NC7-17	10/6/15	<100
NC7-18	4/13/15	<100
NC7-18	10/7/15	<100 L
NC7-20	4/21/15	6900 ± 1370
NC7-20	10/13/15	6310 ± 1250
NC7-21	4/21/15	30600 ± 5940
NC7-21	10/7/15	30800 ± 5990 L
NC7-25	4/13/15	180000 ± 34900
NC7-25	12/1/15	168000 ± 32600
NC7-26	4/21/15	1590 ± 340
NC7-26	10/13/15	1560 ± 334
NC7-34	10/6/15	684 ± 171
NC7-36	10/6/15	<100
NC7-40	1/12/15	49400 ± 9600
NC7-40	4/22/15	53100 ± 10300
NC7-40	7/13/15	50200 ± 9740
NC7-40	10/13/15	52900 ± 10300
NC7-47	5/11/15	<100
NC7-48	4/13/15	<100
NC7-48	10/6/15	<100
NC7-49A	4/9/15	<100
NC7-49A	10/6/15	<100
NC7-51	1/12/15	124000 ± 24000
NC7-51	4/16/15	173000 ± 33600
NC7-51	7/13/15	142000 ± 27600
NC7-51	7/13/15 DUP	150000 ± 23000
NC7-51	10/8/15	132000 ± 25700
NC7-51	10/8/15 DUP	129000 ± 25000
NC7-52	1/12/15	24600 ± 4790
NC7-52	1/12/15 DUP	28500 ± 4300 L
NC7-52	7/13/15	25400 ± 4940
NC7-53	4/9/15	<100
NC7-64	4/13/15	85300 ± 16600

Table B-5.22. Pit 7 Complex area in Operable Unit 5 tritium in ground water.

Location	Date	Tritium (pCi/L)
NC7-64	12/1/15	78900 ± 15300
NC7-65	4/2/15	394 ± 104
NC7-65	10/5/15	333 ± 110
NC7-67	4/16/15	1890 ± 397
NC7-67	10/12/15	1780 ± 379
NC7-68	4/16/15	1730 ± 368
NC7-68	10/12/15	1610 ± 346
NC7-75	4/14/15	1380 ± 306
NC7-75	10/8/15	1760 ± 381
NC7-76	4/22/15	2440 ± 505
NC7-76	10/13/15	1840 ± 390
W-865-01	1/13/15	<100
W-865-01	7/14/15	<100
W-865-03	1/13/15	<100
W-865-1804	1/12/15	980 ± 230
W-865-1804	7/14/15	942 ± 226
W-PIT7-02	1/12/15	<100
W-PIT7-02	7/13/15	<100
W-PIT7-03	1/12/15	79600 ± 15500
W-PIT7-03	1/12/15 DUP	76300 ± 14800
W-PIT7-10	4/15/15	<100
W-PIT7-10	10/7/15	<100 L
W-PIT7-12	4/2/15	1780 ± 364
W-PIT7-12	10/5/15	1690 ± 358
W-PIT7-13	4/2/15	28200 ± 5470
W-PIT7-13	4/2/15 DUP	31500 ± 4800
W-PIT7-13	10/5/15	26800 ± 5210
W-PIT7-13	10/5/15 DUP	29500 ± 4500
W-PIT7-14	4/8/15	<100
W-PIT7-15	5/11/15	<100
W-PIT7-15	10/27/15	<100
W-PIT7-1861	4/9/15	<100
W-PIT7-1918	4/20/15	36300 ± 7040
W-PIT7-1918	10/14/15	34000 ± 6620
W-PIT7-1918	10/14/15 DUP	38400 ± 5800
W-PIT7-2141	4/8/15	14000 ± 2730
W-PIT7-2141	10/5/15	13400 ± 2620
W-PIT7-2305	4/13/15	35300 ± 6870
W-PIT7-2305	12/1/15	31500 ± 6130
W-PIT7-2307	4/14/15	51400 ± 9980
W-PIT7-2309	4/16/15	23000 ± 4480
W-PIT7-2309	10/8/15	30500 ± 5940
W-PIT7-2703	4/13/15	75200 ± 14600
W-PIT7-2703	12/1/15	69500 ± 13500
W-PIT7-2705	4/13/15	32600 ± 6340
W-PIT7-2705	12/1/15	30700 ± 5960

Table B-5.23. Pit 7 Complex area in Operable Unit 5 high explosive compounds in ground water.

Location	Date	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-Dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-Dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
K7-01	4/16/15	<2 O	<2 O	<2	<2	<2	<2	<2	<2	<2	<1 O	<2	<1	<2
K7-03	4/29/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
K7-03	4/29/15 DUP	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<1.2	<2.4	<1.2	<2.4
K7-06	4/9/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
K7-09	4/15/15	<2 O	<2 O	<2	<2	<2	<2	<2	<2	<2	<1 O	<2	<1	<2
K7-10	4/15/15	<2 O	<2 O	<2	<2	<2	<2	<2	<2	<2	<1 O	<2	<1	<2
NC7-26	4/21/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-47	5/11/15	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<1 D	<2 D	<1 D	<2 D
NC7-48	4/13/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1 O	<2
W-865-01	10/22/15	-	-	<1	<1	-	-	-	-	-	-	-	-	-

Table B-6.01. Building 854 Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-854-01	5/4/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-01	11/18/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-02	3/9/15	E601	93	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-02	4/8/15	E624MOD	88	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-02	7/6/15	E624MOD	100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-02	10/5/15	E624MOD	91	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-03	1/7/15	E601	8.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-03	4/8/15	E624MOD	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-03	7/6/15	E624MOD	4.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-03	7/6/15 DUP	E624MOD	3.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-03	10/5/15	E624MOD	6.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-04	5/6/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-04	11/30/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-05	5/4/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-05	11/18/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-06	5/5/15	E624MOD	0.58	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-06	5/5/15 DUP	E624MOD	0.66	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-06	11/23/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-07	5/6/15	E624MOD	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-07	5/6/15 DUP	E624MOD	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-07	11/23/15	E624MOD	7.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-08	5/6/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-08	11/24/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-10	5/5/15	E624MOD	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-10	5/5/15 DUP	E624MOD	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-10	11/18/15	E624MOD	28	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-10	11/18/15 DUP	E624MOD	60 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D
W-854-13	5/6/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-13	11/24/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-14	5/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-14	11/30/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-15	5/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-15	11/24/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-17	5/4/15	E624MOD	8.9	<0.5	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-17	11/18/15	E624MOD	7.5	<0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-17	11/18/15 DUP	E624MOD	8.4	<0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-18A	5/4/15	E624MOD	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-18A	11/18/15	E624MOD	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-45	5/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-45	11/30/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-45	11/30/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1701	5/5/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1701	11/23/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1707	5/19/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-6.01. Building 854 Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-854-1731	5/7/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1731	11/30/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1822	5/5/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1822	11/23/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1823	5/6/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1823	11/24/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2115	5/5/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2115	11/23/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2139	3/9/15	E601	33	<0.5	0.84	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2139	4/8/15	E624MOD	37	<0.5	0.91	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2139	7/7/15	E624MOD	28	<0.5	0.67	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2139	7/7/15 DUP	E624MOD	27	<0.5	0.59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2218	5/20/15	E624MOD	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2611	5/4/15	E624MOD	2.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2611	11/18/15	E624MOD	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SPRING11	5/19/15	E624MOD	2.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-6.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
W-854-01	5/4/15	E624MOD	0 of 18	-
W-854-01	11/18/15	E624MOD	0 of 18	-
W-854-02	3/9/15	E601	0 of 18	-
W-854-02	4/8/15	E624MOD	0 of 18	-
W-854-02	7/6/15	E624MOD	0 of 18	-
W-854-02	10/5/15	E624MOD	0 of 18	-
W-854-03	1/7/15	E601	0 of 18	-
W-854-03	4/8/15	E624MOD	0 of 18	-
W-854-03	7/6/15	E624MOD	0 of 18	-
W-854-03	7/6/15 DUP	E624MOD	0 of 18	-
W-854-03	10/5/15	E624MOD	0 of 18	-
W-854-04	5/6/15	E624MOD	0 of 18	-
W-854-04	11/30/15	E624MOD	0 of 18	-
W-854-05	5/4/15	E624MOD	0 of 18	-
W-854-05	11/18/15	E624MOD	0 of 18	-
W-854-06	5/5/15	E624MOD	0 of 18	-
W-854-06	5/5/15 DUP	E624MOD	0 of 18	-
W-854-06	11/23/15	E624MOD	0 of 18	-
W-854-07	5/6/15	E624MOD	0 of 18	-
W-854-07	5/6/15 DUP	E624MOD	0 of 18	-

Table B-6.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloroethene (total) (µg/L)
W-854-07	11/23/15	E624MOD	0 of 18	-
W-854-08	5/6/15	E624MOD	0 of 18	-
W-854-08	11/24/15	E624MOD	0 of 18	-
W-854-10	5/5/15	E624MOD	0 of 18	-
W-854-10	5/5/15 DUP	E624MOD	0 of 18	-
W-854-10	11/18/15	E624MOD	0 of 18	-
W-854-10	11/18/15 DUP	E624MOD	0 of 18	-
W-854-13	5/6/15	E624MOD	0 of 18	-
W-854-13	11/24/15	E624MOD	0 of 18	-
W-854-14	5/7/15	E624MOD	0 of 18	-
W-854-14	11/30/15	E624MOD	0 of 18	-
W-854-15	5/7/15	E624MOD	0 of 18	-
W-854-15	11/24/15	E624MOD	0 of 18	-
W-854-17	5/4/15	E624MOD	1 of 18	16
W-854-17	11/18/15	E624MOD	1 of 18	14
W-854-17	11/18/15 DUP	E624MOD	1 of 18	14
W-854-18A	5/4/15	E624MOD	0 of 18	-
W-854-18A	11/18/15	E624MOD	0 of 18	-
W-854-45	5/7/15	E624MOD	0 of 18	-
W-854-45	11/30/15	E624MOD	0 of 18	-
W-854-45	11/30/15 DUP	E624MOD	0 of 18	-
W-854-1701	5/5/15	E624MOD	0 of 18	-
W-854-1701	11/23/15	E624MOD	0 of 18	-
W-854-1707	5/19/15	E624MOD	0 of 18	-
W-854-1731	5/7/15	E624MOD	0 of 18	-
W-854-1731	11/30/15	E624MOD	0 of 18	-
W-854-1822	5/5/15	E624MOD	0 of 18	-
W-854-1822	11/23/15	E624MOD	0 of 18	-
W-854-1823	5/6/15	E624MOD	0 of 18	-
W-854-1823	11/24/15	E624MOD	0 of 18	-
W-854-2115	5/5/15	E624MOD	0 of 18	-
W-854-2115	11/23/15	E624MOD	0 of 18	-
W-854-2139	3/9/15	E601	0 of 18	-
W-854-2139	4/8/15	E624MOD	0 of 18	-
W-854-2139	7/7/15	E624MOD	0 of 18	-
W-854-2139	7/7/15 DUP	E624MOD	0 of 18	-
W-854-2218	5/20/15	E624MOD	0 of 18	-
W-854-2611	5/4/15	E624MOD	0 of 18	-
W-854-2611	11/18/15	E624MOD	0 of 18	-
SPRING11	5/19/15	E624MOD	1 of 18	0.91

Table B-6.02. Building 854 Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-854-01	5/4/15	<0.5	<4
W-854-01	11/18/15	-	<4
W-854-02	3/9/15	-	6.5
W-854-02	4/8/15	55	6.9
W-854-02	7/6/15	-	6.2
W-854-02	10/5/15	-	6.4
W-854-03	1/7/15	35	<4 L
W-854-03	2/3/15	37	-
W-854-03	3/2/15	38	-
W-854-03	4/8/15	40 D	<4
W-854-03	5/6/15	36 D	-
W-854-03	6/1/15	38 D	-
W-854-03	7/6/15	39	<4
W-854-03	7/6/15 DUP	37	<4
W-854-03	8/3/15	40	-
W-854-03	8/3/15 DUP	38	-
W-854-03	9/9/15	39	-
W-854-03	9/9/15 DUP	38 D	<4
W-854-03	10/5/15	39 D	<4
W-854-03	11/4/15	40	-
W-854-04	5/6/15	<0.5	<4
W-854-04	11/30/15	-	<4
W-854-05	5/4/15	66 D	<4
W-854-05	11/18/15	-	<4
W-854-06	5/5/15	<0.5	<4
W-854-06	5/5/15 DUP	<0.5	<4
W-854-06	11/23/15	-	<4
W-854-07	5/6/15	18 H	6.4
W-854-07	5/6/15 DUP	18	5.8
W-854-07	11/23/15	-	6.7
W-854-08	5/6/15	44	4.5
W-854-08	11/24/15	-	<4
W-854-10	5/5/15	16	<4
W-854-10	5/5/15 DUP	14	<4
W-854-10	11/18/15	-	<4
W-854-10	11/18/15 DUP	-	<4
W-854-13	5/6/15	1.1	<4
W-854-13	11/24/15	-	<4
W-854-14	5/7/15	190 D	<4
W-854-14	11/30/15	-	<4
W-854-15	5/7/15	7.7	<4
W-854-15	11/24/15	-	<4
W-854-17	5/4/15	0.65	<4
W-854-17	11/18/15	-	<4
W-854-17	11/18/15 DUP	-	<4
W-854-18A	5/4/15	30	<4

Table B-6.02. Building 854 Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-854-18A	11/18/15	-	<4
W-854-45	5/7/15	65 D	10
W-854-45	11/30/15	-	9
W-854-45	11/30/15 DUP	-	9.3
W-854-1701	5/5/15	<0.5	<4
W-854-1701	11/23/15	-	<4
W-854-1707	5/19/15	5.9	<4
W-854-1731	5/7/15	7.1	<4
W-854-1731	11/30/15	-	<4
W-854-1822	5/5/15	2.2	<4
W-854-1822	11/23/15	-	<4
W-854-1823	5/6/15	29 H	15
W-854-1823	11/24/15	-	15
W-854-2115	5/5/15	2.2	<4
W-854-2115	11/23/15	-	<4
W-854-2139	3/9/15	20	<4
W-854-2139	4/8/15	19	<4
W-854-2139	7/7/15	19	<4
W-854-2139	7/7/15 DUP	19	<4
W-854-2218	5/20/15	41 D	<4
W-854-2611	5/4/15	56 D	4.7
W-854-2611	11/18/15	-	5.4
SPRING11	5/19/15	0.63	<4

Table B-6.03. Building 854 Operable Unit total uranium and uranium isotopes in ground water.

Location	Date	AS Uranium 234 and 233 (in activity) (pCi/L)	AS Uranium 235 and 236 (in activity) (pCi/L)	AS Uranium 238 (in activity) (pCi/L)
W-854-03	4/8/15	14.2 ± 2.50	0.660 ± 0.170	9.20 ± 1.60

Table B-7.01. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
SVI-830-031	2/24/15	E601	89 D	0.54	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SVI-830-031	8/18/15	E624MOD	64	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SVI-830-035	2/24/15	E601	480 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SVI-830-035	8/18/15	E624MOD	860 DIJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.54	<0.5	<0.5	<0.5
W-830-04A	2/26/15	E601	8.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-04A	2/26/15 DUP	E601	9.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-04A	8/20/15	E624MOD	9.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-04A	8/20/15 DUP	E624MOD	8.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-05	3/2/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-05	8/24/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-09	2/24/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-09	8/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-10	2/26/15	E601	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-10	2/26/15 DUP	E601	22.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-10	8/24/15	E624MOD	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-10	8/24/15 DUP	E624MOD	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-11	2/26/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-11	8/24/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-12	2/24/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-12	6/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-12	8/18/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-12	12/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-13	8/24/15	E624MOD	3.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-14	3/2/15	E601	<0.5	<0.5	0.67	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-14	8/24/15	E624MOD	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-15	3/2/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-15	6/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-15	8/24/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-15	12/2/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-16	3/3/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-16	8/25/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-18	2/26/15	E601	19	<0.5	1.2	2.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-18	8/31/15	E624MOD	19	<0.5	2.1	4.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-19	9/9/15	E624MOD	2,100 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-830-19	10/6/15	E624MOD	2,100 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-20	2/26/15	E601	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-20	8/20/15	E624MOD	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-21	3/4/15	E601	56 L	<0.5	<0.5	0.53	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-21	8/20/15	E624MOD	56 IJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-22	2/23/15	E601	7.7	<0.5	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-22	8/17/15	E624MOD	35	<0.5	2.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-26	8/17/15	E624MOD	1.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-27	2/25/15	E601	570 D	0.51	<0.5	<0.5	<0.5	0.57	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-27	8/19/15	E624MOD	670 DIJ	0.61	0.63	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-7.01. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-830-28	2/25/15	E601	8.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-28	8/19/15	E624MOD	11 IJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-29	8/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-30	3/4/15	E601	6.1 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-30	8/18/15	E624MOD	14 IJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-34	3/4/15	E601	140 DL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-34	3/4/15 DUP	E601	150 DL	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-34	8/18/15	E624MOD	320 DIJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-34	8/18/15 DUP	E624MOD	360 DIJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-49	9/9/15	E624MOD	1,900 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-49	10/6/15	E624MOD	1,800 D	2.7 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-50	2/26/15	E601	9.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-50	8/20/15	E624MOD	12 IJ	<0.5	0.61 IJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-50	8/20/15 DUP	E624MOD	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-51	4/8/15	E624MOD	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-51	8/19/15	E624MOD	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-51	8/19/15 DUP	E624MOD	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-54	3/3/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-54	8/25/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-55	3/3/15	E601	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-55	8/25/15	E624MOD	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-56	3/2/15	E601	0.97	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-56	8/24/15	E624MOD	0.92	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-57	9/9/15	E624MOD	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-57	10/6/15	E624MOD	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-58	2/25/15	E601	460 D	0.55	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-58	8/19/15	E624MOD	230 DIJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-59	9/9/15	E624MOD	1,200 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-59	9/9/15 DUP	E624MOD	1,200 D	1.4	<0.5	<0.5	<0.5	0.78	<0.5	0.57	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-59	10/6/15	E624MOD	1,300 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-60	9/9/15	E624MOD	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-60	9/9/15 DUP	E624MOD	19	<0.5	0.53	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-60	10/6/15	E624MOD	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1730	3/2/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1730	6/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1730	8/26/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1730	12/2/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1807	9/9/15	E624MOD	190 D	2.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1807	9/9/15 DUP	E624MOD	220 D	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1807	10/6/15	E624MOD	310 D	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	0.51	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1829	2/23/15	E601	1,800 D	2.2	1.1	<0.5	<0.5	0.8	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1829	8/17/15	E624MOD	1,900 D	2.1	1.4	<0.5	<0.5	0.85	<0.5	0.99	<0.5	<0.5	0.58	<0.5	<0.5	<0.5
W-830-1830	2/23/15	E601	1,500 D	1.9	0.7	<0.5	<0.5	0.94	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1830	8/17/15	E624MOD	1,600 DIJ	1.6	0.83	<0.5	<0.5	1.1	<0.5	0.67	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-7.01. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-830-1831	3/3/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1831	8/25/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1832	3/3/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1832	8/25/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2213	2/26/15	E601	57	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2213	8/20/15	E624MOD	75 DH	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2214	9/9/15	E624MOD	930 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D
W-830-2214	9/9/15 DUP	E624MOD	950 D	0.87	0.75	<0.5	<0.5	0.56	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2214	10/6/15	E624MOD	980 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-2215	9/9/15	E624MOD	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2215	10/6/15	E624MOD	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2216	4/8/15	E624MOD	3.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2216	8/19/15	E624MOD	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2216	8/19/15 DUP	E624MOD	2.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2311	3/19/15	E601	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2311	3/19/15 DUP	E601	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2311	8/26/15	E624MOD	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2311	8/26/15 DUP	E624MOD	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2701	9/9/15	E624MOD	9.7	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2701	10/6/15	E624MOD	13	<0.5	0.71	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2806	3/3/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2806	6/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2806	8/25/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2806	12/2/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-3101	8/6/15	E624B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-3101	9/2/15	E624B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-3102	4/23/15	E624MOD	350 D	1.6	0.95	<0.5	<0.5	<0.5	<0.5	3.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-831-01	2/18/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-01	5/13/15	E624MOD	240 D	<0.5	16	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-01	8/3/15	E624MOD	190 D	<0.5	35	<0.5	<0.5	0.69	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-01	10/6/15	E624MOD	220 D	<0.5	14	<0.5	<0.5	0.78	<0.5	<0.5	<0.5	<0.5	<0.5	0.71	<0.5	<0.5
W-832-06	2/18/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-06	8/13/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-09	8/13/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-10	5/13/15	E624MOD	77	<0.5	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	<0.5
W-832-10	5/13/15	E624MOD	32	<0.5	0.66	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-10	5/18/15	E624MOD	29	<0.5	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-10	9/1/15	E624MOD	41	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5
W-832-10	9/1/15 DUP	E624MOD	40	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.83	<0.5	<0.5
W-832-10	10/6/15	E624MOD	29	<0.5	0.89	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.98	<0.5	<0.5
W-832-11	5/13/15	E624MOD	120 D	<0.5	3.8	<0.5	<0.5	0.63	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-11	5/13/15	E624MOD	100 D	<0.5	3.7	<0.5	<0.5	0.62	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-11	5/14/15	E624MOD	55	<0.5	2.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-11	9/1/15	E624MOD	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-7.01. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-832-11	10/6/15	E624MOD	35	<0.5	0.87	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-12	5/13/15	E624MOD	37	<0.5	0.72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-12	8/3/15	E624MOD	24	<0.5	0.56	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-12	10/6/15	E624MOD	50	<0.5	0.91	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-13	2/19/15	E601	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-14	2/18/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-15	5/13/15	E624MOD	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-15	8/3/15	E624MOD	43	<0.5	0.75	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-15	10/6/15	E624MOD	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-19	2/18/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-23	2/19/15	E601	100 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-23	2/19/15 DUP	E601	91.4 D	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-23	8/13/15	E624MOD	230 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-23	8/13/15 DUP	E624MOD	220 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-24	2/24/15	E601	42	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-24	2/24/15 DUP	E601	39.7	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-24	8/13/15	E624MOD	52 HIJ	<0.5 H	<0.5 H	<0.5 H	<0.5 HIJ	<0.5 H	<0.5 H	<0.5 HIJ	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H
W-832-25	5/13/15	E624MOD	46	<0.5	0.73	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.54	<0.5	<0.5
W-832-25	5/13/15	E624MOD	28	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-25	5/19/15	E624MOD	55	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-25	9/1/15	E624MOD	7.3	<0.5	0.53	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-25	9/1/15 DUP	E624MOD	8.3	<0.5	0.55	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-25	10/6/15	E624MOD	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-1927	3/5/15	E601	33 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-1927	3/5/15 DUP	E601	34.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-1927	8/26/15	E624MOD	34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-1927	8/26/15 DUP	E624MOD	35	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-2112	3/4/15	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-2112	6/9/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-2112	8/26/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-2112	12/2/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-2906	2/23/15	E601	9.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-2906	6/9/15	E624MOD	4.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-2906	8/13/15	E624MOD	8.7 HIJ	<0.5 H	0.54 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H
W-832-2906	12/1/15	E624MOD	8.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-2906	12/1/15 DUP	E624MOD	8.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-3019	4/14/15	E624B	1,500 D	<0.5	0.61	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5
W-832-3019	8/13/15	E624MOD	1,600 D	<0.5	0.61	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-3020	4/14/15	E624B	100	<0.5	2.3	<0.5	<0.5	0.55	<0.5	<0.5	<0.5	<0.5	<0.5	0.69	<0.5	<0.5
W-832-3020	8/26/15	E624MOD	130 D	<0.5	3.6	<0.5	<0.5	0.72	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5
W-832-3103	9/3/15	E624B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-870-02	3/2/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-870-02	8/31/15	E624MOD	0.93	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-01	3/4/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-7.01. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-880-01	6/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-01	6/10/15 DUP	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-01	8/31/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-01	12/2/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-02	3/4/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-02	6/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-02	12/2/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-03	3/4/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-03	6/10/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-03	8/31/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-03	12/2/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-7.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total)(µg/L)	Bromoform (µg/L)	Chloro ethane (µg/L)	Chloro methane (µg/L)	Methylene chloride (µg/L)	Toluene (µg/L)
SVI-830-031	2/24/15	E601	0 of 18	-	-	-	-	-	-
SVI-830-031	8/18/15	E624MOD	0 of 18	-	-	-	-	-	-
SVI-830-035	2/24/15	E601	0 of 18	-	-	-	-	-	-
SVI-830-035	8/18/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-04A	2/26/15	E601	0 of 18	-	-	-	-	-	-
W-830-04A	2/26/15 DUP	E601	0 of 18	-	-	-	-	-	-
W-830-04A	8/20/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-04A	8/20/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-830-05	3/2/15	E601	0 of 18	-	-	-	-	-	-
W-830-05	8/24/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-09	2/24/15	E601	0 of 18	-	-	-	-	-	-
W-830-09	8/17/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-10	2/26/15	E601	0 of 18	-	-	-	-	-	-
W-830-10	2/26/15 DUP	E601	0 of 18	-	-	-	-	-	-
W-830-10	8/24/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-10	8/24/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-830-11	2/26/15	E601	0 of 18	-	-	-	-	-	-
W-830-11	8/24/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-12	2/24/15	E601	0 of 18	-	-	-	-	-	-
W-830-12	6/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-12	8/18/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-12	12/1/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-13	8/24/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-14	3/2/15	E601	1 of 18	0.67	-	-	-	-	-
W-830-14	8/24/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-15	3/2/15	E601	0 of 18	-	-	-	-	-	-

Table B-7.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total)(µg/L)	Bromoform (µg/L)	Chloro ethane (µg/L)	Chloro methane (µg/L)	Methylene chloride (µg/L)	Toluene (µg/L)
W-830-15	6/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-15	8/24/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-15	12/2/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-16	3/3/15	E601	0 of 18	-	-	-	-	-	-
W-830-16	8/25/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-18	2/26/15	E601	1 of 18	4.1	-	-	-	-	-
W-830-18	8/31/15	E624MOD	1 of 18	6.4	-	-	-	-	-
W-830-19	9/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-19	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-20	2/26/15	E601	0 of 18	-	-	-	-	-	-
W-830-20	8/20/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-21	3/4/15	E601	1 of 18	0.82	-	-	-	-	-
W-830-21	8/20/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-22	2/23/15	E601	0 of 18	-	-	-	-	-	-
W-830-22	8/17/15	E624MOD	1 of 18	2.6	-	-	-	-	-
W-830-26	8/17/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-27	2/25/15	E601	0 of 18	-	-	-	-	-	-
W-830-27	8/19/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-28	2/25/15	E601	0 of 18	-	-	-	-	-	-
W-830-28	8/19/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-29	8/17/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-30	3/4/15	E601	0 of 18	-	-	-	-	-	-
W-830-30	8/18/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-34	3/4/15	E601	0 of 18	-	-	-	-	-	-
W-830-34	3/4/15 DUP	E601	0 of 18	-	-	-	-	-	-
W-830-34	8/18/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-34	8/18/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-830-49	9/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-49	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-50	2/26/15	E601	0 of 18	-	-	-	-	-	-
W-830-50	8/20/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-50	8/20/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-830-51	4/8/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-51	8/19/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-51	8/19/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-830-54	3/3/15	E601	0 of 18	-	-	-	-	-	-
W-830-54	8/25/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-55	3/3/15	E601	0 of 18	-	-	-	-	-	-
W-830-55	8/25/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-56	3/2/15	E601	0 of 18	-	-	-	-	-	-
W-830-56	8/24/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-57	9/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-57	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-

Table B-7.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total)(µg/L)	Bromoform (µg/L)	Chloro ethane (µg/L)	Chloro methane (µg/L)	Methylene chloride (µg/L)	Toluene (µg/L)
W-830-58	2/25/15	E601	0 of 18	-	-	-	-	-	-
W-830-58	8/19/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-59	9/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-59	9/9/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-830-59	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-60	9/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-60	9/9/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-830-60	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-1730	3/2/15	E601	0 of 18	-	-	-	-	-	-
W-830-1730	6/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-1730	8/26/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-1730	12/2/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-1807	9/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-1807	9/9/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-830-1807	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-1829	2/23/15	E601	1 of 18	1.1	-	-	-	-	-
W-830-1829	8/17/15	E624MOD	1 of 18	1.4	-	-	-	-	-
W-830-1830	2/23/15	E601	1 of 18	0.7	-	-	-	-	-
W-830-1830	8/17/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-1831	3/3/15	E601	0 of 18	-	-	-	-	-	-
W-830-1831	8/25/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-1832	3/3/15	E601	0 of 18	-	-	-	-	-	-
W-830-1832	8/25/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2213	2/26/15	E601	0 of 18	-	-	-	-	-	-
W-830-2213	8/20/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2214	9/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2214	9/9/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2214	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2215	9/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2215	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2216	4/8/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2216	8/19/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2216	8/19/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2311	3/19/15	E601	0 of 18	-	-	-	-	-	-
W-830-2311	3/19/15 DUP	E601	0 of 18	-	-	-	-	-	-
W-830-2311	8/26/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2311	8/26/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2701	9/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2701	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2806	3/3/15	E601	0 of 18	-	-	-	-	-	-
W-830-2806	6/10/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2806	8/25/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-2806	12/2/15	E624MOD	0 of 18	-	-	-	-	-	-
W-830-3101	8/6/15	E624B	2 of 33	-	0.64	-	-	-	1.2

Table B-7.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total)(µg/L)	Bromoform (µg/L)	Chloro ethane (µg/L)	Chloro methane (µg/L)	Methylene chloride (µg/L)	Toluene (µg/L)
W-830-3101	9/2/15	E624B	0 of 32	-	-	-	-	-	-
W-830-3102	4/23/15	E624MOD	0 of 18	-	-	-	-	-	-
W-831-01	2/18/15	E601	0 of 18	-	-	-	-	-	-
W-832-01	5/13/15	E624MOD	1 of 18	16	-	-	-	-	-
W-832-01	8/3/15	E624MOD	1 of 18	36	-	-	-	-	-
W-832-01	10/6/15	E624MOD	1 of 18	14	-	-	-	-	-
W-832-06	2/18/15	E601	0 of 18	-	-	-	-	-	-
W-832-06	8/13/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-09	8/13/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-10	5/13/15	E624MOD	1 of 18	1.4	-	-	-	-	-
W-832-10	5/13/15	E624MOD	1 of 18	-	-	-	-	1	-
W-832-10	5/18/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-10	9/1/15	E624MOD	1 of 18	1.1	-	-	-	-	-
W-832-10	9/1/15 DUP	E624MOD	1 of 18	1.1	-	-	-	-	-
W-832-10	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-11	5/13/15	E624MOD	1 of 18	3.8	-	-	-	-	-
W-832-11	5/13/15	E624MOD	1 of 18	3.7	-	-	-	-	-
W-832-11	5/14/15	E624MOD	1 of 18	2.3	-	-	-	-	-
W-832-11	9/1/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-11	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-12	5/13/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-12	8/3/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-12	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-13	2/19/15	E601	0 of 18	-	-	-	-	-	-
W-832-14	2/18/15	E601	0 of 18	-	-	-	-	-	-
W-832-15	5/13/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-15	8/3/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-15	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-19	2/18/15	E601	0 of 18	-	-	-	-	-	-
W-832-23	2/19/15	E601	0 of 18	-	-	-	-	-	-
W-832-23	2/19/15 DUP	E601	0 of 18	-	-	-	-	-	-
W-832-23	8/13/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-23	8/13/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-832-24	2/24/15	E601	0 of 18	-	-	-	-	-	-
W-832-24	2/24/15 DUP	E601	0 of 18	-	-	-	-	-	-
W-832-24	8/13/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-25	5/13/15	E624MOD	1 of 18	-	-	2	-	-	-
W-832-25	5/13/15	E624MOD	1 of 18	-	-	1.2	-	-	-
W-832-25	5/19/15	E624MOD	3 of 18	1	-	-	1.2	24	-
W-832-25	9/1/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-25	9/1/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-832-25	10/6/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-1927	3/5/15	E601	0 of 18	-	-	-	-	-	-
W-832-1927	3/5/15 DUP	E601	0 of 18	-	-	-	-	-	-

Table B-7.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro ethene (total)(µg/L)	Bromoform (µg/L)	Chloro ethane (µg/L)	Chloro methane (µg/L)	Methylene chloride (µg/L)	Toluene (µg/L)
W-832-1927	8/26/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-1927	8/26/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-832-2112	3/4/15	E601	0 of 18	-	-	-	-	-	-
W-832-2112	6/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-2112	8/26/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-2112	12/2/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-2906	2/23/15	E601	0 of 18	-	-	-	-	-	-
W-832-2906	6/9/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-2906	8/13/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-2906	12/1/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-2906	12/1/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-832-3019	4/14/15	E624B	0 of 32	-	-	-	-	-	-
W-832-3019	8/13/15	E624MOD	0 of 18	-	-	-	-	-	-
W-832-3020	4/14/15	E624B	1 of 32	2.3	-	-	-	-	-
W-832-3020	8/26/15	E624MOD	1 of 18	3.6	-	-	-	-	-
W-832-3103	9/3/15	E624B	0 of 33	-	-	-	-	-	-
W-870-02	3/2/15	E601	0 of 18	-	-	-	-	-	-
W-870-02	8/31/15	E624MOD	0 of 18	-	-	-	-	-	-
W-880-01	3/4/15	E601	0 of 18	-	-	-	-	-	-
W-880-01	6/10/15	E624MOD	0 of 18	-	-	-	-	-	-
W-880-01	6/10/15 DUP	E624MOD	0 of 18	-	-	-	-	-	-
W-880-01	8/31/15	E624MOD	0 of 18	-	-	-	-	-	-
W-880-01	12/2/15	E624MOD	0 of 18	-	-	-	-	-	-
W-880-02	3/4/15	E601	0 of 18	-	-	-	-	-	-
W-880-02	6/10/15	E624MOD	0 of 18	-	-	-	-	-	-
W-880-02	12/2/15	E624MOD	0 of 18	-	-	-	-	-	-
W-880-03	3/4/15	E601	0 of 18	-	-	-	-	-	-
W-880-03	6/10/15	E624MOD	0 of 18	-	-	-	-	-	-
W-880-03	8/31/15	E624MOD	0 of 18	-	-	-	-	-	-
W-880-03	12/2/15	E624MOD	0 of 18	-	-	-	-	-	-

Table B-7.02. Building 832 Canyon Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
SVI-830-031	2/24/15	100 D	<4
SVI-830-035	2/24/15	110 D	<4
W-830-04A	2/26/15	73 D	<4
W-830-04A	2/26/15 DUP	75 D	<4
W-830-05	3/2/15	77 DL	4.7
W-830-09	2/24/15	<0.5	<4
W-830-10	2/26/15	76 D	<4
W-830-10	2/26/15 DUP	73.5 D	5.5
W-830-11	2/26/15	13 D	<4
W-830-12	2/24/15	<0.5	<4
W-830-12	8/18/15	<0.5	<4
W-830-15	3/2/15	<0.5 L	<4
W-830-15	8/24/15	<0.5 L	<4
W-830-16	3/3/15	<0.5	<4
W-830-19	9/9/15	-	4.3
W-830-21	3/4/15	53 D	<4
W-830-22	2/23/15	3.3 D	<4 L
W-830-27	2/25/15	110 D	5.5
W-830-28	2/25/15	8.8	<4
W-830-29	8/17/15	<0.5	<4
W-830-30	3/4/15	68 D	<4
W-830-34	3/4/15	120 D	<4
W-830-34	3/4/15 DUP	120 D	<4
W-830-49	9/9/15	-	4.2
W-830-50	2/26/15	17	<4
W-830-51	8/19/15	-	5.9
W-830-51	8/19/15 DUP	-	5.5
W-830-54	3/3/15	-	<4
W-830-54	3/30/15	1.8	-
W-830-54	8/25/15	1.7	-
W-830-55	3/30/15	21	-
W-830-55	8/25/15	<0.5	-
W-830-56	3/2/15	33 DL	<4
W-830-58	2/25/15	120 D	5.5
W-830-59	9/9/15	-	5.1
W-830-59	9/9/15 DUP	-	4.1
W-830-1730	3/2/15	<0.5 L	<4
W-830-1730	8/26/15	<0.5 O	<4
W-830-1807	9/9/15	-	<4
W-830-1807	9/9/15	-	<4
W-830-1829	2/23/15	110 D	<4
W-830-1830	2/23/15	110 D	5.8
W-830-1831	3/3/15	-	<4
W-830-1831	3/30/15	1.2	-
W-830-1831	8/25/15	1.2	-
W-830-1832	3/3/15	-	<4

Table B-7.02. Building 832 Canyon Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-830-1832	3/30/15	2.6	-
W-830-1832	8/25/15	2.6	-
W-830-2213	2/26/15	33	<4
W-830-2214	9/9/15	-	7.2
W-830-2214	9/9/15 DUP	-	5.6
W-830-2216	8/19/15	-	<4
W-830-2216	8/19/15 DUP	-	<4
W-830-2311	3/19/15	76 D	4.9
W-830-2311	3/19/15 DUP	76 D	4.6
W-830-2701	9/9/15	-	<4
W-830-2806	3/3/15	-	<4
W-830-2806	3/30/15	<0.5	-
W-830-2806	8/25/15	<0.5	<4
W-830-3101	8/6/15	-	<4
W-830-3102	4/23/15	-	<4
W-831-01	2/18/15	<0.5	<4
W-832-01	8/3/15	-	7.1
W-832-06	2/18/15	15	<4
W-832-09	8/13/15	<0.5	<4
W-832-10	9/1/15	-	8.3
W-832-10	9/1/15 DUP	-	8.2
W-832-11	9/1/15	-	8
W-832-12	8/3/15	-	6.4
W-832-13	2/19/15	140 D	9.6
W-832-14	2/18/15	25	<4
W-832-15	8/3/15	120 D	6.7
W-832-19	2/18/15	54 DH	<4
W-832-23	2/19/15	40 D	<4
W-832-23	2/19/15 DUP	40.3 D	<4
W-832-24	2/24/15	45 D	<4
W-832-24	2/24/15 DUP	46 D	<4
W-832-25	9/1/15	-	5.6
W-832-25	9/1/15 DUP	-	7.3
W-832-1927	3/5/15	45 DH	<4
W-832-1927	3/5/15 DUP	40.7 D	4.5
W-832-2112	3/4/15	<0.5	<4
W-832-2112	8/26/15	<0.5 O	<4
W-832-2906	2/23/15	<1 D	<4
W-832-2906	8/13/15	<0.5	<4
W-832-3019	2/19/15	102 D	16.4
W-832-3019	4/14/15	-	18
W-832-3020	4/14/15	-	7.8
W-832-3103	9/3/15	-	<4
W-870-02	3/2/15	5.1 L	-
W-880-01	3/4/15	<1 D	<4
W-880-01	8/31/15	<1 D	<4

Table B-7.02. Building 832 Canyon Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-880-02	3/4/15	<5 D	<4
W-880-03	3/4/15	<1 D	-
W-880-03	8/31/15	<1 D	<4

Table B-7.03. Building 832 Canyon Operable Unit high explosive compounds in ground water.

Location	Date	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-Dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-Dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
W-830-18	8/31/15	-	-	<2	<2	-	-	-	-	-	-	<2	-	-
W-830-3101	8/6/15	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<0.75	<1.5	<0.75	<1.5
W-832-3019	4/14/15	<1.8 O	<1.8	<1.8 O	<1.8 O	<1.8 O	<1.8 O	<1.8 O	<1.8 O	<1.8 O	<0.89 O	<1.8 O	<0.89	<1.8 O
W-832-3020	4/14/15	<1.7 O	<1.7	<1.7 O	<1.7 O	<1.7 O	<1.7 O	<1.7 O	<1.7 O	<1.7 O	<0.83 O	<1.7 O	<0.83	<1.7 O
W-832-3103	9/3/15	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<0.81	<1.6	<0.81	<1.6
W-880-01	3/4/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-880-01	8/31/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-880-03	3/4/15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-880-03	8/31/15	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<0.89	<1.8	<0.89	<1.8

Table B-7.04. Building 832 Canyon Operable Unit general minerals in ground water.

Constituents of concern	W-830-18	W-830-3101	W-832-3019	W-832-3020	W-832-3103
	8/31/15	8/6/15	4/14/15	4/14/15	9/3/15
Total Alkalinity (as CaCO3) (mg/L)	160	180	100	200	200
Aluminum (mg/L)	<0.2	<0.2	<0.2	<0.2	<0.2
Bicarbonate Alk (as CaCO3) (mg/L)	160 D	180	100 D	200 D	200 D
Calcium (mg/L)	93 L	42	240 L	100 L	26
Carbonate Alk (as CaCO3) (mg/L)	<8.2 D	<4.1	<8.2 D	<8.2 D	<8.2 D
Chloride (mg/L)	330 D	60	810 D	450 D	220 D
Copper (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoride (mg/L)	0.24 D	0.46	0.32 D	0.64 D	0.19 D
Hydroxide Alk (as CaCO3) (mg/L)	<8.2 D	<4.1	<8.2 D	<8.2 D	<8.2 D
Iron (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1 O
Magnesium (mg/L)	43	19	120	56	6.8
Manganese (mg/L)	<0.03	0.076	<0.01	0.019	0.014
Nickel (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate (as N) (mg/L)	<1 D	<0.5	22 D	18 D	<1 D
Nitrate (as NO3) (mg/L)	<0.44	<0.5	98 H	81 H	<0.44
Nitrite (as N) (mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5
pH (Units)	7.85	7.93 H	7.71	7.91	8.33 H
Ortho-Phosphate (mg/L)	R	0.18	<1	<1	0.34
Total Phosphorus (as PO4) (mg/L)	<0.15	0.39 H	<0.15 H	0.16 H	0.34 H
Potassium (mg/L)	21	6.9	39	27	16
Sodium (mg/L)	310 L	100 L	630 L	420 L	390 L
Total dissolved solids (TDS) (mg/L)	1,500 DH	570 DH	3,300 D	1,800 D	1,300 DH
Specific Conductance (µmhos/cm)	2,100	755 H	4,510	2,650	2,030 H
Sulfate (mg/L)	430 D	120	1,100 D	460 D	460 D
Surfactants (mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5
Total Hardness (as CaCO3) (mg/L)	410	180	1,100	480	93
Zinc (mg/L)	<0.05	0.2	<0.05	<0.05	0.064

Table B-7.05. Building 832 Canyon Operable Unit uranium isotopes in ground water.

Location	Date	Requested Analysis Code	AS	AS	AS	KPA	MS	MS	MS	MS	MS	MS	MS	MS
			Uranium 234 and 233 (in activity) (pCi/L)	Uranium 235 and 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Total Uranium (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Uranium 234 (in activity) (pCi/L)	Uranium 235 (in activity) (pCi/L)	Uranium 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Uranium 238 (in mass) (µg/L)	Uranium 235/238 (atom/atom)
W-830-1807	9/9/15	AS	4.01 ± 0.700 J	0.158 ± 0.0640	3.09 ± 0.550 J	-	-	-	-	-	-	-	-	-
W-830-1807	10/6/15	AS	4.07 ± 0.710	0.266 ± 0.0810	2.97 ± 0.530	-	-	-	-	-	-	-	-	-
W-830-3101	8/6/15	KPA	-	-	-	0.261 ± 0.0231	-	-	-	-	-	-	-	-
W-830-3101	8/6/15	MS	-	-	-	-	0.200 ± 0.00460	0.190 ± 0.000820	0.130 ± 0.00460	0.00300 ± 0.0000190	<0.000012	0.0630 ± 0.000280	0.190 ± 0.000820	0.00731 ± 0.0000340
W-832-3019	4/14/15	KPA	-	-	-	0.958 ± 0.0830	-	-	-	-	-	-	-	-
W-832-3019	4/14/15	MS	-	-	-	-	0.740 ± 0.0170	0.840 ± 0.0110	0.440 ± 0.0170	0.0130 ± 0.000260	<0.000083	0.280 ± 0.00360	0.840 ± 0.0110	0.00722 ± 0.000112
W-832-3020	4/14/15	KPA	-	-	-	22.5 ± 2.35 D	-	-	-	-	-	-	-	-
W-832-3020	4/14/15	MS	-	-	-	-	16.0 ± 0.520	21.0 ± 0.580	8.30 ± 0.480	0.330 ± 0.0120	<0.0014	7.10 ± 0.190	21.0 ± 0.580	0.00728 ± 0.000173
W-832-3103	9/3/15	KPA	-	-	-	0.430 ± 0.0381	-	-	-	-	-	-	-	-
W-832-3103	9/3/15	MS	-	-	-	-	0.550 ± 0.00810	0.400 ± 0.00120	0.410 ± 0.00810	0.00630 ± 0.0000550	<0.000026	0.130 ± 0.000400	0.400 ± 0.00120	0.00727 ± 0.0000600

Table B-7.06. Building 832 Canyon Operable Unit metals in ground water.

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silica (as SiO2) (mg/L)	Silver (mg/L)
W-830-18	8/31/15	0.0088	0.027	<0.001	<0.003	<0.001	<0.0002	0.0045	-	<0.001
W-830-3101	8/6/15	0.03	0.032	<0.001	<0.001	<0.005	<0.0002	<0.002	60	<0.001
W-832-3019	4/14/15	0.0077	0.037	<0.001	0.0022	<0.005	<0.0002	0.22	52	<0.001
W-832-3020	4/14/15	0.0025	0.11	<0.001	0.0036	<0.005	<0.0002	0.062	27	<0.001
W-832-3103	9/3/15	0.0047	<0.025	<0.001	<0.001	<0.005	<0.0002	<0.002	61	<0.001

Table B-7.07. Building 832 Canyon Operable Unit gross alpha and beta in ground water.

Location	Date	Gross alpha (pCi/L)	Gross beta (pCi/L)
W-830-3101	8/6/15	<2	6.38 ± 1.45
W-832-3019	4/14/15	<2	22.9 ± 6.64
W-832-3020	4/14/15	<2	9.93 ± 3.95
W-832-3103	9/3/15	<2	13 ± 3.34

Table B-7.08. Building 832 Canyon Operable Unit tritim in ground water.

Location	Date	Tritium (pCi/L)
W-830-3101	8/6/15	<100
W-832-3019	4/14/15	<100
W-832-3020	4/14/15	<100
W-832-3103	9/3/15	<100

Table B-7.09. Building 832 Canyon Operable Unit tetrabutyl orthosilicate/tetrakis (2-ethylbutyl) silane (TBOS/TKEBS) in ground water.

Location	Date	$C_{24}H_{52}O_4Si$ (µg/L)
W-830-3101	8/6/15	<10
W-832-3019	4/14/15	<10
W-832-3020	4/14/15	<10

Table B-8.01. Building 851 Firing Table total uranium and uranium isotopes in ground water.

Location	Date	Total Uranium (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Uranium 234 (in activity) (pCi/L)	Uranium 234 and 233 (in activity) (pCi/L)	Uranium 235 (in activity) (pCi/L)	Uranium 235 and 236 (in activity) (pCi/L)	Uranium 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Uranium 238 (in mass) (µg/L)	Uranium 235/238 (atom/atom)
W-851-05	4/30/15	<0.0627	0.0260 ± 0.00100	<0.068	-	<0.00044	-	<0.000042	0.00870 ± 0.000350	0.0260 ± 0.00100	<0.007798
W-851-05	11/19/15	-	-	-	<0.1	-	<0.1	-	<0.1	-	-
W-851-06	4/30/15	<0.0627	0.110 ± 0.00390	<0.12	-	0.00140 ± 0.0000850	-	<0.000091	0.0370 ± 0.00130	0.110 ± 0.00390	0.00592 ± 0.000289
W-851-06	11/19/15	-	-	-	0.119 ± 0.0515	-	<0.1	-	<0.1	-	-
W-851-07	4/30/15	<0.0627	0.0680 ± 0.00340	<0.099	-	0.00110 ± 0.0000730	-	<0.000053	0.0230 ± 0.00110	0.0680 ± 0.00340	0.00730 ± 0.000337
W-851-07	11/19/15	-	-	-	0.109 ± 0.0614	-	<0.1	-	<0.1	-	-
W-851-08	4/30/15	1.20 ± 0.0590	1.70 ± 0.0550	0.640 ± 0.0560	-	0.0230 ± 0.00110	-	<0.001	0.570 ± 0.0190	1.70 ± 0.0550	0.00640 ± 0.000211
W-851-08	11/19/15	-	-	-	0.480 ± 0.128	-	<0.1	-	0.452 ± 0.125	-	-

Table B-8.02. Building 845 Firing Table and Pit 9 Landfill tritium in ground water.

Location	Date	Tritium (pCi/L)
K9-01	6/1/15	<100
K9-02	6/1/15	<100
K9-03	6/1/15	<100
K9-04	6/1/15	<100

Table B-8.03. Building 845 Firing Table and Pit 9 Landfill metals in ground water.

Constituents of concern	K9-01	K9-02	K9-03	K9-04
	6/1/15	6/1/15	6/1/15	6/1/15
Antimony (mg/L)	<0.06	<0.06	<0.06	<0.06
Arsenic (mg/L)	<0.005	0.023	<0.005	<0.005
Barium (mg/L)	0.014	0.018	0.011	0.028
Beryllium (mg/L)	<0.002	<0.002	<0.002	<0.002
Cadmium (mg/L)	<0.005	<0.005	<0.005	<0.005
Chromium (mg/L)	<0.002	<0.002	<0.002	<0.002
Cobalt (mg/L)	<0.02	<0.02	<0.02	<0.02
Copper (mg/L)	<0.01	<0.01	<0.01	<0.01
Lead (mg/L)	<0.003	<0.003	<0.003	<0.003
Lithium (mg/L)	0.084	0.081	0.088	0.1
Mercury (mg/L)	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum (mg/L)	0.025	0.045	0.025	0.025
Nickel (mg/L)	<0.02	<0.02	<0.02	<0.02
Selenium (mg/L)	<0.005	<0.005	<0.005	<0.005
Silver (mg/L)	<0.005	<0.005	<0.005	<0.005
Thallium (mg/L)	<0.005	<0.005	<0.005	<0.005
Vanadium (mg/L)	<0.01	<0.01	<0.01	<0.01
Zinc (mg/L)	<0.02	<0.02	<0.02	<0.02

Table B-8.04. Building 845 Firing Table and Pit 9 Landfill volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
K9-01	6/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K9-02	6/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K9-03	6/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K9-04	6/1/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-8.04 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
K9-01	6/1/15	E624MOD	0 of 18
K9-02	6/1/15	E624MOD	0 of 18
K9-03	6/1/15	E624MOD	0 of 18
K9-04	6/1/15	E624MOD	0 of 18

Table B-8.05. Building 845 Firing Table and Pit 9 Landfill high explosive compounds in ground water.

Location	Date	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-Dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-Dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
K9-01	6/1/15	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
K9-02	6/1/15	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<1.2	<2.4	<1.2	<2.4
K9-03	6/1/15	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
K9-04	6/1/15	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<1.2	<2.4	<1.2	<2.4

Table B-8.06. Building 845 Firing Table and Pit 9 Landfill nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
K9-01	6/1/15	<0.5	<4
K9-02	6/1/15	<0.5	<4
K9-03	6/1/15	<0.5	<4
K9-04	6/1/15	<0.5	<4

Table B-8.07. Building 845 Firing Table and Pit 9 Landfill fluoride in ground water.

Location	Date	Fluoride (mg/L)
K9-01	6/1/15	<0.5
K9-02	6/1/15	<0.5
K9-03	6/1/15	<0.5
K9-04	6/1/15	<0.5

Table B-8.08. Building 845 Firing Table and Pit 9 Landfill total uranium and uranium isotopes in ground water.

Location	Date	MS	MS	MS	MS	MS	MS	MS	MS
		Total Uranium (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Uranium 234 (in activity) (pCi/L)	Uranium 235 (in activity) (pCi/L)	Uranium 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Uranium 238 (in mass) (µg/L)	Uranium 235/238 (atom/atom)
K9-01	6/1/15	<0.06273	0.0570 ± 0.00160	<0.063	0.000880 ± 0.0000290	<0.000026	0.0190 ± 0.000540	0.0570 ± 0.00160	0.00723 ± 0.000126
K9-02	6/1/15	0.190 ± 0.0150	0.130 ± 0.00650	0.150 ± 0.0150	<0.0022	<0.000034	0.0430 ± 0.00220	0.130 ± 0.00650	<0.007793
K9-03	6/1/15	0.250 ± 0.0210	0.200 ± 0.00480	0.180 ± 0.0210	0.00310 ± 0.000110	<0.000027	0.0660 ± 0.00160	0.200 ± 0.00480	0.00732 ± 0.000194
K9-04	6/1/15	0.310 ± 0.0270	0.230 ± 0.0140	0.230 ± 0.0260	<0.0037	<0.000042	0.0760 ± 0.00460	0.230 ± 0.0140	<0.007543

Table B-8.09. Building 833 volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-833-30	3/24/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-833-30	3/24/15 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-833-30	9/17/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-833-33	3/24/15	E601	130 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-840-01	3/23/15	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-8.09 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
W-833-30	3/24/15	E601	0 of 18
W-833-30	3/24/15 DUP	E601	0 of 18
W-833-30	9/17/15	E624MOD	0 of 18
W-833-33	3/24/15	E601	0 of 18
W-840-01	3/23/15	E601	0 of 18

Table B-8.10. Building 833 nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-840-01	3/23/15	<2.5 D	<4

Table B-8.11. Building 801 Firing Table and Pit 8 Landfill tritium in ground water.

Location	Date	Tritium (pCi/L)
K8-01	5/27/15	174 ± 80.7
K8-01	5/27/15 DUP	157 ± 71.0
K8-01	10/26/15	135 ± 86.9
K8-01	10/26/15 DUP	122 ± 82.5
K8-02B	2/5/15	<100
K8-02B	5/27/15	<100
K8-02B	7/30/15	<100
K8-02B	10/26/15	106 ± 80.1
K8-03B	5/27/15	<100
K8-03B	10/26/15	<100
K8-04	5/27/15	<100
K8-04	5/27/15 DUP	<100
K8-04	10/26/15	<100

Table B-8.12. Building 801 Firing Table and Pit 8 Landfill metals in ground water.

Constituents of concern	K8-02B	K8-04	K8-04
	5/27/15	5/27/15	5/27/15 DUP
Antimony (mg/L)	<0.06	<0.06	<0.06
Arsenic (mg/L)	0.024	0.026	0.027
Barium (mg/L)	0.01	<0.01	<0.01
Beryllium (mg/L)	<0.002	<0.002	<0.002
Cadmium (mg/L)	<0.005	<0.005	<0.005
Chromium (mg/L)	<0.002	0.0078	<0.01
Cobalt (mg/L)	<0.02	<0.02	<0.02
Copper (mg/L)	0.013	<0.01	<0.01
Lead (mg/L)	<0.003	<0.003	<0.003
Lithium (mg/L)	0.036	0.041	0.042
Mercury (mg/L)	<0.0002	<0.0002	<0.0002
Molybdenum (mg/L)	<0.02	<0.02	<0.02
Nickel (mg/L)	<0.02	<0.02	<0.02
Selenium (mg/L)	<0.005	0.0089	0.014
Silver (mg/L)	<0.005	<0.005	<0.005
Thallium (mg/L)	<0.005	<0.005	<0.005
Vanadium (mg/L)	0.075	0.1	0.083
Zinc (mg/L)	0.043	<0.02	<0.05

Table B-8.13. Building 801 Firing Table and Pit 8 Landfill volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
K8-01	5/27/15	E624MOD	3.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-01	5/27/15 DUP	E624MOD	3.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-01	10/26/15	E624MOD	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-01	10/26/15 DUP	E624MOD	3.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-02B	5/27/15	E624MOD	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-03B	5/27/15	E624MOD	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-03B	10/26/15	E624MOD	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-04	5/27/15	E624MOD	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.81	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-04	5/27/15 DUP	E624MOD	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.91	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-8.13 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
K8-01	5/27/15	E624MOD	0 of 18
K8-01	5/27/15 DUP	E624MOD	0 of 18
K8-01	10/26/15	E624MOD	0 of 18
K8-01	10/26/15 DUP	E624MOD	0 of 18
K8-02B	5/27/15	E624MOD	0 of 18
K8-03B	5/27/15	E624MOD	0 of 18
K8-03B	10/26/15	E624MOD	0 of 18
K8-04	5/27/15	E624MOD	0 of 18
K8-04	5/27/15 DUP	E624MOD	0 of 18

Table B-8.14. Building 801 Firing Table and Pit 8 Landfill high explosive compounds in ground water.

Location	Date	1,3,5-Trinitrobenzene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	2-Amino-4,6-Dinitrotoluene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Amino-2,6-Dinitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	RDX (µg/L)	TNT (µg/L)
K8-02B	5/27/15	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.1	<2.2	<1.1	<2.2
K8-04	5/27/15	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<1.2	<2.4	<1.2	<2.4
K8-04	5/27/15 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table B-8.15. Building 801 Firing Table and Pit 8 Landfill nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
K8-01	5/27/15	45 D	<4
K8-01	5/27/15 DUP	46	<4
K8-01	10/26/15	-	<4
K8-01	10/26/15 DUP	-	<4
K8-02B	2/5/15	-	<4
K8-02B	5/27/15	41	<4
K8-02B	7/30/15	-	<4
K8-02B	10/26/15	43 LO	<4
K8-03B	5/27/15	8.7	<4
K8-03B	10/26/15	-	<4
K8-04	5/27/15	80 D	<4
K8-04	5/27/15 DUP	71	4.3
K8-04	10/26/15	-	<4

Table B-8.16. Building 801 Firing Table and Pit 8 Landfill fluoride in ground water.

Location	Date	Fluoride (mg/L)
K8-02B	5/27/15	<0.5 H
K8-04	5/27/15	<0.5 H
K8-04	5/27/15 DUP	0.39

Table B-8.17. Building 801 Firing Table and Pit 8 Landfill total uranium and uranium isotopes in ground water.

Location	Date	AS	AS	AS	MS	MS	MS	MS	MS	MS	MS	MS
		Uranium 234 and 233 (in activity) (pCi/L)	Uranium 235 and 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Total Uranium (in activity) (pCi/L)	Total Uranium (in mass) (µg/L)	Uranium 234 (in activity) (pCi/L)	Uranium 235 (in activity) (pCi/L)	Uranium 236 (in activity) (pCi/L)	Uranium 238 (in activity) (pCi/L)	Uranium 238 (in mass) (µg/L)	Uranium 235/238 (atom/atom)
K8-01	5/27/15	5.71 ± 0.828	0.173 ± 0.0639	3.61 ± 0.544	-	-	-	-	-	-	-	-
K8-01	5/27/15 DUP	5.70 ± 1.00 J	0.261 ± 0.0850	3.68 ± 0.660	-	-	-	-	-	-	-	-
K8-02B	5/27/15	-	-	-	11.0 ± 0.440	12.0 ± 0.250	7.00 ± 0.430	0.190 ± 0.00600	<0.0008	4.10 ± 0.0850	12.0 ± 0.250	0.00726 ± 0.000171
K8-02B	10/26/15	6.60 ± 0.893	0.189 ± 0.0644 O	3.86 ± 0.544	-	-	-	-	-	-	-	-
K8-03B	5/27/15	2.95 ± 0.454	0.117 ± 0.0528	2.07 ± 0.333	-	-	-	-	-	-	-	-
K8-04	5/27/15	-	-	-	13.0 ± 0.440	15.0 ± 0.320	8.00 ± 0.430	0.240 ± 0.00870	<0.00097	5.10 ± 0.110	15.0 ± 0.320	0.00723 ± 0.000219

Appendix C

Ground Water Elevations Measured During 2015

Appendix C

Ground Water Elevations Measured During 2015

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
CDF1	01/15/15	478.50	
CDF1	02/24/15	484.52	
CDF1	02/24/15	488.33	PS
CDF1	03/31/15	488.40	PS
CDF1	04/20/15	487.90	
CDF1	05/28/15	485.12	
CDF1	05/28/15	485.12	PS
CDF1	06/24/15	487.88	PS
CDF1	07/22/15	487.79	
CDF1	08/20/15	489.50	
CDF1	08/27/15	487.49	PS
CDF1	09/23/15	487.43	PS
CDF1	10/14/15	488.47	PS
CDF1	11/18/15	488.19	
CDF1	12/08/15	490.01	
CDF1	12/21/15	487.73	PS
CON1	01/15/15	480.45	PS
CON1	02/24/15	476.96	
CON1	02/24/15	476.96	
CON1	03/31/15	489.92	PS
CON1	04/20/15	489.80	PS
CON1	05/28/15	458.66	
CON1	05/28/15	458.66	
CON1	06/24/15	489.51	PS
CON1	07/22/15	462.16	
CON1	08/20/15	462.11	
CON1	08/27/15	489.83	PS
CON1	09/23/15	476.69	PS
CON1	10/14/15	489.81	PS
CON1	11/18/15	481.06	
CON1	12/08/15	490.30	
CON1	12/21/15	490.36	PS
CON2	01/15/15	488.92	PS
CON2	02/24/15	487.96	
CON2	02/24/15	488.92	
CON2	03/31/15	487.94	PS
CON2	04/20/15	487.87	PS
CON2	05/28/15	487.58	
CON2	05/28/15	487.58	
CON2	06/24/15	488.99	PS
CON2	07/22/15	489.78	
CON2	08/20/15	489.89	
CON2	08/27/15	488.87	PS
CON2	09/23/15	493.88	PS
CON2	10/14/15	489.28	PS
CON2	11/18/15	489.19	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
CON2	12/08/15	488.76	
CON2	12/21/15	488.75	
W-24P-03	02/24/15	424.54	
W-24P-03	06/09/15	423.77	
W-24P-03	08/20/15	424.29	
W-24P-03	12/08/15	424.06	
W-25D-01	02/24/15	443.82	
W-25D-01	06/09/15	444.11	
W-25D-01	08/20/15	445.32	
W-25D-01	12/08/15	445.13	
W-25D-02	02/24/15	441.74	
W-25D-02	06/09/15	441.83	
W-25D-02	08/20/15	442.14	
W-25D-02	12/08/15	441.43	
W-25M-01	02/24/15	451.98	
W-25M-01	06/09/15	451.95	
W-25M-01	08/20/15	459.02	
W-25M-01	12/08/15	459.11	
W-25M-02	02/24/15	469.33	
W-25M-02	06/09/15	469.00	
W-25M-02	08/20/15	473.19	
W-25M-02	12/08/15	473.44	
W-25M-03	02/24/15	470.32	
W-25M-03	06/09/15	470.12	
W-25M-03	08/20/15	474.90	
W-25M-03	12/08/15	475.00	
W-25N-01	02/09/15	488.47	
W-25N-01	05/28/15	488.20	
W-25N-01	08/10/15	488.85	
W-25N-01	11/16/15	489.08	
W-25N-04	02/09/15	485.83	
W-25N-04	05/28/15	485.89	
W-25N-04	08/10/15	485.87	
W-25N-04	11/16/15	485.78	
W-25N-05	02/24/15	479.23	
W-25N-05	05/28/15	478.96	
W-25N-05	08/20/15	484.25	
W-25N-05	12/08/15	483.67	
W-25N-06	02/24/15	475.70	
W-25N-06	05/28/15	474.95	
W-25N-06	08/20/15	483.90	
W-25N-06	12/08/15	480.34	
W-25N-07	02/24/15	488.53	
W-25N-07	05/28/15	487.85	
W-25N-07	08/20/15	489.80	
W-25N-07	12/08/15	488.77	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-25N-08	02/09/15	486.72	
W-25N-08	05/28/15	486.06	
W-25N-08	08/10/15	487.75	
W-25N-08	11/16/15	487.31	
W-25N-09	02/09/15	491.39	
W-25N-09	05/28/15	490.24	
W-25N-09	08/10/15	491.25	
W-25N-09	11/16/15	491.33	
W-25N-10	02/24/15	484.37	
W-25N-10	05/28/15	483.73	
W-25N-10	08/20/15	489.15	
W-25N-10	12/08/15	489.97	
W-25N-11	02/24/15	481.34	
W-25N-11	05/28/15	480.49	
W-25N-11	08/20/15	489.31	
W-25N-11	12/08/15	490.00	
W-25N-12	02/24/15	485.63	
W-25N-12	05/28/15	485.25	
W-25N-12	08/20/15	488.92	
W-25N-12	12/08/15	488.54	
W-25N-13	02/24/15	487.50	
W-25N-13	05/28/15	486.45	
W-25N-13	08/20/15	488.87	
W-25N-13	12/08/15	487.96	
W-25N-15	02/24/15	482.33	
W-25N-15	05/28/15	481.44	
W-25N-15	08/20/15	487.43	
W-25N-15	12/08/15	486.66	
W-25N-18	02/24/15	482.46	
W-25N-18	05/28/15	481.39	
W-25N-18	08/20/15	486.92	
W-25N-18	12/08/15	486.29	
W-25N-20	02/09/15	485.68	
W-25N-20	05/28/15	485.86	
W-25N-20	08/10/15	487.08	
W-25N-20	11/16/15	486.31	
W-25N-21	02/09/15	491.38	
W-25N-21	05/28/15	490.30	
W-25N-21	08/10/15	491.28	
W-25N-21	11/16/15	491.15	
W-25N-22	02/09/15	487.36	
W-25N-22	03/02/15	487.32	PS
W-25N-22	03/03/15	487.24	
W-25N-22	05/28/15	487.24	
W-25N-22	08/10/15	488.08	
W-25N-22	08/10/15	488.04	PS

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-25N-22	08/11/15	488.02	
W-25N-22	11/16/15	487.70	
W-25N-23	02/09/15	487.04	
W-25N-23	03/02/15	487.03	PS
W-25N-23	03/03/15	486.97	
W-25N-23	05/28/15	487.03	
W-25N-23	08/10/15	488.17	
W-25N-23	08/10/15	488.15	PS
W-25N-23	08/11/15	488.13	
W-25N-23	11/16/15	487.52	
W-25N-24	02/09/15	488.15	
W-25N-24	05/28/15	488.29	
W-25N-24	08/10/15	489.46	
W-25N-24	11/16/15	488.75	
W-25N-25	02/24/15	481.18	
W-25N-25	05/28/15	479.92	
W-25N-25	08/20/15	488.34	
W-25N-25	12/08/15	487.55	
W-25N-26	02/24/15	481.25	
W-25N-26	05/28/15	479.60	
W-25N-26	08/20/15	487.27	
W-25N-26	12/08/15	486.65	
W-25N-28	02/24/15	479.72	
W-25N-28	05/28/15	477.98	
W-25N-28	08/20/15	483.95	
W-25N-28	12/08/15	483.43	
W-26R-01	02/09/15	488.66	
W-26R-01	03/02/15	488.61	PS
W-26R-01	03/03/15	488.56	
W-26R-01	05/28/15	487.97	
W-26R-01	06/01/15	488.89	PS
W-26R-01	06/02/15	488.86	PS
W-26R-01	06/15/15	489.07	
W-26R-01	08/10/15	489.86	
W-26R-01	08/24/15	489.91	PS
W-26R-01	08/25/15	489.91	PS
W-26R-01	11/10/15	489.26	PS
W-26R-01	11/11/15	489.23	
W-26R-01	11/16/15	489.25	
W-26R-02	02/09/15	491.70	
W-26R-02	05/28/15	491.03	
W-26R-02	08/10/15	491.42	
W-26R-02	11/16/15	491.45	
W-26R-03	02/09/15	488.47	
W-26R-03	05/28/15	488.39	
W-26R-03	08/10/15	489.22	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-26R-03	11/16/15	489.03	
W-26R-04	02/09/15	488.49	
W-26R-04	05/28/15	488.48	
W-26R-04	08/10/15	489.95	
W-26R-04	11/16/15	489.13	
W-26R-05	02/09/15	488.86	
W-26R-05	03/02/15	488.78	PS
W-26R-05	03/05/15	488.21	
W-26R-05	05/28/15	488.96	
W-26R-05	06/01/15	488.59	PS
W-26R-05	06/04/15	488.01	
W-26R-05	08/10/15	489.45	
W-26R-05	08/10/15	489.79	PS
W-26R-05	08/18/15	489.14	PS
W-26R-05	11/09/15	488.99	
W-26R-05	11/16/15	486.79	
W-26R-05	11/16/15	488.67	
W-26R-06	02/09/15	488.42	
W-26R-06	05/28/15	488.51	
W-26R-06	06/29/15	489.14	
W-26R-06	08/10/15	489.92	
W-26R-06	11/16/15	489.09	
W-26R-06	12/17/15	488.64	
W-26R-07	02/09/15	491.48	
W-26R-07	05/28/15	491.02	
W-26R-07	08/10/15	491.38	
W-26R-07	11/16/15	491.26	
W-26R-08	02/09/15	491.88	
W-26R-08	05/28/15	491.56	
W-26R-08	08/10/15	491.67	
W-26R-08	11/16/15	491.66	
W-26R-11	02/09/15	488.88	
W-26R-11	03/02/15	488.77	PS
W-26R-11	03/03/15	488.78	
W-26R-11	05/28/15	488.42	
W-26R-11	06/01/15	489.02	PS
W-26R-11	06/02/15	489.02	
W-26R-11	08/10/15	490.32	
W-26R-11	08/24/15	490.03	PS
W-26R-11	08/25/15	490.02	PS
W-26R-11	11/10/15	489.50	PS
W-26R-11	11/11/15	489.47	
W-26R-11	11/16/15	489.51	
W-35A-01	03/04/15	490.59	
W-35A-01	06/11/15	492.50	
W-35A-01	06/25/15	492.42	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-35A-01	08/20/15	492.71	
W-35A-01	11/19/15	492.37	
W-35A-01	12/17/15	491.33	
W-35A-02	03/04/15	492.99	
W-35A-02	06/11/15	494.76	
W-35A-02	06/29/15	495.09	
W-35A-02	08/20/15	494.80	
W-35A-02	11/19/15	494.30	
W-35A-02	12/14/15	493.83	
W-35A-03	03/04/15	488.68	
W-35A-03	06/11/15	490.89	
W-35A-03	06/25/15	492.12	
W-35A-03	08/20/15	492.46	
W-35A-03	11/19/15	NM	Well missed during water lev
W-35A-03	12/17/15	491.14	
W-35A-04	03/04/15	485.44	
W-35A-04	04/04/15	489.49	PS
W-35A-04	06/03/15	489.76	PS
W-35A-04	06/04/15	489.76	
W-35A-04	06/11/15	483.88	
W-35A-04	08/20/15	488.69	
W-35A-04	08/25/15	489.85	PS
W-35A-04	08/26/15	489.85	PS
W-35A-04	11/11/15	490.36	PS
W-35A-04	11/12/15	490.37	
W-35A-04	11/19/15	490.13	
W-35A-05	03/04/15	487.74	
W-35A-05	06/11/15	490.62	
W-35A-05	06/25/15	492.50	
W-35A-05	08/20/15	492.44	
W-35A-05	11/19/15	492.31	
W-35A-05	12/17/15	491.47	
W-35A-06	03/04/15	487.08	
W-35A-06	06/11/15	490.18	
W-35A-06	06/29/15	490.16	
W-35A-06	08/20/15	490.62	
W-35A-06	11/19/15	489.86	
W-35A-06	12/17/15	489.45	
W-35A-07	03/04/15	500.27	
W-35A-07	06/11/15	504.69	
W-35A-07	06/29/15	504.74	
W-35A-07	08/20/15	505.28	
W-35A-07	11/19/15	504.88	
W-35A-07	12/14/15	505.03	
W-35A-08	03/04/15	498.10	
W-35A-08	03/24/15	499.99	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-35A-08	06/11/15	500.32	
W-35A-08	06/29/15	500.26	
W-35A-08	08/20/15	500.31	
W-35A-08	09/16/15	499.92	
W-35A-08	11/19/15	500.32	
W-35A-08	12/14/15	500.38	
W-35A-09	03/04/15	491.91	
W-35A-09	06/11/15	497.04	
W-35A-09	06/29/15	497.29	
W-35A-09	08/20/15	497.45	
W-35A-09	11/19/15	496.75	
W-35A-09	12/14/15	496.57	
W-35A-10	03/04/15	491.95	
W-35A-10	06/11/15	495.94	
W-35A-10	06/29/15	496.16	
W-35A-10	08/20/15	496.56	
W-35A-10	11/19/15	495.96	
W-35A-10	12/14/15	495.59	
W-35A-11	03/04/15	499.60	
W-35A-11	06/11/15	501.71	
W-35A-11	06/25/15	502.34	
W-35A-11	08/20/15	501.96	
W-35A-11	11/19/15	501.88	
W-35A-11	12/17/15	501.76	
W-35A-12	03/04/15	491.55	
W-35A-12	06/11/15	494.82	
W-35A-12	06/25/15	495.10	
W-35A-12	08/20/15	495.69	
W-35A-12	11/19/15	495.07	
W-35A-12	12/17/15	494.63	
W-35A-13	03/04/15	484.31	
W-35A-13	06/11/15	486.61	
W-35A-13	06/29/15	491.68	
W-35A-13	08/20/15	491.94	
W-35A-13	11/19/15	491.38	
W-35A-13	12/17/15	491.01	
W-35A-14	03/04/15	493.06	
W-35A-14	03/24/15	496.06	
W-35A-14	06/11/15	500.10	
W-35A-14	06/29/15	496.91	
W-35A-14	08/20/15	500.33	
W-35A-14	09/16/15	496.73	
W-35A-14	11/19/15	499.91	
W-35A-14	12/14/15	496.10	
W-7A	02/11/15	503.94	
W-7A	06/10/15	504.08	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-7A	06/16/15	504.18	
W-7A	08/10/15	504.33	
W-7A	11/04/15	504.47	
W-7A	12/08/15	504.44	
W-7B	02/09/15	490.95	
W-7B	05/28/15	491.33	
W-7B	06/17/15	490.83	
W-7B	08/10/15	491.69	
W-7B	11/16/15	490.84	
W-7B	12/16/15	490.34	
W-7C	02/09/15	498.99	
W-7C	05/28/15	500.12	
W-7C	08/10/15	499.95	
W-7C	11/16/15	499.43	
W-7C	12/16/15	499.36	
W-7D	02/09/15	491.78	
W-7D	05/28/15	489.31	
W-7D	08/10/15	490.66	
W-7D	11/16/15	491.62	
W-7DS	02/09/15	488.92	
W-7DS	03/04/15	488.86	PS
W-7DS	03/05/15	488.86	
W-7DS	05/28/15	488.95	
W-7DS	06/01/15	489.18	PS
W-7DS	06/02/15	489.16	
W-7DS	08/10/15	490.42	
W-7DS	08/25/15	490.42	PS
W-7DS	08/26/15	490.40	PS
W-7DS	11/10/15	489.57	PS
W-7DS	11/11/15	489.57	
W-7DS	11/16/15	489.59	
W-7E	02/09/15	490.16	
W-7E	05/28/15	490.56	
W-7E	06/03/15	490.37	PS
W-7E	06/04/15	490.35	
W-7E	08/10/15	491.53	
W-7E	11/11/15	490.46	PS
W-7E	11/12/15	490.46	
W-7E	11/16/15	490.85	
W-7ES	02/09/15	490.44	
W-7ES	03/04/15	490.41	PS
W-7ES	03/05/15	490.41	
W-7ES	05/28/15	490.84	
W-7ES	06/03/15	490.81	PS
W-7ES	06/04/15	490.81	
W-7ES	08/10/15	492.03	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-7ES	08/25/15	491.61	PS
W-7ES	08/26/15	491.60	PS
W-7ES	11/11/15	491.20	PS
W-7ES	11/12/15	491.18	
W-7ES	11/16/15	491.15	
W-7F	02/11/15	496.80	
W-7F	06/08/15	496.32	
W-7F	06/16/15	490.84	
W-7F	08/12/15	495.86	
W-7F	11/16/15	495.50	
W-7F	12/07/15	496.56	
W-7G	02/11/15	499.29	
W-7G	05/28/15	499.62	
W-7G	06/16/15	499.72	
W-7G	08/10/15	500.09	
W-7G	11/04/15	499.70	
W-7G	12/07/15	499.64	
W-7H	02/11/15	495.42	
W-7H	05/28/15	495.22	
W-7H	06/16/15	495.54	
W-7H	08/10/15	495.55	
W-7H	11/04/15	495.48	
W-7H	12/07/15	494.70	
W-7I	02/11/15	501.07	
W-7I	05/28/15	501.41	
W-7I	08/12/15	497.43	
W-7I	11/05/15	500.53	
W-7J	02/11/15	496.81	
W-7J	06/08/15	496.03	
W-7J	06/16/15	491.55	
W-7J	08/12/15	496.73	
W-7J	11/05/15	496.19	
W-7J	12/08/15	496.74	
W-7K	02/09/15	499.44	
W-7K	05/28/15	499.28	
W-7K	06/17/15	499.93	
W-7K	08/10/15	499.89	
W-7K	11/16/15	499.95	
W-7K	12/14/15	499.97	
W-7L	02/09/15	498.89	
W-7L	05/28/15	500.54	
W-7L	06/17/15	499.98	
W-7L	08/10/15	501.40	
W-7L	11/16/15	499.93	
W-7L	12/16/15	499.94	
W-7M	02/09/15	494.84	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-7M	05/28/15	494.59	
W-7M	06/17/15	495.33	
W-7M	08/10/15	494.87	
W-7M	11/16/15	495.45	
W-7M	12/16/15	495.24	
W-7N	02/09/15	490.49	
W-7N	05/28/15	490.35	
W-7N	06/17/15	491.13	
W-7N	08/10/15	490.62	
W-7N	11/16/15	491.15	
W-7N	12/16/15	490.68	
W-7O	02/11/15	490.35	
W-7O	06/10/15	491.03	
W-7O	08/12/15	491.16	
W-7O	11/04/15	491.18	
W-7P	02/09/15	490.07	
W-7P	05/28/15	490.42	
W-7P	08/10/15	491.60	
W-7P	11/16/15	490.73	
W-7PS	02/09/15	490.48	
W-7PS	05/28/15	490.48	
W-7PS	08/10/15	490.48	
W-7PS	11/16/15	490.64	
W-7Q	02/11/15	492.57	
W-7Q	06/08/15	491.99	
W-7Q	06/16/15	492.01	
W-7Q	08/12/15	492.26	
W-7Q	11/16/15	492.23	
W-7Q	12/07/15	492.22	
W-7R	02/09/15	490.49	
W-7R	05/28/15	490.65	
W-7R	08/10/15	490.93	
W-7R	11/16/15	491.09	
W-7S	02/09/15	490.50	
W-7S	05/28/15	490.94	
W-7S	06/17/15	491.32	
W-7S	08/10/15	491.71	
W-7S	11/16/15	491.05	
W-7S	12/14/15	490.70	
W-7T	02/09/15	490.49	
W-7T	05/28/15	490.95	
W-7T	06/17/15	491.32	
W-7T	08/10/15	492.44	
W-7T	11/16/15	491.20	
W-7T	12/14/15	490.74	
W-843-01	02/17/15	510.37	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-843-01	06/11/15	510.76	
W-843-01	06/11/15	510.76	
W-843-01	08/17/15	510.59	
W-843-01	11/05/15	510.18	
W-843-01	12/07/15	510.48	
W-843-02	02/17/15	515.70	
W-843-02	06/11/15	515.40	
W-843-02	06/11/15	515.40	
W-843-02	08/17/15	515.63	
W-843-02	11/05/15	515.29	
W-843-02	12/07/15	515.40	
W-872-01	02/11/15	496.54	
W-872-01	06/09/15	496.54	
W-872-01	08/12/15	496.54	
W-872-01	11/05/15	496.34	
W-872-01	12/10/15	497.96	
W-872-02	02/11/15	498.52	
W-872-02	06/09/15	493.26	
W-872-02	08/12/15	496.73	
W-872-02	11/05/15	496.82	
W-873-01	02/11/15	514.83	
W-873-01	06/09/15	515.08	
W-873-01	06/11/15	514.93	
W-873-01	08/12/15	514.42	
W-873-01	11/05/15	514.35	
W-873-01	12/09/15	515.12	
W-873-02	02/11/15	499.98	
W-873-02	06/09/15	499.94	
W-873-02	06/11/15	498.51	
W-873-02	08/12/15	498.56	
W-873-02	11/05/15	497.65	
W-873-02	12/09/15	498.35	
W-873-03	02/11/15	503.19	
W-873-03	06/09/15	502.43	
W-873-03	06/11/15	502.36	
W-873-03	08/12/15	501.99	
W-873-03	11/05/15	501.57	
W-873-03	12/09/15	502.13	
W-873-04	02/11/15	512.45	
W-873-04	06/09/15	512.16	
W-873-04	06/11/15	511.01	
W-873-04	08/12/15	511.24	
W-873-04	11/05/15	511.05	
W-873-04	12/09/15	510.86	
W-873-06	02/11/15	500.09	
W-873-06	06/09/15	499.09	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-873-06	06/11/15	499.06	
W-873-06	08/12/15	499.02	
W-873-06	11/05/15	498.30	
W-873-06	12/09/15	498.89	PS
W-873-07	02/11/15	NM	
W-873-07	06/09/15	497.91	
W-873-07	08/12/15	498.00	
W-873-07	11/05/15	496.44	
W-875-01	02/11/15	511.71	
W-875-01	06/08/15	511.28	
W-875-01	06/15/15	511.28	
W-875-01	08/18/15	511.16	
W-875-01	11/04/15	511.03	
W-875-01	12/16/15	511.45	
W-875-02	02/11/15	509.76	
W-875-02	06/08/15	509.16	
W-875-02	06/15/15	509.32	
W-875-02	08/18/15	509.08	
W-875-02	11/04/15	509.00	
W-875-02	12/10/15	509.51	
W-875-03	02/11/15	498.37	
W-875-03	06/08/15	498.18	
W-875-03	08/18/15	497.88	
W-875-03	11/04/15	497.77	
W-875-03	12/10/15	497.64	
W-875-04	02/11/15	512.59	
W-875-04	06/08/15	511.56	
W-875-04	06/15/15	510.81	
W-875-04	08/18/15	510.66	
W-875-04	11/04/15	510.60	
W-875-04	12/10/15	511.00	
W-875-05	02/11/15	513.21	
W-875-05	06/08/15	512.56	
W-875-05	06/15/15	513.06	
W-875-05	08/18/15	513.12	
W-875-05	11/04/15	512.97	
W-875-05	12/10/15	513.28	PS
W-875-06	02/11/15	NM	
W-875-06	06/08/15	502.67	
W-875-06	06/15/15	505.17	
W-875-06	08/18/15	502.66	
W-875-06	11/05/15	502.78	
W-875-06	12/10/15	504.49	
W-875-07	02/11/15	500.14	
W-875-07	06/08/15	498.42	
W-875-07	08/12/15	496.81	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-875-07	11/05/15	499.84	
W-875-08	02/11/15	500.99	
W-875-08	06/08/15	500.61	
W-875-08	08/12/15	500.42	
W-875-08	11/05/15	500.39	
W-875-09	02/11/15	500.91	
W-875-09	06/08/15	500.48	
W-875-09	08/12/15	499.19	
W-875-09	11/05/15	500.85	
W-875-10	02/11/15	500.28	
W-875-10	06/08/15	498.90	
W-875-10	08/12/15	501.34	
W-875-10	11/05/15	500.21	
W-875-11	02/11/15	500.79	
W-875-11	06/08/15	499.91	
W-875-11	08/12/15	500.08	
W-875-11	11/05/15	500.37	
W-875-15	02/11/15	500.96	
W-875-15	06/08/15	500.74	
W-875-15	08/12/15	500.20	
W-875-15	11/05/15	500.32	
W-876-01	02/11/15	514.37	
W-876-01	06/11/15	514.30	
W-876-01	06/15/15	514.25	
W-876-01	08/18/15	513.77	
W-876-01	11/04/15	513.58	
W-876-01	12/10/15	514.67	
W-879-01	02/17/15	505.96	
W-879-01	06/11/15	506.30	
W-879-01	06/18/15	506.33	
W-879-01	08/18/15	506.76	
W-879-01	11/05/15	506.41	
W-879-01	12/07/15	506.38	
W-889-01	02/17/15	514.52	
W-889-01	06/11/15	514.47	
W-889-01	06/18/15	514.47	
W-889-01	08/18/15	514.45	
W-889-01	11/05/15	514.29	
W-889-01	12/07/15	514.37	
W-CGSA-1732	02/11/15	503.67	
W-CGSA-1732	06/10/15	503.74	
W-CGSA-1732	08/12/15	504.63	
W-CGSA-1732	11/04/15	510.50	
W-CGSA-1733	02/09/15	490.79	
W-CGSA-1733	05/28/15	490.79	
W-CGSA-1733	08/10/15	492.40	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-CGSA-1733	11/16/15	491.42	
W-CGSA-1735	02/09/15	494.37	
W-CGSA-1735	05/28/15	494.36	
W-CGSA-1735	08/10/15	494.37	
W-CGSA-1735	11/16/15	494.37	
W-CGSA-1736	02/09/15	489.09	
W-CGSA-1736	05/28/15	489.07	
W-CGSA-1736	06/18/15	489.63	
W-CGSA-1736	08/10/15	490.58	
W-CGSA-1736	11/16/15	489.78	
W-CGSA-1736	12/17/15	489.35	
W-CGSA-1737	02/09/15	490.11	
W-CGSA-1737	05/28/15	490.16	
W-CGSA-1737	06/18/15	490.87	
W-CGSA-1737	08/10/15	490.41	
W-CGSA-1737	11/16/15	490.83	
W-CGSA-1737	12/17/15	490.35	
W-CGSA-1739	02/09/15	493.94	
W-CGSA-1739	05/28/15	494.42	
W-CGSA-1739	06/17/15	493.78	
W-CGSA-1739	08/10/15	495.72	
W-CGSA-1739	11/16/15	493.36	
W-CGSA-1739	12/14/15	493.29	
W-CGSA-2708	02/17/15	515.79	
W-CGSA-2708	11/05/15	507.26	
W-CGSA-2907	11/05/15	NM	
W-CGSA-2908	11/05/15	526.50	

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-834-1709	02/02/15	996.46	
W-834-1709	03/04/15	996.18	
W-834-1709	06/15/15	996.26	
W-834-1709	07/30/15	993.28	
W-834-1709	08/27/15	993.15	
W-834-1709	12/01/15	992.53	
W-834-1711	03/04/15	979.24	
W-834-1711	06/15/15	979.66	
W-834-1711	07/30/15	980.89	
W-834-1711	08/27/15	980.73	
W-834-1711	12/01/15	980.37	
W-834-1712	03/04/15	1000.05	
W-834-1712	06/15/15	1000.05	
W-834-1712	08/27/15	1000.10	
W-834-1712	12/01/15	1000.05	
W-834-1824	02/11/15	922.50	
W-834-1824	03/04/15	919.98	
W-834-1824	06/15/15	922.46	
W-834-1824	08/05/15	920.76	
W-834-1824	08/27/15	920.61	
W-834-1824	12/02/15	920.57	
W-834-1825	03/04/15	916.80	
W-834-1825	06/15/15	916.86	
W-834-1825	08/27/15	916.94	
W-834-1825	12/02/15	916.93	
W-834-1833	03/04/15	914.91	
W-834-1833	06/15/15	914.92	
W-834-1833	08/27/15	914.95	
W-834-1833	12/02/15	914.92	
W-834-2001	03/04/15	995.82	
W-834-2001	06/15/15	989.97	
W-834-2001	08/27/15	990.42	
W-834-2001	12/01/15	994.39	
W-834-2113	02/10/15	959.90	
W-834-2113	03/04/15	960.06	
W-834-2113	06/15/15	960.39	
W-834-2113	08/05/15	960.19	
W-834-2113	08/27/15	960.29	
W-834-2113	12/02/15	960.11	
W-834-2117	02/11/15	930.56	
W-834-2117	03/04/15	930.47	
W-834-2117	06/08/15	931.06	
W-834-2117	06/15/15	931.13	
W-834-2117	08/06/15	931.23	
W-834-2117	08/27/15	931.24	
W-834-2117	12/02/15	931.20	

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-834-2118	02/04/15	908.48	
W-834-2118	03/04/15	908.86	
W-834-2118	06/08/15	908.29	
W-834-2118	06/15/15	908.25	
W-834-2118	08/11/15	907.99	
W-834-2118	08/27/15	907.85	
W-834-2118	12/02/15	907.65	
W-834-2119	02/12/15	900.28	
W-834-2119	03/04/15	900.06	
W-834-2119	06/08/15	900.21	
W-834-2119	06/15/15	899.93	
W-834-2119	08/06/15	900.03	
W-834-2119	08/27/15	899.94	
W-834-2119	12/02/15	899.79	
W-834-A1	02/02/15	983.79	
W-834-A1	03/04/15	985.31	
W-834-A1	06/15/15	983.60	
W-834-A1	07/30/15	986.29	
W-834-A1	08/27/15	983.03	
W-834-A1	12/01/15	982.94	
W-834-A2	02/02/15	998.48	
W-834-A2	03/04/15	997.73	
W-834-A2	06/15/15	997.10	
W-834-A2	08/27/15	997.01	
W-834-A2	12/01/15	996.81	
W-834-B2	03/04/15	1001.77	
W-834-B2	06/15/15	1003.58	
W-834-B2	08/27/15	1001.90	
W-834-B2	12/01/15	1001.79	
W-834-B3	03/04/15	1009.87	
W-834-B3	06/15/15	1014.26	
W-834-B3	08/27/15	1006.78	
W-834-B3	12/01/15	1006.42	
W-834-B4	02/02/15	1003.57	
W-834-B4	03/04/15	1002.95	
W-834-B4	06/15/15	1001.25	
W-834-B4	08/27/15	1000.67	
W-834-B4	12/01/15	1000.67	
W-834-C2	02/02/15	1002.92	
W-834-C2	03/04/15	1002.40	
W-834-C2	06/15/15	1002.40	
W-834-C2	08/27/15	1001.40	
W-834-C2	12/01/15	1001.40	
W-834-C4	02/02/15	1012.45	
W-834-C4	03/04/15	1012.05	
W-834-C4	06/15/15	1009.51	

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-834-C4	07/30/15	1008.56	
W-834-C4	08/27/15	1008.02	
W-834-C4	12/01/15	1008.74	
W-834-C5	02/02/15	1006.54	
W-834-C5	03/04/15	1005.68	
W-834-C5	06/15/15	1008.02	
W-834-C5	07/30/15	1003.02	
W-834-C5	08/27/15	1006.94	
W-834-C5	12/01/15	1006.91	
W-834-D2	03/04/15	694.65	
W-834-D2	06/15/15	694.65	
W-834-D2	08/27/15	694.65	
W-834-D2	12/01/15	187.65	
W-834-D3	02/03/15	994.61	
W-834-D3	03/04/15	994.55	
W-834-D3	06/15/15	991.54	
W-834-D3	08/03/15	990.71	
W-834-D3	08/27/15	990.55	
W-834-D3	12/01/15	988.38	
W-834-D4	03/04/15	993.76	
W-834-D4	06/15/15	992.46	
W-834-D4	08/27/15	983.34	
W-834-D4	12/01/15	986.25	
W-834-D5	03/04/15	992.75	
W-834-D5	06/15/15	988.16	
W-834-D5	08/27/15	987.56	
W-834-D5	12/01/15	988.55	
W-834-D6	03/04/15	991.43	
W-834-D6	06/15/15	984.70	
W-834-D6	08/27/15	983.98	
W-834-D6	12/01/15	985.74	
W-834-D7	03/04/15	988.61	
W-834-D7	06/15/15	981.85	
W-834-D7	08/27/15	981.43	
W-834-D7	12/01/15	985.65	
W-834-D10	03/04/15	992.21	
W-834-D10	06/15/15	992.21	
W-834-D10	08/27/15	982.60	
W-834-D10	12/01/15	982.31	
W-834-D11	02/03/15	995.44	
W-834-D11	03/04/15	994.88	
W-834-D11	06/15/15	995.07	
W-834-D11	08/27/15	993.34	
W-834-D11	12/01/15	993.28	
W-834-D12	03/04/15	990.09	
W-834-D12	06/15/15	986.79	

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-834-D12	08/27/15	987.09	
W-834-D12	12/01/15	986.62	
W-834-D13	03/04/15	991.74	
W-834-D13	06/15/15	989.21	
W-834-D13	08/27/15	989.14	
W-834-D13	12/01/15	989.09	
W-834-D14	02/03/15	992.37	
W-834-D14	03/04/15	992.11	
W-834-D14	06/15/15	987.66	
W-834-D14	08/27/15	987.61	
W-834-D14	12/01/15	988.35	
W-834-D15	02/03/15	997.16	
W-834-D15	03/04/15	994.66	
W-834-D15	06/15/15	994.97	
W-834-D15	08/27/15	993.07	
W-834-D15	12/01/15	992.81	
W-834-D16	03/04/15	997.29	
W-834-D16	06/15/15	997.29	
W-834-D16	08/27/15	997.29	
W-834-D16	12/01/15	997.29	
W-834-D17	03/04/15	983.80	
W-834-D17	06/15/15	983.87	
W-834-D17	08/27/15	983.75	
W-834-D17	12/01/15	983.62	
W-834-D18	03/04/15	991.63	
W-834-D18	06/15/15	992.10	
W-834-D18	08/03/15	991.75	
W-834-D18	08/27/15	991.76	
W-834-D18	12/01/15	991.51	
W-834-G3	03/04/15	1040.00	
W-834-G3	06/15/15	1040.05	
W-834-G3	08/27/15	1040.10	
W-834-G3	12/01/15	1040.10	
W-834-H2	03/04/15	991.65	
W-834-H2	06/15/15	991.65	
W-834-H2	08/27/15	991.65	
W-834-H2	12/01/15	991.65	
W-834-J1	03/04/15	989.83	
W-834-J1	06/15/15	988.63	
W-834-J1	08/27/15	988.93	
W-834-J1	12/01/15	988.05	
W-834-J2	02/09/15	988.97	
W-834-J2	03/04/15	989.35	
W-834-J2	06/15/15	986.65	
W-834-J2	08/04/15	986.07	
W-834-J2	08/27/15	986.37	

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-834-J2	12/01/15	987.41	
W-834-J3	03/04/15	963.03	
W-834-J3	06/15/15	962.99	
W-834-J3	08/27/15	962.93	
W-834-J3	12/01/15	962.93	
W-834-M1	02/10/15	961.66	
W-834-M1	03/04/15	957.46	
W-834-M1	06/15/15	961.58	
W-834-M1	08/04/15	961.68	
W-834-M1	08/27/15	961.59	
W-834-M1	12/01/15	961.48	
W-834-M2	03/04/15	957.48	
W-834-M2	06/15/15	957.53	
W-834-M2	08/27/15	957.53	
W-834-M2	12/02/15	957.53	
W-834-S1	03/04/15	976.71	
W-834-S1	06/15/15	966.71	
W-834-S1	08/27/15	966.86	
W-834-S1	12/02/15	966.96	
W-834-S10	03/04/15	980.88	
W-834-S10	06/15/15	980.88	
W-834-S10	08/27/15	980.88	
W-834-S10	12/02/15	980.88	
W-834-S12A	03/04/15	953.47	
W-834-S12A	06/15/15	953.82	
W-834-S12A	08/27/15	953.98	
W-834-S12A	12/02/15	953.06	
W-834-S13	03/04/15	956.64	
W-834-S13	06/15/15	957.06	
W-834-S13	08/27/15	957.26	
W-834-S13	12/02/15	956.76	
W-834-S4	02/09/15	947.39	
W-834-S4	03/04/15	947.46	
W-834-S4	06/15/15	947.38	
W-834-S4	08/04/15	947.35	
W-834-S4	08/27/15	947.36	
W-834-S4	12/01/15	947.30	
W-834-S5	03/04/15	945.34	
W-834-S5	06/15/15	945.34	
W-834-S5	08/27/15	939.34	
W-834-S5	12/02/15	935.34	
W-834-S6	03/04/15	890.48	
W-834-S6	06/15/15	890.75	
W-834-S6	08/27/15	890.87	
W-834-S6	12/02/15	890.75	
W-834-S7	03/04/15	913.82	

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-834-S7	06/15/15	886.67	
W-834-S7	08/27/15	886.67	
W-834-S7	12/02/15	886.67	
W-834-S8	03/04/15	937.27	
W-834-S8	06/15/15	940.25	
W-834-S8	08/05/15	940.61	
W-834-S8	08/27/15	940.69	
W-834-S8	12/02/15	940.60	
W-834-S9	02/10/15	941.11	
W-834-S9	03/04/15	941.21	
W-834-S9	06/15/15	943.05	
W-834-S9	08/05/15	943.35	
W-834-S9	08/27/15	943.26	
W-834-S9	12/02/15	943.12	
W-834-T1	02/11/15	641.64	
W-834-T1	03/04/15	641.60	
W-834-T1	06/08/15	641.64	
W-834-T1	06/15/15	641.44	
W-834-T1	08/05/15	641.41	
W-834-T1	08/27/15	641.63	
W-834-T1	12/01/15	641.22	
W-834-T1	12/02/15	641.29	
W-834-T11	03/04/15	894.86	
W-834-T11	06/15/15	894.86	
W-834-T11	08/27/15	894.86	
W-834-T11	12/02/15	894.86	
W-834-T2	02/11/15	917.82	
W-834-T2	03/04/15	917.56	
W-834-T2	06/15/15	917.13	
W-834-T2	08/05/15	917.76	
W-834-T2	08/27/15	917.69	
W-834-T2	12/02/15	917.69	
W-834-T2A	02/11/15	918.53	
W-834-T2A	03/04/15	918.18	
W-834-T2A	06/15/15	918.94	
W-834-T2A	08/05/15	918.98	
W-834-T2A	08/27/15	918.28	
W-834-T2A	12/02/15	918.85	
W-834-T2B	03/04/15	918.30	
W-834-T2B	06/15/15	918.30	
W-834-T2B	08/27/15	918.30	
W-834-T2B	12/02/15	918.30	
W-834-T2C	03/04/15	917.03	
W-834-T2C	06/15/15	917.08	
W-834-T2C	08/27/15	927.03	
W-834-T2C	12/02/15	927.08	

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-834-T2D	02/04/15	916.63	
W-834-T2D	03/04/15	915.75	
W-834-T2D	06/15/15	916.55	
W-834-T2D	08/11/15	916.54	
W-834-T2D	08/27/15	917.30	
W-834-T2D	12/02/15	916.49	
W-834-T3	03/04/15	609.12	
W-834-T3	06/08/15	609.81	
W-834-T3	06/15/15	609.71	
W-834-T3	08/10/15	609.77	
W-834-T3	08/27/15	608.71	
W-834-T3	12/01/15	609.52	
W-834-T3	12/02/15	609.43	
W-834-T5	02/12/15	853.12	
W-834-T5	03/04/15	853.37	
W-834-T5	06/15/15	853.49	
W-834-T5	08/10/15	853.07	
W-834-T5	08/27/15	853.45	
W-834-T5	12/02/15	853.04	
W-834-T7A	03/04/15	842.06	
W-834-T7A	06/15/15	842.08	
W-834-T7A	08/27/15	842.08	
W-834-T7A	12/02/15	842.68	
W-834-T8A	03/04/15	886.13	
W-834-T8A	06/15/15	886.18	
W-834-T8A	08/27/15	886.18	
W-834-T8A	12/02/15	886.23	
W-834-T9	03/04/15	931.09	
W-834-T9	06/15/15	931.09	
W-834-T9	08/27/15	931.14	
W-834-T9	12/02/15	931.19	
W-834-U1	02/03/15	988.26	
W-834-U1	03/04/15	984.62	
W-834-U1	06/15/15	984.96	
W-834-U1	08/04/15	988.13	
W-834-U1	08/27/15	984.61	
W-834-U1	12/17/15	NM	No access. Parked equipment preventing access to well.

Table C-3. Pit 6 Landfill Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
BC6-10	01/06/15	655.05	
BC6-10	03/02/15	655.45	
BC6-10	06/18/15	656.29	
BC6-10	07/08/15	656.55	
BC6-10	09/21/15	656.25	
BC6-10	12/16/15	656.59	
BC6-13	03/02/15	658.76	
BC6-13	06/18/15	658.76	
BC6-13	09/21/15	658.76	
BC6-13	12/16/15	658.76	
CARNRW1	03/02/15	631.07	
CARNRW1	06/18/15	NM	Obstruction in tremie pipe.
CARNRW1	09/21/15	NM	Obstruction in tremie pipe.
CARNRW1	11/19/15	NM	Obstruction in tremie pipe.
CARNRW3	01/20/15	658.37	PS
CARNRW3	02/19/15	661.61	
CARNRW3	03/02/15	661.61	
CARNRW3	04/28/15	660.88	PS
CARNRW3	05/27/15	661.08	
CARNRW3	06/18/15	659.82	
CARNRW3	06/23/15	660.79	PS
CARNRW3	07/15/15	659.78	PS
CARNRW3	08/19/15	660.37	PS
CARNRW3	09/03/15	660.17	
CARNRW3	09/21/15	660.14	
CARNRW3	10/27/15	659.00	PS
CARNRW3	11/17/15	659.62	
CARNRW3	11/19/15	660.12	
CARNRW3	12/29/15	660.00	PS
CARNRW4	01/20/15	636.63	PS
CARNRW4	02/19/15	635.53	
CARNRW4	03/02/15	643.62	
CARNRW4	03/12/15	643.32	PS
CARNRW4	04/28/15	643.22	PS
CARNRW4	05/27/15	643.16	
CARNRW4	06/18/15	640.93	
CARNRW4	06/23/15	643.60	PS
CARNRW4	07/15/15	643.67	PS
CARNRW4	08/19/15	643.44	PS
CARNRW4	09/03/15	643.96	
CARNRW4	09/21/15	642.01	
CARNRW4	10/27/15	635.65	PS
CARNRW4	11/17/15	637.88	
CARNRW4	11/19/15	641.53	
CARNRW4	12/29/15	637.41	PS
EP6-06	01/07/15	660.20	

Table C-3. Pit 6 Landfill Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
EP6-06	03/02/15	660.36	
EP6-06	06/18/15	660.28	
EP6-06	07/08/15	660.17	
EP6-06	09/21/15	660.29	
EP6-06	12/16/15	660.55	
EP6-07	01/12/15	644.63	
EP6-07	03/02/15	645.63	
EP6-07	06/18/15	646.15	
EP6-07	07/06/15	646.67	
EP6-07	09/21/15	646.02	
EP6-07	12/16/15	646.25	
EP6-08	03/02/15	646.91	
EP6-08	06/18/15	646.91	
EP6-08	09/21/15	646.91	
EP6-08	12/16/15	646.91	
EP6-09	01/14/15	663.10	
EP6-09	03/02/15	663.38	
EP6-09	06/18/15	663.34	
EP6-09	07/08/15	663.48	
EP6-09	09/21/15	663.56	
EP6-09	12/16/15	663.45	
K6-01	01/12/15	663.04	
K6-01	03/02/15	663.33	
K6-01	06/18/15	663.41	
K6-01	07/08/15	663.46	
K6-01	09/21/15	663.64	
K6-01	12/16/15	663.44	
K6-01S	01/08/15	663.20	
K6-01S	03/02/15	663.36	
K6-01S	06/18/15	663.42	
K6-01S	07/08/15	663.44	
K6-01S	09/21/15	663.44	
K6-01S	12/16/15	663.40	
K6-03	02/09/15	645.35	
K6-03	03/02/15	645.83	
K6-03	06/18/15	646.58	
K6-03	07/06/15	646.73	
K6-03	09/21/15	647.55	
K6-03	12/16/15	646.37	
K6-04	03/02/15	646.62	
K6-04	03/23/15	645.97	
K6-04	06/18/15	645.49	
K6-04	07/08/15	647.49	
K6-04	09/21/15	646.02	
K6-04	12/16/15	647.14	
K6-14	01/07/15	661.20	

Table C-3. Pit 6 Landfill Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
K6-14	03/02/15	660.49	
K6-14	06/18/15	659.21	
K6-14	07/09/15	659.04	
K6-14	09/21/15	660.11	
K6-14	12/16/15	657.32	
K6-15	03/02/15	663.79	
K6-15	06/18/15	663.79	
K6-15	09/21/15	663.79	
K6-15	12/16/15	664.79	
K6-16	01/08/15	661.65	
K6-16	03/02/15	661.40	
K6-16	06/18/15	661.17	
K6-16	07/09/15	661.04	
K6-16	09/21/15	661.39	
K6-16	12/16/15	660.76	
K6-17	01/08/15	660.25	
K6-17	03/02/15	659.92	
K6-17	04/01/15	659.47	
K6-17	06/18/15	658.45	
K6-17	07/07/15	658.11	
K6-17	09/21/15	658.96	
K6-17	10/01/15	656.41	
K6-17	12/16/15	656.61	
K6-18	01/08/15	659.94	
K6-18	03/02/15	660.42	
K6-18	06/18/15	659.65	
K6-18	07/07/15	659.61	
K6-18	09/21/15	659.47	
K6-18	12/16/15	659.75	
K6-19	01/07/15	663.02	
K6-19	03/02/15	663.28	
K6-19	06/18/15	663.41	
K6-19	07/08/15	663.29	
K6-19	09/21/15	664.62	
K6-19	12/16/15	663.84	
K6-21	03/02/15	664.90	
K6-21	06/18/15	664.90	
K6-21	09/21/15	664.91	
K6-21	12/16/15	664.90	
K6-22	01/06/15	643.81	
K6-22	03/02/15	648.85	
K6-22	04/01/15	643.81	
K6-22	06/18/15	648.24	
K6-22	07/09/15	644.13	
K6-22	09/21/15	648.27	
K6-22	10/01/15	647.71	

Table C-3. Pit 6 Landfill Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
K6-22	12/16/15	643.55	
K6-23	01/08/15	656.13	
K6-23	03/02/15	659.33	
K6-23	06/18/15	658.83	
K6-23	07/07/15	656.66	
K6-23	09/21/15	659.14	
K6-23	12/16/15	NM	
K6-24	03/02/15	644.74	
K6-24	06/18/15	644.04	
K6-24	09/21/15	644.03	
K6-24	12/16/15	645.24	
K6-25	01/07/15	661.04	
K6-25	03/02/15	660.89	
K6-25	06/18/15	660.72	
K6-25	07/09/15	660.62	
K6-25	09/21/15	660.79	
K6-25	12/16/15	660.43	
K6-26	01/07/15	644.91	
K6-26	03/02/15	645.83	
K6-26	06/18/15	646.41	
K6-26	07/07/15	647.10	
K6-26	09/21/15	646.61	
K6-26	12/16/15	646.46	
K6-27	01/07/15	643.33	
K6-27	03/02/15	644.32	
K6-27	06/18/15	644.91	
K6-27	07/07/15	642.64	
K6-27	09/21/15	645.07	
K6-27	12/16/15	644.85	
K6-32	03/02/15	653.00	
K6-32	06/18/15	652.89	
K6-32	09/21/15	652.90	
K6-32	12/16/15	652.90	
K6-33	01/06/15	640.02	
K6-33	03/02/15	641.07	
K6-33	06/18/15	641.18	
K6-33	07/06/15	642.09	
K6-33	09/21/15	642.36	
K6-33	12/16/15	642.22	
K6-34	01/06/15	637.87	
K6-34	03/02/15	637.07	
K6-34	04/01/15	637.88	
K6-34	06/18/15	641.34	
K6-34	07/06/15	642.16	
K6-34	09/21/15	641.21	
K6-34	10/01/15	638.15	

Table C-3. Pit 6 Landfill Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
K6-34	12/16/15	632.26	
K6-35	01/07/15	644.78	
K6-35	03/02/15	645.58	
K6-35	06/18/15	646.17	
K6-35	07/08/15	646.94	
K6-35	09/21/15	647.41	
K6-35	12/16/15	648.09	
K6-36	03/02/15	651.68	
K6-36	06/18/15	651.73	
K6-36	09/21/15	651.68	
K6-36	12/16/15	651.68	
W-33C-01	01/07/15	633.19	
W-33C-01	03/02/15	640.98	
W-33C-01	06/18/15	640.11	
W-33C-01	07/09/15	639.74	
W-33C-01	09/21/15	640.95	
W-33C-01	11/19/15	640.38	
W-34-01	03/02/15	668.51	
W-34-01	06/18/15	NM	No access. Road not safe to travel.
W-34-01	09/30/15	NM	No access. Road not safe to travel.
W-34-01	12/16/15	NM	
W-34-02	03/02/15	637.21	
W-34-02	06/18/15	NM	No access. Road not safe to travel.
W-34-02	09/30/15	NM	No access. Road not safe to travel.
W-34-02	12/16/15	NM	No access. Road not safe to travel.
W-PIT6-1819	01/05/15	638.26	
W-PIT6-1819	03/02/15	635.30	
W-PIT6-1819	04/01/15	636.19	
W-PIT6-1819	06/18/15	639.97	
W-PIT6-1819	07/06/15	640.75	
W-PIT6-1819	09/21/15	639.72	
W-PIT6-1819	10/01/15	637.31	
W-PIT6-1819	12/16/15	632.41	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-35B-01	01/21/15	503.80	
W-35B-01	03/05/15	500.87	
W-35B-01	06/10/15	503.89	
W-35B-01	06/11/15	503.88	
W-35B-01	08/20/15	504.59	
W-35B-01	09/15/15	503.84	
W-35B-01	11/19/15	503.87	
W-35B-01	12/07/15	503.90	PS
W-35B-02	01/21/15	504.22	
W-35B-02	03/05/15	500.68	
W-35B-02	06/10/15	504.45	
W-35B-02	06/11/15	504.49	
W-35B-02	08/20/15	504.86	
W-35B-02	09/15/15	504.23	
W-35B-02	11/19/15	504.17	
W-35B-02	12/07/15	504.14	PS
W-35B-03	01/21/15	505.82	
W-35B-03	03/05/15	501.98	
W-35B-03	06/10/15	505.91	
W-35B-03	06/11/15	505.84	
W-35B-03	08/20/15	506.26	
W-35B-03	09/15/15	505.52	
W-35B-03	11/19/15	505.85	
W-35B-03	12/07/15	505.59	PS
W-35B-04	01/21/15	518.76	
W-35B-04	03/05/15	514.33	
W-35B-04	06/10/15	524.67	
W-35B-04	06/11/15	524.17	
W-35B-04	08/20/15	524.76	
W-35B-04	09/15/15	524.50	
W-35B-04	11/19/15	523.89	
W-35B-04	12/07/15	521.03	PS
W-35B-05	01/21/15	523.60	
W-35B-05	03/05/15	520.92	
W-35B-05	06/10/15	524.62	
W-35B-05	06/11/15	524.47	
W-35B-05	08/20/15	524.48	
W-35B-05	09/15/15	524.32	
W-35B-05	11/19/15	523.37	
W-35B-05	12/07/15	521.11	
W-35C-01	03/05/15	539.46	
W-35C-01	03/16/15	539.47	
W-35C-01	06/22/15	539.42	
W-35C-01	08/26/15	538.63	
W-35C-01	09/15/15	538.60	
W-35C-01	12/03/15	538.52	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-35C-02	02/25/15	564.02	
W-35C-02	06/22/15	553.77	
W-35C-02	08/26/15	546.84	
W-35C-02	12/03/15	560.48	
W-35C-04	02/17/15	438.97	
W-35C-04	06/09/15	436.91	
W-35C-04	08/17/15	439.42	
W-35C-04	11/09/15	439.44	
W-35C-05	02/17/15	504.84	
W-35C-05	03/11/15	504.82	
W-35C-05	06/09/15	505.18	
W-35C-05	08/17/15	506.53	
W-35C-05	09/09/15	506.51	
W-35C-05	11/09/15	506.59	
W-35C-06	02/17/15	507.17	
W-35C-06	03/23/15	505.73	
W-35C-06	06/09/15	507.23	
W-35C-06	08/17/15	507.02	
W-35C-06	09/09/15	506.56	
W-35C-06	11/09/15	505.84	
W-35C-07	02/17/15	NM	No access. Sealed non-flowing artesian well.
W-35C-07	06/09/15	NM	No access. Sealed non-flowing artesian well.
W-35C-07	08/17/15	NM	No access. Sealed non-flowing artesian well.
W-35C-07	11/09/15	NM	
W-35C-08	02/17/15	506.15	
W-35C-08	03/11/15	506.67	
W-35C-08	06/09/15	507.96	
W-35C-08	08/17/15	508.66	
W-35C-08	09/09/15	508.01	
W-35C-08	11/09/15	507.22	
W-4A	02/25/15	525.06	
W-4A	03/19/15	527.27	
W-4A	06/11/15	527.15	
W-4A	08/26/15	526.38	
W-4A	09/17/15	527.35	
W-4A	11/16/15	526.20	
W-4AS	02/25/15	522.02	
W-4AS	03/19/15	524.27	
W-4AS	06/11/15	524.86	
W-4AS	08/26/15	524.08	
W-4AS	09/17/15	523.99	
W-4AS	11/16/15	523.95	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-4B	02/17/15	NM	No access. Sealed non-flowing artesian well.
W-4B	06/09/15	NM	No access. Sealed non-flowing artesian well.
W-4B	08/18/15	NM	No access. Sealed non-flowing artesian well.
W-4B	09/15/15	526.56	PS
W-4B	11/09/15	NM	
W-4C	02/17/15	528.58	
W-4C	03/16/15	528.34	
W-4C	06/09/15	532.69	
W-4C	06/18/15	528.91	PS
W-4C	08/18/15	NM	No access. Sealed non-flowing artesian well.
W-4C	09/15/15	522.31	PS
W-4C	11/09/15	NM	No access. Sealed non-flowing artesian well.
W-4C	12/03/15	518.27	
W-6BD	02/17/15	508.78	
W-6BD	03/24/15	508.35	
W-6BD	06/09/15	508.96	
W-6BD	08/26/15	508.52	
W-6BD	09/29/15	509.17	
W-6BD	11/16/15	508.55	
W-6BS	02/17/15	509.50	
W-6BS	03/25/15	508.53	
W-6BS	06/09/15	509.54	
W-6BS	08/26/15	509.35	
W-6BS	09/29/15	509.31	
W-6BS	11/16/15	509.31	
W-6CD	02/25/15	548.86	
W-6CD	03/23/15	547.16	
W-6CD	06/22/15	546.94	
W-6CD	08/26/15	546.12	
W-6CD	09/10/15	546.70	
W-6CD	12/03/15	545.32	
W-6CI	02/25/15	547.66	
W-6CI	03/17/15	548.35	
W-6CI	06/22/15	545.01	
W-6CI	08/26/15	544.41	
W-6CI	09/10/15	544.43	
W-6CI	12/03/15	538.94	
W-6CS	02/25/15	552.59	
W-6CS	03/17/15	552.57	
W-6CS	06/22/15	549.92	
W-6CS	08/26/15	549.64	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-6CS	09/10/15	549.60	
W-6CS	12/03/15	549.36	
W-6EI	02/17/15	530.63	
W-6EI	06/09/15	NM	No access. Sealed non-flowing artesian well.
W-6EI	08/18/15	NM	No access. Sealed non-flowing artesian well.
W-6EI	11/09/15	NM	
W-6ER	02/17/15	462.17	
W-6ER	06/09/15	462.34	
W-6ER	08/18/15	462.16	
W-6ER	11/09/15	461.95	
W-6ES	02/17/15	504.79	
W-6ES	03/16/15	505.12	
W-6ES	06/09/15	506.86	
W-6ES	08/18/15	506.64	
W-6ES	09/09/15	506.22	
W-6ES	11/09/15	505.47	
W-6F	02/25/15	557.15	
W-6F	03/17/15	556.98	
W-6F	06/22/15	555.95	
W-6F	08/26/15	554.45	
W-6F	12/03/15	553.87	
W-6G	02/25/15	558.24	
W-6G	03/17/15	557.54	
W-6G	06/22/15	556.62	
W-6G	08/26/15	555.11	
W-6G	12/03/15	555.39	
W-6H	03/05/15	549.14	
W-6H	03/16/15	549.04	PS
W-6H	06/03/15	548.63	
W-6H	06/22/15	548.39	
W-6H	08/26/15	547.58	
W-6H	09/16/15	547.69	
W-6H	12/03/15	538.53	
W-6H	12/09/15	538.51	
W-6I	03/05/15	533.79	
W-6I	03/16/15	533.83	
W-6I	06/22/15	531.95	
W-6I	08/26/15	530.45	
W-6I	09/16/15	530.23	
W-6I	12/03/15	530.77	
W-6J	03/05/15	548.34	
W-6J	03/16/15	548.24	PS
W-6J	06/03/15	547.76	
W-6J	06/22/15	547.83	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-6J	08/26/15	546.86	
W-6J	09/16/15	546.93	
W-6J	12/03/15	537.31	
W-6J	12/09/15	538.46	
W-6K	02/17/15	534.44	
W-6K	06/09/15	NM	No access. Sealed non-flowing artesian well.
W-6K	08/17/15	NM	No access. Sealed non-flowing artesian well.
W-6K	09/10/15	532.01	PS
W-6K	11/09/15	NM	
W-6L	02/17/15	535.49	
W-6L	06/09/15	534.92	
W-6L	08/17/15	NM	No access. Sealed non-flowing artesian well.
W-6L	09/10/15	532.92	PS
W-6L	11/09/15	NM	No access. Sealed non-flowing artesian well.
W-806-06A	03/03/15	NM	No access. Road not safe to travel.
W-806-06A	06/16/15	NM	
W-806-06A	08/25/15	693.70	
W-806-06A	12/01/15	694.10	
W-806-07	03/03/15	NM	No access. Road not safe to travel.
W-806-07	06/16/15	NM	
W-806-07	08/25/15	762.10	
W-806-07	12/01/15	762.18	
W-808-01	03/03/15	851.01	
W-808-01	03/09/15	851.16	
W-808-01	06/16/15	850.86	
W-808-01	08/25/15	850.97	
W-808-01	09/01/15	851.05	
W-808-01	12/01/15	850.40	
W-808-02	03/03/15	816.14	
W-808-02	06/16/15	816.14	
W-808-02	08/25/15	816.14	
W-808-02	12/01/15	816.14	
W-808-03	03/03/15	604.49	
W-808-03	03/09/15	604.71	
W-808-03	06/16/15	603.96	
W-808-03	08/25/15	604.21	
W-808-03	09/01/15	604.27	
W-808-03	12/01/15	604.12	
W-809-01	03/03/15	721.63	
W-809-01	03/10/15	721.80	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-809-01	06/16/15	721.79	
W-809-01	08/25/15	721.67	
W-809-01	09/01/15	721.77	
W-809-01	12/01/15	726.41	
W-809-02	03/03/15	648.63	
W-809-02	03/09/15	649.70	
W-809-02	06/16/15	649.45	
W-809-02	08/25/15	649.38	
W-809-02	09/01/15	649.53	
W-809-02	12/01/15	649.23	
W-809-03	03/03/15	640.87	
W-809-03	03/09/15	641.07	
W-809-03	06/16/15	642.33	
W-809-03	08/25/15	643.29	
W-809-03	09/02/15	643.35	
W-809-03	12/01/15	641.04	
W-809-04	03/03/15	697.32	
W-809-04	06/16/15	697.10	
W-809-04	08/25/15	698.27	
W-809-04	12/17/15	696.75	
W-810-01	03/03/15	595.98	
W-810-01	03/09/15	598.33	
W-810-01	06/16/15	597.96	
W-810-01	09/01/15	598.92	
W-810-01	09/08/15	598.05	
W-810-01	12/17/15	NM	
W-814-01	03/09/15	698.43	
W-814-01	03/12/15	698.45	
W-814-01	06/22/15	698.22	
W-814-01	09/08/15	698.31	
W-814-01	09/09/15	698.05	
W-814-01	12/14/15	698.24	
W-814-02	03/09/15	632.34	
W-814-02	03/12/15	632.75	
W-814-02	06/22/15	634.85	
W-814-02	09/08/15	634.91	
W-814-02	09/14/15	633.00	
W-814-02	12/14/15	631.29	
W-814-03	02/25/15	722.27	
W-814-03	06/22/15	722.27	
W-814-03	09/08/15	722.27	
W-814-03	12/14/15	722.27	
W-814-04	02/25/15	578.66	
W-814-04	03/17/15	578.79	PS
W-814-04	06/03/15	578.40	
W-814-04	06/22/15	716.52	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-814-04	09/08/15	716.58	
W-814-04	09/09/15	577.18	PS
W-814-04	12/03/15	576.00	
W-814-04	12/14/15	575.66	
W-814-2134	03/09/15	645.47	
W-814-2134	06/22/15	722.67	
W-814-2134	09/08/15	722.52	
W-814-2134	12/14/15	632.75	
W-814-2138	03/09/15	697.29	
W-814-2138	03/12/15	697.31	
W-814-2138	06/22/15	697.18	
W-814-2138	09/08/15	697.21	
W-814-2138	09/09/15	696.39	
W-814-2138	12/14/15	697.23	
W-815-01	03/03/15	673.36	
W-815-01	06/16/15	673.41	
W-815-01	08/25/15	673.41	
W-815-01	12/01/15	673.41	
W-815-02	03/03/15	631.77	
W-815-02	06/16/15	619.46	
W-815-02	08/25/15	617.28	
W-815-02	12/01/15	630.18	
W-815-03	03/03/15	674.65	
W-815-03	06/16/15	674.65	
W-815-03	08/25/15	674.65	
W-815-03	12/01/15	681.90	
W-815-04	03/03/15	637.73	
W-815-04	06/16/15	624.45	
W-815-04	08/25/15	622.15	
W-815-04	12/01/15	637.15	
W-815-05	03/03/15	NM	No access. Road not safe to travel.
W-815-05	06/16/15	NM	No access. Road not safe to travel.
W-815-05	08/25/15	NM	No access. Road not safe to travel.
W-815-05	12/01/15	NM	
W-815-06	03/09/15	625.22	
W-815-06	03/12/15	624.96	
W-815-06	06/22/15	625.46	
W-815-06	09/08/15	625.40	
W-815-06	12/14/15	624.12	
W-815-07	03/09/15	623.83	
W-815-07	03/12/15	623.89	
W-815-07	06/22/15	624.09	
W-815-07	09/08/15	623.97	
W-815-07	09/09/15	623.89	
W-815-07	12/14/15	622.80	
W-815-08	03/03/15	593.09	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-815-08	03/10/15	593.13	
W-815-08	06/16/15	593.87	
W-815-08	09/08/15	593.93	
W-815-08	12/01/15	592.76	
W-815-1918	03/03/15	639.51	
W-815-1918	06/16/15	656.96	
W-815-1918	08/25/15	655.37	
W-815-1918	12/01/15	640.07	
W-815-1928	03/03/15	718.59	
W-815-1928	06/16/15	717.53	
W-815-1928	08/25/15	717.57	
W-815-1928	12/01/15	725.66	
W-815-2110	03/05/15	538.27	
W-815-2110	03/17/15	537.94	PS
W-815-2110	06/03/15	537.86	
W-815-2110	06/22/15	537.52	
W-815-2110	08/26/15	537.57	
W-815-2110	09/16/15	537.87	PS
W-815-2110	12/03/15	526.37	
W-815-2110	12/03/15	526.37	
W-815-2111	03/05/15	536.51	
W-815-2111	03/17/15	536.06	PS
W-815-2111	06/03/15	536.16	
W-815-2111	06/22/15	535.85	
W-815-2111	08/26/15	535.99	
W-815-2111	09/16/15	535.99	PS
W-815-2111	12/03/15	525.36	
W-815-2111	12/03/15	525.36	
W-815-2217	02/24/15	548.83	
W-815-2217	03/17/15	548.78	
W-815-2217	06/22/15	547.32	
W-815-2217	08/26/15	546.49	
W-815-2217	09/10/15	546.43	
W-815-2217	12/03/15	545.53	
W-815-2608	12/03/15	478.59	
W-815-2621	02/17/15	NM	No access. Sealed non-flowing artesian well.
W-815-2621	03/11/15	533.03	PS
W-815-2621	09/02/15	532.65	
W-815-2621	11/09/15	532.75	
W-815-3024	08/25/15	680.14	
W-815-3024	12/01/15	680.13	
W-817-01	03/03/15	634.94	
W-817-01	06/16/15	633.31	
W-817-01	08/25/15	634.81	
W-817-01	12/01/15	634.92	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-817-02	03/03/15	593.02	
W-817-02	06/16/15	593.81	
W-817-02	08/25/15	NM	No access. Behind locked security gate.
W-817-02	12/17/15	NM	
W-817-03	03/03/15	570.91	
W-817-03	06/16/15	569.63	
W-817-03	08/25/15	567.25	
W-817-03	12/01/15	568.82	
W-817-03A	03/03/15	669.50	
W-817-03A	03/11/15	667.62	
W-817-03A	06/16/15	573.03	
W-817-03A	08/25/15	666.24	
W-817-03A	09/08/15	665.64	
W-817-03A	12/01/15	665.10	
W-817-04	03/03/15	607.19	
W-817-04	03/11/15	607.16	
W-817-04	06/16/15	607.06	
W-817-04	08/25/15	606.93	
W-817-04	09/08/15	606.76	
W-817-04	12/01/15	606.41	
W-817-05	03/03/15	634.36	
W-817-05	03/11/15	634.09	
W-817-05	06/16/15	634.38	
W-817-05	08/25/15	634.23	
W-817-05	09/08/15	634.33	
W-817-05	12/01/15	633.99	
W-817-06A	03/03/15	658.41	
W-817-06A	06/16/15	668.92	
W-817-06A	08/25/15	663.43	
W-817-06A	12/01/15	657.55	
W-817-07	03/03/15	570.15	
W-817-07	06/16/15	570.70	
W-817-07	08/25/15	570.54	
W-817-07	12/01/15	570.35	
W-817-2109	03/03/15	NM	
W-817-2109	06/16/15	695.82	
W-817-2109	08/25/15	NM	No access. Behind locked security gate.
W-817-2109	12/17/15	NM	
W-817-2318	03/03/15	669.64	
W-817-2318	06/16/15	668.91	
W-817-2318	08/25/15	666.38	
W-817-2318	12/01/15	665.64	
W-817-2609	03/03/15	569.38	
W-817-2609	03/10/15	569.70	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-817-2609	06/16/15	569.28	
W-817-2609	08/25/15	567.26	
W-817-2609	09/08/15	567.04	
W-817-2609	12/01/15	566.93	
W-817-3023	08/26/15	641.61	
W-817-3023	12/01/15	638.35	
W-817-3025	08/25/15	570.48	
W-817-3025	12/01/15	570.59	
W-817-3026	08/25/15	568.26	
W-817-3026	12/01/15	569.03	
W-818-01	03/09/15	584.84	
W-818-01	03/12/15	585.09	
W-818-01	06/22/15	584.44	
W-818-01	09/08/15	584.42	
W-818-01	09/09/15	584.93	
W-818-01	12/14/15	584.67	
W-818-03	02/25/15	541.45	
W-818-03	03/19/15	541.02	
W-818-03	06/22/15	540.14	
W-818-03	09/08/15	540.25	
W-818-03	09/14/15	540.59	
W-818-03	12/09/15	539.77	
W-818-04	02/25/15	546.42	
W-818-04	03/19/15	546.13	
W-818-04	06/22/15	545.39	
W-818-04	09/08/15	545.76	
W-818-04	09/14/15	545.76	
W-818-04	12/09/15	545.06	
W-818-06	02/25/15	542.81	
W-818-06	03/19/15	541.62	
W-818-06	06/22/15	541.76	
W-818-06	09/08/15	540.98	
W-818-06	09/14/15	541.40	
W-818-06	12/09/15	539.22	
W-818-07	02/25/15	543.49	
W-818-07	03/19/15	541.86	
W-818-07	06/22/15	541.48	
W-818-07	09/08/15	541.35	
W-818-07	09/14/15	541.60	
W-818-07	12/09/15	539.70	
W-818-08	03/09/15	557.81	
W-818-08	06/22/15	534.66	
W-818-08	09/08/15	534.59	
W-818-08	12/14/15	556.24	
W-818-09	03/09/15	555.42	
W-818-09	06/22/15	523.85	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-818-09	09/08/15	523.68	
W-818-09	12/14/15	542.71	
W-818-11	03/09/15	599.96	
W-818-11	03/12/15	599.96	
W-818-11	06/22/15	599.63	
W-818-11	09/08/15	599.46	
W-818-11	09/09/15	599.53	
W-818-11	12/14/15	599.02	
W-819-02	02/25/15	588.24	
W-819-02	03/17/15	588.34	
W-819-02	06/22/15	587.14	
W-819-02	09/08/15	587.27	
W-819-02	09/08/15	589.32	
W-819-02	12/14/15	588.65	
W-823-01	03/05/15	572.72	
W-823-01	03/16/15	572.71	
W-823-01	06/22/15	572.57	
W-823-01	08/26/15	568.51	
W-823-01	09/15/15	568.35	
W-823-01	12/03/15	569.47	
W-823-02	03/05/15	572.67	
W-823-02	03/16/15	572.67	
W-823-02	06/22/15	572.72	
W-823-02	08/26/15	568.48	
W-823-02	09/15/15	568.35	
W-823-02	12/03/15	569.45	
W-823-03	03/05/15	572.32	
W-823-03	03/16/15	572.44	
W-823-03	06/22/15	572.41	
W-823-03	08/26/15	569.30	
W-823-03	09/15/15	569.19	
W-823-03	12/03/15	569.95	
W-823-13	03/05/15	570.97	
W-823-13	06/22/15	570.06	
W-823-13	08/26/15	571.04	
W-823-13	09/15/15	571.00	
W-823-13	12/03/15	572.02	
W-827-01	02/02/15	861.64	
W-827-01	06/11/15	861.64	
W-827-01	08/10/15	861.64	
W-827-01	12/16/15	861.64	
W-827-02	02/02/15	866.27	
W-827-02	03/18/15	862.35	
W-827-02	06/11/15	860.97	
W-827-02	08/10/15	860.77	
W-827-02	12/16/15	861.28	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-827-03	02/02/15	725.90	
W-827-03	06/11/15	725.77	
W-827-03	08/10/15	725.59	
W-827-03	12/16/15	725.64	
W-827-04	02/02/15	724.73	
W-827-04	06/11/15	724.73	
W-827-04	08/10/15	724.73	
W-827-04	12/07/15	724.73	
W-827-05	02/02/15	650.87	
W-827-05	03/18/15	650.83	
W-827-05	06/11/15	650.95	
W-827-05	08/10/15	651.03	
W-827-05	09/10/15	651.86	
W-827-05	12/07/15	651.25	
W-829-06	02/02/15	973.80	
W-829-06	06/11/15	971.17	
W-829-06	08/10/15	972.31	
W-829-06	12/07/15	973.36	
W-829-08	02/02/15	974.09	
W-829-08	03/18/15	974.03	
W-829-08	06/11/15	974.87	
W-829-08	08/10/15	975.00	
W-829-08	12/07/15	973.60	
W-829-15	02/02/15	696.57	
W-829-15	05/06/15	696.61	
W-829-15	06/11/15	696.59	
W-829-15	08/10/15	696.44	
W-829-15	12/07/15	696.67	
W-829-1938	01/28/15	706.08	
W-829-1938	02/02/15	706.44	
W-829-1938	04/29/15	706.42	
W-829-1938	06/11/15	706.55	
W-829-1938	07/29/15	706.40	
W-829-1938	08/10/15	706.62	
W-829-1938	10/21/15	706.32	
W-829-1938	12/07/15	706.53	
W-829-1940	02/02/15	975.23	
W-829-1940	03/18/15	975.17	
W-829-1940	06/11/15	975.28	
W-829-1940	08/10/15	975.04	
W-829-1940	09/10/15	975.17	
W-829-1940	12/07/15	975.05	
W-829-22	02/02/15	653.65	
W-829-22	05/07/15	653.35	
W-829-22	06/11/15	653.63	
W-829-22	08/10/15	653.60	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-829-22	12/07/15	653.61	
WELL20	03/05/15	NM	No access. Sealed wellhead.
WELL20	08/26/15	NM	No access. Sealed wellhead.
WELL20	11/24/15	NM	No access. Sealed wellhead.

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
K1-01C	01/21/15	970.25	
K1-01C	03/09/15	970.15	
K1-01C	05/12/15	970.21	
K1-01C	07/29/15	970.00	
K1-01C	08/17/15	969.94	
K1-01C	10/19/15	969.87	
K1-01C	10/29/15	969.83	
K1-02B	01/21/15	968.49	
K1-02B	02/04/15	967.72	PS
K1-02B	04/01/15	967.55	
K1-02B	05/12/15	967.71	
K1-02B	07/28/15	967.70	
K1-02B	07/29/15	967.50	
K1-02B	08/12/15	967.68	
K1-02B	10/14/15	968.41	
K1-02B	10/19/15	967.33	
K1-04	01/21/15	962.59	
K1-04	03/09/15	963.17	
K1-04	05/12/15	962.44	
K1-04	05/12/15	962.44	
K1-04	07/29/15	962.23	
K1-04	08/17/15	962.35	
K1-04	10/19/15	962.27	
K1-04	11/04/15	962.30	
K1-05	01/21/15	956.88	
K1-05	02/26/15	956.36	
K1-05	05/12/15	956.08	
K1-05	05/19/15	956.34	
K1-05	07/29/15	956.03	
K1-05	08/17/15	956.18	
K1-05	10/19/15	956.24	
K1-05	11/04/15	956.73	
K1-06	01/21/15	972.19	
K1-06	05/12/15	972.24	
K1-06	07/29/15	972.24	
K1-06	10/14/15	972.24	
K1-07	01/21/15	964.63	
K1-07	02/18/15	964.58	
K1-07	05/12/15	964.53	
K1-07	05/14/15	964.55	
K1-07	07/29/15	964.45	
K1-07	08/11/15	964.48	PS
K1-07	10/13/15	964.30	
K1-07	10/19/15	964.32	
K1-08	01/21/15	963.31	
K1-08	02/25/15	963.46	PS

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
K1-08	05/12/15	963.18	
K1-08	05/12/15	963.23	
K1-08	07/29/15	963.12	
K1-08	08/13/15	963.04	
K1-08	10/19/15	963.03	
K1-08	10/20/15	962.92	PS
K1-08	12/14/15	962.93	PS
K1-08	12/21/15	962.94	
K1-09	01/21/15	960.92	
K1-09	02/25/15	961.47	
K1-09	05/12/15	961.00	
K1-09	05/12/15	960.85	
K1-09	07/29/15	960.73	
K1-09	08/19/15	960.67	
K1-09	10/19/15	960.63	
K1-09	10/20/15	960.64	
K2-03	01/20/15	1011.85	
K2-03	05/11/15	1011.68	
K2-03	05/13/15	1011.97	
K2-03	07/29/15	1011.92	
K2-03	08/12/15	1011.89	PS
K2-03	10/27/15	1011.10	
K2-03	10/29/15	1011.89	
K2-04D	01/20/15	1063.44	
K2-04D	05/13/15	1063.86	
K2-04D	07/20/15	1062.07	
K2-04D	10/19/15	1060.47	
K2-04S	01/20/15	1063.75	
K2-04S	05/11/15	1064.10	
K2-04S	05/13/15	1064.09	
K2-04S	06/10/15	1064.08	
K2-04S	07/20/15	1062.31	
K2-04S	10/19/15	1060.83	
K2-04S	10/28/15	1060.70	
NC2-05	01/27/15	978.61	
NC2-05	06/04/15	978.61	
NC2-05	07/22/15	978.61	
NC2-05	11/10/15	978.61	
NC2-05A	01/27/15	977.25	
NC2-05A	05/12/15	977.43	
NC2-05A	06/04/15	977.47	
NC2-05A	07/22/15	977.17	
NC2-05A	11/02/15	977.15	
NC2-05A	11/10/15	976.78	
NC2-06	01/27/15	978.15	
NC2-06	05/13/15	978.18	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
NC2-06	06/04/15	980.37	
NC2-06	07/22/15	978.07	
NC2-06	11/05/15	977.81	
NC2-06	11/11/15	977.91	
NC2-06A	01/27/15	978.05	
NC2-06A	05/13/15	978.05	
NC2-06A	06/04/15	978.31	
NC2-06A	07/22/15	977.98	
NC2-06A	11/05/15	977.68	
NC2-06A	11/11/15	977.84	
NC2-09	01/27/15	977.86	
NC2-09	05/12/15	977.93	
NC2-09	06/04/15	981.01	
NC2-09	07/22/15	977.77	
NC2-09	11/02/15	977.71	
NC2-09	11/10/15	977.38	
NC2-10	01/27/15	971.61	
NC2-10	05/20/15	972.60	
NC2-10	05/21/15	972.64	
NC2-10	07/22/15	971.78	
NC2-10	10/26/15	971.63	
NC2-10	11/05/15	972.16	
NC2-11D	01/27/15	973.36	
NC2-11D	05/11/15	972.92	
NC2-11D	05/21/15	973.21	
NC2-11D	07/22/15	972.75	
NC2-11D	10/12/15	972.59	
NC2-11D	10/26/15	972.44	
NC2-11I	01/27/15	973.08	
NC2-11I	05/21/15	972.93	
NC2-11I	06/02/15	972.50	
NC2-11I	07/22/15	972.48	
NC2-11I	10/26/15	972.15	
NC2-11I	11/10/15	972.10	
NC2-11S	01/27/15	973.31	
NC2-11S	05/21/15	972.89	
NC2-11S	06/02/15	972.70	
NC2-11S	07/22/15	971.71	
NC2-11S	10/26/15	971.71	
NC2-11S	11/10/15	972.32	
NC2-12D	01/27/15	973.84	
NC2-12D	05/20/15	973.28	
NC2-12D	05/21/15	973.23	
NC2-12D	07/22/15	972.92	
NC2-12D	10/26/15	972.86	
NC2-12D	11/10/15	972.64	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
NC2-12I	01/27/15	973.48	
NC2-12I	05/21/15	973.17	
NC2-12I	06/02/15	973.02	
NC2-12I	07/22/15	972.95	
NC2-12I	10/26/15	972.87	
NC2-12I	11/10/15	972.49	
NC2-12S	01/27/15	973.90	
NC2-12S	05/21/15	973.64	
NC2-12S	06/02/15	973.54	
NC2-12S	07/22/15	972.46	
NC2-12S	10/26/15	972.20	
NC2-12S	11/10/15	973.11	
NC2-13	01/27/15	974.02	
NC2-13	05/18/15	973.39	
NC2-13	06/04/15	973.92	
NC2-13	07/22/15	973.28	
NC2-13	10/26/15	973.07	
NC2-13	10/26/15	973.07	
NC2-14S	01/13/15	1056.55	
NC2-14S	01/20/15	1056.38	
NC2-14S	05/07/15	1056.48	
NC2-14S	06/03/15	1056.11	
NC2-14S	07/14/15	1055.88	
NC2-14S	08/19/15	1055.63	
NC2-14S	10/19/15	1054.96	
NC2-14S	10/20/15	1054.85	
NC2-15	01/27/15	987.94	
NC2-15	05/13/15	988.26	
NC2-15	05/21/15	1051.78	
NC2-15	08/19/15	1051.56	
NC2-15	10/29/15	987.36	
NC2-15	11/17/15	987.21	
NC2-16	01/13/15	1056.95	
NC2-16	01/20/15	1056.76	
NC2-16	05/07/15	1056.91	
NC2-16	06/03/15	1056.78	
NC2-16	07/14/15	1056.30	
NC2-16	07/20/15	1056.19	
NC2-16	10/19/15	1055.36	
NC2-16	10/20/15	1055.41	
NC2-17	01/27/15	978.43	
NC2-17	05/13/15	978.48	
NC2-17	06/22/15	979.34	
NC2-17	07/14/15	979.05	
NC2-17	11/17/15	968.06	
NC2-18	01/20/15	1054.32	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
NC2-18	05/26/15	1055.27	
NC2-18	06/22/15	1053.83	
NC2-18	07/20/15	1054.64	
NC2-18	10/19/15	1053.51	
NC2-18	10/28/15	1053.36	
NC2-19	01/27/15	977.51	
NC2-19	05/18/15	977.46	
NC2-19	06/04/15	977.49	
NC2-19	07/22/15	976.32	
NC2-19	11/04/15	977.18	
NC2-19	11/12/15	977.18	
NC2-20	01/27/15	965.59	
NC2-20	05/21/15	964.57	
NC2-20	06/03/15	964.64	
NC2-20	07/22/15	964.29	
NC2-20	11/17/15	964.00	
NC2-21	01/27/15	965.71	
NC2-21	05/21/15	964.66	
NC2-21	06/04/15	964.65	
NC2-21	07/22/15	964.41	
NC2-21	11/17/15	964.29	
NC7-10	01/13/15	1217.00	
NC7-10	01/15/15	1216.60	
NC7-10	04/23/15	1215.41	
NC7-10	05/12/15	1215.25	
NC7-10	07/13/15	1214.79	
NC7-10	07/14/15	1214.79	
NC7-10	10/19/15	1214.02	
NC7-10	10/20/15	1213.94	
NC7-11	01/15/15	1224.25	
NC7-11	04/23/15	1223.92	
NC7-11	05/12/15	1223.93	
NC7-11	07/14/15	1223.83	
NC7-11	10/19/15	1223.71	
NC7-11	10/20/15	1223.71	
NC7-14	01/12/15	1227.69	
NC7-14	05/12/15	1227.74	
NC7-14	07/14/15	1227.74	
NC7-14	10/20/15	1227.50	
NC7-15	01/12/15	1248.66	
NC7-15	04/22/15	1247.99	
NC7-15	06/03/15	1248.09	
NC7-15	07/13/15	1248.01	
NC7-15	10/14/15	1247.03	
NC7-15	10/28/15	1247.01	
NC7-19	01/12/15	1240.02	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
NC7-19	04/22/15	1239.23	
NC7-19	06/03/15	1240.30	
NC7-19	07/13/15	1242.88	
NC7-19	10/14/15	1241.60	
NC7-19	10/28/15	1242.67	
NC7-27	01/12/15	1196.67	
NC7-27	04/08/15	1196.30	
NC7-27	06/03/15	1196.54	
NC7-27	07/14/15	1196.35	
NC7-27	10/15/15	1196.05	
NC7-27	10/29/15	1196.13	
NC7-28	01/15/15	NM	Not measured due to ongoing treatability test.
NC7-28	02/12/15	1257.82	PS
NC7-28	03/12/15	1258.66	PS
NC7-28	04/09/15	1258.60	PS
NC7-28	06/03/15	NM	Not measured due to ongoing treatability test.
NC7-28	06/08/15	1258.57	PS
NC7-28	07/14/15	NM	Not measured due to ongoing treatability test.
NC7-28	09/21/15	1257.25	
NC7-28	10/15/15	1258.41	
NC7-28	10/28/15	NM	Not measured due to ongoing treatability test.
NC7-28	12/02/15	1258.61	
NC7-29	01/15/15	1200.96	
NC7-29	04/27/15	1201.06	
NC7-29	06/03/15	1201.08	
NC7-29	07/20/15	1201.20	
NC7-29	10/19/15	1200.82	
NC7-29	10/20/15	1200.82	
NC7-43	01/15/15	NM	Not measured due to ongoing treatability test.
NC7-43	04/27/15	1240.71	PS
NC7-43	05/21/15	NM	Not measured due to ongoing treatability test.
NC7-43	07/14/15	NM	Not measured due to ongoing treatability test.
NC7-43	10/20/15	1240.30	PS
NC7-43	10/28/15	NM	Not measured due to ongoing treatability test.
NC7-44	01/15/15	NM	Not measured due to ongoing treatability test.
NC7-44	04/27/15	1323.16	PS

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
NC7-44	05/21/15	NM	Not measured due to ongoing treatability test.
NC7-44	07/14/15	NM	Not measured due to ongoing treatability test.
NC7-44	11/12/15	NM	
NC7-45	01/15/15	1156.52	
NC7-45	05/12/15	1156.33	
NC7-45	07/14/15	1152.34	
NC7-45	10/20/15	1152.17	
NC7-46	01/20/15	1107.69	
NC7-46	04/27/15	1107.19	
NC7-46	05/12/15	1107.45	
NC7-46	07/20/15	1107.22	
NC7-46	10/20/15	1107.07	
NC7-54	01/15/15	NM	No access. Road not safe to travel.
NC7-54	05/12/15	NM	
NC7-54	07/14/15	1196.75	
NC7-54	10/20/15	1196.95	
NC7-55	01/15/15	1159.94	
NC7-55	05/12/15	1159.94	
NC7-55	07/20/15	1159.94	
NC7-55	10/20/15	1159.94	
NC7-56	01/20/15	1114.02	
NC7-56	04/28/15	1112.11	
NC7-56	05/12/15	1113.60	
NC7-56	07/20/15	1111.69	
NC7-56	10/20/15	1111.59	
NC7-56	10/21/15	1111.55	
NC7-57	01/20/15	1088.50	
NC7-57	05/12/15	1088.50	
NC7-57	07/20/15	1088.49	
NC7-57	10/20/15	1088.48	
NC7-58	01/20/15	1085.71	
NC7-58	04/28/15	1082.80	
NC7-58	05/12/15	1082.56	
NC7-58	07/20/15	1081.67	
NC7-58	10/20/15	1081.03	
NC7-58	10/21/15	1081.18	
NC7-59	01/20/15	1103.15	
NC7-59	04/28/15	1102.24	
NC7-59	05/12/15	1102.88	
NC7-59	07/20/15	1101.69	
NC7-59	10/20/15	1101.49	
NC7-59	10/21/15	1101.54	
NC7-60	01/12/15	1168.08	
NC7-60	01/13/15	1168.08	PS

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
NC7-60	04/08/15	1167.86	
NC7-60	05/12/15	1168.09	
NC7-60	07/14/15	1167.81	
NC7-60	09/22/15	1167.19	PS
NC7-60	10/15/15	1167.90	
NC7-60	10/29/15	1167.70	
NC7-61	01/15/15	NM	Not measured due to ongoing treatability test.
NC7-61	02/17/15	1230.35	PS
NC7-61	05/21/15	NM	Not measured due to ongoing treatability test.
NC7-61	05/21/15	1230.19	PS
NC7-61	07/14/15	NM	Not measured due to ongoing treatability test.
NC7-61	08/31/15	1230.67	PS
NC7-61	10/28/15	NM	Not measured due to ongoing treatability test.
NC7-61	12/03/15	1230.80	
NC7-62	01/20/15	1104.01	
NC7-62	04/28/15	1102.87	
NC7-62	05/12/15	1102.75	
NC7-62	07/20/15	1102.16	
NC7-62	10/20/15	1101.96	
NC7-62	10/21/15	1102.00	
NC7-69	01/15/15	1248.76	
NC7-69	04/29/15	1248.74	
NC7-69	05/12/15	1248.46	
NC7-69	07/14/15	1248.71	
NC7-69	10/19/15	1248.48	
NC7-70	01/15/15	NM	Not measured due to ongoing treatability test.
NC7-70	05/21/15	NM	Not measured due to ongoing treatability test.
NC7-70	07/14/15	NM	
NC7-70	10/19/15	1276.30	
NC7-70	10/28/15	NM	Not measured due to ongoing treatability test.
NC7-71	01/15/15	NM	Not measured due to ongoing treatability test.
NC7-71	05/21/15	NM	Not measured due to ongoing treatability test.
NC7-71	06/08/15	1244.74	PS
NC7-71	07/14/15	NM	Not measured due to ongoing treatability test.
NC7-71	09/22/15	1244.59	PS

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
NC7-71	10/28/15	NM	Not measured due to ongoing treatability test.
NC7-71	12/07/15	1244.48	
NC7-72	01/20/15	1126.09	
NC7-72	04/28/15	1123.64	
NC7-72	05/21/15	1123.49	
NC7-72	07/20/15	1123.13	
NC7-72	10/20/15	1123.25	
NC7-72	10/21/15	1122.95	
NC7-73	01/20/15	1139.85	
NC7-73	04/28/15	1138.27	
NC7-73	05/21/15	1137.90	
NC7-73	07/20/15	1137.79	
NC7-73	10/20/15	1137.54	
NC7-73	10/21/15	1137.47	PS
W-850-05	01/15/15	NM	Not measured due to ongoing treatability test.
W-850-05	04/27/15	1273.43	PS
W-850-05	05/21/15	NM	Not measured due to ongoing treatability test.
W-850-05	07/14/15	NM	
W-850-05	10/15/15	1272.85	
W-850-05	10/28/15	NM	Not measured due to ongoing treatability test.
W-850-05	12/03/15	1270.58	
W-850-2145	01/20/15	1029.61	
W-850-2145	05/26/15	1029.71	
W-850-2145	06/03/15	1029.80	
W-850-2145	07/20/15	1029.76	
W-850-2145	10/19/15	1029.57	
W-850-2145	10/28/15	1029.51	
W-850-2312	01/20/15	1059.85	
W-850-2312	05/26/15	1060.30	
W-850-2312	06/03/15	1060.25	
W-850-2312	07/20/15	1059.41	
W-850-2312	10/19/15	1058.07	
W-850-2312	10/28/15	1058.00	
W-850-2313	01/15/15	1162.39	
W-850-2313	04/23/15	1158.43	
W-850-2313	05/12/15	1158.30	
W-850-2313	07/14/15	1157.42	
W-850-2313	10/15/15	1157.26	
W-850-2313	10/20/15	1157.26	
W-850-2314	01/12/15	1177.83	
W-850-2314	04/08/15	1178.39	
W-850-2314	06/03/15	1178.33	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-850-2314	07/14/15	1179.39	
W-850-2314	10/15/15	1178.29	
W-850-2314	12/15/15	1179.21	
W-850-2315	01/15/15	1201.15	
W-850-2315	04/27/15	1201.33	
W-850-2315	06/03/15	1201.34	
W-850-2315	07/20/15	1201.25	
W-850-2315	10/19/15	1201.03	
W-850-2315	10/20/15	1200.43	
W-850-2316	01/20/15	1029.52	
W-850-2316	05/26/15	1029.69	
W-850-2316	06/03/15	1029.58	
W-850-2316	07/14/15	1029.45	
W-850-2316	10/19/15	1029.54	
W-850-2316	10/28/15	1029.61	PS
W-850-2416	01/15/15	NM	Not measured due to ongoing treatability test.
W-850-2416	02/12/15	1241.34	PS
W-850-2416	05/21/15	NM	Not measured due to ongoing treatability test.
W-850-2416	06/08/15	1240.97	PS
W-850-2416	07/14/15	NM	Not measured due to ongoing treatability test.
W-850-2416	07/23/15	1252.50	PS
W-850-2416	09/21/15	1252.02	PS
W-850-2416	10/28/15	NM	Not measured due to ongoing treatability test.
W-850-2416	12/02/15	1251.73	PS
W-850-2417	01/15/15	NM	Not measured due to ongoing treatability test
W-850-2417	05/21/15	NM	Not measured due to ongoing treatability test.
W-850-2417	07/14/15	NM	
W-850-2417	10/19/15	1260.74	
W-850-2417	10/28/15	NM	Not measured due to ongoing treatability test.
W-865-02	01/14/15	986.98	
W-865-02	01/20/15	986.76	
W-865-02	05/18/15	986.95	
W-865-02	07/15/15	987.05	
W-865-02	07/20/15	986.21	
W-865-02	10/07/15	986.95	
W-865-02	10/22/15	987.00	
W-865-05	01/21/15	964.04	
W-865-05	05/18/15	964.09	
W-865-05	07/20/15	964.09	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-865-05	10/07/15	964.09	
W-865-1802	01/13/15	1017.20	
W-865-1802	01/20/15	1017.18	
W-865-1802	05/11/15	1017.20	
W-865-1802	05/18/15	1017.21	
W-865-1802	07/14/15	1016.97	
W-865-1802	07/29/15	1017.18	
W-865-1802	10/07/15	1016.47	
W-865-1802	10/22/15	1016.54	
W-865-1803	01/20/15	1074.75	
W-865-1803	05/11/15	1074.46	
W-865-1803	05/18/15	1075.16	
W-865-1803	07/29/15	1075.10	
W-865-1803	10/07/15	1074.31	
W-865-1803	10/27/15	1074.28	
W-865-2005	01/21/15	946.23	
W-865-2005	02/18/15	944.75	
W-865-2005	05/18/15	946.29	
W-865-2005	05/20/15	946.05	
W-865-2005	07/21/15	946.91	
W-865-2005	07/21/15	946.01	
W-865-2005	10/07/15	947.04	
W-865-2005	10/22/15	944.70	PS
W-865-2121	01/15/15	941.46	
W-865-2121	01/21/15	941.28	
W-865-2121	05/18/15	941.34	
W-865-2121	05/26/15	941.36	PS
W-865-2121	07/16/15	941.33	
W-865-2121	07/21/15	940.94	
W-865-2121	10/14/15	941.34	
W-865-2121	11/04/15	941.09	PS
W-865-2133	01/14/15	927.79	
W-865-2133	01/21/15	927.72	
W-865-2133	03/23/15	927.62	
W-865-2133	05/18/15	928.24	
W-865-2133	05/20/15	927.70	PS
W-865-2133	07/15/15	927.69	
W-865-2133	07/21/15	927.64	
W-865-2133	10/14/15	927.72	
W-865-2133	10/27/15	927.50	PS
W-865-2224	01/14/15	927.52	
W-865-2224	01/21/15	927.45	
W-865-2224	05/18/15	927.43	
W-865-2224	05/20/15	927.45	PS
W-865-2224	07/15/15	927.39	
W-865-2224	07/21/15	927.29	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-865-2224	10/14/15	927.24	
W-865-2224	10/27/15	927.29	
W-PIT1-01	01/21/15	1032.99	
W-PIT1-01	05/26/15	1032.99	
W-PIT1-01	07/21/15	1032.99	
W-PIT1-01	10/14/15	1032.99	
W-PIT1-02	01/21/15	945.83	
W-PIT1-02	05/26/15	945.85	
W-PIT1-02	07/21/15	945.80	
W-PIT1-02	10/14/15	946.14	
W-PIT1-2204	01/21/15	1031.65	
W-PIT1-2204	05/18/15	1030.85	
W-PIT1-2204	07/21/15	1030.49	
W-PIT1-2204	10/19/15	1031.74	
W-PIT1-2209	01/21/15	948.25	
W-PIT1-2209	01/26/15	948.67	PS
W-PIT1-2209	04/08/15	948.32	
W-PIT1-2209	05/18/15	948.73	
W-PIT1-2209	07/09/15	947.96	
W-PIT1-2209	07/21/15	947.89	
W-PIT1-2209	10/05/15	947.62	
W-PIT1-2209	10/14/15	947.85	
W-PIT1-2225	01/20/15	965.02	
W-PIT1-2225	03/09/15	965.02	
W-PIT1-2225	05/28/15	964.74	PS
W-PIT1-2225	06/22/15	NM	No access. Site secured for operations.
W-PIT1-2225	07/21/15	964.80	
W-PIT1-2225	08/11/15	964.73	
W-PIT1-2225	10/26/15	964.74	
W-PIT1-2225	11/17/15	964.42	
W-PIT1-2326	01/27/15	963.91	
W-PIT1-2326	02/05/15	965.35	PS
W-PIT1-2326	05/13/15	964.66	
W-PIT1-2326	05/26/15	964.79	
W-PIT1-2326	07/28/15	964.14	
W-PIT1-2326	07/28/15	964.39	PS
W-PIT1-2326	08/12/15	964.39	
W-PIT1-2326	10/14/15	964.59	
W-PIT1-2326	10/28/15	964.30	
W-PIT1-2620	01/21/15	946.40	
W-PIT1-2620	02/17/15	946.79	PS
W-PIT1-2620	04/08/15	946.49	PS
W-PIT1-2620	07/28/15	946.34	PS
W-PIT1-2620	10/08/15	946.29	
W-PIT1-2620	10/14/15	945.97	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-PIT1-3021	07/29/15	973.41	
W-PIT1-3021	10/14/15	973.30	
W-PIT1-3022	07/29/15	973.39	
W-PIT1-3022	10/14/15	973.27	
W-PIT7-16	01/12/15	1248.90	
W-PIT7-16	04/22/15	1248.90	
W-PIT7-16	05/21/15	1248.85	
W-PIT7-16	07/13/15	1248.81	
W-PIT7-16	10/14/15	1248.54	
W-PIT7-16	10/20/15	1269.00	

Table C-6. Pit 2 Landfill ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
K2-01C	01/21/15	981.05	
K2-01C	05/13/15	981.04	
K2-01C	06/22/15	981.37	
K2-01C	07/29/15	980.95	
K2-01C	10/19/15	980.76	
K2-01C	10/29/15	980.72	
NC2-08	01/27/15	984.97	
NC2-08	05/12/15	985.56	
NC2-08	06/04/15	985.44	
NC2-08	07/22/15	985.05	
NC2-08	10/29/15	984.66	
NC2-08	11/04/15	984.56	
W-PIT2-1934	01/27/15	1003.14	
W-PIT2-1934	05/21/15	1003.54	
W-PIT2-1934	06/04/15	1003.24	
W-PIT2-1934	07/29/15	1002.74	
W-PIT2-1934	08/12/15	1002.75	
W-PIT2-1934	10/19/15	1002.91	
W-PIT2-1934	10/29/15	1002.96	
W-PIT2-1935	01/27/15	977.76	
W-PIT2-1935	05/21/15	978.12	
W-PIT2-1935	06/04/15	978.17	
W-PIT2-1935	07/29/15	977.41	
W-PIT2-1935	08/12/15	977.36	
W-PIT2-1935	10/19/15	977.70	
W-PIT2-1935	10/29/15	977.71	PS
W-PIT2-2226	01/20/15	964.62	
W-PIT2-2226	01/28/15	964.54	
W-PIT2-2226	05/13/15	964.68	
W-PIT2-2226	05/28/15	964.34	PS
W-PIT2-2226	07/21/15	964.44	
W-PIT2-2226	07/28/15	964.73	
W-PIT2-2226	11/11/15	964.85	
W-PIT2-2226	11/17/15	963.96	
W-PIT2-2301	01/27/15	1012.03	
W-PIT2-2301	06/04/15	1012.03	
W-PIT2-2301	07/22/15	1012.13	
W-PIT2-2301	11/04/15	1012.13	
W-PIT2-2302	01/27/15	1025.50	
W-PIT2-2302	06/04/15	1025.50	
W-PIT2-2302	07/22/15	1025.49	
W-PIT2-2302	11/02/15	1026.37	
W-PIT2-2302	11/04/15	1025.16	
W-PIT2-2303	01/27/15	1019.64	
W-PIT2-2303	06/04/15	1019.64	
W-PIT2-2303	07/22/15	1019.62	

Table C-6. Pit 2 Landfill ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-PIT2-2303	11/12/15	1019.62	
W-PIT2-2304	01/27/15	983.59	
W-PIT2-2304	06/04/15	983.64	
W-PIT2-2304	07/22/15	983.59	
W-PIT2-2304	11/12/15	983.59	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
K7-01	01/12/15	1290.52	
K7-01	04/16/15	1290.18	
K7-01	05/21/15	1290.06	
K7-01	07/13/15	1289.77	
K7-01	10/12/15	1289.58	
K7-01	10/21/15	1289.46	
K7-03	01/13/15	1313.59	
K7-03	04/29/15	1311.34	
K7-03	05/26/15	1310.85	
K7-03	07/09/15	1310.17	
K7-03	10/08/15	1309.86	PS
K7-03	10/28/15	NM	
K7-06	01/13/15	1388.47	
K7-06	04/09/15	1386.22	
K7-06	05/26/15	1388.18	
K7-06	07/15/15	1388.13	
K7-06	10/06/15	1384.09	
K7-06	10/28/15	1384.10	
K7-07	01/12/15	1276.15	
K7-07	05/26/15	1276.05	
K7-07	07/13/15	1275.89	
K7-07	10/21/15	1275.01	
K7-09	01/12/15	1293.92	
K7-09	04/15/15	1294.06	
K7-09	06/03/15	1293.94	
K7-09	07/13/15	1293.78	
K7-09	10/07/15	1293.50	
K7-09	11/10/15	1293.39	
K7-10	01/12/15	1309.31	
K7-10	04/15/15	1306.70	
K7-10	06/03/15	1306.29	
K7-10	07/13/15	1305.99	
K7-10	10/07/15	1305.53	
K7-10	11/10/15	1305.48	
NC7-12	01/12/15	1265.71	
NC7-12	04/21/15	1263.53	
NC7-12	05/21/15	1263.23	
NC7-12	07/13/15	1263.15	
NC7-12	10/13/15	1262.27	
NC7-12	10/28/15	1262.24	
NC7-16	01/12/15	1284.02	
NC7-16	01/12/15	1284.02	
NC7-16	06/03/15	1281.95	
NC7-16	07/14/15	1281.76	
NC7-16	10/21/15	1281.29	
NC7-17	01/13/15	1360.05	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
NC7-17	04/09/15	1360.22	
NC7-17	06/03/15	1359.03	
NC7-17	07/13/15	1358.94	
NC7-17	10/06/15	1357.90	
NC7-17	11/10/15	1357.76	
NC7-18	01/12/15	1312.69	
NC7-18	04/13/15	1309.62	
NC7-18	06/03/15	1308.52	
NC7-18	07/13/15	1307.73	
NC7-18	10/07/15	1306.56	
NC7-18	11/10/15	1306.21	
NC7-20	01/12/15	1258.70	
NC7-20	04/21/15	1257.75	
NC7-20	05/21/15	1257.19	
NC7-20	07/13/15	1257.15	
NC7-20	10/13/15	1256.49	
NC7-20	10/28/15	1256.42	
NC7-21	01/12/15	1277.20	
NC7-21	04/21/15	1274.75	
NC7-21	06/03/15	1274.59	
NC7-21	07/14/15	1273.96	
NC7-21	10/07/15	1273.34	
NC7-21	10/21/15	1273.43	
NC7-22	01/12/15	1273.88	
NC7-22	06/03/15	1273.88	
NC7-22	07/14/15	1273.88	
NC7-22	10/21/15	1273.88	
NC7-24	01/15/15	1322.03	
NC7-24	06/03/15	1322.03	
NC7-24	07/09/15	1322.03	
NC7-24	11/12/15	1322.03	
NC7-25	01/13/15	1297.82	
NC7-25	06/03/15	1297.86	
NC7-25	07/09/15	1297.73	
NC7-25	11/12/15	1297.61	
NC7-26	01/12/15	1256.27	
NC7-26	04/21/15	1256.49	
NC7-26	06/03/15	1256.09	
NC7-26	07/14/15	1256.67	
NC7-26	10/13/15	1256.46	
NC7-26	10/21/15	1256.53	
NC7-34	01/13/15	1323.48	
NC7-34	06/03/15	1329.37	
NC7-34	07/14/15	1329.29	
NC7-34	10/06/15	1326.93	
NC7-34	11/10/15	1326.09	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
NC7-36	01/13/15	1327.24	
NC7-36	06/03/15	1327.48	
NC7-36	07/13/15	1335.65	
NC7-36	10/06/15	1331.80	
NC7-36	11/10/15	1331.68	
NC7-37	01/15/15	1311.12	
NC7-37	05/26/15	1311.02	
NC7-37	07/09/15	1310.72	
NC7-37	11/12/15	1310.72	
NC7-40	01/12/15	1296.46	
NC7-40	01/12/15	1296.20	
NC7-40	04/22/15	1296.62	
NC7-40	05/21/15	1296.39	
NC7-40	07/09/15	1296.23	
NC7-40	07/13/15	1295.94	PS
NC7-40	10/13/15	1295.26	
NC7-40	10/20/15	1295.16	
NC7-47	01/20/15	1205.19	
NC7-47	05/11/15	1205.21	
NC7-47	05/18/15	1205.21	
NC7-47	07/20/15	1204.84	
NC7-47	10/07/15	1205.30	
NC7-48	01/13/15	1345.64	
NC7-48	04/13/15	1345.09	
NC7-48	06/03/15	1329.37	
NC7-48	07/15/15	1329.31	
NC7-48	10/06/15	1343.11	
NC7-48	12/10/15	1329.34	
NC7-49A	01/13/15	1363.99	
NC7-49A	04/09/15	1360.71	
NC7-49A	06/03/15	1358.65	
NC7-49A	07/14/15	1358.10	
NC7-49A	10/06/15	1354.01	
NC7-49A	11/10/15	1353.89	
NC7-50	01/20/15	1121.74	
NC7-50	05/18/15	1121.50	
NC7-50	07/20/15	1121.53	
NC7-50	10/07/15	1121.02	
NC7-51	01/12/15	1310.18	
NC7-51	01/13/15	1310.41	
NC7-51	04/16/15	1314.35	
NC7-51	05/26/15	1313.55	
NC7-51	07/09/15	1312.22	
NC7-51	07/13/15	1312.57	PS
NC7-51	10/08/15	1311.61	
NC7-51	10/28/15	1311.47	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
NC7-52	01/12/15	1293.53	
NC7-52	01/13/15	1293.35	
NC7-52	04/16/15	1293.87	
NC7-52	05/26/15	1293.64	
NC7-52	07/09/15	1293.57	
NC7-52	07/13/15	1293.63	
NC7-52	10/28/15	1293.17	
NC7-53	01/13/15	1390.53	
NC7-53	04/09/15	1389.78	
NC7-53	06/03/15	1389.54	
NC7-53	07/15/15	1389.43	
NC7-53	10/28/15	1389.04	
NC7-63	01/15/15	1315.02	
NC7-63	05/20/15	1315.07	
NC7-63	07/09/15	1315.27	
NC7-63	11/17/15	1315.27	
NC7-64	01/15/15	1306.94	
NC7-64	05/20/15	1306.86	
NC7-64	07/09/15	1304.77	
NC7-64	11/17/15	1311.07	
NC7-65	01/13/15	1261.10	
NC7-65	04/02/15	1261.02	
NC7-65	05/20/15	1260.05	
NC7-65	07/09/15	1260.91	
NC7-65	10/05/15	1260.86	
NC7-65	10/29/15	1260.65	
NC7-67	01/12/15	1289.14	
NC7-67	04/16/15	1289.15	
NC7-67	05/21/15	1289.07	
NC7-67	07/09/15	1288.94	
NC7-67	10/12/15	1288.58	
NC7-67	10/21/15	1288.54	
NC7-68	01/12/15	1289.63	
NC7-68	04/16/15	1289.55	
NC7-68	05/21/15	1289.50	
NC7-68	07/09/15	1289.27	
NC7-68	10/12/15	1289.06	
NC7-68	10/21/15	1289.02	
NC7-75	01/15/15	1299.75	
NC7-75	04/14/15	1299.96	
NC7-75	05/26/15	1299.08	
NC7-75	07/09/15	1299.98	
NC7-75	10/08/15	1299.54	
NC7-75	11/12/15	1299.39	
NC7-76	01/12/15	1254.77	
NC7-76	04/22/15	1254.11	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
NC7-76	05/21/15	1253.76	
NC7-76	07/13/15	1253.62	
NC7-76	10/13/15	1252.88	
NC7-76	10/28/15	1252.72	
W-865-01	01/13/15	1152.63	
W-865-01	01/20/15	1152.53	
W-865-01	05/18/15	1152.79	
W-865-01	06/18/15	1152.31	PS
W-865-01	07/14/15	1152.44	
W-865-01	07/20/15	1152.86	
W-865-01	10/07/15	1152.38	
W-865-01	10/22/15	1152.48	PS
W-865-03	01/13/15	1180.66	
W-865-03	01/20/15	1180.54	
W-865-03	05/18/15	1180.31	
W-865-03	07/20/15	1180.05	
W-865-03	10/07/15	1180.57	
W-865-1804	01/12/15	1109.11	
W-865-1804	01/20/15	1108.93	
W-865-1804	05/18/15	1108.88	
W-865-1804	07/14/15	1109.11	
W-865-1804	07/29/15	1108.69	
W-865-1804	10/07/15	1109.13	
W-PIT3-02	01/15/15	1332.52	
W-PIT3-02	06/03/15	1332.52	
W-PIT3-02	07/09/15	1332.52	
W-PIT3-02	11/12/15	1332.51	
W-PIT5-01	01/15/15	1326.56	
W-PIT5-02	01/15/15	1320.17	
W-PIT5-02	06/03/15	1320.17	
W-PIT5-02	07/09/15	1321.36	
W-PIT5-02	11/12/15	1321.36	
W-PIT7-02	01/12/15	1293.03	
W-PIT7-02	01/12/15	1293.03	
W-PIT7-02	04/15/15	1293.28	
W-PIT7-02	06/03/15	1292.83	
W-PIT7-02	07/13/15	1292.53	
W-PIT7-02	07/13/15	1292.47	
W-PIT7-02	10/21/15	1292.11	
W-PIT7-03	01/12/15	1300.64	
W-PIT7-03	01/15/15	1300.67	
W-PIT7-03	04/14/15	1301.02	
W-PIT7-03	05/26/15	1300.59	
W-PIT7-03	07/13/15	1300.64	
W-PIT7-03	10/12/15	1299.37	
W-PIT7-03	10/28/15	1299.26	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-PIT7-10	01/13/15	1289.96	
W-PIT7-10	04/15/15	1290.10	
W-PIT7-10	05/26/15	1289.26	
W-PIT7-10	07/13/15	1289.11	
W-PIT7-10	10/07/15	1289.52	
W-PIT7-10	11/10/15	1289.47	
W-PIT7-11	01/12/15	1262.04	
W-PIT7-11	06/03/15	1262.04	
W-PIT7-11	07/09/15	1262.04	
W-PIT7-11	10/29/15	1262.04	
W-PIT7-12	01/12/15	1201.95	
W-PIT7-12	04/02/15	1201.91	
W-PIT7-12	06/03/15	1201.44	
W-PIT7-12	07/14/15	1201.94	
W-PIT7-12	10/05/15	1201.89	
W-PIT7-12	10/29/15	1201.87	
W-PIT7-13	01/12/15	1250.27	
W-PIT7-13	04/02/15	1250.34	
W-PIT7-13	06/03/15	1249.98	
W-PIT7-13	07/09/15	1249.93	
W-PIT7-13	10/05/15	1250.30	
W-PIT7-13	10/29/15	1249.91	
W-PIT7-14	01/12/15	1158.74	
W-PIT7-14	04/08/15	1158.74	
W-PIT7-14	05/12/15	1158.47	
W-PIT7-14	07/09/15	1158.46	
W-PIT7-14	10/29/15	1158.47	
W-PIT7-15	01/20/15	1197.40	
W-PIT7-15	05/11/15	1199.79	
W-PIT7-15	05/18/15	1199.66	
W-PIT7-15	07/20/15	1199.90	
W-PIT7-15	10/07/15	1199.59	
W-PIT7-15	10/27/15	1199.68	
W-PIT7-1715	01/13/15	1422.82	
W-PIT7-1715	06/03/15	1422.11	
W-PIT7-1715	07/15/15	1421.86	
W-PIT7-1715	10/28/15	1422.55	
W-PIT7-1716	01/13/15	1429.68	
W-PIT7-1716	06/03/15	1429.71	
W-PIT7-1716	07/15/15	1429.71	
W-PIT7-1716	10/28/15	1429.71	
W-PIT7-1719	01/13/15	1450.20	
W-PIT7-1719	06/03/15	1450.11	
W-PIT7-1719	07/15/15	1450.04	
W-PIT7-1719	10/28/15	1450.02	
W-PIT7-1721	01/13/15	1419.09	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-PIT7-1721	06/03/15	1419.10	
W-PIT7-1721	07/15/15	1419.12	
W-PIT7-1721	10/28/15	1419.10	
W-PIT7-1722	01/13/15	1427.32	
W-PIT7-1722	06/03/15	1427.32	
W-PIT7-1722	07/15/15	1427.32	
W-PIT7-1722	10/28/15	1427.32	
W-PIT7-1725	01/13/15	1299.52	
W-PIT7-1725	06/03/15	1299.59	
W-PIT7-1725	07/15/15	1299.68	
W-PIT7-1725	10/28/15	1299.52	
W-PIT7-1726	01/13/15	1459.45	
W-PIT7-1726	06/03/15	1459.45	
W-PIT7-1726	07/15/15	1459.45	
W-PIT7-1726	10/28/15	1459.45	
W-PIT7-1727	01/13/15	1417.47	
W-PIT7-1727	06/03/15	1417.47	
W-PIT7-1727	07/15/15	1417.47	
W-PIT7-1727	10/28/15	1417.47	
W-PIT7-1728	01/13/15	1460.14	
W-PIT7-1728	06/03/15	1460.14	
W-PIT7-1728	07/15/15	1460.14	
W-PIT7-1728	10/28/15	1460.14	
W-PIT7-1729	01/13/15	1434.81	
W-PIT7-1729	06/03/15	1434.81	
W-PIT7-1729	07/15/15	1434.81	
W-PIT7-1729	10/28/15	1434.81	
W-PIT7-1860	01/13/15	1433.38	
W-PIT7-1860	06/03/15	1433.17	
W-PIT7-1860	07/15/15	1433.18	
W-PIT7-1860	11/17/15	1432.96	
W-PIT7-1861	01/13/15	1433.35	
W-PIT7-1861	04/09/15	1433.19	
W-PIT7-1861	06/03/15	1433.07	
W-PIT7-1861	07/15/15	1433.08	
W-PIT7-1861	11/17/15	1432.89	
W-PIT7-1903	01/12/15	1296.48	
W-PIT7-1903	05/21/15	1296.48	
W-PIT7-1903	07/09/15	1296.48	
W-PIT7-1903	10/20/15	1296.48	
W-PIT7-1904	01/12/15	1294.55	
W-PIT7-1904	04/20/15	1294.28	
W-PIT7-1904	05/21/15	1294.24	
W-PIT7-1904	07/09/15	1294.20	
W-PIT7-1904	10/20/15	1293.29	
W-PIT7-1905	01/12/15	1295.40	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-PIT7-1905	04/20/15	1295.15	
W-PIT7-1905	05/21/15	1294.92	
W-PIT7-1905	07/09/15	1294.90	
W-PIT7-1905	10/20/15	1293.95	
W-PIT7-1907	01/12/15	1296.05	
W-PIT7-1907	04/20/15	1296.10	
W-PIT7-1907	05/21/15	1295.93	
W-PIT7-1907	07/09/15	1295.86	
W-PIT7-1907	10/20/15	1294.82	
W-PIT7-1915	01/12/15	1295.46	
W-PIT7-1915	04/20/15	1295.80	
W-PIT7-1915	05/21/15	1295.64	
W-PIT7-1915	07/09/15	1295.62	
W-PIT7-1915	10/20/15	1294.54	
W-PIT7-1916	01/12/15	1295.30	
W-PIT7-1916	04/20/15	1295.54	
W-PIT7-1916	05/21/15	1295.38	
W-PIT7-1916	07/09/15	1295.40	
W-PIT7-1916	10/20/15	1294.37	
W-PIT7-1917	01/12/15	1294.81	
W-PIT7-1917	05/21/15	1294.74	
W-PIT7-1917	07/09/15	1294.67	
W-PIT7-1917	10/20/15	1293.83	
W-PIT7-1918	01/12/15	1294.52	
W-PIT7-1918	04/20/15	1295.43	
W-PIT7-1918	05/21/15	1295.24	
W-PIT7-1918	07/09/15	1295.21	
W-PIT7-1918	10/14/15	1294.41	
W-PIT7-1918	10/20/15	1294.16	
W-PIT7-1919	01/12/15	1292.42	
W-PIT7-1919	04/20/15	1292.46	
W-PIT7-1919	05/21/15	1292.26	
W-PIT7-1919	07/09/15	1292.27	
W-PIT7-1919	10/20/15	1292.14	
W-PIT7-2141	01/12/15	1163.92	
W-PIT7-2141	04/08/15	1164.24	
W-PIT7-2141	05/18/15	1164.07	
W-PIT7-2141	08/11/15	1164.03	
W-PIT7-2141	10/05/15	1164.29	
W-PIT7-2141	10/29/15	1163.98	
W-PIT7-2305	01/12/15	1285.69	
W-PIT7-2305	05/21/15	1296.70	
W-PIT7-2305	07/14/15	1283.79	
W-PIT7-2305	10/21/15	1290.90	
W-PIT7-2306	01/15/15	1304.93	
W-PIT7-2306	05/26/15	1304.58	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-PIT7-2306	07/09/15	1304.55	
W-PIT7-2306	11/17/15	1304.53	
W-PIT7-2307	01/15/15	1306.95	
W-PIT7-2307	05/26/15	1306.40	
W-PIT7-2307	08/11/15	1306.12	
W-PIT7-2307	11/17/15	1304.33	
W-PIT7-2309	01/13/15	1310.03	
W-PIT7-2309	04/16/15	1309.98	
W-PIT7-2309	05/26/15	1309.38	
W-PIT7-2309	07/09/15	1308.70	
W-PIT7-2309	10/08/15	1307.63	
W-PIT7-2309	10/28/15	1307.51	
W-PIT7-2703	01/13/15	1305.66	
W-PIT7-2703	10/28/15	1306.74	
W-PIT7-2704	01/15/15	1310.42	
W-PIT7-2704	11/17/15	1311.34	
W-PIT7-2705	01/12/15	1287.37	
W-PIT7-2705	10/20/15	1288.94	

Table C-8. Building 854 Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-854-01	02/03/15	1118.47	
W-854-01	05/04/15	1118.45	
W-854-01	06/10/15	1118.29	
W-854-01	08/03/15	1118.45	
W-854-01	11/18/15	1118.25	
W-854-01	11/23/15	1118.27	
W-854-02	02/03/15	1137.15	
W-854-02	06/10/15	1136.72	
W-854-02	08/03/15	1185.68	
W-854-02	11/23/15	1193.21	
W-854-03	02/03/15	1116.03	
W-854-03	06/10/15	1117.23	
W-854-03	08/03/15	1117.40	
W-854-03	11/24/15	1119.86	
W-854-04	02/03/15	949.39	
W-854-04	05/06/15	949.98	
W-854-04	06/10/15	950.01	
W-854-04	08/03/15	950.05	
W-854-04	11/24/15	949.97	
W-854-04	11/30/15	949.99	
W-854-05	02/03/15	1242.15	
W-854-05	05/04/15	1242.08	
W-854-05	06/10/15	1242.13	
W-854-05	08/03/15	1242.16	
W-854-05	11/18/15	1242.33	
W-854-05	11/23/15	1242.38	
W-854-06	02/03/15	990.88	
W-854-06	05/05/15	990.64	
W-854-06	06/10/15	990.75	
W-854-06	08/03/15	990.61	
W-854-06	11/23/15	990.62	
W-854-06	11/24/15	990.62	
W-854-07	02/03/15	991.97	
W-854-07	05/06/15	991.84	
W-854-07	06/10/15	991.73	
W-854-07	08/03/15	991.66	
W-854-07	11/23/15	991.65	
W-854-07	11/24/15	991.65	
W-854-08	02/03/15	1153.48	
W-854-08	05/06/15	1153.22	
W-854-08	06/10/15	1153.21	
W-854-08	08/03/15	1153.13	
W-854-08	11/24/15	1153.05	
W-854-08	11/24/15	1153.01	
W-854-09	02/03/15	1170.35	
W-854-09	06/10/15	1170.06	

Table C-8. Building 854 Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-854-09	08/03/15	1170.10	
W-854-09	11/24/15	1170.00	
W-854-10	02/03/15	1207.80	
W-854-10	05/05/15	1207.76	
W-854-10	06/10/15	1207.75	
W-854-10	08/03/15	1207.70	
W-854-10	11/18/15	1207.38	
W-854-10	11/23/15	1207.32	
W-854-11	02/03/15	1189.38	
W-854-11	06/10/15	1189.38	
W-854-11	08/03/15	1190.38	
W-854-11	11/23/15	1190.38	
W-854-12	02/03/15	NM	
W-854-12	05/06/15	1029.90	
W-854-12	08/03/15	NM	
W-854-12	11/24/15	1029.94	
W-854-13	02/03/15	NM	No access. Site secured for operations.
W-854-13	05/06/15	1149.86	
W-854-13	05/06/15	1149.86	
W-854-13	08/03/15	NM	No access. Site secured for operations.
W-854-13	11/24/15	1149.67	
W-854-13	11/24/15	1149.67	
W-854-14	02/03/15	950.08	
W-854-14	05/07/15	948.45	
W-854-14	06/10/15	949.87	
W-854-14	08/03/15	948.08	
W-854-14	11/24/15	948.11	
W-854-14	11/30/15	947.60	
W-854-15	02/03/15	1054.99	
W-854-15	05/07/15	1055.27	
W-854-15	06/10/15	1056.22	
W-854-15	08/03/15	1055.24	
W-854-15	11/24/15	1055.10	
W-854-15	11/24/15	1055.12	
W-854-17	02/03/15	1192.28	
W-854-17	05/04/15	1192.65	
W-854-17	06/10/15	1192.63	
W-854-17	08/03/15	1192.51	
W-854-17	11/18/15	1192.04	
W-854-17	11/23/15	1192.27	
W-854-18A	02/03/15	1194.23	
W-854-18A	05/04/15	1194.40	
W-854-18A	06/10/15	1194.37	
W-854-18A	08/03/15	1194.07	

Table C-8. Building 854 Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-854-18A	11/18/15	1191.65	
W-854-18A	11/23/15	1193.64	
W-854-19	02/03/15	1028.85	
W-854-19	06/10/15	1028.85	
W-854-19	08/03/15	1028.85	
W-854-19	11/24/15	1028.85	
W-854-45	02/03/15	912.35	
W-854-45	05/07/15	912.98	
W-854-45	06/10/15	912.10	
W-854-45	08/03/15	912.83	
W-854-45	11/24/15	913.03	
W-854-45	11/30/15	913.01	
W-854-1701	02/03/15	1011.15	
W-854-1701	05/05/15	1011.54	
W-854-1701	06/10/15	1011.40	
W-854-1701	08/03/15	1011.68	
W-854-1701	11/23/15	1011.54	
W-854-1701	11/24/15	1011.54	
W-854-1706	02/03/15	815.19	
W-854-1706	06/10/15	815.05	
W-854-1706	09/09/15	NM	No access. Site secured for operations.
W-854-1706	11/24/15	NM	
W-854-1707	02/03/15	800.25	
W-854-1707	05/19/15	800.70	
W-854-1707	06/10/15	800.11	
W-854-1707	09/09/15	NM	No access. Site secured for operations.
W-854-1707	11/24/15	NM	
W-854-1731	02/03/15	946.23	
W-854-1731	05/07/15	947.29	
W-854-1731	06/10/15	946.13	
W-854-1731	08/03/15	947.03	
W-854-1731	11/24/15	947.42	
W-854-1731	11/30/15	947.45	
W-854-1822	02/03/15	1040.23	
W-854-1822	05/05/15	1040.15	
W-854-1822	06/10/15	1039.94	
W-854-1822	08/03/15	1039.80	
W-854-1822	11/23/15	1040.04	
W-854-1822	11/24/15	1040.04	
W-854-1823	02/03/15	1098.75	
W-854-1823	05/06/15	1098.51	
W-854-1823	06/10/15	1098.59	
W-854-1823	08/03/15	1098.24	
W-854-1823	11/24/15	1098.01	

Table C-8. Building 854 Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-854-1823	11/24/15	1098.01	
W-854-1834	02/03/15	1212.12	
W-854-1834	06/10/15	1212.09	
W-854-1834	08/03/15	1212.09	
W-854-1834	11/23/15	1212.04	
W-854-1835	02/03/15	1210.05	
W-854-1835	06/10/15	1210.05	
W-854-1835	08/03/15	1210.08	
W-854-1835	11/23/15	1210.05	
W-854-1902	02/03/15	1039.43	
W-854-1902	06/10/15	1039.37	
W-854-1902	08/03/15	1039.45	
W-854-1902	11/24/15	1039.38	
W-854-2115	02/03/15	992.25	
W-854-2115	05/05/15	992.09	
W-854-2115	06/10/15	991.91	
W-854-2115	08/03/15	991.88	
W-854-2115	11/23/15	991.88	
W-854-2115	11/24/15	991.88	
W-854-2139	02/03/15	992.47	
W-854-2139	06/10/15	990.37	
W-854-2139	08/03/15	991.27	
W-854-2139	11/24/15	992.18	
W-854-2218	02/03/15	1187.99	
W-854-2218	06/10/15	1188.39	
W-854-2218	08/03/15	1188.20	
W-854-2218	11/23/15	1188.27	

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
SVI-830-031	02/24/15	669.63	
SVI-830-031	03/05/15	667.96	
SVI-830-031	06/15/15	669.97	
SVI-830-031	08/18/15	668.65	
SVI-830-031	08/27/15	669.68	
SVI-830-031	12/02/15	668.45	
SVI-830-032	03/05/15	659.59	
SVI-830-032	06/15/15	659.82	
SVI-830-032	08/27/15	659.73	
SVI-830-032	12/02/15	659.56	
SVI-830-033	03/05/15	667.45	
SVI-830-033	06/15/15	667.48	
SVI-830-033	08/27/15	667.47	
SVI-830-033	12/02/15	667.45	
SVI-830-035	02/24/15	669.74	
SVI-830-035	03/05/15	668.91	
SVI-830-035	06/15/15	672.31	
SVI-830-035	08/18/15	669.13	
SVI-830-035	08/27/15	672.19	
SVI-830-035	12/02/15	668.82	
W-830-04A	02/05/15	577.29	
W-830-04A	02/26/15	577.46	
W-830-04A	06/08/15	576.53	
W-830-04A	08/06/15	582.06	
W-830-04A	08/20/15	575.90	
W-830-04A	11/09/15	571.91	
W-830-05	02/05/15	558.60	
W-830-05	03/02/15	558.61	
W-830-05	06/08/15	558.04	
W-830-05	08/17/15	557.46	
W-830-05	08/24/15	557.37	
W-830-05	11/09/15	558.03	
W-830-07	03/09/15	623.30	
W-830-07	06/17/15	623.30	
W-830-07	08/17/15	623.30	
W-830-07	12/14/15	623.30	
W-830-09	02/24/15	605.64	
W-830-09	03/05/15	575.27	
W-830-09	06/15/15	598.65	
W-830-09	06/16/15	577.33	PS
W-830-09	08/17/15	578.14	
W-830-09	08/27/15	578.20	
W-830-09	12/02/15	575.53	
W-830-10	02/05/15	577.29	
W-830-10	02/26/15	577.40	
W-830-10	06/08/15	575.97	

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-830-10	08/17/15	575.77	
W-830-10	08/24/15	574.54	
W-830-10	11/09/15	571.49	
W-830-11	02/05/15	561.30	
W-830-11	02/26/15	561.33	
W-830-11	06/08/15	559.61	
W-830-11	08/17/15	559.34	
W-830-11	08/24/15	559.27	
W-830-11	11/09/15	560.03	
W-830-12	02/24/15	571.72	
W-830-12	03/05/15	602.16	
W-830-12	06/09/15	602.70	
W-830-12	06/15/15	602.92	
W-830-12	08/18/15	602.29	
W-830-12	08/27/15	602.22	
W-830-12	12/01/15	602.22	
W-830-12	12/02/15	602.42	
W-830-13	02/05/15	535.75	
W-830-13	06/08/15	534.08	
W-830-13	08/17/15	533.30	
W-830-13	08/24/15	532.36	
W-830-13	11/09/15	533.23	
W-830-14	02/05/15	544.68	
W-830-14	03/02/15	544.64	
W-830-14	06/08/15	544.20	
W-830-14	08/17/15	544.18	
W-830-14	08/24/15	544.10	
W-830-14	11/09/15	543.97	
W-830-15	02/05/15	559.77	
W-830-15	03/02/15	560.59	
W-830-15	06/08/15	559.49	
W-830-15	06/09/15	559.34	
W-830-15	08/17/15	558.73	
W-830-15	08/24/15	558.57	
W-830-15	11/09/15	557.52	
W-830-15	12/02/15	558.67	
W-830-16	02/24/15	574.29	
W-830-16	03/03/15	574.27	
W-830-16	06/17/15	575.74	
W-830-16	08/25/15	573.38	
W-830-16	09/01/15	575.35	
W-830-16	12/09/15	572.96	
W-830-17	02/24/15	565.74	
W-830-17	06/17/15	565.34	
W-830-17	09/01/15	565.05	
W-830-17	12/09/15	560.04	

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-830-18	02/05/15	572.43	
W-830-18	02/26/15	574.49	
W-830-18	06/08/15	576.56	
W-830-18	08/06/15	577.19	
W-830-18	08/31/15	577.41	PS
W-830-18	11/09/15	NM	
W-830-19	03/05/15	615.84	
W-830-19	06/16/15	615.84	
W-830-19	09/01/15	615.84	
W-830-19	12/02/15	615.21	
W-830-20	02/05/15	571.44	
W-830-20	02/26/15	571.74	
W-830-20	06/08/15	572.37	
W-830-20	06/15/15	572.31	
W-830-20	08/06/15	572.54	
W-830-20	08/20/15	572.40	
W-830-20	11/09/15	569.04	
W-830-21	02/05/15	586.21	
W-830-21	03/04/15	586.46	
W-830-21	06/08/15	586.59	
W-830-21	08/06/15	586.09	
W-830-21	08/20/15	586.24	
W-830-21	11/09/15	585.67	
W-830-22	02/23/15	604.12	
W-830-22	03/05/15	603.72	
W-830-22	06/16/15	603.56	
W-830-22	08/17/15	604.04	
W-830-22	08/27/15	603.77	
W-830-22	12/02/15	603.63	
W-830-25	02/05/15	595.88	
W-830-25	06/08/15	595.88	
W-830-25	09/02/15	595.88	
W-830-25	12/14/15	595.88	
W-830-26	03/05/15	580.63	
W-830-26	06/15/15	586.38	
W-830-26	08/17/15	582.87	
W-830-26	08/27/15	583.14	
W-830-26	12/02/15	582.23	
W-830-27	02/05/15	589.71	
W-830-27	02/25/15	590.48	
W-830-27	06/08/15	589.95	
W-830-27	08/19/15	589.31	
W-830-27	09/02/15	590.10	
W-830-27	12/14/15	585.06	
W-830-28	02/05/15	574.14	
W-830-28	02/25/15	573.96	

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-830-28	06/08/15	573.69	
W-830-28	08/19/15	576.61	
W-830-28	09/02/15	573.79	
W-830-28	12/14/15	574.50	
W-830-29	03/05/15	582.78	
W-830-29	06/15/15	584.87	
W-830-29	08/17/15	581.22	
W-830-29	08/27/15	581.13	
W-830-29	12/02/15	580.61	
W-830-30	03/04/15	672.31	
W-830-30	03/05/15	672.20	
W-830-30	06/15/15	671.75	
W-830-30	08/18/15	671.57	
W-830-30	08/27/15	671.51	
W-830-30	12/02/15	672.14	
W-830-34	03/04/15	672.75	
W-830-34	03/05/15	672.58	
W-830-34	06/15/15	672.35	
W-830-34	08/18/15	672.14	
W-830-34	08/27/15	672.25	
W-830-34	12/02/15	672.63	
W-830-49	03/05/15	621.34	
W-830-49	06/15/15	NM	
W-830-49	08/27/15	628.11	
W-830-49	12/02/15	627.34	
W-830-50	02/05/15	577.17	
W-830-50	02/26/15	577.30	
W-830-50	06/08/15	576.60	
W-830-50	08/06/15	576.30	
W-830-50	08/20/15	575.66	
W-830-50	11/09/15	571.91	
W-830-51	02/05/15	575.78	
W-830-51	06/17/15	575.78	
W-830-51	08/17/15	575.78	
W-830-51	11/09/15	572.08	
W-830-52	02/05/15	573.88	
W-830-52	06/17/15	572.78	
W-830-52	08/17/15	572.92	
W-830-52	11/09/15	NM	
W-830-53	02/24/15	577.39	
W-830-53	06/17/15	581.07	
W-830-53	09/21/15	NM	No access. Sealed non-flowing artesian well.
W-830-53	12/14/15	NM	
W-830-54	02/24/15	545.29	
W-830-54	03/03/15	545.29	PS

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-830-54	03/30/15	545.32	
W-830-54	06/17/15	545.06	
W-830-54	08/25/15	544.71	
W-830-54	09/22/15	545.16	
W-830-54	12/14/15	544.41	
W-830-55	03/03/15	576.24	
W-830-55	03/09/15	572.97	
W-830-55	03/30/15	576.24	
W-830-55	06/17/15	575.87	
W-830-55	08/25/15	573.77	
W-830-55	09/22/15	575.69	
W-830-55	12/09/15	573.11	
W-830-56	02/05/15	545.08	
W-830-56	03/02/15	545.11	
W-830-56	06/08/15	544.97	
W-830-56	08/17/15	544.94	
W-830-56	08/24/15	544.71	
W-830-56	11/09/15	544.73	
W-830-57	03/09/15	574.13	
W-830-57	06/08/15	574.36	
W-830-57	09/21/15	574.80	
W-830-57	12/14/15	574.32	
W-830-58	02/05/15	608.10	
W-830-58	02/25/15	607.85	
W-830-58	06/08/15	607.45	
W-830-58	08/19/15	606.87	
W-830-58	09/21/15	607.67	
W-830-58	12/14/15	606.00	
W-830-59	03/05/15	611.79	
W-830-59	06/17/15	611.38	
W-830-59	09/21/15	NM	
W-830-59	12/02/15	611.16	
W-830-60	02/05/15	574.67	
W-830-60	06/08/15	576.43	
W-830-60	08/06/15	577.37	
W-830-60	11/09/15	569.74	
W-830-1730	03/02/15	523.62	
W-830-1730	03/09/15	523.69	
W-830-1730	06/09/15	523.44	
W-830-1730	06/17/15	522.89	
W-830-1730	08/26/15	523.25	
W-830-1730	09/01/15	523.24	
W-830-1730	11/09/15	523.26	
W-830-1730	12/02/15	523.19	
W-830-1807	03/05/15	668.87	
W-830-1807	06/15/15	668.36	

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-830-1807	08/27/15	667.72	
W-830-1807	12/02/15	666.68	
W-830-1829	02/23/15	607.29	
W-830-1829	03/05/15	607.22	
W-830-1829	06/15/15	607.04	
W-830-1829	08/17/15	607.39	
W-830-1829	08/27/15	607.11	
W-830-1829	12/02/15	606.34	
W-830-1830	02/23/15	606.29	
W-830-1830	03/05/15	607.22	
W-830-1830	06/15/15	607.36	
W-830-1830	08/17/15	605.00	
W-830-1830	08/27/15	604.80	
W-830-1830	12/17/15	605.51	
W-830-1831	02/24/15	577.34	
W-830-1831	03/03/15	577.43	PS
W-830-1831	03/30/15	577.51	
W-830-1831	06/17/15	576.62	
W-830-1831	08/25/15	575.15	
W-830-1831	09/01/15	576.82	
W-830-1831	12/09/15	574.19	
W-830-1832	02/24/15	575.16	
W-830-1832	03/03/15	575.66	PS
W-830-1832	03/30/15	575.71	
W-830-1832	06/17/15	577.37	
W-830-1832	08/25/15	577.84	
W-830-1832	09/01/15	577.40	
W-830-1832	12/09/15	575.37	
W-830-2213	02/05/15	586.49	
W-830-2213	02/26/15	587.38	
W-830-2213	06/08/15	588.23	
W-830-2213	08/06/15	585.71	
W-830-2213	08/20/15	587.47	
W-830-2213	11/09/15	579.03	
W-830-2214	02/05/15	586.25	
W-830-2214	06/08/15	588.15	
W-830-2214	08/06/15	585.61	
W-830-2214	11/09/15	575.15	
W-830-2215	02/05/15	574.68	
W-830-2215	06/08/15	577.02	
W-830-2215	08/06/15	577.70	
W-830-2215	11/09/15	572.40	
W-830-2216	02/05/15	528.31	
W-830-2216	06/22/15	NM	
W-830-2216	09/09/15	527.51	
W-830-2216	12/14/15	533.27	

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-830-2311	02/05/15	577.05	
W-830-2311	03/19/15	577.29	
W-830-2311	06/08/15	576.32	
W-830-2311	08/06/15	571.21	
W-830-2311	08/26/15	575.55	
W-830-2311	11/09/15	571.82	
W-830-2701	02/05/15	577.23	
W-830-2701	11/09/15	569.71	
W-830-2806	08/25/15	575.92	
W-830-2806	09/02/15	576.93	
W-830-2806	12/02/15	574.02	
W-830-2806	12/09/15	574.72	
W-831-01	02/18/15	639.31	
W-831-01	03/05/15	642.27	
W-831-01	06/15/15	639.39	
W-831-01	08/27/15	639.16	
W-831-01	12/02/15	639.01	
W-832-01	03/05/15	674.16	
W-832-01	06/15/15	671.41	
W-832-01	08/27/15	672.81	
W-832-01	12/02/15	672.41	
W-832-05	03/05/15	679.17	
W-832-05	06/15/15	679.17	
W-832-05	08/27/15	685.03	
W-832-05	12/02/15	683.47	
W-832-06	02/18/15	682.87	
W-832-06	03/05/15	683.60	
W-832-06	06/15/15	683.38	
W-832-06	08/13/15	682.43	PS
W-832-06	09/22/15	NM	Well missed during water level collection.
W-832-06	12/16/15	NM	
W-832-09	03/05/15	632.02	
W-832-09	06/15/15	632.41	
W-832-09	08/13/15	632.00	
W-832-09	08/27/15	632.02	
W-832-09	12/02/15	632.05	
W-832-10	03/05/15	654.40	
W-832-10	06/15/15	649.78	
W-832-10	08/27/15	652.39	
W-832-10	12/02/15	653.31	
W-832-11	03/05/15	664.96	
W-832-11	06/15/15	664.01	
W-832-11	08/27/15	664.03	
W-832-11	12/02/15	663.87	
W-832-12	03/05/15	696.17	

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-832-12	06/15/15	696.17	
W-832-12	08/27/15	696.17	
W-832-12	12/02/15	696.17	
W-832-13	02/19/15	703.63	
W-832-13	03/05/15	699.66	
W-832-13	06/15/15	699.66	
W-832-13	08/27/15	699.66	
W-832-13	12/02/15	699.66	
W-832-14	02/18/15	697.37	
W-832-14	03/05/15	695.67	
W-832-14	06/15/15	696.57	
W-832-14	08/27/15	696.42	
W-832-14	12/02/15	696.42	
W-832-15	03/05/15	698.13	
W-832-15	06/15/15	699.48	
W-832-15	08/27/15	705.76	
W-832-15	12/02/15	699.51	
W-832-16	03/05/15	702.84	
W-832-16	06/15/15	702.79	
W-832-16	08/27/15	702.82	
W-832-16	12/02/15	702.74	
W-832-17	03/05/15	703.50	
W-832-17	06/15/15	703.50	
W-832-17	08/27/15	703.50	
W-832-17	12/02/15	703.50	
W-832-18	03/05/15	695.70	
W-832-18	06/15/15	695.75	
W-832-18	08/27/15	695.70	
W-832-18	12/02/15	695.70	
W-832-19	02/18/15	696.20	
W-832-19	03/05/15	695.42	
W-832-19	06/15/15	695.42	
W-832-19	08/27/15	694.62	
W-832-19	12/02/15	694.57	
W-832-20	03/05/15	695.39	
W-832-20	06/15/15	695.39	
W-832-20	08/27/15	695.39	
W-832-20	12/02/15	695.39	
W-832-21	03/05/15	708.45	
W-832-21	06/15/15	708.45	
W-832-21	08/27/15	708.45	
W-832-21	12/02/15	708.41	
W-832-22	03/05/15	664.57	
W-832-22	06/15/15	664.57	
W-832-22	08/27/15	664.27	
W-832-22	12/02/15	664.27	

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-832-23	02/19/15	688.76	
W-832-23	03/05/15	686.44	
W-832-23	06/15/15	685.71	
W-832-23	08/13/15	687.23	
W-832-23	08/27/15	684.98	
W-832-23	12/02/15	686.23	
W-832-24	02/24/15	623.47	
W-832-24	03/05/15	624.34	
W-832-24	06/15/15	623.27	
W-832-24	08/13/15	622.58	
W-832-24	08/27/15	622.43	
W-832-24	12/02/15	621.56	
W-832-25	03/05/15	626.68	
W-832-25	06/15/15	626.64	
W-832-25	09/22/15	NM	No access. Road not safe to travel.
W-832-25	12/17/15	NM	No access. Road not safe to travel.
W-832-1927	03/05/15	591.57	
W-832-1927	03/09/15	591.48	
W-832-1927	06/17/15	591.50	
W-832-1927	08/26/15	591.70	
W-832-1927	08/27/15	591.32	
W-832-1927	12/09/15	591.43	
W-832-2112	03/04/15	583.09	
W-832-2112	03/09/15	583.39	
W-832-2112	06/09/15	583.53	
W-832-2112	06/22/15	582.86	
W-832-2112	08/26/15	583.17	
W-832-2112	09/22/15	582.64	
W-832-2112	12/02/15	582.19	
W-832-2112	12/14/15	582.95	
W-832-2906	08/13/15	577.58	PS
W-832-2906	12/01/15	575.01	
W-832-2906	12/02/15	574.81	
W-832-3015	06/23/15	NM	No access. Road not safe to travel.
W-832-3015	09/01/15	NM	DRY Based on sampling sheet.
W-832-3016	06/23/15	NM	No access. Road not safe to travel.
W-832-3016	09/01/15	NM	DRY Based on sampling sheet.
W-832-3017	06/23/15	NM	No access. Road not safe to travel
W-832-3017	09/01/15	NM	
W-832-3017	12/14/15	569.33	
W-832-3018	06/23/15	NM	No access. Road not safe to travel
W-832-3018	09/01/15	NM	DRY Based on sampling sheet.
W-832-3019	08/13/15	688.07	
W-832-3019	08/27/15	687.89	
W-832-3019	12/02/15	687.13	
W-832-SC1	02/05/15	NM	No access. Road not safe to travel.

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-832-SC1	08/17/15	NM	No access. Road not safe to travel.
W-832-SC1	12/15/15	NM	No access. Road not safe to travel.
W-832-SC2	02/05/15	NM	No access. Road not safe to travel.
W-832-SC2	08/17/15	NM	No access. Road not safe to travel.
W-832-SC2	12/15/15	NM	No access. Road not safe to travel.
W-832-SC3	02/05/15	NM	No access. Road not safe to travel.
W-832-SC3	08/17/15	NM	No access. Road not safe to travel.
W-832-SC3	12/15/15	NM	No access. Road not safe to travel.
W-832-SC4	02/05/15	NM	No access. Road not safe to travel.
W-832-SC4	08/17/15	NM	No access. Road not safe to travel.
W-832-SC4	12/15/15	NM	
W-870-01	02/11/15	507.91	
W-870-01	06/09/15	507.91	
W-870-01	08/18/15	507.91	
W-870-01	11/05/15	507.91	
W-870-02	02/11/15	507.27	
W-870-02	03/02/15	505.90	
W-870-02	06/09/15	506.16	
W-870-02	08/18/15	505.93	
W-870-02	08/31/15	505.51	
W-870-02	11/05/15	489.32	
W-880-01	02/17/15	507.94	
W-880-01	03/04/15	507.68	
W-880-01	06/09/15	507.72	
W-880-01	06/10/15	507.74	
W-880-01	08/18/15	507.42	
W-880-01	08/31/15	507.30	
W-880-01	11/09/15	507.65	
W-880-01	12/02/15	507.53	
W-880-02	02/17/15	506.93	
W-880-02	03/04/15	506.86	
W-880-02	06/09/15	506.81	
W-880-02	06/10/15	506.79	
W-880-02	08/18/15	506.30	
W-880-02	11/09/15	506.35	
W-880-02	12/02/15	506.60	PS
W-880-03	02/17/15	NM	No access. Sealed non-flowing artesian well.
W-880-03	03/04/15	528.05	PS
W-880-03	06/09/15	NM	No access. Sealed non-flowing artesian well.
W-880-03	06/10/15	528.15	PS
W-880-03	08/18/15	NM	No access. Sealed non-flowing artesian well.
W-880-03	11/09/15	NM	No access. Sealed non-flowing artesian well.
W-880-03	12/02/15	528.17	PS

Table C-10. Building 851 Firing Table ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
W-851-05	02/03/15	NM	No access. Site secured for operations.
W-851-05	04/30/15	1134.43	
W-851-05	05/14/15	1134.43	
W-851-05	09/09/15	NM	No access. Site secured for operations.
W-851-05	11/19/15	1134.39	
W-851-05	11/19/15	1134.39	
W-851-06	02/03/15	NM	No access. Site secured for operations.
W-851-06	04/30/15	1134.20	
W-851-06	05/14/15	1134.20	
W-851-06	09/09/15	NM	No access. Site secured for operations.
W-851-06	11/19/15	1133.98	
W-851-06	11/19/15	1133.98	
W-851-07	02/03/15	NM	No access. Site secured for operations.
W-851-07	04/30/15	1134.29	
W-851-07	05/14/15	1134.29	
W-851-07	09/09/15	NM	No access. Site secured for operations.
W-851-07	11/19/15	1134.24	
W-851-07	11/19/15	1134.24	
W-851-08	02/03/15	NM	No access. Site secured for operations.
W-851-08	04/30/15	1090.97	
W-851-08	05/14/15	1090.97	
W-851-08	09/09/15	NM	No access. Site secured for operations.
W-851-08	11/19/15	1090.72	
W-851-08	11/19/15	1090.72	

Table C-11. Building 845 Firing Table and Pit 9 Landfill ground water elevations.

Well	Date	Water elevation (ft MSL)
K9-01	01/27/15	996.64
K9-01	06/01/15	996.35
K9-01	06/23/15	996.41
K9-01	07/22/15	996.45
K9-01	11/10/15	996.35
K9-02	01/27/15	1006.66
K9-02	06/01/15	1006.09
K9-02	06/23/15	1006.13
K9-02	07/22/15	1006.01
K9-02	11/10/15	1005.75
K9-03	01/27/15	995.61
K9-03	06/01/15	996.27
K9-03	06/23/15	996.63
K9-03	07/22/15	996.41
K9-03	11/10/15	996.30
K9-04	01/27/15	994.36
K9-04	06/01/15	994.39
K9-04	06/23/15	986.41
K9-04	07/22/15	991.62
K9-04	11/10/15	991.39

Table C-12. Building 833 ground water elevations.

Well	Date	Water elevation (ft MSL)
W-833-03	03/04/15	812.73
W-833-03	06/11/15	812.43
W-833-03	08/27/15	812.43
W-833-03	12/09/15	812.43
W-833-12	03/04/15	826.85
W-833-12	06/15/15	826.87
W-833-12	08/27/15	826.82
W-833-12	12/09/15	826.83
W-833-18	03/04/15	810.10
W-833-18	06/15/15	810.10
W-833-18	08/27/15	810.81
W-833-18	12/09/15	810.81
W-833-22	03/04/15	823.53
W-833-22	06/15/15	825.53
W-833-22	08/27/15	825.58
W-833-22	12/09/15	825.58
W-833-28	03/04/15	814.29
W-833-28	06/11/15	814.12
W-833-28	09/01/15	814.14
W-833-28	12/17/15	814.27
W-833-30	03/04/15	580.44
W-833-30	03/24/15	582.88
W-833-30	06/11/15	583.49
W-833-30	09/01/15	583.24
W-833-30	09/17/15	582.34
W-833-30	12/09/15	582.85
W-833-33	03/04/15	822.56
W-833-33	03/24/15	824.90
W-833-33	06/11/15	823.84
W-833-33	09/01/15	823.93
W-833-33	12/09/15	822.59
W-833-34	03/04/15	815.97
W-833-34	06/11/15	815.28
W-833-34	09/01/15	815.34
W-833-34	12/09/15	815.22
W-833-43	03/04/15	854.78
W-833-43	06/15/15	826.28
W-833-43	08/27/15	826.28
W-833-43	12/17/15	826.28
W-840-01	03/09/15	581.06
W-840-01	03/23/15	580.98
W-840-01	06/11/15	581.71
W-840-01	09/01/15	581.61
W-840-01	12/09/15	581.31
W-841-01	03/09/15	562.37
W-841-01	06/11/15	563.03
W-841-01	09/01/15	562.98
W-841-01	12/09/15	562.85

Table C-13. Building 801 Firing Table and Pit 8 Landfill ground water elevations.

Well	Date	Water elevation (ft MSL)	Notes
K8-01	03/09/15	966.57	
K8-01	05/27/15	965.59	PS
K8-01	06/22/15	NM	
K8-01	08/11/15	965.47	
K8-01	10/26/15	965.44	
K8-01	10/26/15	965.44	
K8-02B	03/09/15	964.99	
K8-02B	05/27/15	964.42	PS
K8-02B	06/22/15	NM	No access. Site secured for operations.
K8-02B	07/30/15	964.31	
K8-02B	08/11/15	964.27	
K8-02B	10/26/15	964.21	
K8-02B	10/26/15	964.21	
K8-03B	05/27/15	966.18	PS
K8-03B	10/26/15	965.90	
K8-04	03/09/15	965.49	
K8-04	05/27/15	964.19	PS
K8-04	06/22/15	NM	
K8-04	08/11/15	964.01	
K8-04	10/26/15	963.94	
K8-04	10/26/15	963.94	
K8-05	03/09/15	985.85	
K8-05	06/22/15	NM	
K8-05	08/11/15	985.85	
K8-05	10/26/15	985.80	

Appendix D

Institutional Controls Monitoring Checklist

Appendix D

Institutional Controls Monitoring Checklist

Table B-2. Completed 2015 Institutional Controls Monitoring Checklist.

Table B-2. Institutional Controls Monitoring Checklist

This checklist will be used to conduct monitoring of institutional and engineered controls that are used to prevent exposure to contamination. The checklist will be completed at least annually and the results will be reported in the annual Compliance Monitoring Reports. Corrective action implementation is discussed in Section 6.1.6.

Institutional Control	Status[a]	Explanation/Observation of Corrective Action
Verify that the occupancy warning signs are visible at Building 834D.	YES	Sign is in place. Verified 11/23/15.
Verify that the Pit 6 Landfill was inspected within the last year and deficiencies were corrected.[b]	YES	Inspected on 11/17/15. Removed vegetation from channel.
Verify that signage is in place at the Pit 6 Landfill prohibiting unauthorized access and excavation.	YES	Sign is in place. Verified 11/23/15.
Verify that the fences and warning signs at the site boundary and control entry are in proper condition.[c]	YES	Inspected on 12/7/15. No Deficiencies. Per G.Meyer
Verify that the Building 850 Soil Solidification Corrective Action Management Unit was inspected within the last year and deficiencies were corrected.[d]	YES	Inspections and reporting are in 2015 CMR.
Verify that the Pit 7 Complex Drainage Diversion System was inspected within the last year and deficiencies were corrected.[e]	YES	Inspections and reporting are in 2015 CMR.
Verify that the Pit 7 Complex landfills were inspected within the last year and deficiencies were corrected.[b]	YES	Inspected on 11/17/15. No Deficiencies.
Verify that signage is in place at the Pit 7 Complex Landfills prohibiting unauthorized access and excavation.	YES	Sign is in place. Verified 11/23/15.
Verify that the occupancy warning signs are visible at Building 854A.	YES	Sign is in place on Door to Room 102. Verified 11/23/15.
Verify that the occupancy warning signs are visible at Building 830.	YES	Sign is in place. Verified 11/23/15.
Verify that the occupancy warning signs are visible at Building 833.	YES	Sign is in place on Door to Room 106. Verified 12/9/15.
Check that the engineered controls (heating, ventilating, and air-conditioning system for Building 833) are functioning properly.	YES	Completed during building walk-through on 7/14/15.
Verify that the Pit 2 Landfill was inspected within the last year and deficiencies were corrected.[b]	YES	Inspected on 11/17/15. No Deficiencies.

Table B-2. Institutional Controls Monitoring Checklist (continued).

Institutional Control	Status[a]	Explanation/Observation of Corrective Action
Verify that the Pit 8 Landfill was inspected within the last year and deficiencies were corrected.[b]	YES	Inspected on 11/17/15. No Deficiencies.
Verify that the Pit 9 Landfill was inspected within the last year and deficiencies were corrected.[b]	YES	Inspected on 11/17/15. No Deficiencies.

Notes:

[a] **Satisfactory status indicated by "Yes". Unsatisfactory status indicated by "No". Unsatisfactory status requires explanation. The Inspector shall immediately notify the Environmental Restoration Project Leader of any unsatisfactory status.**

[b] **The landfills are inspected and maintained by LLNL Maintenance and Utility Services. Inspections are documented and the results are provided to the Environmental Restoration Project and reported in the annual Compliance Monitoring Reports.**

[c] **Perimeter fences are inspected by LLNL Security annually.**

[d] **The Building 850 Soil Solidification mound is inspected and maintained by LLNL Maintenance and Utility Services. Inspections are documented and the results are provided to the Environmental Restoration Project and reported in the annual Compliance Monitoring Reports.**

[e] **The Pit 7 Drainage Diversion System is inspected and maintained by LLNL Maintenance and Utility Services. Inspections are documented and the results are provided to the Environmental Restoration Project and reported in the annual Compliance Monitoring Reports.**

Inspected by:

STEPHEN P. ORLOFF [signature] Date: 12/10/15

(Print Name) (Signature)

* PIT INSPECTION RECORDS PER SHARI BRIGDON

* PERIMETER FENCING REPORT PER GALEN MEYER LLNL/PSO

LAWRENCE LIVERMORE
NATIONAL LABORATORY
Lawrence Livermore National Security, LLC • Livermore, California • 94551