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First Semester 2005
Compliance Monitoring Report
Lawrence Livermore National Laboratory
Site 300

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September 30, 2005

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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 June 2005. The report is submitted in compliance with the Compliance Monitoring Plan (CMP)/Contingency Plan for Interim Remedies at Lawrence Livermore National Laboratory Site 300 (Ferry et al., 2002). As agreed to with the Regional Water Quality Control Board (RWQCB), the Central General Services Area (GSA) monitoring data, which were collected in compliance with the GSA CMP (Rueth, 1998), are also included in this report. This report does not cover the Eastern GSA, which was governed by the RWQCB National Pollutant Discharge Elimination System (NPDES) Order No. 97-242 and reported separately. The NPDES permit was rescinded in August 2005 and the permit was converted to Substantive Requirements. The Eastern GSA data from the third and fourth quarters of 2005 will be included in the 2005 annual CMR.

During the reporting period of January through June 2005, 2,953,931 gallons of ground water and 8,030,587 cubic feet of soil vapor were treated at Site 300, removing approximately 44,936 grams (g) of volatile organic compounds (VOCs), 391,556 g nitrate, 45.4 g RDX, 4.2 g of tetrabutyl ortho silicate (TBOS) and 45.7 g perchlorate (Table Summ-1).

Since remediation began in 1992, approximately 28,469,123 gallons of ground water and over 156,732 thousands of cubic feet of soil vapor have been treated, removing approximately 315 kilograms (kg) of VOCs, 3,031 kg nitrate, 0.53 kg RDX, 9.6 kg TBOS, and 0.33 kg perchlorate (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 OU as follows:

2.1. General Services Area OU 1

2.2. Building 834 OU 2

2.3. Pit 6 Landfill (Pit 6) OU 3

2.4. High Explosive Process Area OU 4

2.5. Building 850 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, Building 845, Building 851)

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

Total VOC isoconcentration contour maps were constructed by summing the results of the following VOCs: trichloroethene (TCE); tetrachloroethene (PCE); cis-1,2-dichloroethene (DCE); trans-1,2-DCE; carbon tetrachloride; chloroform; 1,1-dichlorethane (DCA); 1,2-DCA; 1,1-DCE; 1,1,1-trichloroethane (TCA); Freon 11; Freon 113; 1,1,2-TCA; and vinyl chloride. The resultant sums were rounded to two significant figures before plotting on the maps.

2.1. General Services Area (GSA) OU1

The GSA OU consists of the Eastern GSA and Central GSA areas. This report does not cover the Eastern GSA which was governed by the NPDES Order No. 97-242 and reported separately. The NPDES permit was rescinded in August 2005 and the permit was converted to Substantive Requirements. The Eastern GSA data from the third and fourth quarters of 2005 will be included in the 2005 annual CMR.

At the Central GSA, chlorinated solvents, mainly TCE, were used as degreasing agents in craft shops, such as Building 875. Rinse water from these degreasing operations was disposed of in dry wells. Typically, dry wells were gravel-filled holes about 3 to 4 feet deep and two feet 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 (GWTS) treats ground water for VOCs and has been in operation since 1992. Contaminated ground water is extracted from eight wells (W-7I, W-875-07, W-875-08, W-873-07, W-872-02, W-7O, W-7P, and W-7R). Wells W-7P and W-7R were added to the extraction wellfield as part of the phase II expansion efforts which were completed in May 2005. The current GWTS 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. Treated vapors are discharged to the atmosphere under permit from the San Joaquin Valley Unified Air Pollution Control District.

The Central GSA soil vapor extraction (SVE) and treatment system treats soil vapor for VOCs and has been in operation in the GSA adjacent to the Building 875 dry well contaminant source area since 1994. Seven wells (W-7I, W-875-07, W-875-08, W-875-09, W-875-10, W-875-11 and W-875-15) are used as vapor extraction or passive air inlet wells. Simultaneous ground water extraction in the vicinity lowers the elevation of the ground water surface and maximizes the volume of unsaturated soil influenced by vapor extraction. The current SVE 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 permit from the San Joaquin Valley Unified Air Pollution Control District. A map of the Central GSA, showing the locations of monitoring and extraction wells and treatment facilities is presented in Figure 2.1-1.

2.1.1. Central 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; receiving water monitoring; compliance summary; and sampling plan evaluation and modifications.

2.1.1.1. Central GSA Facility Performance Assessment

The monthly ground water and soil vapor discharge volumes and rates and operational hours are summarized in Table 2.1-1. The total volume of ground water and vapor extracted and treated and mass removed during the reporting period is presented in Table Summ-1. The cumulative volume of ground water and soil vapor treated and discharged and mass removed is summarized in Table Summ-2. Analytical results for influent and effluent samples are shown in Tables 2.1-2 and 2.1-3. The pH measurement results are presented in Appendix A.

2.1.1.2. Central GSA Operations and Maintenance Issues

The Central GSA GWTS operated continuously throughout the first semester of 2005 with the following exceptions:

- The facility was off from December 30, 2004 to January 6, 2005 due to a software problem.
- The facility was off from January 14th to the 19th due to a software problem.
- The facility was turned off for a scheduled power outage from February 24th to the 28th.

2.1.1.3. Central GSA Receiving Water Monitoring

During the reporting period, no surface water was present at the Central GSA discharge location. Therefore, receiving water monitoring was not conducted.

2.1.1.4. Central GSA Compliance Summary

The Central GSA GWTS operated in compliance with the Substantive Requirements for Wastewater Discharge. The Central GSA SVE operated in compliance with the San Joaquin Valley Unified Air Pollution Control District permit limitations.

2.1.1.5. Central GSA Facility Sampling Plan Evaluation and Modifications

The Central GSA treatment facility sampling and analysis plan complies with Substantive Requirements and the GSA CMP (1998) monitoring requirements. The treatment facility sampling and analysis plan is presented in Table 2.1-4. There were no modifications made to the plan during the reporting period.

2.1.2. Central GSA Surface Water and Ground Water Monitoring

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring and post-closure requirements with the following exceptions; five samples were not collected due to insufficient water. The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.1-4. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP. Analytical results will be presented in the annual report.

A ground water potentiometric surface map is presented in Figure 2.1-2. Ground water elevation data collected from wells within the OU are similar to those collected during past quarters. Ground water elevations will be presented in the annual report.

2.1.3. Central 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. Central GSA Mass Removal

The monthly ground water and soil vapor mass removal estimates are summarized in Table 2.1-6. The cumulative mass estimates are summarized in Table Summ-2.

2.1.3.2. Central GSA Contaminant Concentrations and Distribution

At the Central GSA, VOCs are the primary contaminants of concern (COC) in ground water and soil vapor. VOCs are present in three hydrostratigraphic units (HSU). In the western portion of the Central GSA, a VOC plume exists within a shallow HSU (Qt-$Tnsc_1$) contained within the Quaternary terrace deposits (Qt) and portions of the $Tnbs_2$ and $Tnsc_1$ bedrock units that subcrop beneath the Qt. Underlying the Qt-$Tnsc_1$ HSU, very low and intermittent VOC concentrations exist within a deeper HSU ($Tnbs_1$) consisting of the $Tnbs_1$ bedrock units where they are hydraulically separate from the shallow Qt deposits. A total VOC isoconcentration contour map for the Qt-$Tnsc_1$ HSU is presented in Figure 2.1.3. In the eastern portion of the Central GSA area (near the sewage treatment pond), the Qt deposits and the $Tnbs_2$ and $Tnsc_1$ bedrock units are not present. Quaternary alluvial deposits (Qal) directly overlie the shallow $Tnbs_1$ bedrock that comprises the (Qal-$Tnbs_1$) HSU in this area.

The current extent of detectable total VOCs in the shallow Qt-$Tnsc_1$ HSU is similar to that shown in the 2004 annual report. The current maximum total VOC concentration in the Qt-$Tnsc_1$ HSU (548.38 μg/L, April 2005) was detected in a sample from well W-875-07, located in the Building 875 dry well pad area where the historical maximum total VOC concentrations have been detected (133,000 μg/L, July 1993). VOCs are not detected in ground water samples from wells in the deeper $Tnbs_1$ HSU that underlies the Qt-$Tnsc_1$ HSU. Toward the sewage treatment ponds, lower concentrations of VOCs are present in the shallow alluvium (Qal) and shallow $Tnbs_1$ bedrock (Qal-$Tnbs_1$ HSU). As the $Tnsc_1$ confining layer is absent in this area, VOCs have migrated from the Qal into the unconfined $Tnbs_1$ bedrock. VOCs have been detected at low concentrations in only one shallow $Tnbs_1$ well, W-7N at a concentration of 0.72 μg/L (May 2005). In light of the relatively low concentration and small plume size, a map depicting VOCs in the $Tnbs_1$ HSU is not included in this report. The first semester 2005 was the first full semester since late 2003 in which the SVE system was operating fulltime due to rebound testing. A TCE soil vapor concentration contour map is presented in Figure 2.1-4. The concentrations were slightly lower than those shown in past quarterly reports.

2.1.3.3. Central GSA Remediation Optimization Evaluation

During the first semester of 2005, extraction wells W-7O and W-7R removed the majority of ground water while the dry pad extraction wells W-7I, W-875-07, and W-875-08 removed lesser amounts of ground water. Based on the ground water elevation map shown in Figure 2.1-2, pumping at W-7O, W-7I, W-875-07, and W-875-08 appear to adequately capture the highest concentrations in ground water emanating from the Building 875 dry wells source area. Two wells, W-7P and W-7R, were added to the ground water extraction wellfield as part of the Phase II expansion of the Central GSA in May 2005. These wells were chosen to more efficiently capture the downgradient Central GSA contaminant plume that may be partially emanating from the debris burial pit. Hydraulic testing is currently in progress to determine the most appropriate pumping strategy from these two wells.

The Central GSA SVE system evaluation performed from December 2003 to October 2004 indicated that the vapor mass removal rate may be limited by diffusion. The data are still being analyzed and the results will be reported in the next CMR.

A letter was submitted to EPA, the RWQCB, and DTSC (Central GSA Soil Vapor Extraction Zone of Influence Testing at Lawrence Livermore National Laboratory Site 300, August 2, 2005) which outlined justification to discontinue annual SVE zone of influence testing at the Central GSA. At the RPM meeting held August 25, 2005, EPA, the RWQCB, and DTSC all agreed that the annual zone of influence testing at the Central GSA was no longer necessary and could be discontinued.

2.1.3.4. Central GSA OU Performance Issues

There were no performance issues during this reporting period.

2.2. Building 834 (B834) OU2

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, piping leaks, and septic-system effluent at the Building 834 Complex have resulted in soil and ground water contamination with VOCs, TBOS, and nitrate. In addition, a former underground diesel storage tank released diesel to the subsurface. A map of Building 834 OU showing the locations of monitoring and extraction wells and treatment facilities is presented in Figure 2.2-1

GWTS and SVE systems have been operating in the Building 834 OU since 1995 and 1998, respectively. These systems are located in the main part of the Building 834 Complex, referred to as the Building 834 core area. The GWTS treats VOCs, nitrate, and TBOS within the shallow Tpsg HSU and the SVE system treats VOCs in the shallow ground water and vadose zone. The area to the south of the core area is referred to as the distal area. Due to the very low ground water yield from individual ground water extraction wells (< 0.1 gallons per minute), the GWTS and SVE systems have been operated simultaneously in batch mode. Although the GWTS can be operated alone, the SVE system is not operational without ground water extraction due to the upconing of the ground water in the well that covers the well screen and prevents soil vapor flow.

The current extraction wellfield consists of 12 extraction wells for both ground water and soil vapor extraction. Nine extraction wells (W-834-B2, -B3, -D4, -D5, -D6, -D7, -D12, -D13, and -J1) are located within the core area and three (W-834-S1, -S12A, and -S13) in the leach field portion of the distal area. The current GWTS configuration includes floating hydrocarbon adsorption devices (pigs) to remove the floating silicon oil, TBOS, followed by aqueous-phase GAC to remove VOCs and dissolved-phase TBOS from ground water. Nitrate-bearing treated ground water is discharged to the surrounding grasslands via a misting system to be utilized by the indigenous grasses. The current SVE configuration includes vapor-phase GAC for VOC removal. Treated vapors are discharged to the atmosphere under an air permit from the San Joaquin Valley Unified Air Pollution Control District.

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 are summarized in Table 2.2-1. The total volume of ground water and vapor extracted and treated and mass removed during the reporting period is presented in Table Summ-1. The cumulative volume of ground water and soil vapor treated and discharged and mass removed is summarized in Table Summ-2. Analytical results for influent and effluent samples are shown in Tables 2.1-2 through 2.1-5. The pH measurement results are presented in Appendix A.

2.2.1.2. Building 834 OU Operations and Maintenance Issues

As discussed in the 2004 Annual CMR, the GWTS and SVE were restarted after the facility upgrades and wellfield expansion were completed in October 2004. In December 2004, a malfunction occurred in the SVE blower control panel upon restart of the systems after a scheduled shutdown for freeze prevention. This necessitated replacement of the control panel. Although the GWTS operated normally throughout the first semester of 2005, the SVE system was not restarted until May 3, 2005. Both systems then ran continuously through the remainder of the semester. An SVE blower check valve will be installed during second semester that will prevent future electrical damage to the control panel in the event of unscheduled shutdowns.

2.2.1.3. Building 834 OU Compliance Summary

The Building 834 GWTS operated in compliance with the Substantive Requirements for Wastewater Discharge, with one exception. Effluent monitoring was inadvertently missed in March and April of 2005. This was due to a lack of personnel, shifting job responsibilities, and communication problems. Corrective action was initiated to ensure that no required monitoring is missed in the future. Additional field personnel have been hired and responsibilities have been clarified. The effluent results obtained in February and May indicate that the system was operating within discharge limitations and no releases occurred during the March-April time period.

The Building 834 SVE and treatment system operated in compliance with the San Joaquin Valley Unified Air Pollution Control District permit limitations.

2.2.1.4. Building 834 OU Facility Sampling Plan Evaluation and Modifications

The Building 834 treatment facility sampling and analysis plan complies with CMP monitoring requirements. The sampling and analysis plan is presented in Table 2.2-6. There were no modifications made to the plan, although more frequent monitoring was conducted during the first month to cover restart procedures.

2.2.2. Building 834 OU Ground Water Monitoring

During this reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; thirteen wells were not sampled due to being dry and eleven samples were not collected due to insufficient water. In addition, due to a tracer study being conducted in the T2 cluster area discussed below, compliance monitoring was not conducted on the seven wells impacted by the study. Six thousand gallons of Hetch-Hetchy water were injected into the subsurface to determine the hydraulic conductivity of the formation to determine the travel times between wells and to identify obvious preferential flow paths that could affect remediation design efforts. It was anticipated that the injection of thousands of gallons of Hetch-Hetchy water (tracer) into the T2 area well W-834-1824 would generate results that would not be indicative of historical conditions. VOC samples were collected from these wells on a monthly basis during the tracer study. The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.2-7. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP. Analytical results will be presented in the annual report.

A ground water potentiometric surface map is presented in Figure 2.2-2. Saturation remained relatively high during the first semester of 2005 due to above average rainfall. As shown in Figure 2.2-2, the injection of Hetch-Hetchy water within the T2 cluster area caused a mounding of water at the injection well W-834-1824. Ground water elevations will be presented in the annual report.

Three new Tpsg HSU wells and one Tps-clay perching horizon well were installed during this reporting period (W-834-2113, -2117, -2118, and -2119). Well W-834-2113 was installed in the leach field area to monitor cleanup efforts of the new extraction wells, W-834-S1, -S12A, and -S13. Well W-834-2117 was installed to provide better delineation of contaminant distributions and areas of saturation between the southern most leach field well and the T2 cluster area. Well W-834-2118 was installed southeast of the T2 cluster wells to allow for better contaminant distribution and HSU saturation. Well W-834-2119 is a deeper Tps-clay perching horizon monitor well installed approximately twenty feet south of the T2 cluster wells. Analytical data for these wells will be included in the annual 2005 CMR.

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 the first semester of 2005 are presented in Table 2.2-8. Total ground water and soil vapor mass removed for 2005 is presented in Table Summ-1. The cumulative mass removed is presented in Table Summ-2.

2.2.3.2. Building 834 OU Contaminant Concentrations and Distribution

At the Building 834 OU, VOCs are the primary COCs detected in ground water; TBOS, diesel, benzene, toluene, ethylbenzene, and total xylene (BTEX), and nitrate are the secondary COCs. With the exception of nitrate, the highest concentrations of these COCs have historically been detected in the core area. These COCs have been identified in two shallow HSUs, the Tpsg perched water-bearing gravel zone and the underlying Tps-clay/$Tnsc_2$ perching horizon. A total VOC isoconcentration contour map for the Tpsg perched water-bearing zone is presented in Figure 2.2-3. Isoconcentration contour maps for the secondary COCs will be included in the annual report.

Within the Tpsg HSU in the Building 834 core area, total VOC concentrations ranged from a high of 32,000 μg/L (January 2005) in a ground water sample obtained from well W-834-C5, to a low of 61 μg/L in a sample obtained from well W-834-C4 (January 2005). VOC concentrations in this area have remained constant over the last few years possibly due to the presence of residual free-phase TCE that continues to contribute to the dissolved phase VOC plume. However, when compared to VOC concentrations prior to active ground water and soil vapor extraction, the concentrations are dramatically lower. In the areas impacted by active extraction, ground water VOC concentrations have dropped by at least two orders of magnitude. VOC concentrations in some wells have dropped by even three orders of magnitude. The average TCE concentration in the core area between 1993 and 1994 was 84,000 μg/L. This has dropped to an average core area TCE concentration of 5,500 μg/L in the last two years. This decline in VOC concentrations exemplifies the effectiveness of the cleanup operations.

The highest total VOC ground water concentrations in the Building 834 OU occurred in the underlying Tps-clay perching horizon. A ground water sample collected from the Tps-clay core area well W-834-A1 contained 170,000 μg/L (January 2005) of total VOCs during the first semester of 2005. VOCs at these concentrations in ground water are generally indicative of free phase product. The concentrations within the Tps-clay unit have remained relatively stable, as no active treatment has been conducted within this unit. Pump and treat operations within fine-grained sediments found in the Tps-clay unit are expected to have poor effectiveness due to very low hydraulic and pneumatic conductivities. Other less proven and more experimental treatment options, such as hydrofracing and biodegradation might have to be employed to remediate the underlying perching horizons.

The VOC concentrations in the distal area Tpsg HSU continue to be historically consistent. The maximum total VOC concentration outside the core area during the first semester 2005 was detected in a ground water sample from Tpsg well W-834-T2 (22,000 μg/L, January 2005). This well is located about 500 feet south of the core area. Although ground water and soil vapor extraction and treatment have been initiated in the more northern portions of the distal area (leach field area), active extraction and treatment within the T2 cluster area, as discussed in Section 2.2.3.3, has not been initiated while the tracer study is underway. Residual free-phase product may still be present in the distal area as demonstrated by the long-term stable VOC concentrations. TCE biodegradation has continued within the core area where significant amounts of TBOS are present and serve as an electron donor for intrinsic biodegradation. The primary byproduct of this biodegradation has historically been cis-1,2-DCE, although limited vinyl chloride has also been detected. Twenty-two wells within the core area had measurable quantities of cis-1,2-DCE during this reporting period, with the highest concentration detected in well W-834-D4 at 15,000 μg/L (March 2005). Vinyl chloride was detected in ground water samples from three core area wells (W-834-A1, -B3, and -D3) at concentrations ranging from 0.63 μg/L to 130 μg/L. Cis-1,2-DCE has also been detected in five distal area wells, and although low concentrations of TBOS have been detected in some distal area wells, it has not yet been determined whether TBOS fermentation is the main driving mechanism for biodegradation within the distal areas. No vinyl chloride has ever been detected in any distal area wells.

TBOS continues to be detected at high concentrations almost exclusively in the core area where this compound exists as floating product. The current maximum TBOS concentration (22,000 μg/L, March 2005) was measured in well W-834-D4. The wells with the highest historical concentrations of TBOS (W-834-D3 and W-834-D4) vary by orders-of-magnitude from one sampling event to the next. This is most likely due to varying amounts of free phase TBOS in the sample. Although the maximum TBOS concentration has decreased below its historical maximum, TBOS concentrations remain high in the core area, primarily in wells W-834-D3 and W-834-D4. TBOS was detected in only one well outside of the core area, W-834-2119, at a concentration of 10 μg/L (April 2005). However, this result was from a sample collected immediately after the well was installed. No TBOS was detected in this well upon resampling in May 2005. TBOS continues to remain below detection limits in the deep $Tnbs_1$ guard wells, W-834-T1 and W-834-T3.

Nitrate is detected in ground water samples from wells located in both the core and distal areas of the Building 834 OU with the highest nitrate concentrations located in distal areas. The 2005 maximum nitrate concentration within the core area was detected in the sample from well W-834-D13 (120 milligrams per liter [mg/L], March 2005). Nitrate concentrations in the core area vary spatially and temporally related to denitrification associated with the intrinsic biodegradation. The likely source of the nitrate is both natural and anthropogenic (e.g., septic). The nitrate influent concentration to the treatment facility has continued to exhibit an increasing trend since the initial startup in October of 2004. Concentrations have increased from 35 mg/L in October 2004 to 80 mg/L in May 2005. This increase is probably due to the introduction of oxygen into the subsurface during SVE operation that subdues intrinsic biodegradation and denitrification. The maximum nitrate concentration in the distal area was again detected in a sample from well W-834-S7 (328 mg/L, February 2005). Nitrate concentrations remained below detection limits in the ground water sample collected from one of the deep $Tnbs_1$ guard wells W-834-T1, but was detected at a concentration of 21.7 mg/L in the other guard well, W-834-T3.

The extent of diesel contamination related to the previous underground storage tank is appears to be limited to a very small area. A subset of wells (W-834-2001, -A1, -A2, -D10,

-D11, -D12, -D16, -D17, -D7, -U1, -K1A, -S1, -S8, and -S9) is being used to track the potential migration of diesel. Although diesel range organic compounds were detected in seven wells within the Building 834 OU during 2005, only two of these wells, W-834-2001 and W-834-U1, actually contained diesel fuel. All other detections of diesel range organic compounds were related to the presence of other compounds, like TBOS, which elute within the diesel range. These data have been flagged as not typical of diesel fuel. BTEX monitoring was conducted in all Building 834 area wells. Only two wells had positive detections for BTEX compounds. Total xylene isomers were detected at 2.3 μg/L in well W-834-2001 (February 2005), while benzene and toluene were detected at concentrations of 1.2 μg/L and 1.4 μg/L, respectively, from samples collected from well W-834-A1 in January 2005. As mentioned in the previous CMR, BTEX data is being evaluated to justify the reduction in the number of wells used to track this contamination. The evaluation will continue during 2005.

Chromium monitoring continues in wells that were affected by improperly wired pressure transducers that produced electrical short circuits in 2000. Chromium samples were collected from four wells during the first semester 2005. Although all routine chromium concentrations remained below the MCL of 0.05 mg/L, the chromium concentrations in ground water samples from well W-834-M1 (0.01 mg/L, February 2005) continues to persist above background concentrations prior to the transducer incident. An intralaboratory duplicate analysis of this well was reported at 0.05 mg/L, although it is suspected that this sample was not filtered prior to analysis, giving false high results. Additional organic compounds related to galvanic reactions associated with the shorting transducer in well W-834-M1 were also detected in ground water samples. These additional compounds include chloroform, 1, 3-dichlorobenzene, bromodichloromethane, and dibromochloromethane. None of these organic compounds were detected in this well prior to the transducer incident.

Although not one of the COCs for the Building 834 area, perchlorate samples were collected from all new wells. Samples collected from wells W-834-2117 and W-834-2118 had detections of perchlorate at 7.8 μg/L and 11 μg/L, respectively. Both wells will be resampled for perchlorate during the second semester. Perchlorate was also detected in a sample collected from well W-834-2119 after well development at a concentration of 4.7 μg/L. The well was resampled and no perchlorate was detected above the reporting limit of 1.0 μg/L. Only two other wells in the Building 834 area have ever had detections of perchlorate, both in 1999. Perchlorate was detected in wells W-834-T4A and W-834-T7A at concentrations of 4.3 and 4.5 μg/L, respectively. Well W-834-T4A was later destroyed due to an improper completion.

2.2.3.3. Building 834 OU Remediation Optimization Evaluation

An ongoing study is being conducted within the T2 cluster area to evaluate whether an enhanced treatment method involving injection of a fluid reactant is a feasible alternative to pump and treat technologies. This evaluation would include but not be limited to *in situ* bioremediation. The first part of this evaluation consisted of a tracer study. The study entails the injection of approximately 6,000 gallons of Hetch-Hetchy water into the upgradient T2 cluster area well W-834-1824. Hetch-Hetchy water has a very distinct oxygen isotopic ratio that is very different from the ground water. In addition, Hetch-Hetchy water has much lower total dissolved solids. These constituents and ground water elevations have been used to track the migration of the Hetch-Hetchy water through the T2 cluster area. This study is being conducted to determine transit times from the injection well to observation wells and to identify the presence of preferential flow paths. The tracer study was initiated on January 18, 2005. Water level responses were observed in down gradient wells within hours of starting injection. As much as three feet of water level rise was observed in down gradient wells. By June 30 2005, approximately 5,500 gallons of water had been injected. After 6 months of tracer injection, tracer water could only be definitively measured in the closest downgradient well, W-834-T2. VOC concentrations in well W-834-T2 dropped to 25% of pre-injection concentrations. Although VOC concentrations also dropped in one other well, W-834-T2A, isotopic analyses did not indicate any influence of Hetch-Hetchy water. Data evaluation continues. Conclusions will be reported in the next CMR.

In addition to the tracer study, a microcosm study is being conducted to determine the ability of soil microorganisms native to the site to dechlorinate TCE, and to identify the substrate that promotes the most extensive dechlorination. The substrates tested were corn syrup, ethanol, and the proprietary product Hydrogen Release Compound (HRC). After approximately four months, dechlorination was observed in all three of the triplicate microcosms fed HRC, with complete transformation of TCE to cis-1,2-DCE in one microcosm occurring in less than 20 days. By comparison, only one microcosm fed corn syrup and one microcosm fed ethanol, has shown dechlorination activity. Furthermore, dechlorination of cis-1,2-DCE to vinyl chloride, ethene, and ethane has not occurred in any of the microcosms to date. These results indicate that HRC is preferred by the native microorganisms for dechlorination of TCE to cis-1,2-DCE, but lack the ability to completely dechlorinate TCE to ethene and ethane. During the next period, the microcosms will be amended with the proprietary culture KB-1, a culture known to completely dechlorinate TCE, to determine if complete dechlorination can be observed with the site's ground water and sediment. Results of the microcosm study will be reported in the annual 2005 CMR.

During this semester, a diesel recovery test was conducted on well W-834-2001. Nearly one-half inch of diesel product was originally observed in the open borehole during installation in 2003. By the spring of 2005, no floating diesel product could be measured in the well. Therefore, an extraction test was conducted to evaluate product recovery under stressed conditions. A top filling pneumatic pump was installed and continuous ground water extraction was performed for one month. Water was collected in drums for product measurement. Although the water extracted had a strong diesel odor and a sheen was visible on the surface of the collected water, no measurable product thickness could be measured in the drums or within the well throughout the test.

2.2.3.4. Building 834 OU Performance Issues

The GWTS was operational for the entire first semester of 2005. However, due to the blower control panel problem, the SVE system was not activated until May 2005. Although the SVE system only operated for two months, significant VOC mass was removed from the vapor phase during this short period of operation mostly due to the three new expansion wells in the leach field area. The leach field is an area of known high VOC concentrations in soil and ground water. The new leach field extraction wells, W-834-S1, -S12A, and -S13, accounted for approximately 97% (41.21 kg) of VOC mass removed in vapor during 2005. Although the VOC mass removed from the ground water increased only slightly when compared to previous operating periods, there was a dramatic increase in ground water yield and subsequent VOC mass removal with the activation of the SVE system. For the four months with only GWE, the average monthly mass removal rate was 0.18 grams per hour of operations. This increased to 0.6 grams removed per hour of operations with SVE enhancement.

2.3. Pit 6 Landfill (Pit 6) OU3

The Pit 6 Landfill covers an area of 2.6 acres near the southern boundary of Site 300. This landfill was used from 1964 to 1973 to bury waste in nine unlined debris trenches and animal pits. The buried waste, which includes laboratory equipment, craft shop debris, and biomedical waste is located on or adjacent to the Corral Hollow-Carnegie fault. Further to the 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 feet 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 volatile organic compound 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 monitoring and water-supply wells is presented in Figure 2.3-1.

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

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring and post-closure requirements with the following exceptions; twenty samples (four wells and one spring) were not collected due to insufficient water. The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.3-1. Analytical tables will be reported in the 2005 Annual CMR.

In addition to satisfying the CMP and post-closure sampling requirements, ground water is also monitored at the Pit 6 Landfill to verify that the COCs continue to decline as a result of natural attenuation processes. The selected remedy for tritium and VOCs in ground water at Pit 6 in the Site 300 Interim Record of Decision (ROD) is Monitored Natural Attenuation, which requires monitoring to verify that tritium and VOC ground water contamination is decreasing in magnitude and extent.

A ground water potentiometric surface map is presented in Figure 2.3-2. Ground water elevation data collected from wells within the OU are similar to those collected during past quarters. Ground water generally occurred at about 30 feet below the buried waste trenches. Ground water elevations will be presented in the annual report.

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 Analysis of Contaminant Distribution and Concentration Trends

At the Pit 6 Landfill OU, VOCs and tritium are the primary COCs detected in ground water. Perchlorate and nitrate are secondary COCs. Ground water contaminant isoconcentration contour maps for total VOC and tritium are presented in Figures 2.3-3 and 2.3-4, respectively. Isoconcentration contour maps for the secondary COCs will be presented in the 2005 Annual CMR.

TCE was detected in ground water samples from eight wells in during the first semester of 2005 with concentrations ranging from 0.5 μg/L to 6 μg/L. TCE was above the 5 μg/L MCL in only one well, EP6-09 this semester at a concentration of 6 μg/L. Other VOCs detected in ground water include cis-1,2-DCE and PCE. Similar to 2004, cis-1,2-DCE was detected in ground water samples from the same two wells with concentrations ranging from 0.57 μg/L in well K6-01 (March 2005) to 2.6 μg/L in well K6-01S (March 2005). PCE was again detected in wells EP6-08 and K6-36 at concentrations of 0.97 μg/L and 0.64 μg/L, respectively. The cis-1,2-DCE and PCE detected in ground water samples collected during first semester 2005 remained below the MCLs of 6 μg/L and 5 μg/L, respectively. Based on the first semester 2005 data, the total VOC plume appears to be relatively stable and there are no indications of new releases of VOCs from the Pit 6 Landfill.

Bromoform, dibromochloromethane, bromodichloromethane, and chloroform were consistently detected in the samples collected from CARNRW2 during first semester 2005. The maximum total trihalomethane concentration was 33 μg/L. The MCL for total trihalomethane is 80 μg/L. The trihalomethanes detected in the well are likely due to the backflow of chlorinated water from the Carnegie Park treatment of the well water.

Ground water tritium activities measured during this reporting period remained far below the 20,000 picocuries per liter (pCi/L) MCL. However, tritium continues to be detected above background (> 100 pCi/L) in ground water from wells located north and south of the fault. Along a transect north and subparallel to the fault, ground water tritium activities decrease from a maximum of 1,490 pCi/L (May 2005) at well K6-36, located immediately east of Pit 6, to < 100 pCi/L at well W-PIT6-1819, located immediately west of the CARNRW1 and CARNRW2 water-supply wells. This current ground water tritium activity is less than half the maximum historical activity of 3,420 pCi/L, indicating that tritium activity is decreasing with time. Tritium was not detected in the CARNRW water-supply wells during first semester 2005.

Wells K6-21, K6-25, K6-26, K6-27, K6-34, K6-35, BC6-10 and EP6-07 are screened in a deeper water-bearing zone than the wells along the transect north of the fault mentioned in the paragraph above. During the first semester of 2005, tritium was detected in ground water samples from wells K6-25, K6-27, K6-35, BC6-10, and EP6-07. Tritium detected in ground water from these wells ranged in activity from 116 pCi/L (K6-35, March 2005) to 274 pCi/L (K6-27, March 2005). Tritium has not been detected in wells K6-25 and BC6-10 previously. However, no tritium was detected in the samples collected and analyzed in June 2005.

During the first semester of 2005, only one well, EP6-09, yielded ground water samples showing perchlorate concentrations above the reporting limit of 4 μg/L with a maximum concentration of 4.6 μg/L. In 2004, perchlorate was detected in ground water samples from three wells, EP6-09, K6-18, and K6-36. Perchlorate was not detected in ground water samples from wells K6-18 and K6-36 during this reporting period. Perchlorate concentrations in ground water have been steadily decreasing from their historical maximum concentration of 65 μg/L in well K6-19 in 1998.

Nitrate was detected above the 45 mg/L MCL in only one ground water sample from well K6–23 during the reporting period. The first semester nitrate concentration of 200 mg/L detected in this well has increased slightly from the 2004 maximum of 181 mg/L. The elevated nitrate levels detected in ground water from this well are likely related to septic system discharge rather than to discharges from the Pit 6 Landfill.

2.3.2.2. Pit 6 Landfill OU Remediation Optimization Evaluation

In the Pit 6 Landfill OU, ground water elevations and contaminants are monitored on a regular basis to: (1) evaluate the effectiveness of the natural attenuation remedy in reducing contaminant concentrations and (2) detect any new chemical releases from the landfill. In general, all primary and secondary ground water COCs at the Pit 6 Landfill OU exhibit stable to decreasing trends and ground water elevations beneath the landfill remain well below the buried waste. Several ground water monitoring wells have been installed during the past two years to monitor tritium between the landfill and the CARNRW1 and CARNRW2 water-supply wells. Each of these new monitoring wells was carefully evaluated and screened in a fractured bedrock unit that responds to pumping from the water-supply wells. Tritium activities in ground water continue to decrease and remain far below the 20,000 pCi/L MCL.

2.3.2.3. Pit 6 Landfill OU Performance Issues

The Pit 6 Landfill cap performed according to expectations during the reporting period.

2.4. High Explosives Process Area (HEPA) OU4

The HEPA has been used since the 1950s for the chemical formulation, mechanical pressing, and machining of 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 to former unlined rinse-water lagoons.

Four GWTSs operate in the HEPA: Building 815-Source (B815-SRC), Building 815-Proximal (B815-PRX), Building 815-Distal Site Boundary (B815-DSB), and Building 817-Source (B817-SRC). A map of the HEPA OU showing the locations of monitoring and extraction wells and treatment facilities is presented in Figure 2.4-1.

The B815-SRC GWTS treats ground water for TCE, RDX, perchlorate, and nitrate and has been in operation since September 2000. Ground water is extracted from well W-815-02 at a rate of about 1.0 gpm. The current GWTS configuration includes aqueous-phase GAC connected in series for TCE and RDX removal and ion-exchange columns containing SR-7 resin that are connected in series for perchlorate removal. Treated ground water is discharged via a misting system to indigenous grasses to remove nitrate.

The B815-PRX GWTS treats ground water for TCE, perchlorate, and nitrate and has been in operation since October 2002. Ground water is extracted from wells W-818-08 and W-818-09 at approximately 1 gpm and 1.5 gpm, respectively. The current GWTS configuration includes aqueous-phase GAC connected in series for TCE removal and ion-exchange columns with SR-7 resin that are connected in series for perchlorate removal. Treated ground water is discharged via a misting system to indigenous grasses to remove nitrate.

The B815-DSB GWTS treats ground water for low concentrations (< 10 μg/L) of TCE and has been in operation since September 1999. Ground water is extracted from wells W-35C-04 and W-6ER located near the Site 300 boundary at 2 gpm and 1.5 gpm, respectively. This facility initially was operating intermittently using solar power and was converted to 24-hour operation using site power in late April 2005. The current GWTS configuration includes aqueous-phase GAC connected in series for TCE removal. The facility is designed to treat up to 5 gpm of ground water at the expected influent concentrations. Treated ground water is discharged to the Corral Hollow alluvium in a nearby infiltration trench.

The B817-SRC GWTS treats ground water for VOCs, RDX, and perchlorate and has been in operation since September 2003. Well W-817-01 extracts ground water from a very low yield portion of the $Tnbs_2$ aquifer. It pumps ground water using solar power intermittently at flow rates ranging from 200 to 600 gallons per month. The current GWTS configuration includes ion-exchange columns containing SR-7 resin connected in series for perchlorate removal and aqueous phase GAC canisters connected in series for RDX removal. Treated ground water is injected into upgradient injection well W-817-06A.

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 are summarized in Tables 2.4-1 through 2.4-4. The total volume of ground water extracted and treated and the total contaminant mass removed during this reporting period is 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 are presented in Tables 2.4-5 through 2.4-7. The pH measurement results are presented in Appendix A.

2.4.1.2. HEPA OU Operations and Maintenance Issues

The B815-SRC GWTS operated continuously throughout the first semester of 2005 with the following exceptions:

- A power outage at Building 815 caused the facility to be shut down for three weeks from mid-February to early March.
- The facility was shutdown for six days in March due to lack of water in the extraction well W-815-02.

- The facility was discovered shutdown upon inspection on two separate days in June. The facility was restarted and operated normally.

The B815-PRX GWTS operated continuously throughout the first semester of 2005 with the following exceptions:

- The facility was offline for ten days in January while the ion-exchange canisters were replaced.
- The facility was offline for three days in February due a power outage.

The B815-DSB GWTS operated intermittently due to a lack of sunlight during the winter months. It is imperative that this facility maintains continuous operation because its extraction wells capture the leading edge of the HE Process Area VOC plume at the Site 300 boundary. During the first semester of 2005, this facility was upgraded to Site 300 power to operate 24 hours per day, 7 days per week.

The B817-SRC GWTS operated nearly continuously during the first semester of 2005. This facility was shut down for two weeks in January due to the battery not holding a charge. The battery was replaced and the facility operated normally thereafter.

2.4.1.3. HEPA OU Compliance Summary

The B815-SRC, B815-PRX, B815-DSB, and B817-SRC GWTSs operated in compliance with the Substantive Requirements for Wastewater Discharge.

2.4.1.4. HEPA OU Facility Sampling Plan Evaluation and Modifications

The HEPA facility sampling and analysis plans comply with CMP monitoring requirements. The sampling and analysis plans are presented in Table 2.4-8. There were no modifications made to the plans.

2.4.2. HEPA OU Ground Water and Surface Water Monitoring

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; 4 samples were not collected due to pump failure, 4 samples were not collected from an injection well, and 35 samples were not collected due to insufficient water. The injection well W-817-06A will be removed from the sampling and analysis plan next semester. The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.4-9. This table also explains deviations from the sampling plan and indicates any additions made to the CMP. Analytical results will be presented in the annual report.

A ground water potentiometric surface map is presented in Figure 2.4-2 showing a mean flow direction to the southeast. Ground water elevation data collected from wells within the OU are similar to those collected during past quarters. Ground water elevation data will be presented in the annual report.

2.4.3. HEPA OU Remediation Progress Analysis

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

2.4.3.1. HEPA OU Mass Removal

The monthly ground water and soil vapor mass removal estimates are summarized in Tables 2.4-10 through 2.4-14. Cumulative mass estimates are summarized in Table Summ-2.

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, perchlorate, and nitrate are secondary COCs. These constituents have been identified in the $Tnbs_2$ aquifer. A total VOC isoconcentration contour map based on data collected during the first six months of this reporting period is presented in Figure 2.4-3. For collocated wells, the average concentrations were used for contouring. Isoconcentration contour maps for the secondary COCs will be presented in the 2005 Annual CMR.

During the first semester of 2005, VOCs were detected in ground water samples from HEPA wells at concentrations ranging from a maximum concentration of 63 μg/L (January 2005) in B815-PRX extraction well W-818-08 to below method reporting limits of 0.5 μg/L in offsite guard wells W-35B-03 and W-35B-05. Overall, VOC concentrations in ground water in the $Tnbs_2$ HSU in the HEPA have decreased from a maximum historical concentration of 110 μg/L (May 1992). The B815-PRX extraction wellfield captures the highest concentrations in the HEPA VOC plume. Although total VOC concentrations remained essentially unchanged at the influent to B815-PRX during 2005, these concentrations have decreased from their historical maximum of 53 μg/L in 2002 to 30 μg/L during 2005.

During first semester 2005, VOCs were detected in three of the five offsite guard wells for the HEPA. 1,1-DCE was detected in a sample from Qal HSU guard well W-35B-01 (0.6 μg/L, January 2005) and TCE was detected in $Tnbs_2$ samples from guard wells W-35B-02 and W-35B-04 at concentrations of 0.7 μg/L and 0.9 μg/L, respectively (January 2005). VOCs were not detected in these wells above the reporting limits (< 0.5 μg/L) in April 2005. These wells have historically had sporadic trace detections of VOCs at concentrations ranging from 0.5 μg/L to 1.5 μg/L. No VOCs were detected above the reporting limits in ground water samples collected during second semester 2005 from the remaining offsite guard wells (W-35B-03 and -05). Total VOCs were detected in ground water samples collected from onsite guard well, W-880-02, at concentrations ranging from 0.7 μg/L (April 2005) to 1.13 μg/L (January 2005). Historically, this Qal/HSU well has had sporadic trace detections of total VOC ranging from 0.5 μg/L to 1.2 μg/L. Total VOCs were not detected in ground water samples from site-boundary guard wells W-880-01 and W-880-03 during first semester 2005. As shown in Figure 2.4-1, these guard wells are located in the southeast part of the HEPA OU. The detection of total VOCs in the guard wells is most likely related to the intermittent operation of the B815-DSB treatment facility (Section 2.4.1.2). The facility was converted from solar power to site power in April and total VOC concentrations have decreased back to non-detectable levels. Total VOCs were detected during the first semester in offsite water-supply well, GALLO1 at concentrations ranging from 0.59 μg/L to 1.0 μg/L. This well has a long screen that extends from the shallow

Corral Hollow Creek alluvial aquifer (Qal HSU) to a depth of nearly 200 feet at the base of the $Tnbs_2$ aquifer. Although sporadic detections of total VOCs ranging from 0.2 μg/L to 4.0 μg/L have been detected in samples from GALLO1, total VOCs have never been detected above the 0.5 μg/L detection limit in ground water samples collected from upgradient water-supply guard wells (W-6H and W-6J). Two new $Tnbs_2$ guard wells, W-815-2110 and W-815-2111, and one new $Tnbs_2$ injection well, W-817-2109, were drilled during the first semester. VOCs were detected in ground water samples taken from wells W-815-2110 and W-815-2111 at concentrations of 0.51 μg/L and 1.0 μg/L, respectively. VOCs were not detected in ground water samples taken from well W-817-2109.

In the first semester of 2005, RDX was not detected in any of the HEPA guard wells. Perchlorate was detected in site-boundary guard well W-880-02 at a concentration of 4.7 μg/L during first semester. In the second semester of 2004, perchlorate was detected in a sample from Lower $Tnbs_1$ well W-827-05 at a concentration of 7.4 μg/L (August 2004). Perchlorate has never been detected in this well or any monitor well screened in the Lower $Tnbs_1$ aquifer and this result was suspected to be an error. A confirmatory ground water sample collected in this well during the first quarter of 2005 was below the reporting limit (< 4 μg/L). The extent of RDX and perchlorate contamination in the $Tnbs_2$ HSU is more limited than VOCs and the extent of RDX in ground water remained essentially the same as shown in previous reports. RDX decreases rapidly downgradient to below the 0.6 μg/L Preliminary Remediation Goal (PRG) just northwest of well W-818-08. Perchlorate decreases rapidly downgradient (southeast) of wells W-817-03 and W-817-04 to the 4.0 μg/L reporting limit north of guard wells W-6H and W-6J.

During the first semester of 2005, nitrate was not detected above 45 mg/L MCL in any of the HEPA guard wells. Nitrate was detected at a concentration of 88.0 mg/L and 93.0 mg/L in the newly drilled injection well W-817-2109. The current maximum nitrate concentration (100.0 mg/L) occurs in well W-814-02. Overall, the nitrate concentrations detected in ground water during 2005 generally remained the same compared to previous years. Nitrate concentrations decrease significantly due to microbial denitrification near the Site 300 boundary where the $Tnbs_2$ HSU is anoxic and under confined conditions. Nitrate concentrations are significantly lower than the drinking-water standard of 45 mg/L and below 10 mg/L in all wells near the Site 300 boundary.

2.4.3.3. HEPA OU Remediation Optimization Evaluation

The key to remediation optimization at the HEPA OU is to manage extraction wellfield flow rates to balance the influence of site boundary pumping with source area pumping. Based on the ground water elevation map and the total VOC isoconcentration map shown in Figures 2.4-2 and 2.4-3, the existing extraction wellfield captures the highest concentrations in the VOC plume (Total VOC > 50 μg/L) in the vicinity of wells W-818-08 and W-818-09. However, due to temporary suspension of pumping at the B815-DSB facility during the 1st semester of 2005, low concentrations of VOCs were detected in Site 300 boundary guard wells located at the leading edge of the VOC plume. Decreases in pumping in the Site 300 boundary area allowed the leading edge of the total VOC plume to migrate. This facility has been converted to site power and now operates 24 hours per day, 7 days per week. Continuous operation of this facility should prevent any further migration of the total VOC plume in the Site 300 boundary area.

Although the extent of the primary and secondary COC plumes in the HEPA remains relatively unchanged, VOC and RDX concentrations within the plume interiors continue to decline from their historical maximums. These trends are due to combination of natural attenuation mechanisms and remediation efforts in the Source and Proximal areas of this OU. Secondary COC, perchlorate, concentrations have remained essentially unchanged since this COC has been monitored starting in 1998. With increased pumping associated with the installation of B817-PRX by the end of FY05, the maximum perchlorate concentrations should begin to decline. The B817-PRX extraction wells, W-817-03 and W-817-04, have the highest perchlorate concentrations in this OU.

2.4.3.4. HEPA OU Performance Issues

Although sporadic, low concentrations of total VOCs were detected in several site boundary guard wells during this reporting period; continued pumping at all the HEPA extraction wells should address this issue. If total VOCs continue to be detected in any of the onsite or offsite guard wells, modifications to the extraction wellfield will be considered to prevent further migration of contaminants. Such modifications may include increasing pumping in existing upgradient extraction wells, adding new extraction wells, and/or installing site boundary guard wells closer to GALLO1. Increased ground water extraction is also planned for fiscal year 2005 in the HEPA OU with the installation of B817-PRX. This facility will extract from wells W-817-03 and W-817-04 located between B817-SRC and the Site 300 boundary. Extraction at these wells will increase the capture of the total VOC and perchlorate plumes, thereby minimizing or eliminating any impact from these plumes near the site boundary. Continued pumping at B815-PRX (W-818-08 and W-818-09) and the addition of an extraction well (W-815-04) at B815-SRC, will also improve long-term ground water mass removal at this OU and further prevent contaminated ground water from reaching the Site 300 boundary.

2.5. Building 850 (B850) OU5

High explosives experiments have been conducted at the Building 850 Firing Table. Until 1989, gravels on the firing table surface were disposed of in several disposal pits in the northern portion of the site. In the past, infiltrating ground water mobilized chemicals from contaminated gravel and debris to underlying soil, bedrock, and ground water. However, since the practice of watering down the firing table following explosives tests was discontinued and the overall experimental activity at this firing table has decreased, the firing table no longer releases significant contamination to the subsurface. A map of the Building 850 OU showing the locations of monitoring wells is presented in Figure 2.5-1.

2.5.1. Building 850 OU Ground Water Monitoring

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; 11 samples were not collected due to insufficient water, 18 samples could not be submitted to the analytical laboratory due to new radiological sample handling requirements, and 3 samples were not collected due to a bent casing at well NC7-45. A new analytical laboratory has been contracted that will accept samples for non-radiological analyses that contain radiological constituents above background levels. 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 and indicates any additions made to the CMP. Analytical results will be presented in the annual report.

A ground water potentiometric surface map for the OU is presented in Figure 2.5-2. Ground water elevation data collected from wells within the OU are similar to those collected during past quarters. Ground water elevation data will be presented in the annual report.

2.5.2. Building 850 OU Remediation Progress Analysis

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

2.5.2.1. Building 850 OU Contaminant Concentrations and Distribution

At the Building 850 OU, tritium is the primary COC detected in ground water; nitrate and depleted uranium are the secondary COCs. A tritium isoconcentration contour map based on data collected during the first semester of 2005 is presented in Figure 2.5-3. Isoconcentration maps of total uranium activities and nitrate, respectively, in 2005 ground water samples will be presented in the annual CMR report.

The current maximum tritium activity in ground water within the OU was 91,000 ± 9,900 pCi/L (May 2005) in a sample collected from well NC7-70, located near the firing table. The maximum detected tritium activities in ground water collected from the Building 850 OU during 2003 and 2004 were 81,400 ± 8,200 pCi/L and 58,000 ± 5,900 pCi/L, respectively, also in samples from well NC7-70. The highest tritium activities in ground water in the OU continue to be located immediately downgradient of the tritium sources at the Building 850 Firing Table and generally continue to decline from a historical maximum activity of 566,000 pCi/L in 1985. The extent of the 20,000 pCi/L ground water tritium activity contour in alluvium and bedrock in Doall Ravine continues to diminish.

Tritium activities in ground water north of the Pit 1 and Pit 2 Landfills are generally below recent highs detected during the last few years. The maximum current ground water tritium activity detected in this area was 3,880 ± 400 pCi/L (February 2005) in a sample from well K1-02B. The maximum tritium activities detected in ground water samples in this area during 2003 and 2004 were from well K1-06 at 4,880 ± 500 pCi/L and 3,850 ± 400 pC/L, respectively.

Immediately south and east of the Pit 2 Landfill, the maximum ground water tritium activity detected was 9,190 ± 980 pCi/L (May 2005) in a sample from well NC2-08. During 2004, the maximum activity of tritium detected in in this area was 11,000 ± 1,100 pCi/L (also from well NC2-08). These ground water tritium activities are below the historic highs of 19,200 pCi/L of tritium detected in ground water in this area in 1999. Ground water samples collected in recent years from wells further south in Elk Ravine show very gradual decreases in tritium activities over time. During the first semester of 2005, the maximum tritium activity in this area was 7,240 ± 740 pCi/L (April 2005) in a sample from well NC2-12D. The 2004 maximum tritium activity in this area was 7,780 ± 790 pCi/L (May 2004) in a ground water sample from well NC2-12I. During 2003, the maximum tritium activity in ground water in this area was 8,370 ± 850 pCi/L (December 2003) in a sample collected from well NC2-12D.

The State MCL for uranium in drinking water is 20 pCi/L. Ground water uranium activities above the MCL have not been found in the Building 850 OU. Atom ratios indicative of depleted uranium were identified in ground water samples collected from several wells and a spring in the OU during 2005 by mass spectrometry. The natural atom ratio of $^{235}U/^{238}U$ is about 0.0072 +/- 0.001. Atom ratios below this range indicate some addition of depleted uranium to the naturally-occurring uranium activity in the water. The maximum total uranium activity detected in ground water immediately downgradient of Building 850 was 3.5 pCi/L in a ground water sample from well NC7-28 (April 2005). This sample yielded a $^{235}U/^{238}U$ atom ratio of about 0.0024 indicating the presence of some depleted uranium. Depleted uranium-bearing ground water continues to extend about 2,000 ft down Doall Ravine from its source at Building 850.

Immediately north of the Building 802 area, depleted uranium was detected in ground water samples collected from wells NC2-05 and NC2-06A at first semester 2005 activities of 12.1 pCi/L and 1 pCi/L (May 2005), respectively, and maximum 2004 activities of 14.2 pCi/L and 2 pCi/L (May 2004), respectively. During 2003, a maximum total uranium activity, where some depleted uranium comprised a portion of the total, was detected in ground water near Building 802 in a sample also from well NC2-05 (5.54 pCi/L). The extent of depleted uranium in ground water at Building 802 has not changed from 2003 to 2005. Although the maximum uranium activity did increase from 5.54 pCi/L in 2003 to 12.1 pCi/L in 2005, the $^{235}U/^{238}U$ atom ratios of 0.0068 (2003), 0.0063 (2004), and 0.0064 (2005) for these samples indicate that the vast majority of this uranium is natural in origin. Ground water uranium data from several wells immediately downgradient of the Pit 2 Landfill also indicated the presence of some depleted uranium. These data are discussed in Section 3.1.1 of this report.

During the first semester of 2005, nitrate was detected above the 45 mg/L MCL in ground water samples from wells NC7-11, NC7-27, NC7-29, NC7-44, NC7-70, NC2-10, and NC2-19 (Figure 2.5-5). In 2004 and 2003, nitrate exceeded the MCL in ground water samples from 8 and 5 wells, respectively, in the OU. The 2005 maximum nitrate concentration was the 140 mg/L detected in a June 2005 ground water sample from well NC7-29. The 2004 maximum nitrate concentration (110 mg/L, May 2004) was detected in a ground water sample collected from well NC2-10. During 2005, the June 2005 sample from well NC2-10 yielded 120 mg/L of nitrate. In 2003, this well also yielded the ground water sample with the highest nitrate concentration collected in the OU (140 mg/L in June 2003). Thus, the maximum nitrate concentrations detected in ground water in the OU between 2003 and 2005 have been in the 110 mg/L to 140 mg/L range. The historic maximum nitrate concentration detected in the OU is the 140 mg/L detected in the 2003 ground water sample from well NC2-10 and the 2005 sample from well NC7-29.

During the first semester of 2005, perchlorate was detected in ground water samples from 24 wells in the OU. These wells define a 4000 ft long plume that runs southeast of Building 850 into Doall Ravine and the portion of Elk Ravine immediately east of Doall Ravine. The maximum perchlorate concentration was 46 μg/L (May 2005) in a ground water sample collected from well NC7-70, immediately downgradient of Building 850. Samples from 22 wells collected during 2005 met or exceeded the 6 μg/L State PHG for perchlorate in drinking water. During 2004, perchlorate was detected in ground water samples from 21 wells in the OU. The maximum perchlorate concentration was 54 μg/L (May 2004) in a ground water sample collected from well NC7-70, as was the case in 2005. Samples from 17 wells collected during 2004 met or exceeded the 6 μg/L State PHG for perchlorate in drinking water. During 2003, perchlorate was detected in the OU at a maximum concentration of 53 μg/L in the ground water sample from well NC7-61. A map of the distribution of perchlorate in Building 850 OU ground water will be presented in the annual report.

2.5.2.2. Building 850 OU Remediation Optimization Evaluation

Monitored Natural Attenuation (MNA) is the selected remedy for remediation of tritium in ground water emanating from the Building 850 area. MNA continues to be effective in reducing tritium activities in ground water. The highest tritium activities in ground water in the OU continue to be located immediately downgradient of the tritium sources at the Building 850 Firing Table and continue to decline. The extent of the 20,000 pCi/L tritium activity contour also continues to diminish. In general, ground water tritium activities continue to decline or are below historic highs in all areas except southern Elk Ravine. South of the Pit 2 Landfill, maximum tritium activities in ground water increased slightly from 2003 to 2004 and then decreased in 2005. In southern Elk Ravine there have been very gradual increases in tritium activities over time; however, these increases have recently been leveling off and are well below the 20,000 pCi/L MCL for tritium in drinking water.

The distribution of depleted uranium is similar to previous years and total uranium in ground water continues to be well below the 20 pCi/L MCL in all wells in the Building 850 OU. The extent of total uranium activities in ground water proximal to Building 850, as well as in the suite of wells that sample ground water containing some depleted uranium, are similar to past years although the maximum total uranium activity has declined from 2003. The extent of depleted uranium in ground water at Building 802 has not changed from 2003 to 2005. Although from 2003 to 2005 the maximum uranium activity in Building 802 ground water did increase from 5.54 pCi/L to 12.1 pCi/L, the vast majority of this uranium is natural in origin.

The extent of nitrate in ground water is also similar to that observed in previous years. The maximum nitrate concentration observed in OU ground water declined from 140 mg/L in 2003 to 110 mg/L in 2004 back up to 140 mg/L in 2005. The increase in extent of perchlorate in ground water and number of wells in the OU that yielded perchlorate ground water concentrations in excess of the State PHG is due to the larger number of wells sampled in 2004 and 2005. The maximum perchlorate concentration detected in ground water in the OU in 2005 (46 mg/L) remained about the same as those detected in 2004 (53 μg/L) and 2003 (54 μg/L).

2.5.2.3. Building 850 OU Performance Issues

There were no performance issues during the first semester 2005.

2.6. Building 854 (B854) OU6

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

Two GWTSs currently operate in the Building 854 OU; Building 854-Source (B854-SRC) and Building 854-Proximal (B854-PRX).

The B854-SRC GWTS treats ground water for VOCs, nitrate, and perchlorate and began operation in December 1999. Ground water is extracted at a rate of approximately 1 gpm from well W-854-02. The current GWTS configuration includes a particulate filtration system, two ion-exchange columns containing SR-7 resin connected in series for perchlorate, and aqueous-phase GAC connected in series for VOC removal. The treated ground water is discharged through nearby misting towers to indigenous grasses to remove nitrate.

The B854-PRX GWTS treats ground water for VOCs, nitrate, and perchlorate and began operation in November 2000. Ground water is extracted at a rate of 1 gpm from well W-854-03 located southeast of the Building 854 complex. This facility has been in operation since November 2000. The current GWTS configuration includes aqueous-phase GAC connected in series for VOC removal, above ground containerized wetland biotreatment for perchlorate and nitrate removal, and an ion-exchange resin treatment for polishing prior to being discharged into an infiltration trench.

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 and rates and operational hours are summarized in Tables 2.6-1 and 2.6-2. The total volume of ground water treated and mass removed during the reporting period is presented in Table Summ-1. The cumulative volume of ground water treated and discharged and the mass removed are summarized in Table Summ-2.

Analytical results for influent and effluent samples are shown in Tables 2.6-3 and 2.6-4. The pH measurement results are presented in Appendix A.

There were no performance issues at B854-SRC or B854-PRX during the reporting period.

2.6.1.2. Building 854 OU Operations and Maintenance Issues

The B854-SRC GWTS operated continuously throughout the first semester of 2005 with the following exceptions:

- Power outages caused the facility to be offline from February 24th to the 28th.
- Forklift broke the influent line during the demolition of Building 854F on April 11th. The facility was repaired and restarted on April 13th. The facility was shutdown temporarily on May 13th due to demolition activities.

The B854-PRX GWTS operated continuously throughout the first semester of 2005 with the following exceptions:

- Failed diaphragm pump caused the facility to shutdown from January 27th to the 31st.
- Leaking carbon canisters were repaired on February 3rd and April 27th.

- Facility did not operate from February 15th until March 1st due to lack of solar power.

2.6.1.3. Building 854 OU Compliance Summary

The Building 854-SRC GWTS operated in compliance with the Substantive Requirements for Wastewater Discharge.

The Building 854-PRX GWTS operated in compliance with the Substantive Requirements for Wastewater Discharge.

2.6.1.4. Building 854 OU Facility Sampling Plan Evaluation and Modifications

The Building 854 facility sampling and analysis plans comply with CMP monitoring requirements. The sampling and analysis plans are presented in Table 2.6-5. There were no modifications made to the plans.

2.6.2. Building 854 OU Ground Water Monitoring

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions: fifteen samples were not collected due to insufficient water. The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.6-6. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP. Analytical results will be presented in the annual report.

A ground water potentiometric surface map is presented in Figure 2.6-2. Ground water elevation data collected from wells within the OU are similar to those collected during past quarters. Ground water elevation data will be presented in the annual report.

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 are summarized in Tables 2.6-7 and 2.6-8. The cumulative mass estimates are summarized in Table Summ-2.

2.6.3.2. Building 854 OU Contaminant Concentrations and Distribution

At the Building 854 OU, VOCs are the primary COCs detected in ground water and perchlorate and nitrate are the secondary COCs. Although the lower Neroly $Tnbs_1$ and the $Tnsc_0$ are distinct stratigraphic units, the ground water contained in these units appears to be in hydraulic communication. These stratigraphic units comprise a single HSU, the $Tnbs_1/Tnsc_0$ HSU. A total VOC isoconcentration contour map for this HSU is presented in Figure 2.6-3. Isoconcentration contour maps for the secondary COCs will be presented in the 2005 annual report.

While the overall total VOC plume shape is similar to the total VOC plume shape displayed in 2004, the portion of the plume greater than 50 μg/L is no longer shown to be continuous from the source area to the vicinity of well W-854-03. The TVOC concentration in well W-854-03 (51 μg/L, April 2005) most likely represents a secondary source or a slug release. The current maximum total VOC concentration of 180 μg/L (April 2005) continues to occur in the B854-SRC extraction well W-854-02. Although the concentrations in this well are similar to last year, they have greatly decreased from the historical maximum of 2,900 μg/L in 1997. Total VOC concentrations decrease to below the 0.5 μg/L detection limit north of wells W-854-1701, W-854-1822, and W-854-1902. Localized VOC contamination occurs in wells W-854-06 (1.2 μg/L, May 2005) and W-854-07 (29 μg/L, May 2005) located in the vicinity of a former water-supply well (Well 13) and downgradient of the main VOC plume.

During the first semester of 2005, six wells and one spring yielded ground water samples showing perchlorate concentrations above the reporting limit of 4 μg/L. Well W-854-13 (15 μg/L, May 2005) and SPRING11 (23 μg/L, June 2005) yielded perchlorate in ground water for the first time, however, a duplicate sample from SPRING11 did not contain perchlorate above the reporting limit (<4 μg/L, June 2005). Well W-854-13 and SPRING11 will be sampled for perchlorate during the second semester of 2005 and the results discussed in the annual report.

Nitrate was detected above the 45 mg/L MCL in three wells; W-854-02, W-854-05, and W-854-03.

2.6.3.3. Building 854 OU Remediation Optimization Evaluation

The B854-SRC GWTS extraction well, W-854-02, consistently pumped at about 1 gpm during the first semester of 2005. The VOC concentrations in source area well 854-02 have decreased from its maximum historical concentration of 2,900 μg/L in 1997 to 180 mg/L indicating significant decrease in VOC source strength. The B854-PRX GWTS extraction well W-854-03 pumped intermittently at about 1.1 gpm during the first semester of 2005. The VOC concentrations in this well have decreased from its maximum historical concentration of 270 μg/L in 1999 to 51 μg/L in early 2005.

2.6.3.4. Building 854 OU Performance Issues

The main issue influencing mass removal performance at the Building 854 OU continues to be the low permeability of the Neroly bedrock in this area. Although fractures appear to be important ground water flow-controlling features, the overall primary and secondary permeability in many wells is relatively low. At the B854-SRC facility, extraction well W-854-02 is currently pumping at 1 gpm. The performance of the B854-PRX facility is limited by low well yield. In addition, the limited capacity of the constructed wetland treatment technology used to treat perchlorate and nitrate at B854-PRX also constrains the performance of this facility. An expansion of the constructed wetland will be necessary to increase the performance at this facility. The expansion is scheduled for fiscal year 2007.

2.7. Building 832 Canyon (B832) OU7

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.

Four GWTSs and two SVE systems operate in the Building 832 Canyon OU: Building 832-Source (B832-SRC), Building 830-Source (B830-SRC), Building 830-Proximal North (B830-PRXN), and Building 830-Distal South (B830-DISS). The B832-SRC and B830-SRC facilities extract and treat both ground water and soil vapor, while the B830-PRXN and B830-DISS facilities extract and treat ground water only. A map of Building 832 OU showing the locations of monitoring and extraction wells and treatment facilities is presented in Figure 2.7-1.

The B832-SRC GWTS treats ground water for VOCs, perchlorate, and nitrate and soil vapor for VOCs. The GWTS and SVE began operation in September and October 1999, respectively. Initially ground water was extracted from nine wells (W-832-12, -13, -14, -15, -16, -17, -18, -20, and -22) to remove source contamination and to mitigate plume migration. After installation of flow meters at each well it was observed that nearly all the ground water yield at this facility was attributable to two extraction wells, W-832-12 and W-832-15. In February 2005 the extraction wellfield was reduced to these two wells that are now operated with vacuum-enhancement. Ground water extraction rates at this facility are seasonally variable, and ranged from 10 to 200 gallons per day with the original extraction well field. Yield at this facility is currently about 200 gallons per day. The current GWTS configuration includes a Cuno filter for particulate filtration, three aqueous-phase GAC units connected in series to remove VOCs, and two ion-exchange columns with SR-7 resin (also connected in series) to remove perchlorate. Treated ground water is discharged via a misting system. A positive displacement rotary lobe blower is used to create a vacuum at each wellhead through a system of manifolded piping. 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 from the San Joaquin Valley Unified Air Pollution Control District.

The B830-SRC GWTS treats ground water for VOCs, perchlorate, and nitrate and soil vapor for VOCs. The GWTS and SVE began operation in February and May 2003, respectively. Ground water is extracted from three wells (W-830-1807, W-830-19, and W-830-59) to remove source contamination and to mitigate plume migration. These wells exhibit very low sustainable yield and are operated by timers that pump the wells at low flow rates until dry and then shut off while the water levels recover. The current GWTS configuration includes three aqueous-phase GAC units connected in series to remove VOCs followed by treatment using two ion-exchange units also connected in series to remove perchlorate. Treated water is then discharged via a misting tower to indigenous grasses to remove nitrate. The B830-SRC SVE system is being tested to evaluate whether this is a viable remediation technology for this low permeability source area. Soil vapor is extracted from well W-830-1807 using a regenerative blower and 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 from the San Joaquin Valley Unified Air Pollution Control District.

The B830-PRXN GWTS treats ground water for VOCs and began operation in October 2000. For the first semester of 2005, approximately 300 gallons of ground water per day were extracted from extraction well W-830-57 using a solar-powered ground water treatment unit. The ground water is treated using three aqueous-phase GAC units connected in series to remove

VOCs; the effluent is discharged to the shallow subsurface via a French drain in a disposal trench.

The B830-DISS GWTS treats ground water for VOCs, perchlorate, and nitrate and began operation in July 2000. For the first semester of 2005, approximately 1,600 gallons per day of ground water are extracted from three wells (W-830-51, W-830-52, and W-830-53) using natural artesian pressure. The ground water is treated using GAC units to remove VOCs. Nitrate and trace amounts of perchlorate are removed from the extracted ground water using bioreactor technology. The water flows through three open-container wetland bioreactors containing microorganisms that use nitrate during cellular respiration. Acetic acid is added to the process stream as a carbon source. Treatment system effluent is discharged via a storm drain that discharges to the Corral Hollow alluvium.

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

The monthly ground water and soil vapor discharge volumes, rates, and operational hours are summarized in Tables 2.7-1 through 4. 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 are shown in Tables 2.7-5 and 2.7-6. The pH measurement results are presented in Appendix A.

The main performance issue impacting mass removal from the Building 832 Canyon OU facilities is low ground water yield. The contaminated water-bearing zones have low hydraulic conductivity and low ground water yield therefore the extraction wells cannot be operated continuously. Instead these wells are operated intermittently using pumps that are turned on and off by timers.

2.7.1.2. Building 832 Canyon OU Operations and Maintenance Issues

The B832-SRC GWTS operated almost continuously during the first semester of 2005 with the following exceptions:

- The facility was off-line from January 1st to 4th to protect against damage caused by freezing temperatures.
- The facility was shutdown from February 7th to 8th for the installation of flow meters and February 24th to 28th due to a scheduled power outage.

The B832-SRC SVE system was off-line from January 1st to 18th and for the month of February as part of a treatability study to evaluate whether ground water yield can be increased by inducing a negative pressure (i.e., vacuum) in the extraction well casing. It was observed that the applied vacuum increased ground water yield and the system has operated normally for the remainder of the reporting period. Operations were periodically interrupted due to overheating on hot days.

The B830-SRC GWTS operated nearly continuously during the first semester of 2005 with the following exceptions:

- The facility was off-line from January 1st to 4th to protect against damage caused by freezing temperatures.
- The facility was shutdown from January 19th to 20th to allow water levels in the wells to recover to facilitate scheduled quarterly ground water sampling.
- The facility was shut down from February 17th to 22nd due to a perchlorate detection in the effluent. Reanalysis showed the perchlorate detection to be a false positive.
- A scheduled power outage caused the facility to be shutdown from February 24th to 28th.
- The facility was shutdown temporarily on June 9th to repair a leaking carbon canister.

The B830-SRC SVE system operated normally for most of the semester with occasional interruptions due to overheating during hot days.

The B830-PRXN GWTS operated intermittently during the first semester of 2005 for the following reasons:

- The facility operated intermittently during the winter months due to a lack of sunlight to power this solar operated treatment unit.
- The facility was shutdown to repair a leaking carbon canisters from January 31st to February 3rd, April 19th to 25th, and June 15th.
- The facility was shutdown from February 14th to 28th due a false positive perchlorate detection in the effluent.
- The facility was offline from March 22nd to 29th due to a pump failure at extraction well W-830-57.

The B830-DISS GWTS operated nearly continuously throughout the first semester 2005. The facility was offline for two weeks in April due to nitrate detections in the bioreactor effluent. The detections are likely related to low ambient air temperatures and reduced biological activity in the reactor. Ongoing studies are being conducted to optimize phytoremediation activities.

2.7.1.3. Building 832 Canyon OU Compliance Summary

During first semester of 2005, the B832-SRC, B830-SRC, B830-PRXN, and B830-DISS GWTSs operated in compliance with Substantive Requirements.

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

The Building 832 Canyon OU treatment facility sampling and analysis plans comply with CMP monitoring requirements. The sampling and analysis plan is presented in Table 2.7-7. There were no additional modifications made to the plan.

2.7.2. Building 832 Canyon OU Ground Water Monitoring

During 2005, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; 7 samples were not collected due to insufficient water, 36 samples were not collected due to wells being dry, two samples were not collected because the sampling frequency had been changed, 3 samples were not collected because the well had been contaminated with surface runoff, and three samples were not collected because there was no access to the well due to hydraulic test activities at the well. The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.7-8. This table explains deviations from the sampling plan and indicates any additions made to the CMP. Analytical results will be presented in the annual report.

Ground water potentiometric surface data are posted for the Qal/fill and contoured for $Tnsc_{1b}$ and Upper $Tnbs_1$ HSUs as presented in Figures 2.7-2, 2.7-3, and 2.7-4, respectively. The Upper $Tnbs_1$ ground water potentiometric surface map presented in Figure 2.7-4 shows a ground water surface that is largely influenced by local heterogeneity and fractures associated with a fault. Ground water elevation data collected from wells within the OU are similar to those collected during past quarters. Ground water elevations will be presented in the annual report.

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 are summarized in Tables 2.7-9 through 2.7-12. The cumulative mass estimates are summarized in Table Summ-2.

2.7.3.2. Building 832 Canyon OU Contaminant Concentrations and Distribution

At the Building 832 Canyon OU, VOCs (mainly TCE) are the primary COCs detected in ground water. Perchlorate and nitrate are the secondary COCs. These constituents have been identified primarily in the $Tnsc_{1b}$ and Qal/fill HSUs. Total VOCs have been detected at low concentrations in the $Tnbs_2$ and Upper $Tnbs_1$ aquifers. Total VOC isoconcentration data are posted for the Qal/fill and contoured for the $Tnsc_{1b}$ and Upper $Tnbs_1$ HSUs as presented in Figures 2.7-5, 2.7-6, and 2.7-7, respectively. Isoconcentration contour maps for the secondary COCs will be presented in the 2005 Annual CMR.

In 2005, total VOCs were detected in ground water samples from Qal/fill wells in the Building 832 Canyon OU at concentrations ranging from < 0.5 μg/L to 2,214 μg/L (January 2005) in well W-830-1807, located in the Building 830 source area. Historically nearby well W-830-30 has had the highest total VOC concentrations in the Qal/fill HSU. The total VOC concentrations in well W-830-30 have decreased from a high of 8,1000 μg/L in 1997 to a current concentration of 600 μg/L (February 2005). The concentrations in well W-830-1807 have remained relatively stable. Several new extraction wells are proposed as part of the B830-SRC expansion and were specified in the Draft Interim Remedial Design (RD) report for the Building 832 Canyon Operable Unit (Madrid et al., 2005). One Qal/fill expansion well is planned near well W-830-34. Extraction of high concentrations of VOCs in this area should result in decreasing Building 830 source area VOC concentrations.

The current maximum total VOC concentration (9,500 μg/L, February 2005) in this OU was detected in the $Tnsc_{1b}$ HSU in well W-830-49. This well, which is located just south of the Building 830 source area, has historically contained the highest total VOC concentrations and will be added to the B830-SRC extraction wellfield as an expansion well (as specified in the draft Building 832 Canyon RD). Total VOC concentrations in this well have decreased by about 25% since remediation began in the Building 830 area. Two additional $Tnsc_{1b}$ wells will be added to the B830-SRC extraction wellfield. These new wells will be drilled at a location near existing monitor wells W-830-28 and W-830-25, respectively. Additionally, a wellfield expansion is planned at the B832-SRC treatment facility. Existing monitor wells W-832-01, W-832-10, and W-832-11 will be converted to extraction wells and will be added during second semester 2005.

Total VOCs have also been detected in the Upper $Tnbs_1$ HSU in the Building 832 Canyon OU. The total VOC concentrations in the Upper $Tnbs_1$ HSU during first semester 2005 ranged from < 0.5 μg/L to a maximum of 61 μg/L (February 2005) in well W-830-28. Currently, one extraction well (W-830-57) is pumping and treating total VOCs in ground water from this HSU at the B830-PRXN GWTS. The total VOC concentration in this well has decreased slightly from a maximum of 47 μg/L in October 2000 when remediation began at B830-PRXN to 28.5 μg/L in first semester 2005. One additional Upper $Tnbs_1$ extraction well, to be drilled near existing well W-830-28, is proposed for this area and was specified in the draft RD report. Total VOC concentration trends in the Upper $Tnbs_1$ will be monitored carefully due to the potential influence of water-supply well, Well 20 pumping on this HSU.

During the first semester of 2005, total VOCs were detected in ground water samples above the 0.5 μg/L detection limit in two (W-35B-01 and W-880-02) of the three site-boundary guard wells for the Building 832 OU and the HEPA OU. Total VOCs were detected in samples from well W-880-02 at concentrations ranging 0.7 μg/L to 1.13 μg/L (April 2005 and January 2005, respectively). Historically, this Qal/fill well has had sporadic trace detections of total VOC ranging from 0.5 μg/L to 1.2 μg/L. Total VOCs were detected in W-35B-01 at 0.6 μg/L (January 2005). Historically, this Qal/fill well has had sporadic trace detections of total VOC ranging from 0.5 μg/L to 1.9 μg/L. Total VOCs were not detected above the 0.5 μg/L detection limit in ground water samples collected from the three upgradient water-supply guard wells, W-830-16, W-830-20, and W-830-1831.

The leading edge of the plume at the 0.5 μg/L TCE detection limit remains in the vicinity of the site boundary.

Perchlorate was detected in ground water samples from Qal/fill guard well W-880-02 at a concentration of 4.7 μg/L in January 2005. Perchlorate has not been detected in this well previously. Perchlorate was also detected in Upper $Tnbs_1$ well W-830-57 (B830-PRXN extraction well) at a concentration of 5.2 μg/L in January 2005. This result is suspect as subsequent samples taken from this well have not detected perchlorate above the reporting limit (4 μg/L). Additionally, an effluent sample taken on the same day at this facility was found to be a false positive. Perchlorate was not detected above the reporting limit in any other Upper $Tnbs_1$ wells in the Building 832 Canyon OU. The current maximum perchlorate concentration (11 μg/L, February 2005) in this OU was detected in the $Tnsc_{1b}$ HSU in well W-830-25. This well and well W-832-15 have historically contained the highest perchlorate concentrations in this OU. Perchlorate isoconcentration contour maps for the Qal/fill, $Tnsc_{1b}$, and Upper $Tnbs_1$ HSUs will be presented in the 2005 annual report. Perchlorate has not been detected in the Lower $Tnbs_1$ HSU.

During first semester 2005, nitrate was not detected above the 45 mg/L MCL in any of the Building 832 Canyon guard wells. Nitrate isoconcentration contour maps for the Qal/fill, $Tnsc_{1b}$, and Upper $Tnbs_1$ HSUs will be presented in the 2005 annual report. Nitrate was detected in ground water samples from Qal/fill wells in the Building 832 Canyon OU at concentrations ranging from 34 mg/L (February 2005) in well W-832-SC4 to 110 mg/L (February 2005) in well W-830-34 during first semester. Nitrate was detected in the Upper $Tnbs_1$ HSU at concentrations ranging from < 0.5 mg/L to 18 mg/L (April 2005) in well W-830-57, the extraction well at the B830-PRXN treatment facility. Nitrate was detected in the $Tnsc_{1b}$ HSU at concentrations ranging from < 0.5 mg/L to 150 mg/L (February 2005) in well W-830-49, an extraction well at the B830-SRC treatment facility.

2.7.3.3. Building 832 Canyon OU Remediation Optimization Evaluation

The B832-SRC SVE system was shut down in October 2003 to evaluate soil vapor rebound. TCE was not detected in preliminary soil vapor samples above the 0.2 ppm_v detection limit. Subsequent soil vapor samples collected during 2005 also did not contain detectable levels of TCE or any other VOCs. A long-term treatability study began in early 2005 to evaluate whether ground water yield can be increased by inducing a negative pressure (i.e., vacuum) in the extraction well casing. This method has been successfully applied at the Building 834 ground water and soil vapor extraction and treatment facility where ground water yield was increased up to three times in certain extraction wells placed under a vacuum. Placing the extraction well casing under a negative pressure effectively increases the gradient toward the extraction well thereby increasing the well's zone of influence. Preliminary results indicate that ground water yield has increased in response to the applied vacuum. As a result, shutting off the SVE system at this facility is no longer under consideration.

Ground water yield is so low in the Building 832 Canyon OU source area extraction wells that capture is difficult to assess because these source area extraction wells cannot maintain continuous operation. The low yield is due to a combination of low hydraulic conductivity geologic materials, dewatering, and limited recharge. Based on the map shown in Figure 2.7-6, the plumes emanating from the Buildings 832 and 830 source areas have much the same shape and extent as that shown in recent CMR reports. Total VOC concentrations in the facility influent for B832-SRC, B830-SRC, B830-PRXN, and B830-DISS have remained relatively constant throughout this reporting period.

In general, COC concentrations in the Building 832 Canyon OU source areas exhibit decreasing trends. For example, maximum total VOC concentrations have decreased by 50% in the Building 830 source area. COC concentrations in the proximal and distal areas have remained relatively constant. Treatment facility extraction wellfield expansions are expected to increase the performance remediation efforts in this area.

2.7.3.4. Building 832 Canyon OU Performance Issues

Overall well yields remain low due to a combination of limited recharge, dewatering, and low hydraulic conductivity in the B832-SRC and B830-SRC facility areas. An evaluation to determine how to increase mass removal at this OU was presented in the draft RD report for this area. The remedial design included the following major components:

- Continue vacuum-assisted soil vapor and ground water extraction and treatment in the Building 832 and 830 source areas.
- Expand the Building 832 and 830 wellfields to extract soil vapor and ground water from the downgradient portion of the VOC, nitrate, and perchlorate plumes.
- Install additional ground water monitor wells.
- Optimize contaminant mass removal through: (1) monitoring, evaluation and management of extraction wellfield pumping, (2) evaluation of potential for naturally occurring denitrification processes in ground water, and (3) continued evaluation of more aggressive, innovative technologies to expedite source cleanup.

The low concentrations of total VOCs detected in the two site boundary guard wells during this reporting period are most likely related to the temporary suspension of B815-DSB operation during 2005 (Section 2.4.1.2). This facility is now operating on a 24 hour/ 7day per week schedule and total VOC concentrations are expected to decrease back to non-detectable levels in the Building 832 Canyon and HEPA site boundary guard wells. Low concentrations of TCE and PCE have been detected in recently installed well W-830-1832 located between the former leading edge of the $Tnbs_1$ TCE plume and Site 300 water-supply well, Well 20. A new Upper $Tnbs_1$ guard well, W-832-2112, located downgradient (southwest) of well W-830-1832, and upgradient of Well 20 was installed in 2005. Samples taken from this well during first semester 2005 were below reporting limits for TVOC, NO_3, and perchlorate.

Plans to expand the B830-SRC extraction wellfield to prevent further migration of contaminants toward Well 20 are currently in progress. Existing $Tnsc_{1b}$ well W-830-49 will be added as a ground water extraction well and four new ground water extraction wells (one Upper $Tnbs_1$ extraction well, a Qal/fill well, and two $Tnsc_{1b}$ wells) will be installed and connected to the facility. Increased ground water extraction is planned at the B832-SRC facility for second semester 2005. In addition to the existing wellfield, this facility will extract from wells W-832-01, W-832-10, and W-832-11. Extraction at these facilities will increase the capture of the total VOC plume, thereby minimizing or eliminating any impact from this plume near the site boundary.

2.8. Site 300 Site-Wide OU8

The Site 300 Site-Wide OU is comprised of release sites at which no significant ground water contamination and no unacceptable risk to human health or the environment are present. For this reason, a monitoring-only interim remedy was selected for the release sites in the Interim Site-Wide Record of Decision (U.S. DOE, 2001). The monitoring conducted during the reporting period for these release sites is discussed below.

2.8.1. Building 801 and Pit 8 Landfill

At Building 801, VOCs are the primary COCs detected in ground water. Perchlorate and nitrate are the secondary COCs. There are no COCs in ground water at the Pit 8 Landfill.

Minor VOC contamination is present in the subsurface as a result of discharges of waste fluid to a dry well adjacent to Building 801D from the late 1950s to 1984. A map showing the locations of monitoring wells is presented in Figure 2.8-1. During the first semester of 2005, ground water monitoring was conducted in accordance with the CMP monitoring requirements. The sampling and analysis plan for ground water monitoring is presented in Table 2.8-1. This table delineates any additions made to the CMP. Analytical results will be presented in the annual report.

A map showing ground water elevations and hydraulic gradient direction in the $Tnbs_1$ HSU for the Building 801/Pit 8 Landfill area is presented in Figure 2.8-2. Ground water elevation data for the Building 801/Pit 8 Landfill area are similar to those collected during 2004. Ground water elevation data will be presented in the annual report.

In 2005, total VOCs were detected in ground water samples from wells in the Building 801/Pit 8 Landfill area at concentrations ranging from 0.8 μg/L (May 2005) at well K8-03B to 5.9 μg/L (June 2005) at well K8-01. Figure 2.8-3 shows the measured ground water concentrations of total VOCs in the $Tnbs_1$ aquifer for each well. Overall, total VOC concentrations in ground water generally were similar to previous years. In 2004, VOCs were detected in ground water samples from wells in the Building 801/Pit 8 Landfill area at concentrations ranging from 0.6 μg/L (November 2004) at well K8-03B to 5.9 μg/L (June 2005) at well K8-01. For the last ten years, TCE in ground water from wells K8-01 and K8-03B, located downgradient from the former Building 801D dry well, has ranged from below detection limits (< 0.5) μg/L to a maximum of 5.2 μg/L.

Perchlorate was not detected in ground water samples above the detection limit of 4 μg/L from any of the Building 801/Pit 8 monitor wells.

In 2005, nitrate was detected in ground water samples from wells in the Building 801/Pit 8 Landfill area at concentrations ranging from 13 mg/L (May 2005) at well K8-03B to 53 mg/L (June 2005) at well K8-01. In 2004, nitrate was detected in ground water samples from wells in the Building 801/Pit 8 Landfill area at concentrations ranging from 1.8 mg/L (June 2004) at well K8-03B to 53 mg/L (June 2004) at well K8-04. All other nitrate concentrations from area ground water samples collected during 2004 and 2005 were below the 45 mg/L MCL. Overall, nitrate concentrations in ground water at Building 801/Pit 8 Landfill generally are similar to previous years.

To date, no contaminant releases have been identified 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.

2.8.2. Building 833

VOCs are the primary COC in ground water at Building 833. Spills and rinsewater disposal at Building 833 resulted in minor VOC contamination of the shallow soil/bedrock and perched ground water in the Tpsg HSU. A map showing the locations of monitoring wells and ground water elevations is presented in Figure 2.8-4. The sampling and analysis plan for ground water monitoring is presented in Table 2.8-2. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP. Analytical results will be presented in the annual report.

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 2004 has shown little evidence of saturation. During the first semester of 2005, all the wells screened in the Tpsg HSU at Building 833 were dry or had insufficient water to collect a valid sample, except for well W-833-12. Ground water collected from this well during the first quarter of 2005 contained 7.5 μg/L of TCE. The most recent sample previously collected from the Tpsg HSU was from well W-833-03 in 2000, at which time all the other shallow wells were dry. This sample contained 20 μg/L of TCE.

Only well W-833-30, which is screened in the deep regional aquifer ($Tnbs_1$ HSU), contained sufficient water to collect a sample during the first semester of 2005. VOCs were not detected in the ground water sample from this well, indicating that the VOC contamination continues to be confined to the shallow, Tpsg perched water-bearing zone. Well W-840-01, also screened in the $Tnbs_1$ HSU, was dry during 2004 and the first semester of 2005.

A ground water elevation map was not generated because the area is largely unsaturated. Ground water elevation data will be presented in the annual report.

2.8.3. Building 845 Firing Table and Pit 9 Landfill

Leaching from Building 845 Firing Table debris resulted in minor contamination of subsurface soil with depleted uranium and HMX. There are no COCs in ground water at Building 845 and the Pit 9 Landfill, as no ground water contamination has been detected. A map showing the locations of monitoring wells is presented in Figure 2.8-5. The sampling and analysis plan for ground water monitoring is presented in Table 2.8-3. All required CMP detection monitoring samples were collected. There continues to be no water contamination detected in ground water in the Building 845 and Pit 9 Landfill area. Analytical results will be presented in the annual report.

The monitoring wells near Pit 9 Landfill are screened in the lower Neroly Formation ($Tnsc_0$ HSU). A map showing first semester 2005 ground water elevations and hydraulic gradient direction in the $Tnsc_0$ HSU is presented in Figure 2.8-6. Ground water elevation data collected from wells within the OU are similar to those collected during 2004. Ground water elevations will be presented in the annual report.

Detection monitoring of this landfill, which is discussed in Section 3.3, is conducted to determine any releases to ground water.

2.8.4. Building 851 Firing Table

At the Building 851 Firing Table, uranium and tritium are the primary and secondary COCs detected in ground water, respectively. High explosives experiments at the Building 851 Firing Table resulted in minor VOC and RDX contamination in soil and low activities of uranium with a measurable depleted uranium component in ground water. A map showing the locations of monitoring wells is presented in Figure 2.8-7. During the first semester of 2005, ground water monitoring was conducted in accordance with the CMP monitoring requirements. The sampling and analysis plan for ground water monitoring is presented in Table 2.8-4. All required samples were collected and analyzed. Analytical results will be presented in the annual report.

A map showing ground water elevations and hydraulic gradient direction in the Tmss HSU is presented in Figure 2.8-8. Ground water elevation data collected from wells within the Building 851 area are similar to those collected during 2003. Ground water elevation data will be presented in the annual report.

During the first semester of 2005, ground water samples were collected from the four Building 851 area monitor wells and were analyzed for uranium isotopes by mass spectrometry. Total uranium activities ranged from 0.071 ± 0.0011 pCi/L in the ground water sample from well W-851-05 to 0.36 ± 0.0042 pCi/L in the sample from well W-851-08. The atom ratio of $^{235}U/^{238}U$ in the samples from wells W-851-05, W-851-06, and W-851-08 indicated the addition of some depleted uranium, though the sample from well W-851-07 contained only natural uranium. During 2004, the samples from all four Building 851 wells indicated small but measurable additions of depleted uranium to the natural uranium in the ground water. In 2004, uranium was detected in ground water samples from wells in the Building 851 area at concentrations ranging from 0.0670 ± 0.00500 pCi/L in well W-851-05 to 0.371 ± 0.00900 pCi/L at well W-851-08. Overall, uranium activity in ground water is similar to previous years.

During the first semester of 2005, tritium was detected in a ground water sample from well W-851-08 at an activity of 136 +/- 61 pCi/L. During 2004, the maximum ground water tritium activity was detected in a ground water sample from well W-851-08 at an activity of 164 +/- 57 pCi/L (June 2004). The 2003 maximum ground water activity in the area was detected in a sample from well W-851-08 (270 pCi/L) indicating a trend of decreasing tritium activities in this well and the Building 851 area from the one-time high of 3,790 pCi/L in late 1998.

3. Detection Monitoring, Inspection, and Maintenance Program for the Pits 2, 8, and 9 Landfills

The Pit 2, 8, and 9 Landfills received firing table debris from the 1950s to the 1970s. At present, there is no evidence of contaminant releases to ground water from any of these three landfills, except for low activities of depleted uranium at the Pit 2 Landfill, and no unacceptable risk or hazard to human or ecological receptors has been identified. The Detection Monitoring Program is designed to detect any future releases of contaminants from these landfills. Section 3 presents the results for the Pit 2, 8, and 9 Landfills ground water detection monitoring network, and any landfill inspections or maintenance that was conducted during the first semester of 2005.

3.1 Pit 2 Landfill

3.1.1. Contaminant Detection Monitoring Results

During the first semester of 2005, ground water samples were collected from Pit 2 Landfill detection monitoring wells K2-01C, NC2-08, and W-PIT2-1934 and analyzed for the CMP detection monitoring analytes. Samples were not collected from well W-PIT2-1935 because there was no analytical laboratory under contract that could accept samples for non-radiological analysis that contained tritium at activities in the ground water from the well. This limitation has since been corrected. Additional detection monitoring wells are scheduled for installation at the Pit 2 Landfill during 2007.

A ground water potentiometric surface map is presented in Figure 2.5-2. Depth to ground water was measured at 50–55 ft beneath the Pit 2 Landfill. These data are consistent with previous water elevations. Ground water elevations will be presented in the annual report.

Tritium was detected below the 20,000 pCi/L MCL during the first semester of 2005 from the three wells sampled during the first quarter of 2005. Tritium was detected in ground water samples from all four Pit 2 Landfill monitor wells, K2-01C, NC2-08, W-PIT2-1934, and W-PIT2-1935, during the first and second semesters of 2004. This distribution of ground water tritium activities is primarily a result of transport of the Building 850 tritium plume into the Pit 2 Landfill area, although it is possible that Pit 2 Landfill is releasing some tritium to ground water.

The uranium activities detected in ground water samples from the Pit 2 Landfill monitor wells are all historically below the drinking water standard of 20 pCi/L. Depleted uranium was detected in ground water samples from well K2-01C during the first semester of 2005. The sample contained 9.9 ± 0.15 pCi/L of uranium. Discretionary samples were collected during the semester from wells NC2-08 and W-PIT2-1934 for uranium isotopic analysis, but the results were not received in time for inclusion in this report. During 2004, depleted uranium was detected in a ground water sample from well K2-01C. The $^{235}U/^{238}U$ atom ratio in the sample was 0.0062 and contained 6.97 pCi/L (May 2004) of total uranium. A total uranium activity of 2.85 ± 0.222 pCi/L (May 2004) was detected in the 2004 ground water sample from well NC2-08, but the $^{235}U/^{238}U$ atom ratio indicated that this uranium was natural in origin. The maximum 2004 uranium activities in ground water samples from monitor wells W-PIT2-1934 and W-PIT2-1935 were comprised partially of depleted uranium, yielding $^{235}U/^{238}U$ atom ratios of 0.0053 and 0.0064 and total uranium activities of 17.4 ± 0.483 pCi/L and 5.58 ± 0.231 pCi/L, respectively. The detection of depleted uranium in the ground water samples from wells K2-01C, W-PIT2-1934, and W-PIT2-1935 suggests that low activities of depleted uranium have been added to the naturally occurring uranium in the ground water by the Pit 2 Landfill. The release may have been hastened by the continued discharge of potable water that has been used to maintain a wetland habitat for red-legged frogs (a Federally-listed endangered species) within a drainage channel that extends along the northern and eastern margin of the Pit 2 Landfill.

No other constituents that were monitored during the first semester of 2005 as part of the Detection Monitoring Program were detected in ground water. A map showing the locations of monitoring wells is presented in Figure 2.5-1. None of the other chemicals monitored in ground water at the Pit 2 Landfill (metals, fluoride, HMX, RDX, nitrate, or perchlorate) were detected above regulatory limits. During the first semester of 2005, perchlorate was not detected in samples from monitor wells K2-01C, NC2-08, or W-PIT2-1934. During 2004 perchlorate was detected in the samples from well NC2-08 (6 μg/L, May 2004) and K2-01C (4.8 μg/L, February 2004; 5.9 μg/L, May 2004; and 4.9 μg/L December 2004).

3.1.2. Sampling and Analysis Plan Modifications

The sampling and analysis plan for the Pit 2 Landfill ground water Detection Monitoring Program are presented in Table 3.1-1. There were no deviations from the sampling plan, except for samples not collected from well W-PIT2-1935. Analytical results will be presented in the annual report.

3.1.3. Landfill Inspection Results

The Pit 2 Landfill was inspected twice during the first semester of 2005. Shallow burrow holes were observed in the cover. No other problems were observed.

3.1.4. Annual Subsidence Monitoring Results

Annual subsidence monitoring will be conducted during the second semester of 2005.

3.1.5. Maintenance

Any necessary maintenance on the pit cover will be completed during the second semester of 2005.

3.2. Pit 8 Landfill

3.2.1. Contaminant Detection Monitoring Results

During the first half of 2005, ground water samples were collected from the Pit 8 Landfill monitoring wells and analyzed for VOCs, high explosives compounds RDX and HMX, nitrate, uranium and thorium isotopes, tritium, and Title 26 metals. Well K8-05 continued to be dry. There were no new detections of constituents of concern in the Pit 8 Landfill area wells as indicated by the Detection Monitoring Program ground water data collected during the first semester of 2005.

Tritium activities in first semester 2005 samples from wells K8-02B and K8-04 were all less than 100 pCi/L (March and June 2005). Tritium activities in second semester 2004 samples from wells K8-02B and K8-04 were 194 ± 54.0 (November 2004) and 136 ± 51.0 pCi/L (November 2004), respectively. The first semester samples from the Pit 8 Landfill wells conclusively indicate background tritium activities.

VOCs were detected in ground water samples from downgradient wells K8-02B (1.4 µg/L, June 2005) and K8-04 (1.6 µg/L, June 2005) suggesting that the VOC plume originating at Building 810 may be migrating beneath the Pit 8 Landfill. VOCs were also detected at 0.8 µg/L in the May 2005 sample from the upgradient well K8-02B. VOCs were not detected in ground water samples collected during the first and second quarters of 2004 from downgradient monitor wells K8-02B and K8-04, although low concentrations of VOCs were detected in water samples from upgradient wells K8-01 and K8-03B (see Section 2.8.1).

A ground water potentiometric surface map is presented in Figure 2.8-2. Ground water elevation data are presented in Appendix C. Depth to ground water was approximately 60 ft beneath the Pit 8 Landfill. There was no significant change in ground water elevations during the first semester of 2005 compared to the previous years. Ground water elevations will be presented in the annual report.

3.2.2. Sampling and Analysis Plan Modifications

The sampling and analysis plan for the Pit 8 Landfill ground water Detection Monitoring Program are presented in Table 2.8-1. As stated above, well K8-05 was dry during the semester and could not be sampled. Analytical results will be presented in the annual report.

3.2.3. Landfill Inspection Results

The Pit 8 Landfill was inspected twice during the first semester of 2005. Shallow burrow holes were observed in the cover. No other problems were observed.

3.2.4. Annual Subsidence Monitoring Results

Annual subsidence monitoring will be conducted during the second semester of 2005.

3.2.5. Maintenance

Any necessary maintenance on the pit cover will be completed during the second semester of 2005.

3.3. Pit 9 Landfill

3.3.1. Contaminant Detection Monitoring Results

During the first semester of 2005, ground water samples were collected from the four Pit 9 Landfill monitoring wells and analyzed for a suite of chemicals including VOCs; nitrate; perchlorate; high explosives compounds; and Title 26 metals. During the first semester of 2005, there were no new detections of constituents of concern above background ranges in the Pit 9 Landfill area ground water samples as indicated by the Detection Monitoring Program ground water sample analytical results.

A ground water potentiometric surface map is presented in Figure 2.8-6. Depth to ground water was approximately 110 ft beneath the Pit 9 Landfill. There were no significant changes in ground water elevations from previous semesters. Ground water elevations will be presented in the annual report.

3.3.2. Sampling and Analysis Plan Modifications

The sampling and analysis plan for the Pit 9 Landfill ground water Detection Monitoring Program are presented in Table 2.8-3. There were no additional modifications made to the plan. Analytical results will be presented in the annual report.

3.3.3. Landfill Inspection Results

The Pit 9 Landfill was inspected twice during the first semester of 2005. Shallow burrow holes were observed in the cover. No other problems were observed.

3.3.4. Annual Subsidence Monitoring Results

Annual subsidence monitoring will be conducted during the second semester of 2005.

3.3.5. Maintenance

Any necessary maintenance on the pit cover will be completed during the second semester of 2005.

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.

4.1. Human Health Risk and Hazard Management

The CMP (Ferry et al., 2002) 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 2003 and 2004 and will be repeated in the 2005 annual report:

- Indoor Ambient Air in Building 834D
- Indoor Ambient Air in Building 854A
- Indoor Ambient Air in Building 854F (.)
- Indoor Ambient Air in Building 830
- Indoor Ambient Air in Building 833
- Ambient Air Near Spring 3
- Ambient Air Near Spring 5
- Ambient Air Near Spring 7

The Building 854F was demolished in 2005 removing the indoor air exposure pathway. Consequently, the indoor ambient air risk will no longer be evaluated.

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 for the following:

- Outdoor Ambient Air Near Building 834D
- Outdoor Ambient Air Near Building 815
- Outdoor Ambient Air in Building 854F
- Outdoor Ambient Air Near Building 830
- Indoor Ambient Air Near Building 832F

Institutional controls, such as restricting access to or activities in areas of elevated risk, remained in place during 2005 to prevent unacceptable exposure to contaminants during remediation.

4.2. Ecological Risk and Hazard Management

Surveys for important burrowing species were conducted during the spring and fall of 2004 in the survey areas specified in the CMP. Results of the spring survey were reported in the First Semester 2004 CMR (Dibley et al., 2004b). Results of the fall 2004 surveys are reported in Section 4.2.1 below.

Surface soil sampling and analysis for the presence of cadmium conducted in the Building 834 survey area was reported in the 2003 Annual CMR (Dibley et al., 2004a). The results indicated no potential for ecological hazard from cadmium in surface soil at Building 834 therefore cadmium has been deleted from the list of ecological contaminants of concern and will no longer be evaluated and reported.

The CMP–required quarterly burrow air sampling for the presence of VOCs in the Pit 6 Landfill and Building 834 survey areas was completed in 2004 and reported in the First Semester 2004 CMR. The results indicated that burrow air did not contain VOCs at concentrations that would result in a hazard quotient (HQ) greater than 1. Since there is no potential for ecological harm, VOCs in burrow air has been deleted from the list of ecological contaminants of concern and will no longer be evaluated and reported. For this reason, surveys for sensitive species at the Pit 6 Landfill and Building 834 have been discontinued.

Evaluation of the ecological significance of the results of surface soil sampling for the presence of PCBs and dioxins/furans at Buildings 854 and 850 was conducted and reported in the First Semester 2004 CMR. The results of this evaluation showed amphibians to be potentially at risk at Building 854 and burrowing owls at Building 850 to be potentially at risk from the presence of PCBs in surface soil. As described below, the contaminated soil at Building 854 was removed in July 2005, effectively eliminating the ecological hazard. The presence of burrowing owls at Building 850 was the focus of work in the first semester of 2005.

Surveys for important burrowing species are required in the survey areas specified in the CMP as long as a potential ecological hazard is present. The CMP initially required surveys at Building 834, Pit 6 Landfill, and Building 850. Only Building 850 continues to present a potential ecological hazard.

4.2.1. PCBs, Dioxins, and Furans in Surface Soil at Buildings 854 and 850

The evaluation of ecological significance of the presence of PCBs, dioxins, and furans in the surface soil at the Buildings 854 and 850 areas began in 2004. The results of these evaluations are discussed in Section 4.2.1.1 (Building 854) and Section 4.2.1.2 (Building 850).

4.2.1.1. PCBs at Building 854

As described in Annual 2003 CMR, the PCBs Aroclor-1242, Arochlor-1248, and Aroclor-1254 have been detected in a lagoon adjacent to Building 855 at concentrations up to 34, 52, and 0.16 mg/kg, respectively. Additional surface soil sampling conducted in July 2003 showed the

PCBs to be primarily confined to the Building 855 lagoon. A sample from the lagoon was also analyzed for dioxin and furan compounds, and contained a maximum calculated tetrachloro-di-benzodioxin (TCDD) equivalent concentration of 2.6×10^{-5} mg/kg. It was concluded that the very limited extent of the PCB, dioxin, and furan contamination would preclude significant ecological impact due to the limited potential for exposure. However, the lagoon did act as a water catchment during the winter months during which it could contain standing water. Both California tiger salamanders and California red-legged frogs are known to occur in springs and pools in the general vicinity of Building 854, and there was concern that although the lagoon was sub-optimal habitat, it could provide for the potential for PCB and dioxin exposure to either species during the winter months. However, the contaminated soil from this area was removed in May 2005, effectively removing the potential for ecological risk.

4.2.1.2. Burrowing Owl Exposure to PCBs in Surface Soil at Building 850

Previous wildlife surveys have revealed the presence of burrowing owl in the area adjacent to the Building 850 Firing Table. Burrowing owls are Federal and State species of concern (California Department of Fish and Game, 2004), and therefore fit the description of important burrowing species as presented in the CMP.

As described in the Interim Remedial Design report for the Building 850 Subarea (Taffet et al., 2004), a total of 60 surface soil samples from the slopes above the Building 850 Firing Table were collected in 1994 and 2003 and analyzed for PCB compounds. PCBs were detected in surface soil samples at concentrations ranging from 0.09 to 180 mg/kg and were primarily confined to a 150 to 225 ft radius around the firing table. In addition, dioxin and furan compounds have been detected in samples from this area, with a maximum calculated TCDD equivalent concentration of 2.27×10^{-3} mg/kg. Cadmium is also present in the surface soils at Building 850 (Ferry et al., 1999).

A preliminary exposure analysis for the burrowing owl has been completed to estimate hazard to cadmium and PCBs. The results of this analysis were presented in the First Semester 2004 CMR and suggest cadmium is unlikely to pose a hazard to burrowing owls nesting in the vicinity of Building 850. However, concentrations of Arochlor 1254 in the soil at Building 850 may pose a hazard to burrowing owls nesting in the area, as the hazard quotient (HQ) exceeds 1. Various remedial options are currently under consideration for this area. Refinement of the owl model is planned to evaluate the remedial options. Field surveys for the presence of important burrowing species such as burrowing owls is continuing in this area (Figure 4.2.1).

During the winter and spring of 2005, driving surveys of the bowl surrounding the Building 850 shot table were conducted (Figure 4.2.1). This area was surveyed with binoculars from the access road to the West Observation Point. These surveys focused on Western Burrowing Owls. Adult Western Burrowing Owls were observed in the large bowl located approximately 900 meters north of the Building 850 survey area, but Western Burrowing Owl nesting was not verified near Building 850. A ground squirrel colony continues to occupy burrow systems located west of the shot table at Building 850. These burrows provide potential habitat for Western Burrowing Owls and California tiger salamanders.

On October 18, 2004, one adult California tiger salamander was found near the West Observation Point approximately 500 meters from the Building 850 survey area. This observation is 941 meters from the nearest breeding pool (Ambrosino pool) which is located in the northwest corner of the site. Nighttime surveys for California tiger salamanders were conducted at the area surrounding the Ambrosino pool on February 15, 2005. Although these surveys did not include the Building 850 survey area, adult California tiger salamanders were observed within 1.5 km of Building 850 during these surveys.

California tiger salamanders spend most of their lives in upland habitat, and are known to travel up to 2 km from breeding pools (USFWS, 2004). Because of the proximity of known California tiger salamander observations to the Building 850 survey area, the presence of ground squirrel burrows in the area, and the proximity of breeding habitat, it is likely that the USFWS would consider this area occupied by California tiger salamanders during any future consultations regarding work in this area.

Driving surveys for Western Burrowing Owls will continue during the spring of 2006 in the area surrounding Building 850. Additional surveys for California tiger salamanders may also be conducted in the fall and winter of 2005 and 2006 at the burrow systems located in the Building 850 survey area. These surveys will involve inspecting burrow openings on at least two rainy nights during November, December, January or February.

5. Data Management Program

The management of data collected as part of the first semester 2005 compliance monitoring at Site 300 was subject to the standard Environmental Restoration Division (ERD) data management process and standard operating procedures (Goodrich and Depue, 2004). This process tracks sample and analytical information from the initial sampling plan through data storage in a relational database. As part of the standard procedures for data quality, this process includes chain-of-custody tracking, electronic and hard copy analytical results receipt, strict data validation and verification, data quality control procedures, and data retrieval and presentation. The use of this system promotes and provides a consistent data set of known quality. Quality assurance and quality control are performed uniformly on all data.

5.1. Modifications to Existing Procedures

During the second semester of 2004, the relational database that is used to maintain the data for CMR was transitioned from Ingres database software to Oracle database software. As a result of this transition, the tools and applications used to process the CMR data were rebuilt as web applications. Additional refinements were implemented during the first semester of 2005 to improved chain of custodies, data entry, and querying abilities. Existing standard operating procedures are being modified to reflect the changes necessitated by the transition to the Oracle database.

5.2. New Procedures

The Site 300 CMR sampling and analysis plan was developed based upon the negotiated sampling locations and frequencies. The software tools used to create and execute the sampling plan were completely rewritten in the second semester of 2004 to increase efficiency in plan inputting, creating labels and Chains of Custody, and tracking sampling and receipt of analytical data. As a result of the changes, new operating procedures where implemented in 2004. In 2005, many refinements were needed to make the new procedures more effective, for example, how to identify cancelled samples in the sampling plan and the verification that checks for duplicate samples with different requested analyses and analytes. The documentation of the new procedures is in process.

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), workplans, Site Safety Plans, and the LLNL Environmental Protection Department Quality Assurance Management Plan (QAMP). Section 6 discusses any modifications to existing LLNL quality assurance/quality control (QA/QC) procedures or any new QA/QC procedures that were implemented during this reporting period, as well as self-assessments, quality issues and corrective actions, and analytical and field quality control.

6.1. Modifications to Existing Procedures

Operational Safety Plans (OSPs) are being integrated into the applicable electronic Integration Work Sheets (eIWSs) on or before the expiration date of the OSP. During this reporting period, OSP 300.47, “Site 300 On-site Ground Water Investigations Activities” and OSP 2.0, “Off-site Ground Water Investigation Activities Adjacent to Site 300” was successfully integrated into IWS 11276.01, “Site 300 Drilling Activity”. IWS 11276.01 was authorized on April 5, 2005.

6.2. New Procedures

There were no new procedures written during this reporting period.

6.3. Self-assessments

The EPD Assurance Office, Environmental Safety & Health (ES&H) team disciplines, and the ERD perform triennial formal and informal self-assessments. These assessments are used to evaluate work activities to QA procedures, management practices, and the integration of ES&H programmatic requirements. External regulatory agencies also perform frequent walkabouts during ERD work activities. During this reporting period, there were a total of ten assessments and walkabouts performed for the ERD Site 300 work activities. Issues and deficiencies observed during the assessments are tracked from inception to resolution using the institutional Issues Tracking System (ITS).

6.4. Quality Issues and Corrective Actions

Quality improvement, nonconformance, and corrective action reporting is documented using the Quality Improvement Form (QIF). A total of eight QIFs were processed during this reporting period. Suggested improvements were addressed and corrective measures employed to improve related processes. Two of the QIFs have been successfully closed-out. Corrective actions or suggested improvements specified in the remaining QIFs are being implemented.

6.5. Analytical Quality Control

Data review, validation, and verification are conducted on 100% of the incoming analytical data. Contract analytical laboratories are contractually required to provide internal quality control checks in the form of method blanks, laboratory control samples, matrix spikes, and matrix spike or sample duplicate results with every analysis. These results are evaluated during the data review process and are used to determine data quality. There were no noteworthy discrepancies identified during this reporting period.

6.6. Field Quality Control

Quality control is implemented during the sample collection process in the field. Ten percent of samples are collocated (5% intralaboratory and 5% interlaboratory). Field blanks and trip blanks are used to identify contamination that may occur during sample collection, transportation, or handling of samples at the analytical laboratory. Equipment blanks are used to determine the effectiveness of decontamination processes of portable equipment used for purging and/or sample collection. There were no significant problems encountered during this reporting period. Starting in January 2005, intercollocated samples were collected and submitted for analyses from all water-supply wells as an additional measure of quality control.

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Figures

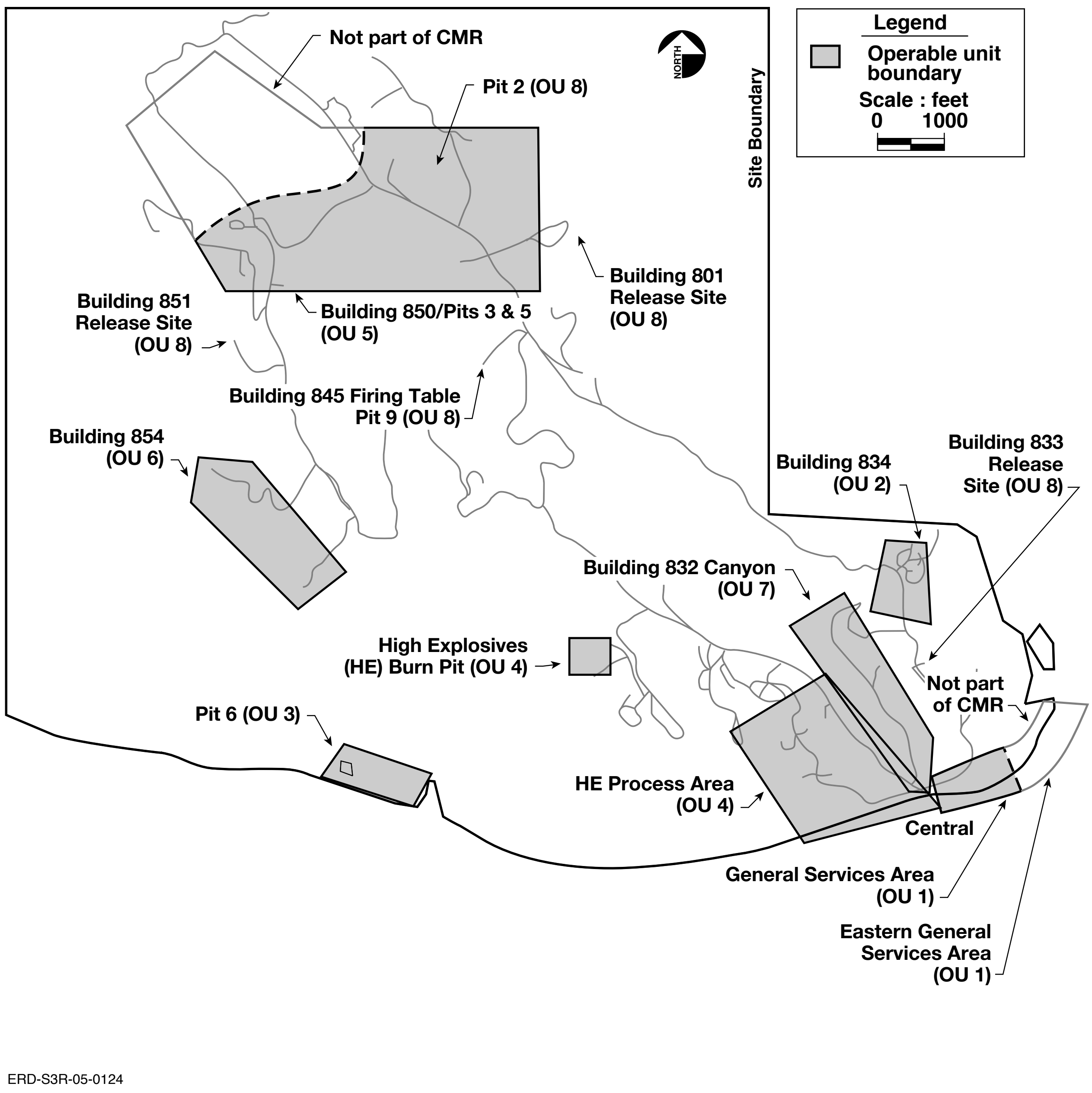

Figure 2-1. Site 300 map showing OU locations.

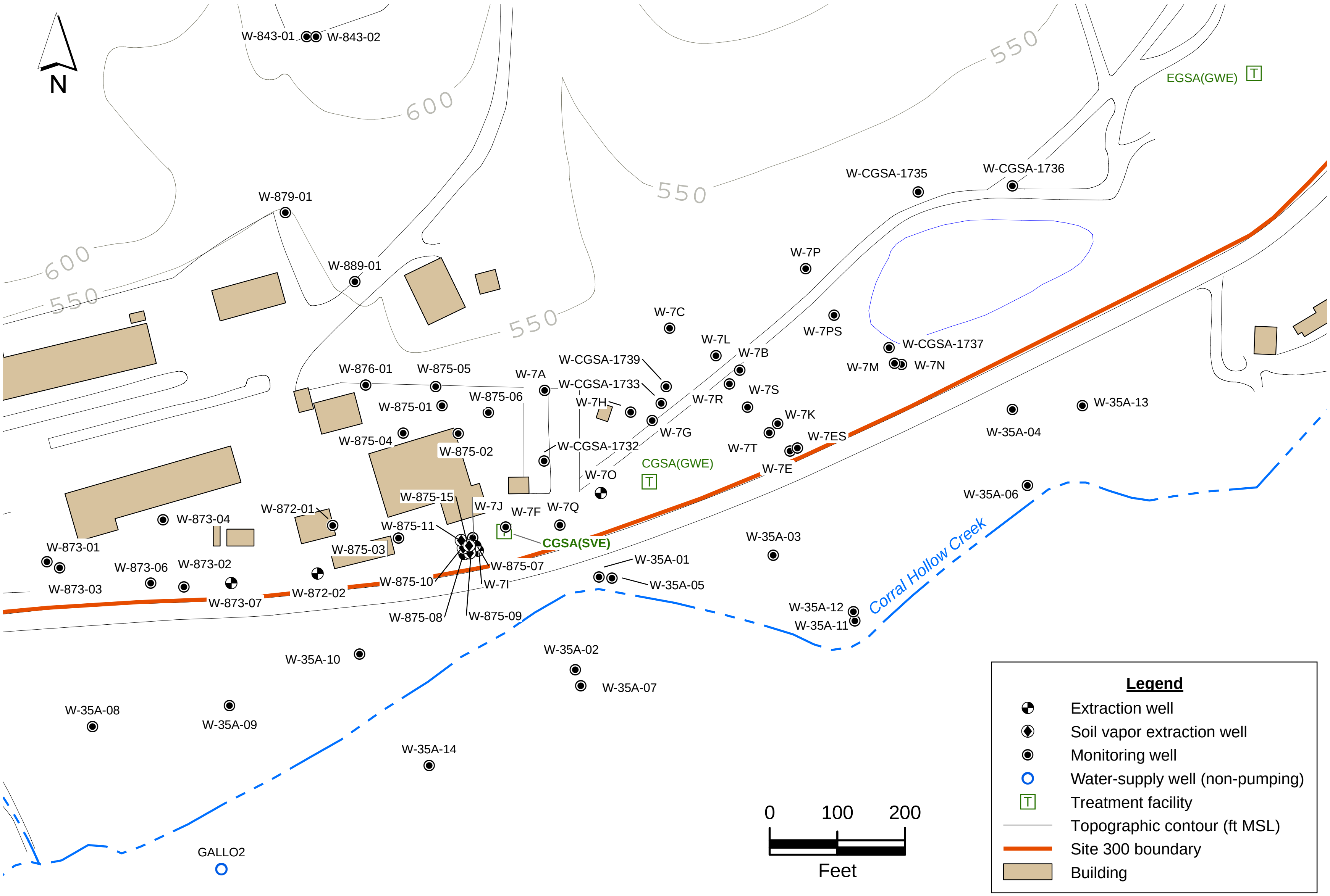

Figure 2.1-1. Central General Services Area OU site map showing monitoring, extraction and water-supply wells, and treatment facilities.

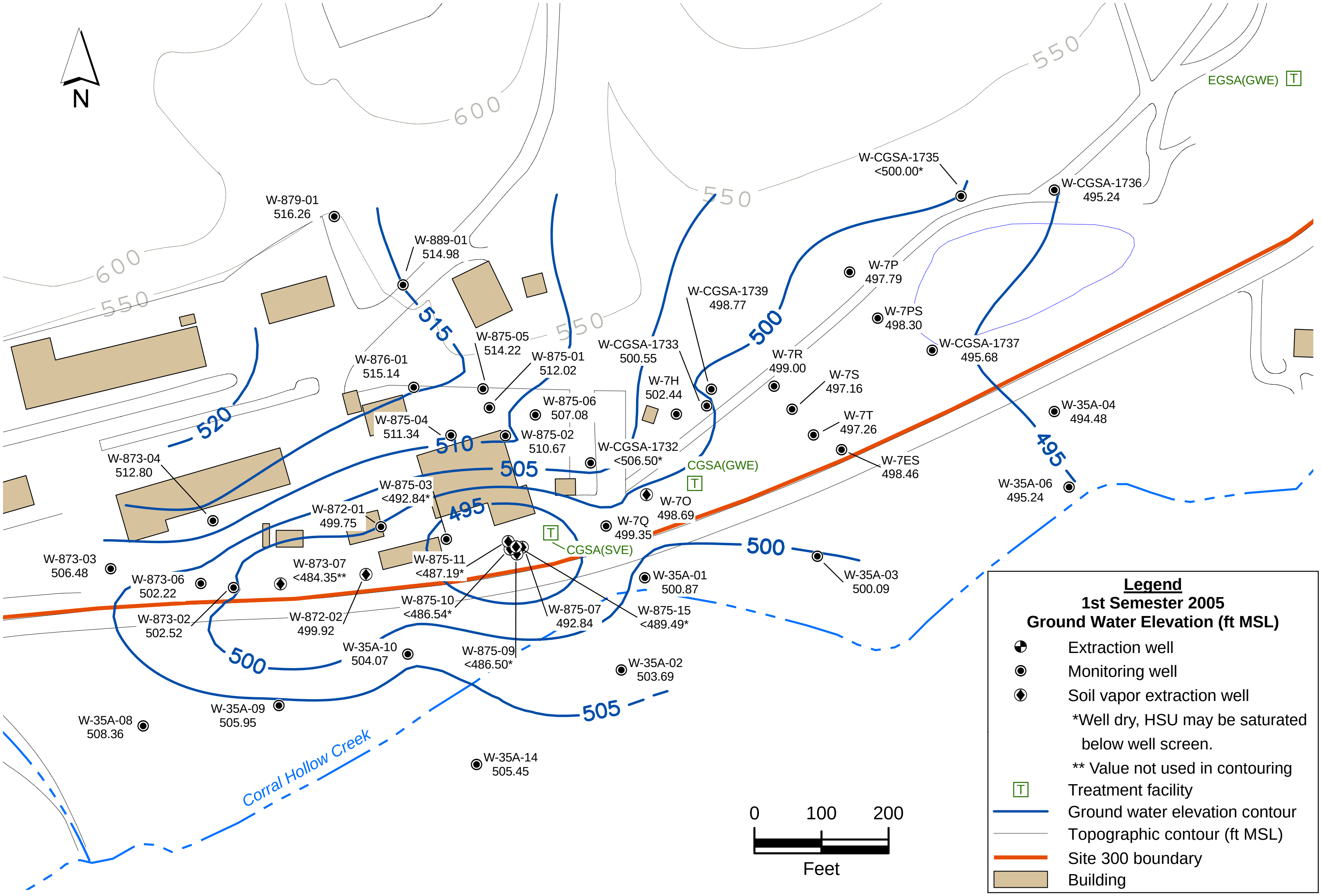

Figure 2.1-2. Central General Services Area OU ground water potentiometric surface map for the Qt-Tnsc$_1$ HSU.

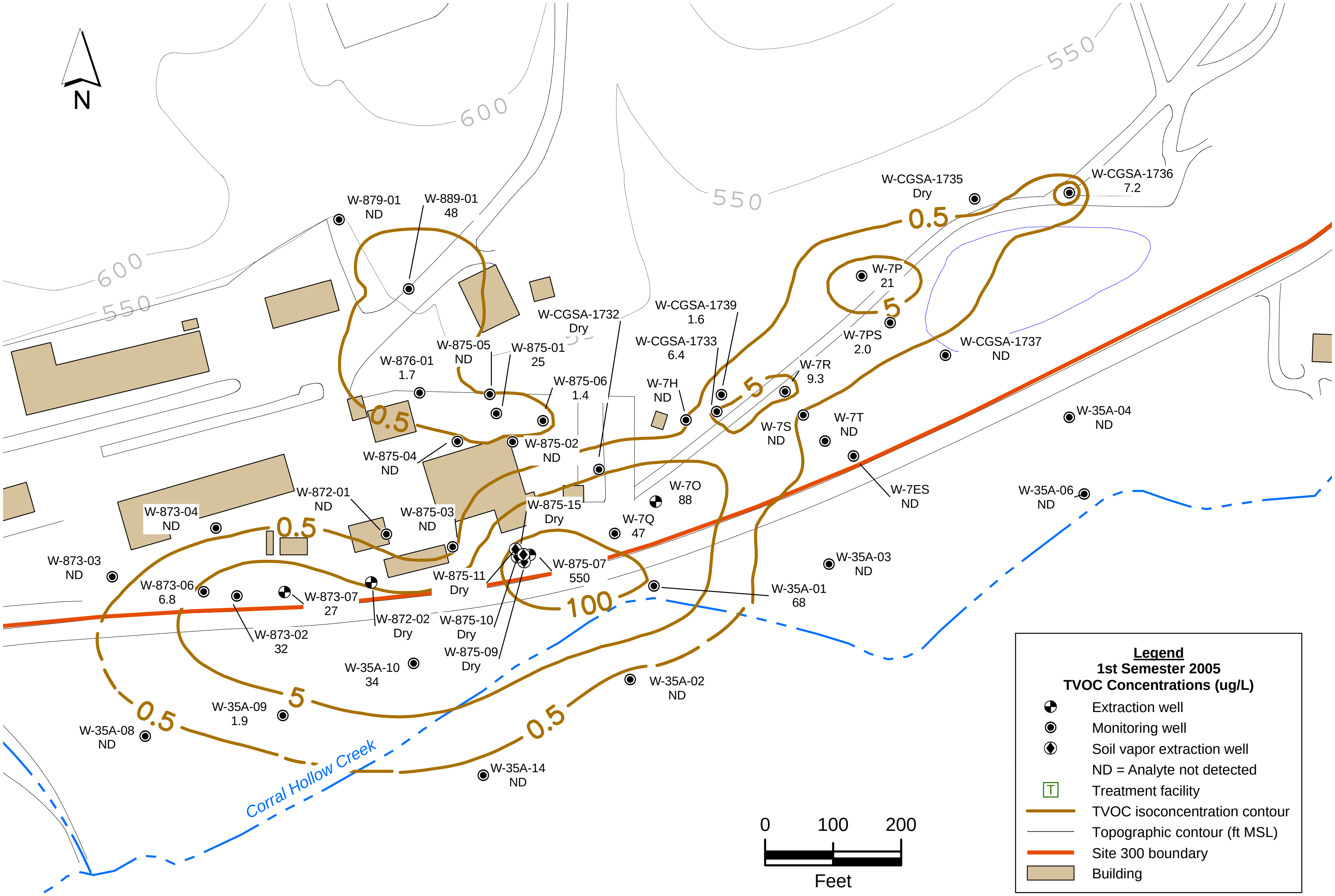

Figure 2.1-3. Central General Services Area OU TVOC isoconcentration contour map for the Qt-Tnsc$_1$ HSU.

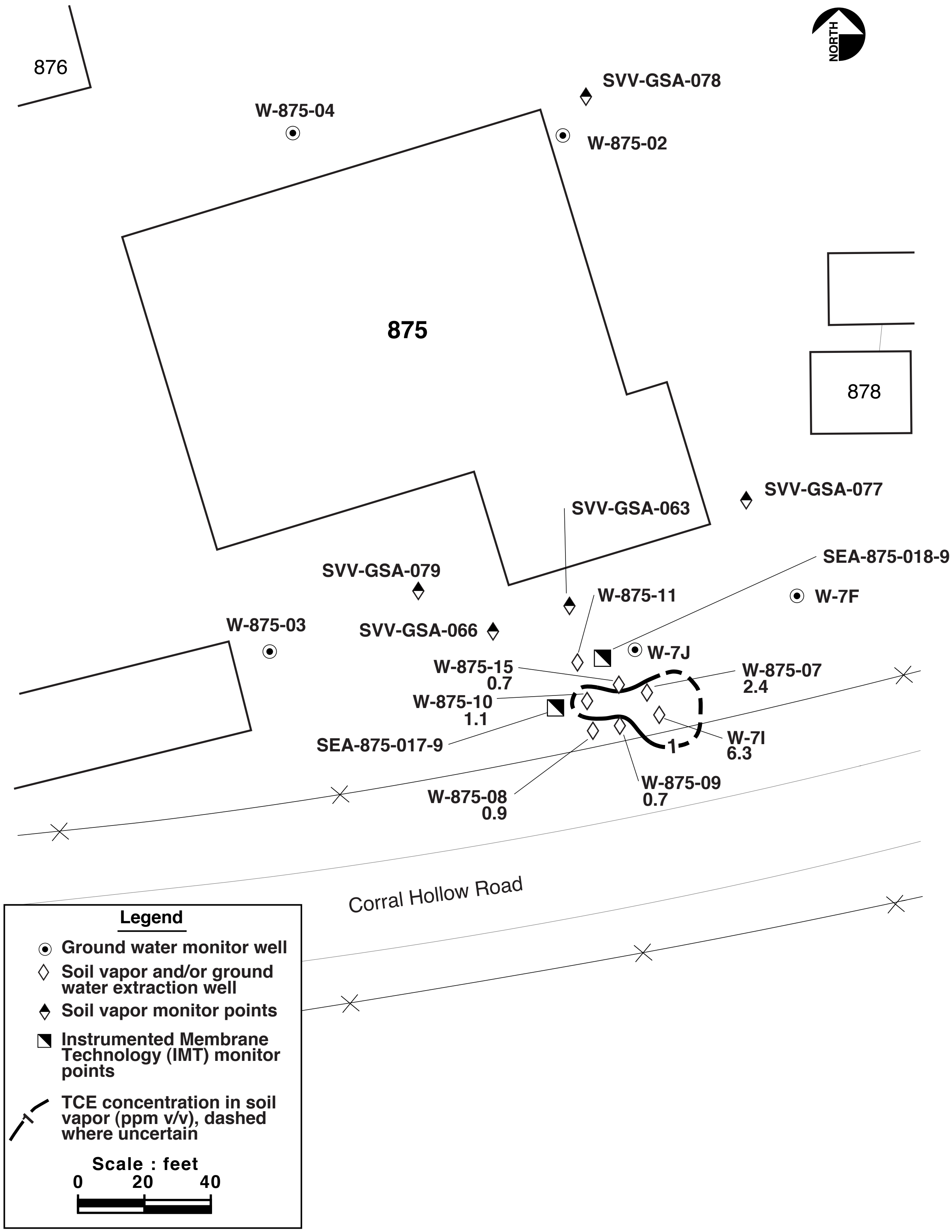

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Figure 2.1-4. TCE concentration (ppm v/v) in soil vapor near Building 875 of the Central GSA, April 18, 2005.

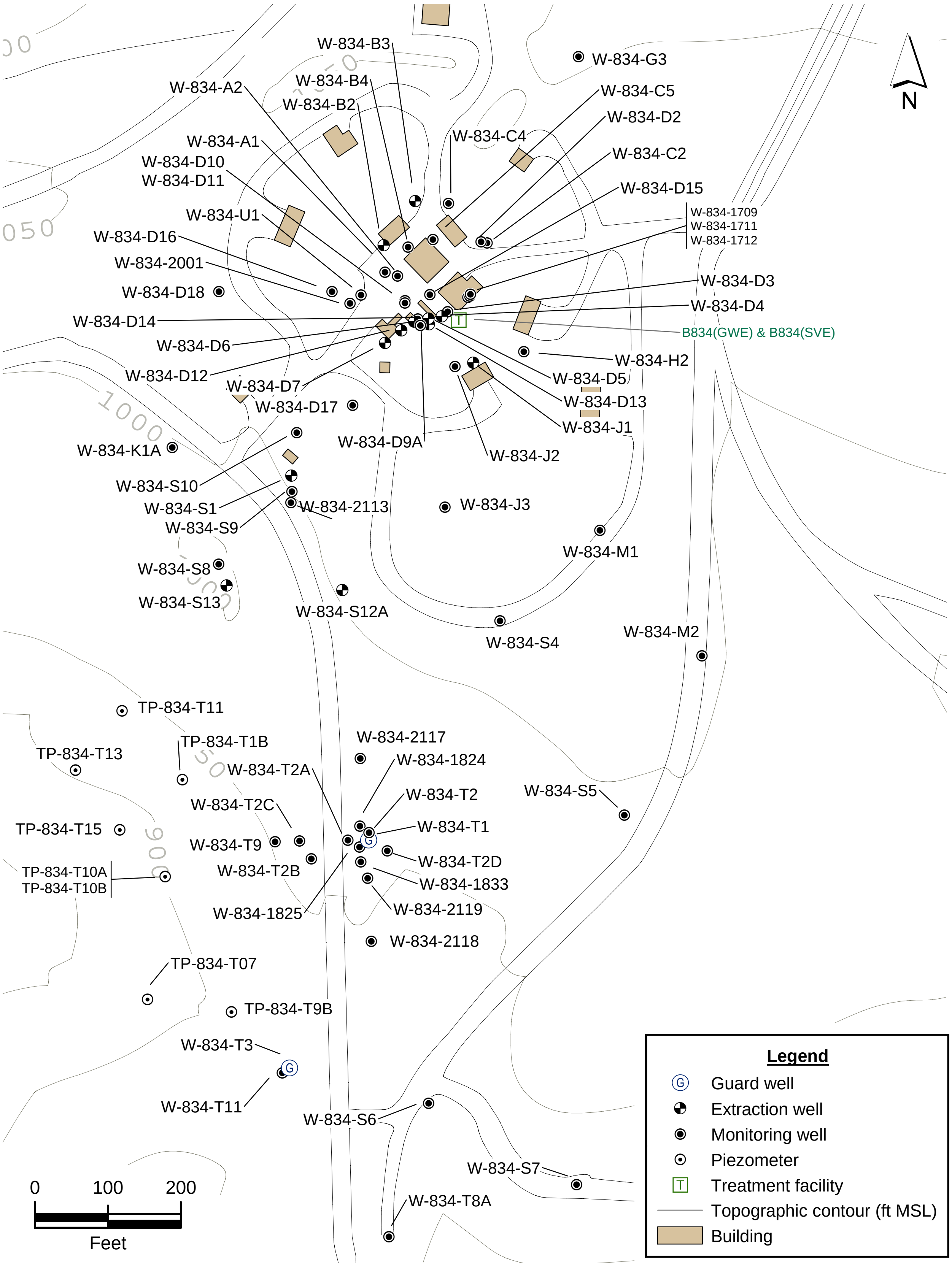


Figure 2.2-1. Building 834 OU site map showing piezometers and monitoring, extraction, and guard wells.

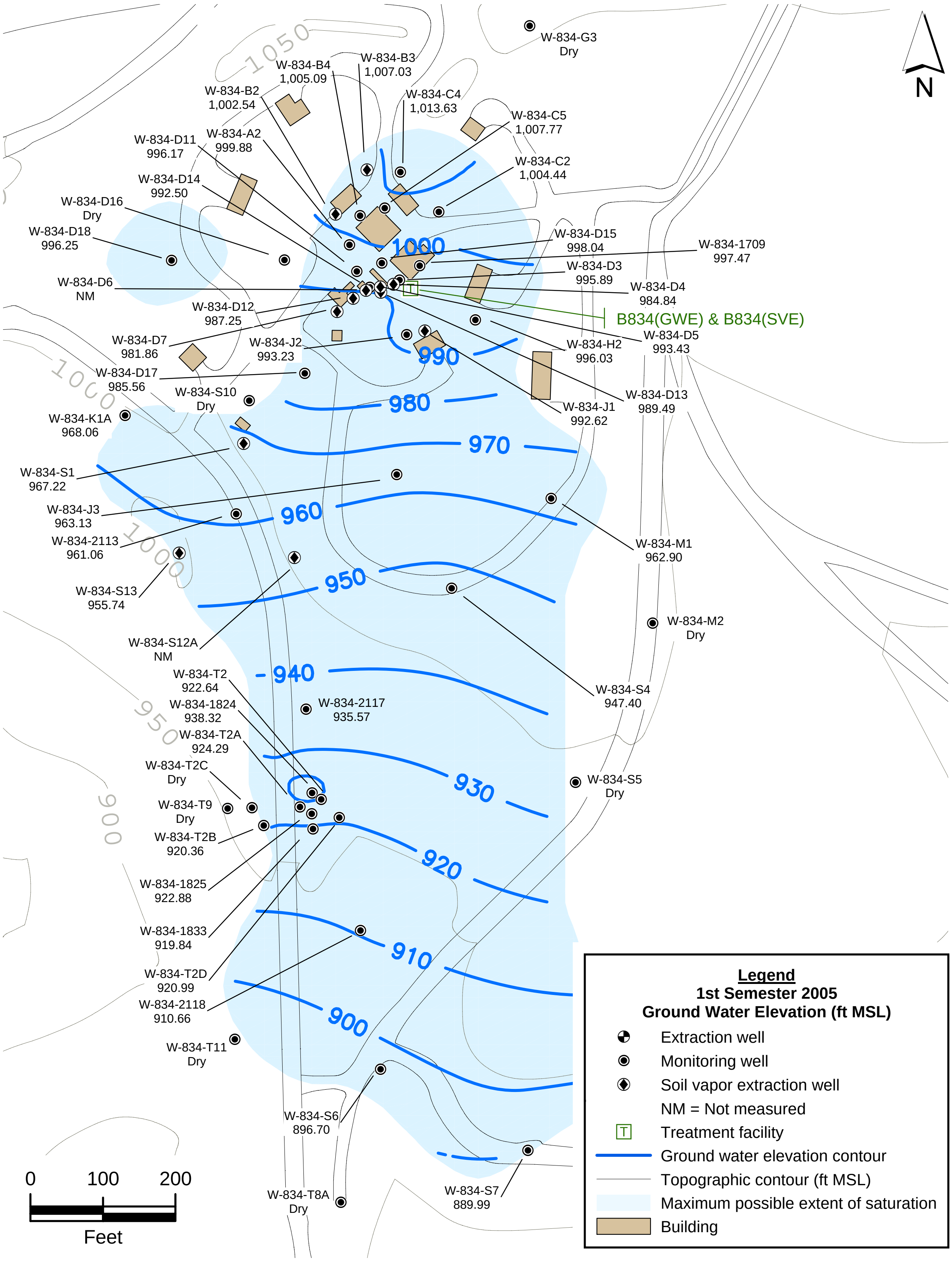


Figure 2.2-2. Building 834 OU ground water potentiometric surface map for the Tpsg perched water-bearing zone.

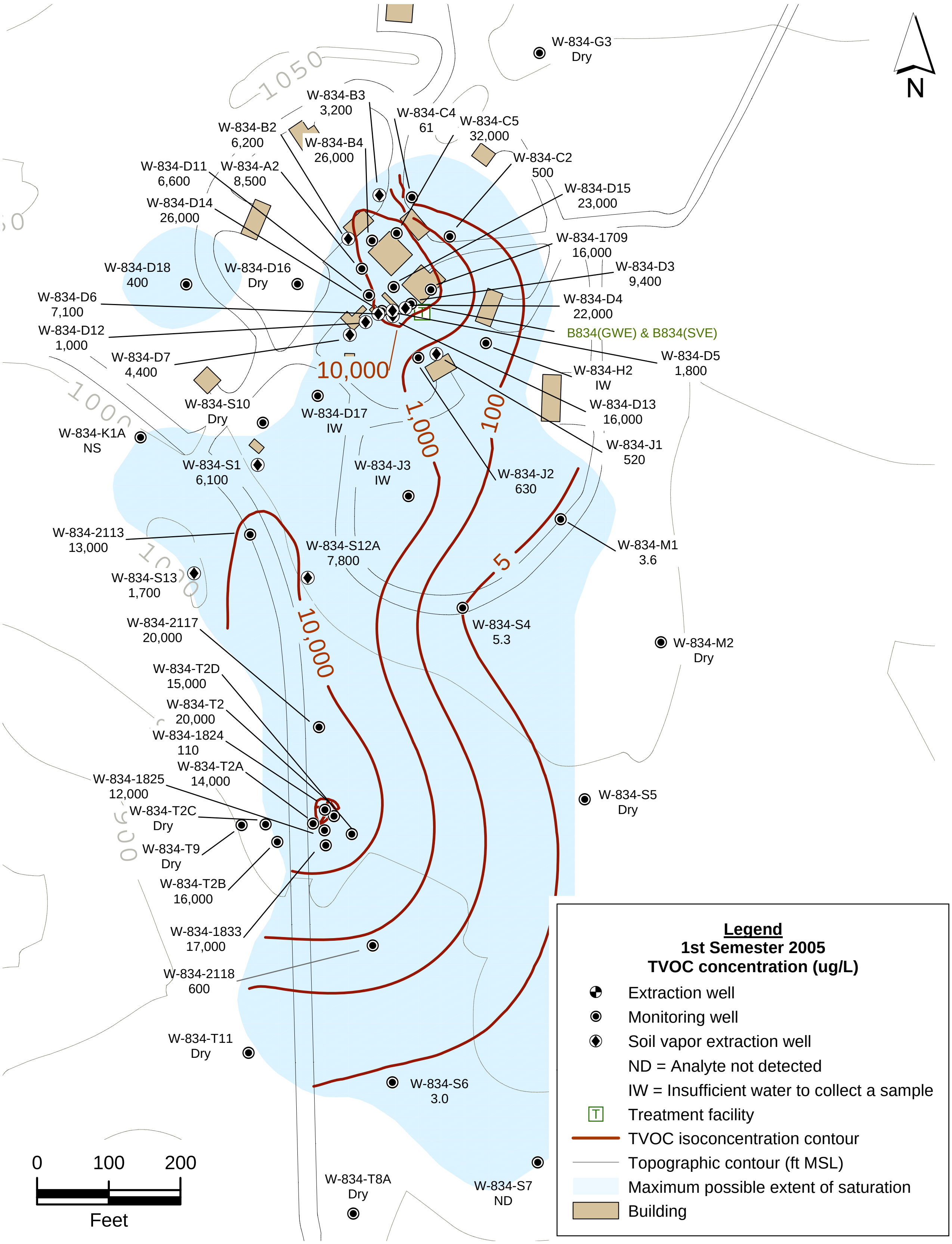


Figure 2.2-3. Building 834 OU TVOC isoconcentration contour map for the Tpsg perched water-bearing zone.

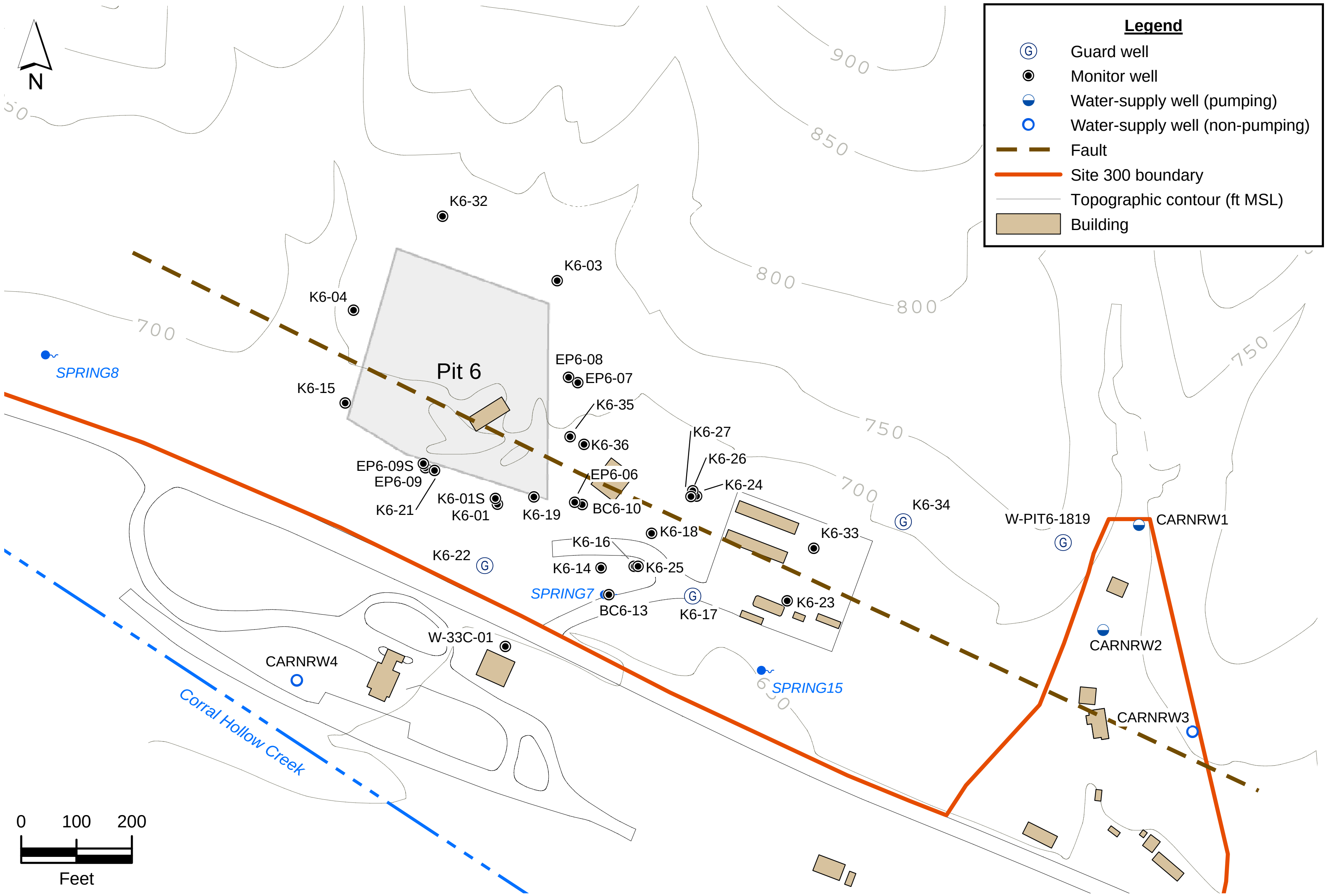


Figure 2.3-1. Pit 6 Landfill OU site map showing monitoring and water-supply wells.

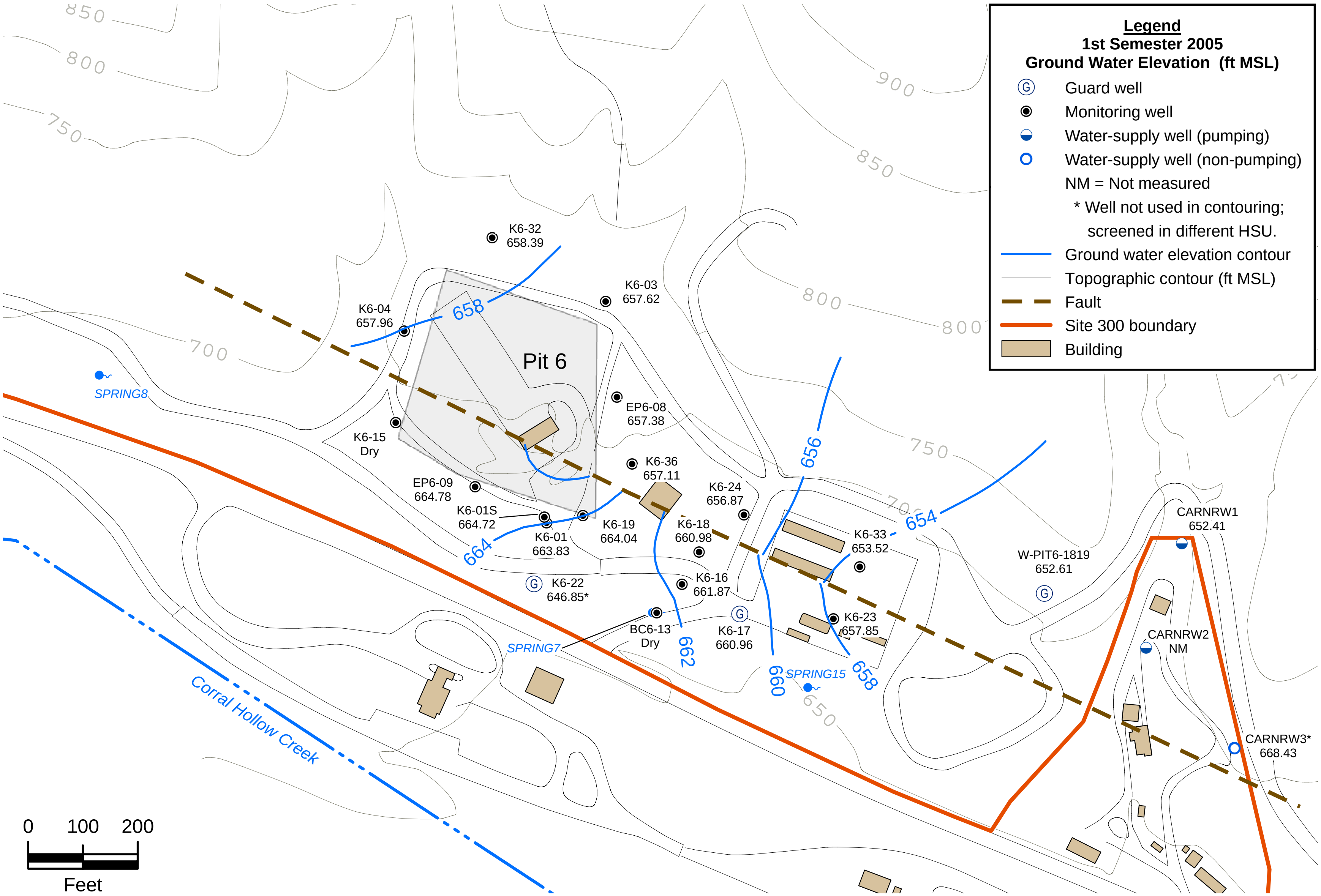


Figure 2.3-2. Pit 6 Landfill OU ground water potentiometric surface map for the first water-bearing zone.

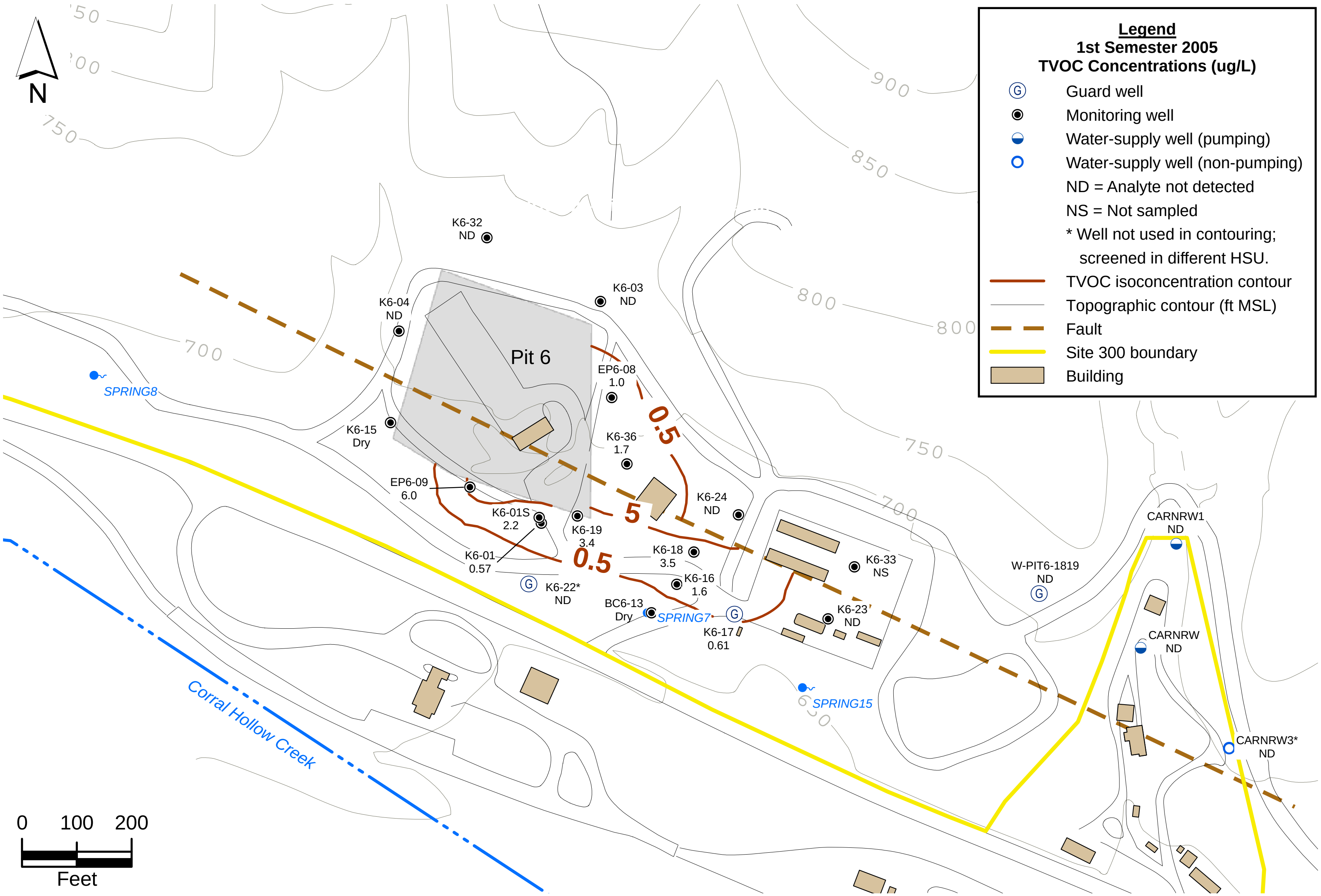


Figure 2.3-3. Pit 6 Landfill OU TVOC isoconcentration contour map for the first water-bearing zone.

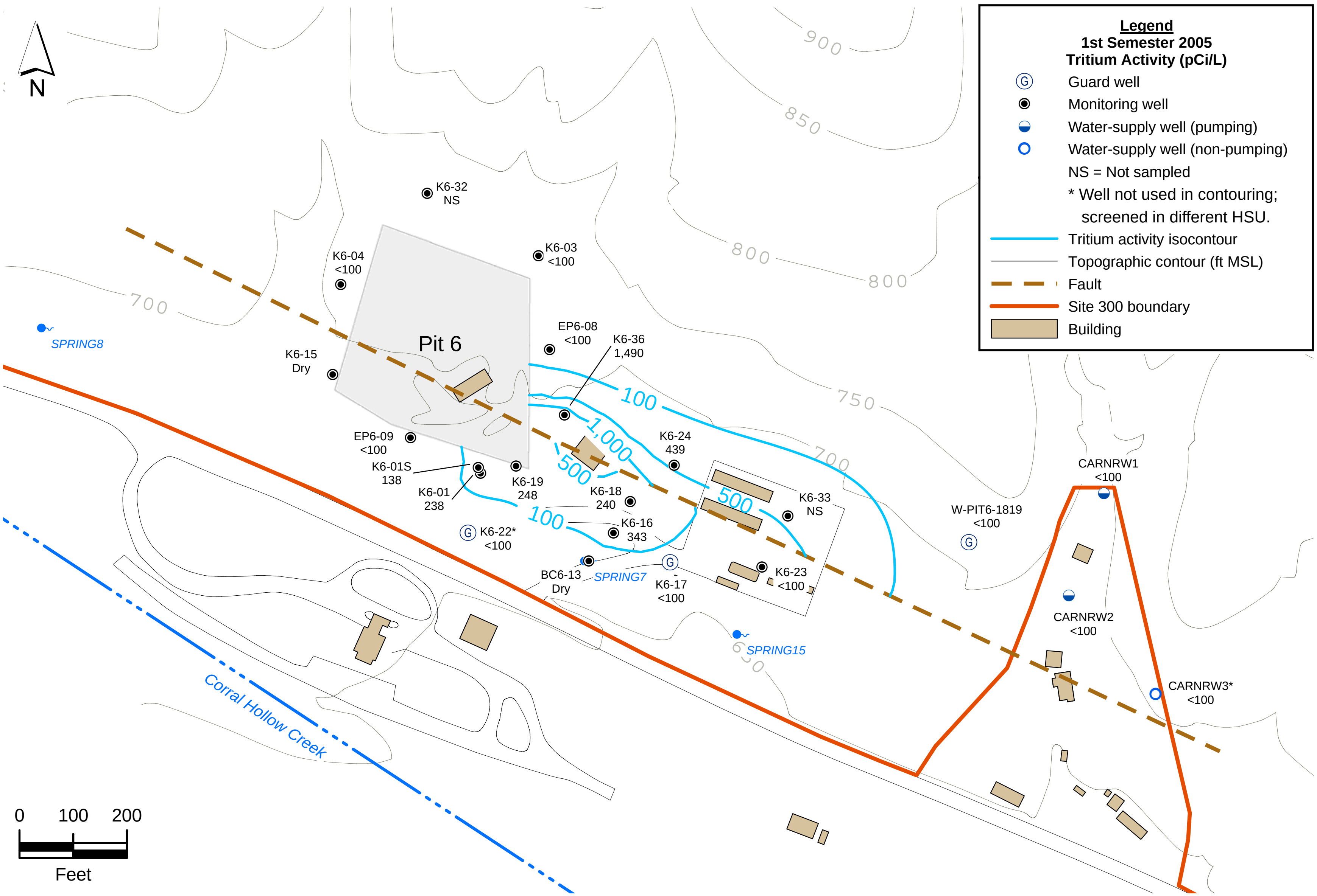


Figure 2.3-4. Pit 6 Landfill OU tritium isoconcentration contour map for the first water-bearing zone.

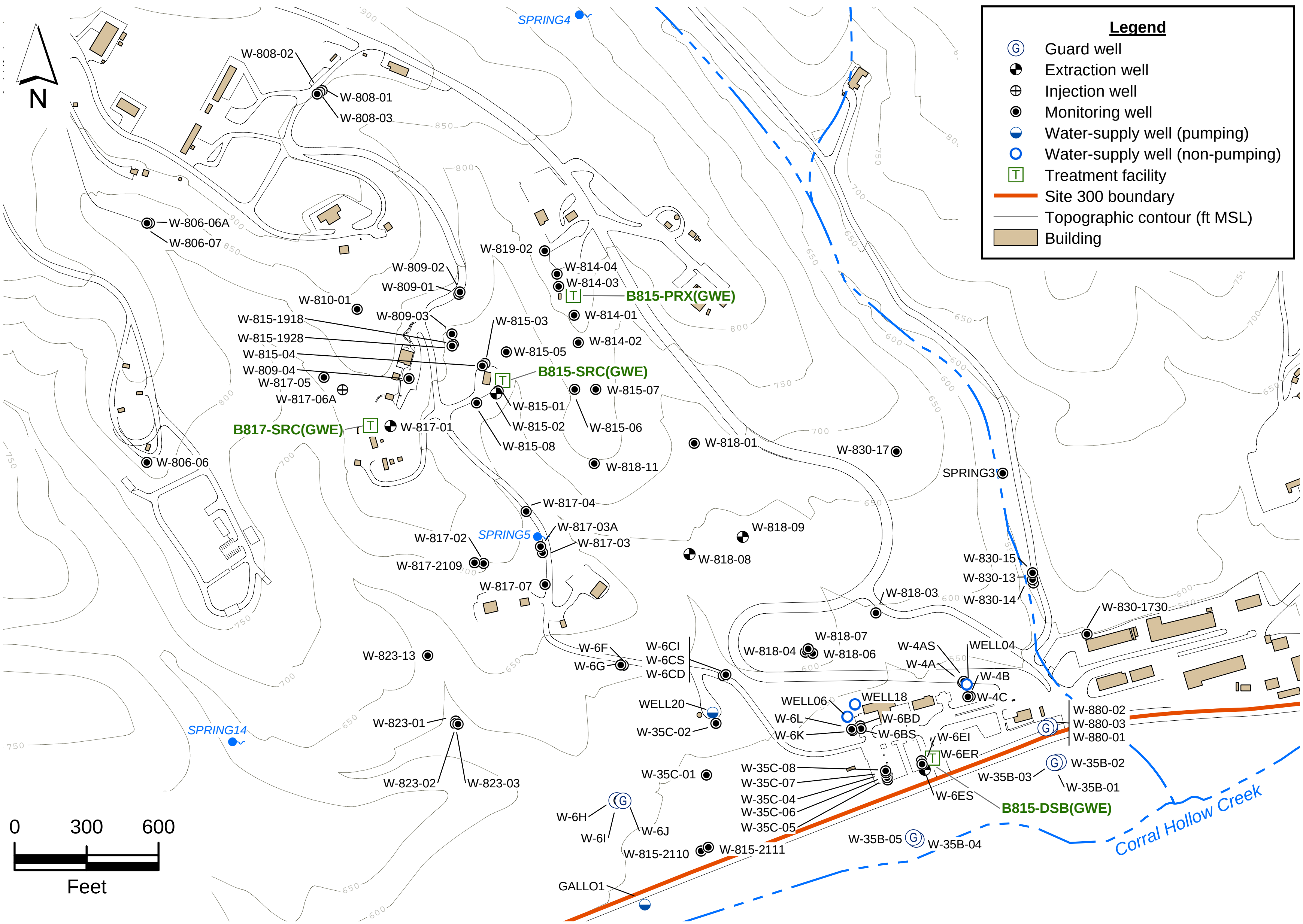


Figure 2.4-1. High Explosive Process Area OU site map showing monitoring, extraction and water-supply wells, and treatment facilities.

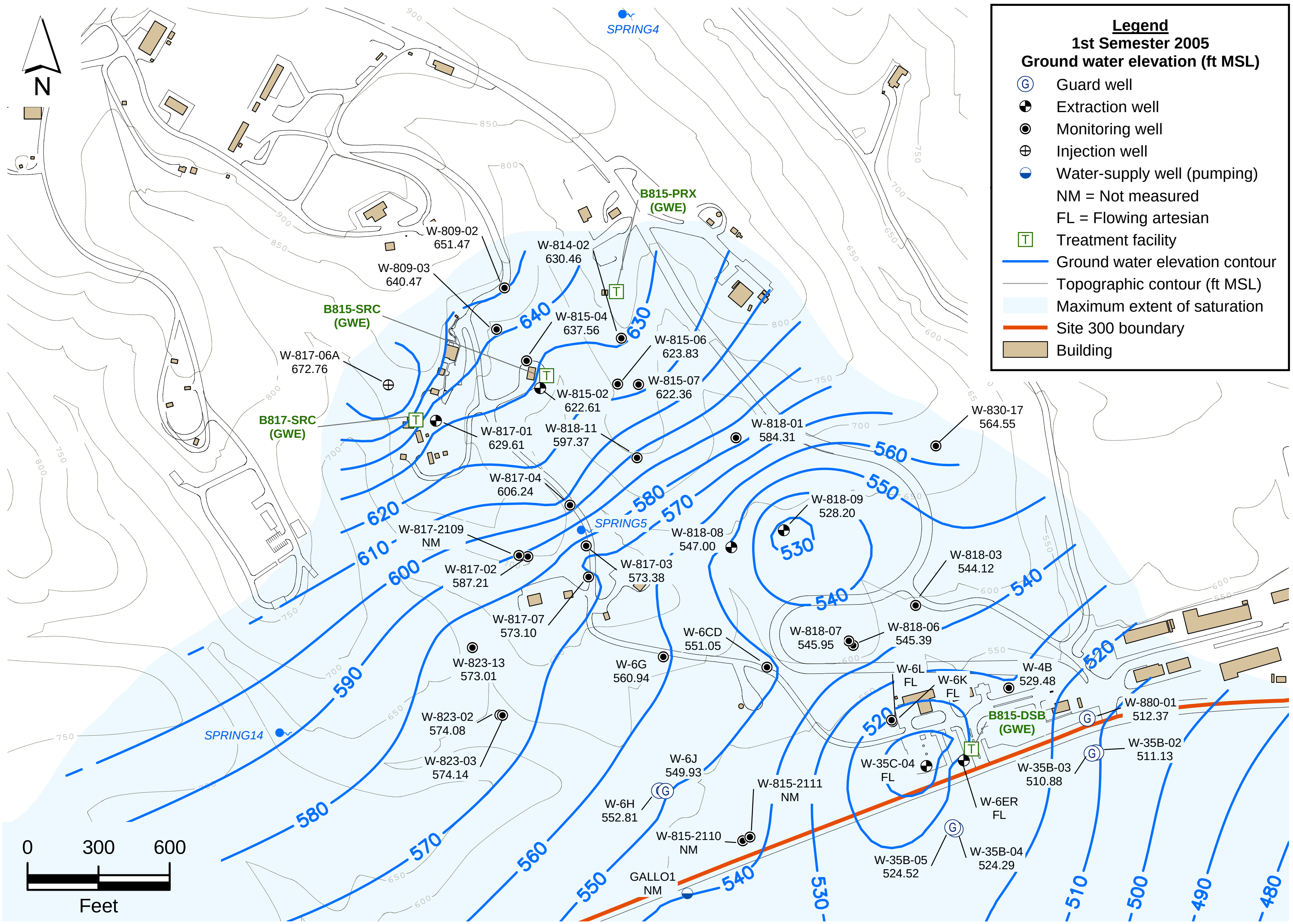


Figure 2.4-2. High Explosive Process Area OU ground water potentiometric surface map for the Tnbs$_2$ HSU.

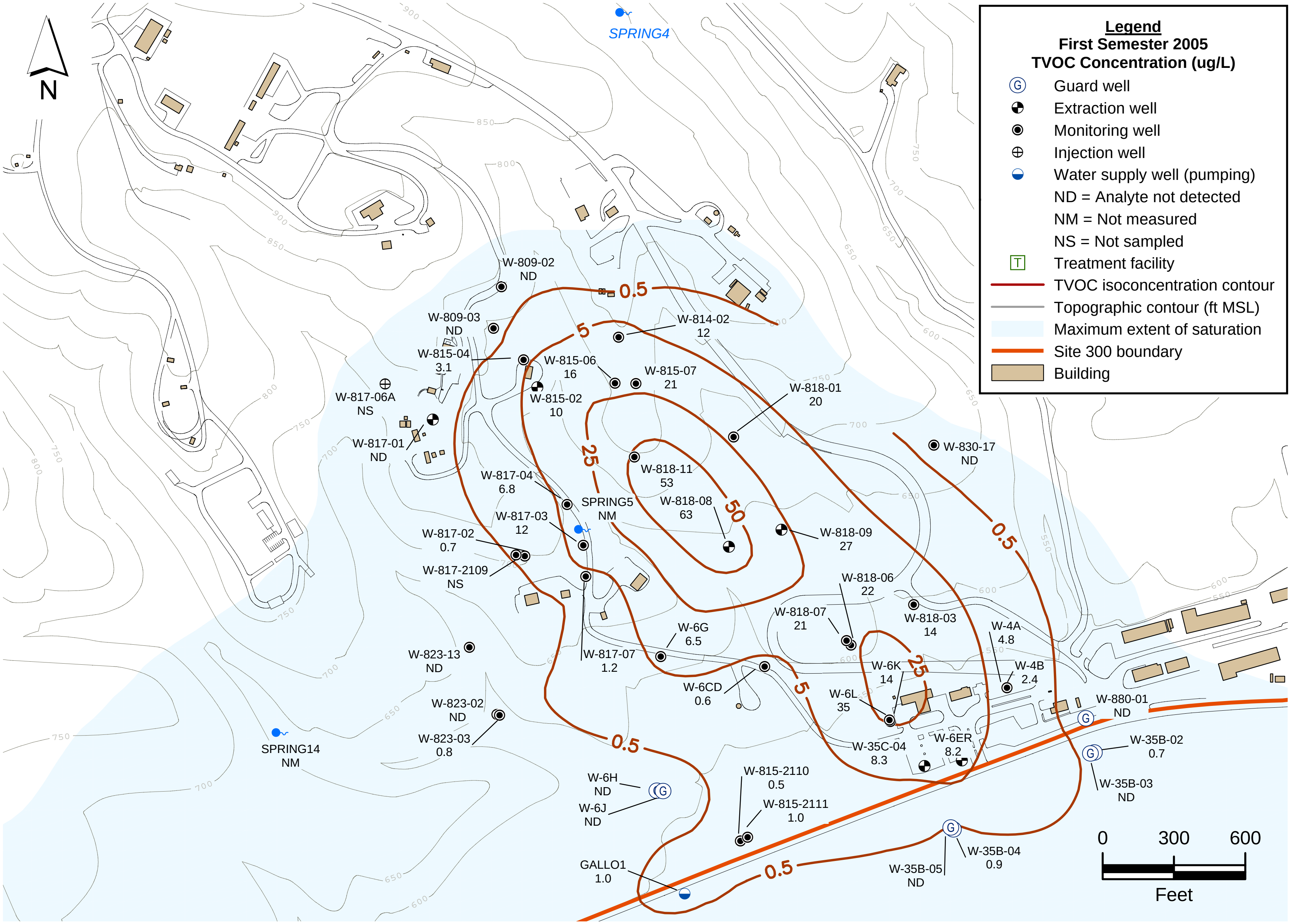


Figure 2.4-3. High Explosive Process Area TVOC isoconcentration contour map for the Tnbs$_2$ HSU.

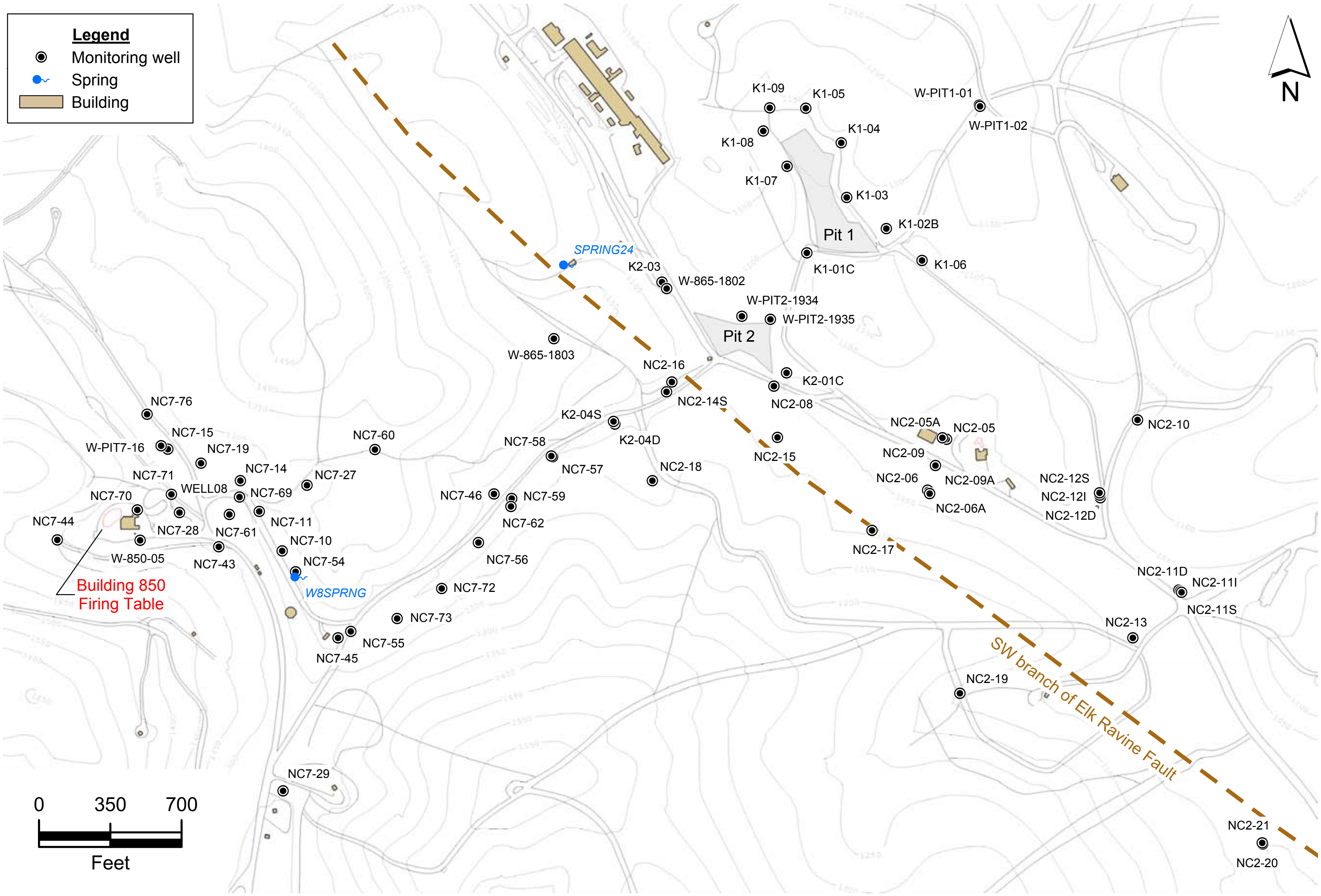


Figure 2.5-1. Building 850 OU site map showing monitoring wells and springs.

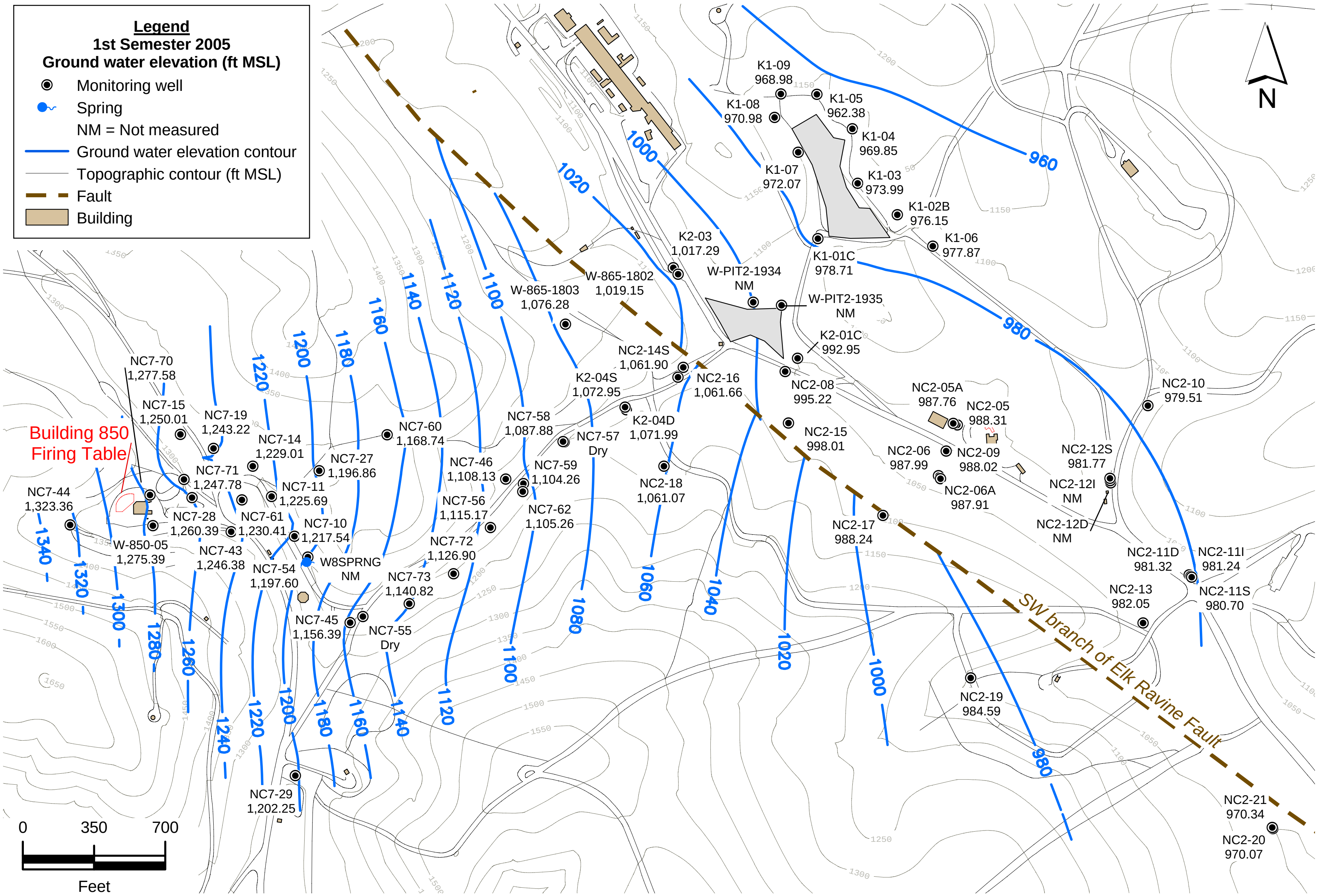


Figure 2.5-2. Building 850 OU ground water potentiometric surface map for the Qal-Tnbs$_1$ HSU.

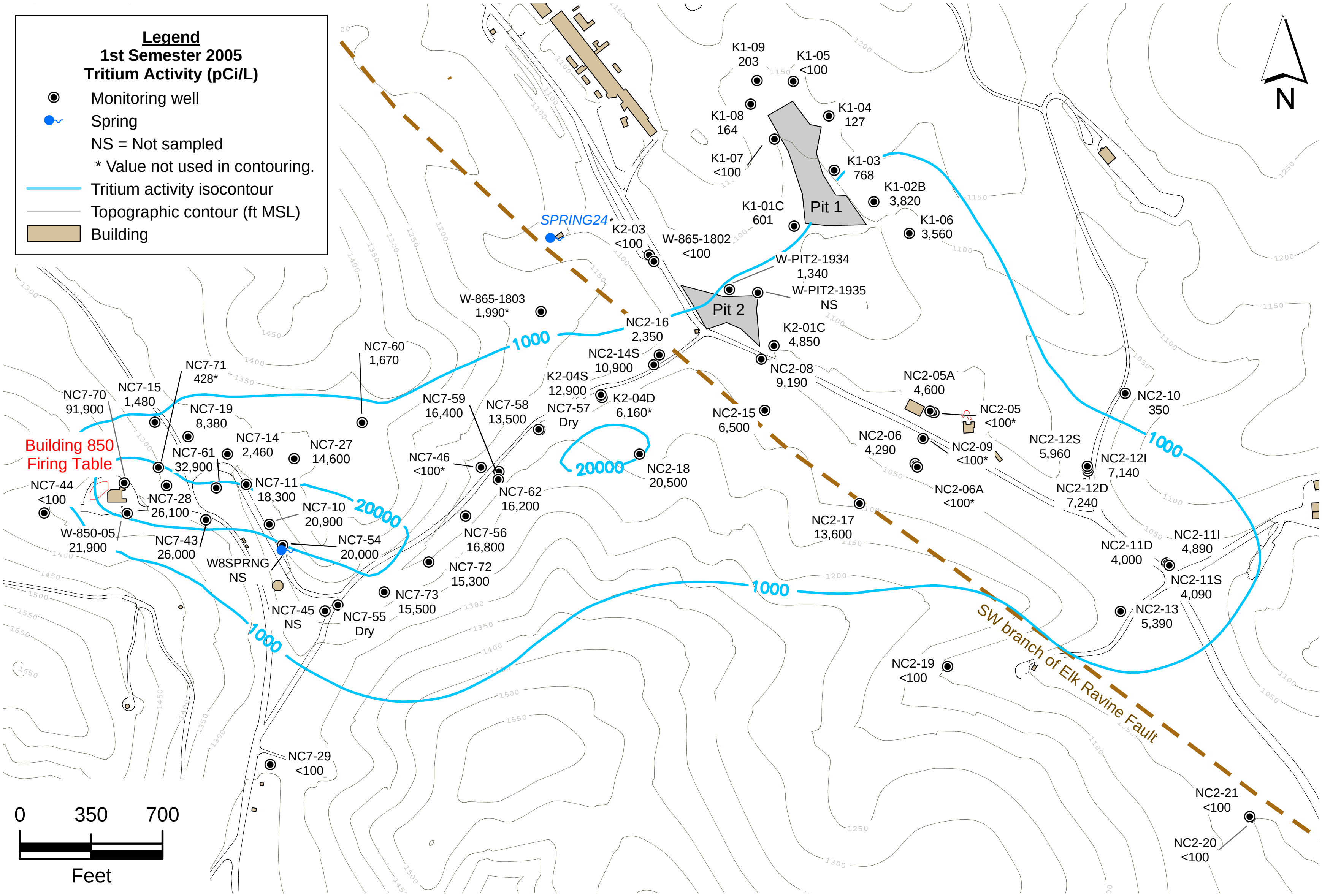


Figure 2.5-3. Building 850 OU tritium isoconcentration contour map for the Qal-Tnbs$_1$ HSU.

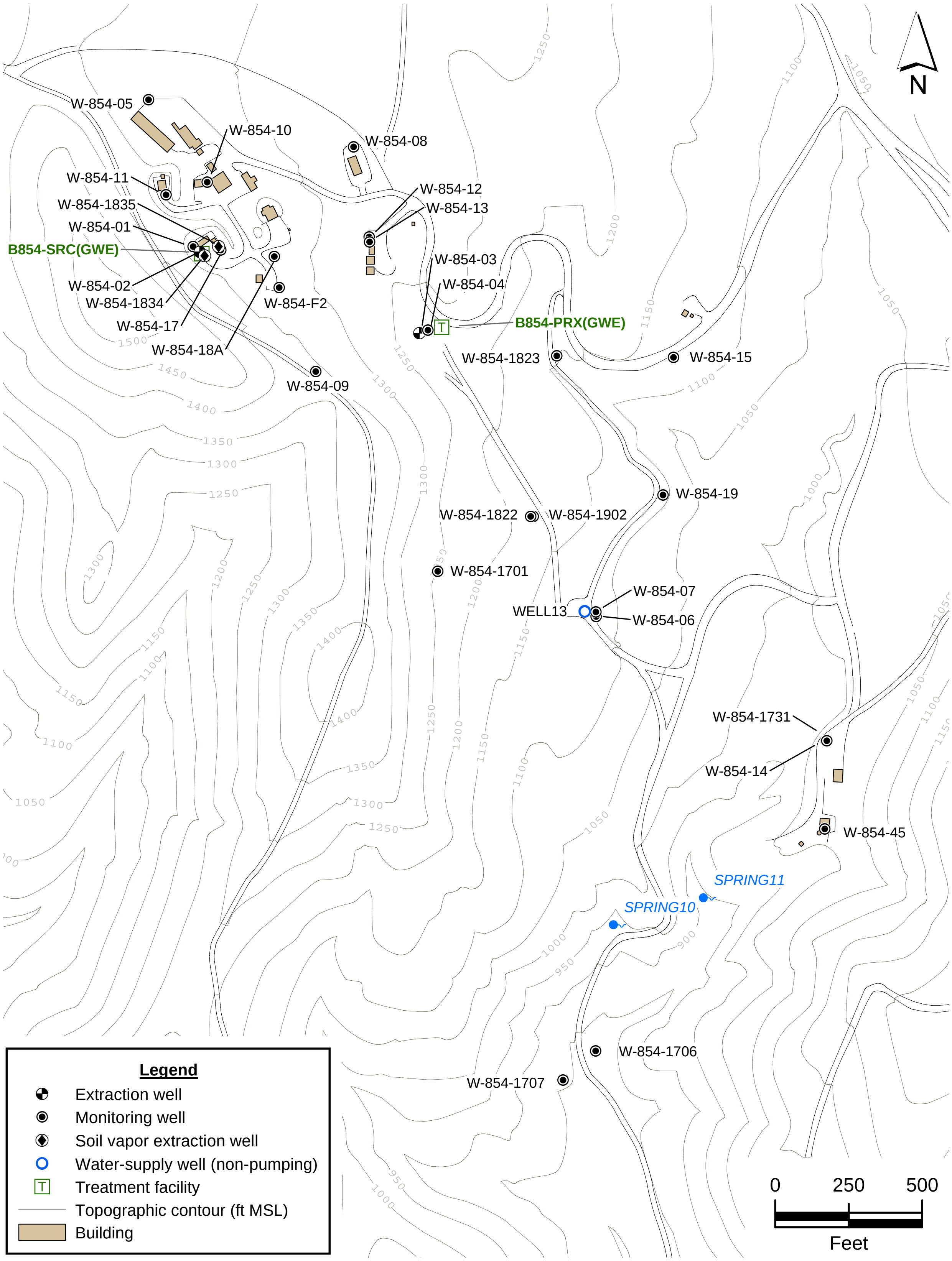


Figure 2.6-1. Building 854 OU site map showing monitoring and extraction wells, and treatment facilities.

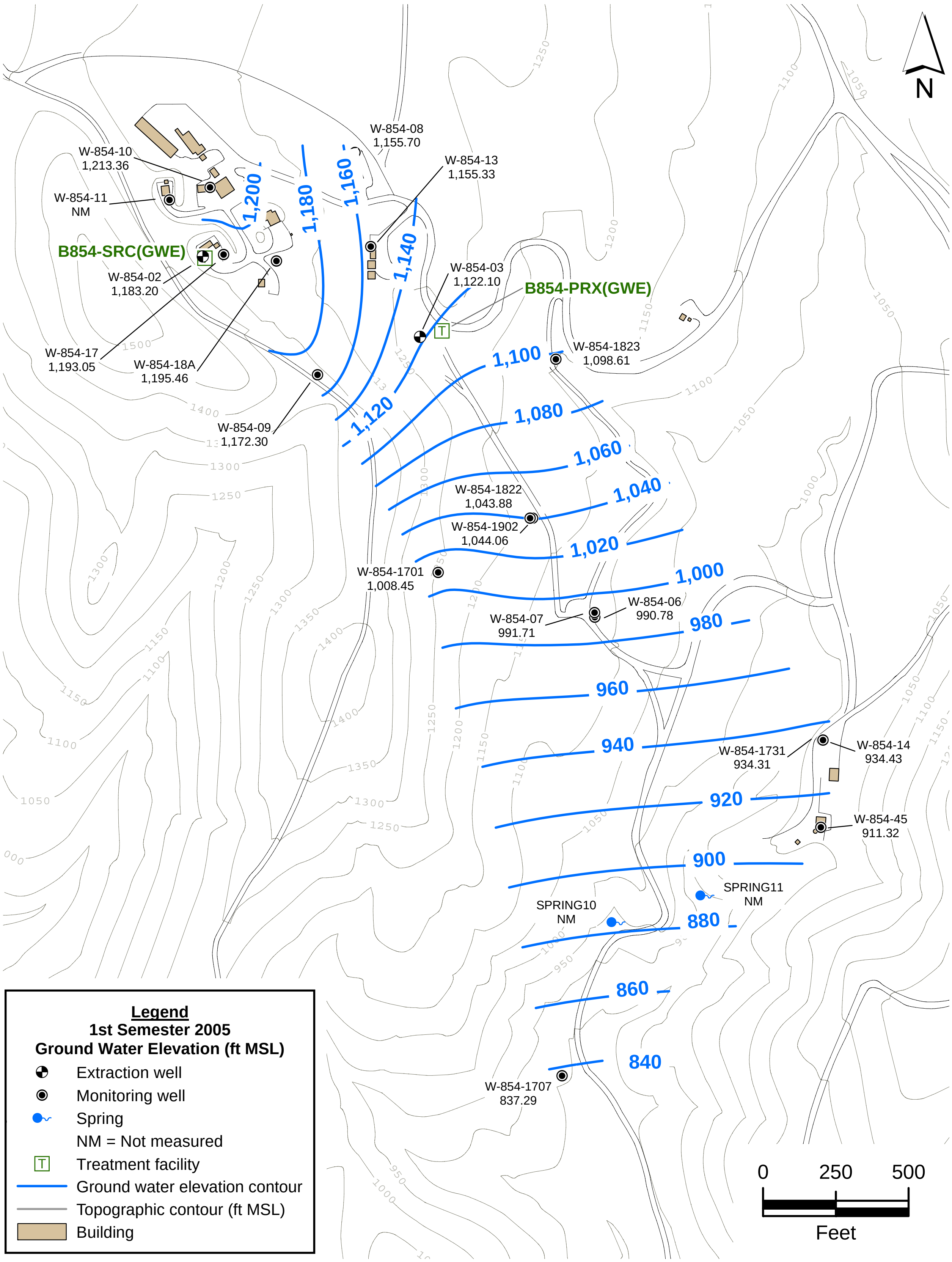


Figure 2.6-2. Building 854 OU ground water potentiometric surface map for the Tnbs$_1$/Tnsc$_0$ HSU.

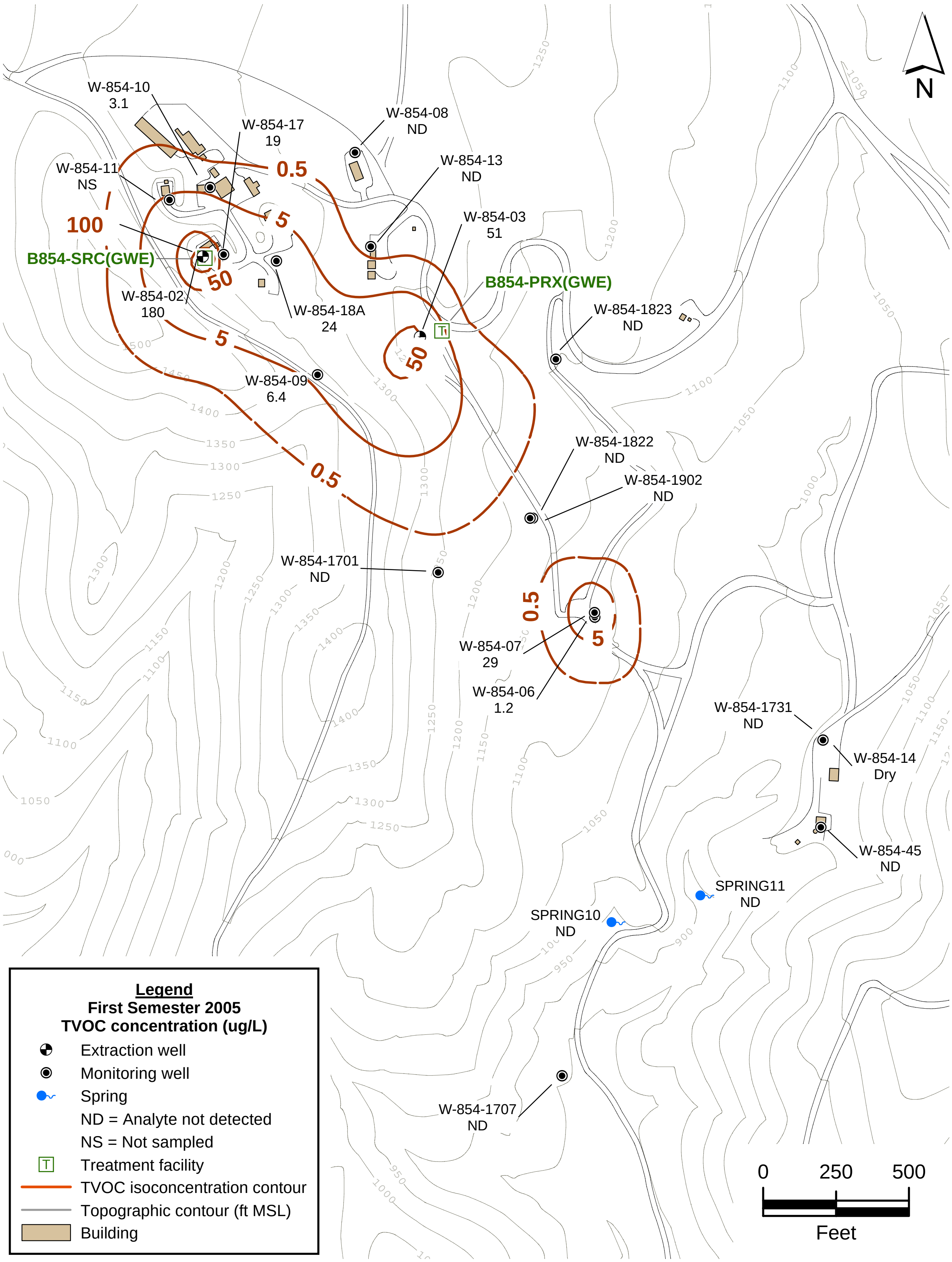


Figure 2.6-3. Building 854 OU TVOC isoconcentration contour map for the $Tnbs_1/Tnsc_0$ HSU.

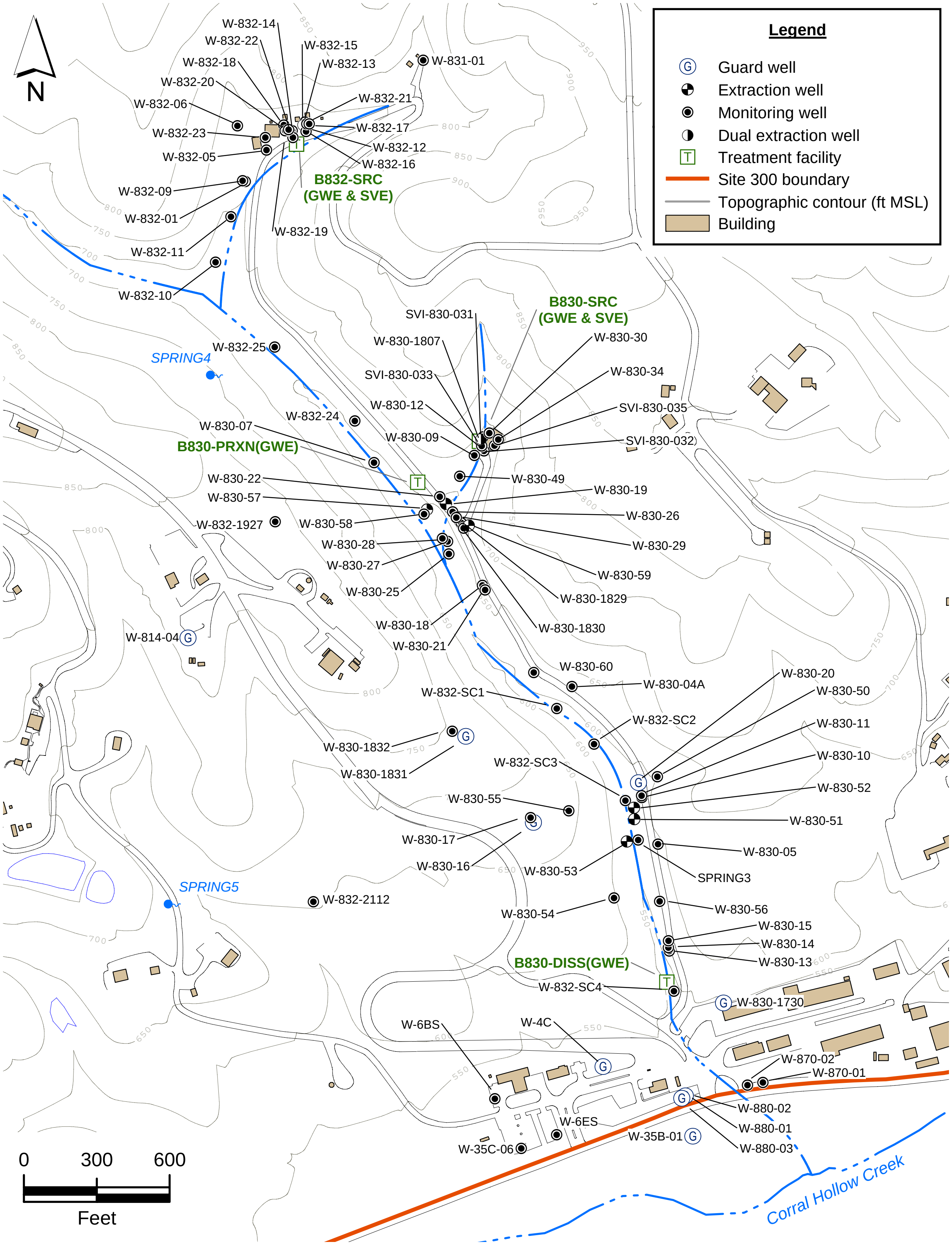


Figure 2.7-1. Building 832 Canyon OU site map showing monitoring, extraction and water-supply wells, and treatment facilities.

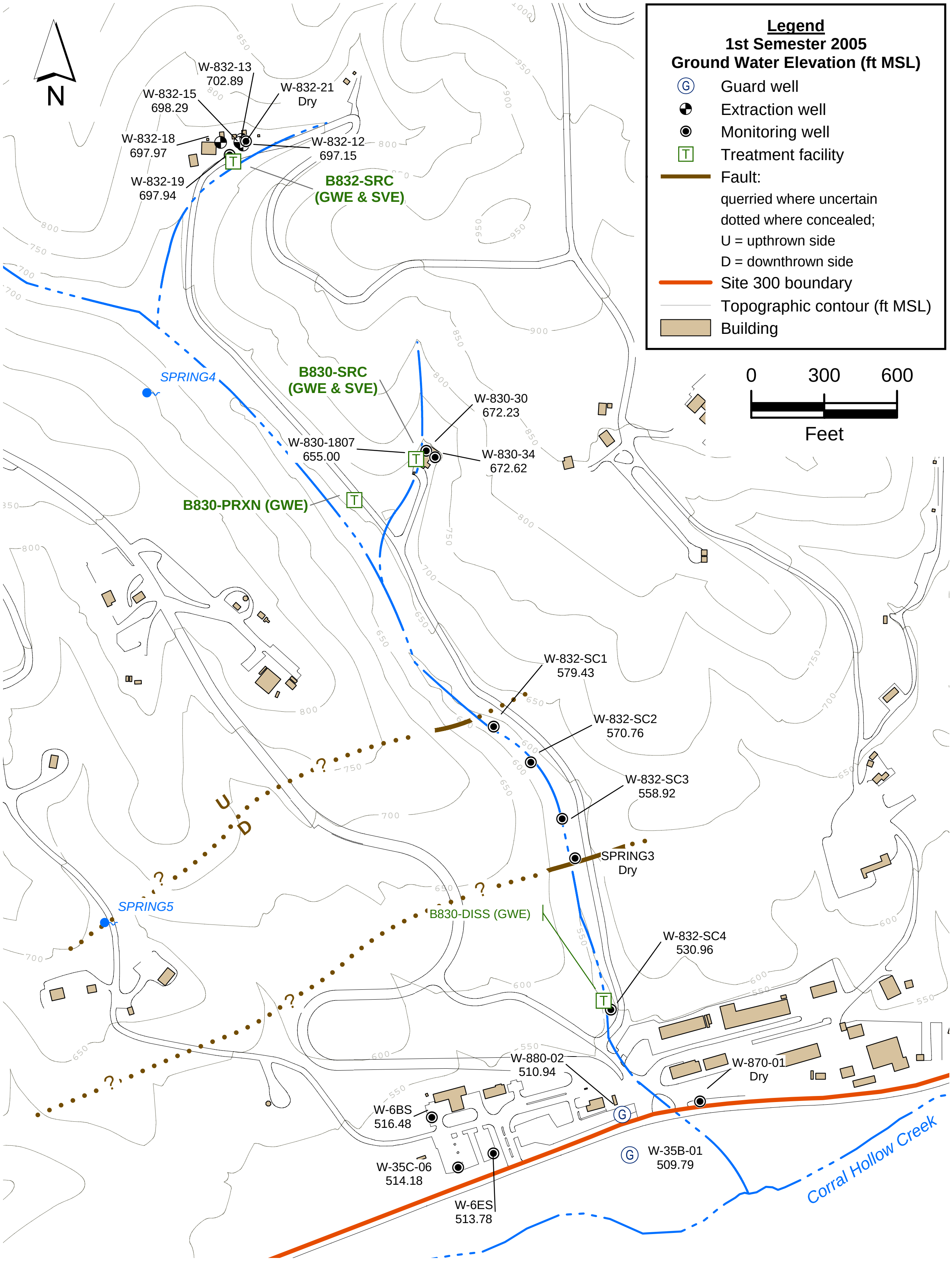


Figure 2.7-2. Building 832 Canyon OU map showing ground water elevations for the Qal/Fill.

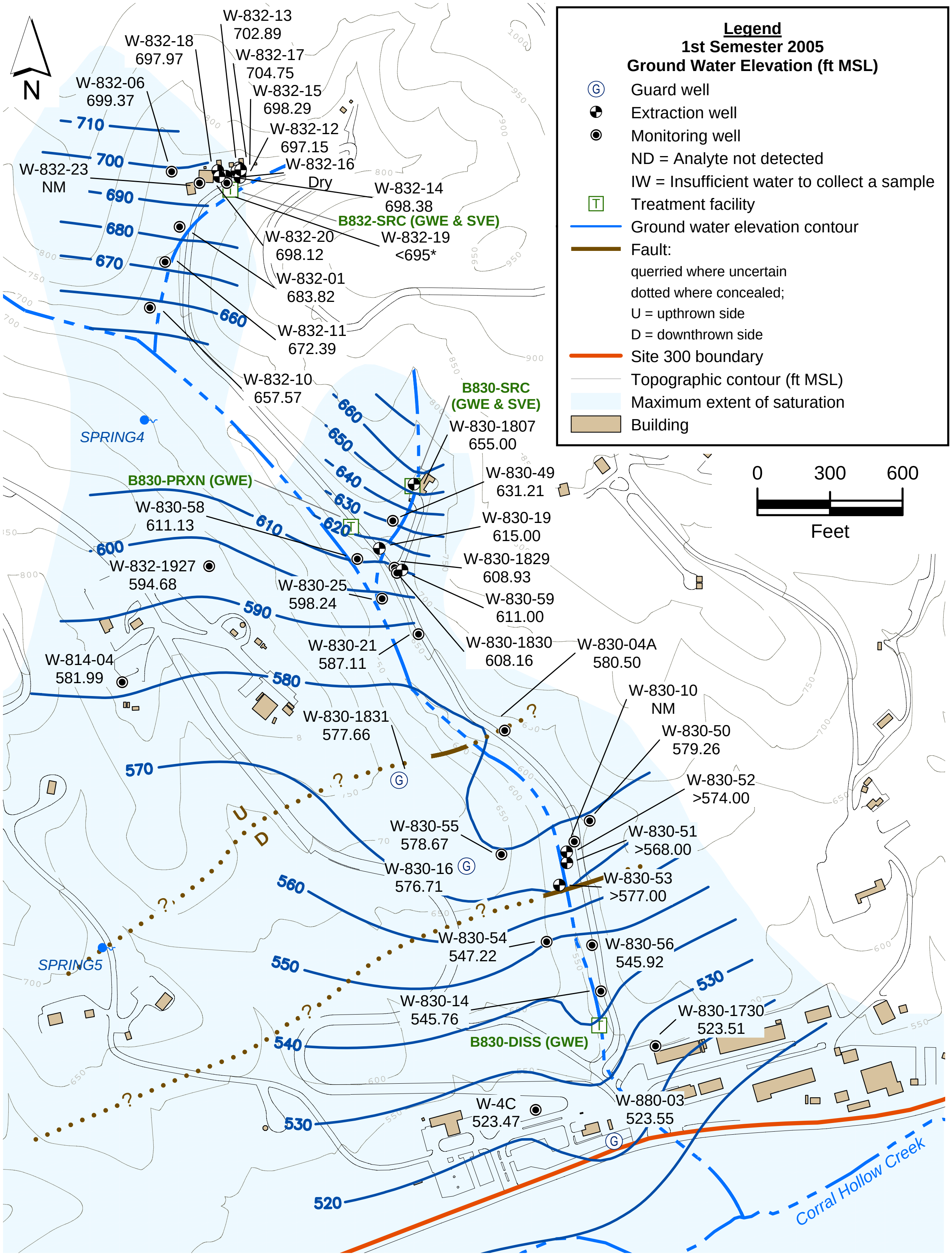


Figure 2.7-3. Building 832 Canyon OU ground water potentiometric surface map for the $Tnsc_{1b}$ HSU.

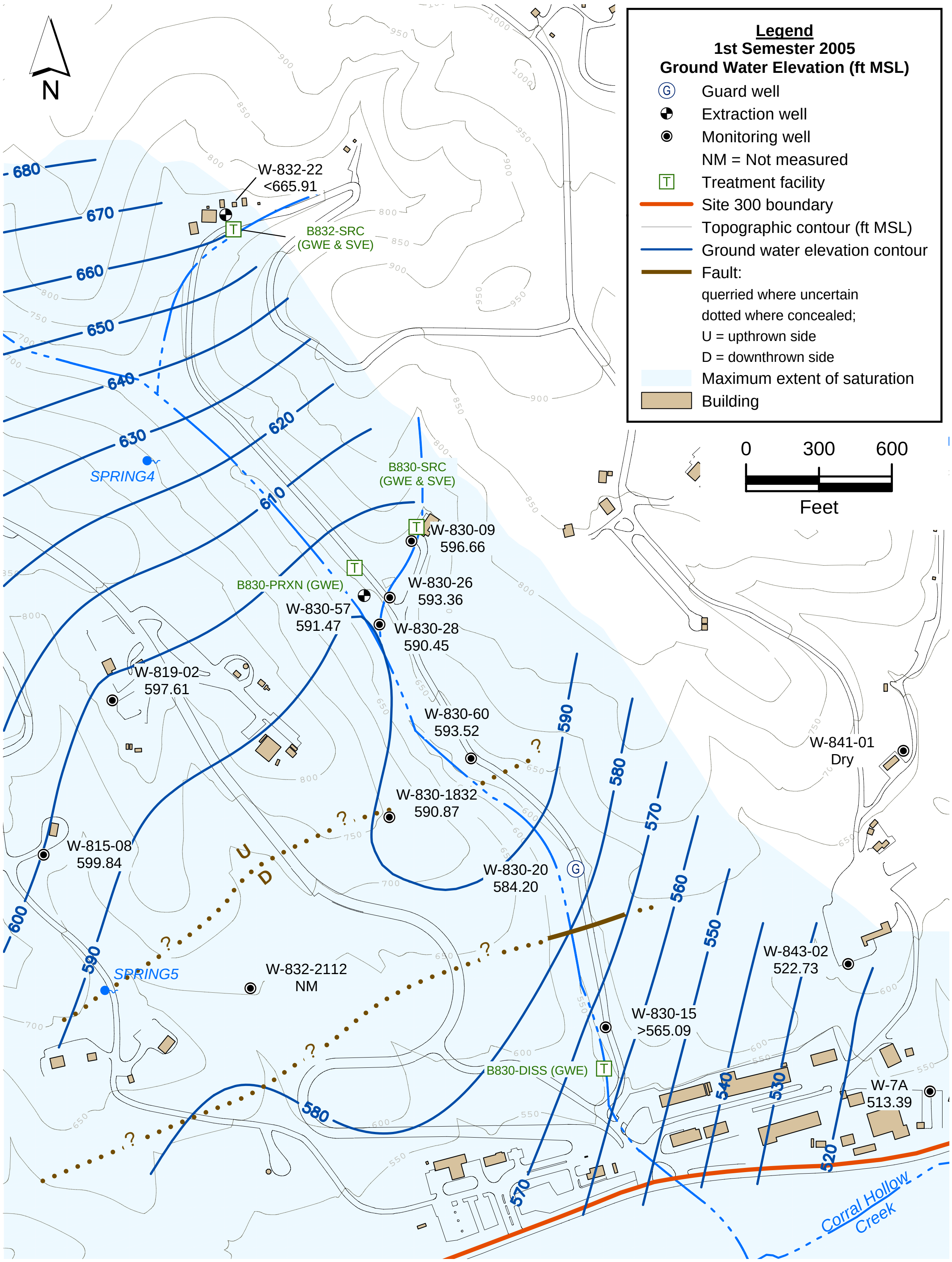


Figure 2.7-4. Building 832 Canyon OU ground water potentiomentric surface map for the Upper Tnbs$_1$ HSU.

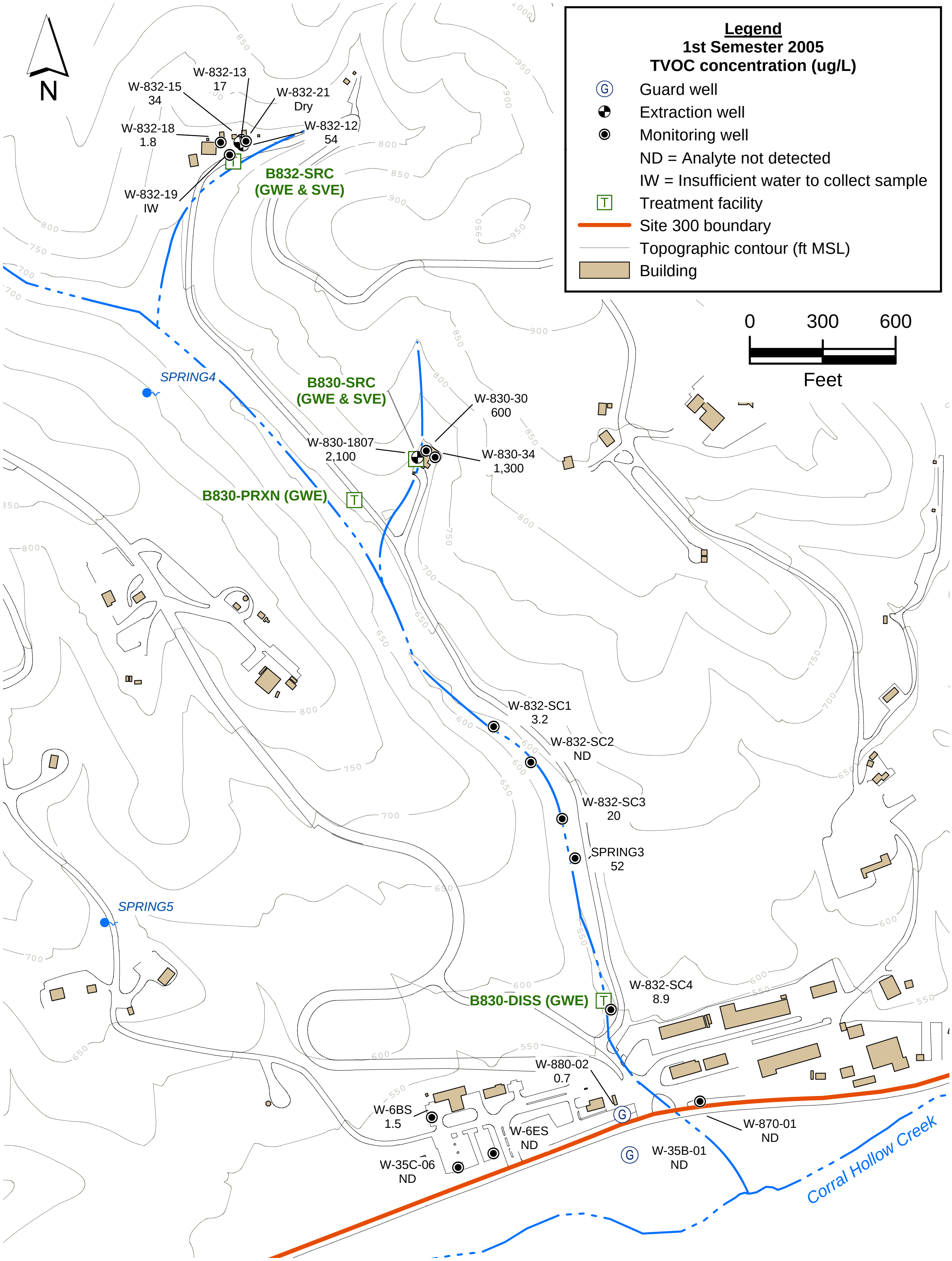


Figure 2.7-5. Building 832 Canyon OU map showing TVOC concentrations for the Qal/Fill.

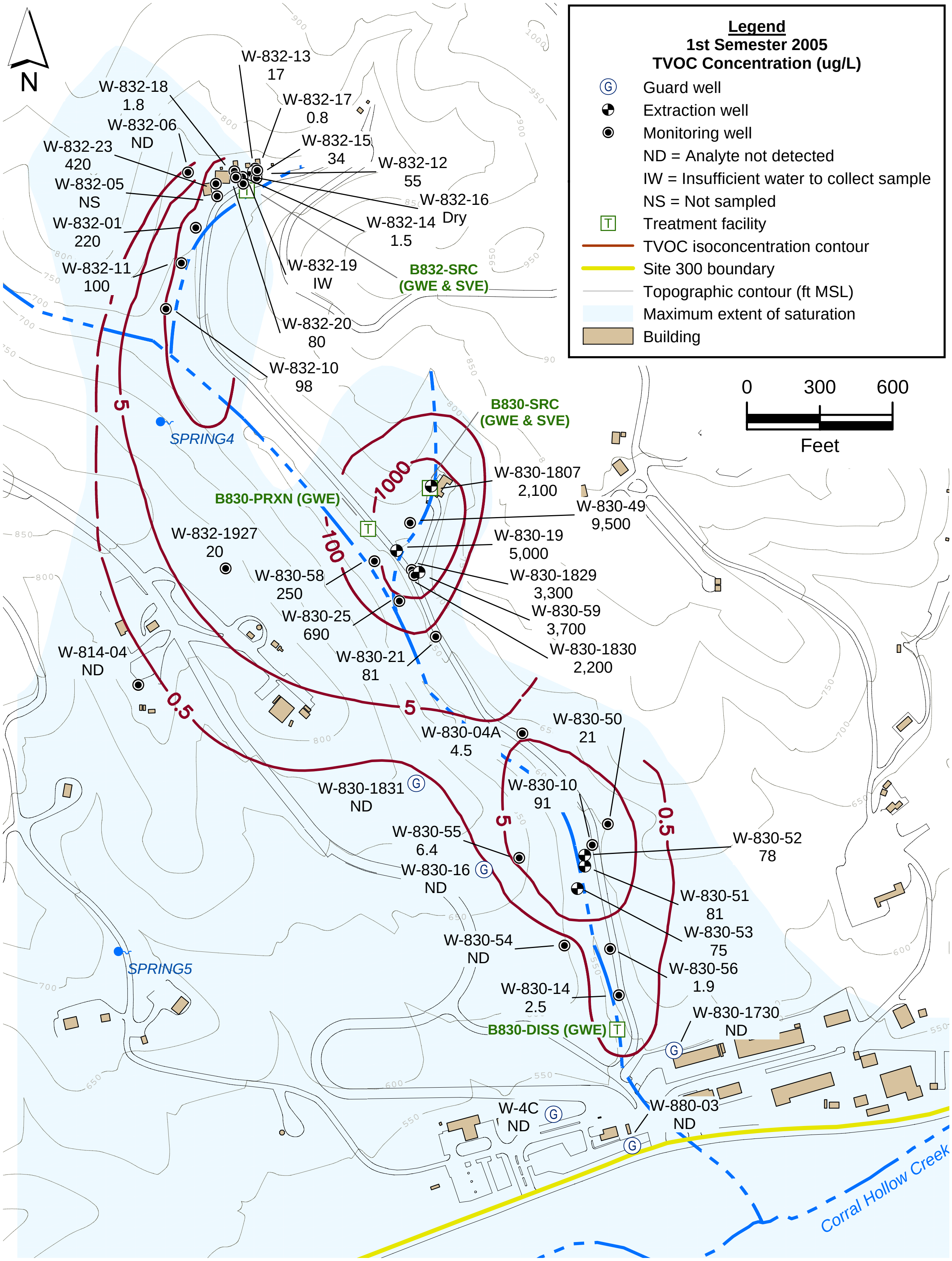


Figure 2.7-6. Building 832 Canyon OU TVOC isoconcentration contour map for the $Tnsc_{1b}$ HSU.

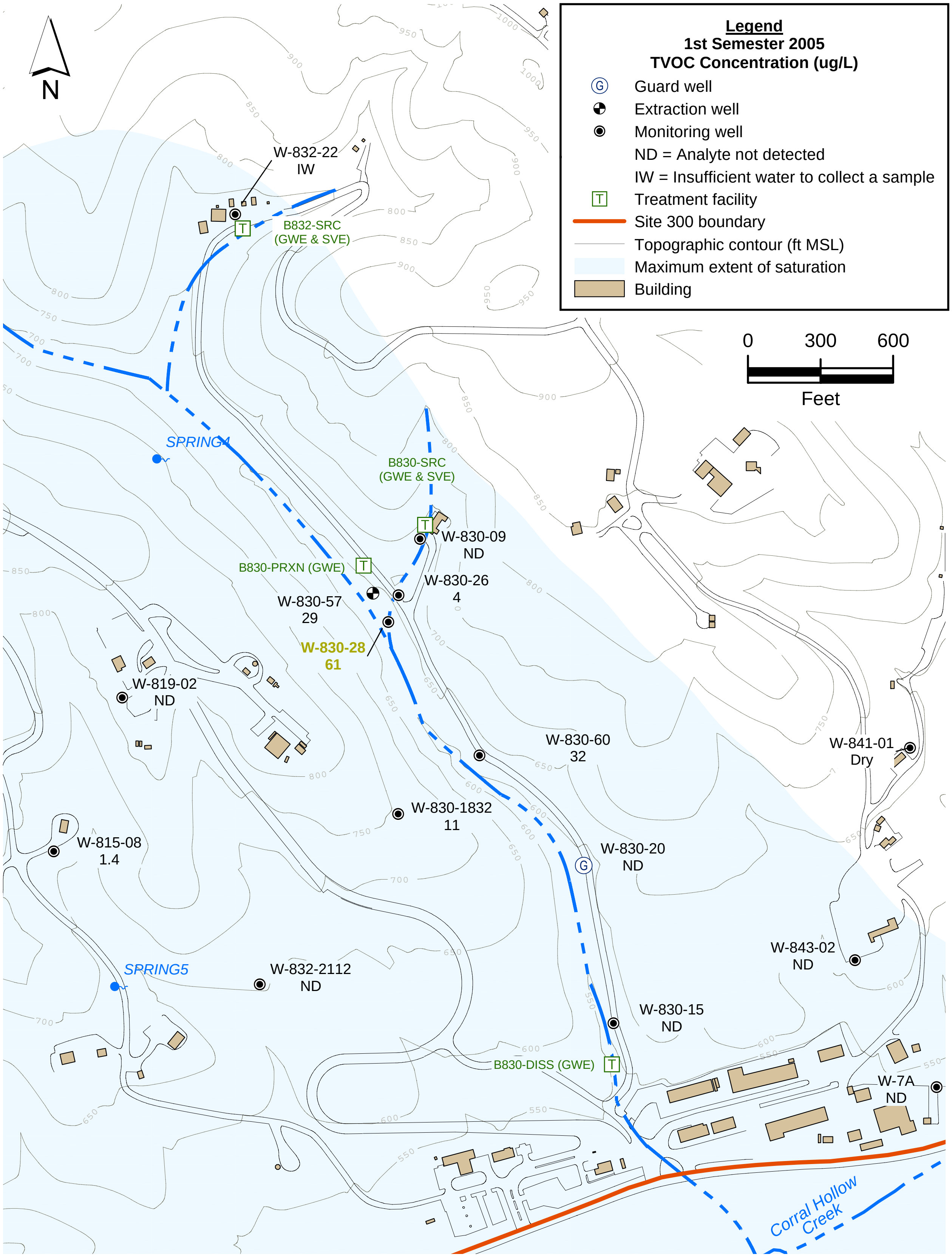


Figure 2.7-7. Building 832 Canyon OU map showing TVOC concentrations for the Upper Tnbs$_1$ HSU.

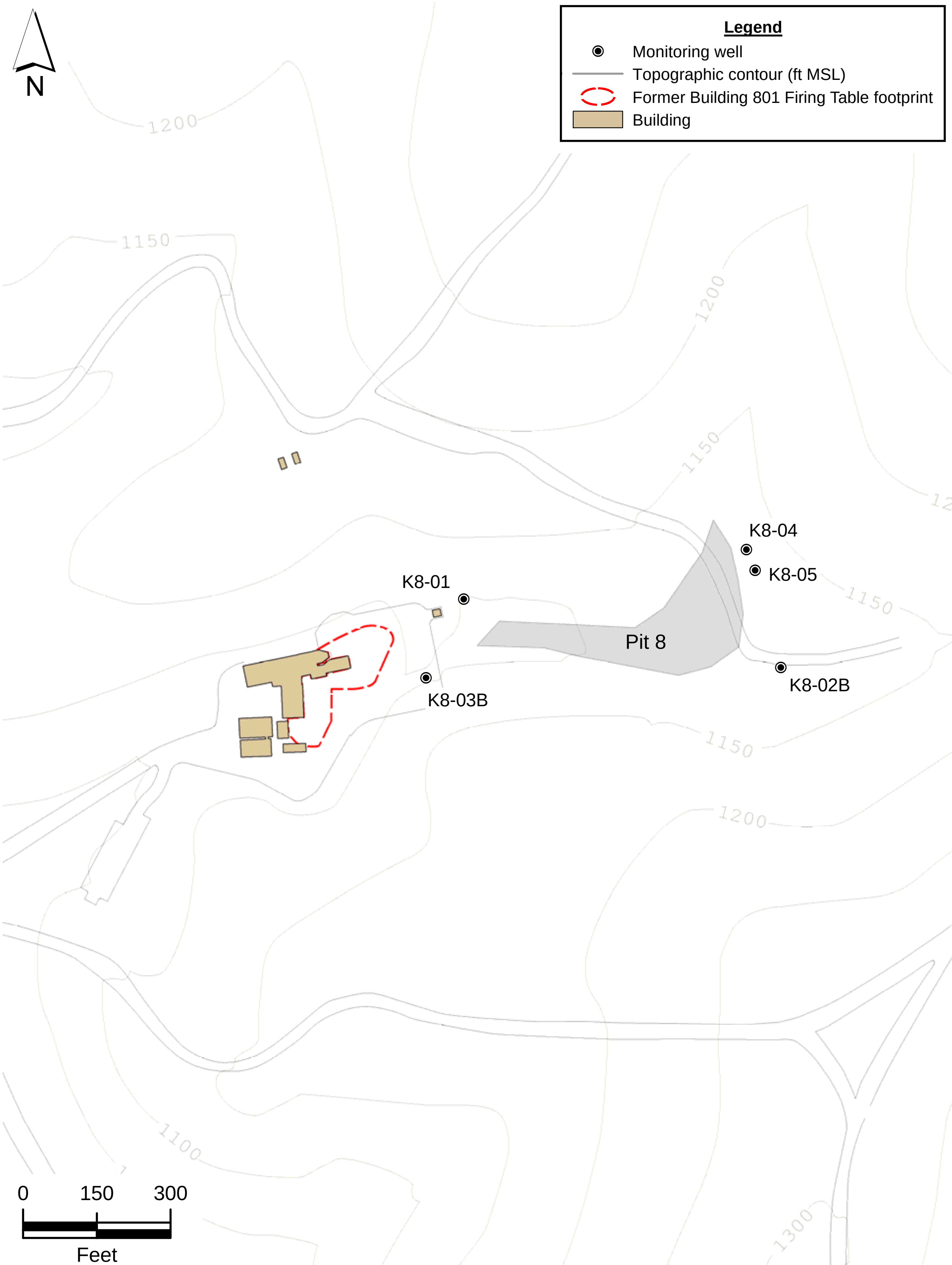


Figure 2.8-1. Building 801 Firing Table and Pit 8 Landfill site map showing monitoring wells.

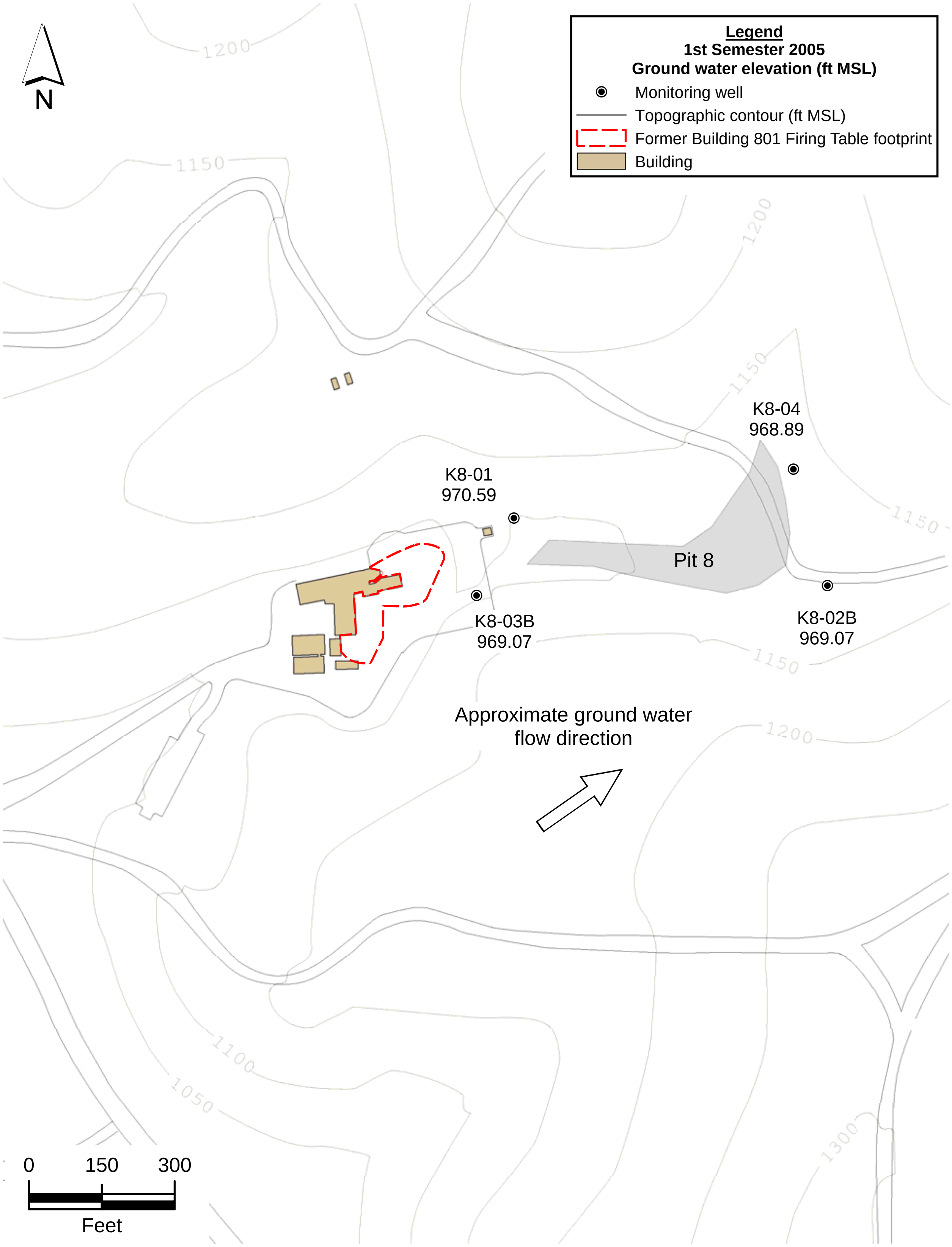


Figure 2.8-2. Building 801 Firing Table and Pit 8 Landfill site map showing ground water elevations and hydraulic gradient direction in the Tnbs$_1$ HSU.

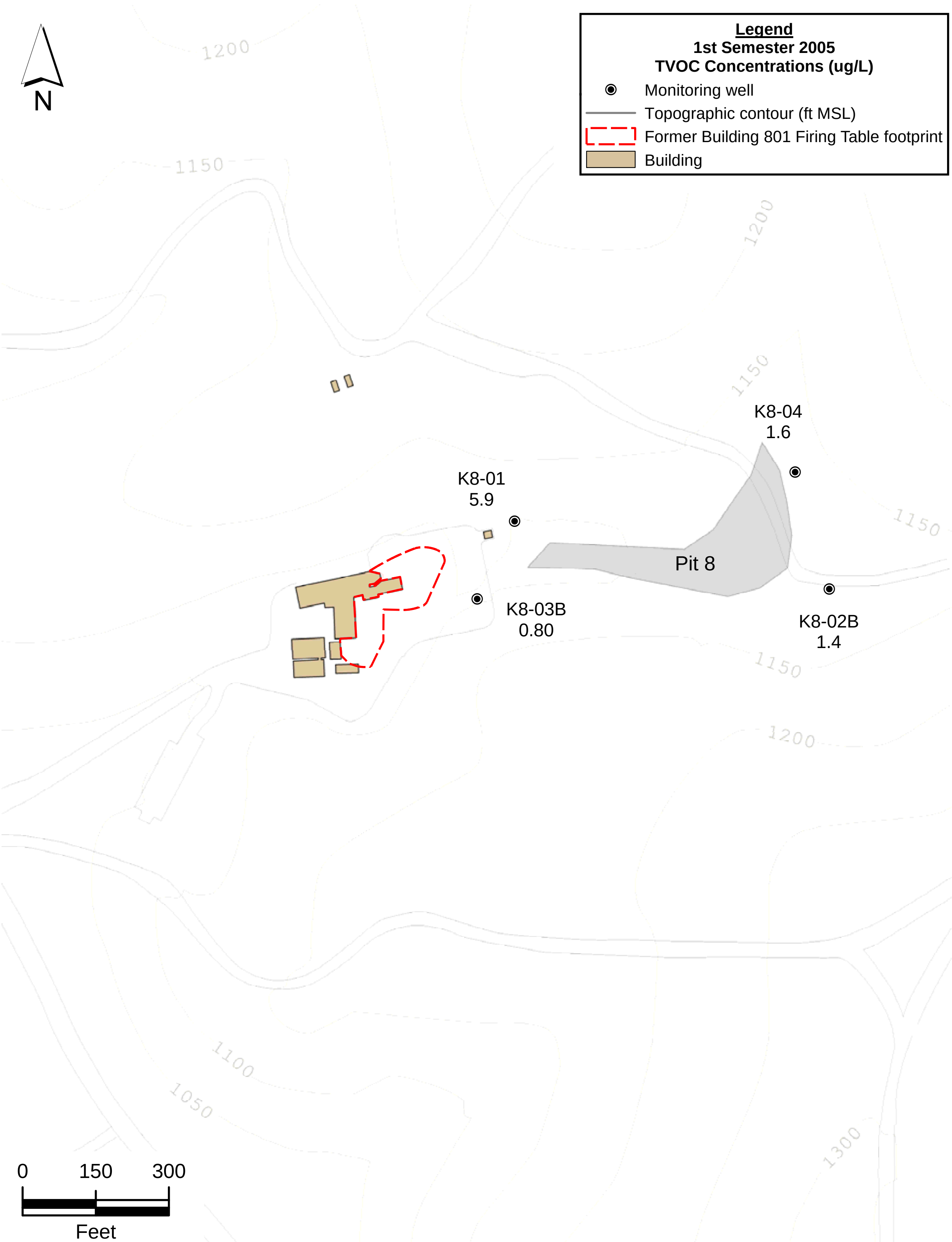


Figure 2.8-3. Building 801 Firing Table and Pit 8 Landfill site map showing TVOC concentrations in $Tnbs_1$ HSU wells.

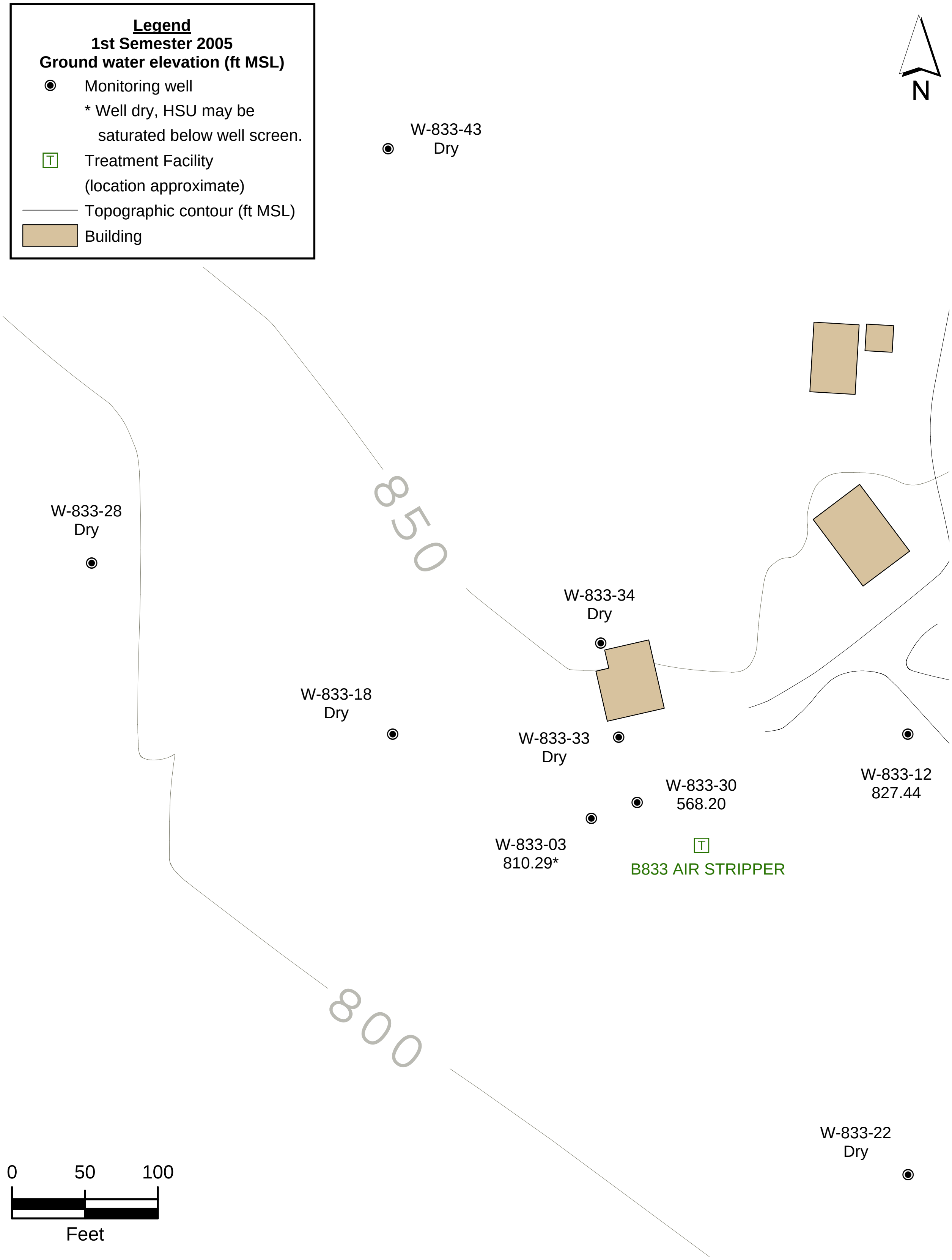


Figure 2.8-4. Building 833 site map showing ground water elevations.

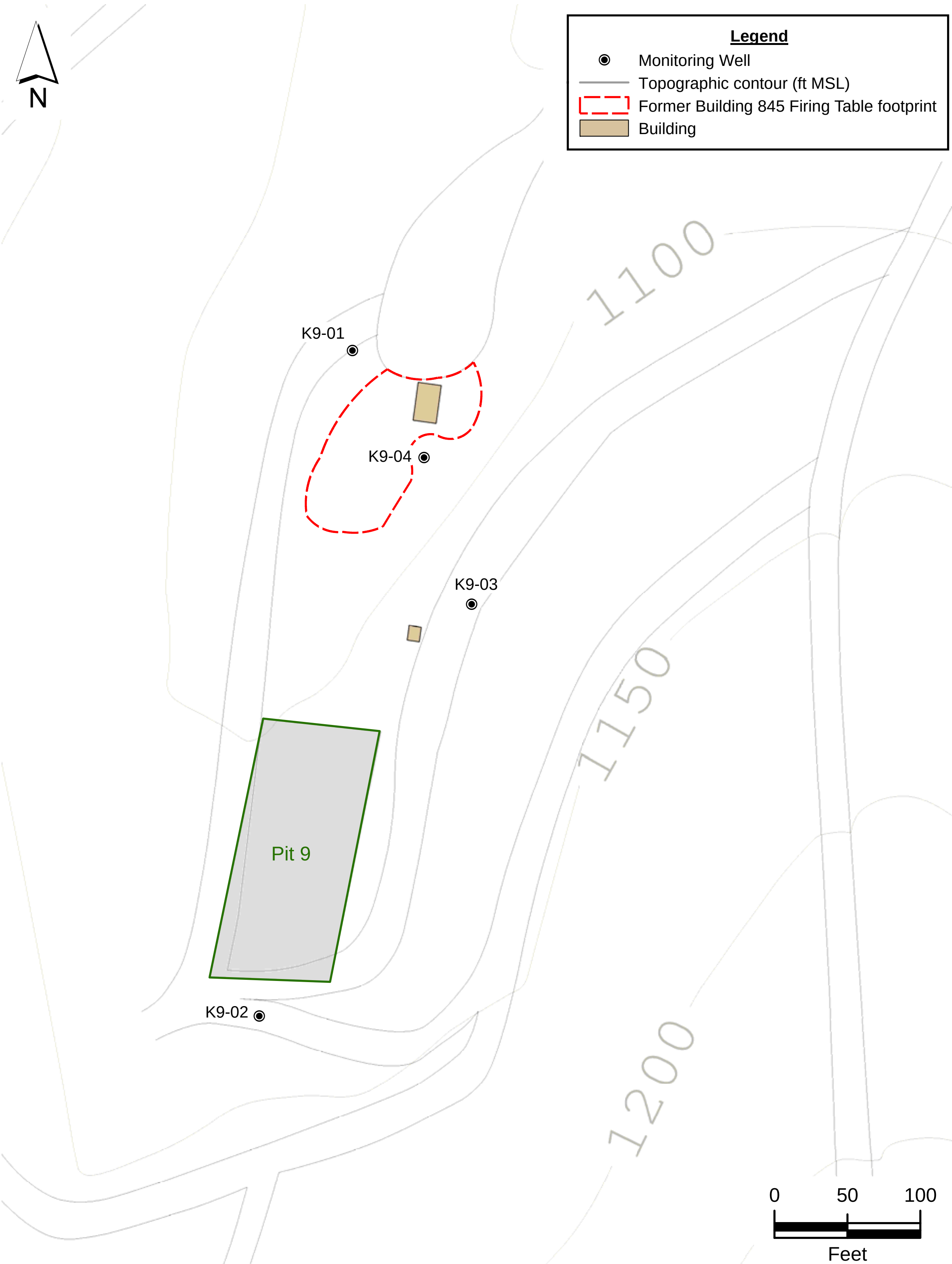


Figure 2.8-5. Building 845 Firing Table and Pit 9 Landfill site map showing monitoring wells.

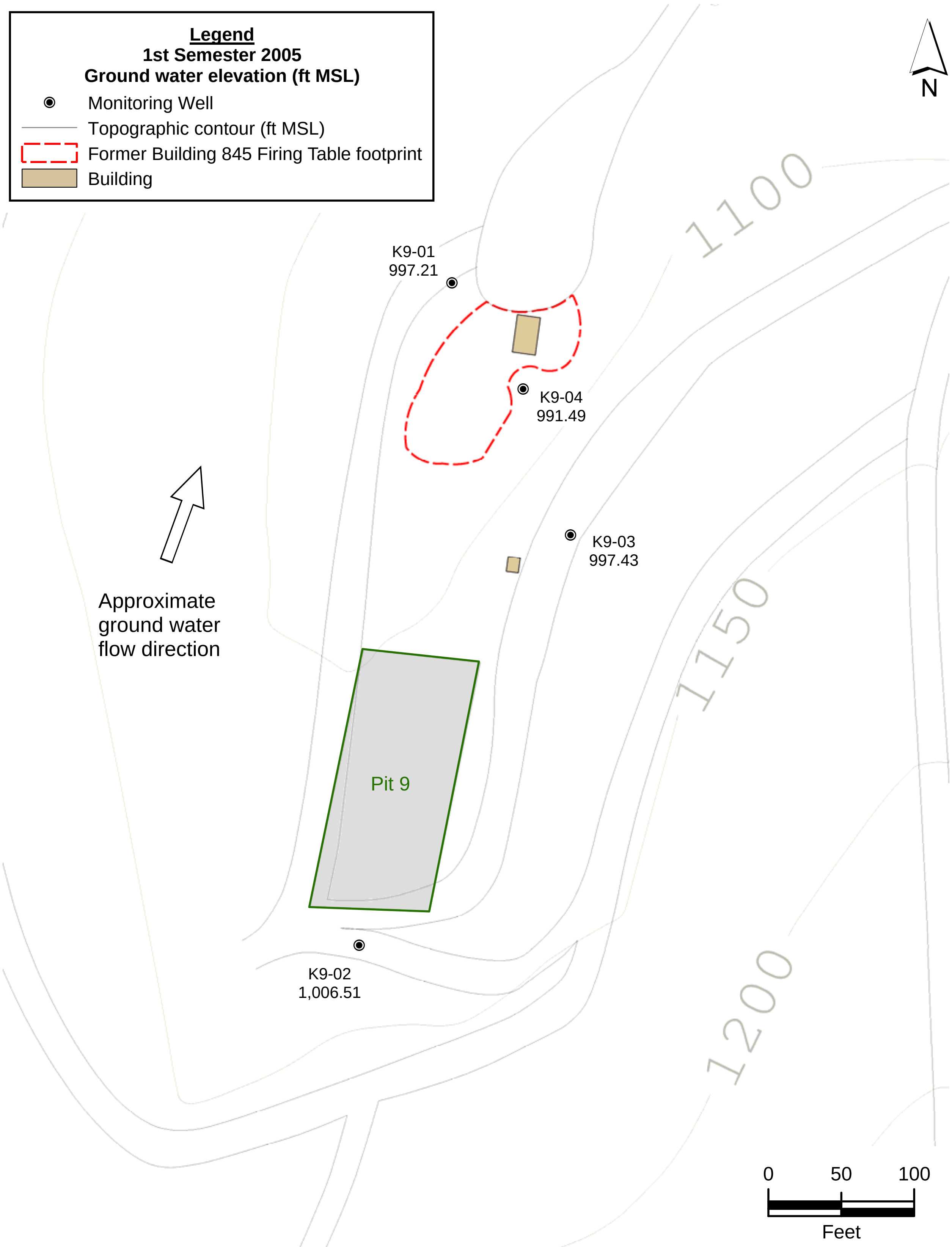


Figure 2.8-6. Building 845 Firing Table and Pit 9 Landfill site map showing ground water elevations and hydraulic gradient direction in the Tnsc$_0$ HSU.

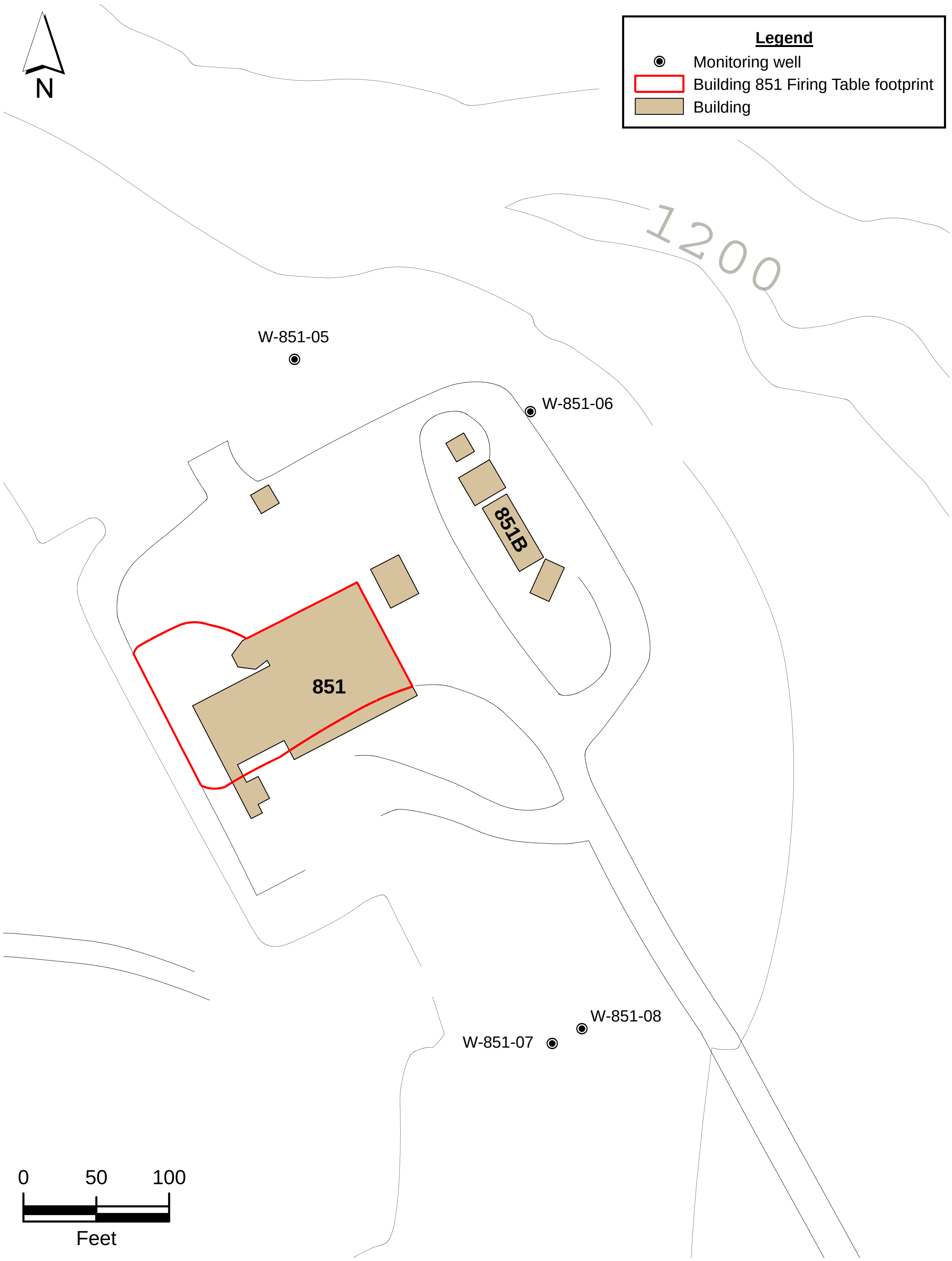


Figure 2.8-7. Building 851 Firing Table site map showing monitoring wells.

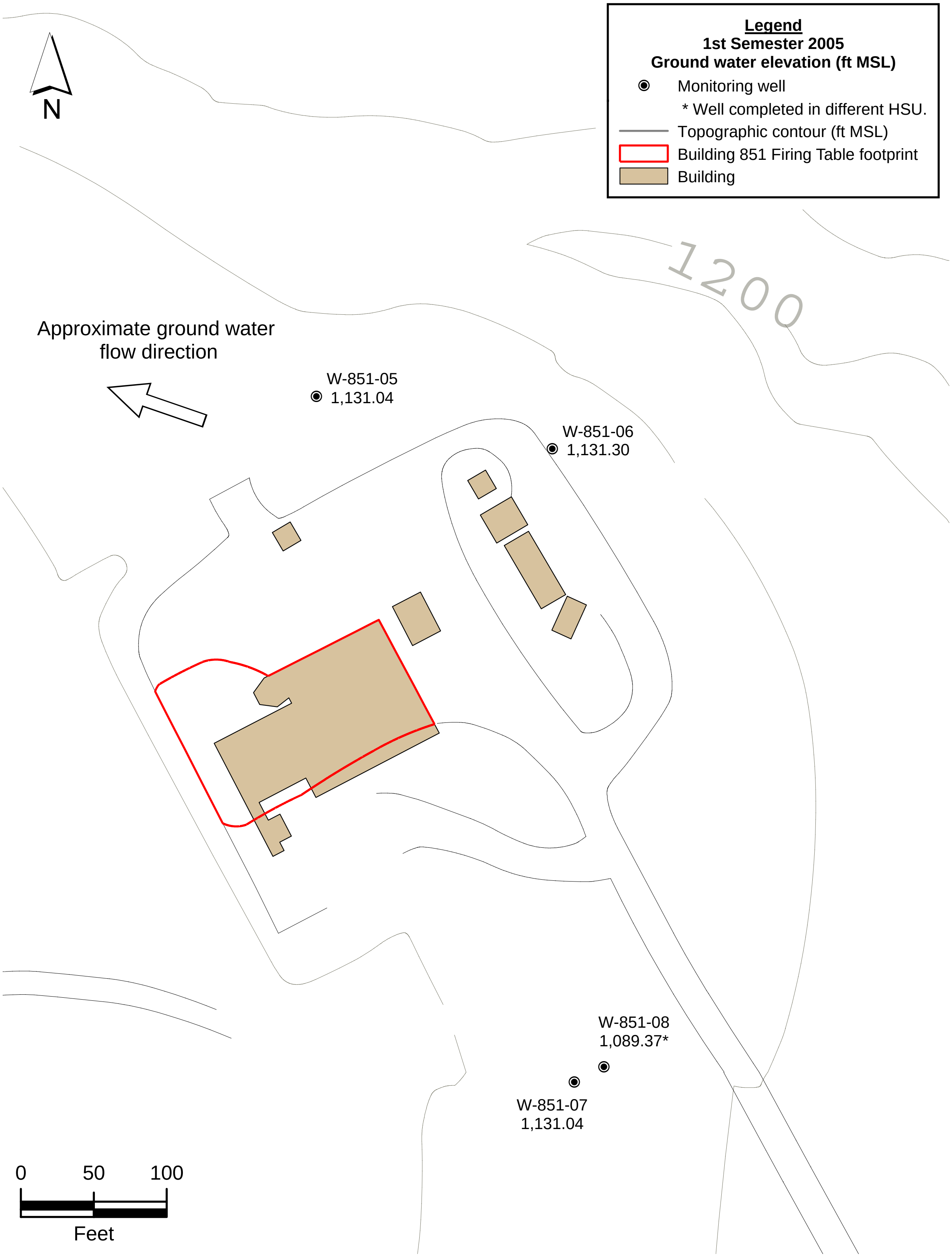


Figure 2.8-8. Building 851 Firing Table site map showing ground water elevations and hydraulic gradient direction in the Tmss HSU.

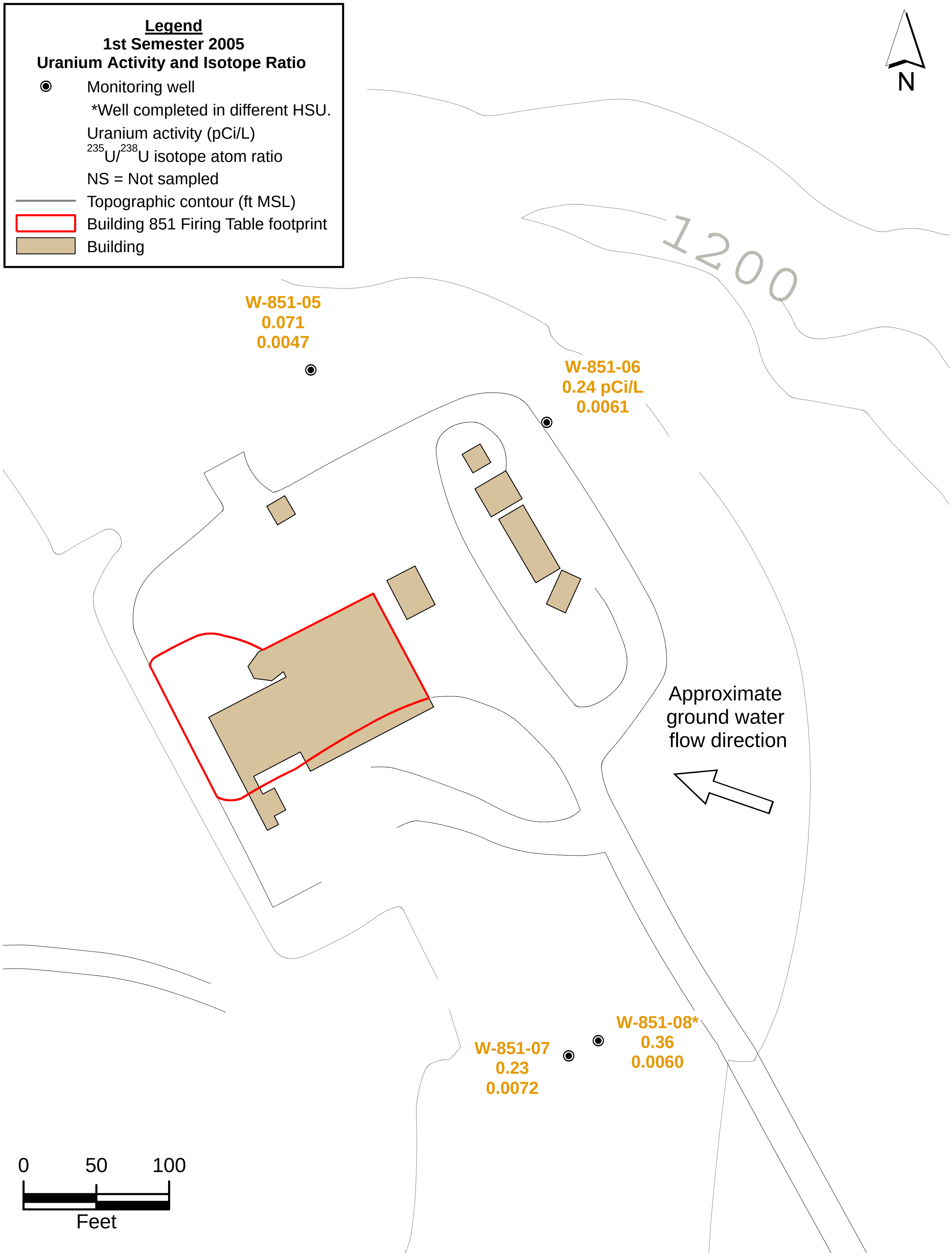
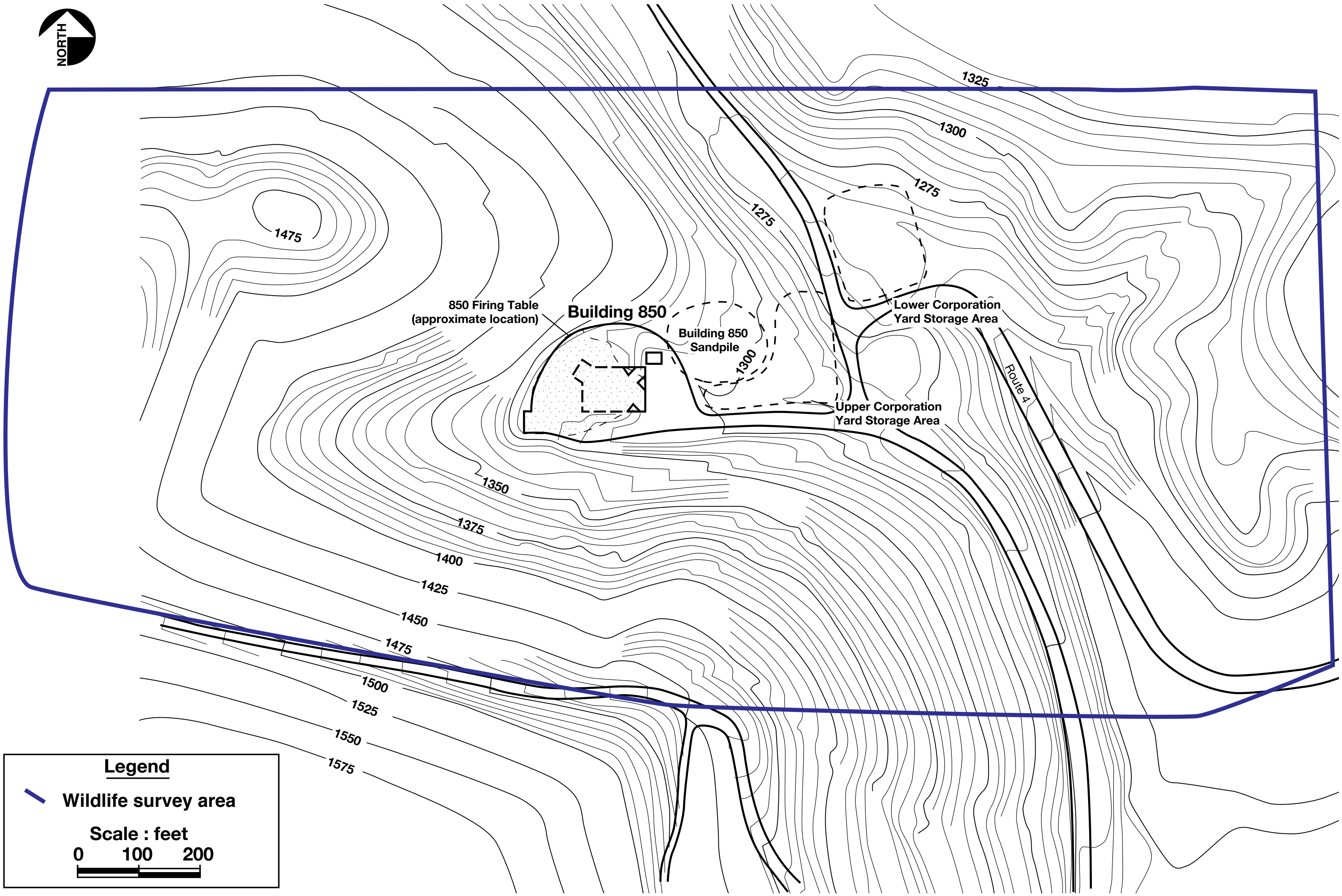


Figure 2.8-9. Building 851 Firing Table site map showing uranium activities and $^{235}U/^{238}U$ isotope atom ratios in ground water samples from Tmss HSU wells.



ERD-S3R-05-0125

Figure 4.2-1. Area surveyed for important burrowing species at Building 850.

Tables

Table Acronyms and Abbreviations

1,1,1-TCA	1,1,1-trichloroethane
1,1,12-TCA	1,1,2-tricholorethane
1,1-DCA	1,1-dichloroethane
1,2-DCA	1,2-dichloroethane
1,2-DCE	1,2-dichloroethylene
cis-1,2-DCE	1,2-dichloroethene
trans-1,2-DCE	1,2-dichloroethene
A	Annual
B	Biennial
Be	Beryllium
CGSA	Central General Services Area
CMP	Compliance Monitoring Plan
COC	Contaminants of Concern
DIS	Discretionary sampling of non-required analyte
DISS	Distal south
DMW	Detection monitor well (non-CMP)
DSB	Distal Site Boundary
DUP	Duplicate
E	Effluent
ERD	Environmental Restoration Division
EW	Extraction well
ft^3	Cubic feet
g	Gram(s)
GAC	Granular activated carbon
gal	gallon(s)
GSA	General Services Area
GTU	GAC Treatment Unit
GW	Guard well
GWTS	Ground Water Treatment System
HE	High explosives
HQ	Hazard quotient
μg/L	Micrograms per liter
I	Influent
Inj well	Injection well
kft^3	Thousands of cubic feet
kg	Kilograms
Li	Lithium
M	Monthly
mg/L	Milligrams per liter
Mgal	Millions of gallons
MWB	Monitor well background

MWPT	Monitor well used for plume tracking
N	No
NO_3	Nitrate
NA	Not applicable
OU	Operable unit
PCB	Polychlorinated biphenyl
PCE	Tetrachloroethylene
pH	A measure of the acidity or alkalinity of an aqueous solution
$ppm_{v/v}$	Parts per million on a volume-to-volume basis
PRX	Proximal
PRXN	Proximal north
PTU	Portable treatment unit
Q	Quarterly
RDX	Research Department Explosive
S	Semi-annual
scfm	Standard cubic feet per minute
SPR	Spring
SRC	Source
STU	Solor-powered Treatment Unit
SVE	Soil Vapor Extraction
TBOS	Tetra-butyl-orthosilicate
TCE	Trichloroethylene
TF	Treatment facility
Th	Thorium
U	Uranium
VOC	Volatile organic compound
WGMG	Water Guidance and Monitoring Group
WS	Water-supply well
Y	Yes

Requested Analyses

AS:THISO = Uranium isotopes performed by mass spectrometry.
AS:UISO = Uranium isotopes performed by alpha spectrometry.
CMPTRIMET = Thorium, uranium, and lithium performed by EPA Method 200.7.
DWMETALS = Drinking water metals suite performed by various analytical methods.
E200.7:Ba = Barium performed by EPA Method 200.7.
E200.7:Cd = Cadmium performed by EPA Method 200.7.
E200.7:Cu = Copper performed by EPA Method 200.7.
E200.7:SiO2 = Silica performed by EPA Method 200.7.
E200.7:Zn = Zinc performed by EPA Method 200.7.
E210.2 = Beryllium performed by EPA Method 210.2.
E220.2 = Copper performed by EPA Method 220.2.

E239.2 = Lead performed by EPA Method 239.2.

E245.2 = Mercury performed by EPA Method 245.2.

E300.0:NO3 = Nitrate performed by EPA Method 300.0.

E300.0:PERC = Perchlorate performed by EPA Method 300.0.

E340.2 = Fluoride performed by EPA method 340.2.

E502.2 = Drinking water volatile organic compounds performed by EPA Method 502.2.

E601 = Halogenated volatile organic compounds performed by EPA Method 601.

E624 = Volatile organic compounds performed by EPA Method 624.

E8330 = High explosive compounds performed by EPA Method 8330.

E8330:R+H = High explosive compounds RDX and HMX performed by EPA Method 8330.

E900 = Gross alpha and beta performed by EPA Method 900.

E906 = Tritium performed by EPA Method 906.

EM8015:DIESEL = Diesel range organic compounds performed by modified EPA Method 8015.

GENMIN = General minerals suite performed by various analytical methods.

GENMINDISS = General minerals dissolved.

MS:THISO = Thorium isotopes performed by mass spectrometry.

MS:UISO = Uranium isotopes performed by mass spectrometry.

T26METALS = Title 26 metals.

TBOS = Tetrabutylorthosilicate.

W8330:LOW = High explosive compounds RDX and HMX performed by EPA Method 8330.

WDRE624 = Volatile organic compounds performed by EPA Method 624.

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 deposit.

Qt = Quaternary terrace.

Tmss = Miocene Cierbo Formation—lower siltstone/claystone member.

$Tnbs_0$ = Miocene Neroly lower blue sandstone.

$Tnbs_1$ = Miocene Neroly Lower Blue Sandstone.

$Tnbs_2$ = Miocene Neroly upper blue sandstone.

$Tnsc_0$ = Miocene Neroly Formation—lower siltstone/claystone member.

$Tnsc_1$ = Miocene Neroly Formation—middle siltstone/claystone member.

$Tnsc_{1a}$, $Tnsc_{1b}$, $Tnsc_{1c}$ = Sandstone bodies within the $Tnsc_1$ Neroly middle siltstone/claystone (1a = deepest).

Tps = Pliocene non-marine unit.

Tpsg = Pliocene non-marine unit (gravel facies).

Tts = Eocene Formation.

Upper $Tnbs_1$ = Upper member of the Miocene Neroly lower blue sandstone, above claystone marker bed.

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 or activity.

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

L = Spike accuracy not within control limits.

O = Matrix spike duplicate RPD, sample duplicate RPD, or RER not within control limits.

Table Summ-1. Mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Volume of ground water treated (gal)	Volume of soil vapor treated (ft^3)	Estimated total VOC mass removed (g)	Estimated total perchlorate mass removed (g)	Estimated total nitrate mass removed (g)	Estimated total RDX mass removed (g)	Estimated total TBOS mass removed (g)
CGSA GWTS	689,911	NA	292	NA	NA	NA	NA
CGSA SVE	NA	2,237,853	276	NA	NA	NA	NA
B834 GWTS	51,685	NA	1,280	NA	14,588	NA	4.2
B834 SVE	NA	5,762,694	42,541	NA	NA	NA	NA
B815-SRC GWTS	195,837	NA	4.8	15.2	72,330	45.1	NA
B815-PRX GWTS	498,907	NA	55.3	11.6	152,537	NA	NA
B815-DSB GWTS	669,237	NA	19.6	NA	NA	NA	NA
B817-SRC GWTS	1,889	NA	NA	0.15	NA	0.27	NA
B854-SRC GWTS	184,160	NA	118	5.7	36,500	NA	NA
B854-PRX GWTS	135,198	NA	28	6.5	24,100	NA	NA
B832-SRC GWTS	25,283	NA	4.2	0.52	11,868	NA	NA
B832-SRC SVE	NA	1,564.56	0	NA	NA	NA	NA
B830-SRC GWTS	12,998	NA	123.6	0	5,010	NA	NA
B830-SRC SVE	NA	28,476	70.7	NA	NA	NA	NA
B830-PRXN GWTS	186,626	NA	20.2	NA	NA	NA	NA
B830-DISS GWTS	302,200	NA	102.9	6.0	74,623	NA	NA
Total	2,953,931	8,030,587	44,936	45.7	391,556	45.4	4.2

Notes:

B815 = Building 815.
B817 = Building 817.
B830 = Building 830.
B832 = Building 832
B834 = Building 834.
CGSA = Central General Services Area.
DISS = Distal south.
DSB = Distal site boundary.
ft^3 = cubic feet.
g = Grams.
gal = Gallons.
GWTS = Ground water treatment system.
NA = Not applicable.
PRX = Proximal.
PRXN = Proximal north.
RDX= Research Department Explosive.
SRC = Source.
SVE = Soil vapor extraction.
TBOS = Tetra 2-ethylbutylorthosilicate.
VOC = Volatile organic compound.

Table Summ-2. Summary of cumulative remediation.

Treatment facility	Volume of ground water treated (gal)	Volume of soil vapor treated (kft^3)	Estimated total VOC mass removed (kg)	Estimated total perchlorate mass removed (kg)	Estimated total nitrate mass removed (kg)	Estimated total RDX mass removed (kg)	Estimated total TBOS mass removed (kg)
CGSA GWTS	10,883,528	NA	11.79	NA	NA	NA	NA
CGSA SVE	NA	73,310	53.9	NA	NA	NA	NA
B834 GWTS	314,275	NA	33.6	NA	66.8	NA	9.6
B834 SVE	NA	69,871[a]	207.7[a]	NA	NA	NA	NA
B815-SRC GWTS	1,911,066	NA	0.05	0.113	637	0.529	NA
B815-PRX GWTS	2,658,749	NA	0.319	0.061	813	NA	NA
B815-DSB GWTS	4,051,722	NA	0.106	NA	NA	NA	NA
B817-SRC GWTS	7,851	NA	0	0.0007	NA	0.0014	NA
B854-SRC GWTS	3,933,998	NA	4	0.091	796	NA	NA
B854-PRX GWTS	1,087,743	NA	0.354	0.046	179	NA	NA
B832-SRC GWTS	157,086	NA	0.038	0.0052	78.3	NA	NA
B832-SRC SVE	NA	13,467	1.33	NA	NA	NA	NA
B830-SRC GWTS	47,034	NA	0.51	0.0006	20.2	NA	NA
B830-SRC SVE	NA	84.8	0.28	NA	NA	NA	NA
B830-PRXN GWTS	1,605,682	NA	0.213	NA	NA	NA	NA
B830-DISS GWTS	1,810,389	NA	0.65	0.016	441	NA	NA
Total	28,469,123	156,732	315	0.33	3,031	0.53	9.6

Notes:

B815 = Building 815.
B817 = Building 817.
B830 = Building 830.
B832 = Building 832.
B834 = Building 834.
B854 = Building 854.
CGSA = Central General Services Area.
DISS = Distal south.
DSB = Distal site boundary.
gal = Gallons.
GWTS = Ground water treatment system.
kft^3 = Thousands of cubic feet.
Kg = Kilograms.
Mgal = Millions of gallons.
NA = Not applicable.
PRX = Proximal.
RDX = Research Department Explosive.
SRC = Source.
SVE = Soil vapor extraction.
TBOS = Tetra 2-ethylbutylorthosilicate.
VOC = Volatile organic compound.

[a] Cumulative volume of soil vapor extracted and associated mass removed to end of 2004 revised to 64,108 kft^3 and 165 kg, respectively. Revision needed due to vacuum gauge errors on two wells from October through December 2004.

Table 2.1-1. Central General Services Area volumes of ground water and soil vapor extracted and discharged, January 1, 2005 through June 30, 2005.

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Volume of vapor extracted (thousands of ft^3)	Average weekly volume of water treated (gal)
CGSA	January	984	54,843	389,491	1,338
	February	580	59,777	307980	2,474
	March	744	84,363	358236	2,721
	April	648	77,041	356724	2,853
	May	816	130,074	447494	3,826
	June	696	283,813	377928	9,787
Total		4,468	689,911	2,237,853	3,833

Table 2.1-2. Central General Services Area VOCs in ground water treatment system influent and effluent.

Location	Date	Method	TCE µg/L	PCE µg/L	Total 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	Freon 11 µg/L	Freon 113 µg/L	Methylene chloride µg/L	Vinyl chloride µg/L
CGSA-GWTS-I	01/12/05	E601	100 D	5.5	3.2	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	2.9	<0.5	<1	<0.5
CGSA-GWTS-I	04/06/05	E601	96 B	4.6	2.8	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	2.7	<0.5	<1	<0.5
CGSA-GWTS-I[a]	05/17/05	E601	97 D	6.1	3.3	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	4	<0.5	<1	<0.5
CGSA-GWTS-E	01/12/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
CGSA-GWTS-E	02/09/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
CGSA-GWTS-E	03/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
CGSA-GWTS-E	04/06/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
CGSA-GWTS-E	05/05/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
CGSA-GWTS-E	05/17/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
CGSA-GWTS-E	06/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5

[a] Influent collected in May upon completion of the Central GSA expansion to extraction wells W-7R and W-7P.

Detection frequency of constituents analyzed and not reported in table above:

Location	Date	Method	Detection frequency	cis-1,2-DCE µg/L
CGSA-GWTS-I	01/12/05	E601	1 of 20	3
CGSA-GWTS-I	04/06/05	E601	1 of 20	2.6
CGSA-GWTS-I[a]	05/17/05	E601	1 of 20	3.1
CGSA-GWTS-E	01/12/05	E601	0 of 20	–
CGSA-GWTS-E	02/09/05	E601	0 of 20	–
CGSA-GWTS-E	03/08/05	E601	0 of 20	–
CGSA-GWTS-E	04/06/05	E601	0 of 18	–
CGSA-GWTS-E	05/05/05	E601	0 of 20	–
CGSA-GWTS-E	05/17/05	E601	0 of 20	–
CGSA-GWTS-E	06/08/05	E601	0 of 20	–

[a] Influent collected in May upon completion of the Central GSA expansion wells W-7R and W-7P.

Table 2.1-3. Central General Services Area VOCs in soil vapor extraction treatment system influent and effluent.

Location	Date	Method	TCE $ppm_{V/V}$	PCE $ppm_{V/V}$	1,1-DCE $ppm_{V/V}$
CGSA-SVE-I	2/17/05	ETO14	<0.2 H	<0.2 H	<0.2 H
CGSA-SVE-I	3/16/05	ETO14	<0.2 H	<0.2 H	<0.2 H
CGSA-SVE-I	4/18/05	ETO14	0.8 H	<0.2 H	<0.2 H
CGSA-SVE-I	5/23/05	ETO14	0.8 H	<0.2 H	<0.2 H
CGSA-SVE-I	6/21/05	E601	1.3	<0.2	<0.2

Note:

No bag sample was collected in January. An organic vapor analyzer field measurement was made and recorded as 0.824 ppm.

Detection frequency of constituents analyzed and not reported in table above:

Location	Date	Method	Detection frequency
CGSA-SVE-I	2/17/05	ETO14	0 of 1
CGSA-SVE-I	3/16/05	ETO14	0 of 1
CGSA-SVE-I	4/18/05	ETO14	0 of 1
CGSA-SVE-I	5/23/05	ETO14	0 of 1
CGSA-SVE-I	6/21/05	E601	0 of 1

Table 2.1-4. Central General Services Area treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
CGSA GWTS			
Influent Port	**PTU7-I**	**VOCs**	**Quarterly**
		pH	**Quarterly**
Effluent Port	**PTU7-E**	**VOCs**	**Monthly**
		pH	**Monthly**
Vapor Samples	**PTU7-CFI**	**VOCs**	**Weekly**
	PTU7-CFE	**VOCs**	**Weekly**
CGSA SVE System			
Influent Vapor	**TF-GSA2-IV**	**VOCs**	**Monthly**
Effluent Vapor	**TF-GSA2-EV**	**VOCs**	**Weekly**
Intermediate GAC	**TF-GSA2-CFV2**	**VOCs**	**Monthly**

Table 2.1-5. Central General Services Area ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-35A-01	MWPT	Qal		Q	DIS	E601	1	Y	
W-35A-01	MWPT	Qal	B	B	CGSA CMP	E200.7:Cd	2	Y	Next sample required 2ndQ 2007.
W-35A-01	MWPT	Qal	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2ndQ 2007.
W-35A-01	MWPT	Qal	S	Q	CGSA CMP	E601	2	Y	
W-35A-01	MWPT	Qal		Q	DIS	E601	3		
W-35A-01	MWPT	Qal	S	Q	CGSA CMP	E601	4		
W-35A-02	MWPT	Qal	B	B	CGSA CMP	E200.7:Zn	2	Y	Next sample required 2ndQ 2007.
W-35A-02	MWPT	Qal	S	S	CGSA CMP	E601	2	Y	
W-35A-02	MWPT	Qal	S	S	CGSA CMP	E601	4		
W-35A-03	MWPT	Qal	S	S	CGSA CMP	E601	2	Y	
W-35A-03	MWPT	Qal	S	S	CGSA CMP	E601	4		
W-35A-04	MWPT	Qal	B	B	CGSA CMP/WGMG	E200.7:Cu	2	Y	Next sample required 2ndQ 2007.
W-35A-04	MWPT	Qal	S	S	CGSA CMP/WGMG	E601	2	Y	
W-35A-04	MWPT	Qal	S	S	CGSA CMP/WGMG	E601	4		
W-35A-05	MWPT	$Tnbs_2$	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2ndQ 2007.
W-35A-05	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-35A-05	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-35A-06	MWPT	Qal	S	S	CGSA CMP	E601	2	Y	
W-35A-06	MWPT	Qal	S	S	CGSA CMP	E601	4		
W-35A-07	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-35A-07	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-35A-08	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-35A-08	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-35A-09	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-35A-09	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-35A-10	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-35A-10	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-35A-11	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-35A-11	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-35A-12	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-35A-12	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-35A-13	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-35A-13	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-35A-14	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-35A-14	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		

Table 2.1-5. Central General Services Area ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-7A	MWPT	$Tnbs_1$	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2ndQ 2007.
W-7A	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-7A	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-7B	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-7B	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-7C	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-7C	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-7E	MWPT	$Tnbs_1$	S	S	CGSA CMP/WGMG	E601	2	Y	
W-7E	MWPT	$Tnbs_1$	S	S	CGSA CMP/WGMG	E601	4		
W-7ES	MWPT	Qal	S	S	CGSA CMP/WGMG	E601	1	Y	
W-7ES	MWPT	Qal	S	S	CGSA CMP/WGMG	E601	3		
W-7F	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	2	Y	
W-7F	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	4		
W-7G	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-7G	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-7H	MWPT	Qal	S	S	CGSA CMP	E601	2	Y	
W-7H	MWPT	Qal	S	S	CGSA CMP	E601	4		
W-7I	EW	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-7I	EW	$Tnbs_2$	B	B	CGSA CMP	E245.2	4	X	Next sample required 4ndQ 2006.
W-7I	EW	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-7J	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-7J	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-7K	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-7K	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-7L	MWPT	$Tnbs_1$	B	B	CGSA CMP	E200.7:Cu	2	Y	Next sample required 2ndQ 2007.
W-7L	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-7L	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-7M	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-7M	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-7N	MWPT	$Tnbs_1$	B	B	CGSA CMP	E245.2	2	Y	Next sample required 2ndQ 2007.
W-7N	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-7N	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-7O	EW	Qal	B	B	CGSA CMP	E200.7:Cu	4		
W-7O	EW	Qal	B	B	CGSA CMP	E200.7:Zn	4		

Table 2.1-5. Central General Services Area ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-7O	EW	Qal	S	S	CGSA CMP	E601	2	Y	
W-7O	EW	Qal	S	S	CGSA CMP	E601	4		
W-7P	MWPT	$Tnbs_1$	Q	Q	CGSA CMP	E601	1	Y	
W-7P	MWPT	$Tnbs_1$	Q	Q	CGSA CMP	E601	2	Y	
W-7P	MWPT	$Tnbs_1$	Q	Q	CGSA CMP	E601	3		
W-7P	MWPT	$Tnbs_1$	Q	Q	CGSA CMP	E601	4		
W-7PS	MWPT	Qal	Q	Q	CGSA CMP/WGMG	E601	1	Y	
W-7PS	MWPT	Qal	Q	Q	CGSA CMP/WGMG	E601	2	Y	
W-7PS	MWPT	Qal	Q	Q	CGSA CMP/WGMG	E601	3		
W-7PS	MWPT	Qal	Q	Q	CGSA CMP/WGMG	E601	4		
W-7Q	MWPT	$Tnbs_2$		Q	DIS	E601	2	Y	
W-7Q	MWPT	$Tnbs_2$		Q	DIS	E601	3		
W-7Q	MWPT	$Tnbs_2$		Q	DIS	E601	4		
W-7R	MWPT	Qal		Q	DIS	E601	2	Y	
W-7R	MWPT	Qal		Q	DIS	E601	3		
W-7R	MWPT	Qal		Q	DIS	E601	4		
W-7S	MWPT	Qal		Q	DIS	E601	2	Y	
W-7S	MWPT	Qal		Q	DIS	E601	3		
W-7S	MWPT	Qal		Q	DIS	E601	4		
W-7T	MWPT	Qal		Q	DIS	E601	2	Y	
W-7T	MWPT	Qal		Q	DIS	E601	3		
W-7T	MWPT	Qal		Q	DIS	E601	4		
W-843-01	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-843-01	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-843-02	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-843-02	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		
W-872-01	MWPT	$Tnbs_2$	B	B	CGSA CMP	E200.7:Cu	2	Y	Next sample required 2ndQ 2007.
W-872-01	MWPT	$Tnbs_2$	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2ndQ 2007.
W-872-01	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-872-01	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-872-02	EW	$Tnbs_2$	S	S	CGSA CMP	E601	2	N	Dry.
W-872-02	EW	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-873-01	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	2	Y	
W-873-01	MWPT	$Tnbs_1$	S	S	CGSA CMP	E601	4		

Table 2.1-5. Central General Services Area ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-873-02	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-873-02	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-873-03	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	2	Y	
W-873-03	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	4		
W-873-04	MWPT	$Tnsc_1$	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2ndQ 2005.
W-873-04	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	2	Y	
W-873-04	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	4		
W-873-06	MWPT	$Tnbs_2$	B	B	CGSA CMP	E200.7:Cd	2	Y	Next sample required 2ndQ 2005.
W-873-06	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-873-06	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-873-07	EW	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-873-07	EW	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-875-01	MWPT	$Tnbs_2$	B	B	CGSA CMP	E200.7:Cd	2	Y	Next sample required 2ndQ 2007.
W-875-01	MWPT	$Tnbs_2$	B	B	CGSA CMP	E200.7:Cu	2	Y	Next sample required 2ndQ 2007.
W-875-01	MWPT	$Tnbs_2$	B	B	CGSA CMP	E200.7:Zn	2	Y	Next sample required 2ndQ 2007.
W-875-01	MWPT	$Tnbs_2$	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2ndQ 2007.
W-875-01	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-875-01	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-875-02	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	2	Y	
W-875-02	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	4		
W-875-03	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-875-03	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-875-04	MWPT	$Tnbs_2$	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2ndQ 2007.
W-875-04	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-875-04	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-875-05	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	2	Y	
W-875-05	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	4		
W-875-06	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	2	Y	
W-875-06	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	4		
W-875-07	EW	$Tnbs_2$	B	B	CGSA CMP	E239.2	3		
W-875-07	EW	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-875-07	EW	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-875-08	EW	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-875-08	EW	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-875-09	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	N	Insufficient water
W-875-09	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-875-10	MWPT	$Tnbs_2$	B	B	CGSA CMP	E200.7:Ba	3		
W-875-10	MWPT	$Tnbs_2$	B	B	CGSA CMP	E239.2	3		

Table 2.1-5. Central General Services Area ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-875-10	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	N	Insufficient water
W-875-10	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-875-11	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	N	Insufficient water
W-875-11	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-875-15	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	N	Insufficient water
W-875-15	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-876-01	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	2	Y	
W-876-01	MWPT	$Tnbs_2$	S	S	CGSA CMP	E601	4		
W-879-01	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	2	Y	
W-879-01	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	4		
W-889-01	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	2	Y	
W-889-01	MWPT	$Tnsc_1$	S	S	CGSA CMP	E601	4		
W-CGSA-1732	MWPT	Qal		A	DIS	E601	1	N	Dry.
W-CGSA-1733	MWPT	Qal		S	DIS	E601	2	Y	
W-CGSA-1733	MWPT	Qal		S	DIS	E601	4		
W-CGSA-1735	MWPT	Qal		A	DIS	E601	1	N	Dry.
W-CGSA-1736	MWPT	Qal		S	DIS	E601	2	Y	
W-CGSA-1736	MWPT	Qal		S	DIS	E601	4		
W-CGSA-1737	MWPT	Qal		S	DIS	E601	2	Y	
W-CGSA-1737	MWPT	Qal		S	DIS	E601	4		
W-CGSA-1739	MWPT	Qal		S	DIS	E601	2	Y	
W-CGSA-1739	MWPT	Qal		S	DIS	E601	4		

Table 2.1-6. Central General Services Area mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Month	GWTS VOC mass removed (g)	SVE VOC mass removed (g)
CGSA	January	23.5	48.8
	February	26.6	33.3
	March	36.1	21.3
	April	31.4	43.4
	May	55.2	54.5
	June	120.4	74.8
Total		292.3	276.0

Table 2.2-1. Building 834 OU volumes of ground water and soil vapor extracted and discharged, January 1, 2005 through June 30, 2005.

Treatment facility	Month	Operational hours (GWTS/SVE)	Volume of ground water discharged (gal)	Volume of vapor extracted (thousands of ft^3)	Average weekly volume of water treated (gal)
TF834	January	432/0	1,250	0	282
	February	560/0	3,128	0	782
	March	743/0	6,414	0	1,448
	April	643/0	6,669	0	1,556
	May	656/654	17,288	2,750	3,929
	June	721/721	16,936	3,012	4,032
Total		3,755/1,375	51,685	5,762	

Table 2.2-2. Building 834 OU VOCs in ground water extraction treatment system influent and effluent.

Location	Date	Method	TCE µg/L	PCE µg/L	Total 1,2-DCE µg/L	Carbon tetrachloride 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	Freon 11 µg/L	Freon 113 µg/L	Methylene chloride µg/L	Vinyl chloride µg/L
B834-GWTS-I	02/28/05	E601	4,000 D	53	1,300 D	<0.5	0.98	<0.5	<0.5	3.3	<0.5	<0.5	<0.5	<1	1.4
B834-GWTS-I	05/03/05	E601	5,000 D	160 D	540 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<20 D	<10 D
B834-GWTS-E	01/31/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B834-GWTS-E	02/28/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B834-GWTS-E	05/03/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B834-GWTS-E	06/02/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5

Note:

March and April effluent samples inadvertently not collected.

Detection frequency of constituents analyzed and not reported in table above:

Location	Date	Method	Detection frequency location	1,1,2-TCA µg/L	cis-1,2-DCE µg/L	trans-1,2-DCE µg/L
B834-GWTS-I	02/28/05	E601	3 of 20	1.3	1,300 D	1.4
B834-GWTS-I	05/03/05	E601	1 of 20	-	540 D	-
B834-GWTS-E	01/31/05	E601	0 of 20	-	-	-
B834-GWTS-E	02/28/05	E601	0 of 20	-	-	-
B834-GWTS-E	05/03/05	E601	0 of 20	-	-	-
B834-GWTS-E	06/02/05	E601	0 of 20	-	-	-

Table 2.2-3. Building 834 OU nitrate in ground water extraction treatment system influent and effluent.

Location	Date	Nitrate (as NO_3) (mg/L)
B834-GWTS-I	02/28/05	54
B834-GWTS-I	05/03/05	80
B834-GWTS-E	01/31/05	45.6
B834-GWTS-E	02/28/05	53
B834-GWTS-E	05/03/05	54
B834-GWTS-E	06/02/05	72

Note:
March and April effluent samples inadvertently not collected.

Table 2.2-4. Building 834 OU diesel range organic compounds in ground water extraction treatment system influent and effluent.

Location	Date	Diesel fuel (μg/L)	Diesel range organics (C12-C24) (μg/L)
B834-GWTS-I	02/28/05	-	<200
B834-GWTS-I	05/03/05	-	75
B834-GWTS-E	01/31/05	-	<50
B834-GWTS-E	02/28/05	-	<37
B834-GWTS-E	05/03/05	-	<50
B834-GWTS-E	06/02/05	-	<50

Note:
March and April effluent samples inadvertently not collected.

Table 2.2-5. Building 834 OU TBOS in ground water extraction treatment system influent and effluent.

Location	Date	C24H52O4Si (μg/L)
B834-GWTS-I	02/28/05	52 D
B834-GWTS-I	05/03/05	19
B834-GWTS-I	06/02/05	5.9 DO
B834-GWTS-E	01/31/05	<1
B834-GWTS-E	02/28/05	<0.18
B834-GWTS-E	05/03/05	<1
B834-GWTS-E	06/02/05	<1

Notes:
March and April effluent samples inadvertently not collected.
TBOS = C24H52O4Si.

Table 2.2-6. Building 834 OU treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
B834 GWTS			
Influent Port	**TF-834-I**	**VOCs**	**Quarterly**
		TBOS	**Quarterly**
		Diesel	**Quarterly**
		Nitrate	**Quarterly**
		pH	**Quarterly**
Effluent Port	**TF-834-E**	**VOCs**	**Monthly**
		TBOS	**Monthly**
		Diesel	**Monthly**
		Nitrate	**Monthly**
		pH	**Monthly**
B834 SVE			
Influent Port	**TF-834-VI**	**No CMP requirements**	**NA**
Effluent Port	**TF-834-VE**	**VOCs**	**Weekly**[a]

[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.**

Table 2.2-7. Building 834 OU ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-834-1709	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-1709	MWPT	Tpsg	S	Q	CMP	E601	1	Y	E624 analyzed.
W-834-1709	MWPT	Tpsg		Q	DIS	E601	2	N	Not required.
W-834-1709	MWPT	Tpsg	S	Q	CMP	E601	3		
W-834-1709	MWPT	Tpsg		Q	DIS	E601	4		
W-834-1709	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-1711	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-834-1711	MWPT	Tps	S	Q	CMP	E601	1	Y	E624 analyzed.
W-834-1711	MWPT	Tps		Q	DIS	E601	2	N	Not required.
W-834-1711	MWPT	Tps	S	Q	CMP	E601	3		
W-834-1711	MWPT	Tps		Q	DIS	E601	4		
W-834-1711	MWPT	Tps	A	A	CMP	TBOS	1	Y	
W-834-1824	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	No samples taken due to tracer study.
W-834-1824	MWPT	Tpsg	S	Q	CMP	E601	1	Y	Sample collected under Experiment 3X077
W-834-1824	MWPT	Tpsg		Q	DIS	E601	2	Y	Sample collected under Experiment 3X077
W-834-1824	MWPT	Tpsg	S	Q	CMP	E601	3		
W-834-1824	MWPT	Tpsg		Q	DIS	E601	4		
W-834-1824	MWPT	Tpsg	A	A	DIS	TBOS	1	N	No samples taken due to tracer study.
W-834-1825	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	No samples taken due to tracer study.
W-834-1825	MWPT	Tpsg	S	Q	CMP	E601	1	Y	Sample collected under Experiment 3X077
W-834-1825	MWPT	Tpsg		Q	DIS	E601	2	Y	Sample collected under Experiment 3X077
W-834-1825	MWPT	Tpsg	S	Q	CMP	E601	3		
W-834-1825	MWPT	Tpsg		Q	DIS	E601	4		
W-834-1825	MWPT	Tpsg	A	A	CMP	TBOS	1	N	No samples taken due to tracer study.
W-834-1833	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	No samples taken due to tracer study.
W-834-1833	MWPT	Tpsg	S	Q	CMP	E601	1	Y	Sample collected under Experiment 3X077
W-834-1833	MWPT	Tpsg		Q	DIS	E601	2	Y	Sample collected under Experiment 3X077
W-834-1833	MWPT	Tpsg	S	Q	CMP	E601	3		
W-834-1833	MWPT	Tpsg		Q	DIS	E601	4		
W-834-1833	MWPT	Tpsg	A	A	CMP	TBOS	1	N	No samples taken due to tracer study.
W-834-2001	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-2001	MWPT	Tpsg	S	Q	CMP	E601	1	Y	E624 analyzed.
W-834-2001	MWPT	Tpsg		Q	DIS	E601	2	N	Not required.
W-834-2001	MWPT	Tpsg	S	Q	CMP	E601	3		E624 analyzed.
W-834-2001	MWPT	Tpsg		Q	DIS	E601	4		
W-834-2001	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-2001	MWPT	Tpsg			DIS	EM8015:DIESEL	3		
W-834-2001	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-2113	MWPT	Tpsg			DIS	DWMETALS	2	Y	New Wells for 2005; Baseline Analyses
W-834-2113	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	New Wells for 2005; Well not yet completed
W-834-2113	MWPT	Tpsg			DIS	E300.0:PERC	2	Y	New Wells for 2005; Baseline Analyses

Table 2.2-7. Building 834 OU ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-834-2113	MWPT	Tpsg	S	S	CMP	E624	1	N	New Wells for 2005; Well not yet completed
W-834-2113	MWPT	Tpsg			DIS	E624	2	Y	New Wells for 2005; Baseline Analyses
W-834-2113	MWPT	Tpsg	S	S	CMP	E624	3		New Wells for 2005
W-834-2113	MWPT	Tpsg			DIS	E624	4		New Wells for 2005
W-834-2113	MWPT	Tpsg			DIS	E900	2	Y	New Wells for 2005; Baseline Analyses
W-834-2113	MWPT	Tpsg			DIS	E906	2	Y	New Wells for 2005; Baseline Analyses
W-834-2113	MWPT	Tpsg			DIS	GENMINDISS	2	Y	New Wells for 2005; Baseline Analyses
W-834-2113	MWPT	Tpsg			DIS	MS:UISO	2	Y	New Wells for 2005; Baseline Analyses
W-834-2113	MWPT	Tpsg	A	A	CMP	TBOS	1	N	New Wells for 2005; Well not yet completed
W-834-2117	MWPT	Tpsg			DIS	DWMETALS	2	Y	New Wells for 2005; Baseline Analyses
W-834-2117	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	New Wells for 2005; Well not yet completed
W-834-2117	MWPT	Tpsg			DIS	E300.0:PERC	2	Y	New Wells for 2005; Baseline Analyses
W-834-2117	MWPT	Tpsg	S	S	CMP	E624	1	N	New Wells for 2005; Well not yet completed
W-834-2117	MWPT	Tpsg			DIS	E624	2	Y	New Wells for 2005
W-834-2117	MWPT	Tpsg	S	S	CMP	E624	3		New Wells for 2005
W-834-2117	MWPT	Tpsg			DIS	E624	4		New Wells for 2005
W-834-2117	MWPT	Tpsg			DIS	E900	2	Y	New Wells for 2005; Baseline Analyses
W-834-2117	MWPT	Tpsg			DIS	E906	2	Y	New Wells for 2005; Baseline Analyses
W-834-2117	MWPT	Tpsg			DIS	GENMINDISS	2	Y	New Wells for 2005; Baseline Analyses
W-834-2117	MWPT	Tpsg			DIS	MS	2	Y	New Wells for 2005; Baseline Analyses
W-834-2117	MWPT	Tpsg	A	A	CMP	TBOS	1	N	New Wells for 2005; Well not yet completed
W-834-2118	MWPT	Tpsg			DIS	DWMETALS	2	Y	New Wells for 2005; Baseline Analyses
W-834-2118	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	New Wells for 2005; Well not yet completed
W-834-2118	MWPT	Tpsg			DIS	E300.0:PERC	2	Y	New Wells for 2005; Baseline Analyses
W-834-2118	MWPT	Tpsg	S	S	CMP	E624	1	N	New Wells for 2005; Well not yet completed
W-834-2118	MWPT	Tpsg			DIS	E624	2	Y	New Wells for 2005
W-834-2118	MWPT	Tpsg	S	S	CMP	E624	3		New Wells for 2005
W-834-2118	MWPT	Tpsg			DIS	E624	4		New Wells for 2005
W-834-2118	MWPT	Tpsg			DIS	E900	2	Y	New Wells for 2005; Baseline Analyses
W-834-2118	MWPT	Tpsg			DIS	E906	2	Y	New Wells for 2005; Baseline Analyses
W-834-2118	MWPT	Tpsg			DIS	GENMINDISS	2	Y	New Wells for 2005; Baseline Analyses
W-834-2118	MWPT	Tpsg			DIS	MS	2	Y	New Wells for 2005; Baseline Analyses
W-834-2118	MWPT	Tpsg	A	A	CMP	TBOS	1	N	New Wells for 2005; Well not yet completed
W-834-2119	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Well not yet completed
W-834-2119	MWPT	Tpsg	S	S	CMP	E601	1	N	Well not yet completed
W-834-2119	MWPT	Tpsg			CMP	E601	2	Y	CMP analytes completed in 2nd Qtr
W-834-2119	MWPT	Tpsg	S	S	CMP	E601	3		New Wells for 2005
W-834-2119	MWPT	Tpsg			DIS	E601	4		New Wells for 2005
W-834-2119	MWPT	Tpsg			CMP	EM8015:DIESEL	2	Y	CMP analytes completed in 2nd Qtr
W-834-2119	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Well not yet completed
W-834-2119	MWPT	Tpsg			CMP	TBOS	2	Y	CMP analytes completed in 2nd Qtr

Table 2.2-7. Building 834 OU ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-834-A1	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-834-A1	MWPT	Tps	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-A1	MWPT	Tps	S	S	CMP	E601	3		
W-834-A1	MWPT	Tps	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-A1	MWPT	Tps	A	A	CMP	TBOS	1	Y	
W-834-A2	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-A2	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-A2	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-A2	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-A2	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-B2	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-B2	EW	Tpsg	S	Q	CMP	E601	1	Y	E624 analyzed.
W-834-B2				Q	DIS	E601	2	Y	
W-834-B2	EW	Tpsg	S	Q	CMP	E601	3		
W-834-B2	EW			Q	DIS	E601	4		
W-834-B2	EW	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-B3					DIS	E601	2	Y	
W-834-B3	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-B3	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-B3	EW	Tpsg	S	S	CMP	E601	3		
W-834-B3	EW				DIS	E601	4		
W-834-B3	EW	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-B4	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-B4	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-B4	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-B4	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-C2	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-C2	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-C2	EW	Tpsg	S	S	CMP	E601	3		
W-834-C2	EW	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-C4	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-C4	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-C4	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-C4	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-C5	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-C5	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-C5	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-C5	MWPT	Tpsg		A	DIS	E8330:R+H	1	Y	
W-834-C5	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-C5	MWPT	Tpsg		A	DIS	GENMIN	1	Y	
W-834-C5	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	

Table 2.2-7. Building 834 OU ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-834-D10	MWPT	Tps	A	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-D10	MWPT	Tps	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-D10	MWPT	Tps	S	S	CMP	E601	3		
W-834-D10	MWPT	Tps	A	A	CMP	EM8015:DIESEL	1	N	Insufficient water.
W-834-D10	MWPT	Tps	A	A	CMP	TBOS	1	N	Insufficient water.
W-834-D11	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-D11	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-D11	EW	Tpsg	S	S	CMP	E601	3		
W-834-D11	EW	Tpsg	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-D11	EW	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-D12					DIS	E601	2	Y	
W-834-D12					DIS	E601	4		
W-834-D12	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-D12	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-D12	EW	Tpsg	S	S	CMP	E601	3		
W-834-D12	EW	Tpsg	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-D12	EW	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-D13					DIS	E601	2	Y	
W-834-D13					DIS	E601	4		
W-834-D13	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-D13	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-D13	EW	Tpsg	S	S	CMP	E601	3		
W-834-D13	EW	Tpsg	A	Q	CMP	TBOS	1	Y	
W-834-D14	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-D14	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-D14	EW	Tpsg	S	S	CMP	E601	3		
W-834-D14	EW	Tpsg	A	Q	CMP	TBOS	1	Y	
W-834-D15	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-D15	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-D15	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-D15	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-D16	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D16	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-D16	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-D16	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-D16	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-D17	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-D17	MWPT	Tpsg	S	S	CMP	E601	1	N	Insufficient water.
W-834-D17	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-D17	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Insufficient water.
W-834-D17	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Insufficient water.

Table 2.2-7. Building 834 OU ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-834-D18	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-D18	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-D18	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-D18	MWPT	Tpsg	S	S	CMP	TBOS	1	Y	
W-834-D18	MWPT	Tpsg	A	A	CMP	TBOS	3		
W-834-D2	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D2	MWPT	$Tnbs_1$	A	A	CMP	E601	1	N	Dry.
W-834-D2	MWPT	$Tnbs_1$	A	A	CMP	TBOS	1	N	Dry.
W-834-D3	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-D3	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-D3	EW	Tpsg	S	S	CMP	E601	3		
W-834-D3	EW	Tpsg	A	A	CMP	TBOS	3		
W-834-D4					DIS	E601	2	Y	
W-834-D4	EW				DIS	E601	4		
W-834-D4	EW				DIS	TBOS	4		
W-834-D4	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-D4	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-D4	EW	Tpsg	S	S	CMP	E601	3		
W-834-D4	EW	Tpsg	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-D4	EW	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-D5	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-D5	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-D5	EW	Tpsg	S	S	CMP	E601	3		
W-834-D5	EW	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-D6					DIS	E601	2	Y	
W-834-D6	EW				DIS	E601	4		
W-834-D6	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-D6	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-D6	EW	Tpsg	S	S	CMP	E601	3		
W-834-D6	EW	Tpsg	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-D6	EW	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-D7					DIS	E601	2	Y	
W-834-D7	EW				DIS	E624	4		
W-834-D7	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-D7	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-D7	EW	Tpsg	S	S	CMP	E601	3		E624 analyzed.
W-834-D7	EW	Tpsg	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-D7	EW	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-D9A	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D9A	MWPT	$Tnbs_2$	A	A	CMP	E601	1	N	Dry.
W-834-D9A	MWPT	$Tnbs_2$	A	A	CMP	TBOS	1	N	Dry.

Table 2.2-7. Building 834 OU ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-834-G3	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-G3	MWPT	Tpsg	A	A	CMP	E601	1	N	Insufficient water.
W-834-G3	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Insufficient water.
W-834-H2	EW	Tpsg	A	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-H2	EW	Tpsg	S	S	CMP	E601	1	N	Insufficient water.
W-834-H2	EW	Tpsg	S	S	CMP	E601	3		
W-834-H2	EW	Tpsg	A	A	CMP	TBOS	1	N	Insufficient water.
W-834-J1					DIS	E601	2	Y	
W-834-J1					DIS	E601	4		
W-834-J1	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-J1	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-J1	EW	Tpsg	S	S	CMP	E601	3		
W-834-J1	EW	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-J2	EW	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-J2	EW	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-J2	EW	Tpsg	S	S	CMP	E601	3		
W-834-J2	EW	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-J3	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-J3	MWPT	Tpsg	S	S	CMP	E601	1	N	Insufficient water.
W-834-J3	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-J3	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Insufficient water.
W-834-K1A	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-K1A	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-K1A	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-K1A	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-K1A	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-M1	MWPT	Tpsg		S	DIS	E218.2	1	Y	
W-834-M1	MWPT	Tpsg		S	DIS	E218.2	3		
W-834-M1	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-M1	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-M1	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-M1	MWPT	Tpsg		A	DIS	GENMIN	1	Y	
W-834-M1	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-M2	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-M2	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-M2	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-M2	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-S1					DIS	E601	2	Y	
W-834-S1	EW				DIS	E601	4		
W-834-S1	MWPT	Tpsg		A	DIS	E218.2	1	Y	
W-834-S1	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	

Table 2.2-7. Building 834 OU ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-834-S1	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-S1	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-S1	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-S1	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-S10	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-S10	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-S10	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-S10	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-S10	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-S12A					DIS	E601	2	Y	
W-834-S12A	EW				DIS	E601	4		
W-834-S12A	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-S12A	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-S12A	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-S12A	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-S13					DIS	E601	2	Y	
W-834-S13	EW				DIS	E601	4		
W-834-S13	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-S13	MWPT	Tpsg	S	S	CMP	E601	1	N	Insufficient water.
W-834-S13	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-S13	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Insufficient water.
W-834-S4	MWPT	Tpsg		A	DIS	E218.2	1	Y	
W-834-S4	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-S4	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-S4	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-S4	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-S5	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-S5	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-S5	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-S5	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-S6	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-S6	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-S6	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-S6	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-S7	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-S7	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-S7	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-S7	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-S8	MWPT	$Tnsc_2$	A	A	CMP	E300.0:NO3	1	Y	
W-834-S8	MWPT	$Tnsc_2$	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-S8	MWPT	$Tnsc_2$	S	S	CMP	E601	3		

Table 2.2-7. Building 834 OU ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-834-S8	MWPT	$Tnsc_2$	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-S8	MWPT	$Tnsc_2$	A	A	CMP	TBOS	1	Y	
W-834-S9	MWPT	$Tnsc_2$		S	DIS	E218.2	1	Y	
W-834-S9	MWPT	$Tnsc_2$		S	DIS	E218.2	3		
W-834-S9	MWPT	$Tnsc_2$	A	A	CMP	E300.0:NO3	1	Y	
W-834-S9	MWPT	$Tnsc_2$	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-S9	MWPT	$Tnsc_2$	S	S	CMP	E601	3		
W-834-S9	MWPT	$Tnsc_2$	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-S9	MWPT	$Tnsc_2$	A	A	CMP	TBOS	1	Y	
W-834-T1	GW	$Tnbs_1$	S	S	CMP	E300.0:NO3	1	Y	
W-834-T1	GW	$Tnbs_1$	S	S	CMP	E300.0:NO3	3		
W-834-T1	GW	$Tnbs_1$	Q	Q	CMP	E601	1	Y	
W-834-T1	GW	$Tnbs_1$	Q	Q	CMP	E601	2	Y	
W-834-T1	GW	$Tnbs_1$	Q	Q	CMP	E601	3		
W-834-T1	GW	$Tnbs_1$	Q	Q	CMP	E601	4		
W-834-T1	GW	$Tnbs_1$	S	S	CMP	TBOS	1	Y	
W-834-T1	GW	$Tnbs_1$	S	S	CMP	TBOS	3		
W-834-T11	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T11	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-T11	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-T11	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-T2	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	No samples taken due to tracer study.
W-834-T2	MWPT	Tpsg	S	S	CMP	E601	1	Y	Sample collected under Experiment 3X077
W-834-T2	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-T2	MWPT	Tpsg	A	A	CMP	TBOS	1	N	No samples taken due to tracer study.
W-834-T2A	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	No samples taken due to tracer study.
W-834-T2A	MWPT	Tpsg	S	S	CMP	E601	1	Y	Sample collected under Experiment 3X077
W-834-T2A	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-T2A	MWPT	Tpsg	A	A	CMP	TBOS	1	N	No samples taken due to tracer study.
W-834-T2B	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	No samples taken due to tracer study.
W-834-T2B	MWPT	Tpsg	S	S	CMP	E601	1	Y	Sample collected under Experiment 3X077
W-834-T2B	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-T2B	MWPT	Tpsg	A	A	CMP	TBOS	1	N	No samples taken due to tracer study.
W-834-T2C	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T2C	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-T2C	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-T2C	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-T2D	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	No samples taken due to tracer study.
W-834-T2D	MWPT	Tpsg	S	S	CMP	E601	1	Y	Sample collected under Experiment 3X077
W-834-T2D	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-T2D	MWPT	Tpsg	A	A	CMP	TBOS	1	N	No samples taken due to tracer study.

Table 2.2-7. Building 834 OU ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-834-T3	GW	$Tnbs_1$	S	S	CMP	E300.0:NO3	1	Y	
W-834-T3	GW	$Tnbs_1$	S	S	CMP	E300.0:NO3	3		
W-834-T3	GW	$Tnbs_1$	Q	Q	CMP	E601	1	Y	E624 analyzed.
W-834-T3	GW	$Tnbs_1$	Q	Q	CMP	E601	2	Y	
W-834-T3	GW	$Tnbs_1$	Q	Q	CMP	E601	3		
W-834-T3	GW	$Tnbs_1$	Q	Q	CMP	E601	4		
W-834-T3	GW	$Tnbs_1$	S	S	CMP	TBOS	1	Y	
W-834-T3	GW	$Tnbs_1$	S	S	CMP	TBOS	3		
W-834-T5	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	Y	
W-834-T5	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-T5	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-T5	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-T7A	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-T7A	MWPT	Tpsg	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-T7A	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-T7A	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Insufficient water.
W-834-T8A	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T8A	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-T8A	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-T8A	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-T9	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T9	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-T9	MWPT	Tpsg	S	S	CMP	E601	3		
W-834-T9	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-U1	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-834-U1	MWPT	Tps	S	S	CMP	E601	1	Y	E624 analyzed.
W-834-U1	MWPT	Tps	S	S	CMP	E601	3		
W-834-U1	MWPT	Tps	A	A	CMP	EM8015:DIESEL	1	Y	
W-834-U1	MWPT	Tps	A	A	CMP	TBOS	1	Y	

Notes:
Building 834 primary COC: VOCs (E601, E502.2, or E624).
Building 834 secondary COC: Nitrate (E300.0:NO3).
Building 834 secondary COC: TBOS/TKEBS.
Building 834 secondary COC: Diesel.
*See Table Acronyms and Abbreviations in the Tables section of this report for Requested Analysis acronym definitions.

Table 2.2-8. Building 834 OU mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Month	GWTS VOC mass removed (g)	GWTS TBOS mass removed (g)	GWTS nitrate mass removed (g)	SVE VOC mass removed (g)
TF834	January	23.9	.25	255.5	0
	February	55.2	.62	639.3	0
	March	160.2	1.26	1,311.0	0
	April	169.3	0.48	2,019.4	0
	May	483.7	1.24	5,234.8	28,609
	June	387.3	0.38	5,128.2	13,932
Total		1,279.6	4.23	14,588.2	42,541

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
BC6-10	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
BC6-10	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
BC6-10	MWPT	$Tnbs_1$	S	S	CMP	E601	1	Y	
BC6-10	MWPT	$Tnbs_1$	S	S	CMP	E601	3		
BC6-10	MWPT	$Tnbs_1$	S	S	CMP	E906	1	Y	
BC6-10	MWPT	$Tnbs_1$	S	S	CMP	E906	3		
BC6-13 (SPRING 7)	MWPT	$Qt/Tnbs_1$	A	A	CMP	E300.0:NO3	2	N	Dry.
BC6-13 (SPRING 7)	MWPT	$Qt/Tnbs_1$	A	A	CMP	E300.0:PERC	2	N	Dry.
BC6-13 (SPRING 7)	MWPT	$Qt/Tnbs_1$	A	A	CMP	E601	2	N	Dry.
BC6-13 (SPRING 7)	MWPT	$Qt/Tnbs_1$	A	A	CMP	E906	2	N	Dry.
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:NO3	1	Y	
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:NO3	1	Y	
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:NO3	1	Y	
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:NO3	2	Y	
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:NO3	2	Y	
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:NO3	2	Y	
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:NO3	3		
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:NO3	3		
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:NO3	3		
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:NO3	4		
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:NO3	4		
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:NO3	4		
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:PERC	1	Y	
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:PERC	1	Y	
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:PERC	1	Y	
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:PERC	2	Y	
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:PERC	2	Y	
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:PERC	2	Y	
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:PERC	3		
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:PERC	3		
CARNRW1	WS	$Tnbs_1/Tmss$	M	M	CMP	E300.0:PERC	3		

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E300.0:PERC	4		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E300.0:PERC	4		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E300.0:PERC	4		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E601	1	Y	
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E601	1	Y	
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E601	1	Y	
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E601	2	Y	
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E601	2	Y	
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E601	2	Y	
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E601	3		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E601	3		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E601	3		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E601	4		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E601	4		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E601	4		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E906	1	Y	
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E906	1	Y	
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E906	1	Y	
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E906	2	Y	
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E906	2	Y	
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E906	2	Y	
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E906	3		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E906	3		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E906	3		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E906	4		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E906	4		
CARNRW1	WS	Tnbs$_1$/Tmss	M	M	CMP	E906	4		
CARNRW2	WS	Tnbs$_1$/Tmss	M	M	CMP/WGMG	E300.0:NO3	1	Y	
CARNRW2	WS	Tnbs$_1$/Tmss	M	M	CMP/WGMG	E300.0:NO3	1	Y	
CARNRW2	WS	Tnbs$_1$/Tmss	M	M	CMP/WGMG	E300.0:NO3	1	Y	
CARNRW2	WS	Tnbs$_1$/Tmss	M	M	CMP/WGMG	E300.0:NO3	2	Y	
CARNRW2	WS	Tnbs$_1$/Tmss	M	M	CMP/WGMG	E300.0:NO3	2	Y	
CARNRW2	WS	Tnbs$_1$/Tmss	M	M	CMP/WGMG	E300.0:NO3	2	Y	
CARNRW2	WS	Tnbs$_1$/Tmss	M	M	CMP/WGMG	E300.0:NO3	3		
CARNRW2	WS	Tnbs$_1$/Tmss	M	M	CMP/WGMG	E300.0:NO3	3		

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:NO3	3		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:NO3	4		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:NO3	4		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:NO3	4		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:PERC	1	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:PERC	1	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:PERC	1	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:PERC	2	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:PERC	2	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:PERC	2	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:PERC	3		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:PERC	3		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:PERC	3		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:PERC	4		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:PERC	4		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E300.0:PERC	4		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E601	1	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E601	1	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E601	1	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E601	2	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E601	2	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E601	2	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E601	3		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E601	3		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E601	3		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E601	4		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E601	4		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E601	4		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E906	1	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E906	1	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E906	1	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E906	2	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E906	2	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E906	2	Y	
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E906	3		

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E906	3		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E906	3		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E906	4		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E906	4		
CARNRW2	WS	$Tnbs_1$/Tmss	M	M	CMP/WGMG	E906	4		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:NO3	1	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:NO3	1	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:NO3	1	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:NO3	2	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:NO3	2	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:NO3	2	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:NO3	3		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:NO3	3		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:NO3	3		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:NO3	4		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:NO3	4		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:NO3	4		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:PERC	1	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:PERC	1	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:PERC	1	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:PERC	2	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:PERC	2	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:PERC	2	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:PERC	3		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:PERC	3		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:PERC	3		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:PERC	4		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:PERC	4		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E300.0:PERC	4		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E601	1	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E601	1	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E601	1	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E601	2	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E601	2	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E601	2	Y	

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E601	3		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E601	3		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E601	3		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E601	4		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E601	4		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E601	4		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E906	1	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E906	1	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E906	1	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E906	2	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E906	2	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E906	2	Y	
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E906	3		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E906	3		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E906	3		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E906	4		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E906	4		
CARNRW3	WS	$Tnbs_1$/Tmss	M	M	CMP	E906	4		
CARNRW4	WS	Qal	M	M	CMP	E300.0:NO3	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	3		
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	3		
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	3		
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	4		
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	4		
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	4		
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	2	Y	

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	3		
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	3		
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	3		
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	4		
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	4		
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	4		
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	3		
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	3		
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	3		
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	4		
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	4		
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	4		
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	3		
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	3		
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	3		
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	4		
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	4		
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	4		
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E624	1	Y	
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E624	3		
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E624	4		
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E906	1	Y	
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E906	2	Y	
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E906	3		
EP6-06[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E906	4		
EP6-07	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
EP6-07	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
EP6-07	MWPT	$Tnbs_1$	S	S	CMP	E601	1	Y	
EP6-07	MWPT	$Tnbs_1$	S	S	CMP	E601	3		
EP6-07	MWPT	$Tnbs_1$	S	S	CMP	E906	1	Y	
EP6-07	MWPT	$Tnbs_1$	S	S	CMP	E906	3		
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	1	Y	
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	3		
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	4		
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	1	Y	
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	2	Y	
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	3		

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
EP6-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	4		
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	1	Y	
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	3		
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	4		
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	1	Y	
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	2	Y	
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	3		
EP6-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	4		
K6-01[b]	DMW	$Tnbs_1$		A	ERD/WGMG	E300.0:NO3	1	Y	
K6-01[b]	DMW	$Tnbs_1$		A	ERD/WGMG	E300.0:PERC	1	Y	
K6-01[b]	DMW	$Tnbs_1$		S	ERD/WGMG	E601	1	Y	
K6-01[b]	DMW	$Tnbs_1$		S	ERD/WGMG	E601	3		
K6-01[b]	DMW	$Tnbs_1$		S	ERD/WGMG	E906	1	Y	
K6-01[b]	DMW	$Tnbs_1$		S	ERD/WGMG	E906	3		
K6-01S[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
K6-01S[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
K6-01S[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
K6-01S[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		
K6-01S[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
K6-01S[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
K6-01S[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
K6-01S[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
K6-01S[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E624	1	Y	

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K6-01S[a]	DMW	Qt/$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
K6-01S[a]	DMW	Qt/$Tnbs_1$		Q	ERD/WGMG	E624	3		
K6-01S[a]	DMW	Qt/$Tnbs_1$		Q	ERD/WGMG	E624	4		
K6-01S[a]	DMW	Qt/$Tnbs_1$		q	ERD/WGMG	E906	1	Y	
K6-01S[a]	DMW	Qt/$Tnbs_1$		Q	ERD/WGMG	E906	2	Y	
K6-01S[a]	DMW	Qt/$Tnbs_1$		q	ERD/WGMG	E906	3		
K6-01S[a]	DMW	Qt/$Tnbs_1$		Q	ERD/WGMG	E906	4		
K6-03	MWPT	$Tnbs_1$	A	A	CMP/WGMG	E300.0:NO3	1	Y	
K6-03	MWPT	$Tnbs_1$	A	A	CMP/WGMG	E300.0:PERC	1	Y	
K6-03	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E601	1	Y	
K6-03	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E601	3		
K6-03	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E906	1	Y	
K6-03	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E906	3		
K6-04	MWPT	$Tnbs_1$	A	Q	CMP	E300.0:NO3	1	Y	
K6-04	MWPT	$Tnbs_1$	A	Q	CMP	E300.0:PERC	1	Y	
K6-04	MWPT	$Tnbs_1$	S	Q	CMP	E601	1	Y	
K6-04	MWPT	$Tnbs_1$	S	Q	CMP	E601	3		
K6-04	MWPT	$Tnbs_1$	S	Q	CMP	E906	1	Y	
K6-04	MWPT	$Tnbs_1$	S	Q	CMP	E906	3		
K6-14	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
K6-14	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
K6-14	MWPT	$Tnbs_1$	S	S	CMP	E601	1	Y	
K6-14	MWPT	$Tnbs_1$	S	S	CMP	E601	3		
K6-14	MWPT	$Tnbs_1$	S	S	CMP	E906	1	Y	
K6-14	MWPT	$Tnbs_1$	S	S	CMP	E906	3		
K6-15	MWPT	Qt/$Tnbs_1$	A	A	CMP/WGMG	E300.0:NO3	1	N	Dry.
K6-15	MWPT	Qt/$Tnbs_1$	A	A	CMP/WGMG	E300.0:PERC	1	N	Dry.
K6-15	MWPT	Qt/$Tnbs_1$	S	S	CMP/WGMG	E601	1	N	Dry.
K6-15	MWPT	Qt/$Tnbs_1$	S	S	CMP/WGMG	E601	3		
K6-15	MWPT	Qt/$Tnbs_1$	S	S	CMP/WGMG	E906	1	N	Dry.
K6-15	MWPT	Qt/$Tnbs_1$	S	S	CMP/WGMG	E906	3		
K6-16	MWPT	Qt/$Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
K6-16	MWPT	Qt/$Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
K6-16	MWPT	Qt/$Tnbs_1$	S	S	CMP	E601	1	Y	

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K6-16	MWPT	Qt/Tnbs$_1$	S	S	CMP	E601	3		
K6-16	MWPT	Qt/Tnbs$_1$	S	S	CMP	E906	1	Y	
K6-16	MWPT	Qt/Tnbs$_1$	S	S	CMP	E906	3		
K6-17	GW	Qt/Tnbs$_1$	S	S	CMP	E300.0:NO3	1	Y	
K6-17	GW	Qt/Tnbs$_1$	S	S	CMP	E300.0:NO3	3		
K6-17	GW	Qt/Tnbs$_1$	S	S	CMP	E300.0:PERC	1	Y	
K6-17	GW	Qt/Tnbs$_1$	S	S	CMP	E300.0:PERC	3		
K6-17	GW	Qt/Tnbs$_1$	Q	Q	CMP	E601	1	Y	
K6-17	GW	Qt/Tnbs$_1$	Q	Q	CMP	E601	2	Y	
K6-17	GW	Qt/Tnbs$_1$	Q	Q	CMP	E601	3		
K6-17	GW	Qt/Tnbs$_1$	Q	Q	CMP	E601	4		
K6-17	GW	Qt/Tnbs$_1$	Q	Q	CMP	E906	1	Y	
K6-17	GW	Qt/Tnbs$_1$	Q	Q	CMP	E906	2	Y	
K6-17	GW	Qt/Tnbs$_1$	Q	Q	CMP	E906	3		
K6-17	GW	Qt/Tnbs$_1$	Q	Q	CMP	E906	4		
K6-18	MWPT	Qt/Tnbs$_1$	A	A	CMP	E300.0:NO3	1	Y	
K6-18	MWPT	Qt/Tnbs$_1$	A	A	CMP	E300.0:PERC	1	Y	
K6-18	MWPT	Qt/Tnbs$_1$	S	S	CMP	E601	1	Y	
K6-18	MWPT	Qt/Tnbs$_1$	S	S	CMP	E601	3		
K6-18	MWPT	Qt/Tnbs$_1$	S	S	CMP	E906	1	Y	
K6-18	MWPT	Qt/Tnbs$_1$	S	S	CMP	E906	3		
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E300.0:NO3	3		
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E300.0:NO3	4		
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E300.0:PERC	3		
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E300.0:PERC	4		
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E624	1	Y	
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E624	2	Y	
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E624	3		
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E624	4		
K6-19[a]	DMW	Qt/Tnbs$_1$		Q	ERD/WGMG	E906	1	Y	

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K6-19[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E906	2	Y	
K6-19[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E906	3		
K6-19[a]	DMW	$Qt/Tnbs_1$		Q	ERD/WGMG	E906	4		
K6-21	MWPT	Qt	A	A	CMP	E300.0:NO3	1	N	Dry.
K6-21	MWPT	Qt	A	A	CMP	E300.0:PERC	1	N	Dry.
K6-21	MWPT	Qt	A	A	CMP	E601	1	N	Dry.
K6-21	MWPT	Qt	A	A	CMP	E906	1	N	Dry.
K6-22	GW	$Tnbs_1$	S	S	CMP	E300.0:NO3	1	N	Dry.
K6-22	GW	$Tnbs_1$	S	S	CMP	E300.0:NO3	3		
K6-22	GW	$Tnbs_1$	S	S	CMP	E300.0:PERC	1	N	Dry.
K6-22	GW	$Tnbs_1$	S	S	CMP	E300.0:PERC	3		
K6-22	GW	$Tnbs_1$	Q	Q	CMP	E601	1	N	Dry.
K6-22	GW	$Tnbs_1$	Q	Q	CMP	E601	2	Y	
K6-22	GW	$Tnbs_1$	Q	Q	CMP	E601	3		
K6-22	GW	$Tnbs_1$	Q	Q	CMP	E601	4		
K6-22	GW	$Tnbs_1$	Q	Q	CMP	E906	1	N	Dry.
K6-22	GW	$Tnbs_1$	Q	Q	CMP	E906	2	Y	
K6-22	GW	$Tnbs_1$	Q	Q	CMP	E906	3		
K6-22	GW	$Tnbs_1$	Q	Q	CMP	E906	4		
K6-23	MWPT	Tmss	A	A	CMP	E300.0:NO3	1	Y	
K6-23	MWPT	Tmss	A	A	CMP	E300.0:PERC	1	Y	
K6-23	MWPT	Tmss	S	S	CMP	E601	1	Y	
K6-23	MWPT	Tmss	S	S	CMP	E601	3		
K6-23	MWPT	Tmss	S	S	CMP	E906	1	Y	
K6-23	MWPT	Tmss	S	S	CMP	E906	3		
K6-24	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
K6-24	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
K6-24	MWPT	$Tnbs_1$	S	S	CMP	E601	1	Y	
K6-24	MWPT	$Tnbs_1$	S	S	CMP	E601	3		
K6-24	MWPT	$Tnbs_1$	S	S	CMP	E906	1	Y	
K6-24	MWPT	$Tnbs_1$	S	S	CMP	E906	3		
K6-25	MWPT	Tmss	A	A	CMP	E300.0:NO3	1	Y	
K6-25	MWPT	Tmss	A	A	CMP	E300.0:PERC	1	Y	
K6-25	MWPT	Tmss	S	S	CMP	E601	1	Y	
K6-25	MWPT	Tmss	S	S	CMP	E601	3		

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K6-25	MWPT	Tmss	S	S	CMP	E906	1	Y	
K6-25	MWPT	Tmss	S	S	CMP	E906	3		
K6-26	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
K6-26	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
K6-26	MWPT	$Tnbs_1$	S	S	CMP	E601	1	Y	
K6-26	MWPT	$Tnbs_1$	S	S	CMP	E601	3		
K6-26	MWPT	$Tnbs_1$	S	S	CMP	E906	1	Y	
K6-26	MWPT	$Tnbs_1$	S	S	CMP	E906	3		
K6-27	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
K6-27	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
K6-27	MWPT	$Tnbs_1$	S	S	CMP	E601	1	Y	
K6-27	MWPT	$Tnbs_1$	S	S	CMP	E601	3		
K6-27	MWPT	$Tnbs_1$	S	S	CMP	E906	1	Y	
K6-27	MWPT	$Tnbs_1$	S	S	CMP	E906	3		
K6-32	MWPT	$Tnbs_1$	A	A	CMP/WGMG	E300.0:NO3	1	Y	
K6-32	MWPT	$Tnbs_1$	A	A	CMP/WGMG	E300.0:PERC	1	Y	
K6-32	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E601	1	Y	
K6-32	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E601	3		
K6-32	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E906	1	Y	
K6-32	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E906	3		
K6-33	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
K6-33	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
K6-33	MWPT	$Tnbs_1$	S	S	CMP	E601	1	Y	
K6-33	MWPT	$Tnbs_1$	S	S	CMP	E601	3		
K6-33	MWPT	$Tnbs_1$	S	S	CMP	E906	1	Y	
K6-33	MWPT	$Tnbs_1$	S	S	CMP	E906	3		
K6-34	GW	$Tnbs_1$	S	S	CMP	E300.0:NO3	1	Y	
K6-34	GW	$Tnbs_1$	S	S	CMP	E300.0:NO3	3		
K6-34	GW	$Tnbs_1$	S	S	CMP	E300.0:PERC	1	Y	
K6-34	GW	$Tnbs_1$	S	S	CMP	E300.0:PERC	3		
K6-34	GW	$Tnbs_1$	Q	Q	CMP	E601	1	Y	
K6-34	GW	$Tnbs_1$	Q	Q	CMP	E601	2	Y	
K6-34	GW	$Tnbs_1$	Q	Q	CMP	E601	3		
K6-34	GW	$Tnbs_1$	Q	Q	CMP	E601	4		
K6-34	GW	$Tnbs_1$	Q	Q	CMP	E906	1	Y	

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K6-34	GW	$Tnbs_1$	Q	Q	CMP	E906	2	Y	
K6-34	GW	$Tnbs_1$	Q	Q	CMP	E906	3		
K6-34	GW	$Tnbs_1$	Q	Q	CMP	E906	4		
K6-35	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
K6-35	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
K6-35	MWPT	$Tnbs_1$	S	S	CMP	E601	1	Y	
K6-35	MWPT	$Tnbs_1$	S	S	CMP	E601	3		
K6-35	MWPT	$Tnbs_1$	S	S	CMP	E906	1	Y	
K6-35	MWPT	$Tnbs_1$	S	S	CMP	E906	3		
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	1	Y	
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	3		
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	4		
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	1	Y	
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	2	Y	
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	3		
K6-36[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	4		
SPRING15	SPR	Qt	A	A	CMP	E300.0:NO3	1	N	Dry.
SPRING15	SPR	Qt	A	A	CMP	E300.0:PERC	1	N	Dry.
SPRING15	SPR	Qt	A	A	CMP	E601	1	N	Dry.
SPRING15	SPR	Qt	A	A	CMP	E906	1	N	Dry.
SPRING8	SPR	Qt		A	DIS	DWMETALS	2	N	
SPRING8	SPR	Qt		A	DIS	E210.2	2	N	
SPRING8	SPR	Qt		A	DIS	E300.0:PERC	2	N	
SPRING8	SPR	Qt		A	DIS	E601	2	N	
SPRING8	SPR	Qt		A	DIS	E8330:R+H	2	N	

Table 2.3-1. Pit 6 Landfill OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
SPRING8	SPR	Qt		A	DIS	E906	2	N	
W-33C-01	MWPT	Tts	A	A	CMP	E300.0:NO3	1	Y	
W-33C-01	MWPT	Tts	A	A	CMP	E300.0:PERC	1	Y	
W-33C-01	MWPT	Tts	S	S	CMP	E601	1	Y	
W-33C-01	MWPT	Tts	S	S	CMP	E601	3		
W-33C-01	MWPT	Tts	S	S	CMP	E906	1	Y	
W-33C-01	MWPT	Tts	S	S	CMP	E906	3		
W-34-01	MWB	$Tnsc_1$		A	DIS	E300.0:NO3	1	Y	
W-34-01	MWB	$Tnsc_1$		A	DIS	E300.0:PERC	1	Y	
W-34-01	MWB	$Tnsc_1$		A	DIS	E601	1	Y	
W-34-01	MWB	$Tnsc_1$		A	DIS	E906	1	Y	
W-34-02	MWB	Upper $Tnbs_1$		A	DIS	E300.0:NO3	1	Y	
W-34-02	MWB	Upper $Tnbs_1$		A	DIS	E300.0:PERC	1	Y	
W-34-02	MWB	Upper $Tnbs_1$		A	DIS	E601	1	Y	
W-34-02	MWB	Upper $Tnbs_1$		A	DIS	E906	1	Y	
W-PIT6-1819	GW	$Tnbs_1$	S	S	CMP	E300.0:NO3	1	Y	
W-PIT6-1819	GW	$Tnbs_1$	S	S	CMP	E300.0:NO3	3		
W-PIT6-1819	GW	$Tnbs_1$	S	S	CMP	E300.0:PERC	1	Y	
W-PIT6-1819	GW	$Tnbs_1$	S	S	CMP	E300.0:PERC	3		
W-PIT6-1819	GW	$Tnbs_1$	Q	Q	CMP	E601	1	Y	
W-PIT6-1819	GW	$Tnbs_1$	Q	Q	CMP	E601	2	Y	
W-PIT6-1819	GW	$Tnbs_1$	Q	Q	CMP	E601	3		
W-PIT6-1819	GW	$Tnbs_1$	Q	Q	CMP	E601	4		
W-PIT6-1819	GW	$Tnbs_1$	Q	Q	CMP	E906	1	Y	
W-PIT6-1819	GW	$Tnbs_1$	Q	Q	CMP	E906	2	Y	
W-PIT6-1819	GW	$Tnbs_1$	Q	Q	CMP	E906	3		
W-PIT6-1819	GW	$Tnbs_1$	Q	Q	CMP	E906	4		

Notes:

Pit 6 primary COC: VOCs (E601 or E624).

Pit 6 primary COC: tritium (E906).

Pit 6 secondary COC: nitrate (E300:NO3).

Pit 6 secondary COC: perchlorate (E300.0:PERC).

***See Table Acronyms and Abbreviations in the Tables section of this report for Requested Analysis acronym definitions.**

[a] Non CMP well. DWM Analytes and sampling frequency are specified in the Pit 6 Landfill Post-Closure Plan.

[b] K6-01 TO BE SAMPLED QUARTERLY IF K6-01S IS DRY.

Table 2.4-1. Building 815-Source (B815-SRC) volumes of ground water extracted and discharged, January 1, 2005 through June 30, 2005.

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B815-SRC	January	758	42,804	8,561
	February	329	18,050	9,025
	March	367	19,504	4,876
	April	644	35,184	8,796
	May	865	47,019	9,404
	June	590	33,276	8,319
Total		3,553	195,837	

Table 2.4-2. Building 815-Proximal (B815-PRX) volumes of ground water extracted and discharged, January 1, 2005 through June 30, 2005.

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B815-PRX	January	340	50,880	16,960
	February	585	82,307	20,577
	March	607	89,351	22,338
	April	628	84,595	21,149
	May	821	105,326	21,065
	June	653	86,448	21,612
Total		3,634	498,907	

Table 2.4-3. Building 815-Distal Site Boundary (B815-DSB) volumes of ground water extracted and discharged, January 1, 2005 through June 30, 2005.

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B815-DSB	January	234	48,603	9,721
	February	319	75,543	18,886
	March	413	98,871	24,718
	April	394	129,736	25,947
	May	862	162,358	32,472
	June	645	154,162	38,540
Total		2,867	669,237	

Table 2.4-4. Building 817-Source (B817-SRC) volumes of ground water extracted and discharged, January 1, 2005 through June 30, 2005.

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B817-SRC	January	7	183	37
	February	15	321	80
	March	16	355	89
	April	15	332	83
	May	19	385	77
	June	15	313	78
Total		87	1,889	

Table 2.4-5. High Explosive Process Area OU VOCs in ground water treatment system influent and effluent.

Location	Date	Method	TCE µg/L	PCE µg/L	Total 1,2-DCE µg/L	Carbon tetra-chloride 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	Freon 11 µg/L	Freon 113 µg/L	Methylene chloride µg/L	Vinyl chloride µg/L
B815-SRC-I	01/12/05	E601	8.9	<0.5	<1	<0.5	<0.5 E	<0.5 E	<0.5	0.66	<0.5	<0.5	<0.5	<1	<0.5
B815-SRC-I	04/06/05	E601	6.5 B	<0.5 E	<1	<0.5	<0.5 E	<0.5 E	<0.5	0.73	<0.5	<0.5	<0.5	<1	<0.5
B815-SRC-E	01/12/05	E601	<0.5 E	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5 O
B815-SRC-E	02/10/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-SRC-E	03/09/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-SRC-E	04/06/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-SRC-E	05/05/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-SRC-E	06/16/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-DSB-I	01/12/05	E601	9.8	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-DSB-I	04/14/05	E601	8.3 B	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1 B	<0.5
B815-DSB-E	01/12/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-DSB-E	02/09/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-DSB-E	03/02/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-DSB-E	04/14/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-DSB-E	05/16/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-DSB-E	06/09/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-PRX-I	01/20/05	E601	29	<0.5 E	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5 E	<0.5	<0.5	<0.5	<1	<0.5
B815-PRX-I	04/06/05	E601	29 B	<0.5	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5 E	<0.5	<0.5	<0.5	<1	<0.5
B815-PRX-I	04/06/05 DUP	E601	30 B	<0.5	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5 E	<0.5	<0.5	<0.5	<1	<0.5
B815-PRX-E	01/20/05	E601	<0.5 E	<0.5	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-PRX-E	02/09/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-PRX-E	03/02/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-PRX-E	04/06/05	E601	<0.5 B	<0.5	<1	<0.5	<0.5 BE	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1 B	<0.5
B815-PRX-E	05/05/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B815-PRX-E	06/16/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B817-SRC-I	01/27/05	E601	<0.5 E	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1 E	<0.5
B817-SRC-I	01/27/05 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
B817-SRC-I	04/07/05	E601	<0.5 E	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B817-SRC-E	01/27/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B817-SRC-E	02/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5 L
B817-SRC-E	03/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B817-SRC-E	04/07/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B817-SRC-E	05/04/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B817-SRC-E	06/07/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5

Note: Detection frequency of onstituents analyzed and not reported in table above are listed on following page.

Table 2.4-5 (Cont.). High Explosive Process Area OU VOCs in ground water treatment system influent and effluent. (High Detection frequency of constituents analyzed and not reported in table on previous page):

Location	Date	Method	Detection frequency
B815-SRC-I	01/12/05	E601	0 of 20
B815-SRC-I	04/06/05	E601	0 of 20
B815-SRC-E	01/12/05	E601	0 of 20
B815-SRC-E	02/10/05	E601	0 of 20
B815-SRC-E	03/09/05	E601	0 of 20
B815-SRC-E	04/06/05	E601	0 of 20
B815-SRC-E	05/05/05	E601	0 of 20
B815-SRC-E	06/16/05	E601	0 of 20
B815-DSB-I	01/12/05	E601	0 of 20
B815-DSB-I	04/14/05	E601	0 of 20
B815-DSB-E	01/12/05	E601	0 of 20
B815-DSB-E	02/09/05	E601	0 of 20
B815-DSB-E	03/02/05	E601	0 of 20
B815-DSB-E	04/14/05	E601	0 of 20
B815-DSB-E	05/16/05	E601	0 of 20
B815-DSB-E	06/09/05	E601	0 of 20
B815-PRX-I	01/20/05	E601	0 of 20
B815-PRX-I	04/06/05	E601	0 of 20
B815-PRX-I	04/06/05 DUP	E601	0 of 20
B815-PRX-E	01/20/05	E601	0 of 20
B815-PRX-E	02/09/05	E601	0 of 20
B815-PRX-E	03/02/05	E601	0 of 20
B815-PRX-E	04/06/05	E601	0 of 20
B815-PRX-E	05/05/05	E601	0 of 20
B815-PRX-E	06/16/05	E601	0 of 20
B817-SRC-I	01/27/05	E601	0 of 20
B817-SRC-I	01/27/05 DUP	E601	0 of 19
B817-SRC-I	04/07/05	E601	0 of 20
B817-SRC-E	01/27/05	E601	0 of 20
B817-SRC-E	02/08/05	E601	0 of 20
B817-SRC-E	03/08/05	E601	0 of 20
B817-SRC-E	04/07/05	E601	0 of 20
B817-SRC-E	05/04/05	E601	0 of 20
B817-SRC-E	06/07/05	E601	0 of 20

Table 2.4-6. High Explosive Process Area OU nitrate and perchlorate in ground water treatment system influent and effluent.

Location	Date	Nitrate (as NO_3) (mg/L)	Perchlorate (μg/L)
B815-DSB-I	01/12/05	<0.44	-
B815-DSB-I	04/14/05	<0.44	-
B815-DSB-E	01/12/05	<0.44	-
B815-DSB-E	02/09/05	<0.44	-
B815-DSB-E	03/02/05	<0.44	-
B815-DSB-E	04/14/05	<0.44	-
B815-DSB-E	05/16/05	<0.44	-
B815-DSB-E	06/09/05	<0.44	-
B815-PRX-I	01/20/05	80.5	7.8
B815-PRX-I	04/06/05	81	<4
B815-PRX-I	04/06/05 DUP	81	<4
B815-PRX-E	01/20/05	<0.44	<4
B815-PRX-E	02/09/05	99.5 D	<4
B815-PRX-E	03/02/05	88	<4
B815-PRX-E	04/06/05	79	<4 E
B815-PRX-E	05/05/05	75	<4
B815-PRX-E	06/16/05	71	<4
B815-SRC-I	01/12/05	94.1 D	24
B815-SRC-I	04/06/05	100 D	18
B815-SRC-E	01/12/05	94.8 D	<4
B815-SRC-E	02/10/05	94.4 D	49
B815-SRC-E	03/09/05	96 D	<4
B815-SRC-E	04/06/05	97 D	<4
B815-SRC-E	05/05/05	96 D	<4
B815-SRC-E	06/16/05	92 D	<4
B817-SRC-I	01/27/05	73.7	17
B817-SRC-I	01/27/05 DUP	73 D	11
B817-SRC-I	04/07/05	89	19
B817-SRC-E	01/27/05	<0.44	<4
B817-SRC-E	02/08/05	<0.44	<4
B817-SRC-E	03/08/05	<0.44 E	<4
B817-SRC-E	04/07/05	<0.44	<4
B817-SRC-E	05/04/05	1.1	<4
B817-SRC-E	06/07/05	6.9	<4

Table 2.4-7. High Explosive Process Area OU high explosive compounds in ground water treatment system influent and effluent.

Location	Date	HMX (μg/L)	RDX (μg/L)
B815-SRC-I	01/12/05	5.3	59
B815-SRC-I	04/06/05	5.7 D	62 D
B815-SRC-E	01/12/05	<5	<5
B815-SRC-E	02/10/05	<5	<5
B815-SRC-E	03/09/05	<6.7 D	<6.7 D
B815-SRC-E	04/06/05	<5	<5
B815-SRC-E	05/05/05	<5 D	<5 D
B815-SRC-E	06/16/05	<5	<5
B815-PRX-I	01/20/05	<5	<5
B815-PRX-I	04/06/05	<7.3 D	<7.3 D
B815-PRX-I	04/06/05 DUP	<5.7 D	<5.7 D
B815-PRX-E	01/20/05	<5	<5
B815-PRX-E	02/09/05	<5	<5
B815-PRX-E	03/02/05	<5	<5
B815-PRX-E	04/06/05	<5 D	<5 D
B815-PRX-E	05/05/05	<5	<5
B815-PRX-E	06/16/05	<5 D	<5 D
B817-SRC-I	01/27/05	<5 E	13.2
B817-SRC-I	01/27/05 DUP	17	44
B817-SRC-I	04/07/05	11 D	36 D
B817-SRC-E	01/27/05	<5	<5
B817-SRC-E	02/08/05	<5	<5
B817-SRC-E	03/08/05	<6 D	<6 D
B817-SRC-E	04/07/05	<6 D	<6 D
B817-SRC-E	05/04/05	<6.1 D	<6.1 D
B817-SRC-E	06/07/05	<3.3	<3.3

Table 2.4-8. High Explosive Process Area OU treatment facility sampling and analysis plans.

Sample location	Sample identification	Parameter	Frequency
B815-SRC GWTS			
Influent Port	GTU02-I	VOCs	Quarterly
		RDX	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		pH	Quarterly
Effluent Port (influent to misting system)	GTU02-E	VOCs	Monthly
		RDX	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		pH	Monthly
B815-PRX GWTS			
Influent Port	GTU06-I	VOCs	Quarterly
		Nitrate	Quarterly
		RDX	Quarterly
		Perchlorate	Quarterly
		pH	Quarterly
Effluent Port (influent to misting system)	GTU06-E	VOCs	Monthly
		Perchlorate	Monthly
		RDX	Monthly
		Nitrate	Monthly
		pH	Monthly
B815-DSB GWTS			
Influent Port	STU04-I	VOCs	Quarterly
		Nitrate	Quarterly
		pH	Quarterly
Effluent Port	STU04-E	VOCs	Monthly
		Nitrate	Monthly
		pH	Monthly

Table 2.4-8. High Explosive Process Area OU treatment facility sampling and analysis plans.

Sample location	Sample identification	Parameter	Frequency
B817-SRC GWTS			
Influent Port	**STU10-I**	**VOCs**	**Quarterly**
		Perchlorate	**Quarterly**
		Nitrate	**Quarterly**
		pH	**Quarterly**
Effluent Port	**STU10-E**	**VOCs**	**Monthly**
		Perchlorate	**Monthly**
		Nitrate	**Monthly**
		pH	**Monthly**

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:NO3	1	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:NO3	1	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:NO3	1	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:PERC	1	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:PERC	1	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:PERC	1	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E601	1	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E601	1	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E601	1	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E8330:R+H	1	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E8330:R+H	1	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E8330:R+H	1	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:NO3	2	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:NO3	2	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:NO3	2	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:PERC	2	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:PERC	2	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:PERC	2	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E601	2	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E601	2	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E601	2	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E8330:R+H	2	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E8330:R+H	2	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E8330:R+H	2	Y	
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:NO3	3		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:NO3	3		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:NO3	3		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:PERC	3		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:PERC	3		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:PERC	3		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E601	3		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E601	3		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E601	3		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E8330:R+H	3		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E8330:R+H	3		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E8330:R+H	3		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:NO3	4		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:NO3	4		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:NO3	4		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:PERC	4		

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:PERC	4		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E300.0:PERC	4		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E601	4		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E601	4		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E601	4		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E8330:R+H	4		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E8330:R+H	4		
GALLO1	WS	$Tnbs_2$	M	M	CMP/WGMG	E8330:R+H	4		
SPRING14	SPR	$Tnbs_2$	B	B	CMP	E300.0:NO3	1	Y	Next sample required 1stQ 2007.
SPRING14	SPR	$Tnbs_2$	B	B	CMP	E300.0:PERC	1	Y	Next sample required 1stQ 2007.
SPRING14	SPR	$Tnbs_2$	B	B	CMP	E601	1	Y	Next sample required 1stQ 2007.
SPRING14	SPR	$Tnbs_2$	B	B	CMP	E8330:R+H	1	Y	Next sample required 1stQ 2007.
SPRING5	SPR	Tps	A	A	CMP	E300.0:NO3	1	N	Dry.
SPRING5	SPR	Tps	A	A	CMP	E300.0:PERC	1	N	Dry.
SPRING5	SPR	Tps	S	S	CMP	E601	1	N	Dry.
SPRING5	SPR	Tps	A	A	CMP	E8330:R+H	1	N	Dry.
SPRING5	SPR	Tps	S	S	CMP	E601	3		
W-35B-01	GW	Qal	S	S	CMP	E300.0:NO3	1	Y	
W-35B-01	GW	Qal	S	S	CMP	E300.0:PERC	1	Y	
W-35B-01	GW	Qal	Q	Q	CMP	E601	1	Y	
W-35B-01	GW	Qal	S	S	CMP	E8330:R+H	1	Y	
W-35B-01	GW	Qal	Q	Q	CMP	E601	2	Y	
W-35B-01	GW	Qal	S	S	CMP	E300.0:NO3	3		
W-35B-01	GW	Qal	S	S	CMP	E300.0:PERC	3		
W-35B-01	GW	Qal	Q	Q	CMP	E601	3		
W-35B-01	GW	Qal	S	S	CMP	E8330:R+H	3		
W-35B-01	GW	Qal	Q	Q	CMP	E601	4		
W-35B-02	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	1	Y	
W-35B-02	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	1	Y	
W-35B-02	GW	$Tnbs_2$	Q	Q	CMP	E601	1	Y	
W-35B-02	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	1	Y	
W-35B-02	GW	$Tnbs_2$	Q	Q	CMP	E601	2	Y	
W-35B-02	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	3		
W-35B-02	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	3		
W-35B-02	GW	$Tnbs_2$	Q	Q	CMP	E601	3		
W-35B-02	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	3		
W-35B-02	GW	$Tnbs_2$	Q	Q	CMP	E601	4		
W-35B-03	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	1	Y	
W-35B-03	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	1	Y	
W-35B-03	GW	$Tnbs_2$	Q	Q	CMP	E601	1	Y	

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-35B-03	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	1	Y	
W-35B-03	GW	$Tnbs_2$	Q	Q	CMP	E601	2	Y	
W-35B-03	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	3		
W-35B-03	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	3		
W-35B-03	GW	$Tnbs_2$	Q	Q	CMP	E601	3		
W-35B-03	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	3		
W-35B-03	GW	$Tnbs_2$	Q	Q	CMP	E601	4		
W-35B-04	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	1	Y	
W-35B-04	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	1	Y	
W-35B-04	GW	$Tnbs_2$	Q	Q	CMP	E601	1	Y	
W-35B-04	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	1	Y	
W-35B-04	GW	$Tnbs_2$	Q	Q	CMP	E601	2	Y	
W-35B-04	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	3		
W-35B-04	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	3		
W-35B-04	GW	$Tnbs_2$	Q	Q	CMP	E601	3		
W-35B-04	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	3		
W-35B-04	GW	$Tnbs_2$	Q	Q	CMP	E601	4		
W-35B-05	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	1	Y	
W-35B-05	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	1	Y	
W-35B-05	GW	$Tnbs_2$	Q	Q	CMP	E601	1	Y	
W-35B-05	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	1	Y	
W-35B-05	GW	$Tnbs_2$	Q	Q	CMP	E601	2	Y	
W-35B-05	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	3		
W-35B-05	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	3		
W-35B-05	GW	$Tnbs_2$	Q	Q	CMP	E601	3		
W-35B-05	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	3		
W-35B-05	GW	$Tnbs_2$	Q	Q	CMP	E601	4		
W-35C-01	MWPT	$Tnsc_2$	A	A	CMP	E300.0:NO3	1	Y	
W-35C-01	MWPT	$Tnsc_2$	A	A	CMP	E300.0:PERC	1	Y	
W-35C-01	MWPT	$Tnsc_2$	S	S	CMP	E601	1	Y	
W-35C-01	MWPT	$Tnsc_2$	A	A	CMP	E8330:R+H	1	Y	
W-35C-01	MWPT	$Tnsc_2$	S	S	CMP	E601	3		
W-35C-02	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-35C-02	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-35C-02	MWPT	$Tnbs_1$	S	S	CMP	E601	1	Y	
W-35C-02	MWPT	$Tnbs_1$	A	A	CMP	E8330:R+H	1	Y	
W-35C-02	MWPT	$Tnbs_1$	S	S	CMP	E601	3		
W-35C-04	EW	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-35C-04	EW	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-35C-04	EW	$Tnbs_2$	S	S	CMP	E601	1	Y	

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-35C-04	EW	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-35C-04	EW	$Tnbs_2$	S	S	CMP	E601	3		
W-35C-05	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-35C-05	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-35C-05	MWPT	Tps	S	S	CMP	E601	1	Y	
W-35C-05	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-35C-05	MWPT	Tps	S	S	CMP	E601	3		
W-35C-06	MWPT	Qal	A	A	CMP	E300.0:NO3	1	Y	
W-35C-06	MWPT	Qal	A	A	CMP	E300.0:PERC	1	Y	
W-35C-06	MWPT	Qal	S	S	CMP	E601	1	Y	
W-35C-06	MWPT	Qal	A	A	CMP	E8330:R+H	1	Y	
W-35C-06	MWPT	Qal	S	S	CMP	E601	3		
W-35C-07	MWPT	$Tnsc_2$	A	A	CMP	E300.0:NO3	1	Y	
W-35C-07	MWPT	$Tnsc_2$	A	A	CMP	E300.0:PERC	1	Y	
W-35C-07	MWPT	$Tnsc_2$	S	S	CMP	E601	1	Y	
W-35C-07	MWPT	$Tnsc_2$	A	A	CMP	E8330:R+H	1	Y	
W-35C-07	MWPT	$Tnsc_2$	S	S	CMP	E601	3		
W-35C-08	MWPT	$Tnsc_2$	A	A	CMP	E300.0:NO3	1	Y	
W-35C-08	MWPT	$Tnsc_2$	A	A	CMP	E300.0:PERC	1	Y	
W-35C-08	MWPT	$Tnsc_2$	S	S	CMP	E601	1	Y	
W-35C-08	MWPT	$Tnsc_2$	A	A	CMP	E8330:R+H	1	Y	
W-35C-08	MWPT	$Tnsc_2$	S	S	CMP	E601	3		
W-4A	MWPT	$Tnsc_2$	A	A	CMP	E300.0:NO3	1	Y	
W-4A	MWPT	$Tnsc_2$	A	A	CMP	E300.0:PERC	1	Y	
W-4A	MWPT	$Tnsc_2$	S	S	CMP	E601	1	Y	
W-4A	MWPT	$Tnsc_2$	A	A	CMP	E8330:R+H	1	N	Control box malfunctioned.
W-4A	MWPT	$Tnsc_2$	S	S	CMP	E601	3		
W-4AS	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-4AS	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-4AS	MWPT	Tps	S	S	CMP	E601	1	Y	
W-4AS	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-4AS	MWPT	Tps	S	S	CMP	E601	3		
W-4B	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-4B	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-4B	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-4B	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-4B	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-4C	GW	$Tnsc_1$	S	S	CMP	E300.0:NO3	1	Y	Changed to GW 2ndQ 2005
W-4C	GW	$Tnsc_1$	S	S	CMP	E300.0:PERC	1	Y	Changed to GW 2ndQ 2005
W-4C	GW	$Tnsc_1$	Q	Q	CMP	E601	1	Y	Changed to GW 2ndQ 2005

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-4C	GW	$Tnsc_1$	S	S	CMP	E8330:R+H	1	Y	Changed to GW 2ndQ 2005
W-4C	GW	$Tnsc_1$	Q	Q	CMP	E601	2	N	Changed to GW 2ndQ 2005
W-4C	GW	$Tnsc_1$	S	S	CMP	E300.0:NO3	3		Changed to GW 2ndQ 2005
W-4C	GW	$Tnsc_1$	S	S	CMP	E300.0:PERC	3		Changed to GW 2ndQ 2005
W-4C	GW	$Tnsc_1$	Q	Q	CMP	E601	3		Changed to GW 2ndQ 2005
W-4C	GW	$Tnsc_1$	S	S	CMP	E8330:R+H	3		Changed to GW 2ndQ 2005
W-4C	GW	$Tnsc_1$	Q	Q	CMP	E601	4		Changed to GW 2ndQ 2005
W-6BD	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-6BD	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-6BD	MWPT	Tps	S	S	CMP	E601	1	Y	
W-6BD	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-6BD	MWPT	Tps	S	S	CMP	E601	3		
W-6BS	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-6BS	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-6BS	MWPT	Tps	S	S	CMP	E601	1	Y	
W-6BS	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-6BS	MWPT	Tps	S	S	CMP	E601	3		
W-6CD	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-6CD	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-6CD	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-6CD	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-6CD	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-6CI	MWPT	$Tnsc_2$	A	A	CMP	E300.0:NO3	1	Y	
W-6CI	MWPT	$Tnsc_2$	A	A	CMP	E300.0:PERC	1	Y	
W-6CI	MWPT	$Tnsc_2$	S	S	CMP	E601	1	Y	
W-6CI	MWPT	$Tnsc_2$	A	A	CMP	E8330:R+H	1	Y	
W-6CI	MWPT	$Tnsc_2$	S	S	CMP	E601	3		
W-6CS	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-6CS	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-6CS	MWPT	Tps	S	S	CMP	E601	1	Y	
W-6CS	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-6CS	MWPT	Tps	S	S	CMP	E601	3		
W-6EI	MWPT	$Tnsc_2$	A	A	CMP	E300.0:NO3	1	Y	
W-6EI	MWPT	$Tnsc_2$	A	A	CMP	E300.0:PERC	1	Y	
W-6EI	MWPT	$Tnsc_2$	S	S	CMP	E601	1	Y	
W-6EI	MWPT	$Tnsc_2$	A	A	CMP	E8330:R+H	1	Y	
W-6EI	MWPT	$Tnsc_2$	S	S	CMP	E601	3		
W-6ER	EW	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-6ER	EW	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-6ER	EW	$Tnbs_2$	S	S	CMP	E601	1	Y	

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-6ER	EW	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-6ER	EW	$Tnbs_2$	S	S	CMP	E601	3		
W-6ES	MWPT	Qal	A	A	CMP	E300.0:NO3	1	Y	
W-6ES	MWPT	Qal	A	A	CMP	E300.0:PERC	1	Y	
W-6ES	MWPT	Qal	S	S	CMP	E601	1	Y	
W-6ES	MWPT	Qal	A	A	CMP	E8330:R+H	1	Y	
W-6ES	MWPT	Qal	S	S	CMP	E601	3		
W-6F	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-6F	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-6F	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-6F	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-6F	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-6G	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-6G	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-6G	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-6G	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-6G	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-6H	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	1	Y	
W-6H	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	1	Y	
W-6H	GW	$Tnbs_2$	Q	Q	CMP	E601	1	Y	
W-6H	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	1	Y	
W-6H	GW	$Tnbs_2$	Q	Q	CMP	E601	2	Y	
W-6H	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	3		
W-6H	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	3		
W-6H	GW	$Tnbs_2$	Q	Q	CMP	E601	3		
W-6H	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	3		
W-6H	GW	$Tnbs_2$	Q	Q	CMP	E601	4		
W-6I	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-6I	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-6I	MWPT	Tps	S	S	CMP	E601	1	Y	
W-6I	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-6I	MWPT	Tps	S	S	CMP	E601	3		
W-6J	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	1	Y	
W-6J	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	1	Y	
W-6J	GW	$Tnbs_2$	Q	Q	CMP	E601	1	Y	
W-6J	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	1	Y	
W-6J	GW	$Tnbs_2$	Q	Q	CMP	E601	2	Y	
W-6J	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	3		
W-6J	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	3		
W-6J	GW	$Tnbs_2$	Q	Q	CMP	E601	3		

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-6J	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	3		
W-6J	GW	$Tnbs_2$	Q	Q	CMP	E601	4		
W-6K	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-6K	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-6K	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-6K	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-6K	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-6L	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-6L	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-6L	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-6L	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-6L	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-806-06A	MWB	$Tnsc_1$	B	B	CMP	E300.0:NO3	1	Y	Next sample required 1stQ 2007.
W-806-06A	MWB	$Tnsc_1$	B	B	CMP	E300.0:PERC	1	Y	Next sample required 1stQ 2007.
W-806-06A	MWB	$Tnsc_1$	B	B	CMP	E601	1	Y	Next sample required 1stQ 2007.
W-806-06A	MWB	$Tnsc_1$	B	B	CMP	E8330:R+H	1	Y	Next sample required 1stQ 2007.
W-806-06A	MWB	$Tnsc_1$			DIS	E300.0:NO3	2	Y	Next sample required 1stQ 2007.
W-806-06A	MWB	$Tnsc_1$			DIS	E300.0:PERC	2	Y	Next sample required 1stQ 2007.
W-806-06A	MWB	$Tnsc_1$			DIS	E601	2	Y	Next sample required 1stQ 2007.
W-806-06A	MWB	$Tnsc_1$			DIS	E8330:R+H	2	Y	Next sample required 1stQ 2007.
W-806-07	MWB	$Tnbs_2$	B	B	CMP	E300.0:NO3	1&2	N	Dry. Next sample required 1stQ 2007.
W-806-07	MWB	$Tnbs_2$	B	B	CMP	E300.0:PERC	1&2	N	Dry. Next sample required 1stQ 2007.
W-806-07	MWB	$Tnbs_2$	B	B	CMP	E601	1&2	N	Dry. Next sample required 1stQ 2007.
W-806-07	MWB	$Tnbs_2$	B	B	CMP	E8330:R+H	1&2	N	Dry. Next sample required 1stQ 2007.
W-808-01	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-808-01	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-808-01	MWPT	Tps	S	S	CMP	E601	1	Y	
W-808-01	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-808-01	MWPT	Tps	S	S	CMP	E601	3		
W-808-02	MWPT	$Tnsc_2$	A	A	CMP	E300.0:NO3	1	N	Dry.
W-808-02	MWPT	$Tnsc_2$	A	A	CMP	E300.0:PERC	1	N	Dry.
W-808-02	MWPT	$Tnsc_2$	S	S	CMP	E601	1	N	Dry.
W-808-02	MWPT	$Tnsc_2$	A	A	CMP	E8330:R+H	1	N	Dry.
W-808-02	MWPT	$Tnsc_2$	S	S	CMP	E601	3		
W-808-03	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-808-03	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-808-03	MWPT	$Tnbs_1$	S	S	CMP	E601	1	Y	
W-808-03	MWPT	$Tnbs_1$	A	A	CMP	E8330:R+H	1	Y	
W-808-03	MWPT	$Tnbs_1$	S	S	CMP	E601	3		
W-809-01	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-809-01	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-809-01	MWPT	Tps	S	S	CMP	E601	1	Y	
W-809-01	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-809-01	MWPT	Tps	S	S	CMP	E601	3		
W-809-02	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-809-02	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-809-02	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-809-02	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-809-02	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-809-03	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-809-03	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-809-03	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-809-03	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-809-03	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-809-04	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-809-04	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-809-04	MWPT	Tps	S	S	CMP	E601	1	Y	
W-809-04	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-809-04	MWPT	Tps	S	S	CMP	E601	3		
W-810-01	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-810-01	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-810-01	MWPT	$Tnbs_1$	S	S	CMP	E601	1	Y	
W-810-01	MWPT	$Tnbs_1$	A	A	CMP	E8330:R+H	1	Y	
W-810-01	MWPT	$Tnbs_1$	S	S	CMP	E601	3		
W-814-01	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-814-01	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-814-01	MWPT	Tps	S	S	CMP	E601	1	Y	
W-814-01	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-814-01	MWPT	Tps	S	S	CMP	E601	3		
W-814-02	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-814-02	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-814-02	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-814-02	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-814-02	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-814-03	MWPT	Tps	A	A	CMP	E300.0:NO3	1	N	Dry.
W-814-03	MWPT	Tps	A	A	CMP	E300.0:PERC	1	N	Dry.
W-814-03	MWPT	Tps	S	S	CMP	E601	1	N	Dry.
W-814-03	MWPT	Tps	A	A	CMP	E8330:R+H	1	N	Dry.
W-814-03	MWPT	Tps	S	S	CMP	E601	3		
W-814-04	GW	$Tnsc_1$	S	S	CMP	E300.0:NO3	1	Y	Changed from a MWPT to GW 2ndQ 2005

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-814-04	GW	$Tnsc_1$	S	S	CMP	E300.0:PERC	1	Y	Changed from a MWPT to GW 2ndQ 2005
W-814-04	GW	$Tnsc_1$	Q	Q	CMP	E601	1	Y	Changed from a MWPT to GW 2ndQ 2005
W-814-04	GW	$Tnsc_1$	S	S	CMP	E8330:R+H	1	Y	Changed from a MWPT to GW 2ndQ 2005
W-814-04	GW	$Tnsc_1$	Q	Q	CMP	E601	2	N	Changed from a MWPT to GW 2ndQ 2005
W-814-04	GW	$Tnsc_1$	S	S	CMP	E300.0:NO3	3		Changed from a MWPT to GW 2ndQ 2005
W-814-04	GW	$Tnsc_1$	S	S	CMP	E300.0:PERC	3		Changed from a MWPT to GW 2ndQ 2005
W-814-04	GW	$Tnsc_1$	Q	Q	CMP	E601	3		Changed from a MWPT to GW 2ndQ 2005
W-814-04	GW	$Tnsc_1$	S	S	CMP	E8330:R+H	3		Changed from a MWPT to GW 2ndQ 2005
W-814-04	GW	$Tnsc_1$	Q	Q	CMP	E601	4		Changed from a MWPT to GW 2ndQ 2005
W-815-01	MWPT	Tps	A	A	CMP	E300.0:NO3	1	N	Dry.
W-815-01	MWPT	Tps	A	A	CMP	E300.0:PERC	1	N	Dry.
W-815-01	MWPT	Tps	S	S	CMP	E601	1	N	Dry.
W-815-01	MWPT	Tps	A	A	CMP	E8330:R+H	1	N	Dry.
W-815-01	MWPT	Tps	S	S	CMP	E601	3		
W-815-02	EW	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-815-02	EW	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-815-02	EW	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-815-02	EW	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-815-02	EW	$Tnbs_2$	S	S	CMP	E601	3		
W-815-03	MWPT	Tps	A	A	CMP	E300.0:NO3	1	N	Dry.
W-815-03	MWPT	Tps	A	A	CMP	E300.0:PERC	1	N	Dry.
W-815-03	MWPT	Tps	S	S	CMP	E601	1	N	Dry.
W-815-03	MWPT	Tps	A	A	CMP	E8330:R+H	1	N	Dry.
W-815-03	MWPT	Tps	S	S	CMP	E601	3		
W-815-04	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-815-04	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-815-04	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-815-04	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-815-04	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-815-05	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-815-05	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-815-05	MWPT	Tps	S	S	CMP	E601	1	Y	
W-815-05	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-815-05	MWPT	Tps	S	S	CMP	E601	3		
W-815-06	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-815-06	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-815-06	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-815-06	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-815-06	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-815-07	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	N	Insufficient water to collect sample.

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-815-07	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	N	Insufficient water to collect sample.
W-815-07	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-815-07	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	N	Insufficient water to collect sample.
W-815-07	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-815-08	GW	$Tnbs_1$	S	S	CMP	E300.0:NO3	1	Y	
W-815-08	GW	$Tnbs_1$	S	S	CMP	E300.0:PERC	1	Y	
W-815-08	GW	$Tnbs_1$	Q	Q	CMP	E601	1	Y	
W-815-08	GW	$Tnbs_1$	S	S	CMP	E8330:R+H	1	Y	
W-815-08	GW	$Tnbs_1$	Q	Q	CMP	E601	2	Y	
W-815-08	GW	$Tnbs_1$	S	S	CMP	E300.0:NO3	3		
W-815-08	GW	$Tnbs_1$	S	S	CMP	E300.0:PERC	3		
W-815-08	GW	$Tnbs_1$	Q	Q	CMP	E601	3		
W-815-08	GW	$Tnbs_1$	S	S	CMP	E8330:R+H	3		
W-815-08	GW	$Tnbs_1$	Q	Q	CMP	E601	4		
W-815-1928	MWPT	Tps	A	A	CMP	E300.0:NO3	1	N	Insufficient water to collect sample.
W-815-1928	MWPT	Tps	A	A	CMP	E300.0:PERC	1	N	Insufficient water to collect sample.
W-815-1928	MWPT	Tps	S	S	CMP	E601	1	N	Insufficient water to collect sample.
W-815-1928	MWPT	Tps	A	A	CMP	E8330:R+H	1	N	Insufficient water to collect sample.
W-815-1928	MWPT	Tps	S	S	CMP	E601	3		
W-817-01	EW	$Tnbs_2$	S	S	CMP/WGMG	E300.0:NO3	1	Y	
W-817-01	EW	$Tnbs_2$	S	S	CMP/WGMG	E300.0:PERC	1	Y	
W-817-01	EW	$Tnbs_2$	Q	Q	CMP/WGMG	E601	1	Y	WDRE624 analyzed.
W-817-01	EW	$Tnbs_2$	S	S	CMP/WGMG	E8330:R+H	1	Y	W8330:LOW analyzed.
W-817-01	EW	$Tnbs_2$	Q	Q	CMP/WGMG	E601	2	Y	
W-817-01	EW	$Tnbs_2$	S	S	CMP/WGMG	E300.0:NO3	3		
W-817-01	EW	$Tnbs_2$	S	S	CMP/WGMG	E300.0:PERC	3		
W-817-01	EW	$Tnbs_2$	Q	Q	CMP/WGMG	E601	3		
W-817-01	EW	$Tnbs_2$	S	S	CMP/WGMG	E8330:R+H	3		
W-817-01	EW	$Tnbs_2$	Q	Q	CMP/WGMG	E601	4		
W-817-02[a]	DMW	$Tnbs_2$		A	ERD/WGMG	E300.0:NO3	1	Y	
W-817-02[a]	DMW	$Tnbs_2$		A	ERD/WGMG	E300.0:PERC	1	Y	
W-817-02[a]	DMW	$Tnbs_2$		S	ERD/WGMG	E601	1	Y	WDRE624 analyzed.
W-817-02[a]	DMW	$Tnbs_2$		A	ERD/WGMG	E8330:R+H	1	Y	W8330:LOW analyzed.
W-817-02[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	W8330:LOW	2	Y	
W-817-02[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	WDRE624	2	Y	
W-817-02[a]	DMW	$Tnbs_2$		S	ERD/WGMG	E601	3		
W-817-02[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	W8330:LOW	3		
W-817-02[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	WDRE624	3		

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-817-02[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	W8330:LOW	4		
W-817-02[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	WDRE624	4		
W-817-03[a]	DMW	$Tnbs_2$		A	ERD/WGMG	E300.0:NO3	1	Y	
W-817-03[a]	DMW	$Tnbs_2$		A	ERD/WGMG	E300.0:PERC	1	Y	
W-817-03[a]	DMW	$Tnbs_2$		S	ERD/WGMG	E601	1	Y	WDRE624 analyzed.
W-817-03[a]	DMW	$Tnbs_2$		A	ERD/WGMG	E8330:R+H	1	Y	W8330:LOW analyzed.
W-817-03[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	W8330:LOW	2	Y	
W-817-03[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	WDRE624	2	Y	
W-817-03[a]	DMW	$Tnbs_2$		S	ERD/WGMG	E601	3		
W-817-03[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	W8330:LOW	3		
W-817-03[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	WDRE624	3		
W-817-03[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	W8330:LOW	4		
W-817-03[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	WDRE624	4		
W-817-03A	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-817-03A	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-817-03A	MWPT	Tps	S	S	CMP	E601	1	Y	
W-817-03A	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-817-03A	MWPT	Tps	S	S	CMP	E601	3		
W-817-04[a]	DMW	$Tnbs_2$		A	ERD/WGMG	E300.0:NO3	1	Y	
W-817-04[a]	DMW	$Tnbs_2$		A	ERD/WGMG	E300.0:PERC	1	Y	
W-817-04[a]	DMW	$Tnbs_2$		S	ERD/WGMG	E601	1	Y	WDRE624 analyzed.
W-817-04[a]	DMW	$Tnbs_2$		A	ERD/WGMG	E8330:R+H	1	Y	W8330:LOW analyzed.
W-817-04[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	W8330:LOW	2	Y	
W-817-04[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	WDRE624	2	Y	
W-817-04[a]	DMW	$Tnbs_2$		S	ERD/WGMG	E601	3		
W-817-04[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	W8330:LOW	3		
W-817-04[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	WDRE624	3		
W-817-04[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	W8330:LOW	4		
W-817-04[a]	DMW	$Tnbs_2$		Q	ERD/WGMG	WDRE624	4		
W-817-05	MWPT	$Tnsc_1$	A	A	CMP	E300.0:NO3	1	Y	
W-817-05	MWPT	$Tnsc_1$	A	A	CMP	E300.0:PERC	1	Y	
W-817-05	MWPT	$Tnsc_1$	S	S	CMP	E601	1	Y	
W-817-05	MWPT	$Tnsc_1$	A	A	CMP	E8330:R+H	1	Y	
W-817-05	MWPT	$Tnsc_1$	S	S	CMP	E601	3		
W-817-06A	Inj Well	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	N	B817-SRC injection well.
W-817-06A	Inj Well	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	N	B817-SRC injection well.

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-817-06A	Inj Well	$Tnbs_2$	S	S	CMP	E601	1	N	B817-SRC injection well.
W-817-06A	Inj Well	$Tnbs_2$	A	A	CMP	E8330:R+H	1	N	B817-SRC injection well.
W-817-06A	Inj Well	$Tnbs_2$	S	S	CMP	E601	3		B817-SRC injection well.
W-817-07	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-817-07	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-817-07	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-817-07	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-817-07	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-818-01	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-818-01	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-818-01	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-818-01	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-818-01	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-818-03	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-818-03	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-818-03	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-818-03	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-818-03	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-818-04	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-818-04	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-818-04	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-818-04	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-818-04	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-818-06	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-818-06	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-818-06	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-818-06	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-818-06	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-818-07	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-818-07	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-818-07	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-818-07	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-818-07	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-818-08	EW	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-818-08	EW	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-818-08	EW	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-818-08	EW	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-818-08	EW	$Tnbs_2$	S	S	CMP	E601	3		
W-818-09	EW	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-818-09	EW	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-818-09	EW	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-818-09	EW	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-818-09	EW	$Tnbs_2$	S	S	CMP	E601	3		
W-818-11	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-818-11	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-818-11	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-818-11	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-818-11	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-819-02	MWPT	$Tnsc_1$	A	A	CMP	E300.0:NO3	1	Y	
W-819-02	MWPT	$Tnsc_1$	A	A	CMP	E300.0:PERC	1	Y	
W-819-02	MWPT	$Tnsc_1$	S	S	CMP	E601	1	Y	
W-819-02	MWPT	$Tnsc_1$	A	A	CMP	E8330:R+H	1	Y	
W-819-02	MWPT	$Tnsc_1$	S	S	CMP	E601	3		
W-823-01	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-823-01	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-823-01	MWPT	Tps	S	S	CMP	E601	1	Y	
W-823-01	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-823-01	MWPT	Tps	S	S	CMP	E601	3		
W-823-02	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-823-02	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-823-02	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-823-02	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-823-02	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-823-03	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-823-03	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-823-03	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-823-03	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-823-03	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-823-13	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-823-13	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-823-13	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-823-13	MWPT	$Tnbs_2$	A	A	CMP	E8330:R+H	1	Y	
W-823-13	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-827-01	MWB	$Tnbs_2$	B	B	CMP	E300.0:NO3	1	N	Dry. Next sample required 1stQ 2007.
W-827-01	MWB	$Tnbs_2$	B	B	CMP	E300.0:PERC	1	N	Dry. Next sample required 1stQ 2007.
W-827-01	MWB	$Tnbs_2$	B	B	CMP	E601	1	N	Dry. Next sample required 1stQ 2007.
W-827-01	MWB	$Tnbs_2$	B	B	CMP	E8330:R+H	1	N	Dry. Next sample required 1stQ 2007.
W-827-02	MWB	$Tnsc_1$	B	B	CMP	E300.0:NO3	1	Y	Next sample required 1stQ 2005.
W-827-02	MWB	$Tnsc_1$	B	B	CMP	E300.0:PERC	1	Y	Next sample required 1stQ 2005.
W-827-02	MWB	$Tnsc_1$	B	B	CMP	E601	1	Y	Next sample required 1stQ 2005.

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-827-02	MWB	$Tnsc_1$	B	B	CMP	E8330:R+H	1	Y	Next sample required 1stQ 2005.
W-827-03	MWB	$Tnsc_1$	B	B	CMP	E300.0:NO3	1	N	Pump down. Next sample required 1stQ 2005.
W-827-03	MWB	$Tnsc_1$	B	B	CMP	E300.0:PERC	1	N	Pump down. Next sample required 1stQ 2005.
W-827-03	MWB	$Tnsc_1$	B	B	CMP	E601	1	N	Pump down. Next sample required 1stQ 2005.
W-827-03	MWB	$Tnsc_1$	B	B	CMP	E8330:R+H	1	N	Pump down. Next sample required 1stQ 2005.
W-827-05	MWPT	$Tnbs_1$	S	S	CMP	E300.0:NO3	1	Y	No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	$Tnbs_1$	S	S	CMP	E300.0:PERC	1	Y	No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	$Tnbs_1$	Q	Q	CMP	E601	1	Y	No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	$Tnbs_1$	S	S	CMP	E8330:R+H	1	Y	No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	$Tnbs_1$	Q	Q	CMP	E601	2	Y	No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	$Tnbs_1$	S	S	CMP	E300.0:NO3	3		No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	$Tnbs_1$	S	S	CMP	E300.0:PERC	3		No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	$Tnbs_1$	Q	Q	CMP	E601	3		No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	$Tnbs_1$	S	S	CMP	E8330:R+H	3		No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	$Tnbs_1$	Q	Q	CMP	E601	4		No longer HEBP DMW; Replaced by W-829-1938
W-829-06	DMW	$Tnsc_1$		S	CMP	E601	1	Y	No longer a WGMG well, to be convert to extraction well.
W-829-06	DMW	$Tnsc_1$		A	CMP	E300.0:PERC	3		No longer a WGMG well, to be convert to extraction well.
W-829-06	DMW	$Tnsc_1$		A	CMP	E300.0:NO3	3		No longer a WGMG well, to be convert to extraction well.
W-829-06	DMW	$Tnsc_1$		S	CMP	E601	3		No longer a WGMG well, to be convert to extraction well.
W-829-06	DMW	$Tnsc_1$		A	CMP	E8330:R+H	3		No longer a WGMG well, to be convert to extraction well.
W-829-08	DMW	$Tnsc_1$		S	CMP	E601	1	Y	No longer a WGMG well, to be converted to injection well.
W-829-08	DMW	$Tnsc_1$		A	CMP	E300.0:NO3	3		No longer a WGMG well, to be converted to injection well.
W-829-08	DMW	$Tnsc_1$		A	CMP	E300.0:PERC	3		No longer a WGMG well, to be converted to injection well.
W-829-08	DMW	$Tnsc_1$		S	CMP	E601	3		No longer a WGMG well, to be converted to injection well.
W-829-08	DMW	$Tnsc_1$		A	CMP	E8330:R+H	3		No longer a WGMG well, to be converted to injection well.
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	1	Y	
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E8330:R+H	1	Y	
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E8330:R+H	2	Y	
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	3		
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E8330:R+H	3		
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	4		
W-829-15[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E8330:R+H	4		
W-829-1938[b]	DMW	$Tnbs_1$		A	ERD/WGMG	E300.0:NO3	1	Y	
W-829-1938[b]	DMW	$Tnbs_1$		A	ERD/WGMG	E300.0:PERC	1	Y	
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	1	Y	
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E8330:R+H	1	Y	
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E8330:R+H	2	Y	
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	3		
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E8330:R+H	3		
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	4		
W-829-1938[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E8330:R+H	4		
W-829-1940	MWPT	$Tnsc_1$	A	A	CMP	E300.0:NO3	1	Y	
W-829-1940	MWPT	$Tnsc_1$	A	A	CMP	E300.0:PERC	1	Y	
W-829-1940	MWPT	$Tnsc_1$	S	S	CMP	E601	1	Y	
W-829-1940	MWPT	$Tnsc_1$	A	A	CMP	E8330:R+H	1	Y	
W-829-1940	MWPT	$Tnsc_1$	S	S	CMP	E601	3		
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
W-829-22[b]	DMW	$Tnbs_1$		A	ERD/WGMG	E300.0:PERC	1	Y	
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	1	Y	
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E8330:R+H	1	Y	
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E8330:R+H	2	Y	
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	3		

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E8330:R+H	3		
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	4		
W-829-22[b]	DMW	$Tnbs_1$		Q	ERD/WGMG	E8330:R+H	4		
W-880-01	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	1	Y	
W-880-01	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	1	Y	
W-880-01	GW	$Tnbs_2$	Q	Q	CMP	E601	1	Y	
W-880-01	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	1	Y	
W-880-01	GW	$Tnbs_2$	Q	Q	CMP	E601	2	Y	
W-880-01	GW	$Tnbs_2$	S	S	CMP	E300.0:NO3	3		
W-880-01	GW	$Tnbs_2$	S	S	CMP	E300.0:PERC	3		
W-880-01	GW	$Tnbs_2$	Q	Q	CMP	E601	3		
W-880-01	GW	$Tnbs_2$	S	S	CMP	E8330:R+H	3		
W-880-01	GW	$Tnbs_2$	Q	Q	CMP	E601	4		
W-880-02	GW	Qal	S	S	CMP	E300.0:NO3	1	Y	
W-880-02	GW	Qal	S	S	CMP	E300.0:PERC	1	Y	
W-880-02	GW	Qal	Q	Q	CMP	E601	1	Y	
W-880-02	GW	Qal	S	S	CMP	E8330:R+H	1	Y	
W-880-02	GW	Qal	Q	Q	CMP	E601	2	Y	
W-880-02	GW	Qal	S	S	CMP	E300.0:NO3	3		
W-880-02	GW	Qal	S	S	CMP	E300.0:PERC	3		
W-880-02	GW	Qal	Q	Q	CMP	E601	3		
W-880-02	GW	Qal	S	S	CMP	E8330:R+H	3		
W-880-02	GW	Qal	Q	Q	CMP	E601	4		
W-880-03	GW	$Tnsc_1$	S	S	CMP	E300.0:NO3	1	Y	
W-880-03	GW	$Tnsc_1$	S	S	CMP	E300.0:PERC	1	Y	
W-880-03	GW	$Tnsc_1$	Q	Q	CMP	E601	1	Y	
W-880-03	GW	$Tnsc_1$	S	S	CMP	E8330:R+H	1	Y	
W-880-03	GW	$Tnsc_1$	Q	Q	CMP	E601	2	Y	
W-880-03	GW	$Tnsc_1$	S	S	CMP	E300.0:NO3	3		
W-880-03	GW	$Tnsc_1$	S	S	CMP	E300.0:PERC	3		
W-880-03	GW	$Tnsc_1$	Q	Q	CMP	E601	3		
W-880-03	GW	$Tnsc_1$	S	S	CMP	E8330:R+H	3		
W-880-03	GW	$Tnsc_1$	Q	Q	CMP	E601	4		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	1	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	1	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	1	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	1	Y	

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	1	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	1	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	1	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	1	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	1	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	1	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	1	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	1	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	2	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	2	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	2	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	2	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	2	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	2	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	2	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	2	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	2	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	2	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	2	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	2	Y	
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	3		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	3		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	3		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	3		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	3		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	3		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	3		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	3		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	3		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	3		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	3		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	3		
WELL 18	WS	$Tnbs_1$		Q	ERD/WGMG	E900	3		
WELL 18	WS	$Tnbs_1$		Q	ERD/WGMG	E906	3		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	4		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	4		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	4		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	4		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	4		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	4		

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	4		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	4		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	4		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	4		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	4		
WELL 18	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	4		
WELL 18	WS	$Tnbs_1$		Q	ERD/WGMG	E900	4		
WELL 18	WS	$Tnbs_1$		Q	ERD/WGMG	E906	4		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	1	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	1	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	1	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	1	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	1	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	1	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	1	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	1	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	1	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	1	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	1	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	1	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	2	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	2	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	2	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	2	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	2	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	2	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	2	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	2	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	2	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	2	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	2	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	2	Y	
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	3		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	3		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	3		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	3		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	3		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	3		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	3		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	3		

Table 2.4-9. High Explosive Process Area OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	3		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	3		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	3		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	3		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	4		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	4		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:NO3	4		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	4		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	4		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E300.0:PERC	4		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	4		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	4		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E601	4		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	4		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	4		
WELL 20	WS	$Tnbs_1$	M	M	CMP/WGMG	E8330:R+H	4		

Notes:

HEPA primary COC: VOCs (E601, E502.2, or E624).

HEPA secondary COC: nitrate (E300:NO3).

HEPA secondary COC: perchlorate (E300.0:PERC).

HEPA secondary COC: RDX (E8330).

[a] **Non-CMP well. Analytes and sampling frequency are specified in the Waste Discharge Requirements for the High Explosives Surface Water Impoundments.**

[b] **Non-CMP well. Analytes and sampling frequency are specified in the RCRA Closure Plan for the High Explosives Open Burn Facility.**

***See Table Acronyms and Abbreviations in the Tables section of this report for Requested Analysis acronym definitions.**

Table 2.4-10. Building 815-Source (B815-SRC) mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Month	VOC mass removed (g)	RDX mass removed (g)	Nitrate mass removed (g)	Perchlorate mass removed (g)
B815-SRC	January	1.5	9.6	15,245	3.9
	February	0.7	4.0	6,429	1.6
	March	0.7	4.4	6,947	1.8
	April	1.0	8.3	13,317	2.4
	May	1..3	11.0	17,797	3.2
	June	0.9	7.8	12,595	2.3
Total		4.8	45.1	72,330	15.2

Table 2.4-11. Building 815-Proximal (B815-PRX) mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Month	VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (g)
B815-PRX	January	5.6	1.5	15,503
	February	9.0	2.4	25,078
	March	9.8	2.6	27,225
	April	9.4	1.6	25,936
	May	11.8	1.9	32,291
	June	9.7	1.6	26,504
Total		55.3	11.6	152,537

Table 2.4-12. Building 815-Distal Site Boundary (B815-DSB) mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Month	VOC mass removed (g)
B815-DSB	January	1.8
	February	2.8
	March	3.7
	April	1.4
	May	5.1
	June	4.8
Total		19.6

Table 2.4-13. Building 817-Source (B817-SRC) mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Month	VOC mass removed (g)	RDX mass removed (g)	Perchlorate mass removed (g)
B817-SRC	January	0	0.03	0.02
	February	0	0.05	0.03
	March	0	0.05	0.03
	April	0	0.05	0.02
	May	0	0.05	0.03
	June	0	0.04	0.02
Total		0	0.27	0.15

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	1	Y	
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	1	Y	
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	1	Y	E624 was analyzed.
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	1	Y	
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	1	N	Not on plan.
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	2	Y	
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	2	Y	
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	2	Y	
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	2	N	
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	3		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	3		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	3		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	3		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	3		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	4		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	4		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	4		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	4		
K1-01C[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	4		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	AS:THISO	1	Y	
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	AS:UISO	1	Y	
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E300.0:NO3	1	Y	
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E601	1	Y	E624 was analyzed.

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E906	1	Y	
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	MS:UISO	1	N	Not on plan.
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	AS:THISO	2	Y	
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	AS:UISO	2	Y	
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E300.0:NO3	2	Y	
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E624	2	Y	
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E906	2	Y	
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	MS:UISO	2	N	
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	AS:THISO	3		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	AS:UISO	3		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E300.0:NO3	3		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E300.0:PERC	3		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E601	3		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E906	3		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	MS:UISO	3		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	AS:THISO	4		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	AS:UISO	4		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E300.0:NO3	4		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E300.0:PERC	4		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E601	4		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	E906	4		
K1-02B[a]	DMW	$Tnbs_0$		Q	ERD/WGMG	MS:UISO	4		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	1	Y	
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	1	Y	
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	1	Y	E624 was analyzed.
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	1	Y	
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	1	N	Not on plan.
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	2	Y	
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	2	Y	
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	2	Y	
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	2	N	
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	3		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	3		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	3		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	3		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	3		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	4		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	4		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	4		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	4		
K1-03[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	4		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	AS:THISO	1	Y	
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	AS:UISO	1	Y	
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E300.0:NO3	1	Y	
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E601	1	Y	E624 was analyzed.
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E906	1	Y	
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	MS:UISO	1	N	Not on plan.
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	AS:THISO	2	Y	
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	AS:UISO	2	Y	
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E300.0:NO3	2	Y	
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E624	2	Y	
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E906	2	Y	
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	MS:UISO	2	N	
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	AS:THISO	3		

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	AS:UISO	3		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E300.0:NO3	3		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E300.0:PERC	3		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E601	3		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E906	3		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	MS:UISO	3		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	AS:THISO	4		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	AS:UISO	4		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E300.0:NO3	4		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E300.0:PERC	4		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E601	4		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	E906	4		
K1-04[a]	DMW	$Tnbs_1/Tnbs_0$		Q	ERD/WGMG	MS:UISO	4		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	1	Y	
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	1	Y	
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	1	Y	E624 was analyzed.
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	1	Y	
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	1	N	Not on plan.
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	2	Y	
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	2	Y	
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	2	Y	
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	2	N	
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	3		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	3		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	3		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	3		

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	3		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	4		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	4		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	4		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	4		
K1-05[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	4		
K1-06	DMW	$Tnbs_1$		A	DIS	E601	1	Y	
K1-06	DMW	$Tnbs_1$			DIS	E906	1	Y	
K1-06	DMW	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
K1-06	DMW	$Tnbs_1$	S	S	CMP	E906	2	Y	
K1-06	DMW	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
K1-06	DMW	$Tnbs_1$	S	S	CMP	E906	4		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	1	Y	
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	1	Y	
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	1	Y	E624 was analyzed.
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	1	Y	
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	1	N	Not on plan.
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	2	Y	
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	2	Y	
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	2	Y	
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	2	N	
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	3		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	3		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	3		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	3		

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	3		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	4		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	4		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	4		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	4		
K1-07[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	4		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	1	Y	
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	1	Y	
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	1	Y	E624 was analyzed.
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	1	Y	
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	1	N	Not on plan.
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	2	Y	
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	2	Y	
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	2	Y	
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	2	N	
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	3		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	3		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	3		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	3		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	3		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	4		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	4		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	4		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	4		
K1-08[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	4		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	1	Y	
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	1	Y	
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	1	Y	
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	1	Y	E624 was analyzed.
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	1	Y	
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	1	N	Not on plan.
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	2	Y	
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	2	Y	
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	2	Y	
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E624	2	Y	
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	2	Y	
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	2	N	
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	3		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	3		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	3		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	3		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	3		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	3		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	3		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:THISO	4		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	4		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:NO3	4		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E300.0:PERC	4		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E601	4		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	E906	4		
K1-09[a]	DMW	$Tnbs_1$		Q	ERD/WGMG	MS:UISO	4		
K2-03	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
K2-03	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K2-03	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
K2-03	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
K2-04D	MWPT	$Tnbs_1$		A	ERD/WGMG	AS:UISO	2	Y	
K2-04D	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
K2-04D	MWPT	$Tnbs_1$	A	A	CMP/WGMG	E300.0:NO3	2	Y	
K2-04D	MWPT	$Tnbs_1$		A	ERD/WGMG	E300.0:PERC	2	Y	
K2-04D	MWPT	$Tnbs_1$		S	ERD/WGMG	E601	2	N	
K2-04D	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E906	2	Y	
K2-04D	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
K2-04D	MWPT	$Tnbs_1$	A	A	CMP/WGMG	MS:UISO	2	Y	
K2-04D	MWPT	$Tnbs_1$		S	ERD/WGMG	E601	4		
K2-04D	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E906	4		
K2-04S	MWPT	$Tnbs_1$		A	ERD/WGMG	AS:UISO	2	Y	
K2-04S	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
K2-04S	MWPT	$Tnbs_1$	A	A	CMP/WGMG	E300.0:NO3	2	Y	
K2-04S	MWPT	$Tnbs_1$		A	ERD/WGMG	E300.0:PERC	2	Y	
K2-04S	MWPT	$Tnbs_1$		S	ERD/WGMG	E601	2	N	
K2-04S	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E906	2	Y	
K2-04S	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
K2-04S	MWPT	$Tnbs_1$	A	A	CMP/WGMG	MS:UISO	2	Y	
K2-04S	MWPT	$Tnbs_1$		S	ERD/WGMG	E601	4		
K2-04S	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E906	4		
NC2-05	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-05	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-05	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC2-05	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-05	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-05	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-05	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-05A	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-05A	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-05A	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC2-05A	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-05A	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-05A	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-05A	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-06	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-06	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
NC2-06	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC2-06	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-06	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-06	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-06	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-06A	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-06A	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-06A	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC2-06A	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-06A	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-06A	MWPT	$Tnbs_1$	A	S	CMP	MS:UISO	2	Y	
NC2-06A	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-06A	MWPT	$Tnbs_1$		S	DIS	MS:UISO	4		
NC2-09	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-09	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-09	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-09	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-09	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-09	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-10	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-10	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-10	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-10	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-10	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-10	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-11D	MWPT	$Tnbs_1$		A	ERD/WGMG	AS:UISO	2	Y	
NC2-11D	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-11D	MWPT	$Tnbs_1$	A	A	CMP/WGMG	E300.0:NO3	2	Y	
NC2-11D	MWPT	$Tnbs_1$		A	ERD/WGMG	E300.0:PERC	2	Y	
NC2-11D	MWPT	$Tnbs_1$		S	ERD/WGMG	E601	2	N	
NC2-11D	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E906	2	Y	
NC2-11D	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-11D	MWPT	$Tnbs_1$	A	A	CMP/WGMG	MS:UISO	2	Y	
NC2-11D	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E906	4		
NC2-11I	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-11I	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-11I	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-11I	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
NC2-11I	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-11I	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-11S	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-11S	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-11S	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-11S	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-12D	MWPT	$Tnbs_1$		A	ERD/WGMG	AS:UISO	2	Y	
NC2-12D	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-12D	MWPT	$Tnbs_1$	A	A	CMP/WGMG	E300.0:NO3	2	Y	
NC2-12D	MWPT	$Tnbs_1$		A	ERD/WGMG	E300.0:PERC	2	Y	
NC2-12D	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E906	2	Y	
NC2-12D	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-12D	MWPT	$Tnbs_1$	A	A	CMP/WGMG	MS:UISO	2	Y	
NC2-12D	MWPT	$Tnbs_1$		S	ERD/WGMG	E601	4		
NC2-12D	MWPT	$Tnbs_1$	S	S	CMP/WGMG	E906	4		
NC2-12I	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-12I	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-12I	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-12I	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-12I	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-12I	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-12S	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-12S	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-12S	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-12S	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-13	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-13	MWPT	$Tnbs_1$		A	DIS	E601	2	Y	
NC2-13	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-13	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-13	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-14S	MWPT	$Tnbs_1$		A	DIS	DWMETALS	2	N	
NC2-14S	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-14S	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-14S	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC2-14S	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-14S	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-14S	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-14S	MWPT	$Tnbs_1$	S	S	CMP	E906	4		

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
NC2-15	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	N	Laboratory unable to analyze samples.
NC2-15	MWPT	$Tnbs_1$	S	S	CMP	E906	2	N	Laboratory unable to analyze samples.
NC2-15	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	N	Laboratory unable to analyze samples.
NC2-15	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-16	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-16	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-16	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC2-16	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-16	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-16	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-16	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-17	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	N	Laboratory unable to analyze samples.
NC2-17	MWPT	$Tnbs_1$	S	S	CMP	E906	2	N	Laboratory unable to analyze samples.
NC2-17	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	N	Laboratory unable to analyze samples.
NC2-17	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-18	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	N	Laboratory unable to analyze samples.
NC2-18	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	N	Laboratory unable to analyze samples.
NC2-18	MWPT	$Tnbs_1$	S	S	CMP	E906	2	N	Laboratory unable to analyze samples.
NC2-18	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	N	Laboratory unable to analyze samples.
NC2-18	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-19	MWPT	$Tnbs_1$		A	DIS	AS:UISO	2	N	
NC2-19	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-19	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-19	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-19	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-19	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC2-19	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC2-20	MWPT	$Tnbs_0$			DIS	E200.7:SI02	2	Y	
NC2-20	MWPT	$Tnbs_0$	A	A	CMP	E300.0:NO3	2	Y	
NC2-20	MWPT	$Tnbs_0$	S	S	CMP	E906	2	Y	
NC2-20	MWPT	$Tnbs_0$			DIS	GENMIN	2	Y	
NC2-20	MWPT	$Tnbs_0$	A	A	CMP	MS:UISO	2	Y	
NC2-20	MWPT	$Tnbs_0$	S	S	CMP	E906	4		
NC2-21	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC2-21	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-21	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC2-21	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-21	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
NC2-21	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-10	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-10	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-10	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-10	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-10	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-10	MWPT	$Tnbs_1$	A	A	DIS	MS:UISO	2	Y	
NC7-10	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-11	MWPT	$Qal/Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-11	MWPT	$Qal/Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-11	MWPT	$Qal/Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-11	MWPT	$Qal/Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-11	MWPT	$Qal/Tnbs_1$			DIS	GENMIN	2	Y	
NC7-11	MWPT	$Qal/Tnbs_1$	A	A	DIS	MS:UISO	2	Y	
NC7-11	MWPT	$Qal/Tnbs_1$	S	S	CMP	E906	4		
NC7-14	MWPT	$Qal/Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-14	MWPT	$Qal/Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-14	MWPT	$Qal/Tnbs_1$	A	A	CMP	MS:UISO	2	N	Insufficient water to collect sample.
NC7-14	MWPT	$Qal/Tnbs_1$	S	S	CMP	E906	4		
NC7-15	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-15	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-15	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-15	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-15	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-15	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-15	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-19	MWPT	$Qal/Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-19	MWPT	$Qal/Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-19	MWPT	$Qal/Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-19	MWPT	$Qal/Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-19	MWPT	$Qal/Tnbs_1$			DIS	GENMIN	2	Y	
NC7-19	MWPT	$Qal/Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-19	MWPT	$Qal/Tnbs_1$	S	S	CMP	E906	4		
NC7-27	MWPT	$Tnsc_0$			DIS	E200.7:SI02	2	Y	
NC7-27	MWPT	$Tnsc_0$	A	A	CMP	E300.0:NO3	2	Y	
NC7-27	MWPT	$Tnsc_0$			DIS	E300.0:PERC	2	Y	
NC7-27	MWPT	$Tnsc_0$	S	S	CMP	E906	2	Y	
NC7-27	MWPT	$Tnsc_0$			DIS	GENMIN	2	Y	

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
NC7-27	MWPT	$Tnsc_0$	A	A	CMP	MS:UISO	2	Y	
NC7-27	MWPT	$Tnsc_0$	S	S	CMP	E906	4		
NC7-28	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-28	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-28	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-28	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-28	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-28	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-28	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-29	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-29	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-29	MWPT	$Tnbs_1$		A	DIS	E300.0:PERC	2	Y	
NC7-29	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-29	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-29	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-29	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-43	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-43	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-43	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-43	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-43	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-43	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-43	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-44	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-44	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-44	MWPT	$Tnbs_1$		A	DIS	E300.0:PERC	2	Y	
NC7-44	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-44	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-44	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-44	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-45	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	N	Bent casing.
NC7-45	MWPT	$Tnbs_1$	S	S	CMP	E906	2	N	Bent casing.
NC7-45	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	N	Bent casing.
NC7-45	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-46	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-46	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-46	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-46	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
NC7-46	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-46	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-46	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-54	MWPT	Qal			DIS	E200.7:SI02	2	Y	
NC7-54	MWPT	Qal	A	A	CMP	E300.0:NO3	2	Y	
NC7-54	MWPT	Qal			DIS	E300.0:PERC	2	Y	
NC7-54	MWPT	Qal	S	S	CMP	E906	2	Y	
NC7-54	MWPT	Qal			DIS	GENMIN	2	Y	
NC7-54	MWPT	Qal	A	A	CMP	MS:UISO	2	Y	
NC7-54	MWPT	Qal	S	S	CMP	E906	4		
NC7-54	MWPT	Qal			DIS	MS:UISO	4		
NC7-55	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	N	Dry.
NC7-55	MWPT	$Tnbs_1$	S	S	CMP	E906	2	N	Dry.
NC7-55	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	N	Dry.
NC7-55	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-56	MWPT	Qal/$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-56	MWPT	Qal/$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-56	MWPT	Qal/$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-56	MWPT	Qal/$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-56	MWPT	Qal/$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-56	MWPT	Qal/$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-56	MWPT	Qal/$Tnbs_1$	S	S	CMP	E906	4		
NC7-57	MWPT	Qal	A	A	CMP	E300.0:NO3	2	N	Dry.
NC7-57	MWPT	Qal	S	S	CMP	E906	2	N	Dry.
NC7-57	MWPT	Qal	A	A	CMP	MS:UISO	2	N	Dry.
NC7-57	MWPT	Qal	S	S	CMP	E906	4		
NC7-58	MWPT	Qal			DIS	E200.7:SI02	2	Y	
NC7-58	MWPT	Qal	A	A	CMP	E300.0:NO3	2	Y	
NC7-58	MWPT	Qal			DIS	E300.0:PERC	2	Y	
NC7-58	MWPT	Qal	S	S	CMP	E906	2	Y	
NC7-58	MWPT	Qal			DIS	GENMIN	2	Y	
NC7-58	MWPT	Qal	A	A	CMP	MS:UISO	2	Y	
NC7-58	MWPT	Qal	S	S	CMP	E906	4		
NC7-59	MWPT	Qal/$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-59	MWPT	Qal/$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-59	MWPT	Qal/$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-59	MWPT	Qal/$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-59	MWPT	Qal/$Tnbs_1$			DIS	GENMIN	2	Y	

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
NC7-59	MWPT	Qal/$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-59	MWPT	Qal/$Tnbs_1$	S	S	CMP	E906	4		
NC7-60	MWPT	$Tnbs_0$		A	DIS	DWMETALS	2	Y	
NC7-60	MWPT	$Tnbs_0$			DIS	E200.7:SI02	2	Y	
NC7-60	MWPT	$Tnbs_0$	A	A	CMP	E300.0:NO3	2	Y	
NC7-60	MWPT	$Tnbs_0$			DIS	E300.0:PERC	2	Y	
NC7-60	MWPT	$Tnbs_0$	S	S	CMP	E906	2	Y	
NC7-60	MWPT	$Tnbs_0$			DIS	GENMIN	2	Y	
NC7-60	MWPT	$Tnbs_0$	A	A	CMP	MS:UISO	2	Y	
NC7-60	MWPT	$Tnbs_0$	S	S	CMP	E906	4		
NC7-61	MWPT	$Tnbs_0$		A	ERD/WGMG	AS:UISO	2	Y	
NC7-61	MWPT	$Tnbs_0$		A	ERD/WGMG	DWMETALS	2	N	
NC7-61	MWPT	$Tnbs_0$			DIS	E200.7:SI02	2	Y	
NC7-61	MWPT	$Tnbs_0$	A	A	CMP/WGMG	E300.0:NO3	2	Y	
NC7-61	MWPT	$Tnbs_0$		A	ERD/WGMG	E300.0:PERC	2	Y	
NC7-61	MWPT	$Tnbs_0$	S	S	CMP/WGMG	E906	2	Y	
NC7-61	MWPT	$Tnbs_0$			DIS	GENMIN	2	Y	
NC7-61	MWPT	$Tnbs_0$	A	A	CMP/WGMG	MS:UISO	2	Y	
NC7-61	MWPT	$Tnbs_0$			ERD/WGMG	E601	4		
NC7-61	MWPT	$Tnbs_0$	S	S	CMP/WGMG	E906	4		
NC7-62	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-62	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-62	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-62	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-62	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-62	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-62	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-69	MWPT	Tmss		A	ERD/WGMG	AS:UISO	2	Y	
NC7-69	MWPT	Tmss			DIS	E200.7:SI02	2	Y	
NC7-69	MWPT	Tmss	A	A	CMP/WGMG	E300.0:NO3	2	Y	
NC7-69	MWPT	Tmss		A	ERD/WGMG	E300.0:PERC	2	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E601	2	Y	
NC7-69	MWPT	Tmss	S	S	CMP/WGMG	E906	2	Y	
NC7-69	MWPT	Tmss			DIS	GENMIN	2	Y	
NC7-69	MWPT	Tmss	A	A	CMP/WGMG	MS:UISO	2	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E300.0:NO2	4		
NC7-69	MWPT	Tmss		S	ERD/WGMG	E300.0:O-PO2	4		
NC7-69	MWPT	Tmss		S	ERD/WGMG	E350.2	4		

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
NC7-69	MWPT	Tmss		S	ERD/WGMG	E601	4		
NC7-69	MWPT	Tmss	S	S	CMP/WGMG	E906	4		
NC7-70	MWPT	$Tnbs_1$			DIS	MS:UISO	1	Y	
NC7-70	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-70	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-70	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-70	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-70	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-70	MWPT	$Tnbs_1$	A	Q	CMP	MS:UISO	2	Y	
NC7-70	MWPT	$Tnbs_1$			DIS	MS:UISO	3		
NC7-70	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-70	MWPT	$Tnbs_1$			DIS	MS:UISO	4		
NC7-71	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-71	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-71	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-71	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-71	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-71	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-72	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-72	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-72	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-72	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-72	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-72	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-72	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-73	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
NC7-73	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC7-73	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
NC7-73	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
NC7-73	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
NC7-73	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
NC7-73	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
NC7-76	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	N	Laboratory unable to analyze samples.
NC7-76	MWPT	$Tnbs_1$	S	S	CMP	E906	2	N	Laboratory unable to analyze samples.
NC7-76	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	N	Laboratory unable to analyze samples.
NC7-76	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
SPRING24	SPR	$Tnbs_0$/$Tnbs_1$			DIS	E200.7:SI02	2	Y	
SPRING24	SPR	$Tnbs_0$/$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
SPRING24	SPR	$Tnbs_0/Tnbs_1$	S	Q	CMP	E906	2	Y	
SPRING24	SPR	$Tnbs_0/Tnbs_1$			DIS	GENMIN	2	Y	
SPRING24	SPR	$Tnbs_0/Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
SPRING24	SPR	$Tnbs_0/Tnbs_1$	S	Q	DIS	E906	3		
SPRING24	SPR	$Tnbs_0/Tnbs_1$	S	Q	CMP	E906	4		
W-850-05	MWPT	$Tnbs_1$			DIS	E200.7:SI02	2	Y	
W-850-05	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
W-850-05	MWPT	$Tnbs_1$			DIS	E300.0:PERC	2	Y	
W-850-05	MWPT	$Tnbs_1$	S	S	CMP	E906	2	Y	
W-850-05	MWPT	$Tnbs_1$			DIS	GENMIN	2	Y	
W-850-05	MWPT	$Tnbs_1$	A	A	CMP	MS:UISO	2	Y	
W-850-05	MWPT	$Tnbs_1$		S	DIS	DWMETALS	4		
W-850-05	MWPT	$Tnbs_1$	S	S	CMP	E906	4		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	DWMETALS	1	Y	
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E300.0:PERC	1	Y	
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E601	1	Y	
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$	S	Q	DIS	E906	1	Y	
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	DWMETALS	2	Y	
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$			DIS	E200.7:SIO2	2	Y	
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$	A	Q	CMP	E300.0:NO3	2	Y	
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E300.0:PERC	2	Y	
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$			DIS	E601	2	Y	
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	CMP	E906	2	Y	
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$			DIS	GENMIN	2	Y	
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$	A	Q	CMP	MS:UISO	2	Y	
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	DWMETALS	3		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E300.0:NO3	3		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E300.0:PERC	3		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E601	3		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E8330:R+H	3		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E900	3		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E906	3		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	GENMIN	3		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	MS:UISO	3		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	DWMETALS	4		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E300.0:NO3	4		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E300.0:PERC	4		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E624	4		

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E8330:R+H	4		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E900	4		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$	S	Q	CMP	E906	4		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	GENMIN	4		
W-865-1802	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	MS:UISO	4		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	DWMETALS	1	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E300.0:PERC	1	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E601	1	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	GENMIN	1	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	DWMETALS	2	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$			DIS	E200.7:SIO2	2	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$	A	Q	CMP	E300.0:NO3	2	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E300.0:PERC	2	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$			DIS	E601	2	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E900	2	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	CMP	E906	2	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	GENMIN	2	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$	A	Q	CMP	MS:UISO	2	Y	
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	DWMETALS	3		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E300.0:NO3	3		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E300.0:PERC	3		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E601	3		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E8330:R+H	3		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E900	3		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E906	3		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	GENMIN	3		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	MS:UISO	3		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	DWMETALS	4		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E300.0:NO3	4		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E300.0:PERC	4		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E624	4		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E8330:R+H	4		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E900	4		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$	S	Q	CMP	E906	4		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	GENMIN	4		
W-865-1803	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	MS:UISO	4		
W8SPRNG	SPR	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	N	Laboratory unable to analyze samples.
W8SPRNG	SPR	$Tnbs_1$			DIS	E300.0:PERC	2	N	Laboratory unable to analyze samples.

Table 2.5-1. Building 850 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W8SPRNG	SPR	$Tnbs_1$	S	S	CMP	E906	2	N	Laboratory unable to analyze samples.
W8SPRNG	SPR	$Tnbs_1$	A	A	CMP	MS:UISO	2	N	Laboratory unable to analyze samples.
W8SPRNG	SPR	$Tnbs_1$	S	S	CMP	E906	4		
W-PIT1-01	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E601	1	N	Dry.
W-PIT1-01	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E906	1	N	Dry.
W-PIT1-01	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E601	2	N	Dry.
W-PIT1-01	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E906	2	N	Dry.
W-PIT1-01	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E601	3		
W-PIT1-01	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E906	3		
W-PIT1-01	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E601	4		
W-PIT1-01	MWPT	$Tnbs_0$–$Tnsc_0$		Q	DIS	E906	4		
W-PIT1-02	MWPT	$Tnbs_1$		Q	DIS	E601	1	Y	
W-PIT1-02	MWPT	$Tnbs_1$		Q	DIS	E906	1	Y	
W-PIT1-02	MWPT	$Tnbs_1$		Q	DIS	E601	2	Y	
W-PIT1-02	MWPT	$Tnbs_1$		Q	DIS	E906	2	Y	
W-PIT1-02	MWPT	$Tnbs_1$		Q	DIS	E601	3		
W-PIT1-02	MWPT	$Tnbs_1$		Q	DIS	E906	3		
W-PIT1-02	MWPT	$Tnbs_1$		Q	DIS	E601	4		
W-PIT1-02	MWPT	$Tnbs_1$		Q	DIS	E906	4		
W-PIT7-16	MWPT	$Tnsc_0$			DIS	E200.7:SI02	2	Y	
W-PIT7-16	MWPT	$Tnsc_0$	A	A	CMP	E300.0:NO3	2	Y	
W-PIT7-16	MWPT	$Tnsc_0$	S	S	CMP	E906	2	Y	
W-PIT7-16	MWPT	$Tnsc_0$			DIS	GENMIN	2	Y	
W-PIT7-16	MWPT	$Tnsc_0$	A	A	CMP	MS:UISO	2	Y	
W-PIT7-16	MWPT	$Tnsc_0$	S	S	CMP	E906	4		

Notes:

Building 850 primary COC: tritium (E906).

Building 850 secondary COC: nitrate (E300.0:NO3).

Building 850 secondary COC: uranium (MS:UISO).

Contaminants of Concern in the Vadose Zone not detected in Ground Water: PCBs.

*See Table Acronyms and Abbreviations in the Tables section of this report for Requested Analysis acronym definitions.

[a] NON-CMP WELL. Analytes and sampling frequency for detection monitoring wells (DMW) are specified in Waste Discharge Requirements for the Pit 1 Landfill.

Table 2.6-1. Building 854-Source (B854-SRC) volumes of ground water extracted and discharged, January 1, 2005 through June 30, 2005.

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B854-SRC	January	697	37,929	7,586
	February	577	27,578	6,895
	March	620	29,855	7,464
	April	476	21,300	5,325
	May	472	35,696	7,139
	June	695	31,802	7,951
Total		3,537	184,160	

Table 2.6-2. Building 854-Proximal (B854-PRX) volumes of ground water extracted and discharged January 1, 2005 through June 30, 2005.

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B854-PRX	January	209	13,467	2,693
	February	174	11,167	2,792
	March	402	25,480	6,370
	April	418	25,940	6,485
	May	515	31,292	6,258
	June	473	27,852	6,963
Total		2,191	135,198	

Table 2.6-3. Building 854 OU nitrate and perchlorate in ground water treatment system influent and effluent.

Location	Date	Nitrate (as NO_3) (mg/L)	Perchlorate (μg/L)
B854-PRX-I	01/24/05	46	12
B854-PRX-I	01/24/05 DUP	42 D	8.2
B854-PRX-I	04/05/05	48	13
B854-PRX-E	01/24/05	19	<4
B854-PRX-E	02/08/05	19.7	<4
B854-PRX-E	03/07/05	20	<4
B854-PRX-E	04/05/05	12	<4
B854-PRX-E	05/04/05	11	<4
B854-PRX-E	06/07/05	5.3	<4
B854-SRC-I	01/18/05	51.7	8.8
B854-SRC-I	01/18/05 DUP	-	4.4
B854-SRC-I	04/05/05	53	7.1
B854-SRC-E	01/18/05	50.6	<4
B854-SRC-E	02/08/05	51.1	<4
B854-SRC-E	03/07/05	55	<4
B854-SRC-E	04/05/05	50	<4
B854-SRC-E	05/04/05	49	<4
B854-SRC-E	06/07/05	44	<4

Table 2.6-4. Building 854 OU VOCs in ground water treatment system influent and effluent.

Location	Date	Method	TCE µg/L	PCE µg/L	Total 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	Freon 11 µg/L	Freon 113 µg/L	Methylene chloride µg/L	Vinyl chloride µg/L
B854-PRX-I	01/24/05	E601	59	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-PRX-I	01/24/05 DUP	E601	51 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
B854-PRX-I	04/05/05	E601	51	<0.5 E	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-PRX-E	01/24/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-PRX-E	02/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-PRX-E	03/07/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-PRX-E	04/05/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-PRX-E	05/04/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-PRX-E	06/07/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-SRC-I	01/18/05	E601	160 D	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-SRC-I	01/18/05 DUP	E601	210 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
B854-SRC-I	04/05/05	E601	180 BD	<0.5	<1 E	<0.5	<0.5 B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1 B	<0.5
B854-SRC-E	01/18/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-SRC-E	02/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5 L
B854-SRC-E	03/07/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-SRC-E	04/05/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-SRC-E	05/04/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B854-SRC-E	06/07/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5

Detection frequency of constituents analyzed and not reported in table above:

Location	Date	Method	Detection frequency
B854-PRX-I	01/24/05	E601	0 of 20
B854-PRX-I	01/24/05 DUP	E601	0 of 19
B854-PRX-I	04/05/05	E601	0 of 20
B854-PRX-E	01/24/05	E601	0 of 20
B854-PRX-E	02/08/05	E601	0 of 20
B854-PRX-E	03/07/05	E601	0 of 20
B854-PRX-E	04/05/05	E601	0 of 18
B854-PRX-E	05/04/05	E601	0 of 20
B854-PRX-E	06/07/05	E601	0 of 20
B854-SRC-I	01/18/05	E601	0 of 20
B854-SRC-I	01/18/05 DUP	E601	0 of 19
B854-SRC-I	04/05/05	E601	0 of 20
B854-SRC-E	01/18/05	E601	0 of 20
B854-SRC-E	02/08/05	E601	0 of 20
B854-SRC-E	03/07/05	E601	0 of 20
B854-SRC-E	04/05/05	E601	0 of 19
B854-SRC-E	05/04/05	E601	0 of 20
B854-SRC-E	06/07/05	E601	0 of 20

Table 2.6-5. Building 854 OU treatment facility sampling and analysis plans.

Sample location	Sample identification	Parameter	Frequency
B854-SRC GWTS			
Influent Port	STU08-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		pH	Quarterly
Effluent Port	STU08-E	VOCs	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		pH	Monthly
B854-PRX GWTS			
Influent Port	STU02-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		pH	Quarterly
Effluent Port	BTU03-E	VOCs	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		pH	Monthly

Note:

One duplicate and one blank (given fictitious labels) shall be taken for every 10 samples.

Table 2.6-6. Building 854 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
SPRING10	SPR	Qls	Q	Q	CMP	E601	1	Y	
SPRING10	SPR	Qls	Q	Q	CMP	E601	2	Y	
SPRING10	SPR	Qls	Q	Q	CMP	E601	3		
SPRING10	SPR	Qls	Q	Q	CMP	E601	4		
SPRING10	SPR	Qls	A	A	CMP	E300.0:NO3	2	Y	
SPRING10	SPR	Qls	A	A	CMP	E300.0:PERC	2	Y	
SPRING11	SPR	Qls–$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
SPRING11	SPR	Qls–$Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
SPRING11	SPR	Qls–$Tnbs_1$	Q	Q	CMP	E601	1	Y	
SPRING11	SPR	Qls–$Tnbs_1$	Q	Q	CMP	E601	2	Y	
SPRING11	SPR	Qls–$Tnbs_1$	Q	Q	CMP	E601	3		
SPRING11	SPR	Qls–$Tnbs_1$	Q	Q	CMP	E601	4		
W-854-01	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
W-854-01	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
W-854-01	MWPT	$Tnbs_1$	S	S	CMP	E601	2	Y	
W-854-01	MWPT	$Tnbs_1$	S	S	CMP	E601	4		
W-854-02	EW	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	See TF data, B854-SRC
W-854-02	EW	$Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	See TF data, B854-SRC
W-854-02	EW	$Tnbs_1$	S	S	CMP	E601	2	Y	See TF data, B854-SRC
W-854-02	EW	$Tnbs_1$	S	S	CMP	E601	4		
W-854-03	EW	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	See TF data, B854-PRX
W-854-03	EW	$Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	See TF data, B854-PRX
W-854-03	EW	$Tnbs_1$	S	S	CMP	E601	2	Y	See TF data, B854-PRX
W-854-03	EW	$Tnbs_1$	S	S	CMP	E601	4		
W-854-04	MWPT	Tmss	A	A	CMP	E300.0:NO3	2	Y	
W-854-04	MWPT	Tmss	A	A	CMP	E300.0:PERC	2	Y	
W-854-04	MWPT	Tmss	S	S	CMP	E601	2	Y	
W-854-04	MWPT	Tmss	S	S	CMP	E601	4		
W-854-05	MWPT	Qls–$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
W-854-05	MWPT	Qls–$Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
W-854-05	MWPT	Qls–$Tnbs_1$	S	S	CMP	E601	2	Y	
W-854-05	MWPT	Qls–$Tnbs_1$	S	S	CMP	E601	4		
W-854-06	MWPT	$Tnsc_0$	A	A	CMP	E300.0:NO3	2	Y	
W-854-06	MWPT	$Tnsc_0$	A	A	CMP	E300.0:PERC	2	Y	
W-854-06	MWPT	$Tnsc_0$	S	S	CMP	E601	2	Y	
W-854-06	MWPT	$Tnsc_0$	S	S	CMP	E601	4		
W-854-07	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
W-854-07	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
W-854-07	MWPT	$Tnbs_1$	S	S	CMP	E601	2	Y	

Table 2.6-6. Building 854 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-854-07	MWPT	$Tnbs_1$	S	S	CMP	E601	4		
W-854-08	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
W-854-08	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
W-854-08	MWPT	$Tnbs_1$	S	S	CMP	E601	2	Y	
W-854-08	MWPT	$Tnbs_1$	S	S	CMP	E601	4		
W-854-09	MWPT	$Tnsbs_0$	A	A	CMP	E300.0:NO3	2	Y	
W-854-09	MWPT	$Tnsbs_0$	A	A	CMP	E300.0:PERC	2	Y	
W-854-09	MWPT	$Tnsbs_0$	S	S	CMP	E601	2	Y	
W-854-09	MWPT	$Tnsbs_0$	S	S	CMP	E601	4		
W-854-10	MWPT	$Tnsbs_0$	A	A	CMP	E300.0:NO3	2	Y	
W-854-10	MWPT	$Tnsbs_0$	A	A	CMP	E300.0:PERC	2	Y	
W-854-10	MWPT	$Tnsbs_0$	S	S	CMP	E601	2	Y	
W-854-10	MWPT	$Tnsbs_0$	S	S	CMP	E601	4		
W-854-11	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	N	Dry.
W-854-11	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	2	N	Dry.
W-854-11	MWPT	$Tnbs_1$	A	A	CMP	E601	2	N	Dry.
W-854-12	MWPT	Tmss	A	A	CMP	E300.0:NO3	2	N	Insufficient water.
W-854-12	MWPT	Tmss	A	A	CMP	E300.0:PERC	2	N	Insufficient water.
W-854-12	MWPT	Tmss	S	S	CMP	E601	2	N	Insufficient water.
W-854-12	MWPT	Tmss	S	S	CMP	E601	4		
W-854-13	MWPT	$Tnsc_0$	A	A	CMP	E300.0:NO3	2	Y	
W-854-13	MWPT	$Tnsc_0$	A	A	CMP	E300.0:PERC	2	Y	
W-854-13	MWPT	$Tnsc_0$	S	S	CMP	E601	2	Y	
W-854-13	MWPT	$Tnsc_0$	S	S	CMP	E601	4		
W-854-13	MWPT	$Tnsc_0$	B	B	CMP	PCBS	2	Y	Next sample required 2ndQ 2007.
W-854-14	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
W-854-14	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
W-854-14	MWPT	$Tnbs_1$	A	A	CMP	E601	2	Y	Sampling frequency changed to annual due to continued lack of water.
W-854-15	MWPT	Qls	A	A	CMP	E300.0:NO3	2	Y	
W-854-15	MWPT	Qls	A	A	CMP	E300.0:PERC	2	Y	
W-854-15	MWPT	Qls	S	S	CMP	E601	2	Y	
W-854-15	MWPT	Qls	S	S	CMP	E601	4		
W-854-17	MWPT	$Tnsbs_0$–$Tnsc_0$	A	A	CMP	E300.0:NO3	2	Y	
W-854-17	MWPT	$Tnsbs_0$–$Tnsc_0$	A	A	CMP	E300.0:PERC	2	Y	
W-854-17	MWPT	$Tnsbs_0$–$Tnsc_0$	S	S	CMP	E601	2	Y	
W-854-17	MWPT	$Tnsbs_0$–$Tnsc_0$	S	S	CMP	E601	4		
W-854-1701	MWPT	$Tnsc_0$	A	A	CMP	E300.0:NO3	2	Y	
W-854-1701	MWPT	$Tnsc_0$	A	A	CMP	E300.0:PERC	2	Y	

Table 2.6-6. Building 854 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-854-1701	MWPT	$Tnsc_0$	S	S	CMP	E601	2	Y	
W-854-1701	MWPT	$Tnsc_0$	S	S	CMP	E601	4		
W-854-1706	MWPT	$Qal–Tnbs_1$	A	A	CMP	E300.0:NO3	2	N	Dry.
W-854-1706	MWPT	$Qal–Tnbs_1$	A	A	CMP	E300.0:PERC	2	N	Dry.
W-854-1706	MWPT	$Qal–Tnbs_1$	A	A	CMP	E601	2	N	Dry.
W-854-1707	MWPT	$Tnsc_0$	A	A	CMP	E300.0:NO3	2	Y	
W-854-1707	MWPT	$Tnsc_0$	A	A	CMP	E300.0:PERC	2	Y	
W-854-1707	MWPT	$Tnsc_0$	S	S	CMP	E601	2	Y	
W-854-1707	MWPT	$Tnsc_0$	S	S	CMP	E601	4		
W-854-1731	MWPT	Tmss	A	A	CMP	E300.0:NO3	2	Y	
W-854-1731	MWPT	Tmss	A	A	CMP	E300.0:PERC	2	Y	
W-854-1731	MWPT	Tmss	S	S	CMP	E601	2	Y	
W-854-1731	MWPT	Tmss	S	S	CMP	E601	4		
W-854-1822	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
W-854-1822	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
W-854-1822	MWPT	$Tnbs_1$	S	S	CMP	E601	2	Y	
W-854-1822	MWPT	$Tnbs_1$	S	S	CMP	E601	4		
W-854-1823	MWPT	$Tnsbs_1–Tnsc_0$	A	A	CMP	E300.0:NO3	2	Y	
W-854-1823	MWPT	$Tnsbs_1–Tnsc_0$	A	A	CMP	E300.0:PERC	2	Y	
W-854-1823	MWPT	$Tnsbs_1–Tnsc_0$	S	S	CMP	E601	2	Y	
W-854-1823	MWPT	$Tnsbs_1–Tnsc_0$	S	S	CMP	E601	4		
W-854-18A	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
W-854-18A	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
W-854-18A	MWPT	$Tnbs_1$	S	S	CMP	E601	2	Y	
W-854-18A	MWPT	$Tnbs_1$	S	S	CMP	E601	4		
W-854-19	MWPT	Qls	A	A	CMP	E300.0:NO3	2	N	Dry.
W-854-19	MWPT	Qls	A	A	CMP	E300.0:PERC	2	N	Dry.
W-854-19	MWPT	Qls	A	A	CMP	E601	2	N	Dry.
W-854-1902	MWPT	$Tnsbs_1–Tnsc_0$	A	A	CMP	E300.0:NO3	2	Y	
W-854-1902	MWPT	$Tnsbs_1–Tnsc_0$	A	A	CMP	E300.0:PERC	2	Y	
W-854-1902	MWPT	$Tnsbs_1–Tnsc_0$	S	S	CMP	E601	2	Y	
W-854-1902	MWPT	$Tnsbs_1–Tnsc_0$	S	S	CMP	E601	4		
W-854-45	MWPT	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
W-854-45	MWPT	$Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
W-854-45	MWPT	$Tnbs_1$	S	S	CMP	E601	2	Y	
W-854-45	MWPT	$Tnbs_1$	S	S	CMP	E601	4		
W-854-F2	MWPT	$Qal–Tnbs_1$	B	B	CMP	E300.0:NO3	2	N	Dry. Next sample required 2ndQ 2007.
W-854-F2	MWPT	$Qal–Tnbs_1$	B	B	CMP	E300.0:PERC	2	N	Dry. Next sample required 2ndQ 2007.
W-854-F2	MWPT	$Qal–Tnbs_1$	B	B	CMP	E601	2	N	Dry. Next sample required 2ndQ 2007.

Table 2.6-6. Building 854 OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment

Notes:

Building 854 primary Contaminants of Concern in Ground Water: VOCs (E601 or E624).

Building 854 secondary COC: nitrate (E300:NO3).

Building 854 secondary COC: perchlorate (E300.0:PERC).

Contaminants of Concern in the Vadose Zone not detected in Ground Water: PCBs

***See Table Acronyms and Abbreviations in the Tables section of this report for Requested Analysis acronym definitions.**

Table 2.6-7. Building 854-Source (B854-SRC) mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Month	VOC mass removed (g)	Nitrate mass removed (kg)	Perchlorate mass removed (g)
B854-SRC	January	23.0	7.4	1.3
	February	16.7	5.4	0.9
	March	18.1	5.8	1.0
	April	14.5	4.3	0.6
	May	24.3	7.2	1.0
	June	21.7	6.4	0.9
Total		118.3	36.5	5.7

Table 2.6-8. Building 854-Proximal (B854-PRX) mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Month	VOC mass removed (g)	Nitrate mass removed (kg)	Perchlorate mass removed (g)
B854-PRX	January	3.0	2.3	0.6
	February	2.5	1.9	0.5
	March	5.7	4.4	1.2
	April	5.0	4.7	1.3
	May	6.0	5.7	1.5
	June	5.4	5.1	1.4
Total		27.6	24.1	6.5

Table 2.7-1. Building 832-Source (B832-SRC) volumes of ground water and soil vapor extracted and discharged, January 1, 2005 through June 30, 2005.

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Volume of vapor extracted (thousands of ft^3)	Average weekly volume of water treated (gal)
B832-SRC	January	648	913	252,720	228
	February	478	1,664	0	416
	March	744	6,649	275,040	1,662
	April	648	6,260	341,280	1,565
	May	816	5,977	403,200	1,195
	June	696	3,820	292,320	955
Total		4,030	25,283	1,564,560	

Table 2.7-2. Building 830-Source (B830-SRC) volumes of ground water and soil vapor extracted and discharged, January 1, 2005 through June 30, 2005.

Treatment facility	Month	Operational hours (SVE)	Volume of ground water discharged (gal)	Volume of vapor extracted (thousands of ft^3)	Average weekly volume of water treated (gal)
B830-SRC	January	283	3,058	3.396[a]	612
	February	356	1,475	4.272[a]	369
	March	501	2,271	6.012[a]	568
	April	408	3,172	4.896[a]	793
	May	422	1,749	5.064[a]	350
	June	403	1,273	4.836[a]	318
Total		2,373	12,998	28.476	

[a] B830-SRC SVE system in testing phase. A flow rate of 0.2 scfm was assumed.

Table 2.7-3. Building 830-Proximal North (B830-PRXN) volumes of ground water extracted and discharged, January 1, 2005 through June 30, 2005.

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B830-PRX	January	233	18,910	3,782
	February	157	12,978	4,326
	March	344	28,896	7,224
	April	330	29,396	7,349
	May	535	46,078	11,519
	June	585	50,368	12,592
Total		2,184	186,626	

Table 2.7-4. Building 830-Distal South (B830-DISS) volumes of ground water extracted and discharged, January 1, 2005 through June 30, 2005.

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B830-DISS	January	816	70,100	14,020
	February	672	49,100	12,275
	March	744	64,900	16,225
	April	240	15,100	3,775
	May	792	50,100	10,020
	June	648	52,900	13,225
Total		4,344	302,200	

Table 2.7-5. Building 832 Canyon OU VOCs in ground water treatment system influent and effluent.

Location	Date	Method	TCE µg/L	PCE µg/L	Total 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	Freon 11 µg/L	Freon 113 µg/L	Methylene chloride µg/L	Vinyl chloride µg/L
B830-PRXN-I	01/20/05	E601	30	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.53	<0.5	<1	<0.5
B830-PRXN-I	04/13/05	E601	28	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<1	<0.5
B830-PRXN-E	01/20/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-PRXN-E	02/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-PRXN-E	03/02/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-PRXN-E	04/13/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-PRXN-E	05/04/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-PRXN-E	06/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-SRC-I	01/20/05	E601	2,500 D	11	<1	<0.5	0.8	<0.5	2.7	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-SRC-I	01/20/05 DUP	E601	18	15	<0.5	<0.5	0.9	<0.5	3.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5
B830-SRC-I	04/06/05	E601	2,500 BD	8.1	<1	<0.5	0.87	<0.5	2.1	0.57	<0.5	<0.5 E	<0.5	<1	<0.5
B830-SRC-E	01/20/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-SRC-E	02/09/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5 L
B830-SRC-E	03/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-SRC-E	04/06/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-SRC-E	05/10/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-SRC-E	06/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B832-SRC-I	01/12/05	E601	47	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B832-SRC-I	04/13/05	E601	41 B	<0.5	<1 E	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B832-SRC-E	01/12/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B832-SRC-E	02/09/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5 L
B832-SRC-E	03/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B832-SRC-E	04/13/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B832-SRC-E	05/05/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B832-SRC-E	06/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-DISS-I	01/19/05	E601	89	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-DISS-I	01/19/05 DUP	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
B830-DISS-I	04/18/05	E601	84	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-DISS-E	01/19/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-DISS-E	02/09/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5 L
B830-DISS-E	03/07/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-DISS-E	04/18/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-DISS-E	05/10/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
B830-DISS-E	06/08/05	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5

Note: Detection frequency of constituents analyzed and not reported in table above are listed on following page.

Table 2.7-5 (Cont.). Building 832 Canyon OU VOCs in ground water treatment system influent and effluent. (Detection frequency of constituents analyzed and not reported in table on previous page):

Location	Date	Method	Detection frequency	1,1,2-TCA µg/L	cis-1,2-DCE µg/L
B830-PRXN-I	01/20/05	E601	0 of 20	-	-
B830-PRXN-I	04/13/05	E601	0 of 20	-	-
B830-PRXN-E	01/20/05	E601	0 of 20	-	-
B830-PRXN-E	02/08/05	E601	0 of 20	-	-
B830-PRXN-E	03/02/05	E601	0 of 20	-	-
B830-PRXN-E	04/13/05	E601	0 of 20	-	-
B830-PRXN-E	05/04/05	E601	0 of 20	-	-
B830-PRXN-E	06/08/05	E601	0 of 20	-	-
B830-SRC-I	01/20/05	E601	1 of 20	0.79	-
B830-SRC-I	01/20/05 DUP	E601	1 of 19	0.9	-
B830-SRC-I	04/06/05	E601	1 of 20	0.67	-
B830-SRC-E	01/20/05	E601	0 of 20	-	-
B830-SRC-E	02/09/05	E601	0 of 20	-	-
B830-SRC-E	03/08/05	E601	0 of 20	-	-
B830-SRC-E	04/06/05	E601	0 of 20	-	-
B830-SRC-E	05/10/05	E601	0 of 20	-	-
B830-SRC-E	06/08/05	E601	0 of 20	-	-
B832-SRC-I	01/12/05	E601	1 of 20	-	1
B832-SRC-I	04/13/05	E601	1 of 20	-	0.98
B832-SRC-E	01/12/05	E601	0 of 20	-	-
B832-SRC-E	02/09/05	E601	0 of 20	-	-
B832-SRC-E	03/08/05	E601	0 of 20	-	-
B832-SRC-E	04/13/05	E601	0 of 20	-	-
B832-SRC-E	05/05/05	E601	0 of 20	-	-
B832-SRC-E	06/08/05	E601	0 of 20	-	-
B830-DISS-I	01/19/05	E601	0 of 20	-	-
B830-DISS-I	01/19/05 DUP	E601	0 of 19	-	-
B830-DISS-I	04/18/05	E601	0 of 20	-	-
B830-DISS-E	01/19/05	E601	0 of 20	-	-
B830-DISS-E	02/09/05	E601	0 of 20	-	-
B830-DISS-E	03/07/05	E601	0 of 20	-	-
B830-DISS-E	04/18/05	E601	0 of 20	-	-
B830-DISS-E	05/10/05	E601	0 of 20	-	-
B830-DISS-E	06/08/05	E601	0 of 20	-	-

Table 2.7-6. Building 832 Canyon OU nitrate and perchlorate in ground water treatment system influent and effluent.

Location	Date	Nitrate (as NO_3) (mg/L)	Perchlorate (μg/L)
B830-PRXN-I	01/20/05	16.9 D	6.4
B830-PRXN-I	04/13/05	18 D	<4
B830-PRXN-E	01/20/05	14.7 D	5.2
B830-PRXN-E	02/08/05	16.9 D	<4
B830-PRXN-E	03/02/05	17 D	<4
B830-PRXN-E	04/13/05	16 D	<4
B830-PRXN-E	05/04/05	17 D	<4
B830-PRXN-E	06/08/05	20 D	<4
B830-SRC-I	01/20/05	94.4 D	<4
B830-SRC-I	01/20/05 DUP	72 D	<4
B830-SRC-I	04/06/05	110 D	<4 L
B830-SRC-E	01/20/05	78.9	<4
B830-SRC-E[a]	02/09/05	93.7 D	35
B830-SRC-E	02/17/05	-	<4
B830-SRC-E	03/08/05	92 D	<4
B830-SRC-E	04/06/05	110 D	<4
B830-SRC-E	05/10/05	85	<4
B830-SRC-E	06/08/05	97 D	<4
B832-SRC-I	01/12/05	131 D	15
B832-SRC-I	04/13/05	120 D	<4
B832-SRC-E	01/12/05	<0.88 D	<4
B832-SRC-E	02/09/05	<0.88 D	<4
B832-SRC-E	03/08/05	12 D	<4
B832-SRC-E	04/13/05	100 D	<4
B832-SRC-E	05/05/05	110 D	<4
B832-SRC-E	06/08/05	120 D	<4
B830-DISS-I	01/19/05	63	5.7
B830-DISS-I	01/19/05 DUP	-	<4
B830-DISS-I	04/18/05	70	4.7
B830-DISS-E	01/19/05	63	<4
B830-DISS-E[b]	01/31/05	27.8	-
B830-DISS-E	02/09/05	55.5	<4
B830-DISS-E[b]	02/17/05	5.68	-
B830-DISS-E	03/07/05	52	<4
B830-DISS-E[b]	03/23/05	52 H	-
B830-DISS-E	04/18/05	<0.44	<4
B830-DISS-E[c]	04/25/05	7.7	-
B830-DISS-E	05/10/05	19	<4
B830-DISS-E	06/08/05	49	<4

[a] Resample due to breakthrough.

[b] Resample due to effluent exceeding discharge limit.

[c] Resample due to suspect result.

Table 2.7-7. Building 832 Canyon treatment facility sampling and analysis plans.

Sample location	Sample identification	Parameter	Frequency
B832-SRC GWTS			
Influent Port	TF-832-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		pH	Quarterly
Effluent Port (influent to misting system)	TF-832-E	VOCs	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		PH	Monthly
B832-SRC SVE			
Influent Port	TF-832-SVI	No CMP Requirements	
Effluent Port	TF-832-SVE	VOCs	Weekly[a]
B830-SRC GWTS			
Influent Port	GTU05-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		PH	Quarterly
Effluent Port (influent to misting system)	GTU05-E	VOCs	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		PH	Monthly
B830-SRC SVE			
Influent Port	VES06-I	No CMP Requirements	
Effluent Port	VES06-E	VOCs	Weekly[a]
B830-PRX GWTS			
Influent Port	STU03-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
Effluent Port	STU03-E	VOCs	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly

Table 2.7-7. Building 832 Canyon treatment facility sampling and analysis plans.

Sample location	Sample identification	Parameter	Frequency
B830-DISS GWTS			
Influent Port	TF830DS-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		pH	Quarterly
Effluent Port	TF830DS-E	VOCs	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		pH	Monthly

[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.

Table 2.7-8. Building 832 Canyon OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
SPRING3	SPR	Qal	A	A	CMP	E300.0:NO3	1	Y	
SPRING3	SPR	Qal	A	A	CMP	E300.0:PERC	1	Y	
SPRING3	SPR	Qal	S	S	CMP	E601	1	Y	
SPRING3	SPR	Qal	S	S	CMP	E601	3		
SPRING4	SPR	Tps	B	B	CMP	E300.0:NO3	1	Y	Next sample required 1stQ 2007.
SPRING4	SPR	Tps	B	B	CMP	E300.0:PERC	1	Y	Next sample required 1stQ 2007.
SPRING4	SPR	Tps	B	B	CMP	E601	1	Y	Next sample required 1stQ 2007.
SVI-830-031	MWPT	$Tnsc_1$	A	A	CMP	E300.0:NO3	1	N	Insufficient water to collect sample.
SVI-830-031	MWPT	$Tnsc_1$	A	A	CMP	E300.0:PERC	1	N	Insufficient water to collect sample.
SVI-830-031	MWPT	$Tnsc_1$	S	S	CMP	E601	1	Y	
SVI-830-031	MWPT	$Tnsc_1$	S	S	CMP	E601	3		
SVI-830-032	MWPT	$Tnsc_1$	A	A	CMP	E300.0:NO3	1	N	Dry.
SVI-830-032	MWPT	$Tnsc_1$	A	A	CMP	E300.0:PERC	1	N	Dry.
SVI-830-032	MWPT	$Tnsc_1$	S	S	CMP	E601	1	N	Dry.
SVI-830-032	MWPT	$Tnsc_1$	S	S	CMP	E601	3		
SVI-830-033	MWPT	$Tnsc_1$	A	A	CMP	E300.0:NO3	1	N	Dry.
SVI-830-033	MWPT	$Tnsc_1$	A	A	CMP	E300.0:PERC	1	N	Dry.
SVI-830-033	MWPT	$Tnsc_1$	S	S	CMP	E601	1	N	Dry.
SVI-830-033	MWPT	$Tnsc_1$	S	S	CMP	E601	3		
SVI-830-035	MWPT	$Tnsc_1$	A	A	CMP	E300.0:NO3	1	Y	
SVI-830-035	MWPT	$Tnsc_1$	A	A	CMP	E300.0:PERC	1	Y	
SVI-830-035	MWPT	$Tnsc_1$	S	S	CMP	E601	1	Y	
SVI-830-035	MWPT	$Tnsc_1$	S	S	CMP	E601	3		
W-830-04A	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-04A	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-04A	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-04A	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-05	MWPT	$Tnbs_2$–$Tnsc_{1c}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-05	MWPT	$Tnbs_2$–$Tnsc_{1c}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-05	MWPT	$Tnbs_2$–$Tnsc_{1c}$	S	S	CMP	E601	1	Y	
W-830-05	MWPT	$Tnbs_2$–$Tnsc_{1c}$	S	S	CMP	E601	3		
W-830-07	MWPT	$Tnsc_1$	A	A	CMP	E300.0:NO3	1	N	Dry.
W-830-07	MWPT	$Tnsc_1$	A	A	CMP	E300.0:PERC	1	N	Dry.
W-830-07	MWPT	$Tnsc_1$	S	S	CMP	E601	1	N	Dry.
W-830-07	MWPT	$Tnsc_1$	S	S	CMP	E601	3		
W-830-09	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-830-09	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-09	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	1	Y	

Table 2.7-8. Building 832 Canyon OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-830-09	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	3		
W-830-10	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-10	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-10	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-10	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-11	MWPT	$Tnsc_{1c}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-11	MWPT	$Tnsc_{1c}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-11	MWPT	$Tnsc_{1c}$	S	S	CMP	E601	1	Y	
W-830-11	MWPT	$Tnsc_{1c}$	S	S	CMP	E601	3		
W-830-12	MWPT	Lower $Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-830-12	MWPT	Lower $Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-12	MWPT	Lower $Tnbs_1$	S	S	CMP	E601	1	Y	
W-830-12	MWPT	Lower $Tnbs_1$	S	S	CMP	E601	3		
W-830-13	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-830-13	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-830-13	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-830-13	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-830-14	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-14	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-14	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-14	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-15	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-830-15	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-15	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	1	Y	
W-830-15	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	3		
W-830-16	GW	$Tnsc_{1b}$	S	S	CMP	E300.0:NO3	1	Y	
W-830-16	GW	$Tnsc_{1b}$	S	S	CMP	E300.0:PERC	1	Y	
W-830-16	GW	$Tnsc_{1b}$	Q	Q	CMP	E601	1	Y	
W-830-16	GW	$Tnsc_{1b}$	Q	Q	CMP	E601	2	Y	
W-830-16	GW	$Tnsc_{1b}$	S	S	CMP	E300.0:NO3	3		
W-830-16	GW	$Tnsc_{1b}$	S	S	CMP	E300.0:PERC	3		
W-830-16	GW	$Tnsc_{1b}$	Q	Q	CMP	E601	3		
W-830-16	GW	$Tnsc_{1b}$	Q	Q	CMP	E601	4		
W-830-17	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-830-17	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-830-17	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-830-17	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-830-1730	GW	$Tnsc_{1b}$	S	S	CMP	E300.0:NO3	1	Y	Changed to GW 2ndQ 2005

Table 2.7-8. Building 832 Canyon OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-830-1730	GW	$Tnsc_{1b}$	S	S	CMP	E300.0:PERC	1	Y	Changed to GW 2ndQ 2005
W-830-1730	GW	$Tnsc_{1b}$	Q	Q	CMP	E601	1	Y	Changed to GW 2ndQ 2005
W-830-1730	GW	$Tnsc_{1b}$	Q	Q	CMP	E601	2	N	Not sampled. Changed to GW 2ndQ 2005.
W-830-1730	GW	$Tnsc_{1b}$	S	S	CMP	E300.0:NO3	3		Changed to GW 2ndQ 2005
W-830-1730	GW	$Tnsc_{1b}$	S	S	CMP	E300.0:PERC	3		Changed to GW 2ndQ 2005
W-830-1730	GW	$Tnsc_{1b}$	Q	Q	CMP	E601	3		Changed to GW 2ndQ 2005
W-830-1730	GW	$Tnsc_{1b}$	Q	Q	CMP	E601	4		Changed to GW 2ndQ 2005
W-830-18	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-830-18	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-18	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	1	Y	
W-830-18	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	3		
W-830-1807	EW	Qal/$Tnsc_1$	A	A	CMP	E300.0:NO3	1	Y	
W-830-1807	EW	Qal/$Tnsc_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-1807	EW	Qal/$Tnsc_1$	S	S	CMP	E601	1	Y	
W-830-1807	EW	Qal/$Tnsc_1$	S	S	CMP	E601	3		
W-830-1829	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-1829	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-1829	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-1829	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-1830	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-1830	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-1830	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-1830	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-1831	GW	$Tnsc_{1b}$	S	S	CMP	E300.0:NO3	1	Y	Frequency changed 2ndQ 2005
W-830-1831	GW	$Tnsc_{1b}$	S	S	CMP	E300.0:PERC	1	Y	Frequency changed 2ndQ 2005
W-830-1831	GW	$Tnsc_{1b}$	Q	Q	CMP	E601	1	Y	Frequency changed 2ndQ 2005
W-830-1831	GW	$Tnsc_{1b}$	Q	Q	CMP	E601	2	N	Not sampled. Frequency changed 2ndQ 2005.
W-830-1831	GW	$Tnsc_{1b}$	S	S	CMP	E300.0:NO3	3		Frequency changed 2ndQ 2005
W-830-1831	GW	$Tnsc_{1b}$	S	S	CMP	E300.0:PERC	3		Frequency changed 2ndQ 2005
W-830-1831	GW	$Tnsc_{1b}$	Q	Q	CMP	E601	3		Frequency changed 2ndQ 2005
W-830-1831	GW	$Tnsc_{1b}$	Q	Q	CMP	E601	4		Frequency changed 2ndQ 2005
W-830-1832	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-830-1832	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-1832	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	1	Y	
W-830-1832	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	3		
W-830-19	EW	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-19	EW	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-19	EW	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	

Table 2.7-8. Building 832 Canyon OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-830-19	EW	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-20	GW	Upper $Tnbs_1$	S	S	CMP	E300.0:NO3	1	Y	
W-830-20	GW	Upper $Tnbs_1$	S	S	CMP	E300.0:PERC	1	Y	
W-830-20	GW	Upper $Tnbs_1$	Q	Q	CMP	E601	1	Y	
W-830-20	GW	Upper $Tnbs_1$	Q	Q	CMP	E601	2	Y	
W-830-20	GW	Upper $Tnbs_1$	S	S	CMP	E300.0:NO3	3		
W-830-20	GW	Upper $Tnbs_1$	S	S	CMP	E300.0:PERC	3		
W-830-20	GW	Upper $Tnbs_1$	Q	Q	CMP	E601	3		
W-830-20	GW	Upper $Tnbs_1$	Q	Q	CMP	E601	4		
W-830-21	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-21	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-21	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-21	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-22	MWPT	$Tnsc_{1a}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-22	MWPT	$Tnsc_{1a}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-22	MWPT	$Tnsc_{1a}$	S	S	CMP	E601	1	Y	
W-830-22	MWPT	$Tnsc_{1a}$	S	S	CMP	E601	3		
W-830-25	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-25	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-25	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-25	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-26	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-830-26	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-26	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	1	Y	
W-830-26	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	3		
W-830-27	MWPT	$Tnsc_{1a}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-27	MWPT	$Tnsc_{1a}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-27	MWPT	$Tnsc_{1a}$	S	S	CMP	E601	1	Y	
W-830-27	MWPT	$Tnsc_{1a}$	S	S	CMP	E601	3		
W-830-28	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-830-28	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-28	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	1	Y	
W-830-28	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	3		
W-830-29	MWPT	Lower $Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-830-29	MWPT	Lower $Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-29	MWPT	Lower $Tnbs_1$	S	S	CMP	E601	1	Y	
W-830-29	MWPT	Lower $Tnbs_1$	S	S	CMP	E601	3		
W-830-30	MWPT	Qal/$Tnsc_1$	A	A	CMP	E300.0:NO3	1	Y	

Table 2.7-8. Building 832 Canyon OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-830-30	MWPT	Qal/$Tnsc_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-30	MWPT	Qal/$Tnsc_1$	S	S	CMP	E601	1	Y	
W-830-30	MWPT	Qal/$Tnsc_1$	S	S	CMP	E601	3		
W-830-34	MWPT	Qal/$Tnsc_1$	A	A	CMP	E300.0:NO3	1	Y	
W-830-34	MWPT	Qal/$Tnsc_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-34	MWPT	Qal/$Tnsc_1$	S	S	CMP	E601	1	Y	
W-830-34	MWPT	Qal/$Tnsc_1$	S	S	CMP	E601	3		
W-830-49	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-49	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-49	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-49	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-50	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-50	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-50	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-50	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-51	EW	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-51	EW	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-51	EW	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-51	EW	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-52	EW	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-52	EW	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-52	EW	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-52	EW	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-53	EW	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-53	EW	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-53	EW	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-53	EW	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-54	MWPT	$Tnsc_{1c}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-54	MWPT	$Tnsc_{1c}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-54	MWPT	$Tnsc_{1c}$	S	S	CMP	E601	1	Y	
W-830-54	MWPT	$Tnsc_{1c}$	S	S	CMP	E601	3		
W-830-55	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-55	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-55	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-55	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-56	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-56	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-56	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	

Table 2.7-8. Building 832 Canyon OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-830-56	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-57	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-830-57	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-57	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	1	Y	
W-830-57	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	3		
W-830-58	EW	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-58	EW	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-58	EW	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-58	EW	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-59	EW	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-830-59	EW	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-830-59	EW	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-830-59	EW	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-830-60	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-830-60	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-830-60	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	1	Y	
W-830-60	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	3		
W-831-01	MWB	Lower $Tnbs_1$	B	B	CMP	E300.0:NO3	1	Y	Next sample required 1stQ 2007.
W-831-01	MWB	Lower $Tnbs_1$	B	B	CMP	E300.0:PERC	1	Y	Next sample required 1stQ 2007.
W-831-01	MWB	Lower $Tnbs_1$	B	B	CMP	E601	1	Y	Next sample required 1stQ 2007.
W-832-01	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-832-01	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-832-01	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-832-01	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-832-05	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	Well has been compromised, to be destroyed.
W-832-05	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	Well has been compromised, to be destroyed.
W-832-05	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	Well has been compromised, to be destroyed.
W-832-05	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		Well has been compromised, to be destroyed.
W-832-06	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	N	Well has been compromised, to be destroyed.
W-832-06	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	N	Well has been compromised, to be destroyed.
W-832-06	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	N	Well has been compromised, to be destroyed.
W-832-06	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		Well has been compromised, to be destroyed.
W-832-09	MWPT	Lower $Tnbs_1$	A	A	CMP	E300.0:NO3	1	Y	
W-832-09	MWPT	Lower $Tnbs_1$	A	A	CMP	E300.0:PERC	1	Y	
W-832-09	MWPT	Lower $Tnbs_1$	S	S	CMP	E601	1	Y	
W-832-09	MWPT	Lower $Tnbs_1$	S	S	CMP	E601	3		
W-832-10	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-832-10	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	

Table 2.7-8. Building 832 Canyon OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-832-10	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-832-10	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-832-11	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-832-11	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-832-11	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-832-11	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-832-12	EW	Qal/fill	A	A	CMP	E300.0:NO3	1	Y	
W-832-12	EW	Qal/fill	A	A	CMP	E300.0:PERC	1	Y	
W-832-12	EW	Qal/fill	S	S	CMP	E601	1	Y	
W-832-12	EW	Qal/fill	S	S	CMP	E601	3		
W-832-13	EW	Qal/fill	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-13	EW	Qal/fill	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-13	EW	Qal/fill	S	S	CMP	E601	1	N	Dry.
W-832-13	EW	Qal/fill	S	S	CMP	E601	3		
W-832-14	EW	Qal/fill	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-14	EW	Qal/fill	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-14	EW	Qal/fill	S	S	CMP	E601	1	N	Dry.
W-832-14	EW	Qal/fill	S	S	CMP	E601	3		
W-832-15	EW	Qal/fill	A	A	CMP	E300.0:NO3	1	Y	
W-832-15	EW	Qal/fill	A	A	CMP	E300.0:PERC	1	Y	
W-832-15	EW	Qal/fill	S	S	CMP	E601	1	Y	
W-832-15	EW	Qal/fill	S	S	CMP	E601	3		
W-832-15	EW	Qal/fill	B	B	CMP	E8330	4		Next sample required 4thQ 2005.
W-832-16	EW	Qal/fill	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-16	EW	Qal/fill	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-16	EW	Qal/fill	S	S	CMP	E601	1	N	Dry.
W-832-16	EW	Qal/fill	S	S	CMP	E601	3		
W-832-17	EW	Qal/fill	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-17	EW	Qal/fill	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-17	EW	Qal/fill	S	S	CMP	E601	1	N	Dry.
W-832-17	EW	Qal/fill	S	S	CMP	E601	3		
W-832-18	EW	Qal/fill	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-18	EW	Qal/fill	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-18	EW	Qal/fill	S	S	CMP	E601	1	N	Dry.
W-832-18	EW	Qal/fill	S	S	CMP	E601	3		
W-832-19	MWPT	Qal/fill	A	A	CMP	E300.0:NO3	1	N	Insufficient water to collect sample.
W-832-19	MWPT	Qal/fill	A	A	CMP	E300.0:PERC	1	N	Insufficient water to collect sample.
W-832-19	MWPT	Qal/fill	S	S	CMP	E601	1	N	Insufficient water to collect sample.

Table 2.7-8. Building 832 Canyon OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-832-19	MWPT	Qal/fill	S	S	CMP	E601	3		
W-832-1927	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-832-1927	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-832-1927	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-832-1927	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-832-20	EW	Qal/fill	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-20	EW	Qal/fill	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-20	EW	Qal/fill	S	S	CMP	E601	1	N	Dry.
W-832-20	EW	Qal/fill	S	S	CMP	E601	3		
W-832-21	MWPT	Qal/fill	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-21	MWPT	Qal/fill	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-21	MWPT	Qal/fill	S	S	CMP	E601	1	N	Dry.
W-832-21	MWPT	Qal/fill	S	S	CMP	E601	3		
W-832-22	EW	Qal/fill	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-22	EW	Qal/fill	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-22	EW	Qal/fill	S	S	CMP	E601	1	N	Dry.
W-832-22	EW	Qal/fill	S	S	CMP	E601	3		
W-832-23	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	N	No sample collected, hooked to bubble tank.
W-832-23	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	N	No sample collected, hooked to bubble tank.
W-832-23	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	N	No sample collected, hooked to bubble tank.
W-832-23	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-832-24	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-832-24	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-832-24	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-832-24	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-832-25	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:NO3	1	Y	
W-832-25	MWPT	$Tnsc_{1b}$	A	A	CMP	E300.0:PERC	1	Y	
W-832-25	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	1	Y	
W-832-25	MWPT	$Tnsc_{1b}$	S	S	CMP	E601	3		
W-832-SC1	MWPT	Qal	A	A	CMP	E300.0:NO3	1	Y	
W-832-SC1	MWPT	Qal	A	A	CMP	E300.0:PERC	1	Y	
W-832-SC1	MWPT	Qal	S	S	CMP	E601	1	Y	
W-832-SC1	MWPT	Qal	S	S	CMP	E601	3		
W-832-SC2	MWPT	Qal	A	A	CMP	E300.0:NO3	1	N	Insufficient water to collect sample.
W-832-SC2	MWPT	Qal	A	A	CMP	E300.0:PERC	1	N	Insufficient water to collect sample.
W-832-SC2	MWPT	Qal	S	S	CMP	E601	1	Y	
W-832-SC2	MWPT	Qal	S	S	CMP	E601	3		
W-832-SC3	MWPT	Qal	A	A	CMP	E300.0:NO3	1	Y	

Table 2.7-8. Building 832 Canyon OU ground and surface water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-832-SC3	MWPT	Qal	A	A	CMP	E300.0:PERC	1	Y	
W-832-SC3	MWPT	Qal	S	S	CMP	E601	1	Y	
W-832-SC3	MWPT	Qal	S	S	CMP	E601	3		
W-832-SC4	MWPT	Qal	A	A	CMP	E300.0:NO3	1	Y	
W-832-SC4	MWPT	Qal	A	A	CMP	E300.0:PERC	1	Y	
W-832-SC4	MWPT	Qal	S	S	CMP	E601	1	Y	
W-832-SC4	MWPT	Qal	S	S	CMP	E601	3		
W-870-01	MWPT	Qal	A	A	CMP	E300.0:NO3	1	N	Dry.
W-870-01	MWPT	Qal	A	A	CMP	E300.0:PERC	1	N	Dry.
W-870-01	MWPT	Qal	S	S	CMP	E601	1	N	Dry.
W-870-01	MWPT	Qal	S	S	CMP	E601	3		
W-870-02	MWPT	$Tnbs_2$	A	A	CMP	E300.0:NO3	1	Y	
W-870-02	MWPT	$Tnbs_2$	A	A	CMP	E300.0:PERC	1	Y	
W-870-02	MWPT	$Tnbs_2$	S	S	CMP	E601	1	Y	
W-870-02	MWPT	$Tnbs_2$	S	S	CMP	E601	3		
W-880-01	GW	$Tnbs_2$	S		CMP	E300.0:NO3			See High Explosives Process Area
W-880-01	GW	$Tnbs_2$	S		CMP	E300.0:PERC			See High Explosives Process Area
W-880-01	GW	$Tnbs_2$	Q		CMP	E601			See High Explosives Process Area
W-880-02	GW	Qal	S		CMP	E300.0:NO3			See High Explosives Process Area
W-880-02	GW	Qal	S		CMP	E300.0:PERC			See High Explosives Process Area
W-880-02	GW	Qal	Q		CMP	E601			See High Explosives Process Area
W-880-03	GW	$Tnsc_{1b}$	S		CMP	E300.0:NO3			See High Explosives Process Area
W-880-03	GW	$Tnsc_{1b}$	S		CMP	E300.0:PERC			See High Explosives Process Area
W-880-03	GW	$Tnsc_{1b}$	Q		CMP	E601			See High Explosives Process Area

Notes:

Building 830 primary Contaminants of Concern in Ground Water: VOCs (E601 or E624).
Building 830 secondary COC: nitrate (E300:NO3).
Building 830 secondary COC: perchlorate (E300.0:PERC).
Building 832 primary Contaminants of Concern in Ground Water: VOCs (E601 or E624).
Building 832 secondary COC: nitrate (E300:NO3).

Building 832 secondary COC: perchlorate (E300.0:PERC).

***See Table Acronyms and Abbreviations in the Tables section of this report for Requested Analysis acronym definitions.**

Table 2.7-9. Building 832-Source (B832-SRC) mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Month	GWTS VOC mass removed (g)	GWTS Nitrate mass removed (g)	GWTS Perchlorate mass removed (g)	SVE VOC mass removed (g)
B832-SRC	January	0.166	453	0.052	0[a]
	February	0.302	825	0.094	0[a]
	March	1.208	3,297	0.377	0[a]
	April	0.995	2,843	0	0[a]
	May	0.950	2,715	0	0[a]
	June	0.607	1,735	0	0[a]
Total		4.228	11,868	0.523	0[a]

[a] B832-SRC SVE system influent in below the detection limit for VOCs.

Table 2.7-10. Building 830-Source (B830-SRC) mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Month	GWTS VOC mass removed (g)	GWTS Nitrate mass removed (g)	GWTS Perchlorate mass removed (g)	SVE VOC mass removed (g)
B830-SRC	January	29.1	1,093	0	12.4[a]
	February	14.0	527	0	13.0[a]
	March	21.6	811	0	18.3[a]
	April	30.2	1,321	0	8.9[a]
	May	16.6	728	0	9.3[a]
	June	12.1	530	0	8.8[a]
Total		123.6	5,010	0	70.7

[a] The values reported are estimates as the B830-SRC SVE system is in the testing phase. A flow rate of 0.2 scfm was assumed.

Table 2.7-11. Building 830-Proximal North (B830-PRXN) mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Month	VOC mass removed (g)
B830-PRX	January	2.1
	February	1.5
	March	3.3
	April	3.1
	May	4.9
	June	5.3
Total		20.2

Table 2.7-12. Building 830-Distal South (B830-DISS) mass removed, January 1, 2005 through June 30, 2005.

Treatment facility	Month	VOC mass removed (g)	Nitrate mass removed (g)	Perchlorate mass removed (g)
B830-DISS	January	25.4	16,932	1.5
	February	17.7	11,784	1.1
	March	23.4	15,583	1.4
	April	4.8	3,964	0.3
	May	14.8	12,344	0.8
	June	16.8	14,016	0.9
Total		102.9	74,623	6.0

Table 2.8-1. Building 801 and Pit 8 Landfill area ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K8-01	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
K8-01	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
K8-01	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	2	Y	
K8-01	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	4		
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	A	A	CMP	CMPTRIMET	2	Y	
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	A	A	CMP	E340.2	2	Y	
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	A	A	CMP	E601	2	Y	
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	A	A	CMP	E8330:R+H	2	Y	
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	Q	Q	CMP	E906	1	Y	
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	Q	Q	CMP	E906	2	Y	
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	Q	Q	CMP	E906	3		
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	Q	Q	CMP	E906	4		
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	B	B	CMP	MS:THISO	2	Y	Next sample required 2ndQ 2007.
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	B	B	CMP	MS:UISO	2	Y	Next sample required 2ndQ 2007.
K8-02B	CMP DMW	$Tnsc_1$/Upper $Tnbs_1$	A	A	CMP	T26METALS	2	Y	
K8-03B	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
K8-03B	MWPT	Upper $Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
K8-03B	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	2	Y	
K8-03B	MWPT	Upper $Tnbs_1$	S	S	CMP	E601	4		
K8-04	CMP DMW	Upper $Tnbs_1$	A	A	CMP	CMPTRIMET	2	Y	
K8-04	CMP DMW	Upper $Tnbs_1$			DIS	E200.7:SIO2	2	Y	
K8-04	CMP DMW	Upper $Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
K8-04	CMP DMW	Upper $Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
K8-04	CMP DMW	Upper $Tnbs_1$	A	A	CMP	E340.2	2	Y	
K8-04	CMP DMW	Upper $Tnbs_1$	A	A	CMP	E601	2	Y	
K8-04	CMP DMW	Upper $Tnbs_1$	A	A	CMP	E8330:R+H	2	Y	
K8-04	CMP DMW	Upper $Tnbs_1$	Q	Q	CMP	E906	1	Y	
K8-04	CMP DMW	Upper $Tnbs_1$	Q	Q	CMP	E906	2	Y	
K8-04	CMP DMW	Upper $Tnbs_1$	Q	Q	CMP	E906	3		
K8-04	CMP DMW	Upper $Tnbs_1$	Q	Q	CMP	E906	4		
K8-04	CMP DMW	Upper $Tnbs_1$			DIS	GENMIN	2	Y	
K8-04	CMP DMW	Upper $Tnbs_1$	B	B	CMP	MS:THISO	2	Y	Next sample required 2ndQ 2007.
K8-04	CMP DMW	Upper $Tnbs_1$	B	B	CMP	MS:UISO	2	Y	Next sample required 2ndQ 2007.
K8-04	CMP DMW	Upper $Tnbs_1$	A	A	CMP	T26METALS	2	Y	
K8-05	CMP DMW	$Tnbs_2$	B	B	CMP	CMPTRIMET	2	N	Next sample required 2ndQ 2006.
K8-05	CMP DMW	$Tnbs_2$	B	B	CMP	E300.0:NO3	2	N	Next sample required 2ndQ 2006.

Table 2.8-1. Building 801 and Pit 8 Landfill area ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K8-05	CMP DMW	$Tnbs_2$	B	B	CMP	E300.0:PERC	2	N	Next sample required 2ndQ 2006.
K8-05	CMP DMW	$Tnbs_2$	B	B	CMP	E340.2	2	N	Next sample required 2ndQ 2006.
K8-05	CMP DMW	$Tnbs_2$	B	B	CMP	E601	2	N	Next sample required 2ndQ 2006.
K8-05	CMP DMW	$Tnbs_2$	B	B	CMP	E8330:R+H	2	N	Next sample required 2ndQ 2006.
K8-05	CMP DMW	$Tnbs_2$	B	B	CMP	E906	2	N	Next sample required 2ndQ 2006.
K8-05	CMP DMW	$Tnbs_2$	B	B	CMP	MS:THISO	2	N	Next sample required 2ndQ 2006.
K8-05	CMP DMW	$Tnbs_2$	B	B	CMP	MS:UISO	2	N	Next sample required 2ndQ 2006.
K8-05	CMP DMW	$Tnbs_2$	B	B	CMP	T26METALS	2	N	Next sample required 2ndQ 2006.

Notes:

No COCs in ground water.

CMP Detection monitoring analyte: tritium (E906) sampled quarterly.

CMP Detection monitoring analyte: VOCs (E601 or E624) sampled annually.

CMP Detection monitoring analyte: fluoride (E340.2) sampled annually.

CMP Detection monitoring analyte: HE compounds (E8330:R+H) sampled annually.

CMP Detection monitoring analyte: nitrate (E300.0:NO3) sampled annually.

CMP Detection monitoring analyte: perchlorate (E300.0:PERC) sampled annually.

CMP Detection monitoring analytes: Title 26 metals plus U, Th, Li, Be (T26METALS and CMPTRIMET) sampled annually.

CMP Detection monitoring analytes: uranium and thorium isotopes by mass spectrometry (MS:UISO and MS:THISO) sampled biennially.

Contaminants of Concern in the Vadose Zone not detected in Ground Water: HE Compounds and uranium.

Building 801 primary COC: VOCs (E601 or E624).

Building 801 secondary COC: nitrate (E300.0:NO3).

Building 801 secondary COC: uranium (MS:UISO) .

***See Table Acronyms and Abbreviations in the Tables section of this report for Requested Analysis acronym definitions.**

Table 2.8-2. Building 833 area ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-833-03	MWPT	Tps	A	A	CMP	E601	1	N	Dry.
W-833-12	MWPT	Qt	A	A	CMP	E601	1	Y	
W-833-18	MWPT	Tps	A	A	CMP	E601	1	N	Dry.
W-833-22	MWPT	Tps	B	B	CMP	E601	1	N	Next sample required 1stQ 2006.
W-833-28	MWPT	Tps	A	A	CMP	E601	1	N	Dry.
W-833-30	MWPT	Lower $Tnbs_1$	S	S	CMP	E601	1	Y	
W-833-30	MWPT	Lower $Tnbs_1$	S	S	CMP	E601	3		
W-833-33	MWPT	Tps	B	B	CMP	E601	1	N	Dry.
W-833-34	MWPT	Tps	A	A	CMP	E601	1	N	Dry.
W-833-43	MWPT	Tps	B	B	CMP	E601	1	N	Dry.
W-840-01	MWPT	Lower $Tnbs_1$		A	DIS	E300.0:NO3	1	N	Pump down.
W-840-01	MWPT	Lower $Tnbs_1$		A	DIS	E300.0:PERC	1	N	Pump down.
W-840-01	MWPT	Lower $Tnbs_1$		A	DIS	E601	1	N	Pump down.
W-841-01	MWPT	Upper $Tnbs_1$		A	DIS	E300.0:NO3	1	N	Dry.
W-841-01	MWPT	Upper $Tnbs_1$		A	DIS	E300.0:PERC	1	N	Dry.
W-841-01	MWPT	Upper $Tnbs_1$		A	DIS	E601	1	N	Dry.

Note:

Building 833 primary COC: VOCs (E601).

*See Table Acronyms and Abbreviations in the Tables section of this report for Requested Analysis acronym definitions.

Table 2.8-3. Building 845 Firing Table and Pit 9 Landfill area ground wdater sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K9-01	CMP DMW	Tmss	A	A	CMP	CMPTRIMET	2		
K9-01	CMP DMW	Tmss	A	A	CMP	E300.0:NO3	2	Y	
K9-01	CMP DMW	Tmss	A	A	CMP	E300.0:PERC	2	Y	
K9-01	CMP DMW	Tmss	A	A	CMP	E340.2	2	Y	
K9-01	CMP DMW	Tmss	A	A	CMP	E601	2	Y	
K9-01	CMP DMW	Tmss	A	A	CMP	E8330	2	Y	
K9-01	CMP DMW	Tmss	Q	Q	CMP	E906	1	Y	
K9-01	CMP DMW	Tmss	Q	Q	CMP	E906	2	Y	
K9-01	CMP DMW	Tmss	Q	Q	CMP	E906	3		
K9-01	CMP DMW	Tmss	Q	Q	CMP	E906	4		
K9-01	CMP DMW	Tmss	B	B	CMP	MS:THISO	2	Y	Next sample required 2ndQ 2005.
K9-01	CMP DMW	Tmss	B	B	CMP	MS:UISO	2	Y	Next sample required 2ndQ 2005.
K9-01	CMP DMW	Tmss	A	A	CMP	T26METALS	2	Y	
K9-02	CMP DMW	Tmss	A	A	CMP	CMPTRIMET	2	Y	
K9-02	CMP DMW	Tmss			DIS	E200.7:SIO2	2	Y	
K9-02	CMP DMW	Tmss	A	A	CMP	E300.0:NO3	2	Y	
K9-02	CMP DMW	Tmss	A	A	CMP	E300.0:PERC	2	Y	
K9-02	CMP DMW	Tmss	A	A	CMP	E340.2	2	Y	
K9-02	CMP DMW	Tmss	A	A	CMP	E601	2	Y	
K9-02	CMP DMW	Tmss	A	A	CMP	E8330	2	Y	
K9-02	CMP DMW	Tmss	Q	Q	CMP	E906	1	Y	
K9-02	CMP DMW	Tmss	Q	Q	CMP	E906	2	Y	
K9-02	CMP DMW	Tmss	Q	Q	CMP	E906	3		
K9-02	CMP DMW	Tmss	Q	Q	CMP	E906	4		
K9-02	CMP DMW	Tmss			DIS	GENMIN	2	Y	
K9-02	CMP DMW	Tmss	B	B	CMP	MS:THISO	2	Y	Next sample required 2ndQ 2005.
K9-02	CMP DMW	Tmss	B	B	CMP	MS:UISO	2	Y	Next sample required 2ndQ 2005.
K9-02	CMP DMW	Tmss	A	A	CMP	T26METALS	2	Y	
K9-03	CMP DMW	Tmss	A	A	CMP	CMPTRIMET	2	Y	
K9-03	CMP DMW	Tmss			DIS	E200.7:SIO2	2	Y	
K9-03	CMP DMW	Tmss	A	A	CMP	E300.0:NO3	2	Y	
K9-03	CMP DMW	Tmss	A	A	CMP	E300.0:PERC	2	Y	
K9-03	CMP DMW	Tmss	A	A	CMP	E340.2	2	Y	
K9-03	CMP DMW	Tmss	A	A	CMP	E601	2	Y	
K9-03	CMP DMW	Tmss	A	A	CMP	E8330	2	Y	
K9-03	CMP DMW	Tmss	Q	Q	CMP	E906	1	Y	

Table 2.8-3. Building 845 Firing Table and Pit 9 Landfill area ground wdater sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K9-03	CMP DMW	Tmss	Q	Q	CMP	E906	2	Y	
K9-03	CMP DMW	Tmss	Q	Q	CMP	E906	3		
K9-03	CMP DMW	Tmss	Q	Q	CMP	E906	4		
K9-03	CMP DMW	Tmss			DIS	GENMIN	2	Y	
K9-03	CMP DMW	Tmss	B	B	CMP	MS:THISO	2	Y	Next sample required 2ndQ 2005.
K9-03	CMP DMW	Tmss	B	B	CMP	MS:UISO	2	Y	Next sample required 2ndQ 2005.
K9-03	CMP DMW	Tmss	A	A	CMP	T26METALS	2	Y	
K9-04	CMP DMW	Tmss	A	A	CMP	CMPTRIMET	2	Y	
K9-04	CMP DMW	Tmss	A	A	CMP	E300.0:NO3	2	Y	
K9-04	CMP DMW	Tmss	A	A	CMP	E300.0:PERC	2	Y	
K9-04	CMP DMW	Tmss	A	A	CMP	E340.2	2	Y	
K9-04	CMP DMW	Tmss	A	A	CMP	E601	2	Y	
K9-04	CMP DMW	Tmss	A	A	CMP	E8330	2	Y	
K9-04	CMP DMW	Tmss	Q	Q	CMP	E906	1	Y	
K9-04	CMP DMW	Tmss	Q	Q	CMP	E906	2	Y	
K9-04	CMP DMW	Tmss	Q	Q	CMP	E906	3		
K9-04	CMP DMW	Tmss	Q	Q	CMP	E906	4		
K9-04	CMP DMW	Tmss	B	B	CMP	MS:THISO	2	Y	Next sample required 2ndQ 2005.
K9-04	CMP DMW	Tmss	B	B	CMP	MS:UISO	2	Y	Next sample required 2ndQ 2005.
K9-04	CMP DMW	Tmss	A	A	CMP	T26METALS	2	Y	

Notes:

No COCs in ground water.

CMP Detection monitoring analyte: tritium (E906) sampled quarterly.

CMP Detection monitoring analyte: VOCs (E601 or E624) sampled annually.

CMP Detection monitoring analyte: fluoride (E340.2) sampled annually.

CMP Detection monitoring analyte: HE compounds (E8330:R+H) sampled annually.

CMP Detection monitoring analyte: nitrate (E300.0:NO3) sampled annually.

CMP Detection monitoring analyte: perchlorate (E300.0:PERC) sampled annually.

CMP Detection monitoring analytes: Title 26 metals plus U, Th, Li, Be (T26METALS and CMPTRIMET) sampled annually.

CMP Detection monitoring analytes: uranium and thorium isotopes by mass spectrometry (MS:UISO and MS:THISO) sampled biennially.

Contaminants of Concern in the Vadose Zone not detected in Ground Water: HE Compounds and uranium.

***See Table Acronyms and Abbreviations in the Tables section of this report for Requested Analysis acronym definitions.**

Table 2.8-4. Building 851 area ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Location type	Comment
W-851-05	MWPT	Tmss			DIS	E200.7:SIO2	2	Y	
W-851-05	MWPT	Tmss	B	B	CMP	E601	2	Y	Next sample required 2ndQ 2005.
W-851-05	MWPT	Tmss	A	A	CMP	E906	2	Y	
W-851-05	MWPT	Tmss			DIS	GENMIN	2	Y	
W-851-05	MWPT	Tmss	S	S	CMP	MS:UISO	2	Y	
W-851-05	MWPT	Tmss	S	S	CMP	MS:UISO	4		
W-851-06	MWPT	Tmss			DIS	E200.7:SIO2	2	Y	
W-851-06	MWPT	Tmss	A	A	CMP	E906	2	Y	
W-851-06	MWPT	Tmss			DIS	GENMIN	2	Y	
W-851-06	MWPT	Tmss	S	S	CMP	MS:UISO	2	Y	
W-851-06	MWPT	Tmss	S	S	CMP	MS:UISO	4		
W-851-07	MWPT	Tmss			DIS	E200.7:SIO2	2	Y	
W-851-07	MWPT	Tmss	A	A	CMP	E906	2	Y	
W-851-07	MWPT	Tmss			DIS	GENMIN	2	Y	
W-851-07	MWPT	Tmss	S	S	CMP	MS:UISO	2	Y	
W-851-07	MWPT	Tmss	S	S	CMP	MS:UISO	4		
W-851-08	MWPT	Tmss			DIS	E200.7:SIO2	2	Y	
W-851-08	MWPT	Tmss	A	A	CMP	E906	2	Y	
W-851-08	MWPT	Tmss			DIS	GENMIN	2	Y	
W-851-08	MWPT	Tmss	S	S	CMP	MS:UISO	2	Y	
W-851-08	MWPT	Tmss	S	S	CMP	MS:UISO	4		

Notes:

Building 851 primary COC: uranium (MS:UISO).

Building 851 secondary COC: tritium (E906).

Contaminants of Concern in the Vadose Zone not detected in Ground Water: VOCs (E601).

***See Table Acronyms and Abbreviations in the Tables section of this report for Requested Analysis acronym definitions.**

Table 3.1-1. Pit 2 Landfill area ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
K2-01C	CMP DMW	$Tnbs_1$			ERD/WGMG	AS:UISO	1	Y	
K2-01C	CMP DMW	$Tnbs_1$	Q	Q	CMP/WGMG	E906	1	Y	
K2-01C	CMP DMW	$Tnbs_1$		Q	ERD/WGMG	AS:UISO	2	Y	
K2-01C	CMP DMW	$Tnbs_1$	A	A	CMP/WGMG	CMPTRIMET	2	Y	
K2-01C	CMP DMW	$Tnbs_1$			DIS	E200.7:SIO2	2	Y	
K2-01C	CMP DMW	$Tnbs_1$	A	A	CMP/WGMG	E300.0:NO3	2	Y	
K2-01C	CMP DMW	$Tnbs_1$	A	A	CMP/WGMG	E300.0:PERC	2	Y	
K2-01C	CMP DMW	$Tnbs_1$	A	A	CMP/WGMG	E340.2	2	Y	
K2-01C	CMP DMW	$Tnbs_1$	A	A	CMP/WGMG	E601	2	Y	
K2-01C	CMP DMW	$Tnbs_1$	A	A	CMP/WGMG	E8330:R+H	2	Y	
K2-01C	CMP DMW	$Tnbs_1$	Q	Q	CMP/WGMG	E906	2	Y	
K2-01C	CMP DMW	$Tnbs_1$			DIS	GENMIN	2	Y	
K2-01C	CMP DMW	$Tnbs_1$	B	A	DIS	MS:THISO	2	Y	Next sample required 2ndQ 2006.
K2-01C	CMP DMW	$Tnbs_1$	B	A	DIS	MS:UISO	2	Y	Next sample required 2ndQ 2006.
K2-01C	CMP DMW	$Tnbs_1$	A	A	CMP	T26METALS	2	Y	
K2-01C	CMP DMW	$Tnbs_1$			ERD/WGMG	AS:UISO	3		
K2-01C	CMP DMW	$Tnbs_1$	Q	Q	CMP/WGMG	E906	3		
K2-01C	CMP DMW	$Tnbs_1$	Q	Q	CMP/WGMG	E906	4		
NC2-08	CMP DMW	$Tnbs_1$	Q	Q	CMP	E906	1	Y	
NC2-08	CMP DMW	$Tnbs_1$	A	A	CMP	CMPTRIMET	2	Y	
NC2-08	CMP DMW	$Tnbs_1$			DIS	E200.7:SIO2	2	Y	
NC2-08	CMP DMW	$Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
NC2-08	CMP DMW	$Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
NC2-08	CMP DMW	$Tnbs_1$	A	A	CMP	E340.2	2	Y	
NC2-08	CMP DMW	$Tnbs_1$	A	A	CMP	E601	2	Y	
NC2-08	CMP DMW	$Tnbs_1$	A	A	CMP	E8330:R+H	2	Y	
NC2-08	CMP DMW	$Tnbs_1$	Q	Q	CMP	E906	2	Y	

Table 3.1-1. Pit 2 Landfill area ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
NC2-08	CMP DMW	$Tnbs_1$			DIS	GENMIN	2	Y	
NC2-08	CMP DMW	$Tnbs_1$	B	A	DIS	MS:THISO	2	Y	Next sample required 2ndQ 2006.
NC2-08	CMP DMW	$Tnbs_1$	B	A	DIS	MS:UISO	2	Y	Next sample required 2ndQ 2006.
NC2-08	CMP DMW	$Tnbs_1$	A	A	CMP	T26METALS	2	Y	
NC2-08	CMP DMW	$Tnbs_1$	Q	Q	CMP	E906	3		
NC2-08	CMP DMW	$Tnbs_1$	Q	Q	CMP	E906	4		
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	Q	Q	CMP	E906	1	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	B	Q	DIS	MS:THISO	1	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	B	Q	DIS	MS:UISO	1	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	A	A	CMP	CMPTRIMET	2	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$			DIS	E200.7:SIO2	2	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	A	A	CMP	E300.0:NO3	2	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	A	A	CMP	E300.0:PERC	2	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	A	A	CMP	E340.2	2	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	A	A	CMP	E601	2	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	A	A	CMP	E8330:R+H	2	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	Q	Q	CMP	E906	2	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$			DIS	GENMIN	2	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	B	Q	DIS	MS:THISO	2	Y	Next sample required 2ndQ 2006.
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	B	Q	DIS	MS:UISO	2	Y	Next sample required 2ndQ 2006.
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	A	A	CMP	T26METALS	2	Y	
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	Q	Q	CMP	E906	3		
W-PIT2-1934	CMP DMW	Lower $Tnbs_1$	Q	Q	CMP	E906	4		
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	Q	Q	CMP	E906	1	Y	
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	B	Q	DIS	MS:THISO	1	Y	
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	B	Q	DIS	MS:UISO	1	Y	
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	A	A	CMP	CMPTRIMET	2	N	Unable to sample, laboratory unavailable.

Table 3.1-1. Pit 2 Landfill area ground water sampling and analysis plan.

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis*	Sampling quarter	Sampled Y/N	Comment
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	A	A	CMP	E300.0:NO3	2	N	Unable to sample, laboratory unavailable.
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	A	A	CMP	E300.0:PERC	2	N	Unable to sample, laboratory unavailable.
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	A	A	CMP	E340.2	2	N	Unable to sample, laboratory unavailable.
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	A	A	CMP	E601	2	N	Unable to sample, laboratory unavailable.
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	A	A	CMP	E8330:R+H	2	N	Unable to sample, laboratory unavailable.
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	Q	Q	CMP	E906	2	N	Unable to sample, laboratory unavailable.
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	B	B	CMP	MS:THISO	2	N	Next sample required 2ndQ 2006.
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	B	B	CMP	MS:UISO	2	N	Next sample required 2ndQ 2006.
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	A	A	CMP	T26METALS	2	N	Unable to sample, laboratory unavailable.
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	Q	Q	CMP	E906	3		
W-PIT2-1935	CMP DMW	Lower $Tnbs_1$	Q	Q	CMP	E906	4		

Notes:

No COCs in ground water at Pit 2.

CMP Detection monitoring analyte: tritium (E906) sampled quarterly.

CMP Detection monitoring analyte: VOCs (E601 or E624) sampled annually.

CMP Detection monitoring analyte: fluoride (E340.2) sampled annually.

CMP Detection monitoring analyte: HE compounds (E8330:R+H) sampled annually.

CMP Detection monitoring analyte: nitrate (E300.0:NO3) sampled annually.

CMP Detection monitoring analyte: perchlorate (E300.0:PERC) sampled annually.

CMP Detection monitoring analytes: Title 26 metals plus U, Th, Li, Be (T26METALS and CMPTRIMET) sampled annually.

CMP Detection monitoring analytes: uranium and thorium isotopes by mass spectrometry (MS:UISO and MS:THISO) sampled biennially.

***See Table Acronyms and Abbreviations in the Tables section of this report for Requested Analysis acronym definitions.**

Appendix A

Results of Influent and Effluent pH Monitoring

A-1. Results of influent and effluent pH monitoring, January through June 2005.

Sample location	Sample date	Influent pH result	Effluent pH result
Central GSA			
CGSA GWTS	01/12/05	7	7
CGSA GWTS	02/09/05	NM	7
CGSA GWTS	03/08/05	NM	8
CGSA GWTS	04/06/05	7	7
CGSA GWTS	05/17/05	7	7.5
CGSA GWTS	06/08/05	NM	7.5
Building 834 OU			
B834 GWTS	01/31/05	NM	7.2
B834 GWTS	02/28/05	6.7	7.2
B834 GWTS	05/03/05	7.0	7.2
B834 GWTS	06/02/05	NM	7.3
HEPA OU			
B815-SRC GWTS	01/12/05	7	7
B815-SRC GWTS	02/10/05	NA	7
B815-SRC GWTS	03/09/05	NA	7
B815-SRC GWTS	04/06/05	7	7
B815-SRC GWTS	05/05/05	NA	7
B815-SRC GWTS	06/16/05	NA	7
B815-PRX GWTS	01/20/05	7	7
B815-PRX GWTS	02/09/05	NA	7
B815-PRX GWTS	03/02/05	NA	7
B815-PRX GWTS	04/06/05	7	7
B815-PRX GWTS	05/05/05	NA	7
B815-PRX GWTS	06/16/05	NA	7
B815-DSB GWTS	01/12/05	7	7
B815-DSB GWTS	02/09/05	NA	7
B815-DSB GWTS	03/02/05	NA	7
B815-DSB GWTS	04/14/05	7	7
B815-DSB GWTS	05/16/05	NA	7
B815-DSB GWTS	06/09/05	NA	7

A-1. Results of influent and effluent pH monitoring, January through June 2005.

Sample location	Sample date	Influent pH result	Effluent pH result
B817-SRC GWTS	01/27/05	7.5	7
B817-SRC GWTS	02/08/05	NA	7
B817-SRC GWTS	03/08/05	NA	7
B817-SRC GWTS	04/07/05	7	7
B817-SRC GWTS	05/04/05	NA	7
B817-SRC GWTS	06/07/05	NA	7
Building 854 OU			
B854-SRC GWTS	01/18/05	7	7
B854-SRC GWTS	02/08/05	NA	7
B854-SRC GWTS	03/07/05	NA	7
B854-SRC GWTS	04/05/05	7	7
B854-SRC GWTS	05/04/05	NA	7
B854-SRC GWTS	06/07/05	NA	7
B854-PRX GWTS	01/18/05	7.5	7
B854-PRX GWTS	02/08/05	NA	7
B854-PRX GWTS	03/07/05	NA	7
B854-PRX GWTS	04/05/05	7	7
B854-PRX GWTS	05/04/05	NA	7
B854-PRX GWTS	06/07/05	NA	7
832 Canyon OU			
B832-SRC GWTS	01/12/05	6.5	7
B832-SRC GWTS	02/09/05	NA	6.6
B832-SRC GWTS	03/08/05	NA	7
B832-SRC GWTS	04/13/05	NA	7
B832-SRC GWTS	05/05/05	NA	7
B832-SRC GWTS	06/08/05	NA	7
B830-SRC GWTS	01/20/05	7	7
B830-SRC GWTS	02/09/05	NA	7
B830-SRC GWTS	03/08/05	NA	7
B830-SRC GWTS	04/06/05	7	7
B830-SRC GWTS	05/10/05	NA	7

A-1. Results of influent and effluent pH monitoring, January through June 2005.

Sample location	Sample date	Influent pH result	Effluent pH result
B830-SRC GWTS	06/08/05	NA	7
B830-PRXN GWTS	01/20/05	7	7
B830-PRXN GWTS	02/08/05	NA	7
B830-PRXN GWTS	03/02/05	NA	7
B830-PRX GWTS	04/13/05	7	7
B830-PRXN GWTS	05/04/05	NA	7
B830-PRXN GWTS	06/08/05	NA	7
B830-DISS GWTS	01/19/05	6.5	7
B830-DISS GWTS	02/05/05	7	7
B830-DISS GWTS	03/07/05	7	7
B830-DISS GWTS	04/18/05	NA	7
B830-DISS GWTS	05/10/05	NA	7
B830-DISS GWTS	06/08/05	6.5	7

Notes:

B815 = Building 815.
B817 = Building 817.
B830 = Building 830.
B832 = Building 832.
B834 = Building 834.
B854 = Building 854.
CGSA = Central General Services Area.
DISS = Distal south.
DSB = Distal site boundary.
GWTS = Ground water treatment system.
NA = Not applicable.
NM = Not measured.
OU = Operable unit.
pH = A measure of the acidity or alkalinity of an aqueous solution.
SRC = Source.

The Building 834 GWTS pH was not measured in March and April.