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Livermore Site Office, Livermore, California 94550

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**Lawrence Livermore National Laboratory**



University of California, Livermore, California 94550

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**2003 Annual Compliance Report for  
Lawrence Livermore National Laboratory  
Site 300**

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**March 31, 2004**

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**Environmental Protection Department**  
**Environmental Restoration Division**

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**March 31, 2004**

# Table of Contents

- 1. Introduction.....1
- 2. Extraction and Treatment System Monitoring and Ground and Surface Water Monitoring Programs.....1
  - 2.1. General Services Area (GSA) OU1 .....2
    - 2.1.1. Central GSA Ground Water and Soil Vapor Extraction and Treatment System Operations and Monitoring.....2
    - 2.1.2. Central GSA Surface Water and Ground Water Monitoring.....3
    - 2.1.3. Central GSA Remediation Progress Analysis.....3
  - 2.2. Building 834 (B834) OU2.....5
    - 2.2.1. Building 834 OU Ground Water and Soil Vapor Extraction and Treatment System Operations and Monitoring .....6
    - 2.2.2. Building 834 OU Ground Water Monitoring.....6
    - 2.2.3. Building 834 OU Remediation Progress Analysis.....6
  - 2.3. Pit 6 Landfill (Pit 6) OU3 .....9
    - 2.3.1. Pit 6 Landfill OU Surface Water and Ground Water Monitoring.....10
    - 2.3.2. Pit 6 Landfill OU Remediation Progress Analysis.....10
  - 2.4. High Explosives Process Area (HEPA) OU4.....12
    - 2.4.1. HEPA OU Ground Water Extraction and Treatment System Operations and Monitoring.....13
    - 2.4.2. HEPA OU Ground Water and Surface Water Monitoring.....14
    - 2.4.3. HEPA OU Remediation Progress Analysis.....14
  - 2.5. Building 850 (B850) OU5.....16
    - 2.5.1. Building 850 OU Ground Water Monitoring.....16
    - 2.5.2. Building 850 OU Remediation Progress Analysis.....17
  - 2.6. Building 854 (B854) OU6.....19
    - 2.6.1. Building 854 OU Ground Water and Soil Vapor Extraction and Treatment System Operations and Monitoring .....19
    - 2.6.2. Building 854 OU Ground Water Monitoring.....21
    - 2.6.3. Building 854 OU Remediation Progress Analysis.....21
  - 2.7. Building 832 Canyon (B832) OU7 .....23



- 2.7.1. Building 832 Canyon OU Ground Water and Soil Vapor Extraction and Treatment System Operations and Monitoring.....24
- 2.7.2. Building 832 Canyon OU Ground Water Monitoring.....25
- 2.7.3. Building 832 Canyon OU Remediation Progress Analysis .....26
- 2.8 Site 300 Site-Wide OU8.....27
  - 2.8.1. Building 801 and Pit 8 Landfill.....27
  - 2.8.2. Building 833.....28
  - 2.8.3. Building 845 Firing Table and Pit 9 Landfill .....28
  - 2.8.4. Building 851 Firing Table.....29
- 3. Detection Monitoring, Inspection, and Maintenance Program for the Pits 2, 8, and 9 Landfills .....30
  - 3.1 Pit 2 Landfill.....30
    - 3.1.1. Contaminant Detection Monitoring Results.....30
    - 3.1.2. Sampling and Analysis Plan Modifications .....31
    - 3.1.3. Landfill Inspection Results .....31
    - 3.1.4. Annual Subsidence Monitoring Results.....31
    - 3.1.5. Maintenance.....31
  - 3.2. Pit 8 Landfill.....31
    - 3.2.1. Contaminant Detection Monitoring Results.....31
    - 3.2.2. Sampling and Analysis Plan Modifications .....32
    - 3.2.3. Landfill Inspection Results .....32
    - 3.2.4. Annual Subsidence Monitoring Results.....32
    - 3.2.5. Maintenance.....32
  - 3.3. Pit 9 Landfill.....32
    - 3.3.1. Contaminant Detection Monitoring Results.....32
    - 3.3.2. Sampling and Analysis Plan Modifications .....32
    - 3.3.3. Landfill Inspection Results .....33
    - 3.3.4. Annual Subsidence Monitoring Results.....33
    - 3.3.5. Maintenance.....33
- 4. Risk and Hazard Management Program.....33
  - 4.1 Human Health Risk and Hazard Management.....33
    - 4.1.1. Building 834 OU.....33

- 4.1.2. Pit 6 Landfill OU.....34
- 4.1.3. High Explosive Process Area OU.....34
- 4.1.4. Building 850 OU.....34
- 4.1.5. Building 854 OU.....35
- 4.1.6. Building 832 Canyon OU.....36
- 4.1.7. Building 833.....37
- 4.2. Ecological Risk and Hazard Management.....38
  - 4.2.1. Wildlife Surveys Spring 2003 .....38
  - 4.2.2. Burrow Air Sampling for VOCs.....39
  - 4.2.3. Surface Soil Sampling for Cadmium, PCBs, Dioxins and Furans  
in Surface Soil. ....41
- 5. Data Management Program.....42
  - 5.1. Modifications to Existing Procedures .....43
  - 5.2. New procedures .....43
- 6. Quality Assurance/Quality Control Program.....43
  - 6.1. Modifications to Existing Procedures .....43
  - 6.2. New Procedures.....43
  - 6.3. Self-assessments.....44
  - 6.4. Quality Issues and Corrective Actions .....44
  - 6.5. Analytical Quality Control .....44
  - 6.6. Field Quality Control.....44
- 7. References.....45

## List of 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<sub>1</sub> HSU.
- Figure 2.1-3. Central General Services Area OU TVOC isoconcentration contour map for the Qt-Tnsc<sub>1</sub> HSU.
- Figure 2.2-1. Building 834 OU site map showing 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. Completed

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<sub>2</sub> HSU.

Figure 2.4-3. High Explosive Process Area TVOC isoconcentration contour map for the Tnbs<sub>2</sub> 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<sub>1</sub> HSU.

Figure 2.5-3. Building 850 OU tritium isoconcentration contour map for the Qal-Tnbs<sub>1</sub> 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<sub>0</sub>/Tnsc<sub>1</sub> HSU.

Figure 2.6-3. Building 854 OU TVOC isoconcentration contour map for the Tnbs<sub>0</sub>/Tnsc<sub>1</sub> 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 ground water potentiometric surface map for the Qal/Fill.

Figure 2.7-3. Building 832 Canyon OU ground water potentiometric surface map for the Tnsc<sub>1b</sub> HSU.

Figure 2.7-4. Building 832 Canyon OU map showing TVOC concentrations for the Qal/Fill.

Figure 2.7-5. Building 832 Canyon OU TVOC isoconcentration contour map for the Tnsc<sub>1b</sub> 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 TVOC concentrations in Tnbs<sub>1</sub> HSU wells.

Figure 2.8-3. Building 801 Firing Table and Pit 8 Landfill site map showing ground water elevations and hydraulic gradient direction in the Tnbs<sub>1</sub> HSU.

Figure 2.8-4. Building 833 site map showing monitoring wells.

- 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<sub>0</sub> 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 total uranium activities and <sup>235</sup>U/<sup>238</sup>U isotope mass ratios in ground water samples from Tmss HSU wells.
- Figure 4.1-1. Surface soil sample locations collected during January 2003 in the Building 854 OU.
- Figure 4.1-2. Surface soil sample locations collected in the Building 855 former disposal lagoon during 2003 in the Building 854 OU.
- Figure 4.2-1. Area surveyed for important burrowing species at Building 834.
- Figure 4.2-2. Area surveyed for important burrowing species at Building 850.
- Figure 4.2-3. Area surveyed for important burrowing species at Pit 6.
- Figure 4.2-4. Burrow air sampling locations at Bldg 834.
- Figure 4.2-5. Burrow air sampling locations at Pit 6.
- Figure 4.2-6. Cadmium surface soil sampling locations at Building 834.

## List of Tables

- Table Summ-1. Mass removed, January 1, 2003 through December 31, 2003.
- Table Summ-2. Summary of cumulative remediation.
- Table 1-1. Wells and boreholes installed during 2003.
- Table 1.2-1. Volatile organic compounds in soil for boreholes drilled during 2003.
- Table 1.2-2. High explosive compounds in soil for boreholes drilled during 2003.
- Table 1.2-3. Perchlorate in soil for boreholes drilled during 2003.
- Table 1.2-4. Radiological constituents in soil for boreholes drilled during 2003.
- Table 1.2-5. TBOS in soil for boreholes drilled during 2003.
- Table 1.2-6. STLC metals in soil for boreholes drilled during 2003.
- Table 1.2-7. Diesel range organic compounds in soil for boreholes drilled during 2003.
- Table 2.1-1. Central General Services Area volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.

Table 2.1-2. Central General Services Area 2003 VOCs in ground water treatment system influent and effluent.

Table 2.1-3. Central General Services Area 2003 VOCs in soil vapor extraction treatment system influent and effluent.

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

Table 2.1-5. Central General Services Area 2003 ground water sampling and analysis plan.

Table 2.1-6. Central General Services Area 2003 VOCs in ground water.

Table 2.1-7. Central General Services Area 2003 metals in ground water.

Table 2.1-8. Central General Services Area 2003 VOCs in vapor.

Table 2.1-9. Central General Services Area 2003 perchlorate in ground water.

Table 2.1-10. Central General Services Area 2003 ground water elevations.

Table 2.1-11. Central General Services Area mass removed, January 1, 2003 through December 31, 2003.

Table 2.2-1. Building 834 OU treatment facility sampling and analysis plans.

Table 2.2-2. Building 834 OU ground water sampling and analysis plan.

Table 2.2-3. Building 834 OU 2003 VOCs in ground water.

Table 2.2-4. Building 834 OU 2003 TBOS in ground water.

Table 2.2-5. Building 834 OU 2003 anions in ground water .

Table 2.2-6. Building 834 OU 2003 diesel range organic compounds in ground water.

Table 2.2-7. Analytical results for n-Butyl-Benzenesulfonamide (BBSA) at Site 300.

Table 2.2-8. Building 834 OU 2003 metals in ground water.

Table 2.2-9. Building 834 OU 2003 ground water elevations.

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan.

Table 2.3-2. Pit 6 Landfill OU 2003 VOCs in ground water.

Table 2.3-3. Pit 6 Landfill OU 2003 radiological constituents in ground water.

Table 2.3-4. Pit 6 Landfill OU 2003 nitrate and perchlorate in ground water.

Table 2.3-5. Pit 6 Landfill OU 2003 metals in ground water.

Table 2.3-6. Pit 6 Landfill OU 2003 high explosive compounds in ground water.

Table 2.3-7. Pit 6 Landfill OU 2003 general minerals in ground water.

Table 2.3-8. Pit 6 Landfill OU 2003 ground water elevations.

Table 2.4-1. Building 815-Source (B815-SRC) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.

- Table 2.4-2. Building 815-Proximal (B815-PRX) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.
- Table 2.4-3. Building 815-Distal Site Boundary (B815-DSB) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.
- Table 2.4-4. Building 817-Source (B817-SRC) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.
- Table 2.4-5. High Explosive Process Area OU 2003 VOCs in ground water treatment system influent and effluent.
- Table 2.4-6. High Explosive Process Area OU 2003 nitrate and perchlorate in ground water treatment system influent and effluent.
- Table 2.4-7. High Explosive Process Area OU 2003 high explosive compounds in ground water treatment system influent and effluent.
- Table 2.4-8. High Explosive Process Area OU treatment facility sampling and analysis plans.
- Table 2.4-9. High Explosive Process Area OU 2003 ground water sampling and analysis plan.
- Table 2.4-10. High Explosive Process Area OU 2003 VOCs in ground and surface water.
- Table 2.4-11. High Explosive Process Area OU 2003 nitrate, perchlorate, and ortho-phosphate in ground and surface water.
- Table 2.4-12. High Explosive Process Area OU 2003 high explosive compounds in ground and surface water.
- Table 2.4-13. High Explosive Process Area OU 2003 nutrients in ground water.
- Table 2.4-14. High Explosive Process Area OU 2003 radiological constituents in ground water.
- Table 2.4-15. High Explosive Process Area OU 2003 general minerals in surface water.
- Table 2.4-16. High Explosive Process Area OU 2003 ground water elevations.
- Table 2.4-17. Building 815-Source (B815-SRC) mass removed, January 1, 2003 through December 31, 2003.
- Table 2.4-18. Building 815-Proximal (B815-PRX) mass removed, January 1, 2003 through December 31, 2003.
- Table 2.4-19. Building 815-Distal Site Boundary (B815-DSB) mass removed, January 1, 2003 through December 31, 2003.
- Table 2.4-20. Building 817-Source (B817-SRC) mass removed, January 1, 2003 through December 31, 2003.
- Table 2.5-1. Building 850 2003 ground and surface water sampling and analysis plan.
- Table 2.5-2. Building 850 OU 2003 VOCs in ground and surface water.
- Table 2.5-3. Building 850 OU 2003 tritium in ground and surface water.
- Table 2.5-4. Building 850 OU 2003 nitrate, nitrite, ortho-phosphate, ammonia nitrogen, and perchlorate in ground and surface water.

- Table 2.5-5. Building 850 OU 2003 uranium isotopes by alpha spectrometry in ground and surface water.
- Table 2.5-6. Building 850 OU 2003 uranium isotopes by mass spectrometry in ground and surface water.
- Table 2.5-7. Building 850 OU 2003 metals in ground and surface water.
- Table 2.5-8. Building 850 OU 2003 high explosive compounds in ground and surface water.
- Table 2.5-9. Building 850 OU 2003 gross alpha and gross beta in ground and surface water.
- Table 2.5-10. Building 850 OU 2003 general minerals in ground and surface water.
- Table 2.5-11. Building 850 OU 2003 PCBs in ground and surface water.
- Table 2.5-12. Building 850 OU 2003 diesel range organic compounds in ground and surface water.
- Table 2.5-13. Building 850 OU 2003 ground water elevations.
- Table 2.6-1. Building 854-Source (B854-SRC) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.
- Table 2.6-2. Building 854-Proximal (B854-PRX) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.
- Table 2.6-3. Building 854 OU 2003 VOCs in ground water treatment system influent and effluent.
- Table 2.6-4. Building 854 OU 2003 nitrate and perchlorate in ground water treatment system influent and effluent.
- Table 2.6-5. Building 854 OU 2003 treatment facility sampling and analysis plans.
- Table 2.6-6. Building 854 OU 2003 ground and surface water sampling and analysis plan.
- Table 2.6-7. Building 854 OU 2003 VOCs in ground and surface water.
- Table 2.6-8. Building 854 OU 2003 nitrate and perchlorate in ground and surface water.
- Table 2.6-9. Building 854 OU 2003 TBOS in ground water.
- Table 2.6-10. Building 854 OU 2003 metals in ground and surface water.
- Table 2.6-11. Building 854 OU 2003 high explosive compounds in ground and surface water.
- Table 2.6-12. Building 854 OU 2003 radiological constituents in ground and surface water.
- Table 2.6-13. Building 854 OU 2003 general minerals in ground water.
- Table 2.6-14. Building 854 OU 2003 ground water elevations.
- Table 2.6-15. Building 854-Source (B854-SRC) mass removed, January 1, 2003 through December 31, 2003.
- Table 2.6-16. Building 854-Proximal (B854-PRX) mass removed, January 1, 2003 through December 31, 2003.

Table 2.7-1. Building 832-Source (B832-SRC) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.

Table 2.7-2. Building 830-Source (B830-SRC) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.

Table 2.7-3. Building 830-Proximal North (B830-PRXN) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.

Table 2.7-4. Building 830-Distal South (B830-DISS) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.

Table 2.7-5. Building 832 Canyon OU 2003 VOCs in ground water treatment system influent and effluent.

Table 2.7-6. Building 832 Canyon OU 2003 nitrate and perchlorate in ground water treatment system influent and effluent.

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

Table 2.7-8. Building 832 Canyon OU 2003 ground and surface water sampling and analysis plan.

Table 2.7-9. Building 832 Canyon OU 2003 VOCs in ground and surface water.

Table 2.7-10. Building 832 Canyon OU 2003 chloride, nitrate, perchlorate, and sulfate in ground and surface water.

Table 2.7-11. Building 832 Canyon OU 2003 metals in ground water.

Table 2.7-12. Building 832 Canyon OU 2003 general minerals in ground water.

Table 2.7-13. Building 832 Canyon OU 2003 tritium in ground water.

Table 2.7-14. Building 832 Canyon OU 2003 aromatic hydrocarbons in ground water.

Table 2.7-15. Building 832 Canyon OU 2003 high explosive compounds in ground water.

Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.

Table 2.7-17. Building 832-Source (B832-SRC) mass removed, January 1, 2003 through December 31, 2003.

Table 2.7-18. Building 830-Source (B830-SRC) mass removed, January 1, 2003 through December 31, 2003.

Table 2.7-19. Building 830-Proximal North (B830-PRXN) mass removed, January 1, 2003 through December 31, 2003.

Table 2.7-20. Building 830-Distal South (B830-DISS) mass removed, January 1, 2003 through December 31, 2003.

Table 2.8-1. Building 801 firing table and Pit 8 landfill 2003 ground water sampling and analysis plan.

Table 2.8-2. Building 801 firing table and Pit 8 landfill 2003 VOCs in ground water.

Table 2.8-3. Building 801 firing table and Pit 8 landfill 2003 tritium in ground water.



Table 2.8-4. Building 801 firing table and Pit 8 landfill 2003 nitrate and perchlorate in ground water.

Table 2.8-5. Building 801 firing table and Pit 8 landfill 2003 fluoride in ground water.

Table 2.8-6. Building 801 firing table and Pit 8 landfill 2003 high explosive compounds in ground water.

Table 2.8-7. Building 801 firing table and Pit 8 landfill 2003 metals in ground water.

Table 2.8-8. Building 801 firing table and Pit 8 landfill 2003 uranium and thorium isotopes by mass spectrometry in ground water.

Table 2.8-9. Building 801 firing table and Pit 8 landfill 2003 ground water elevations.

Table 2.8-10. Building 833 2003 ground water sampling and analysis plan.

Table 2.8-11. Building 833 2003 VOCs in ground water.

Table 2.8-12. Building 833 2003 nitrate and perchlorate in ground water.

Table 2.8-13 Building 833 2003 ground water elevations.

Table 2.8-14. Building 845 firing table and Pit 9 Landfill 2003 ground water sampling and analysis plan.

Table 2.8-15. Building 845 firing table and Pit 9 landfill 2003 VOCs in ground water.

Table 2.8-16. Building 845 firing table and Pit 9 landfill 2003 tritium in ground water.

Table 2.8-17. Building 845 firing table and Pit 9 landfill 2003 nitrate and perchlorate in ground water.

Table 2.8-18. Building 845 firing table and Pit 9 landfill 2003 fluoride in ground water.

Table 2.8-19. Building 845 firing table and Pit 9 landfill 2003 high explosive compounds in ground water.

Table 2.8-20. Building 845 firing table and Pit 9 landfill 2003 metals in ground water.

Table 2.8-21. Building 845 firing table and Pit 9 landfill 2003 uranium and thorium isotopes by mass spectrometry in ground water.

Table 2.8-22. Building 845 firing table and Pit 9 landfill 2003 ground water elevations.

Table 2.8-23. Building 851 2003 ground water sampling and analysis plan.

Table 2.8-24. Building 851 firing table 2003 VOCs in ground water.

Table 2.8-25. Building 851 firing table 2003 tritium in ground water.

Table 2.8-26. Building 851 firing table 2003 perchlorate in ground water.

Table 2.8-27. Building 851 firing table 2003 high explosive compounds in ground water.

Table 2.8-28. Building 851 firing table 2003 uranium and thorium isotopes in ground water.

Table 2.8-29. Building 851 firing table 2003 metals and silica in ground water.

Table 2.8-30. Building 851 firing table 2003 general minerals in ground water.

- Table 2.8-31. Building 851 firing table 2003 ground water elevations.
- Table 3.1-1. Pit 2 landfill 2003 VOCs in ground water.
- Table 3.1-2. Pit 2 landfill 2003 tritium in ground water.
- Table 3.1-3. Pit 2 landfill 2003 nitrate and perchlorate in ground water.
- Table 3.1-4. Pit 2 landfill 2003 fluoride in ground water.
- Table 3.1-5. Pit 2 landfill 2003 high explosive compounds in ground water.
- Table 3.1-6. Pit 2 landfill 2003 metals in ground water.
- Table 3.1-7. Pit 2 landfill 2003 uranium and thorium isotopes by mass spectrometry in ground water.
- Table 3.1-8. Pit 2 landfill 2003 ground water elevations.
- Table 3.1-9. Pit 2 landfill 2003 ground water sampling and analysis plan.
- Table 4.1-1. Summary of inhalation risks and hazards resulting from transport of contaminant vapors to indoor and outdoor ambient air.
- Table 4.1-2. PCB concentrations in Building 850 OU surface soil collected during 2003.
- Table 4.1-3. PCB concentrations in Building 854 OU surface soil as determined by EPA Method 8082.
- Table 4.1-4. Results of the 2003 ambient air sampling at Spring 3.
- Table 4.1-5. Ambient air sampling parameters at Spring 3.
- Table 4.2-1. Results of important species surveys in fall 2003 at Building 850, Building 834 and Pit 6.
- Table 4.2-2. Burrow air sampling parameters.
- Table 4.2-3. Burrow air sampling results.
- Table 4.2-4. Cadmium surface soil sampling results.

## Appendices

Appendix A. Results of Influent and Effluent pH Monitoring.....A-1

## 1. Introduction

This report summarizes the Lawrence Livermore National Laboratory (LLNL) Site 300 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Remedial Action compliance monitoring activities performed during 2003. 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 is governed by the RWQCB National Pollutant Discharge Elimination System (NPDES) Order No. 97-242 and reported separately.

During the reporting period of January 1, 2003 through December 31, 2003, 5,075,353 gallons of ground water and 11,873,000 cubic feet of vapor were treated at Site 300, removing approximately 2,616 grams (g) of volatile organic compounds (VOCs), 765,760 g nitrate, 93 g RDX, and 83 g perchlorate (Table Summ-1).

Since remediation began in 1992, approximately 20,865,036 gallons of ground water and over 141,236 of thousands of cubic feet of vapor have been treated, removing approximately 360 kilograms (kg) of VOCs, 112,634 kg nitrate, 0.68 kg RDX, 9.6 kg tetrabutyl ortho silicate (TBOS), and 6.3 kg perchlorate (Table Summ-2).

During 2003, 30 monitoring wells, 2 soil vapor extraction wells, 1 dewatering (horizontal) well, and 1 injection well were installed. Ten boreholes were also drilled & sealed. Table 1-1 lists the wells and boreholes installed during 2003. Analytical data from the associated soil samples are presented in Tables 1.2-1 through -7.

## 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.

## 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 is governed by the RWQCB NPDES Order No. 97-242 and reported separately. At the Central GSA, chlorinated solvents, mainly trichloroethylene (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.

A ground water extraction and treatment system has been operating in the Central GSA since 1992. Contaminated ground water is extracted from six wells (W-7I, W-875-07, W-875-08, W-873-07, W-872-02, and W-7O). The current treatment configuration includes particulate filtration, air stripping to remove VOCs from extracted water, granular activated carbon (GAC) to treat vapor effluent from the air stripper, and discharge to the surrounding natural vegetation using misting towers.

A soil vapor extraction and treatment system began operating in the GSA adjacent to Building 875 dry well contaminant source area in 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 treatment configuration includes a water knockout chamber, a rotary vane blower, and four 140-lb vapor-phase GAC vessels 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 sub-sections; 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 Central GSA ground water treatment facility discharge is regulated by the RWQCB Substantive Requirements for Waste Discharge.

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 Table 2.1-2 through 3. The pH measurement results are presented in Appendix A.

#### ***2.1.1.2. Central GSA Operations and Maintenance Issues***

The treatment facility operated continuously throughout the 2003, except for six days in late February when maintenance on the misting towers was performed and two days in late November and two days in late December due to power outages.

#### ***2.1.1.3. Central GSA Receiving Water Monitoring***

During 2003, 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 ground water and soil vapor extraction and treatment systems operated in compliance with the Substantive Requirements for Wastewater Discharge. No Environmental Protection Agency (EPA) Method 601 compounds were detected above the detection limit of 0.5  $\mu\text{g/L}$  in any of the ground water treatment system effluent samples collected during 2003. Measurements of pH (Appendix A) were within permit limitations.

#### ***2.1.1.5. Central GSA Facility Sampling Plan Evaluation and Modifications***

The Central GSA treatment facility sampling plan complies with Substantive Requirements and the GSA CMP (1998) monitoring requirements. The treatment facility sampling 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 2003, ground water monitoring was conducted in accordance with the GSA CMP sampling schedule with the following exceptions; 7 samples were not collected due to insufficient water and 7 samples were not collected due to missing or malfunctioning equipment. The sampling plan and schedule by quarter for ground water and surface water is presented in Table 2.1-5. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP. Analytical results are summarized in Tables 2.1-6 and 9.

Ground water elevations measured during the reporting period are summarized in Table 2.1-10. Ground water elevation data collected from wells within the OU are similar to those collected during past quarters. A ground water potentiometric surface map is presented in Figure 2.1-2.

### **2.1.3. Central GSA Remediation Progress Analysis**

This section is organized into four sub-sections; 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 2.1-11. 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<sub>1</sub>) contained within the Quaternary terrace deposits (Qt) and portions of the Tnbs<sub>2</sub> and Tnsc<sub>1</sub> bedrock units that subcrop beneath the Qt. Underlying the Qt-Tnsc<sub>1</sub> HSU, very low and intermittent VOC concentrations exist within a deeper HSU (Tnbs<sub>1</sub>) consisting of the Tnbs<sub>1</sub> bedrock units where they are hydraulically separate from the shallow Qt deposits. A total VOC isoconcentration contour map for the Qt-Tnsc<sub>1</sub> 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<sub>2</sub> and Tnsc<sub>1</sub> bedrock units are not present. Quaternary alluvial deposits (Qal) directly overlie the shallow Tnbs<sub>1</sub> bedrock that comprise the (Qal- Tnbs<sub>1</sub>) HSU in this area.

The current extent of detectable total VOCs in the shallow Qt-Tnsc<sub>1</sub> HSU is similar to that shown in past quarterly reports and in the first semester 2003. The current maximum total VOC concentration in the Qt-Tnsc<sub>1</sub> HSU (457.1 µg/L) occurs in well W-875-08, located in the Building 875 dry well pad area where the historical maximum total VOC concentrations have been detected. The current total VOC concentrations in these source area wells have decreased by two orders-of-magnitude since remediation began in 1994. VOCs are not detected in ground water samples from wells in the deeper Tnbs<sub>1</sub> HSU that underlies the Qt-Tnsc<sub>1</sub> HSU.

Toward the sewage treatment ponds, lower concentrations of VOCs are present in the shallow alluvium (Qal) and shallow Tnbs<sub>1</sub> bedrock (Qal-Tnbs<sub>1</sub> HSU). As the Tnsc<sub>1</sub> confining layer is absent in this area, VOCs have migrated from the Qal into the unconfined Tnbs<sub>1</sub> bedrock. VOCs have been detected at low concentrations in only three shallow Tnbs<sub>1</sub> wells, W-7N, W-7L, and W-35A-13 at concentrations of 1.1, 0.57, and 0.59 µg/L, respectively. In light of the relatively low concentrations and small plume size, maps depicting VOCs in the deeper Tnbs<sub>1</sub> HSU are not included in this report.

### **2.1.3.3. Central GSA Remediation Optimization Evaluation**

During the second semester of 2003, extraction well W-7O 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 in the Building 875 dry wells pad source area. The Central GSA soil vapor extraction system was turned off near the end of second semester 2003 to evaluate soil vapor rebound in the source area. This rebound test will be continuing throughout most of the first semester of 2004 and results will be discussed in the 2004 semi-annual CMP report.

### **2.1.3.4. Central GSA OU Performance Issues**

There were no performance issues during this reporting period.

## 2.2. Building 834 (B834) OU2

Past spills, piping leaks, and septic-system effluent at the Building 834 Complex have resulted in soil and ground water contamination, primarily of VOCs. Secondary COCs include TBOS and nitrate. In addition, a former underground diesel storage tank released diesel to the subsurface. Although diesel has been included as a secondary COC, the extent of diesel contamination has been recently evaluated and monitoring requirements have been modified accordingly. The distribution of diesel in ground water is discussed in Section 2.2.3.2. A map of the Building 834 OU showing the locations of monitoring and extraction wells is presented in Figure 2.2-1. Ground water and soil vapor extraction and treatment 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 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 extraction wells (< 0.1 gallons per minute), the ground water and soil vapor extraction and treatment systems have been operated simultaneously in batch mode. The treatment process utilized an oil-water separator to remove the floating silicon oil, TBOS, followed by air sparging to remove VOCs from ground water. The VOC laden vapors were removed using vapor phase GAC. Treated ground water was then discharged via a misting system. The soil vapor extraction system utilized 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. Until recently, the extraction well field consisted of 15 extraction wells, of which 13 were used for both ground water and soil vapor extraction, and two were solely used for vapor extraction. The treatment system and extraction well field are currently being modified. These modifications include:

- Replacement of the oil-water separator with floating hydrocarbon adsorption devices (pigs) that will be placed in the influent ground water storage tank to remove any floating product that is extracted.
- Conversion from air sparging with vapor-phase GAC treatment to the use of aqueous-phase GAC to remove VOCs from ground water.
- Installation of a new electronic treatment facility control system.
- Installation of individual monitoring equipment to measure volumes of ground water and soil vapor extracted from each well independently.

The results of the soil vapor extraction tests described in Section 2.2.3.3 indicate that the number of extraction wells could be reduced without decreasing mass removal. The proposed core area extraction well field will consist of eight wells for both ground water and soil vapor extraction. The remaining core area wells will be used to more accurately monitor remediation system performance.

In addition to the core area modifications, three additional ground water and soil vapor extraction wells will be added to the extraction wellfield in the Building 834 distal area. The average ground water extraction rate for the expanded extraction wellfield is estimated at 4,000 gallons per month.

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

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

#### ***2.2.1.1. Building 834 OU Facility Performance Assessment***

With the exception of short-term soil vapor extraction tests conducted in July, the Building 834 treatment facility was off-line the entire second semester of 2003. The treatment system is undergoing major modifications, as described above, and is expected to remain off-line into 2004. The milestone completion date for start-up of the upgraded system is December 31, 2004. Therefore, no data related to facility activities are presented. The cumulative volume of ground water and soil vapor treated and discharged and mass removed are summarized in Table Summ-2.

#### ***2.2.1.2. Building 834 OU Operations and Maintenance Issues***

There are no operational or maintenance issues to report, as this facility did not operate during the reporting period.

#### ***2.2.1.3. Building 834 OU Compliance Summary***

The Building 834 ground water treatment facility discharge is regulated by the RWQCB Substantive Requirements for Waste Discharge. There are no waste discharge compliance issues to report since the Building 834 treatment facility was not operated during the entire semester.

#### ***2.2.1.4. Building 834 OU Facility Sampling Plan Evaluation and Modifications***

The Building 834 facility sampling plan complies with CMP monitoring requirements. The sampling plan is presented in Table 2.2-1.

### **2.2.2. Building 834 OU Ground Water Monitoring**

During 2003, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; 48 samples were not collected due to access limitations due to Defense Program experiments and 104 samples were not collected due to insufficient water in the monitor wells. The monitoring well sampling plan and schedule for ground water and surface water monitoring are presented by quarter in Table 2.2-2. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP. Analytical results are summarized in Tables 2.2-3 through 8.

Ground water elevations measured during this reporting period are summarized in Table 2.2-9. A ground water potentiometric surface map is presented in Figure 2.2-2. Ground water elevation data collected from wells within the OU are similar to those collected during past quarters.

### **2.2.3. Building 834 OU Remediation Progress Analysis**

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



### **2.2.3.1. Building 834 OU Mass Removal**

No monthly ground water and soil vapor mass removal estimates are reported since the facility was not operational during the entire reporting period. The cumulative mass removed presented in Table SUMM-2 is the same as reported in the first semester 2003 report.

### **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, and nitrate are the secondary COCs. The highest concentrations of these constituents have always been detected in the core area. These constituents have been identified in two shallow HSUs, the Tpsg perched water-bearing gravel zone and the underlying Tps-clay 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 presented in the next CMP report.

The extent of total VOCs in the Tpsg HSU differs from the last report mainly due to increases in the extent of saturation. The increased saturation extent is due to the combined effects of recharge from late season rainfall and ground water rebound as a result of the discontinuation of ground water extraction since June 2002. Although the extent of VOC ground water contamination has increased during the last 6 months, the magnitude has not changed significantly since the last report.

In the Building 834 core area, the current maximum total VOC concentration in the Tpsg HSU (73,000  $\mu\text{g/L}$ ) was detected in well W-834-C5. In the core area, high total VOC concentrations have also been detected in the underlying Tps clay HSU. The highest total VOC ground water concentrations in the Building 834 OU occurred in the Tps-clay perching horizon. A ground water sample collected from the Tps clay (core area well W-834-A1) contained 200,000  $\mu\text{g/L}$  of total VOCs during 2003.

VOCs have also been detected at high concentrations in the distal area Tpsg HSU. The maximum total VOC concentration (26,000  $\mu\text{g/L}$ ) outside the core area in 2003 was detected in Tpsg well W-834-T2, located about 500 feet south of the core area.

To date, VOCs have not been detected in the Tnbs<sub>1</sub> regional aquifer guard wells W-834-T1 and W-834-T3. These deep guard wells are screened about 300 feet below the shallow contaminated Tpsg and Tps HSUs in the distal portion of the Building 834 OU.

During December, three passive soil vapor VOC monitoring devices (Gore Sorbers) were used to detect the presence of VOC vapors in the unsaturated zone between the contaminated Tpsg and Tps perched water-bearing zones and the regional aquifer. One Gore Sorber was installed in well W-834-1712 screened in the shallow vadose zone (Tpsg) beneath Building 834 D. Total VOCs were measured at 123  $\mu\text{g/sorber}$ , which was predominately TCE. A second Gore Sorber was placed in monitor well W-834-D9A, which is completed in the unsaturated Tnbs<sub>2</sub> geologic unit, that underlies the Tps clay perching horizon. Analytical results from this Gore Sorber indicated total VOCs at 489  $\mu\text{g/sorber}$ , also predominately TCE. A third Gore Sorber was placed into monitor well W-834-D2, which is completed in the upper unsaturated portion of the Tnbs<sub>1</sub> geologic unit. TCE was not detected above the 0.05  $\mu\text{g/sorber}$  analytical laboratory limit of detection. These data

indicate that VOC contamination has not migrated into the unsaturated zone overlying the regional aquifer.

Among the secondary COCs for the Building 834 OU, TBOS continues to be detected at high concentrations almost exclusively in the core area. The current maximum TBOS concentration (520,000  $\mu\text{g/L}$ ) was measured in well W-834-D4. TBOS was detected in only one well outside of the core area, W-834-T2D, at a low concentration of 1.7  $\mu\text{g/L}$ , and remains below detection limits in the deep Tnbs<sub>1</sub> guard wells W-834-T1 and W-834-T3.

Nitrate is detected in samples from wells located in both the core and distal areas of the Building 834 OU. The maximum nitrate concentration (110 milligrams per liter [mg/L], as NO<sub>3</sub>) was detected in well W-834-C5, located in the core area. Historically, nitrate concentrations in this well have ranged from 49 to 120 mg/L. The maximum nitrate concentration in the distal area was detected in well W-834-1824 at 90 mg/L. Nitrate concentrations remain below detection limits in ground water samples from the deep Tnbs<sub>1</sub> guard wells W-834-T1 and W-834-T3.

As discussed in the first semester report, after a review of diesel analytical results and chromatograms, only one well (W-834-U1) matched the diesel fingerprint indicative of weathered diesel fuel. This well, although completed in the deeper Tps clay perching horizon, was completed directly beneath the former underground diesel storage tank location. The storage tank was removed in 1994. A Tpsg well (W-834-2001) was installed adjacent to the former tank location during the second semester of 2003. Floating diesel product was encountered at this location. At this time, only these two wells appear to have diesel contamination. Therefore, the current CMP diesel monitoring requirements have been amended to include these two wells and a smaller subset of wells that will be used to track potential migration of diesel (W-834-2001, -A1, -A2, -D10, -D11, -D12, -D16, -D17, -D7, -U1, -K1A, -S1, -S8, and -S9). All other diesel detections were related to the presence of a new compound, n-Butyl-Benzenesulfonamide (BBSA), and in some cases also TBOS. Both of these compounds elute within the diesel range, and were incorrectly identified as diesel fuel. BBSA was tentatively identified using EPA method 8270 analyses. Subsequently, a new analytical method was developed at LLNL using Liquid Chromatography and Mass Spectroscopy (LCMS) to positively identify and quantify BBSA. An investigation was conducted to determine the source of the BBSA. Evidence indicates that the nylon tubing used with a particular type of ground water extraction pump is leaching BBSA. BBSA was also detected in samples obtained with these types of pumps in the Central GSA and in the Building 832 Canyon OUs. The LCMS BBSA analytical results are included in Table 2.2-7. Additional studies were conducted to determine the extent of BBSA ground water contamination. Bailed ground water samples were collected from wells that contained the pumps. These samples contained BBSA concentrations that were several orders of magnitude lower than the sample collected from the pump. In addition, when the pump was removed and the well was bailed dry, the BBSA concentration rapidly decreased to non-detect. The BBSA contamination apparently remains very localized. The reported BBSA concentrations are due to contact with the tubing and do not represent actual ground water concentrations. LLNL is working with the pump manufacturer to remove the tubing and replace it with an inert material.

In addition to the BBSA data, several new compounds were detected in the 8270 method from four wells. These included 2-methylnaphthalene at 190  $\mu\text{g/L}$  in W-834-2001, bis(2-ethylhexyl)phthalate at 19  $\mu\text{g/L}$  in W-834-1825, bis(2-ethylhexyl)phthalate at 11  $\mu\text{g/L}$  in well W-834-C5, phenol and cresol at 3.0  $\mu\text{g/L}$  and 6.8  $\mu\text{g/L}$ , respectively, in well W-834-D3, and

bis(2-ethylhexyl)phthalate at 7.7  $\mu\text{g/L}$  in W-834-T2. Although diesel range compounds were detected in the Tnbs<sub>1</sub> guard well W-834-T3 at a concentration of 60  $\mu\text{g/L}$  during the previous semester, analysis by EPA Method 8270 indicated that this detection was actually non-regulated common fatty acids. Upon re-sampling, no diesel range compounds were detected.

As reported in previous quarterly monitoring reports, chromium monitoring continues in wells that were affected by improperly wired pressure transducers that produced electrical short circuits. Chromium samples were collected from three wells during the second semester of 2003. One of the samples collected from well W-834-M1 on September 11 was analyzed without filtration prior to acidification and analysis. The corresponding result was much higher than historical data and does not represent the dissolved chromium concentrations in the ground water. All other concentrations remain below the maximum contaminant level (MCL) of 0.05 mg/L for chromium. Additional organic compounds related to galvanic reactions associated with the shorting transducers were detected in W-834-M1 during the second semester sampling. These additional compounds include 1,3-dichlorobenzene, bromodichloromethane, bromoform, and dibromochloromethane.

### **2.2.3.3. Building 834 OU Remediation Optimization Evaluation**

The ground water and soil vapor extraction systems were primarily non-operational for the entire reporting period due to treatment facility modification and construction activities. However, soil vapor extraction testing and associated soil vapor concentration rebound monitoring was conducted in July just prior to starting these modifications. A two to three hour soil vapor extraction test was conducted on each existing extraction well as part of ongoing remedial performance monitoring. Soil vapor VOC concentration monitoring was conducted to assess the level of VOC rebound that occurred during the facility shutdown since the second quarter of 2002. Data from these tests were used to determine which core area wells will be used to extract contaminated ground water to optimize VOC mass removal and increase the effectiveness of remediation monitoring. The results of the soil vapor extraction tests and the proposed extraction well field configuration were presented at the December 2003 Remedial Project Manager's (RPM) meeting. In summary, all but one of the fifteen existing extraction wells showed some rebound of VOC concentrations. Six wells showed significant increases. The modified extraction well field will consist of eight wells for vapor and ground water extraction with an alternate ninth well. The soil vapor test results indicate that these eight extraction wells adequately capture soil vapors associated with VOC sources in the Building 834 core area. The remaining six wells showed very poor zones-of-influence and vapor flow rates and low soil vapor VOC concentrations. Subsequently, these wells will be discontinued as extraction wells and used for performance monitoring only.

### **2.2.3.4. Building 834 OU Performance Issues**

There was no performance issues because the Building 834 ground water and soil vapor extraction and treatment systems did not operate during this time period.

## **2.3. Pit 6 Landfill (Pit 6) OU3**

The Pit 6 Landfill is a 14-acre area near the southern boundary of Site 300 that 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 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 2003, ground water monitoring was conducted in accordance with the CMP monitoring and post-closure requirements with the following exceptions; 36 samples were not collected due to insufficient water dry, 22 samples were not collected due to the sampling personnel shortage, and 12 samples were not collected due to pump failure. The sampling plan and schedule by quarter for ground water and surface water is presented in Table 2.3-1. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP. Analytical results are summarized in Tables 2.3-2 through 7.

In addition to satisfying the CMP and post-closure sampling requirements, ground water is also monitored at Pit 6 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.

Ground water beneath Pit 6 dropped about 3 ft to 21-23 ft below the buried waste trenches during the second semester. Ground water north of the fault flows eastward. Hydraulic test results indicate that pumping of the two nearby water-supply wells, CARNRW1 and CARNRW2, may also be influencing ground water flow in this area. Wells located south of the fault exhibit little or no response to pumping. Ground water elevations south of the fault indicate southerly and easterly flow directions. Ground water elevations measured during the reporting period are summarized in Table 2.3-8. A ground water potentiometric surface map is presented in Figure 2.3-2.

### **2.3.2. Pit 6 Landfill OU Remediation Progress Analysis**

This section is organized into three sub-sections; 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 the primary COCs are presented in Figures 2.3-3 and 4. Isoconcentration contour maps for the secondary COCs will be presented in the next CMP report.

No significant changes were observed in ground water TCE concentrations compared to the previous report. The maximum TCE concentration ( $5.5 \mu\text{g/L}$ ; August 20, 2003) was detected in well EP6-09 located about 100 feet due south of Pit 6. Although this maximum TCE concentration is slightly above the  $5 \mu\text{g/L}$  drinking water maximum contaminant level (MCL) for TCE, it is significantly lower than the historical maximum concentration ( $> 200 \mu\text{g/L}$ ) that was detected in the late 1980s. A sample collected from EP6-09 on October 22, 2003 contained  $4.9 \mu\text{g/L}$  TCE. TCE concentrations in Pit 6 ground water continue to decrease indicating that the monitored natural attenuation remedy is effective.

Other VOCs detected in ground water include *cis*-1,2-dichloroethylene (DCE) and perchloroethylene (PCE). *Cis*-1,2 DCE was most recently detected in ground water from well K6-01S at a concentration of  $2.2 \mu\text{g/L}$ . PCE has been detected in ground water samples from several Pit 6 OU wells during the past 16 years. During 2003, PCE was detected in wells EP6-08 and K6-36 at concentrations ranging from non-detect ( $<0.5$ ) to  $1.0 \mu\text{g/L}$ . Trace detections of PCE have occurred in ground water samples from these wells for several years. Trihalomethanes were detected in CARNRW2 in February and March and are most likely due to the chlorination of the well.

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 ( $> 100 \text{ pCi/L}$ ) in ground water from wells located north and south of the fault. During the second semester, elevated tritium activities were detected in ground water samples from wells K6-24, K6-33, K6-36, and W-PIT6-1819 located north of the fault, and wells K6-01, K6-01S, K6-16, K6-18 and K6-19 located south of the fault.

Along a transect north and sub-parallel to the fault, ground water tritium activities decrease from a maximum of  $1,850 \text{ pCi/L}$  at well K6-36 (2<sup>nd</sup> Quarter 2003 data), located immediately east of Pit 6, to  $146 \text{ pCi/L}$  at well W-PIT6-1819, located immediately west of the CARNRW1 and CARNRW2 water-supply wells. Well K6-36 was dry during the 3<sup>rd</sup> and 4<sup>th</sup> Quarters of 2003. This current maximum ground water tritium activity is about half the maximum historical activity of  $3,420 \text{ pCi/L}$ , indicating that tritium activity is decreasing with time. All of the wells along the transect are screened in a fractured bedrock water-bearing zone that responds to pumping from CARNRW1 and CARNRW2.

Tritium remains below  $100 \text{ pCi/L}$  in ground water sampled from the CARNRW1 well, however, tritium was detected at  $136 \text{ pCi/L}$  in the February 2003 ground water sample from CARNRW2. The twelve ground water samples collected from CARNRW2 after February did not contain tritium above the reporting limit. TCE, nitrate, and perchlorate concentrations in ground water in these water-supply wells remain below detection limits.

Wells K6-26, K6-27, K6-34, K6-35, and EP6-07 are screened in a deeper water-bearing zone than the wells along the transect discussed above. During the second semester, elevated tritium was detected in ground water samples from well K6-35 ( $388 \text{ pCi/L}$ ). This well shows some response to pumping from CARNRW1 and CARNRW2.

There were no significant changes in perchlorate ground water concentrations during the second semester when compared to those from the previous quarter. Perchlorate was detected above the

new State Public Health Goal of 6  $\mu\text{g/L}$  in ground water from well, K6-18 at 14  $\mu\text{g/L}$ . In general, perchlorate ground water concentrations have been steadily decreasing from their historical maximum concentration of 65  $\mu\text{g/L}$  in well K6-19 in 1998. Perchlorate concentrations remain below detection limits in water supply wells CARNRW1 and CARNRW2.

Similar to first semester, nitrate was detected above the 45 mg/L MCL in only one ground water sample from one well, K6-23 (170 mg/L as  $\text{NO}_3$ ). Nitrate was not detected in ground water samples from water supply wells CARNRW1 and CARNRW2.

### ***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 OU exhibit stable to decreasing trends and ground water elevations beneath the landfill remain a 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 continue to decrease and all tritium in ground water in this area remains far below the 20,000 pCi/L MCL.

### ***2.3.2.3. Pit 6 Landfill OU Performance Issues***

There were no performance issues during this 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 rinsewater lagoons.

Four ground water extraction and treatment systems 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 facility treats ground water extracted from well W-815-02 for TCE, RDX, perchlorate, and nitrate at a rate of about 1.0 gpm. This facility has been in operation since September 2000. It consists of aqueous phase GAC and ion exchange that are connected in series; the treated effluent is discharged to a misting system.

The B815-PRX facility treats ground water extracted from wells W-818-08 and W-818-09 for TCE, perchlorate, and nitrate. Wells W-818-08 and W-818-09 extract ground water at 1 and 2 gpm, respectively. This facility has been in operation since October 2002 and consists of aqueous phase GAC and ion exchange that are connected in series; treated effluent is discharged to a misting system.

The B815-DSB facility treats low concentrations ( $< 10 \mu\text{g/L}$ ) of TCE contained in ground water extracted from wells W-35C-04 and W-6ER located near the Site 300 boundary. Wells W-35C-04 and W-6ER extract ground water at 2 and 1.5 gpm, respectively. This treatment facility has been in operation since September 1999 and consists of solar-powered aqueous phase GAC treatment. The facility is designed to treat up to 5 gpm of ground water at the expected influent concentrations; treated effluent is discharged to an infiltration trench.

The B817-SRC facility treats ground water extracted from well W-817-01 for TCE, RDX, and perchlorate. Well W-817-01 extracts ground water from a very low yield portion of the Tnbs<sub>2</sub> aquifer. It pumps ground water intermittently at low flow rates at an average of 200 to 475 gallons per month. This facility has been in operation since September 2003 and consists of solar powered ion exchange and aqueous phase GAC treatment; treated effluent 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 sections; 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 HEPA ground water treatment facility discharge is regulated by the RWQCB Substantive Requirements for Waste Discharge.

The monthly ground water and soil vapor discharge volumes and extraction flow rates and operational hours are summarized in Tables 2.4-1 through 4. The total volume of ground water extracted and treated and contaminant mass removed during this reporting period are presented in Table Summ-1. The cumulative volume of ground water and discharged and mass removed is summarized in Table Summ-2. Analytical results for influent and effluent samples are shown in Table 2.4-5 through 7. The pH measurement results are presented in Appendix A.

##### ***2.4.1.2. HEPA OU Operations and Maintenance Issues***

During 2003, the B815-SRC ground water treatment system operated intermittently. It was shut down for three days in late May when the misting tower pipe line was drained and misting heads replaced, twenty-five days during July and August when an O-ring on the bag filter and the diaphragm on the flow meter were replaced, and fifty days from mid-September through early November due to a diaphragm retention valve malfunction. B815-PRX also operated intermittently throughout 2003 due to misting tower problems. This facility was also shut down in late March to replace the flow meter on extraction well W-818-08 and in late May to replace misting tower parts. The pump on extraction well W-6ER at the B815-DSB facility failed in mid-August and was off-line for the remainder of this reporting period. Despite the loss of extraction at well W-6ER, B815-DSB operated continually throughout this reporting period. B817-SRC was shut down in October for 20 days due to methylene chloride detections in the effluent. The source of the methylene chloride was found to be the ion exchange system. The problem was corrected and the facility returned to operation. This facility was also shut down for the last fourteen days of this

reporting period due to a leak in one of the GAC canisters and for routine shut down for freeze protection.

#### **2.4.1.3. HEPA OU Compliance Summary**

The B815-SRC, B815-PRX, B815-DSB, and B817-SRC ground water treatment systems operated in compliance with the Substantive Requirements for Wastewater Discharge with the exception of a one-time pH measurement of 9 in the treated effluent at B817-SRC. This measurement was taken at the startup of the facility and is not considered to be representative of typical facility effluent. The pH measurements taken since that time have ranged from 7 to 7.5.

Trace concentrations of TCE were detected in three site boundary guard wells during 2003 ranging from 0.6 to 0.62 µg/L. The most recent samples collected from these wells did not contain VOCs above the EPA 601 method detection limit of 0.5 µg/L. These detections are discussed further under Section 2.4.3.2. HEPA OU Analysis of Contaminant Distribution and Concentration Trends.

#### **2.4.1.4. HEPA OU Facility Sampling Plan Evaluation and Modifications**

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

### **2.4.2. HEPA OU Ground Water and Surface Water Monitoring**

During 2003, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; 5 samples were not collected due to access restrictions, 10 samples were not collected due to pump failure, 24 samples were not collected due to a personnel shortage, 53 samples were not collected due to insufficient water, and 10 samples were left off the sampling plan. The sampling plan and schedule by quarter for ground water and surface water 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 are summarized in Tables 2.4-10 through 15.

Ground water elevations measured during this reporting period are summarized in Table 2.4-16. A ground water potentiometric surface map is presented in Figure 2.4-2 which shows 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.

### **2.4.3. HEPA OU Remediation Progress Analysis**

This section is organized into four sub-sections; mass removal; analysis of contaminant distribution and concentration trends; 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 2.4-17 through 20. The cumulative mass estimates are summarized in Table SUMM-2.



### **2.4.3.2. HEPA OU Analysis of Contaminant Distribution and Concentration Trends**

At the HEPA OU, VOCs (primarily TCE) are the primary COCs detected in ground water; RDX, perchlorate, and nitrate are the secondary COCs. These constituents have been identified in the Tnbs<sub>2</sub> aquifer. A total VOC isoconcentration contour map based on data collected during the later six months of this reporting period is presented in Figure 2.4-3. Isoconcentration contour maps for the secondary COCs will be presented in the next CMP report.

During 2003, TCE was detected at 0.6  $\mu\text{g/L}$  and 0.62  $\mu\text{g/L}$  in two (W-35B-02 and W-35B-04, respectively) of the five offsite guard wells for the HE Process Area. Historically, these Tnbs<sub>2</sub> wells have had sporadic trace detections of TCE ranging from 0.6 to 1.3  $\mu\text{g/L}$ . As shown in Figure 2.4-1, these offsite guard wells are located just southeast of the HE Process Area. TCE was also detected in one of the onsite guard wells (W-880-02) at 0.62  $\mu\text{g/L}$  in the first semester and 0.59  $\mu\text{g/L}$  in the second semester. W-880-02 is screened in the Quaternary alluvial (Qal) HSU and it is located where the Tnbs<sub>2</sub> aquifer subcrops beneath the Qal HSU (Figure 2.4-1). It acts as a guard well for both the HE Process Area and Building 832 Canyon to monitor for plume migration toward the site boundary. It has had sporadic trace detections ranging from 0.55 to 1.0  $\mu\text{g/L}$ . TCE was also detected in offsite water-supply well Gallo-1 at concentrations ranging from 0.26 to 0.64  $\mu\text{g/L}$ . This well has a long screen that extends from the Qal HSU near the surface to a depth of nearly 200 feet at the base of the Tnbs<sub>2</sub> aquifer. Although Gallo-1 has had sporadic detections of TCE ranging from 0.2 to 1.5  $\mu\text{g/L}$ , TCE has never been detected above a 0.5  $\mu\text{g/L}$  detection limit in ground water samples collected from upgradient guard wells (W-6H and W-6J). If TCE continues to be detected in these guard wells, modifications will be considered to the extraction wellfield to prevent further offsite migration of contaminants.

The shape of the TCE plume remains similar to that shown in recent quarterly reports. The current maximum TCE concentrations (49 and 44  $\mu\text{g/L}$ ) occur in wells W-818-08 and W-818-11, respectively. These wells have historically contained the highest TCE plume concentrations. The leading edge of the TCE plume at the 0.5  $\mu\text{g/L}$  detection limit remains in the vicinity of the site boundary. TCE was not detected in ground water samples from offsite guard wells W-35B-01, W-35B-03 and W-35B-05, located just south of the Site 300 boundary, during this reporting period.

During 2003, secondary COCs RDX and perchlorate were not detected in any of the HEPA site boundary or water-supply guard wells. The extent of RDX and perchlorate in the Tnbs<sub>2</sub> HSU is more limited than TCE and the shape of these plumes remained essentially the same as shown in previous quarterly reports. The current maximum RDX concentration (83  $\mu\text{g/L}$ ) occurs where it has historically in well W-815-04. Well W-815-04 is planned as an extraction well as part of a future B815-SRC expansion. RDX decreases rapidly downgradient to below the 0.6  $\mu\text{g/L}$  Preliminary Remediation Goal (PRG) limit just north of well W-818-08. The current maximum perchlorate concentration (24  $\mu\text{g/L}$ ) occurs in well W-817-01. Well W-817-01 is the extraction well for the B817-SRC facility that was started in September 2003. Perchlorate decreases rapidly downgradient of W-817-01 to the 6  $\mu\text{g/L}$  detection limit north of guard wells W-6H and W-6J.

During 2003, nitrate was not detected above the 45 mg/L MCL in any of the HE Process Area guard wells. The current maximum nitrate concentration (130 mg/L) occurs in well W-809-02, located near the former HE rinse water lagoons. Nitrate concentrations decrease significantly due to microbial denitrification near the Site 300 boundary where the Tnbs<sub>2</sub> aquifer is under confined conditions. Nitrate concentrations near the Site 300 boundary are significantly lower than the

drinking-water standard of 45 mg/L and in many wells nitrate is below the method detection limit of 0.4 mg/L (as nitrate).

### **2.4.3.3. HEPA OU Remediation Optimization Evaluation**

The key to remediation optimization at the HE Process Area OU is to manage extraction well field flow rates to balance the influence of site boundary pumping with source area pumping. The only increase in extraction flow rates during this reporting period was due to the startup of the B817-SRC treatment facility. Although extraction flow rates at this facility are very low, the startup of this facility contributed to the total contaminant mass removal rates in the RDX and perchlorate source area. The addition of the B817-SRC facility has not contributed significantly to TCE mass removal because the concentrations of TCE in extraction well W-817-01 are very low to non-detect. Based on the ground water elevation and total VOC isoconcentration maps shown in Figures 2.4-2 and 2.4-3, the existing extraction well field captures the center-of-mass of this plume (Total VOC > 50 µg/L) upgradient of wells W-818-08 and W-818-09. The current total VOC concentrations in source area wells W-818-08 and W-818-11 have decreased by 20 to 40% since remediation began.

### **2.4.3.4. HEPA OU Performance Issues**

Although sporadic, low concentrations of TCE were detected in some of the site boundary guard wells during this reporting period; continued pumping at B815-SRC, B815-PRX and B817-SRC should address this issue. These detections may have resulted from the decrease in the capture area created by the B815-DSB extraction well field located near the site boundary due to the shut down of extraction well W-6ER after its pump failed. If TCE continues to be detected in the site boundary guard wells, modifications to the extraction wellfield will be considered, including increased pumping in existing upgradient extraction wells or adding new extraction wells.

## **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. Presently, the firing table is used very rarely. Infiltrating ground water has mobilized chemicals from contaminated gravel and debris to underlying soil, bedrock, and ground water. A map of 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 2003, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; 22 samples were not collected due to insufficient water, 3 were not collected due to failed equipment/unsafe sampling conditions, and 1 was inadvertently left off the plan. Additionally, as described in the first semester report, several uranium water samples were inadvertently analyzed by alpha spectrometry, rather than by mass spectrometry as specified in the sampling plan. The sampling plan and schedule by quarter for ground water and surface water 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 are summarized in Tables 2.5-2 through 2.5-12.

Barcard samplers K1-01A, K1-01B, and K1-02A, and lysimeters K1-03A, K1-05A, and K1-02C were listed in the CMP as monitoring locations for Building 850. However, the lysimeters are inoperable and the functioning barcard samplers monitor deep ground water and do not provide chemical data for the first (shallowest) water-bearing zone. Thus, these locations were not sampled during the reporting period and will be removed from future sampling plans. Abandoned wells K2-04C and NC2-09A were also taken off the CMP sampling plan.

Ground water elevations measured during the reporting period are summarized in Table 2.5-13. 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.

## **2.5.2. Building 850 OU Remediation Progress Analysis**

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

### ***2.5.2.1. Building 850 OU Analysis of Contaminant Distribution and Concentration Trends***

At the Building 850 OU, tritium is the primary COC detected in ground water; nitrate and uranium are the secondary COCs. A tritium isoconcentration contour map based on data collected during second semester 2003 is presented in Figure 2.5-3. Isoconcentration contour maps for the secondary COCs will be presented in the next CMP report.

During 2003, the maximum detected tritium activity in ground water within the OU was 77,700 pCi/L in a sample collected from well NC7-70 during the second semester. 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, as indicated by the decline in ground water tritium activities at well K2-04S (14,900 pCi/L last semester to 14,000 pCi/L this semester) and in samples from other wells completed in alluvium and bedrock in Doall Ravine. Tritium activities in ground water north of Pit 2 and Pit 1 are generally below recent highs detected during the last few years. The maximum current ground water tritium activity detected in this area was 4,880 pCi/L and 4,760 in first semester and second semester samples, respectively, from well K1-06. Immediately south and east of Pit 2, maximum ground water tritium activities were 8,580 pCi/L last semester and 7,260 pCi/L this semester and 10,400 pCi/L last semester and again 10,400 pCi/L this semester at wells K2-01C and NC2-08, respectively. These activities are below recent highs of 19,200 pCi/L and 17,600 pCi/L, respectively, observed in ground water samples collected in 1999. Ground water samples collected in recent years from wells further south in Elk Ravine show very gradual increases in tritium activities over time, as the distal, low activity portion of the tritium plume continues to migrate south beneath Elk Ravine. These increases have recently been leveling off. During the reporting period, the maximum tritium activity in southern Elk Ravine was 8,550 pCi/L in a ground water sample from well NC2-12D. During this semester, the maximum activity in this area had dropped to 8,370 pCi/L (also at well NC2-12D). During 2002, the maximum tritium activity detected in ground water in this area was 8,880 pCi/L in a sample collected from this well.

Evidence of depleted uranium was identified in ground water samples collected from several wells in the OU and analyzed by mass spectrometry. The natural mass ratio of  $^{235}\text{U}/^{238}\text{U}$  is about

0.0072 +/- 0.001. Mass ratios below this range indicate some addition of depleted uranium to the naturally-occurring uranium activity in the water. Mass ratios indicative of depleted uranium were detected in ground water samples collected during the first semester from several wells and a spring in the OU. The wells in which depleted uranium was detected during the first semester (W-850-05, NC2-06A, NC7-70, NC7-10, Well 8 Spring, and NC7-54) are proximal and downgradient of the Building 850 firing table except for well NC2-06A, located in Elk Ravine. The maximum total uranium activity in ground water samples collected from these wells during the first semester was 11.2 pCi/L in the sample from NC7-28. During the second semester, depleted uranium was detected in water samples collected from wells NC2-06A, NC7-28, and NC7-70. The maximum total uranium activity detected in ground water containing depleted uranium was 11.5 pCi/L in the sample from NC7-28. Alpha spectrometry was also used for analysis of uranium isotopes. Although this technique cannot be used to determine uranium provenance, it does provide uranium activity data. The distribution of uranium in ground water downgradient of Building 850 is similar to that seen in past years. The first semester ground water sample from well NC2-06A contained 1.16 pCi/L of total uranium. During the second semester, the ground water sample from this well yielded 1.11 pCi/L of uranium. The source of depleted uranium in these latter samples is being investigated. The 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.

During the first semester, nitrate was detected in the OU at a maximum concentration of 140 mg/L in a ground water sample from well NC2-10. Nitrate was also detected above the 45 mg/L MCL in ground water samples from wells NC7-29, NC7-44, NC7-70, and NC7-61, at concentrations of 120 mg/L, 72 mg/L, 67 mg/L, and 63 mg/L, respectively. During the second semester, nitrate was only detected above the MCL, at 60 mg/L, in a ground water sample from well NC7-61. These latter nitrate concentrations may be at least partly a result of leachate from the Building 850 septic system. Ground water samples from the vast majority of wells in the OU yield tens of mg/L of nitrate, although ground water samples from several wells do not contain nitrate above the method detection limit.

During the first semester, perchlorate was detected in ground water samples from two wells in the OU, NC7-61 and K2-04S, at concentrations of 39 and 8.1  $\mu\text{g/L}$ , respectively. During the second semester, perchlorate was detected at maximum concentrations of 6.7, 4.4, 10, 5.4, and 53  $\mu\text{g/L}$  in ground water samples from wells K1-01B, K2-04D, K2-04S, NC2-11D, and NC7-61, respectively.

Analytical results for ground water samples collected in the OU for other constituents (metals; VOCs; HE compounds; gross alpha and beta radioactivity; general minerals; PCBs; and diesel range organic compounds) are presented in Table 2.5-2, Table 2.5-4, and Tables 2.5-7 through 2.5-12. These analytical results do not indicate releases of chemicals to the environment.

### **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 for 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 in southern Elk Ravine where there have been very gradual increases in tritium activities over time, as the distal, low activity portion of the tritium plume continues to migrate south beneath Elk Ravine. 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 area. The extent of nitrate and perchlorate in ground water is also similar to that observed in previous years.

### **2.5.2.3. Building 850 OU Performance Issues**

The increases in ground water tritium activities in the distal portion of the Building 850 plume (in southern Elk Ravine) are to be expected and will continue to be monitored on a regular basis.

The depleted uranium detected in a ground water sample from well NC2-06A will be investigated to determine the likely source. Several additional wells in the area will be sampled and the water analyzed by mass spectrometry to facilitate this source evaluation.

## **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 ground water extraction and treatment systems currently operate in the Building 854 OU; Building 854-Source (B854-SRC) and Building 854-Proximal (B854-PRX).

The B854-SRC ground water extraction and treatment system began operation in December 1999 and treats ground water extracted at a rate of approximately 1 gpm from well W-854-02. Influent water passes from the filtration system into two ion-exchange vessels containing SR-7 resin connected in series for perchlorate removal prior to entering the portable Solar-powered Treatment Unit outfitted with aqueous-phase GAC for VOC removal. The effluent water is discharged through misting towers to remove nitrate.

The B854-PRX ground water extraction and treatment system began operation in November 2000 and treats ground water 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. It consists of aqueous-phase GAC for VOC removal, above ground containerized wetland bio-treatment 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 and Soil Vapor Extraction and Treatment System Operations and Monitoring**

This section is organized into five sections; 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 Building 854 ground water treatment facility discharge is regulated by the RWQCB Substantive Requirements for Waste Discharge.

The monthly ground water and soil vapor discharge volumes and rates and operational hours are summarized in Tables 2.6-1 and 2. 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 are summarized in Table Summ-2.

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

There were no performance issues at B854-SRC during the reporting period. Perchlorate continues to be sporadically detected in samples collected between the B854-PRX wetland bioreactor and the ion-exchange resin. The wetland bioreactor may not be treating all the perchlorate because residence time has decreased due to a decrease in pore space caused by silting and root growth. Until maintenance can be performed, the resin columns are treating perchlorate prior to discharge.

### **2.6.1.2. Building 854 OU Operations and Maintenance Issues**

The following maintenance was performed on the B854-SRC facility during 2003:

- The power supplied by Building 854F was turned off from January 11<sup>th</sup> to 13<sup>th</sup> for building maintenance.
- The B854-SRC treatment facility was taken off-line for routine maintenance of plant growth around the misting towers from February 18<sup>th</sup> to 24<sup>th</sup>.
- The facility was shut down from February 27<sup>th</sup> to March 5<sup>th</sup> to repair a water level transducer in extraction well W-854-02.
- A power outage in the Building 854 area interrupted operations from March 17<sup>th</sup> to 24<sup>th</sup>, 2003.
- The facility intermittently shut off between July 21<sup>st</sup> to the 30<sup>th</sup>. The low-flow alarm reset to 0.5 gpm.
- A power cord from a junction box to the facility found frayed on August 7<sup>th</sup>. Cord was replaced and the facility was restarted on the 21<sup>st</sup>.
- A leaking hose connection to the misting tower was repaired in November.

The following maintenance was performed on the B854-PRX facility during 2003:

- The facility was shut down from February 12<sup>th</sup> through 19<sup>th</sup> to replace pressure gauges.
- The feed line from the acetic acid tank was replaced in July due to rodent damage.
- Leaking carbon and resin drums were patched in August.
- The diaphragm pump on the transfer tank failed in September. Gravity flow is used to keep the system running.

- On October 8<sup>th</sup>, a failed well pump was replaced and a leaking carbon drum was patched.
- A leaking carbon drum was patched in November.
- The facility was shut-down for freeze protection on December 18<sup>th</sup>.

### **2.6.1.3. Building 854 OU Compliance Summary**

The B854-SRC and B854-PRX ground water treatment systems 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 plans comply with CMP monitoring requirements. The sampling plans are presented in Table 2.6-5. There were no additional modifications made to the plan.

## **2.6.2. Building 854 OU Ground Water Monitoring**

During 2003, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions: 24 samples were not collected due to insufficient water. The sampling plan and schedule by quarter for ground water and surface water are 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 are summarized in Table 2.6-7 through 2.6-13.

Ground water elevations measured during the reporting period are summarized in Table 2.6-14. 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.

## **2.6.3. Building 854 OU Remediation Progress Analysis**

This section is organized into four sub-sections; 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 and soil vapor mass removal estimates are summarized in Tables 2.6-15 and 16. The cumulative mass estimates are summarized in Table SUMM-2.

### **2.6.3.2. Building 854 OU Analysis Of Contaminant Distribution and Concentration Trends**

At the Building 854 OU, VOCs (primarily TCE) are the primary COCs detected in ground water and perchlorate and nitrate are the secondary COCs. Past quarterly reports have shown the Tnbs<sub>1</sub> sandstone bedrock to be the main contaminated water-bearing zone, however this conceptual model was revised for the Building 854 Remedial Design (RD) report (Daily et al., 2003). Although the lower Neroly Tnbs<sub>1</sub> and the Tnsc<sub>0</sub> 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<sub>1</sub>/Tnsc<sub>0</sub> 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 next CMP report.

The TCE plume has been revised significantly from plumes shown in past quarterly reports due to the installation of ground water monitoring wells W-854-1701, W-854-1822, and W-854-1902. TCE has not been detected in these wells, therefore the plume is not as extensive downgradient of the Building 854 source area as previously shown. For the purposes of this report, total VOCs (rather than TCE) were contoured to be consistent with primary COC plume maps from the other operable units. The only VOC detected in the ground water of this OU is TCE. During the second semester, the VOC plume shape is similar to the TCE plume shape shown in the Building 854 Remedial Design report. The current maximum total VOC concentration (200  $\mu\text{g/L}$ ) occurs where it has historically in well W-854-02. Total VOC concentrations decrease to below the 0.5  $\mu\text{g/L}$  detection limit north of wells W-854-1701, W-854-1822, and W-854-1902. Localized VOC contamination occurs in wells W-854-06 (2  $\mu\text{g/L}$ ) and W-854-07 (35  $\mu\text{g/L}$ ) located in the vicinity of a former water-supply well (Well 13) and downgradient of the main VOC plume.

Perchlorate is a secondary COC at Building 854, so it is sampled annually, usually during the first semester of each year. During the second semester of 2003, only wells W-854-1823 and W-854-1902 were sampled for perchlorate, with results of 18  $\mu\text{g/L}$  and 5  $\mu\text{g/L}$ , respectively. During the first semester of 2003, the perchlorate plume shape was slightly different than that shown in the Building 854 Remedial Design report. The previous northernmost (upgradient) detection of perchlorate in the Building 854 OU occurred in well W-854-02 with concentrations ranging from 4.5 to 8.3  $\mu\text{g/L}$ . However, during the first semester of 2003, perchlorate was not detected in ground water from that well above the 4  $\mu\text{g/L}$  detection limit. During 2003, the northernmost detection of perchlorate occurred in well W-854-03 at a concentration of 11  $\mu\text{g/L}$  and the maximum perchlorate concentration (27  $\mu\text{g/L}$ ) was detected in well W-854-1823. Perchlorate concentrations in ground water decreased to below the detection limit north of well W-854-07.

Nitrate, also a secondary COC, is sampled annually during the first semester of each year at the Building 854 OU. Two wells were sampled for nitrate during the second semester of 2003: W-854-1823 and W-854-1902, with results of <0.1 mg/L and 14 mg/L, respectively. During the first semester of 2003, the nitrate plume shape remained similar to that shown in the Building 854 Remedial Design report. During 2003, the maximum nitrate concentration (53 mg/L) occurred in well W-854-02. Nitrate decreased to below the drinking water standard of 45 mg/L just south of well W-854-03.

### ***2.6.3.3. Building 854 OU Remediation Optimization Evaluation***

The B854-SRC treatment facility extraction well, W-854-02, consistently pumped at about 1.1 gpm during the second semester of 2003. Based on the ground water elevation map shown in Figure 2.6-2, pumping at W-854-02 appears to adequately capture the VOC contamination in ground water with concentrations greater than 100  $\mu\text{g/L}$  in the Building 854 source area. Additionally, as mentioned in the B854 Remedial Design Report, the water level response in monitoring well W-854-11 from pumping at W-854-02, suggests some preferential flow along fractures which has resulted in a decline in the water table below the bottom of the W-854-11 well screen.

The B854-PRX treatment facility extraction well, W-854-03, pumped intermittently at about 1 gpm during the second semester of 2003. The system was off during late September and early



October due to pump failure and again during late December for freeze protection purposes. Due to the lack of pumping at this facility during this reporting period, ground water has rebounded to near pre-pumping levels.

#### **2.6.3.4. Building 854 OU Performance Issues**

As mentioned in the First Semester 2003 Compliance Report, the main issue influencing mass removal performance at the Building 854 OU continues to be low permeability and well yield. Although fractures appear to be important ground water flow-controlling features in this area, the overall primary and secondary permeability in many wells is relatively low. At the B854-SRC facility, extraction well W-854-02 continues to be pumped at 1.1 gpm. This well has approximately 5 more feet of available drawdown under pumping conditions and is being considered for increased pumping to 1.5 to 2 gpm. Performance of the B854-PRX facility is limited by well yield and the constructed wetland treatment technology that is being used to treat perchlorate. An expansion of the constructed wetland would be necessary to increase the flow rate at this facility above the current rate of 1.1 gpm. 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 ground water extraction and treatment 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 facility extracts and treats 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 facility treats ground water for VOCs, perchlorate, and nitrate and has been in operation since October 1999. Ground water is extracted from nine wells (W-832-12, W-832-13, W-832-14, W-832-15, W-832-16, W-832-17, W-832-18, W-832-20, and W-832-22) to remove source contamination and to mitigate plume migration. Ground water extraction rates at this facility are seasonally variable, ranging from 10 to 200 gallons per day. Ground water is treated using a Cuno filter for particulate filtration, three aqueous-phase GAC units connected in series to remove VOCs, and two ion exchange units, (also connected in series) to remove perchlorate. Treated ground water is discharged via a misting system to indigenous grasses to remove nitrate. Soil vapor is extracted from the same nine wells used for ground water extraction. 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 facility treats ground water for VOCs, perchlorate, and nitrate and has been in operation since February 2003. 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. Ground water from these wells is treated using 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 soil vapor extraction and treatment 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 facility treats ground water for VOCs and nitrate and has been in operation since June 2000. Approximately 800 gallons per day of ground water are extracted from one 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 ground via a French drain.

The B830-DISS facility treats ground water for VOCs, perchlorate, and nitrate and has been in operation since July 2000. Approximately 1,300 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. Water flows through three open container 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 empties to the alluvial deposits on the south side of Corral Hollow Road.

### **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 sub-sections; 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 Table 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 at low extraction rates with pumps that are turned on and off by timers.

### **2.7.1.2. *Building 832 Canyon OU Operations and Maintenance Issues***

The B832-SRC ground water treatment facility operated continually throughout this reporting period. Operations at the B832-SRC soil vapor extraction and treatment system were interrupted periodically (about 20 days) due to overheating during the hottest days of the summer. The soil vapor extraction and treatment system was shut down in October through the end of the year as part of a soil vapor rebound test.

The B830-SRC ground water treatment facility was operated intermittently during this reporting period while system operational parameters were adjusted to accommodate low ground water yield from the extraction wells and to address various maintenance issues including trace concentrations of methylene chloride detected in the ion-exchange system. Operations at the B830-SRC soil vapor extraction and treatment system were interrupted periodically (about 10 days) due to overheating during the hottest days of the summer.

The B830-PRXN ground water treatment facility is solar-powered and operated approximately 50% of the time during first semester 2003 and was down one day in October due to failure of the solar battery. The B830-DISS facility operated continually throughout this reporting period.

### **2.7.1.3. *Building 832 Canyon OU Compliance Summary***

The Building 832 ground water treatment facility discharge is regulated by the RWQCB Substantive Requirements for Waste Discharge. The B832-SRC, B830-SRC, B830-PRXN, and B830-DISS ground water treatment systems operated in compliance with these requirements.

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

The Building 832 Canyon OU treatment facility sampling plans comply with CMP monitoring requirements. The sampling 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 this reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; 7 samples were not collected due to personnel shortages, 47 samples were not collected due to insufficient water, and 9 samples were not collected due to access problems. The sampling plan and schedule by quarter for ground water and surface water are presented in Table 2.7-8. This table explains deviations from the sampling plan and indicates any additions made to the CMP. Analytical results are summarized in Tables 2.7-9 through 2.7-15.

Ground water elevations measured during the reporting period are summarized in Table 2.7-16. Ground water potentiometric surface maps for the Qal/fill and Tnsc<sub>1b</sub> HSUs are presented in Figures 2.7-2 and 2.7-3, respectively. Ground water elevation data collected from wells within the OU are similar to those collected during past quarters.

### **2.7.3. Building 832 Canyon OU Remediation Progress Analysis**

This section is organized into four sub-sections; mass removal; analysis of contaminant distribution and concentration trends; 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 2.7-17 through 20. The cumulative mass estimates are summarized in Table SUMM-2.

#### **2.7.3.2. Building 832 Canyon OU Analysis of Contaminant Distribution and Concentration Trends**

At the Building 832 Canyon OU, VOCs (primarily 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<sub>1b</sub> and Qal/fill HSUs. TCE has also been detected at lower concentrations in the Tnbs<sub>2</sub> and Tnbs<sub>1</sub> HSUs. Isoconcentration contour maps of the primary COC in the ground water for the Qal/fill and Tnsc<sub>1b</sub> HSUs are presented in Figures 2.7-4 and 2.7-5, respectively. Isoconcentration contour maps for the secondary COCs will be presented in the next CMP report.

During 2003, TCE was detected at 0.62  $\mu\text{g/L}$  and 0.59  $\mu\text{g/L}$  in well W-880-02, one of six site-boundary guard wells for the Building 832 OU. Historically, this Quaternary alluvial guard well has had sporadic trace detections of TCE ranging from 0.55 to 1.0  $\mu\text{g/L}$ . The current maximum TCE concentration (10,000  $\mu\text{g/L}$ ) in this OU was detected in the Tnsc<sub>1b</sub> HSU in well W-830-49. This well, which is located just south of the Building 830 source area, has historically contained the highest TCE concentrations. The leading edge of the plume at the 0.5  $\mu\text{g/L}$  TCE detection limit remains in the vicinity of the site boundary.

Perchlorate, a secondary COC, was not detected in any of the Building 832 Canyon guard wells. The extent of perchlorate and nitrate is more limited than TCE. The current maximum nitrate concentration (190 mg/L) occurs in well W-830-19 and the current maximum perchlorate concentration (9.4  $\mu\text{g/L}$ ) occurs in well W-830-25.

#### **2.7.3.3. Building 832 Canyon OU Remediation Optimization Evaluation**

The B832-SRC soil vapor extraction (SVE) system was shut down in October 2003 to evaluate soil vapor rebound. TCE was not detected in preliminary vapor samples above 0.2 ppm<sub>v</sub>. Additional soil vapor sampling is planned for the 1<sup>st</sup> semester of 2004. Rebound test results will be used to determine whether this facility meets SVE system shut off criteria and will be discussed in the 2004 semi-annual CMP report.

Ground water yield is so low in the Building 832 Canyon source area extraction wells that capture is difficult to assess. Based on the map shown in Figure 2.7-5, the plumes emanating from Buildings 832 and 830 have much the same shape and extent as that shown in recent quarterly reports; however, VOC concentrations in the Building 830 source area have decreased. The current total VOC concentration in source area well W-830-49 has decreased by 48% since the beginning of this reporting period. 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.

#### **2.7.3.4. Building 832 Canyon OU Performance Issues**

Overall well yields remain low due to a combination of dewatering and low hydraulic conductivity in the B832-SRC and B830-SRC facility areas. An evaluation will be conducted to determine how to increase well yield and mass removal at the OU treatment facilities.

Generally, COCs were not detected in the guard wells at the Site 300 boundary above their analytical detection limits with a few exceptions. Trace concentrations of TCE (0.62  $\mu\text{g/L}$  and 0.59  $\mu\text{g/L}$ ) were detected in two of the four samples collected during this reporting period in the Qal site boundary guard well W-880-02. In addition, low concentrations of TCE (1.4  $\mu\text{g/L}$  and 1.7  $\mu\text{g/L}$ ) were detected in a recently installed well W-830-1832 located between the former leading edge of the Tnbs<sub>1</sub> TCE plume and Site 300 water-supply well 20. A new Upper Tnbs<sub>1</sub> guard well is proposed downgradient (southwest) of well W-830-1832, and upgradient of Well 20 for installation in Fiscal Year 2005. Expansion of the B830-SRC extraction wellfield, including Tnbs<sub>1</sub> extraction wells, will be considered to prevent further migration of contaminants toward Well 20.

## **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 is 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 2003, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; 12 samples were not collected due to insufficient water and 2 samples were not collected due to a personnel shortage. The sampling plan and schedule by quarter for ground water are presented in Table 2.8-1. This table delineates and explains deviations from the sampling plan and indicates any additions made to the CMP.

During the second semester of 2003, the maximum VOC concentration detected in the Building 801 area was 3.7  $\mu\text{g/L}$  of TCE in a ground water sample from well K8-01. Figure 2.8-2 shows the measured concentration of TCE in the Tnbs<sub>1</sub> aquifer for each well. Similar to the results of VOC monitoring at this site over the last ten years, the VOC concentrations for this semester remain low. 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)  $\mu\text{g/L}$  to a

maximum of 4.9  $\mu\text{g/L}$ . The MCL for TCE is 5  $\mu\text{g/L}$ . The analytical results for the Building 801 and Pit 8 Landfill monitoring well samples are presented in Tables 2.8-2 through 2.8-8.

Ground water elevation measurements for the detection monitoring wells screened in the Tnbs<sub>1</sub> HSU are presented in Table 2.8-9. These ground water elevation data are similar to those collected during past years. A map showing the ground water elevation for each well in the Building 801/Pit 8 Landfill area is presented in Figure 2.8-3. The ground water in this aquifer is confined, with an average hydraulic gradient of 0.03 to the northeast. One of the wells in this area, K8-03B, has a significant point of measurement error and could not be used to determine the ground water elevation; the surface elevation of this well will be resurveyed.

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 is presented in Figure 2.8-4. The sampling plan and schedule by quarter for ground water are presented in Table 2.8-10. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP.

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 2003 has shown little evidence of saturation. During the second half of 2003, all the wells screened in the Tpsg HSU at Building 833 were dry or had insufficient water to collect a valid sample, so no VOC data were obtained from this HSU. Similar conditions have existed for several years at this site; the most recent sample that could be collected from the Tpsg HSU was from well W-833-03 in 2000, at which time all the other shallow wells were dry. Because there was no VOC data collected during 2003, no isoconcentration map will be presented.

Only well W-833-30, which is screened in the deep regional aquifer (Tnbs<sub>1</sub> HSU), contained sufficient water to collect a sample during this reporting period. VOCs were not detected in the ground water sample from this well during this monitoring period, indicating that the VOC contamination continues to be confined to the shallow, Tpsg perched water-bearing zone. The analytical results for Building 833 are presented in Tables 2.8-11 and 12. Ground water elevation measurements for the detection monitoring wells are presented in Table 2.8-13.

Six of the seven Tpsg monitoring wells were dry during the second semester of 2003. The only well that was not dry, W-833-28, showed a ground water elevation 0.1 ft above the bottom of the screened interval. Based upon these measurements, this area can be considered largely unsaturated, and a ground water elevation map was not generated.

### 2.8.3. Building 845 Firing Table and Pit 9 Landfill

Leaching from the 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 plan and schedule by quarter for ground water are presented in Table 2.8-14. All required CMP detection monitoring samples were collected. The analytical results for Building 845 and Pit 9 Landfill are presented in Tables 2.8-15 through 2.8-21. There continues to be no ground water contamination in Building 845 and Pit 9 Landfill area as shown by the analytical data collected during 2003.

The monitoring wells near Pit 9 are screened in the lower Neroly Formation (Tnsc<sub>0</sub> HSU). Ground water elevation measurements for these monitoring wells are presented in Table 2.8-22 and a map showing the ground water elevation for each well is presented in Figure 2.8-6. The ground water in this unit is confined, with an average hydraulic gradient of 0.03 to the north-northeast. Ground water elevation data collected from wells within the OU are similar to those collected during past quarters.

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 2003, ground water monitoring was conducted in accordance with the CMP monitoring requirements. The sampling plan and schedule by quarter for ground water and surface water is presented in Table 2.8-23.

The analytical results for the Building 851 monitoring well samples are presented in Tables 2.8-24 through 2.8-30. Ground water elevation measurements for the detection monitoring wells are presented in Table 2.8-31. A map showing the ground water elevation for each well in the OU is presented in Figure 2.8-8. Ground water elevation data collected from wells within the OU are similar to those collected during past quarters. For the confined Tmss aquifer, ground water elevation data indicate an average gradient of 0.003 to the south-southwest.

Uranium analysis of ground water samples collected during the second semester of 2003 showed that the three wells screened in the confined portion of the Tmss aquifer (W-851-05, W-851-06, and W-851-07) have low uranium activities. The maximum activity in the confined portion of the Tmss aquifer was 0.15 pCi/L, detected in the ground water sample from well W-851-06. Based on <sup>235</sup>U/<sup>238</sup>U mass ratios, there was some added depleted uranium in this sample. The <sup>235</sup>U/<sup>238</sup>U mass ratio from W-851-07 showed no addition of depleted uranium in ground water. The <sup>235</sup>U mass in the ground water from well W-851-05 was so low that an accurate <sup>235</sup>U/<sup>238</sup>U mass ratio could not be calculated for this sample. The sample from the well screened in the unconfined (upper) portion of the Tmss aquifer (W-851-08) contained a slightly higher total uranium activity (0.17 pCi/L) and a greater degree of depletion (<sup>235</sup>U/<sup>238</sup>U of 0.0052) than samples from the deeper zone. The total uranium activities and <sup>235</sup>U/<sup>238</sup>U mass ratios for each well are shown in Figure 2.8-9. These measurements suggest that most of the depleted uranium occurs in the unconfined Tmss upper aquifer, but that some depleted uranium has also entered the confined portion of the aquifer. The distribution of uranium in ground water is similar to previous years. The maximum total uranium activities continue to be a fraction of the 20 pCi/L MCL.

Tritium was detected in a ground water sample from well W-851-08 at an activity of 270 pCi/L during the first half of 2003. This is a typical result compared to the previous year and continues the trend of decreasing tritium activities in this well from the one-time high of 3,790 pCi/L in late 1998. As specified in the sampling plan, no samples for tritium analysis were collected during the second semester.

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

The Pits 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, 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 second semester of 2003

#### **3.1 Pit 2 Landfill**

##### **3.1.1. Contaminant Detection Monitoring Results**

During 2003, ground water samples were collected from Pit 2 detection monitoring wells K2-01C and NC2-08 and analyzed for the CMP detection monitoring analytes. Depleted uranium was detected in a ground water sample from well K2-01C during the second semester. No other constituents that were monitored in 2003 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. The analytical data for the Pit 2 detection monitoring well samples are presented in Tables 3.1-1 through 3.1-7. 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 elevation measurements for the detection monitoring wells are presented in Table 3.1-8. A ground water potentiometric surface map for the OU is presented in Figure 2.5-2.

During the second semester, two new monitoring wells, W-PIT2-1934 and W-PIT2-1935, were installed at Pit 2 to partially satisfy CMP requirements for additional monitoring wells (additional wells are scheduled for 2007). These wells will be added to the 2004 CMP sampling plan. Soil and rock samples were collected from the boreholes for these two wells and analyzed for tritium to confirm that the tritium detected in ground water under Pit 2 has migrated from Building 850 and was not released from Pit 2. The tritium analytical results confirm that Pit 2 is not a release site for tritium. Maximum rock moisture tritium activities of 2,020 and 3,760 pCi/L<sub>sm</sub> were detected in rock samples collected from boreholes B-PIT2-1934 and B-PIT2-1935, respectively. Although these elevated tritium activities were detected in the unsaturated zone, the activities were of the same order of magnitude as those from the underlying saturated zone and likely represent vapor diffusion of ground water tritium upward within the unsaturated zone.



As stated above, depleted uranium was detected in a second semester ground water sample from well K2-01C. The  $^{235}\text{U}/^{238}\text{U}$  atom ratio in the sample was 0.0062 and contained 9.75 pCi/L of total uranium. 3.13 pCi/L of total uranium was detected in the second semester ground water sample from well NC2-08, but the  $^{235}\text{U}/^{238}\text{U}$  atom ratio indicated that this uranium was natural in origin. The uranium activities detected in these wells are well below the drinking water standard of 20 pCi/L. Next semester, ground water will be sampled from both of these wells and from the two new detection monitoring wells (W-PIT2-1934 and W-PIT2-1935) and analyzed by mass spectrometry to determine if the depleted uranium detected in ground water is likely to have been released from Pit 2.

### **3.1.2. Sampling and Analysis Plan Modifications**

The sampling plan and schedule for the Pit 2 ground water Detection Monitoring Program are presented in Table 3.1-9. There were no deviations from the sampling plan.

### **3.1.3. Landfill Inspection Results**

The Pit 2 Landfill was not inspected during the second semester of 2003.

### **3.1.4. Annual Subsidence Monitoring Results**

The annual subsidence monitoring was conducted during the second semester of 2003 and indicated no measurable subsidence.

### **3.1.5. Maintenance**

Inspections were not conducted during 2003, therefore maintenance of the landfill cover was not performed.

## **3.2. Pit 8 Landfill**

### **3.2.1. Contaminant Detection Monitoring Results**

During the first half of 2003, ground water samples were collected from the Pit 8 monitoring wells and analyzed for a suite of chemicals. Perchlorate and fluoride were detected in ground water samples from K8-04 at concentrations of 5  $\mu\text{g}/\text{L}$  and 10  $\text{mg}/\text{L}$ , respectively. Confirmation sampling and analysis of perchlorate and fluoride will be performed during the first semester of 2004 as part of the regular CMP program. In addition, first semester samples were analyzed for VOCs, high explosives compounds RDX and HMX, nitrate, uranium and thorium isotopes, and Title 26 metals. Second semester 2003 ground water samples were collected and analyzed for tritium, VOCs, perchlorate, and nitrate. Well K8-05 continued to be dry.

Except for the perchlorate and fluoride detections cited above, there were no new detections of constituents of concern from Pit 8 area wells as indicated by the Detection Monitoring Program ground water data collected during the first or second semesters of 2003. The concentration of perchlorate (5  $\mu\text{g}/\text{L}$ ) detected in the ground water sample from well K8-04 is below the Public Health Goal of 6  $\mu\text{g}/\text{L}$ . The concentration of fluoride (10  $\text{mg}/\text{L}$ ) detected in the ground water sample from this well exceeds the State primary MCL for fluoride of 2  $\text{mg}/\text{L}$ . The analytical results

for the Pit 8 detection monitoring well samples are presented in Tables 2.8-2 through 2.8-8. Ground water elevation measurements for the detection monitoring wells are presented in Table 2.8-3. There was no significant change in ground water elevations during the first or second semesters of 2003 compared to the previous year. Depth to ground water was approximately 60 ft beneath the Pit 8 Landfill.

### **3.2.2. Sampling and Analysis Plan Modifications**

The sampling plan and schedule for the Pit 8 ground water Detection Monitoring Program are presented in Table 2.8-1. Several discretionary samples for VOCs, nitrate, and perchlorate were added to the sampling plan. There were no other modifications to the plan. As stated above, well K8-05 was dry during 2003 and could not be sampled.

### **3.2.3. Landfill Inspection Results**

Inspections of the landfill with repeated surveys to observe changes with time are currently being developed and were not completed during the second half of 2003.

### **3.2.4. Annual Subsidence Monitoring Results**

The annual subsidence monitoring was conducted during the second semester of 2003 and did not indicate landfill subsidence.

### **3.2.5. Maintenance**

Inspections were not conducted during 2003, therefore maintenance of the landfill cover was not performed.

## **3.3. Pit 9 Landfill**

### **3.3.1. Contaminant Detection Monitoring Results**

During the first half of 2003, ground water samples were collected from the four Pit 9 monitoring wells and analyzed for a suite of chemicals including VOCs; nitrate; perchlorate; high explosives compounds; RDX and HMX; uranium and thorium isotopes; and Title 26 metals. Fluoride was detected in ground water from each of the four wells at a concentration of 0.5 mg/L or less. During the second semester of 2003, ground water samples were analyzed for tritium. During 2003, there were no new detections of constituents of concern in Pit 9 area wells as indicated by the Detection Monitoring Program ground water sample analytical results presented in Tables 2.8-15 through 2.8-21. Ground water elevation measurements for the detection monitoring wells are presented in Table 2.8-22. There was no significant change in ground water elevations during the first or second semesters of 2003 compared to the previous year. Depth to ground water was approximately 110 ft beneath the Pit 9 Landfill.

### **3.3.2. Sampling and Analysis Plan Modifications**

The sampling plan and schedule for the Pit 9 ground water Detection Monitoring Program are presented in Table 2.8-14. There were no additional modifications made to the plan.

### **3.3.3. Landfill Inspection Results**

Inspections of the landfill with repeated surveys to observe changes with time are currently being developed and were not completed during the second half of 2003.

### **3.3.4. Annual Subsidence Monitoring Results**

A subsidence survey was conducted during the second half of 2003 and did not indicate landfill subsidence.

### **3.3.5. Maintenance**

Inspections were not conducted during 2003, therefore maintenance of the landfill cover was not performed.

## **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  $1 \times 10^{-6}$  or the hazard index exceeded 1 in the baseline risk assessment. The results of this risk evaluation are presented in Section 4.1. In addition, sampling and biological surveys were conducted during the second semester of 2003 as part of the Ecological Risk and Management Program specified in the CMP. The sampling and survey results are discussed in Section 4.2.

### **4.1 Human Health Risk and Hazard Management**

The risk to human health posed by contamination at Site 300 was re-evaluated during the second semester of 2003 based on recent data as specified in the CMP Human Health Risk and Hazard Management Plan, Section 4.1 presents the results of soil sampling and analyses for polychlorinated biphenyl compounds (PCBs) conducted at Buildings 854 and 850 and the results of the annual modeling and sampling programs to assess human health risk. Institutional controls, such as restricting access to or activities in areas of elevated risk, remained in place during 2003 to prevent unacceptable exposure to contaminants during remediation.

#### **4.1.1. Building 834 OU**

##### ***4.1.1.1. VOC Risk Evaluation for Outdoor Ambient Air Near Building 834D***

Inhalation risk and hazard resulting from transport of TCE and PCE vapors from ground water to the ground surface and subsequently to outdoor ambient air was estimated using the Jury (Jury et al., 1983) infinite source model. As presented in Table 4.1-1, a cumulative risk of  $6 \times 10^{-14}$  and hazard index of  $5 \times 10^{-11}$  were estimated using site-specific parameter values. Human health risk and hazard for inhalation of VOCs in outdoor ambient air did not exist at Building 834D in the year 2003.

#### **4.1.1.2. VOC Risk Evaluation for Indoor Ambient Air in Building 834D**

Inhalation risk and hazard resulting from transport of TCE and PCE vapors from ground water to the building foundations and subsequently to indoor ambient air was estimated using the Johnson-Ettinger Model (EQM, 2003). As presented in Table 4.1-1, a cumulative risk of  $8 \times 10^{-3}$  and a hazard index of 4.3 were estimated using site-specific parameter values. Institutional controls will remain in place for Building 834D that is currently used only for storage.

#### **4.1.2. Pit 6 Landfill OU**

##### **4.1.2.1. Spring 7 Ambient Air Sampling**

On July 24, 2003, Spring 7 was monitored for the presence of surface water or green hydrophilic vegetation indicating the presence of near surface water. No surface water or green hydrophilic vegetation was present. Therefore, ambient air sampling was not conducted at this spring. The spring will be monitored for the presence of surface water or green hydrophilic vegetation, and if either is observed, ambient air sampling will be conducted.

#### **4.1.3. High Explosive Process Area OU**

##### **4.1.3.1. VOC Risk Evaluation for Outdoor Ambient Air Near Building 815**

Inhalation risk and hazard resulting from transport of TCE and PCE vapors from ground water to the ground surface and subsequently to outdoor ambient air was estimated using the Jury (Jury et al., 1983) infinite source model. As presented in Table 4.1-1, a cumulative risk of  $2 \times 10^{-18}$  and hazard index of  $2 \times 10^{-15}$  were estimated using site-specific parameter values. Human health risk and hazard for inhalation of outdoor ambient air did not exist at Building 815 in the year 2003.

##### **4.1.3.2. Spring 5 Ambient Air Sampling**

On July 24, 2003, Spring 5 was monitored for the presence of surface water or green hydrophilic vegetation indicating the presence of near surface water. No surface water or green hydrophilic vegetation was present. Therefore, ambient air sampling was not conducted at this spring. The spring will be monitored for the presence of surface water or green hydrophilic vegetation, and if either is observed, ambient air sampling will be conducted.

#### **4.1.4. Building 850 OU**

##### **4.1.4.1. Building 850 Firing Table Surface Soil Sampling**

During the second semester of 2003, to better define the extent of PCBs in surface soil in the vicinity of the Building 850 firing table, 31 surface soil samples were collected and analyzed by EPA Method 8082. The results of these analyses are presented in Table 4.1-2. The maximum detected polychlorinated biphenyls (PCB) concentration was 130 mg/kg in a sample from location 3SS-850-206. A map of the sampling locations and the PCB concentration distribution is presented in the Building 850 Remedial Design report (Taffet et al., 2003).

#### 4.1.5. Building 854 OU

##### 4.1.5.1. Building 854 Surface Soil Sampling

As reported in the First Semester 2003 Compliance Report, surface soil samples were collected in the Building 854 OU during 2003 to verify whether PCBs are present in soil in the Building 854 OU at concentrations and frequencies that pose a risk to onsite workers warranting a remedial action.

During January 2003, LLNL collected 38 surface soil samples that were analyzed by the immunoassay onsite technique, EPA Method 4020. The locations of the samples collected in January 2003 are shown on Figure 4.1-1. One sample (3SS-854-112) located within the Building 855 lagoon gave an absorbance reading that was extrapolated to equal 26 mg/kg PCBs using EPA Method 4020. The absorbance for all other samples indicated PCB concentrations lower than 1 mg/kg. Eight duplicate samples were submitted to an offsite analytical laboratory and analyzed by EPA Method 8082. Two samples had PCB detections above the reporting limit of 0.007 mg/kg. Both of these samples were collected within the Building 855 former disposal lagoon (see Figure 4.1-2). The sample collected from location 3SS-854-112 contained 3.6 mg/kg of Aroclor-1248 and 4.7 mg/kg of Aroclor-1254 and a sample collected from the edge of the lagoon, 3SS-854-113, contained 0.023 mg/kg of Aroclor-1254. The sample 3SS-854-112 was also analyzed for dioxins and furans as reported in the First Semester 2003 Compliance Report.

In April 2003, LLNL collected several additional samples from two locations (3SS-854-112 and 3SS-854-200) within the former disposal lagoon (see Figure 4.1-2). The samples were collected at 0.5 ft intervals starting at 0 ft and ending at 2.5 ft to profile the vertical extent of PCB contamination within the former disposal lagoon. The PCB Aroclor-1248 was detected slightly above the PCB PRG of 0.74 mg/kg (0.9 mg/kg) in the 0.5 ft sample from location 3SS-854-112. However, Aroclor-1248 was detected above the PRG for PCBs in soil collected at all depths from sample location 3SS-854-200 located directly under the former outfall trench. The PCB concentration ranged from 10 mg/kg to 62 mg/kg. In September 2003, LLNL continued sample collection at these locations starting at 3 ft and ending at 6 ft. Aroclor-1248 was detected above the PCB PRG at all depths at location B-854-200 (formerly known as 3SS-854-200). The 6 ft sample from this location was reported to contain 33.4 mg/kg of Aroclor-1248. No PCBs were detected above the reporting limit of 1 mg/kg at location B-854-112 (formerly known as 3SS-854-112). Table 4.1-3 summarizes the PCB data collected at the Building 854 OU during 2003.

Additional samples from depths greater than 6 ft will be collected to determine the vertical extent of the PCB contamination within the former Building 855 disposal lagoon.

##### 4.1.5.2. VOC Risk Evaluation for Indoor Ambient Air in Building 854A

Inhalation risk and hazard resulting from transport of VOC vapors from ground water to the building foundations and subsequently to indoor ambient air was estimated using the Johnson-Ettinger Model (EQM, 2003). As presented in Table 4.1-1, a cumulative risk of  $1 \times 10^{-6}$  and a hazard index of  $7 \times 10^{-4}$  were estimated using site-specific parameter values. Institutional controls will remain in place for Building 854A which is not currently occupied or used.

#### **4.1.5.3. VOC Risk Evaluation for Indoor Ambient Air in Building 854F**

Inhalation risk and hazard resulting from transport of chloroform, TCE and other VOC vapors from ground water to the building foundations and subsequently to indoor ambient air was estimated using the Johnson-Ettinger Model (EQM, 2003). As presented in Table 4.1-1, a cumulative risk of  $6 \times 10^{-5}$  and a hazard index of 0.03 were estimated using site-specific parameter values. Institutional controls will remain in place for Building 854F which is not currently occupied or used.

#### **4.1.5.4. VOC Risk Evaluation for Outdoor Ambient Air in Building 854F**

Inhalation risk and hazard resulting from transport of chloroform and 1,2-dichloroethane vapors from ground water to the ground surface and subsequently to outdoor ambient air was estimated using the Jury (Jury et al., 1983) infinite source model. As presented in Table 4.1-1, a cumulative risk of  $4 \times 10^{-20}$  and hazard index of  $2 \times 10^{-15}$  were estimated using site-specific parameter values. Human health risk and hazard for inhalation of outdoor ambient air did not exist at Building 854F in the year 2003.

### **4.1.6. Building 832 Canyon OU**

#### **4.1.6.1. VOC Risk Evaluation for Indoor Ambient Air in Building 830**

Inhalation risk and hazard resulting from transport of vinyl chloride and TCE vapors from ground water to the building foundations and subsequently to indoor ambient air was estimated using the Johnson-Ettinger Model (EQM, 2003). As presented in Table 4.1-1, a cumulative risk of  $5 \times 10^{-4}$  and a hazard index of 0.27 were estimated using site-specific parameter values. Institutional controls will remain in place for Building 830 which is currently used for storage.

#### **4.1.6.2. VOC Risk Evaluation for Outdoor Ambient Air Near Building 830**

Inhalation risk and hazard resulting from transport of chloroform, 1,2-dichloroethane, and vinyl chloride vapors from ground water to the ground surface and subsequently to outdoor ambient air was estimated using the Jury (Jury et al., 1983) infinite source model. As presented in Table 4.1-1, a cumulative risk of  $6 \times 10^{-18}$  and hazard index of  $2 \times 10^{-13}$  were estimated using site-specific parameter values. Human health risk and hazard for inhalation of outdoor ambient air did not exist at Building 830 in the year 2003.

#### **4.1.6.3. VOC Risk Evaluation for Indoor Ambient Air Near Building 832F**

Inhalation risk and hazard resulting from transport of dichloropropane vapors from ground water to the building foundations and subsequently to indoor ambient air was estimated using the Johnson-Ettinger Model (EQM, 2003). As presented in Table 4.1-1, a cumulative risk of  $4 \times 10^{-9}$  and a hazard index of 0.0001 were estimated using site-specific parameter values. Institutional controls will remain in place for Building 832F which is not currently used or occupied.

#### **4.1.6.4. Spring 3 Ambient Air Sampling**

On July 24, 2003, Spring 3 was monitored for the presence of surface water or hydrophilic vegetation indicating the presence of near surface water. Substantial hydrophilic vegetation was

present at Spring 3, indicating the presence of near surface water. Therefore, air sampling was conducted.

Air sampling was conducted near the water sampling port for Spring 3 in a region of dense cattails and rushes. On July 24, 2003, a uni-strut stand was erected consisting of a platform on the ground and a center 5.5 ft pipe. Two six-liter SIM-certified SUMMA canisters were fitted with 8-hour integrators and placed next to each other on the platform at ground level. These canisters were labeled 3AA-SRPING3-001 and 3AA-SPRING3-002. New 1/8 inch Teflon tubing was cut into two lengths of about 5.5 ft and purged with ambient air using a pump. New swagelok fittings were used to attach a length of tubing to the integrators on each of the SUMMA canisters. The free end of tubing was attached to the top of the pipe on the uni-strut stand with tie-wraps.

The integrators were opened in the early morning. The time of opening, canister vacuum, temperature, wind speed and direction were recorded. The integrators were closed at the end of the day, and time, residual vacuum, wind speed and direction were again recorded. The canisters were sent to Air Toxics LTD of Folsom, California and analyzed by a modified TO-14S SIM analysis (low level analysis) for TCE and PCE only.

The results of the collocated samples were difficult to interpret since TCE and PCE were detected in one canister but not the other canister. On October 13, 2003, a second set of confirmatory samples was collected. The same sampling apparatus was used, although on this date the tubing was not purged. Again TCE and PCE were detected in one sample, but not the other sample. Since the components were not segregated by sampling ID, it is not known if components used for the 3AA-SPRING3-001 and 002 samples were the same ones used on both sample dates. The variation between samples may have been caused by residual contamination on the sampling components, equipment malfunction, or highly variable ambient air concentrations. The sample results and sampling parameters are shown in Tables 4.1-4 and 4.1-5, respectively.

Per the requirements of the CMP, the ambient air sample concentrations were compared to TCE and PCE PRGs (Table 4.1-4). Although the results suggest the presence of TCE and PCE may be of concern to onsite workers, currently the area is not used on a routine basis except for semiannual sampling of Spring 3. Thus, additional controls are not warranted. Air monitoring of the spring will continue to further evaluate the potential presence of TCE and PCE in the ambient air at this location.

#### **4.1.6. Building 833**

##### **4.1.6.1. VOC Risk Evaluation for Indoor Ambient Air in Building 833**

Inhalation risk and hazard resulting from transport of TCE and chloroform vapors from ground water to the building foundations and subsequently to indoor ambient air was estimated using the Johnson-Ettinger Model (EQM, 2003). As presented in Table 4.1-1, a cumulative risk of  $2 \times 10^{-6}$  and a hazard index of 0.001 were estimated using site-specific parameter values. Institutional and engineering controls will remain in place for Building 833. The air conditioning unit in Building 833 is operated continuously to maintain a positive or neutral pressure differential between the subsurface and the indoor air. The air exchange rate for this building is also maintained at a higher level than the default modeled rate of 0.25 exchanges per hour.

## 4.2. Ecological Risk and Hazard Management

During the late fall of 2003, surveys for important burrowing species were conducted in the survey areas specified in the Compliance Monitoring Plan (2002). In addition, quarterly burrow air sampling for the presence of VOCs in the Pit 6 and Building 834 survey areas, as specified in the Compliance Monitoring Plan (2002), was initiated. Surface soil sampling and analysis for the presence of cadmium was also conducted in the Building 834 survey area. The ecological significance of the results of surface soil sampling for the presence of PCBs and dioxins/furans at Buildings 854 and 850 was also evaluated.

### 4.2.1. Wildlife Surveys Spring 2003

Wildlife surveys were conducted in November of 2003 to satisfy the requirements of the Compliance Monitoring Plan (2002). These requirements included semiannual surveys for important burrowing species in areas associated with hazard indices greater than 1. Three areas were identified as requiring semiannual monitoring: Building 834, Building 850, and Pit 6. Important species include special status species such as State of California or federally listed threatened or endangered species or State of California species of special concern.

#### 4.2.1.1. Review of Historic Observations and Habitat Requirements

Historic observations of special status species at each survey location were reviewed to determine which species should be targeted during future field surveys. Based on this review the fossorial special status species most likely to be observed in the area are the San Joaquin coachwhip (*Masticophis flagellum ruddocki*), coast horned lizards (*Phrynosoma coronatum frontale*), silvery legless lizard (*Anniella pulchra pulchra*), burrowing owls (*Athene cunicularia*), San Joaquin pocket mice (*Perognathus inornatus*) and American badgers (*Taxidea taxus*). We also reviewed the historic occurrences for the San Joaquin kit fox (*Vulpes macrotis mutica*). The results of this review were reported in detail in the semi-annual Compliance Monitoring Report (2003).

#### 4.2.1.2. Field Surveys

Field surveys consisted of walking the perimeter of each area and transects through the areas delineated around Building 834, Building 850 and Pit 6 in the Compliance Monitoring Plan (2002). At each area, easily identifiable features were chosen to delineate the survey areas in the field. Because of this, the survey areas are slightly larger than the actual areas of concern. The boundaries of the actual field survey areas are shown in Figures 4.2-1 through 3. Pit 6 was surveyed twice and Building 834 and 850 were surveyed once during the fall survey period.

The results of the surveys are shown in Table 4.2-1. Two groups of badger dens and a burrowing owl were observed at Building 850. A badger den was observed at B834 near the western fence line. No other special status species were observed during field surveys.

#### 4.2.1.3. Future Work

Two semi-annual surveys will be conducted in 2004, during the spring (April or May) and the fall (September or October), using similar methods as for the fall 2003 survey. As noted in the Spring 2003 report, coast horned lizards have been observed within 1/3 mile of the Building 834



and Building 850 survey areas. To better determine the presence of this species in these two survey areas, the first of the semi-annual surveys in 2004 will be conducted in April or May, which are the months in which horned lizards are most active at Site 300. The distribution of the San Joaquin pocket mouse, San Joaquin coachwhip and silvery legless lizard at Site 300 is unknown. We are considering conducting small mammal trapping using Sherman live traps and reptile trapping using pit fall traps to determine if these special status species occur in any of the survey areas. Walking and driving surveys will continue to monitor for the presence of burrowing owls and American badgers. It is unlikely that California red-legged frogs or California tiger salamanders occur in any of the survey areas. The distribution of these species at Site 300 will continue to be monitored as part of the Site's routine endangered species monitoring program, and the seep at well 8 will be surveyed for California red-legged frogs during the walking surveys.

Birds, reptiles and amphibians were not explicitly addressed in the original baseline ecological risk assessment (Webster-Scholten 1994). Because a burrowing owl was observed within one of the areas of concern (Building 850), we are in the process of developing an exposure model and determining appropriate toxicity reference values (TRVs) for burrowing owls. Future models and TRVs may be developed for reptiles and amphibians (such as coast horned lizards, and red-legged frogs) in the event these species are observed in the survey areas.

#### **4.2.2. Burrow Air Sampling for VOCs**

In the baseline ecological assessment (Webster-Scholten, 1994), hazard (defined as a hazard index greater than 1) to species important at the individual level (referred to as "important" species) was associated with the inhalation of TCE and PCE in burrow air in the Building 834 and Pit 6 landfill areas. In the baseline assessment, kit fox (a State and Federal endangered species) was used as a representative important fossorial (burrowing) vertebrate species. As part of the risk and hazard management measures developed and presented in the Compliance Monitoring Plan (Ferry et al., 2002), a burrow air sampling program was initiated to determine current exposure concentrations at Building 834 and Pit 6.

Because there is little experience to draw upon when it comes to sampling subsurface burrow air, during the first year quarterly samples will be collected from both locations. This will allow us to evaluate seasonal fluctuations and determine the optimal timing for annual monitoring. The results of two quarters of monitoring (late summer and late fall) are presented here.

##### **4.2.2.1. Burrow Air Sampling Methods**

On September 3, 2003 and December 19, 2003, air from animal burrows in the Building 834 and Pit 6 ecological survey areas were sampled and analyzed for the presence of TCE, PCE, cis-1,2-DCE and trans-1,2-DCE. Locations are shown on Figures 4.2-4 and 5, respectively. Three burrows from each area were selected on each sampling date. Burrow selection criteria included the degree to which their distribution was representative of burrows in the survey area, characteristics such as diameter that were consistent with burrows that could be used by Site 300 special status species, and whether the burrow was in an area of high soil vapor concentrations as indicated from previous studies. Selected burrows were generally between four and eight inches in diameter. The location of each burrow was recorded with Trimble GPS CE Handheld units and TerraSync software (Trimble Navigation Limited 749 North Mary Avenue, Sunnyvale CA 94086).

Air from these burrows was sampled using a 4 ft AMS Vapor Probe model 427.01 (AMS, Inc. 105 Harrison, American Falls, ID 83211) connected with 1/8 in new Teflon tubing to a 6 L SIM-certified SUMMA canister fitted with an 8 hr integrator. Samples were collected from depths of between one and five feet within the burrows. Prior to using these probes, each was tested under field conditions for the presence of VOC contaminants and was found to contain no VOCs at concentrations higher than background (i.e ambient air). At least one air sample was taken from each burrow. Co-located samples were taken at one burrow in each area at each sampling date. The exception was the December 2003 sampling at Building 834. A co-located sample was not obtained from this area due to insufficient vacuum in one of the SUMMA canisters. Ambient air samples were also taken at the same time and location as the co-located samples.

The day before samples were collected, the vapor probes and SUMMA canisters were deployed at the burrows. The soil vapor probes and tubing were purged with about 3 liters of burrow air before connecting them to the integrators. Early in the morning of the following day the valves on all SUMMA canisters were opened to the integrators. The time of opening, canister vacuum, temperature, wind speed and direction were recorded. The SUMMA canister valves were closed at the end of the day, and time, residual vacuum, wind speed and direction were again recorded. Table 4.2-2 lists the sampling parameters for each sample date. Canisters were sent to Air Toxics LTD of Folsom, California for modified TO-14S SIM analysis (low level analysis) for TCE, PCE, cis-1, 2-DCE and trans-1,2-DCE.

#### **4.2.2.2. Burrow Air Sampling Results**

Results of the burrow air sampling are presented in Table 4.2-3. On the September 4, 2003 sampling date, low concentrations of PCE were detected in one burrow at Pit 6 ( $0.34 \mu\text{g}/\text{m}^3$ ) and in one of the co-located samples (but not the associated co-located sample) from a burrow at Building 834 ( $0.26 \mu\text{g}/\text{m}^3$ ). The measured concentrations were just above the detection limit of 0.25 and  $0.26 \mu\text{g}/\text{m}^3$ , respectively. During the December 19, 2003 sampling, two burrows in the Pit 6 survey area and all three burrows in the Building 834 survey area had detectable concentrations of TCE and/or PCE. These burrows were not located in the same area as the burrows with the detectable concentrations of PCE from the September 2003 sampling. In addition, TCE was also detected in the ambient air at concentrations similar to those found in the two co-located samples at the same burrow.

TCE and PCE concentrations appeared to be more uniform and consistent during the December 19, 2003 sampling compared to the September 4, 2003 sampling date. The December sampling occurred after a period of heavy rain resulting in saturated soil. It is possible the wet soil prevented outgassing of the VOCs to the surface, resulting in higher accumulation within the burrows. However, all detected concentrations were quite low. Concentrations of PCE and TCE in burrows at Building 834 predicted in the Site-Wide Remedial Investigation Report (Webster-Scholten, 1994) were  $8.83 \times 10^2 \text{ mg}/\text{m}^3$  and  $2.91 \times 10^4 \text{ mg}/\text{m}^3$  respectively. At the Pit 6 area, predicted concentrations were  $3.27 \times 10^1 \text{ mg}/\text{m}^3$  and  $9.30 \times 10^1 \text{ mg}/\text{m}^3$ , respectively. Clearly the concentrations detected during the two sampling events are substantially below predicted concentrations.

#### **4.2.2.3. Future Work**

Two more rounds of quarterly burrow air sampling will be conducted. During this period we will evaluate our sampling method to determine if it is feasible to obtain samples from deeper depths in more intact burrows. At the end of the sampling period, the four quarterly results will be evaluated and final results compared to model predictions from the SWRI to determine if the exposure model should be updated.

#### **4.2.3. Surface Soil Sampling for Cadmium, PCBs, Dioxins and Furans in Surface Soil.**

In the baseline ecological assessment, hazard (defined as a hazard index greater than 1 for important fossorial species) was associated with the combined oral ingestion and inhalation of cadmium in surface soil at Building 834 (Webster-Scholten, 1994). In addition, PCBs, dioxins and furans in the Building 854 and 850 areas have not been fully evaluated for their potential ecological hazard. The ecological risk and hazard management measures currently implemented to address these hazards are described here.

##### **4.2.3.1. Cadmium at Building 834**

As discussed above, the baseline ecological assessment identified an ecological hazard associated with the combined oral ingestion and inhalation of cadmium in surface soil at Building 834 (Webster-Scholten 1994). However, only two surface soil samples have been previously collected and analyzed for this metal at Building 834. Cadmium was not reported in one of the samples at a detection limit of 0.1 mg/kg, but was detected in the second sample at 16.0 mg/kg. Thus, the cadmium hazard calculated in the baseline risk assessment for the Building 834 area was due to this single analysis.

In October 2003, additional surface soil sampling was conducted at Building 834 to more fully characterize cadmium concentrations in surface soil in this area. Twenty-four locations were sampled (Figure 4.2-6). Sampling locations were distributed throughout the ecological survey area and were located around obvious burrowing activity. Sampling was conducted as outlined in the preliminary sampling and analysis plan presented in the Compliance Monitoring Plan (Ferry, 2002). Following Standard Operating Procedure 1.12 (Dibley and Depue, 2000), surface vegetation was scraped away using a clean hand trowel, and the top 6 inches of soil was mixed in an area of about 1 ft<sup>2</sup>. A clean 500 ml glass wide-mouth jar was filled with this mixed soil. Three co-located samples were collected. In addition, three samples were collected from soil within burrows adjacent to the surface soil location. Samples were extracted using EPA method SW-3050 and analyzed using EPA method 7131, which provided a PQL of 0.05 mg/kg.

Results are presented in Table 4.2-4. All cadmium concentrations in surface soil were well below 0.5 mg/kg (the detection limit for method 6010), and most results were below 0.1 mg/kg (the detection limit for the previously collected surface soil samples). Although samples were collected near the location that had a previously reported cadmium concentration of 16.0 mg/kg, such a high concentration was not observed. The average concentration of all samples was 0.11 mg/kg with a standard deviation of 0.05 mg/kg. This is well below the Site 300 background concentration for cadmium of 1.9 mg/kg, reported in the Site-Wide Feasibility Study (Ferry et al., 1999).

From these results, we conclude there is no hazard to important fossorial species from cadmium in surface soil at Building 834. However, special status wildlife surveys will continue in this area while the presence of VOCs in subsurface burrow air is under evaluation (see Section 4.2.2).

#### **4.2.3.2. Ecological Significance of PCBs at Building 854**

As described in Section 4.1.5.1, the PCBs Aroclor-1242, Aroclor-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 January 2003 shows the PCBs to be primarily confined to the Building 855 lagoon. A sample from this lagoon was also analyzed for dioxin and furan compounds, and contained a maximum calculated tetrachloro-di-benzodioxin (TCDD) equivalent concentration of  $2.6 \times 10^{-5}$  mg/kg. In general, 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 does act as a water catchment during the winter months, and at this time contains 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. The lagoon could provide limited habitat for either species during the winter months. Therefore, we will evaluate the lagoon for its suitability for either of these species. Should the lagoon provide suitable habitat, then exposure and hazard to these species from PCBs, dioxins and furans will be estimated.

#### **4.2.3.3. Ecological Significance of PCBs at Building 850**

As described in the Draft Interim Remedial Design report for the Building 850 Subarea (Taffet et al., 2003), 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  $2.27 \times 10^{-3}$  mg/kg.

Although the extent of PCB/dioxin/furan contamination is limited to the area adjacent to the firing table, wildlife surveys have revealed the presence of burrowing owl in this area (Section 4.2.1). The exposure and hazard of burrowing owl to these compounds have not been estimated. Therefore, we are in the process of developing an exposure model for the burrowing owl to estimate hazard to this species from these compounds. In addition, we will further evaluate the area for the presence of standing pools of water generated by runoff from the firing table that could be used as breeding habitat for aquatic invertebrates or amphibians. If such surface water is present, sampling the water for the presence of PCB and dioxin/furans compounds will be explored.

## **5. Data Management Program**

The management of data collected as part of the first semester 2003 compliance monitoring at Site 300 was subject to the standard Environmental Restoration Division (ERD) data management process and standard operating procedures. 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**

There were no modifications to existing procedures.

## **5.2. New Procedures**

The Site 300 CMP sampling plan was developed based upon the negotiated sampling locations and frequencies. New web generated scripts were developed to query the database for ground water data and for the analytical data at all CMP locations. The locations and requested analyses to be reported for each area were reviewed by the responsible task leaders for accuracy prior to table generation.

# **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 Manual, Site Safety Plan, and Quality Assurance Management Plan. 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**

In September 2003, SOPs were reviewed, revised, controlled and released as Revision 11. Revision 11 included all of chapter 2 and portions of chapters 1 and 4 consisting mostly of ground water sampling related procedures. Operational Safety Procedures, "Treatability Testing and Facility Operations" and "Environmental Protection Department Off-Pavement Driving and Hiking" were reviewed and renewed in June and July 2003, respectively.

## **6.2. New Procedures**

There were no new procedures written during this reporting period.

### **6.3. Self-assessments**

Self-assessments are performed by the ERD on an annual basis and by Safety and Environmental Protection Environmental Safety and Health (ES&H) teams on a triennial basis. These assessments are used to evaluate ongoing treatment facility activities to QA and ES&H requirements and procedures. During this reporting period, there were a total of seven assessments performed, mostly by agencies outside LLNL.

### **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 nine QIFs were processed during this reporting period. Suggested improvements were addressed and corrective measures employed to improve related processes. Some of the specific corrective actions implemented this reporting period included: assigning the appropriate parameter code for total phosphorous and reporting correct units of measurement for EPA 8021 and chromium analyses by outside contract analytical labs (CALs); labeling of sampling ports in the TF834, and proper storage of analytical data derived from the EM8015 analysis. The QIFs are successfully closed-out as suggested improvements are implemented.

### **6.5. Analytical Quality Control**

Data review, validation, and verification are conducted on 100% of the incoming analytical data. CALs 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. Data flags are used to inform the end user of insufficiencies detected during the data review process. A data qualifier flag is being assigned to recently obtained EM8015 analytical results in response to the QIF generated regarding proper storage of said results. The CAL reports the EM8015 results as “diesel range organics” and as part of the corrective action to better manage these data a “G” flag stating that data are “quantified using fuel calibration, but do not match typical fuel fingerprint” is being applied to the analytical results. Corrective measures are still underway to improve the management of these data and successfully close out the QIF.

### **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 occurs 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.

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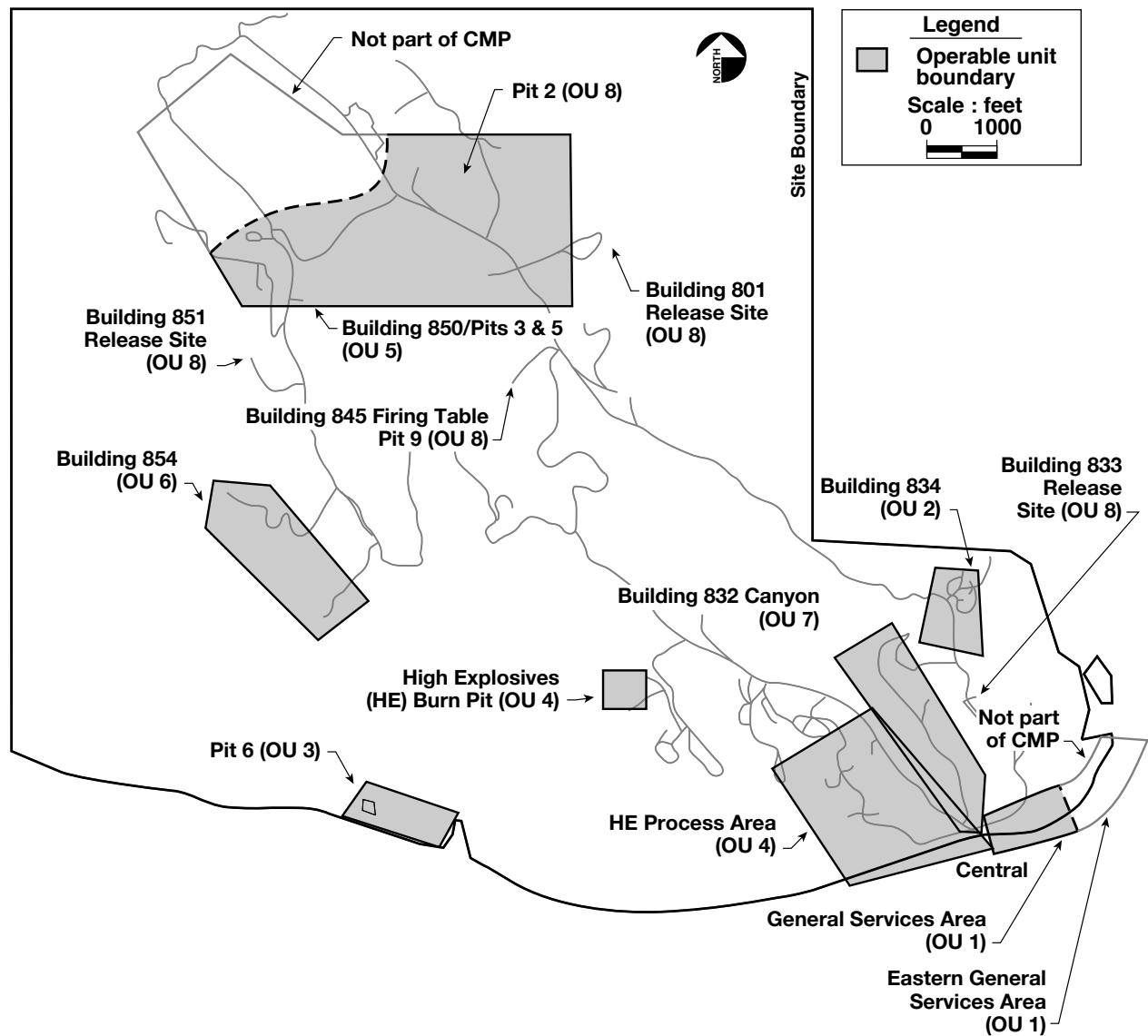
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## Figures

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ERD-S3R-04-0033

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

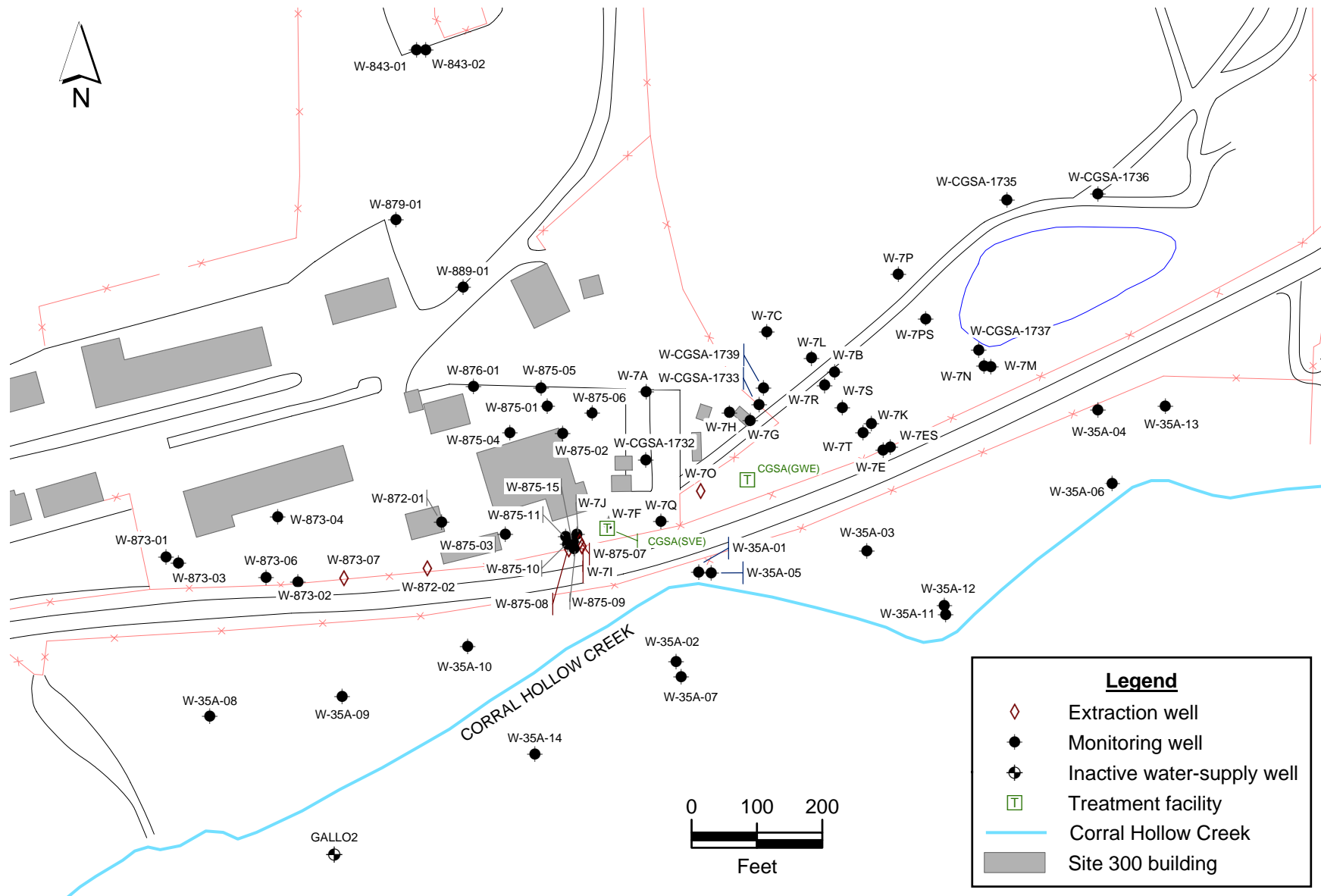


Figure 2.1-1. Central General Services Area OU site map showing monitoring, extraction and water-supply wells, and treatment facilities.

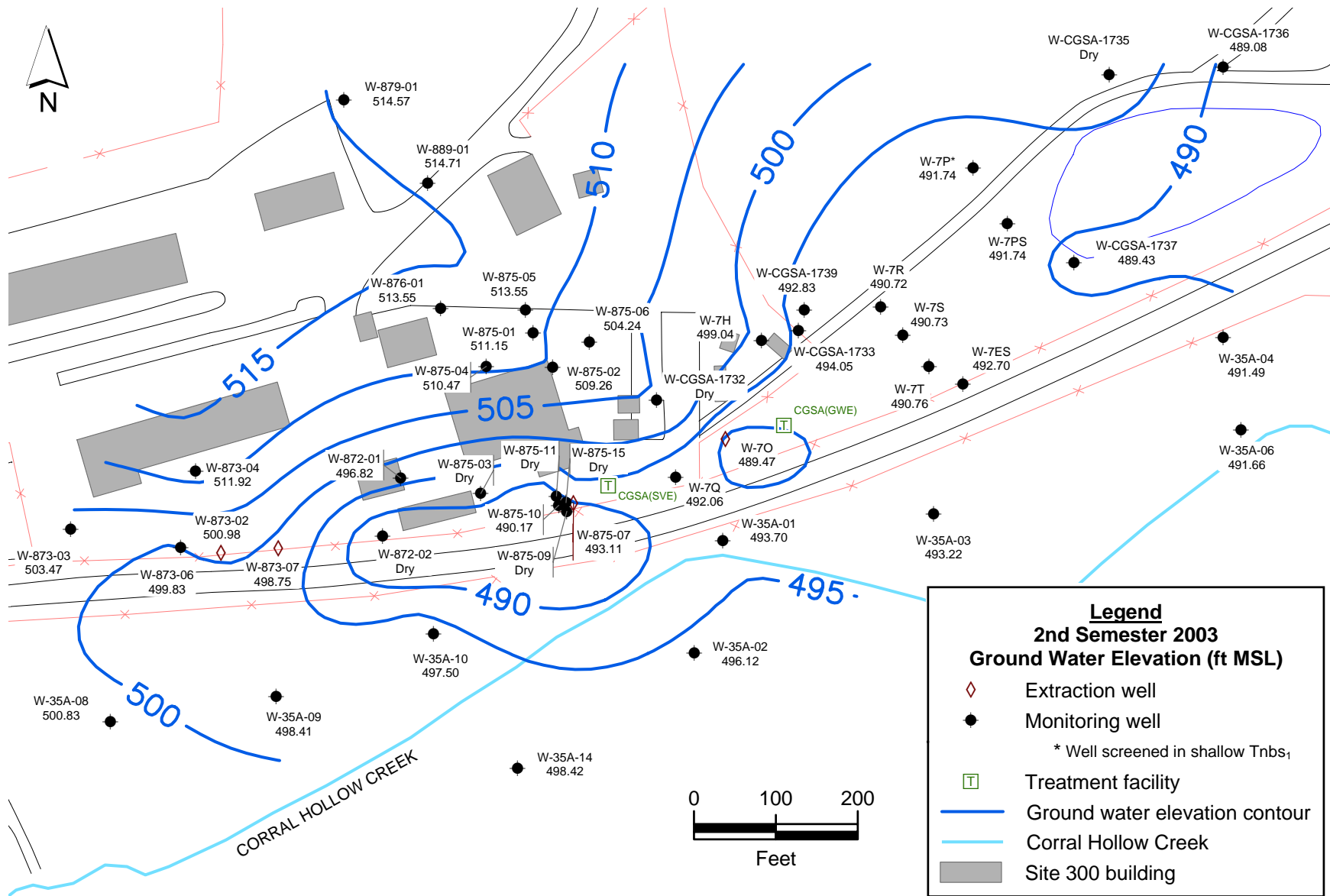


Figure 2.1-2. Central General Services Area OU ground water potentiometric surface map for the Qt-Tnsc<sub>1</sub> HSU.

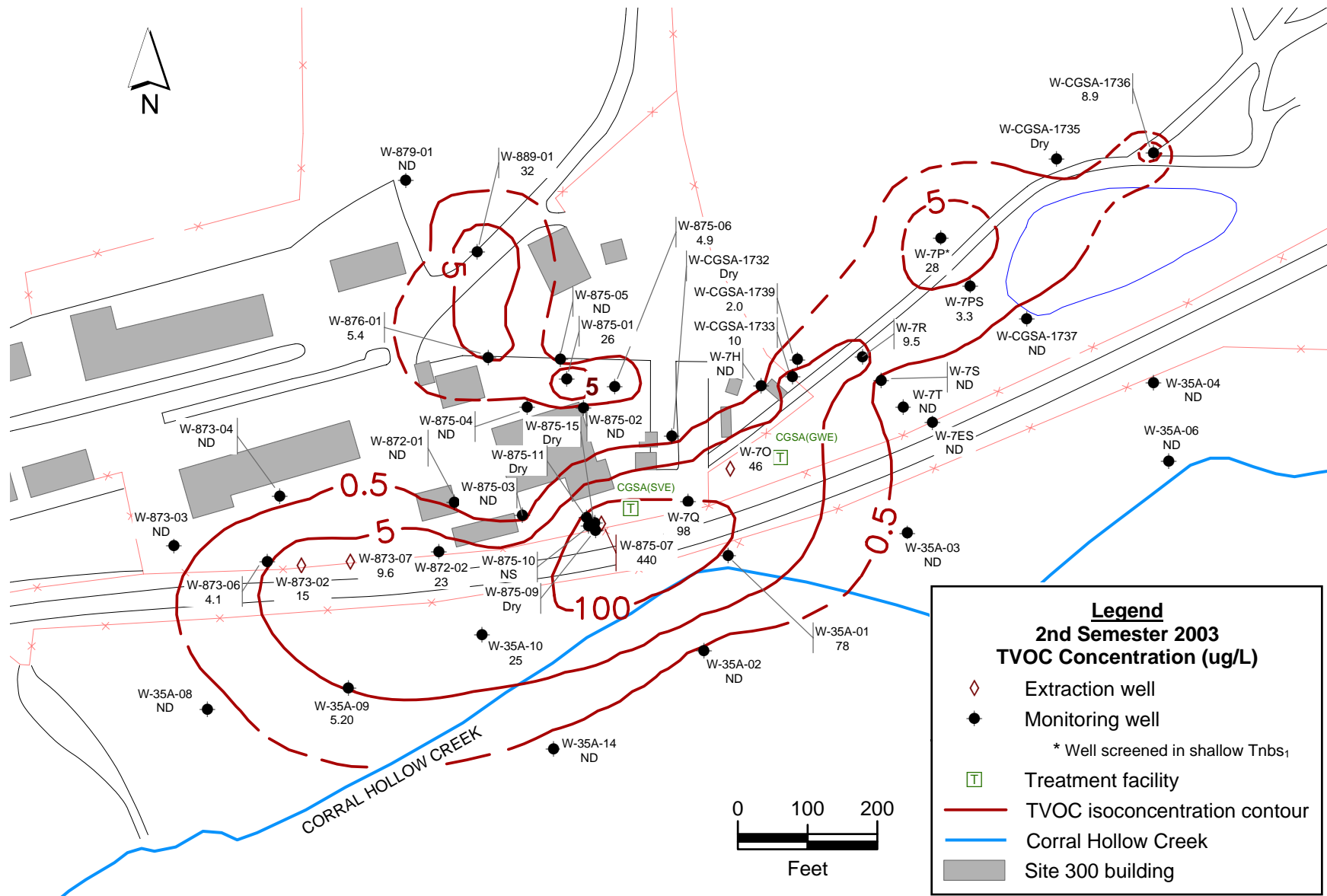


Figure 2.1-3. Central General Services Area OU TVOC isoconcentration contour map for the Qt-Tnsc<sub>1</sub> HSU.



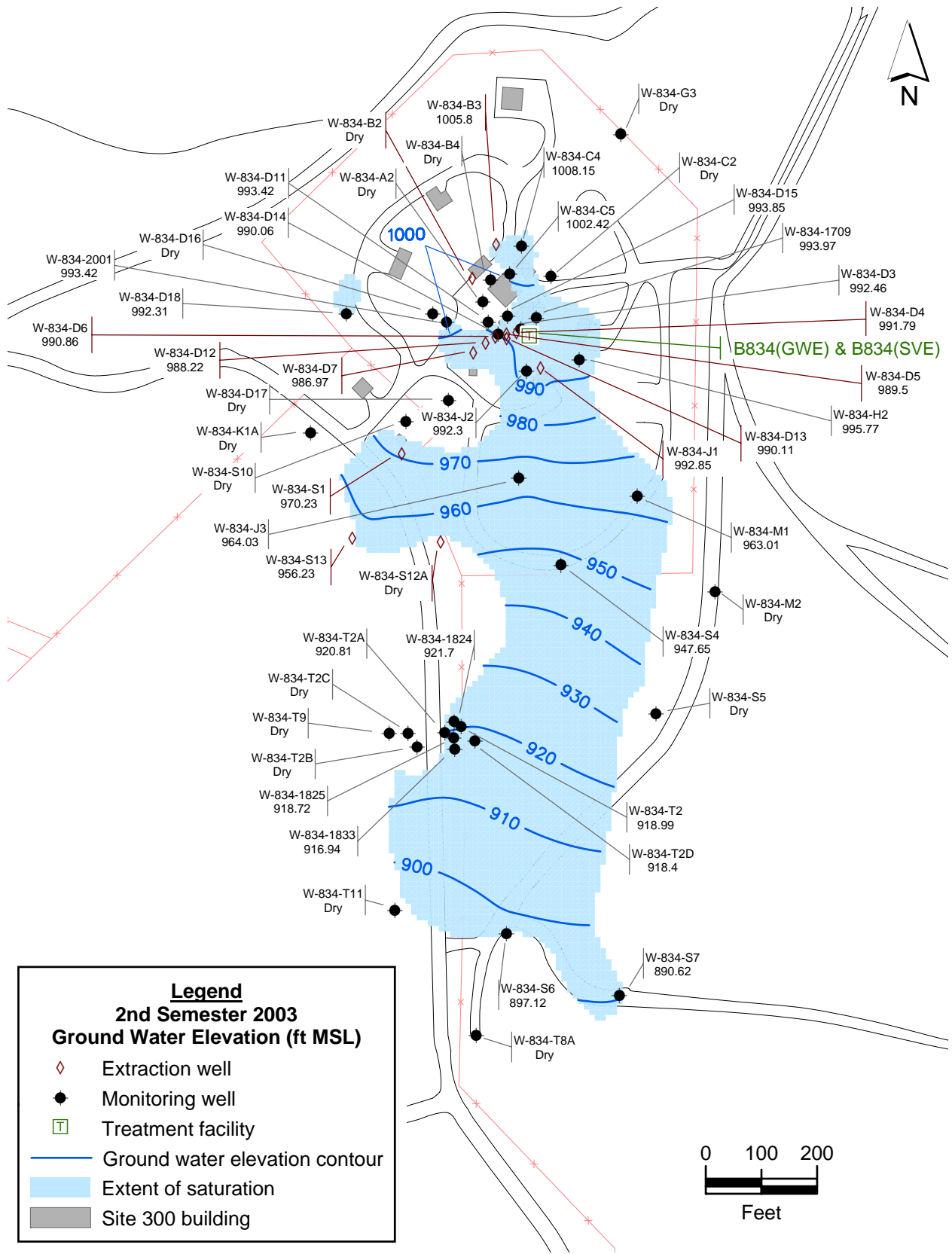


Figure 2.2-2. Building 834 OU ground water potentiometric surface map for the Tpsg perched water-bearing zone.



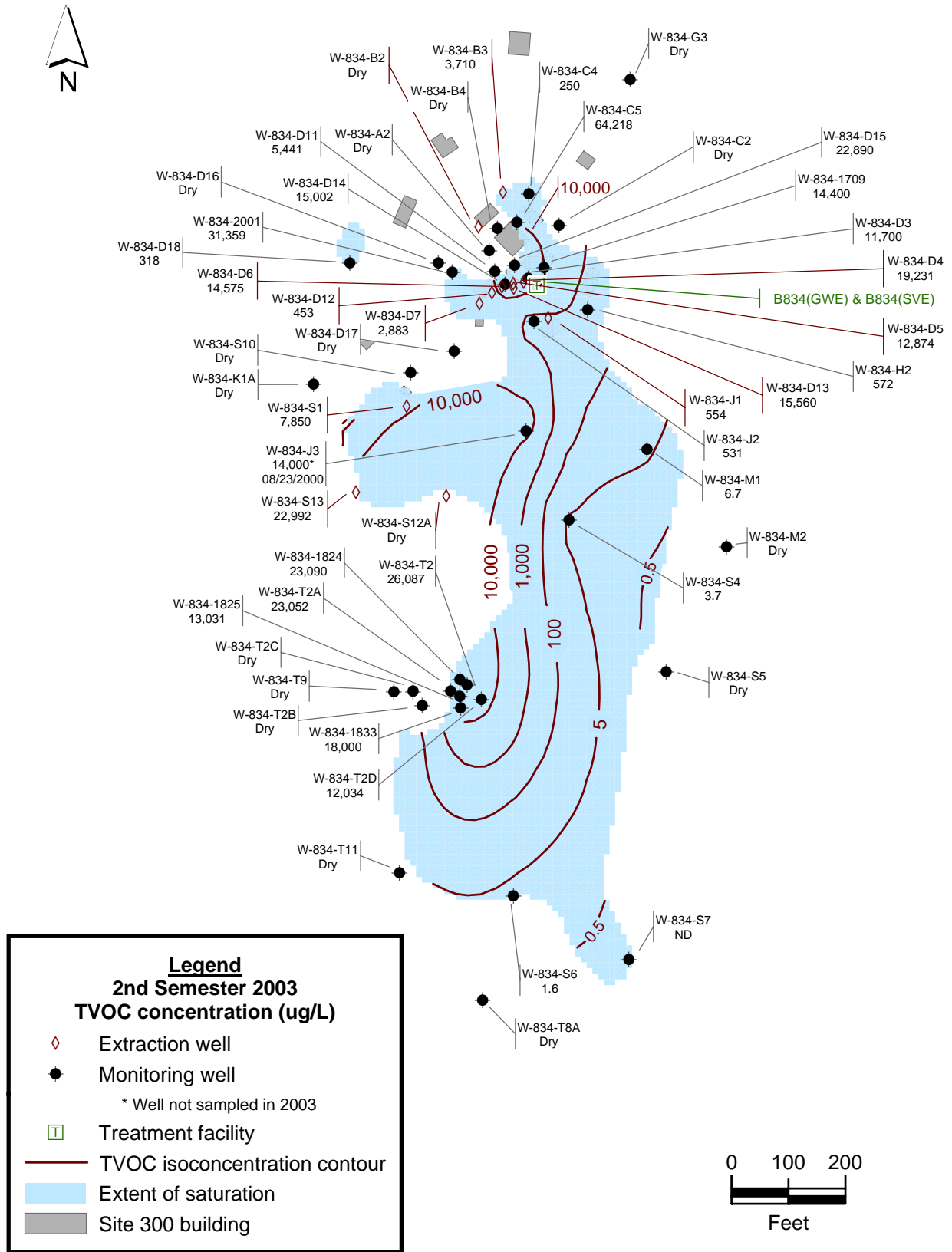


Figure 2.2-3. Building 834 OU TVOC isoconcentration contour map for the Tpsg perched water-bearing zone.

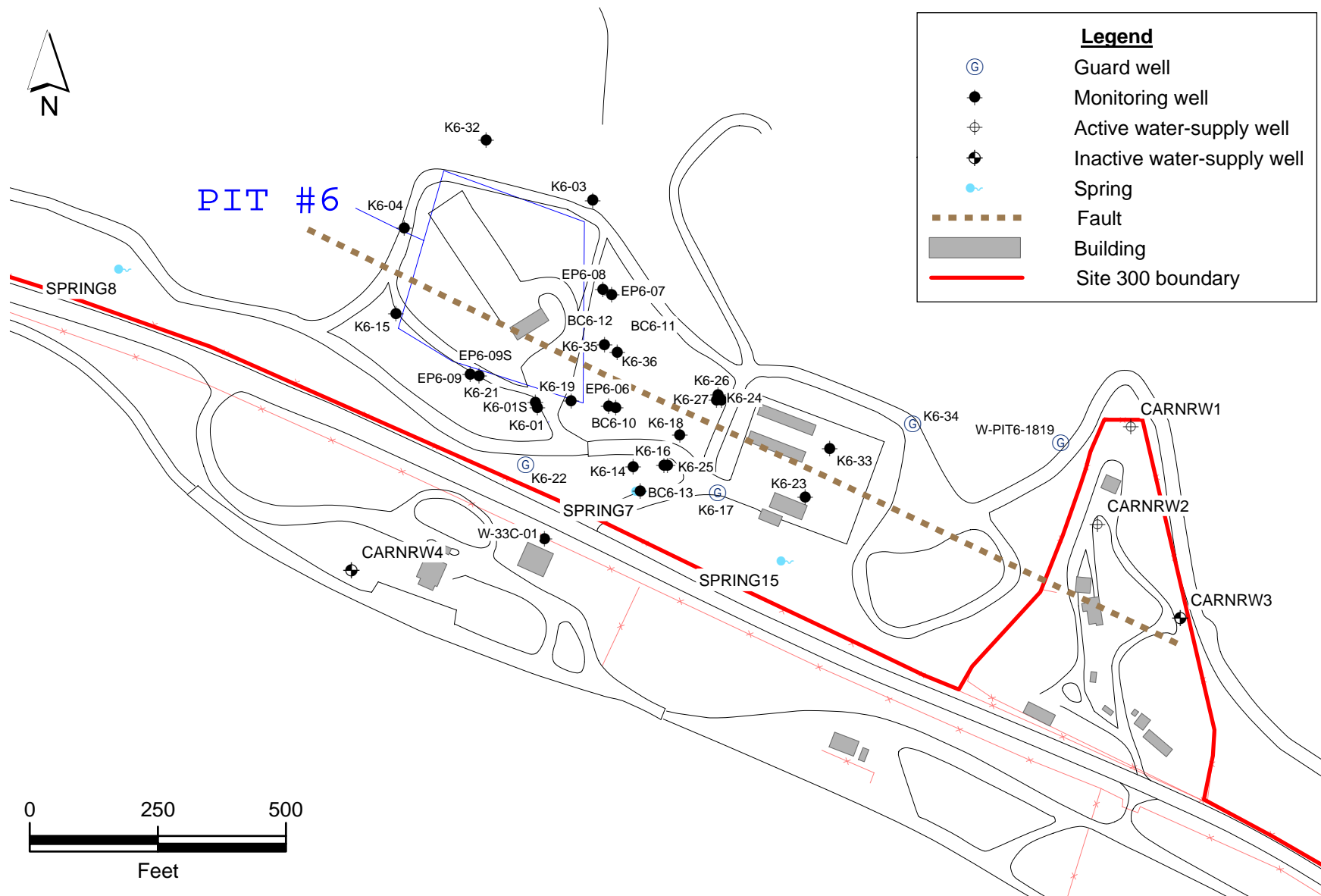


Figure 2.3-1. Pit 6 Landfill OU site map showing monitoring and water-supply wells.

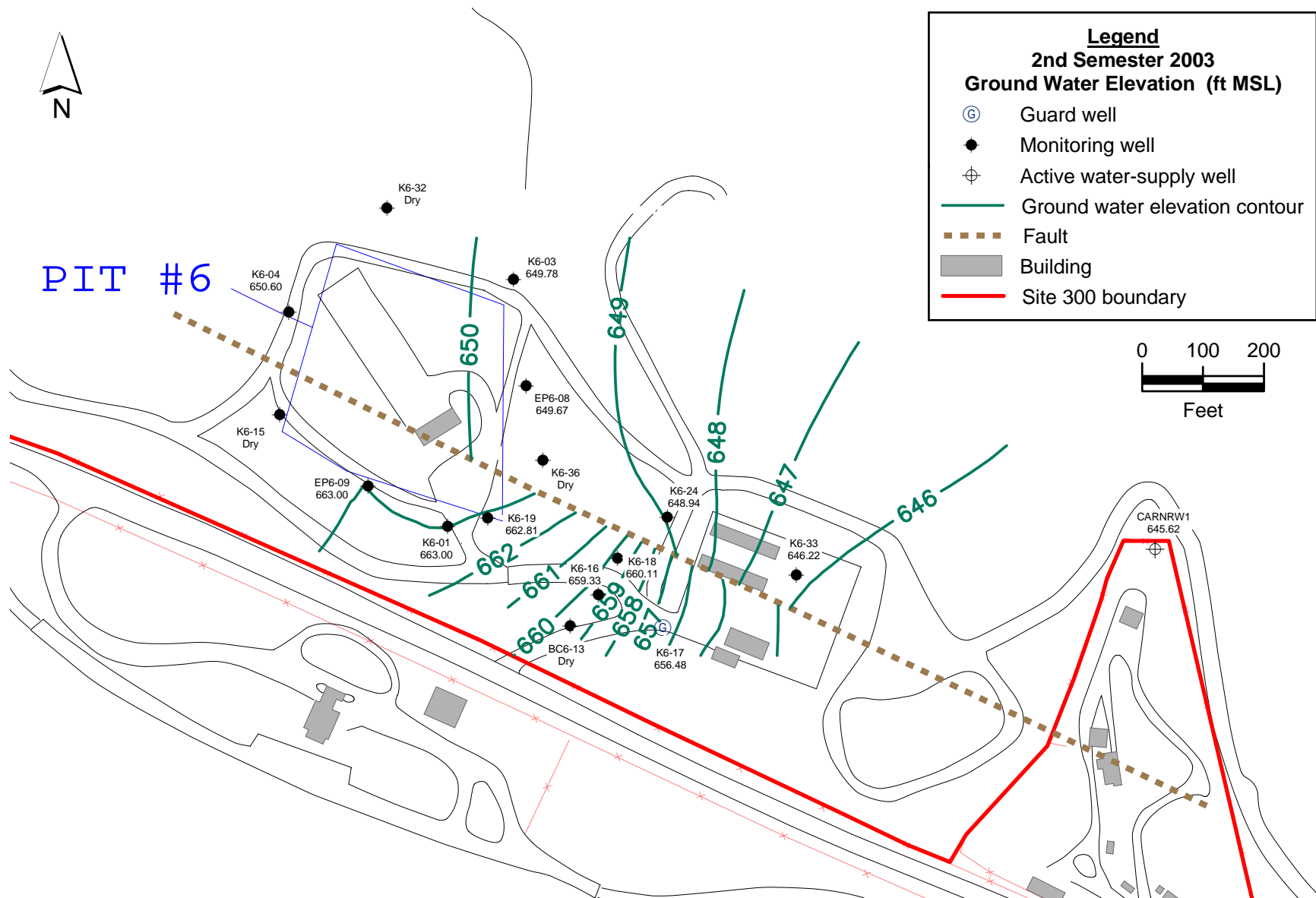


Figure 2.3-2. Pit 6 Landfill OU ground water potentiometric surface map for the first water-bearing zone.

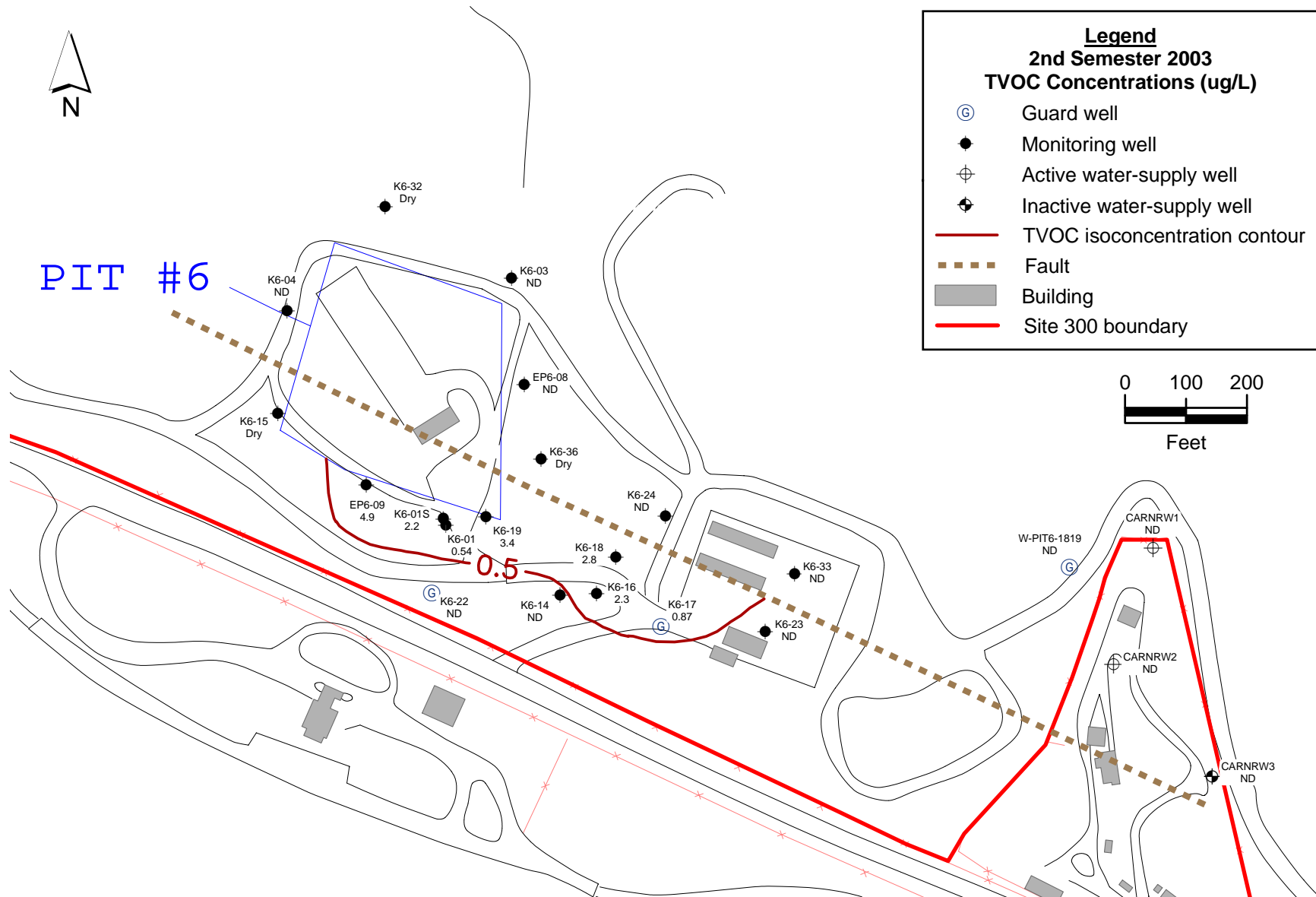


Figure 2.3-3. Pit 6 Landfill OU TVOC isoconcentration contour map for the first water-bearing zone.

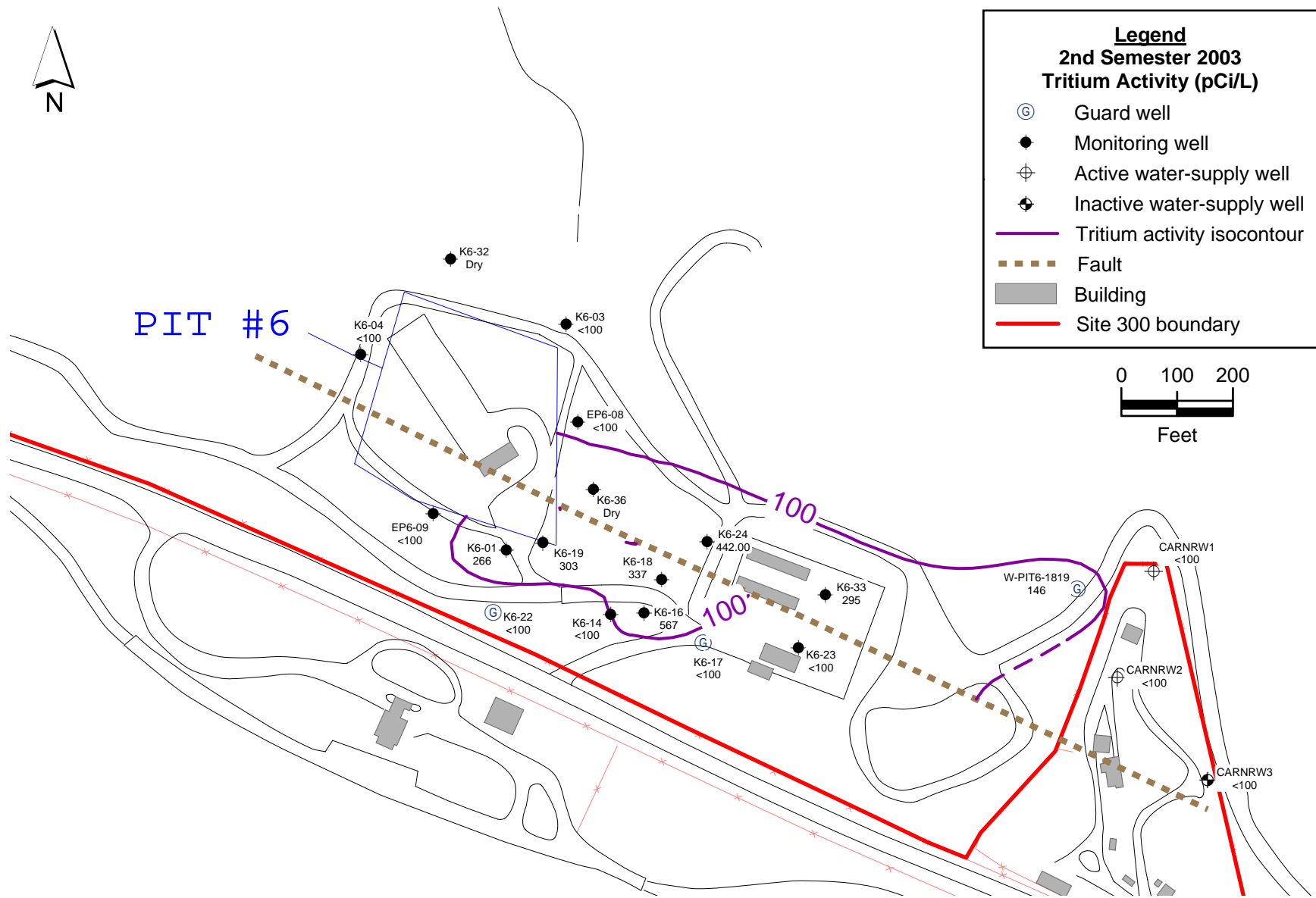


Figure 2.3-4. Pit 6 Landfill OU tritium isoconcentration contour map for the first water-bearing zone.



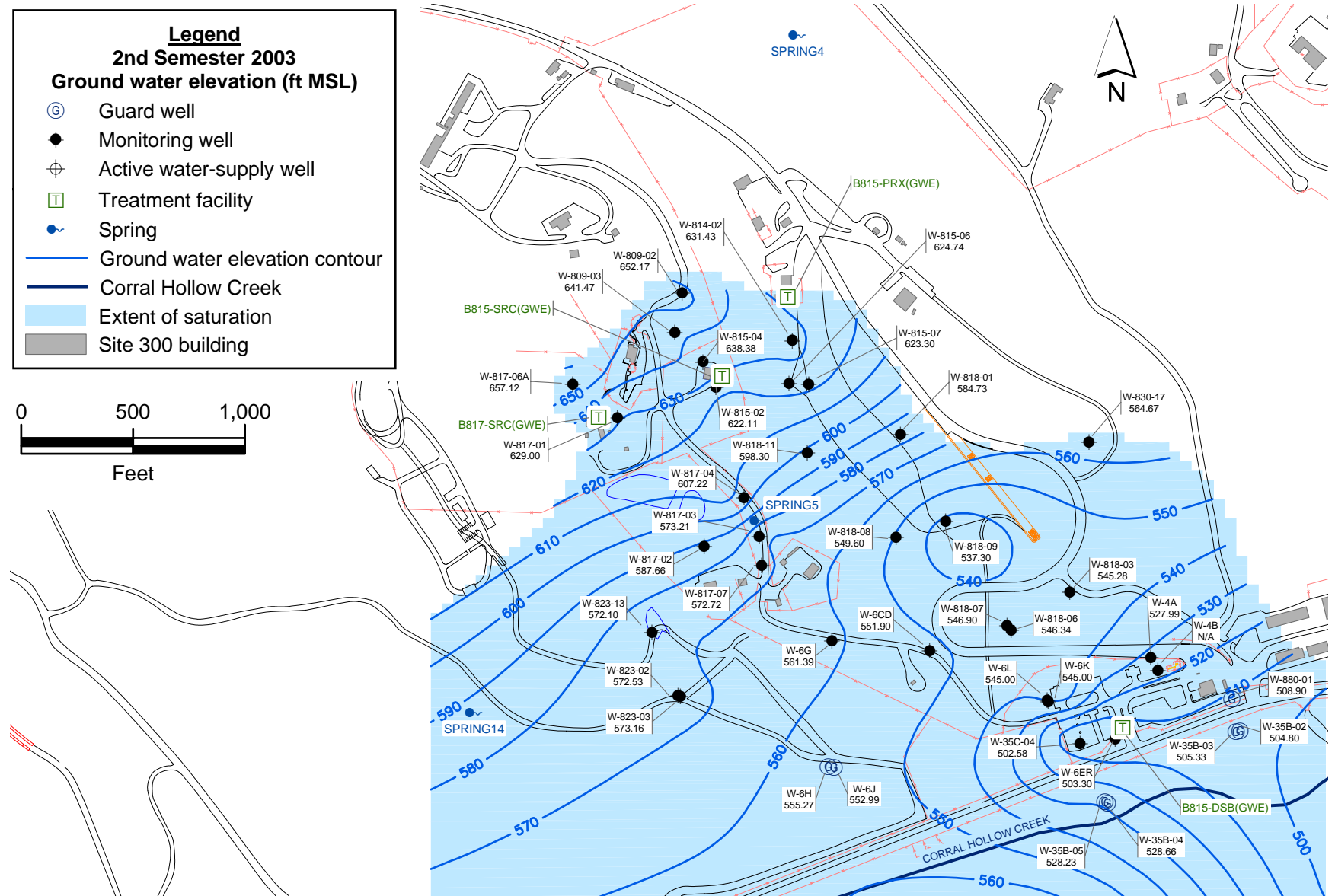


Figure 2.4-2. High Explosive Process Area OU ground water potentiometric surface map for the Tnbs<sub>2</sub> HSU.



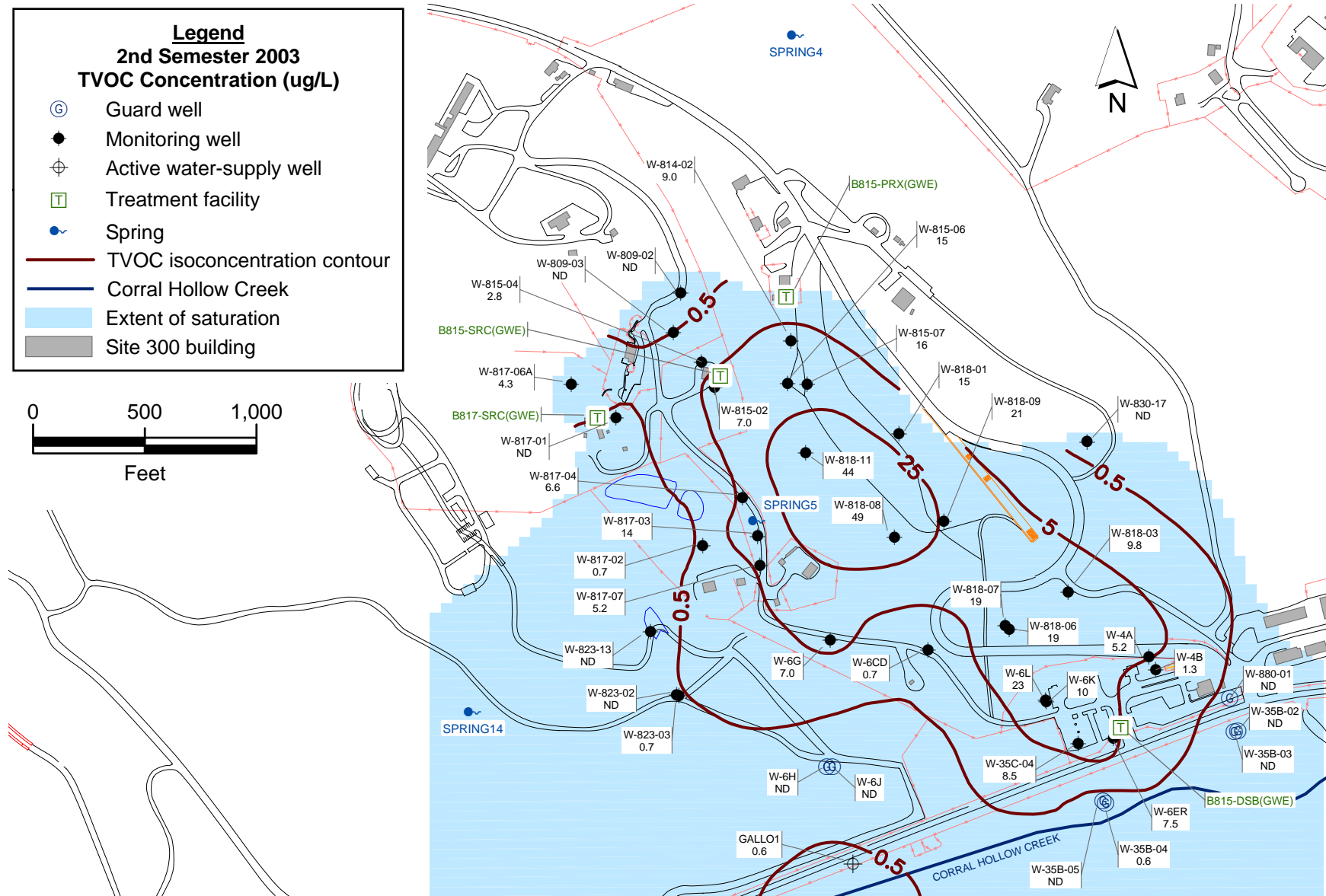


Figure 2.4-3. High Explosive Process Area TVOC isoconcentration contour map for the Tnbs<sub>2</sub> HSU.





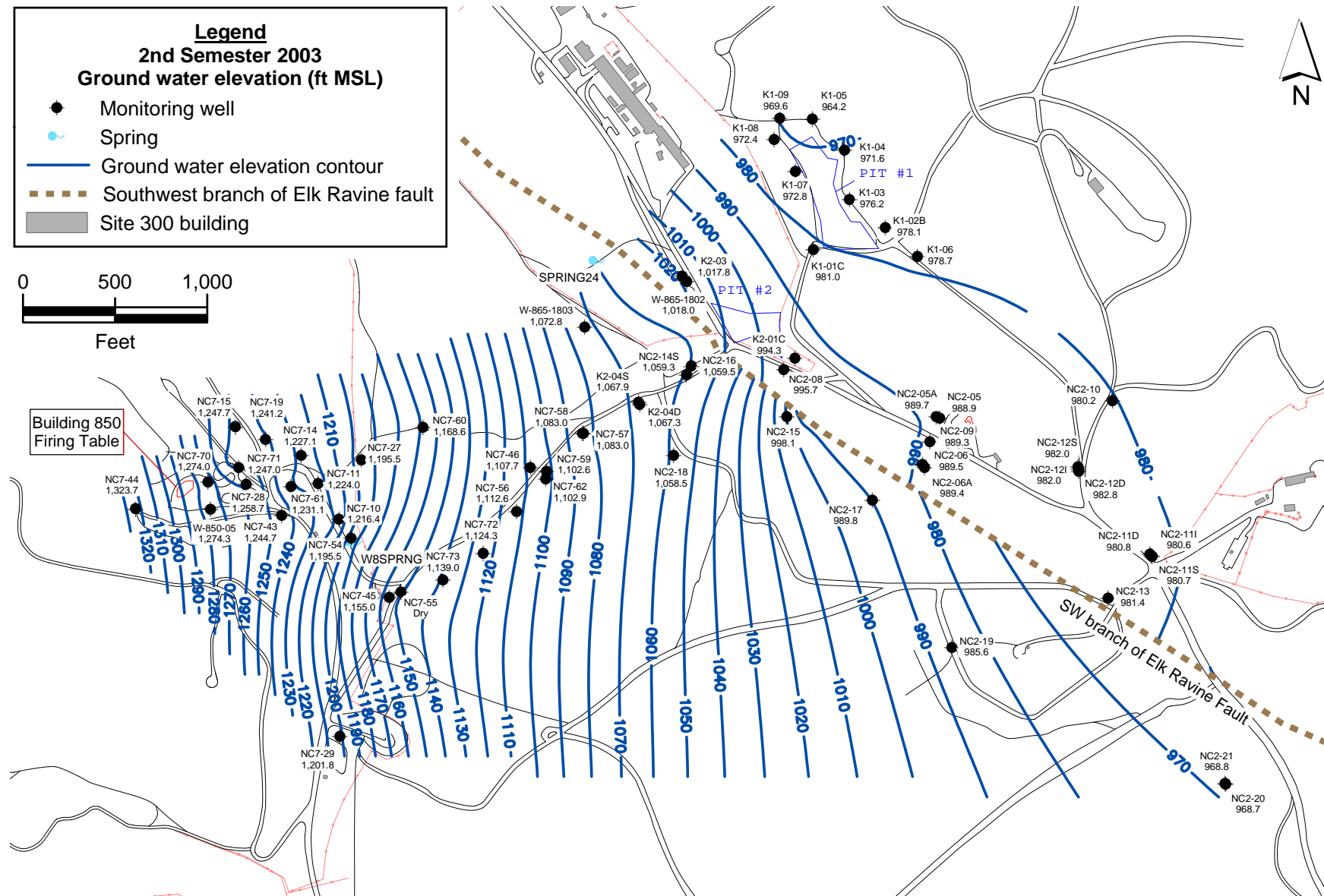


Figure 2.5-2. Building 850 OU ground water potentiometric surface map for the Qal-Tnbs<sub>1</sub> HSU.

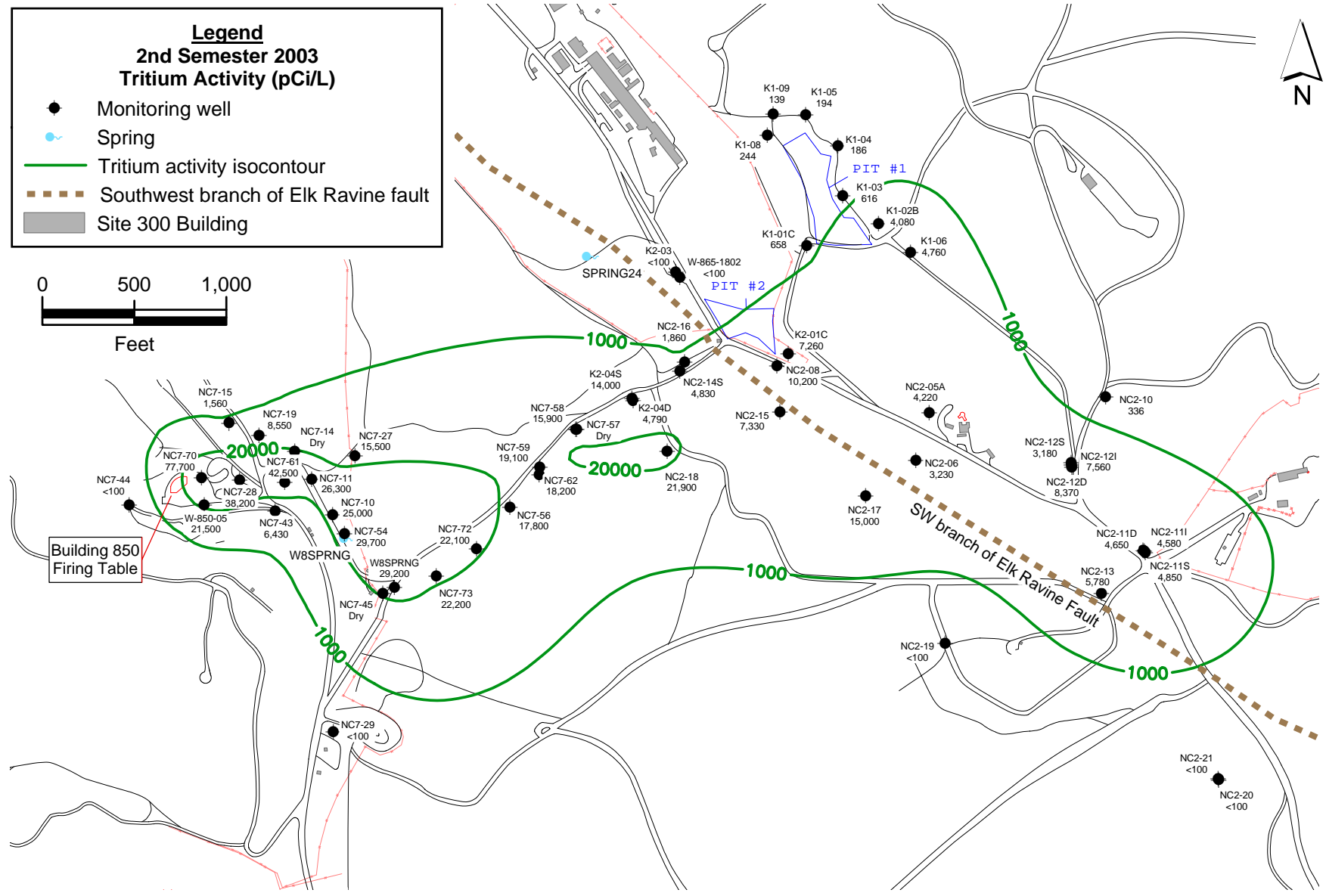


Figure 2.5-3. Building 850 OU tritium isoconcentration contour map for the Qal-Tnbs<sub>1</sub> HSU.

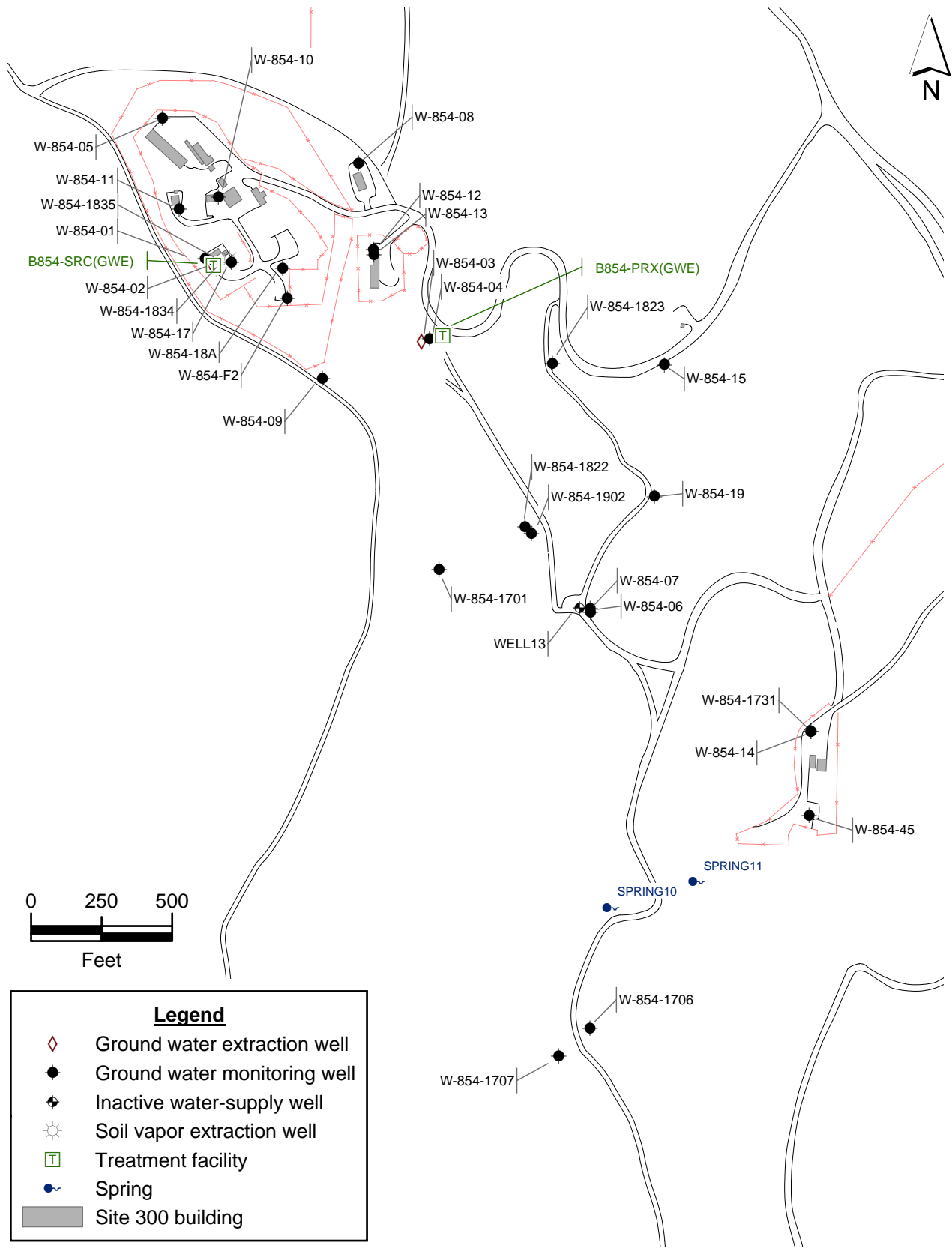


Figure 2.6-1. Building 854 OU site map showing monitoring and extraction wells, and treatment facilities.

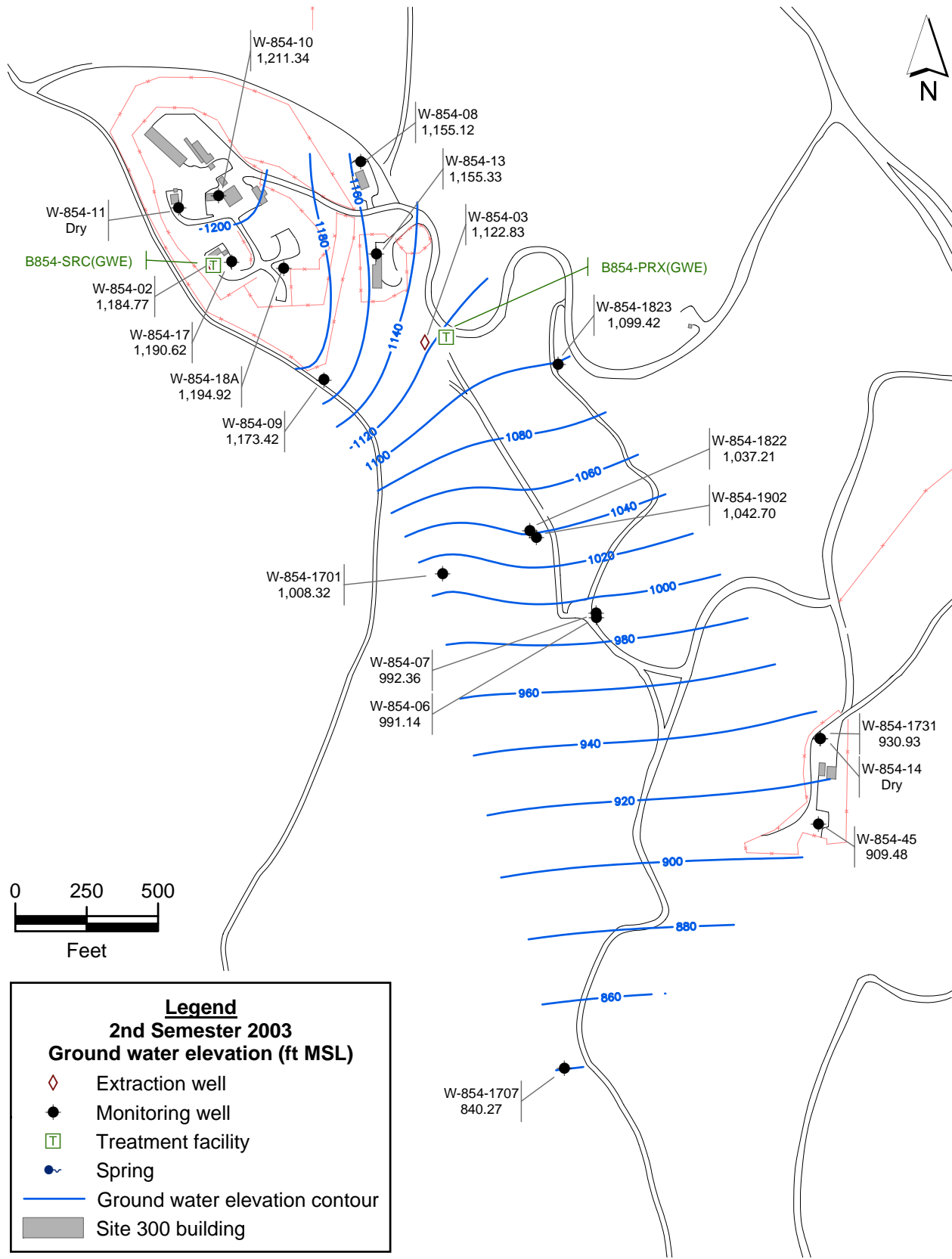


Figure 2.6-2. Building 854 OU ground water potentiometric surface map for the Tnbs<sub>0</sub>/Tnsc<sub>1</sub> HSU.

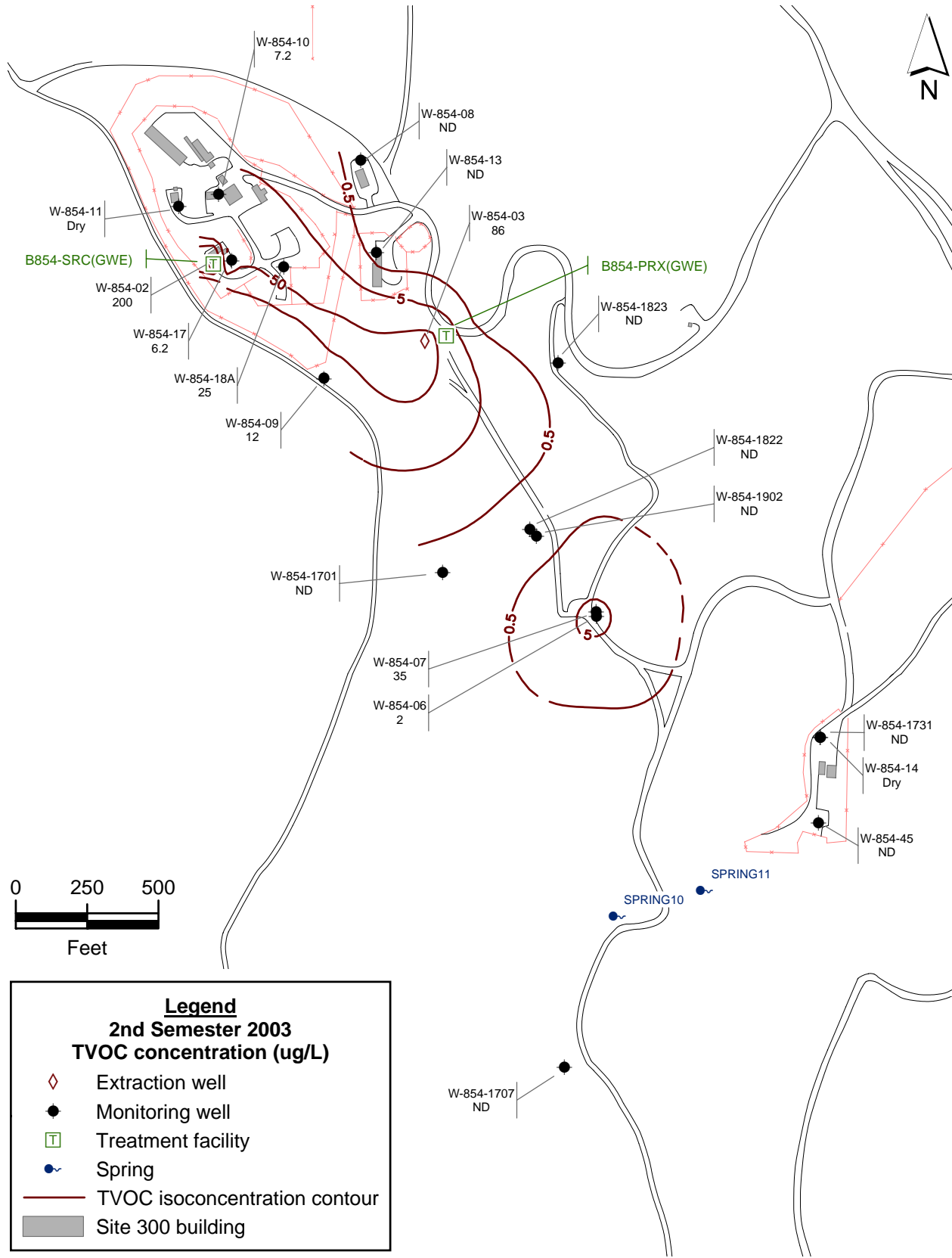


Figure 2.6-3. Building 854 OU TVOC isoconcentration contour map for the  $Tnbs_0/Tnsc_1$  HSU.

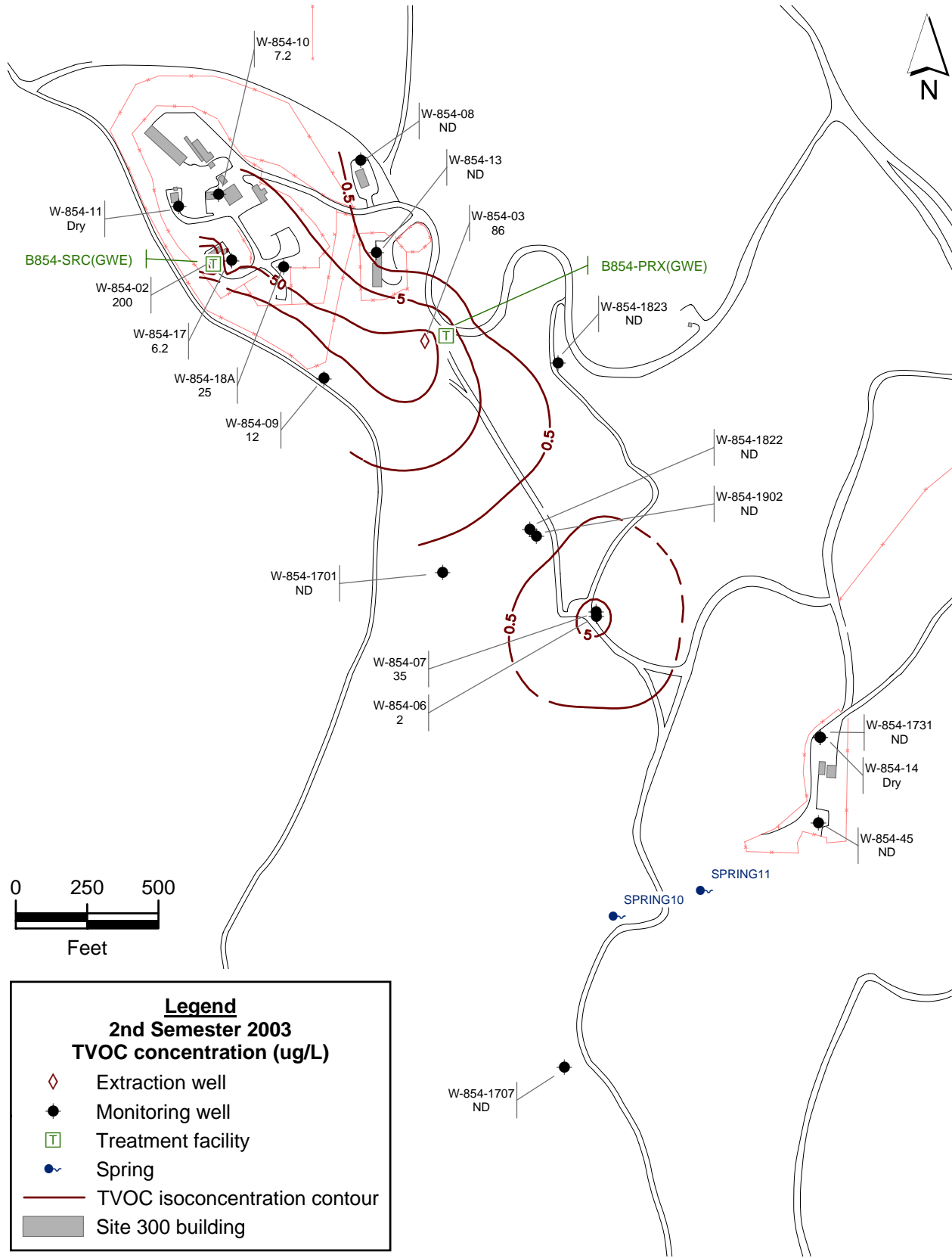


Figure 2.6-3. Building 854 OU TVOC isoconcentration contour map for the  $Tnbs_0/Tnsc_1$  HSU.







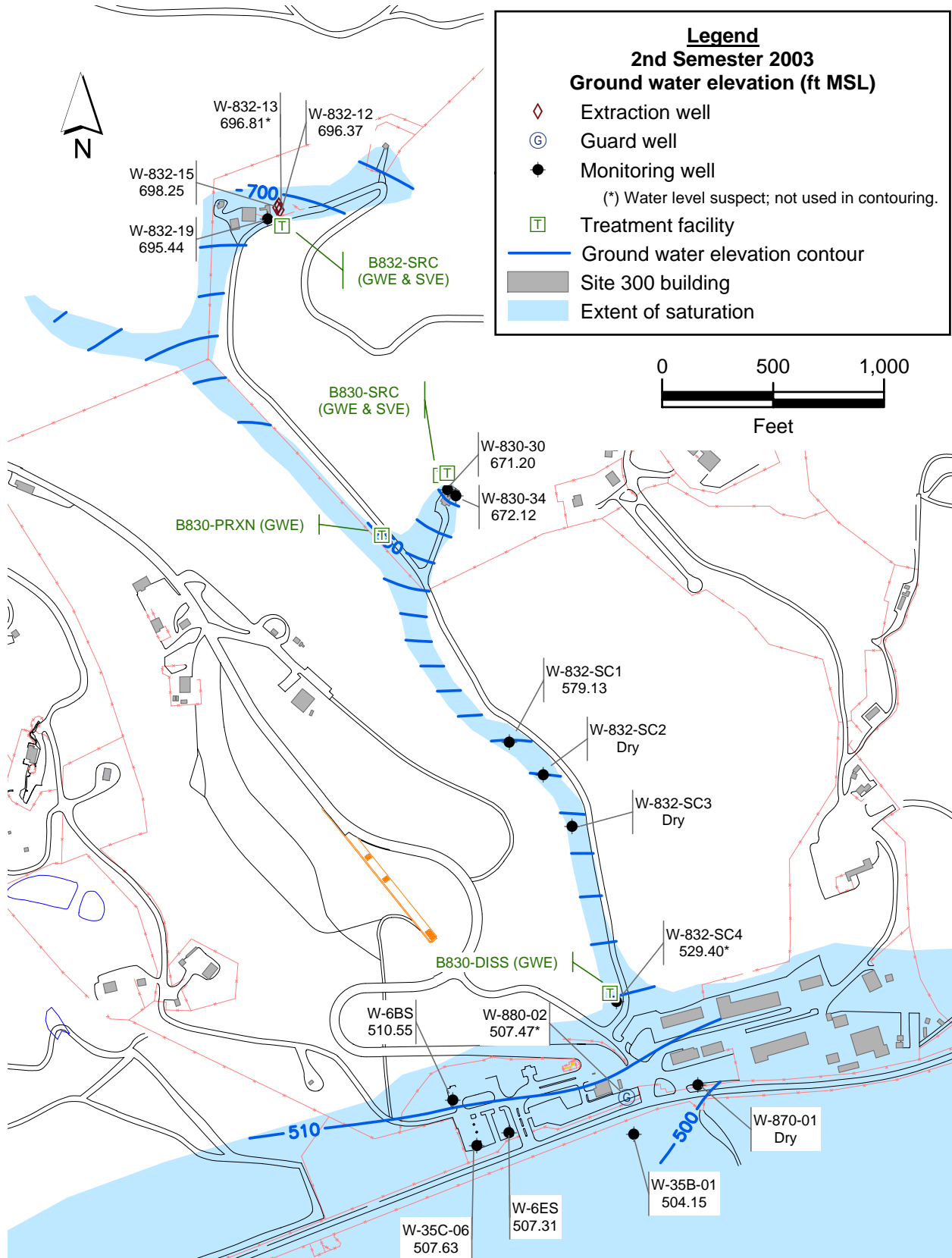


Figure 2.7-2. Building 832 Canyon OU ground water potentiometric surface map for the Qal /Fill.

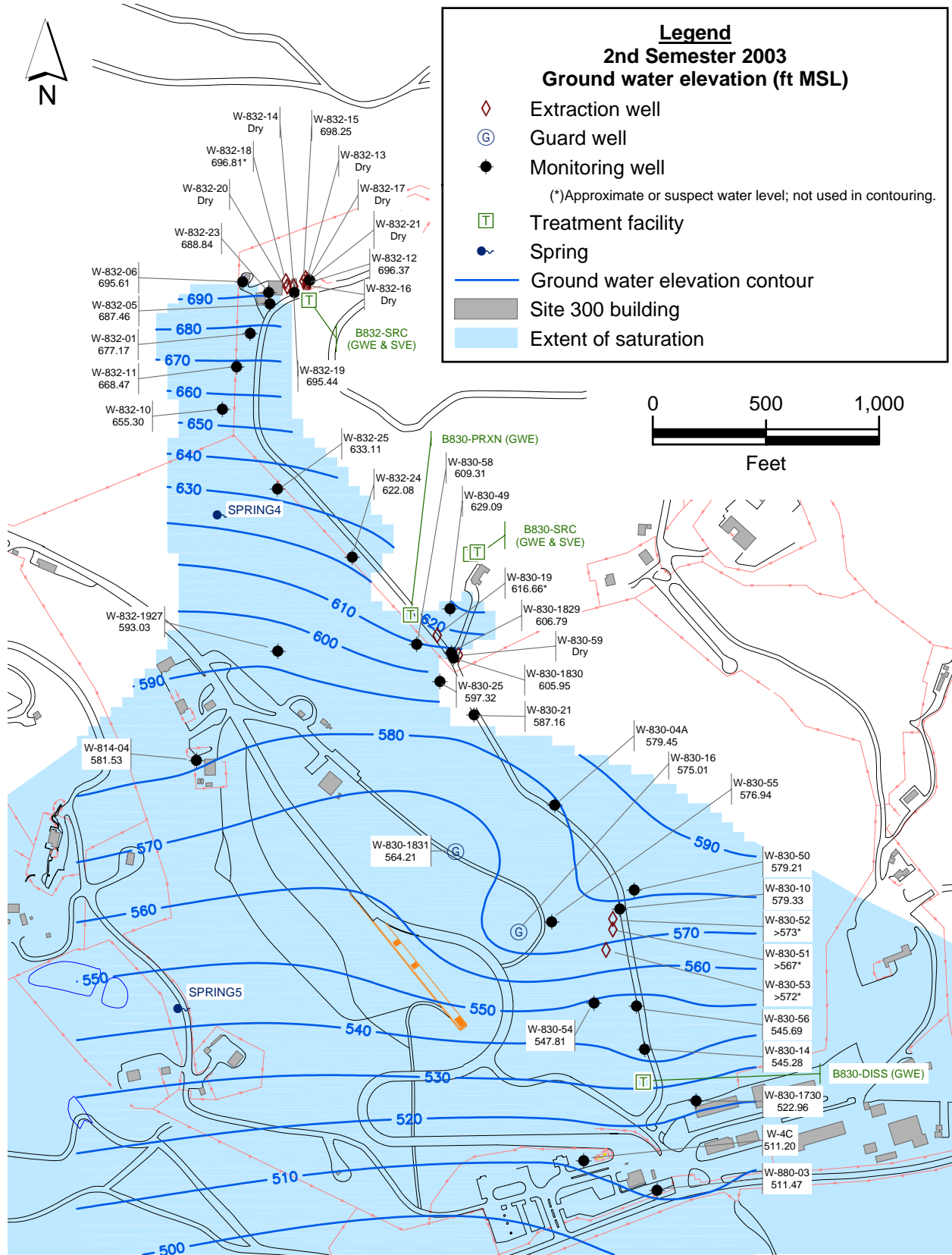


Figure 2.7-3. Building 832 Canyon OU ground water potentiometric surface map for the Tnsc<sub>1b</sub> HSU.

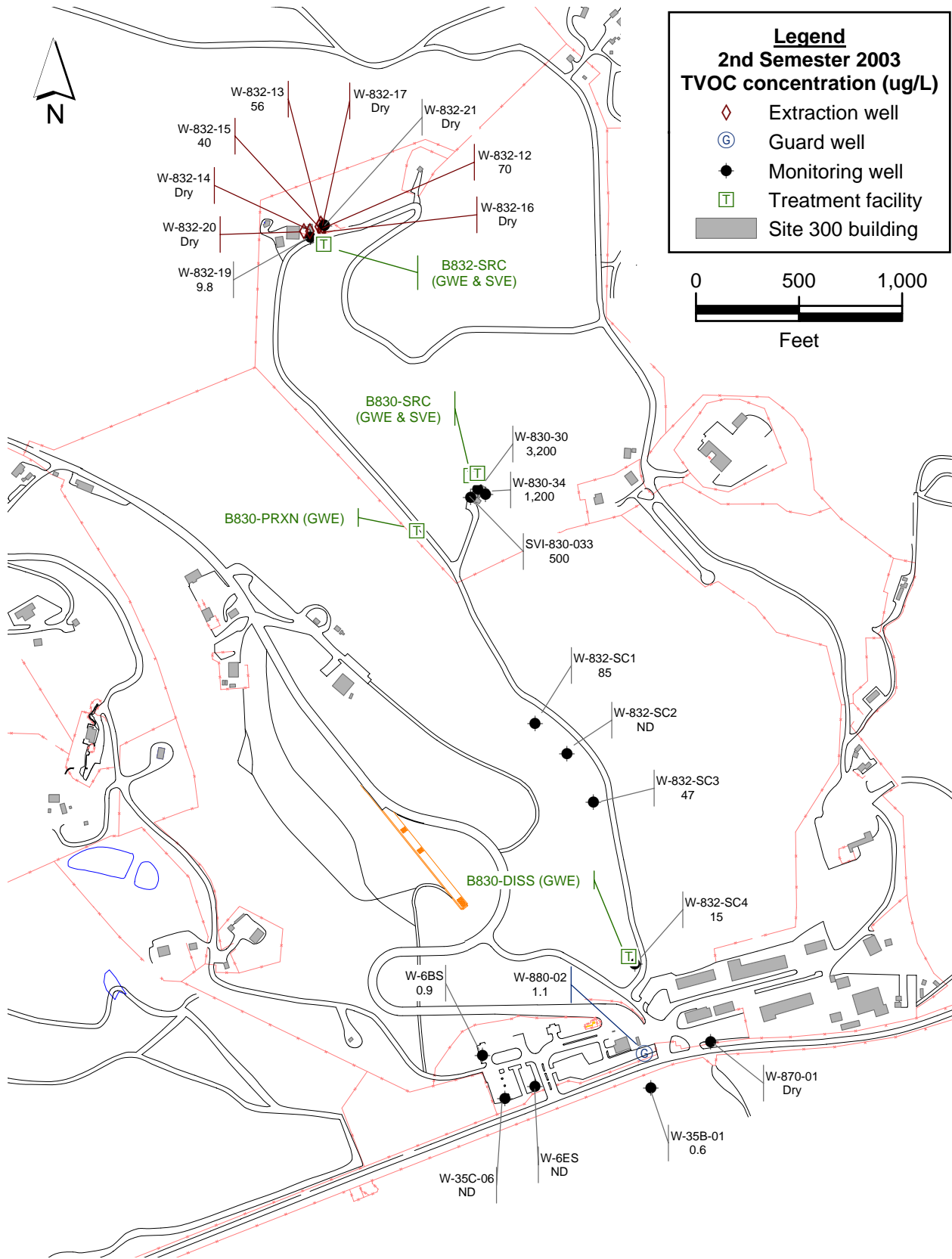


Figure 2.7-4. Building 832 Canyon OU map showing TVOC concentrations for the Q1 /Fill.

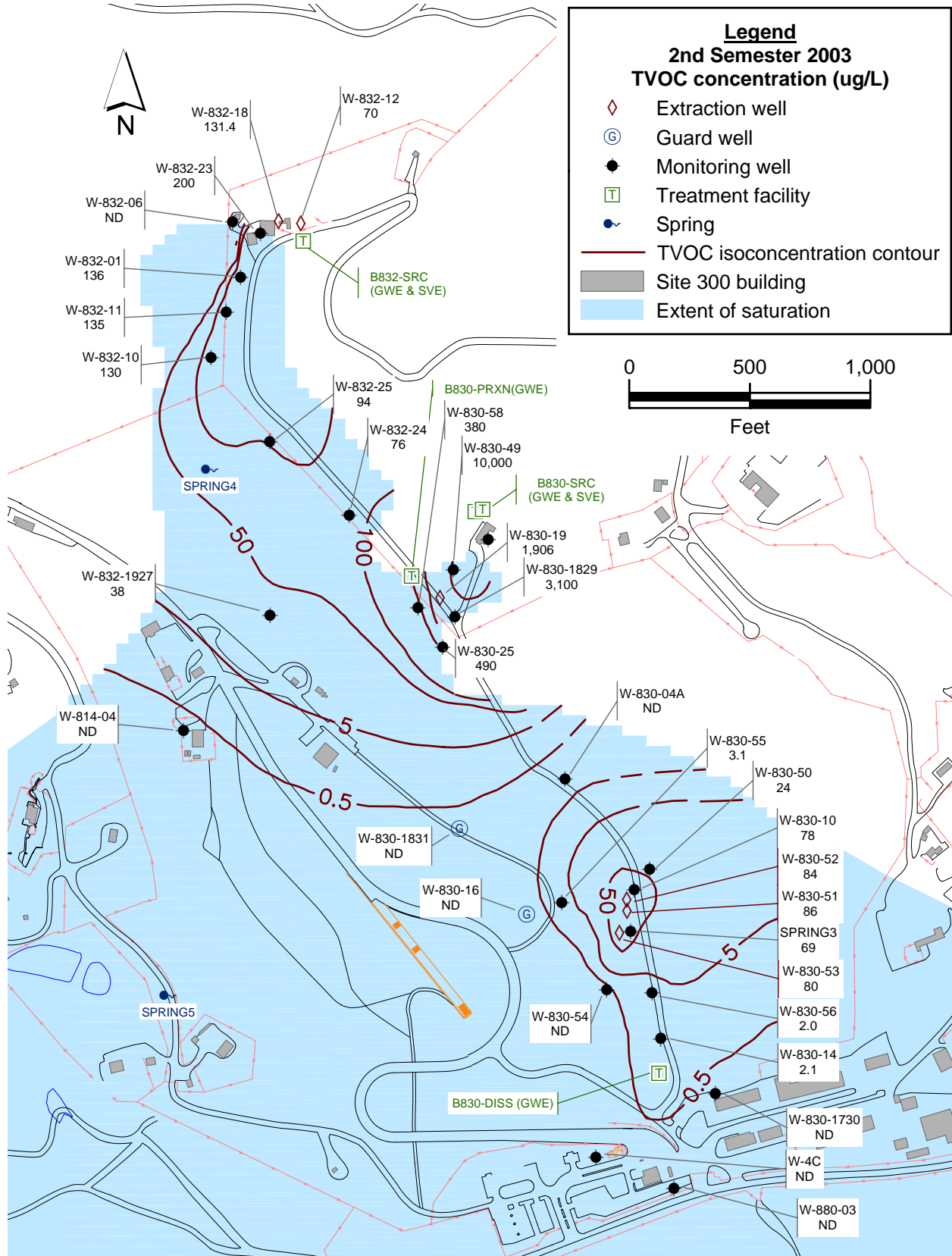


Figure 2.7-5. Building 832 Canyon OU TVOC isoconcentration contour map for the Tnsc<sub>1b</sub> HSU.

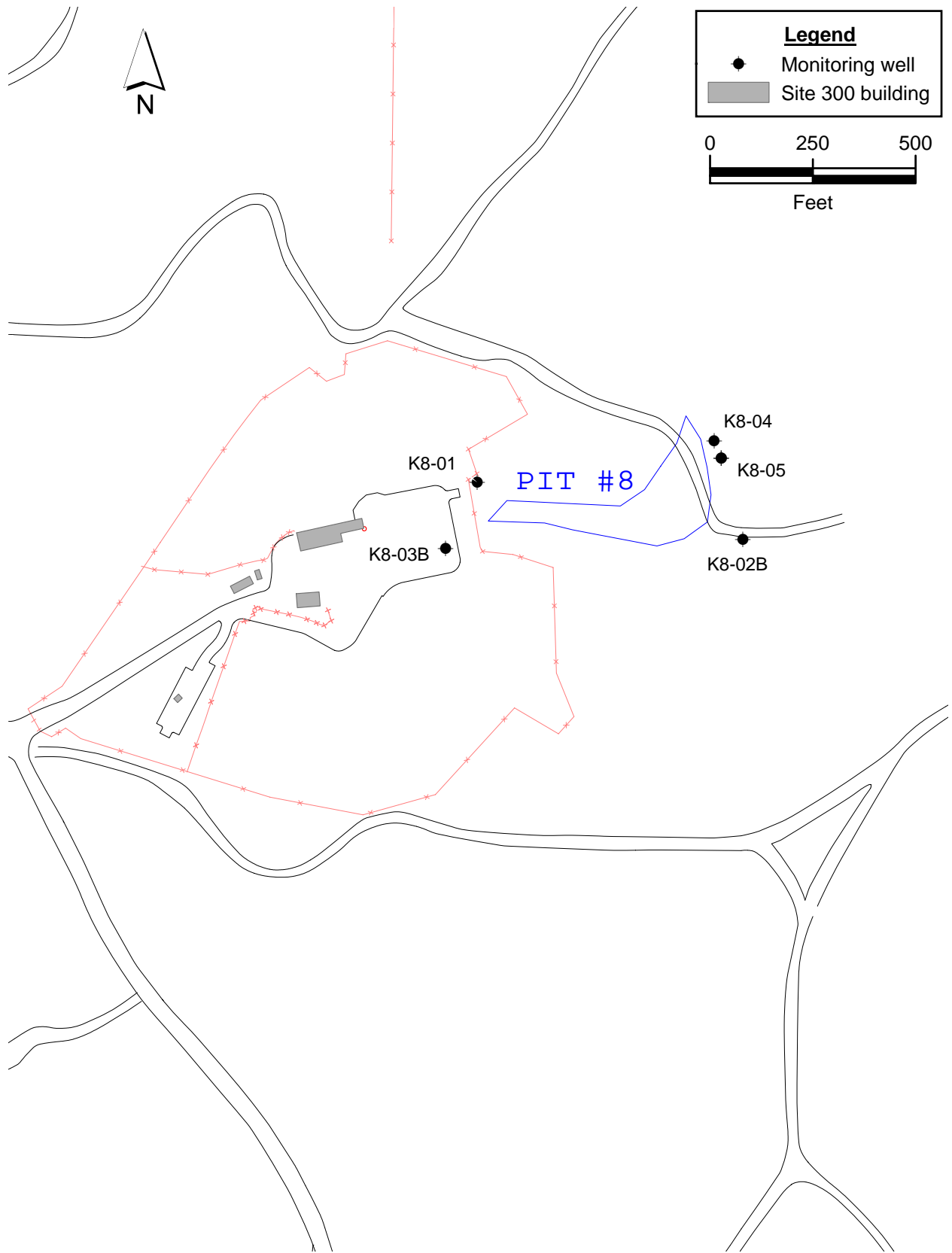


Figure 2.8-1. Building 801 Firing Table and Pit 8 Landfill site map showing monitoring wells.

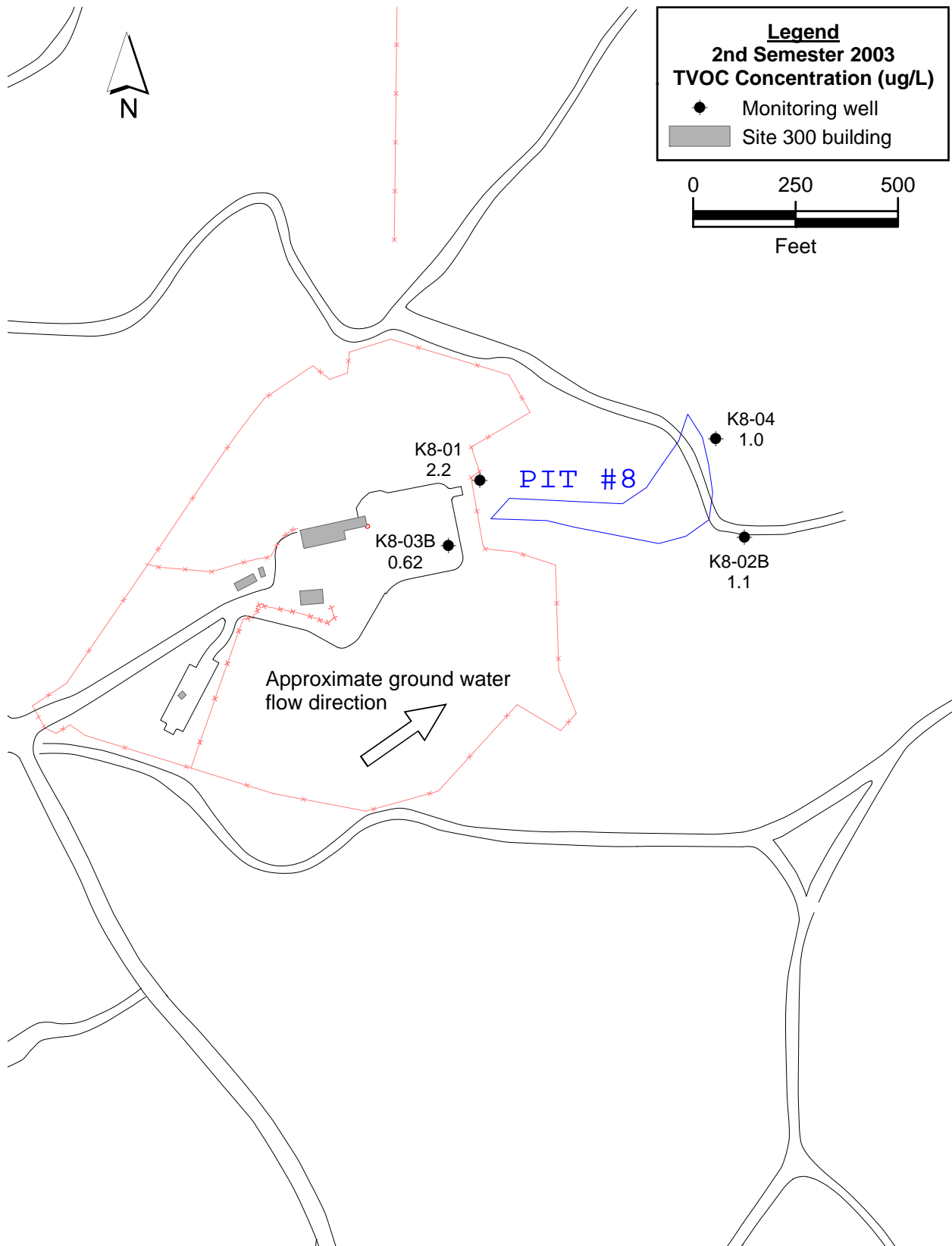


Figure 2.8-2. Building 801 Firing Table and Pit 8 Landfill site map showing TVOC concentrations in Tnbs<sub>1</sub> HSU wells.

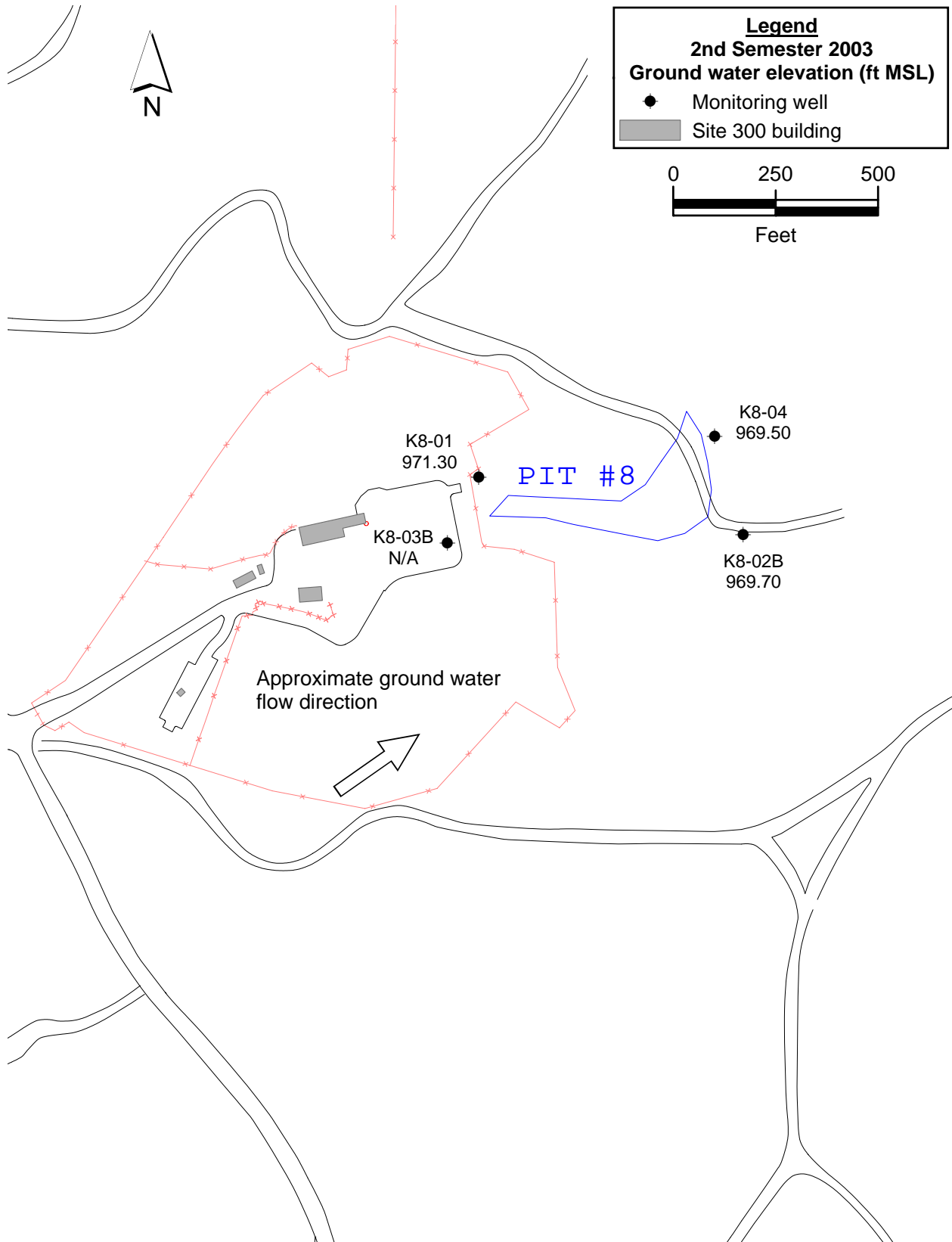


Figure 2.8-3. Building 801 Firing Table and Pit 8 Landfill site map showing ground water elevations and hydraulic gradient direction in the Tnbs<sub>1</sub> HSU.

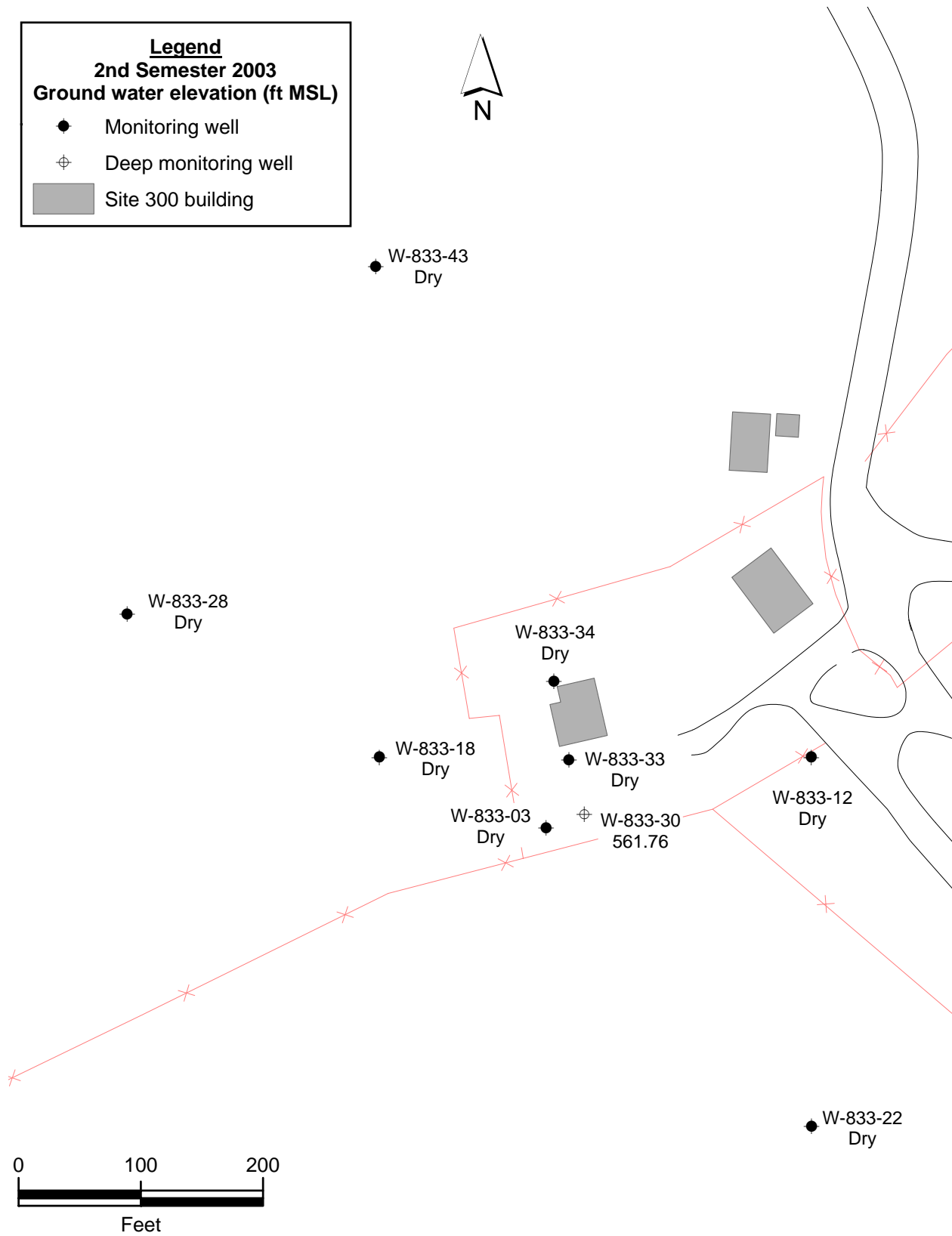


Figure 2.8-4. Building 833 site map showing monitoring wells.



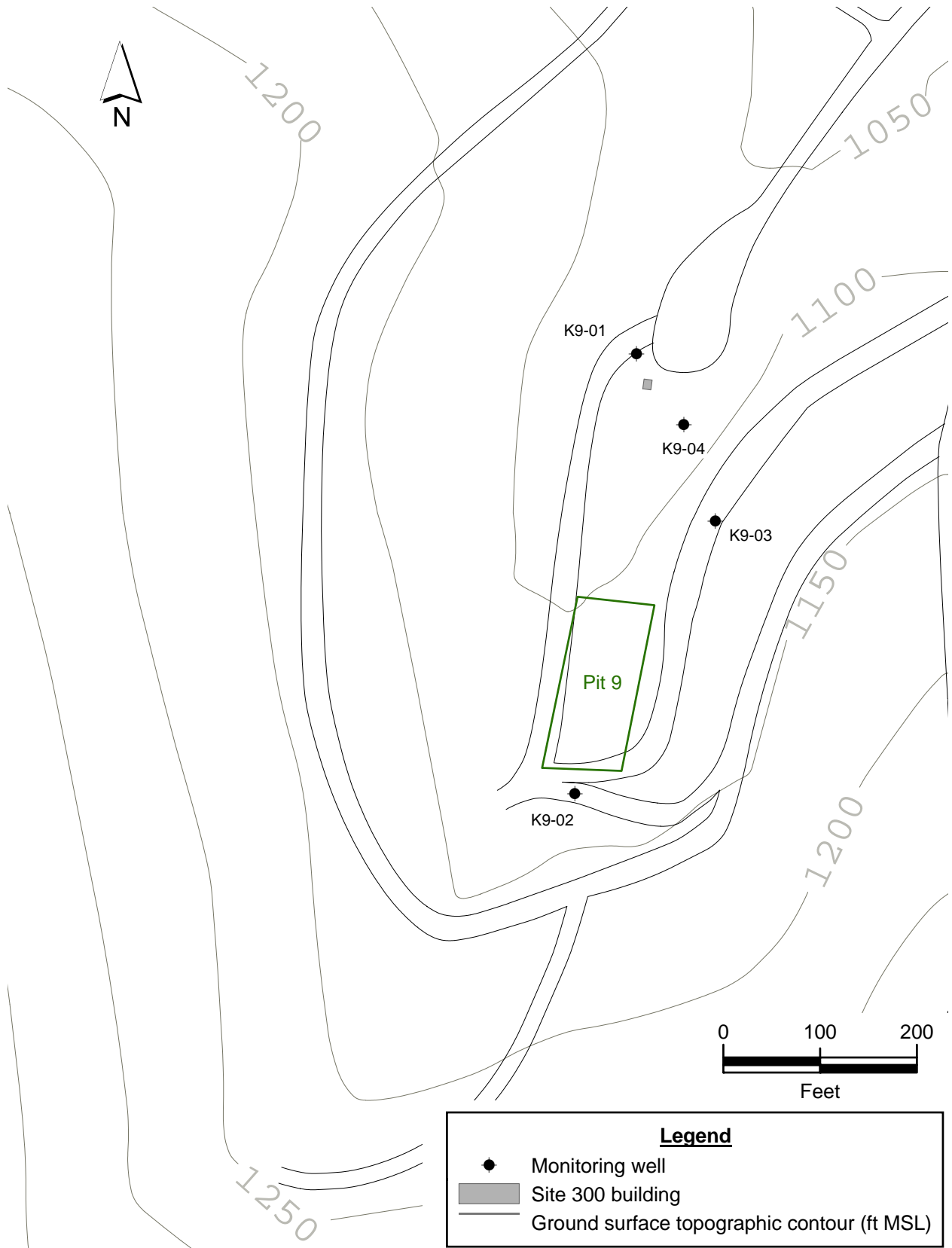


Figure 2.8-5. Building 845 Firing Table and Pit 9 Landfill site map showing monitoring wells.

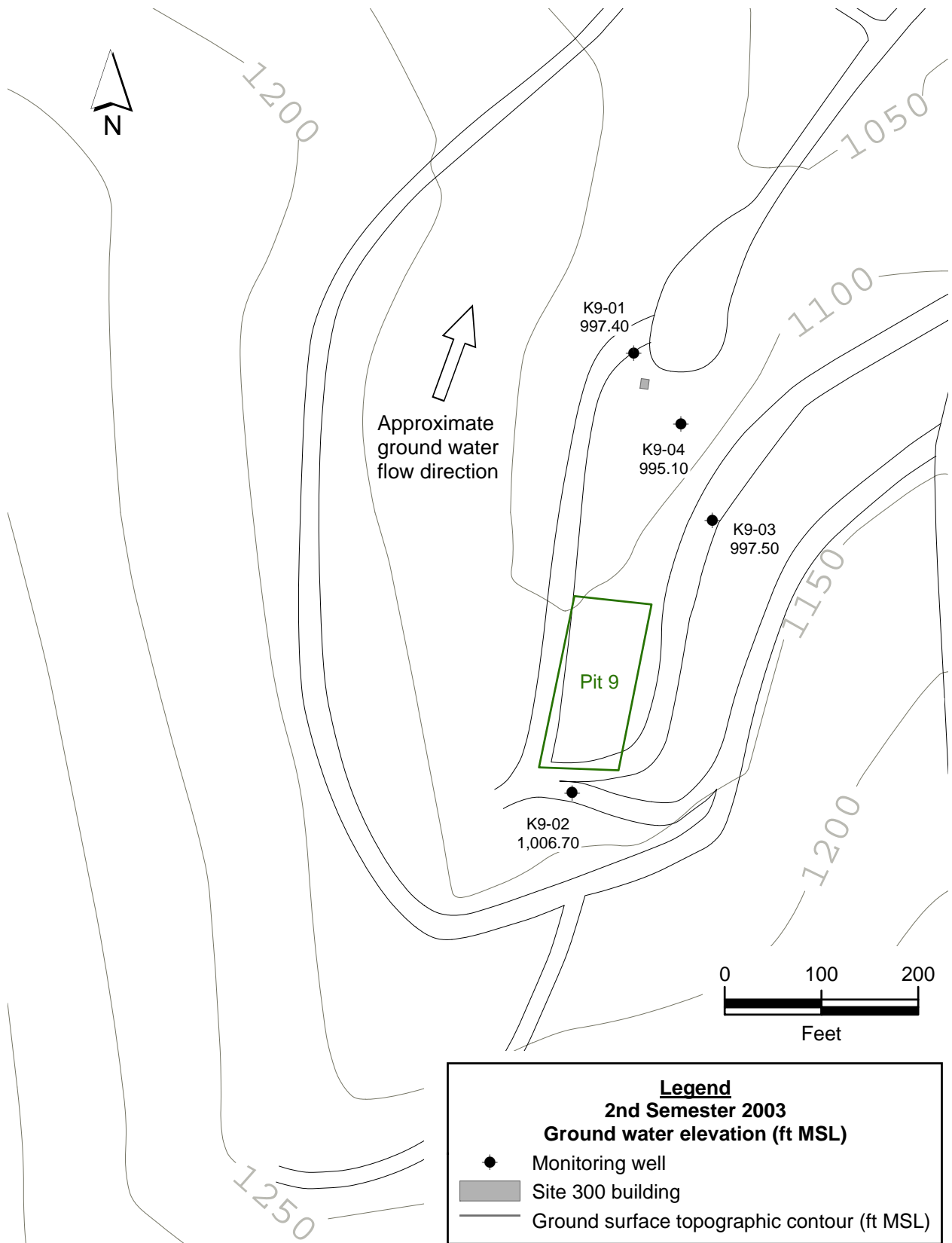


Figure 2.8-6. Building 845 Firing Table and Pit 9 Landfill site map showing ground water elevations and hydraulic gradient direction in the Tnsc<sub>0</sub> HSU.

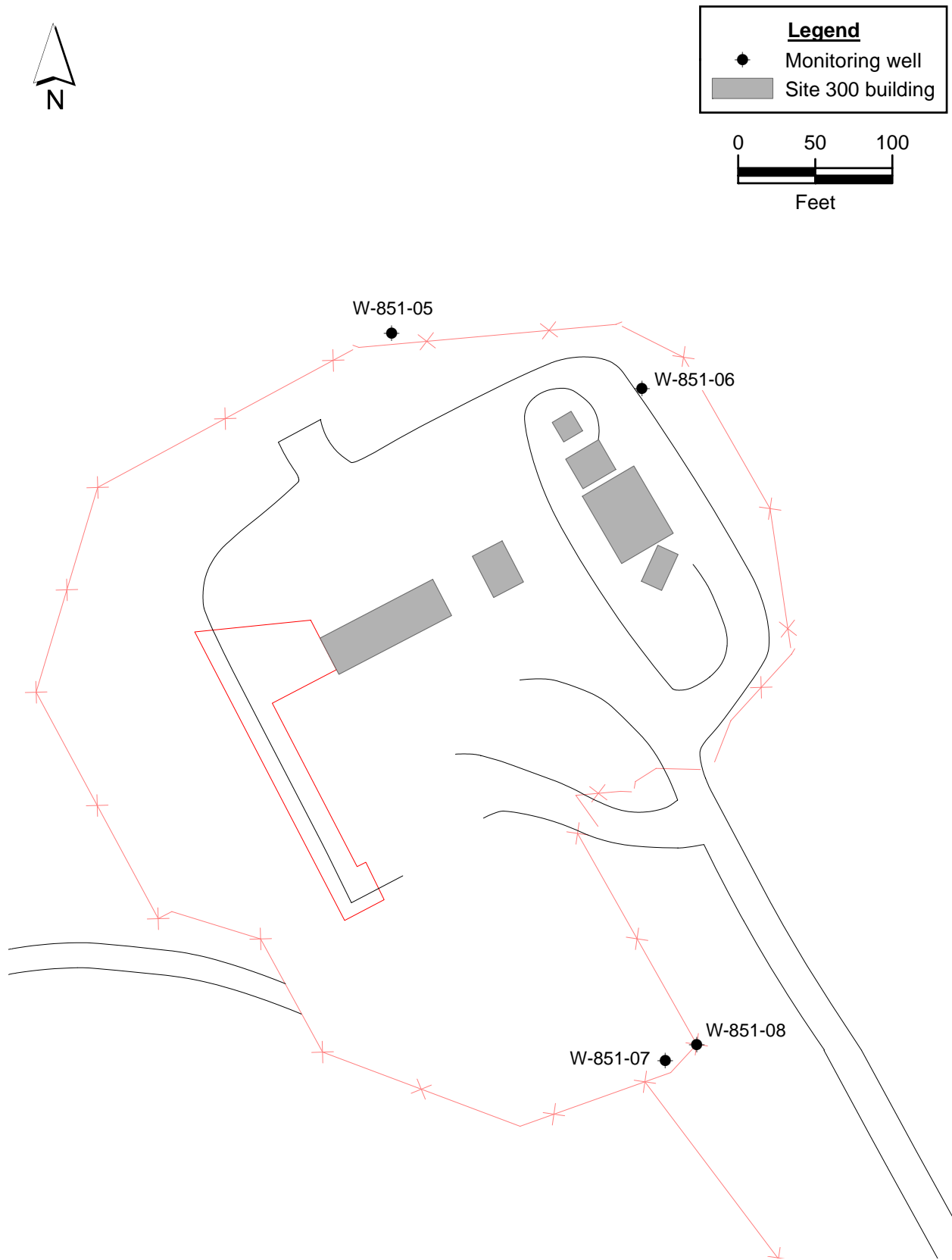


Figure 2.8-7. Building 851 Firing Table site map showing monitoring wells.

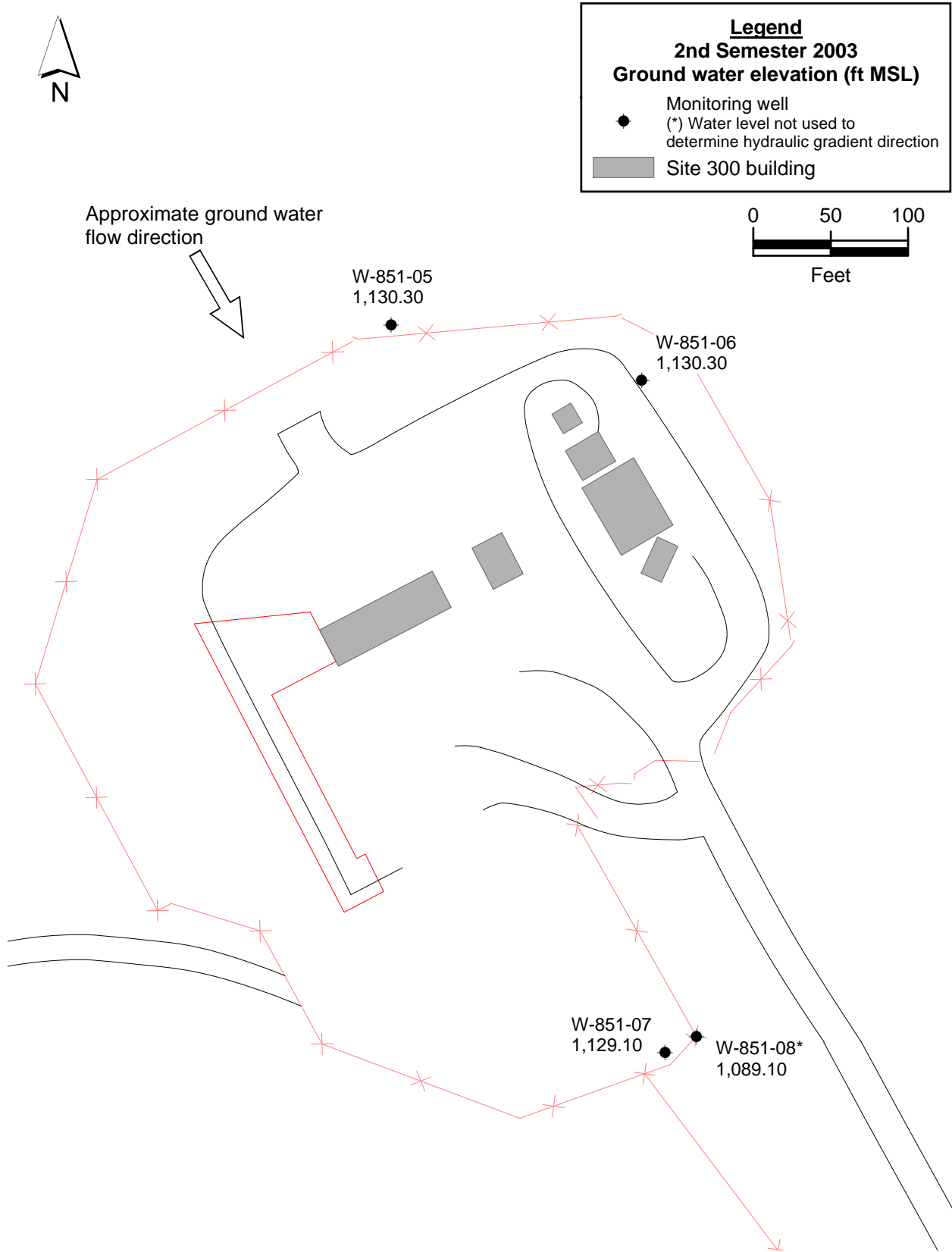


Figure 2.8-8. Building 851 Firing Table site map showing ground water elevations and hydraulic gradient direction in the Tmss HSU.

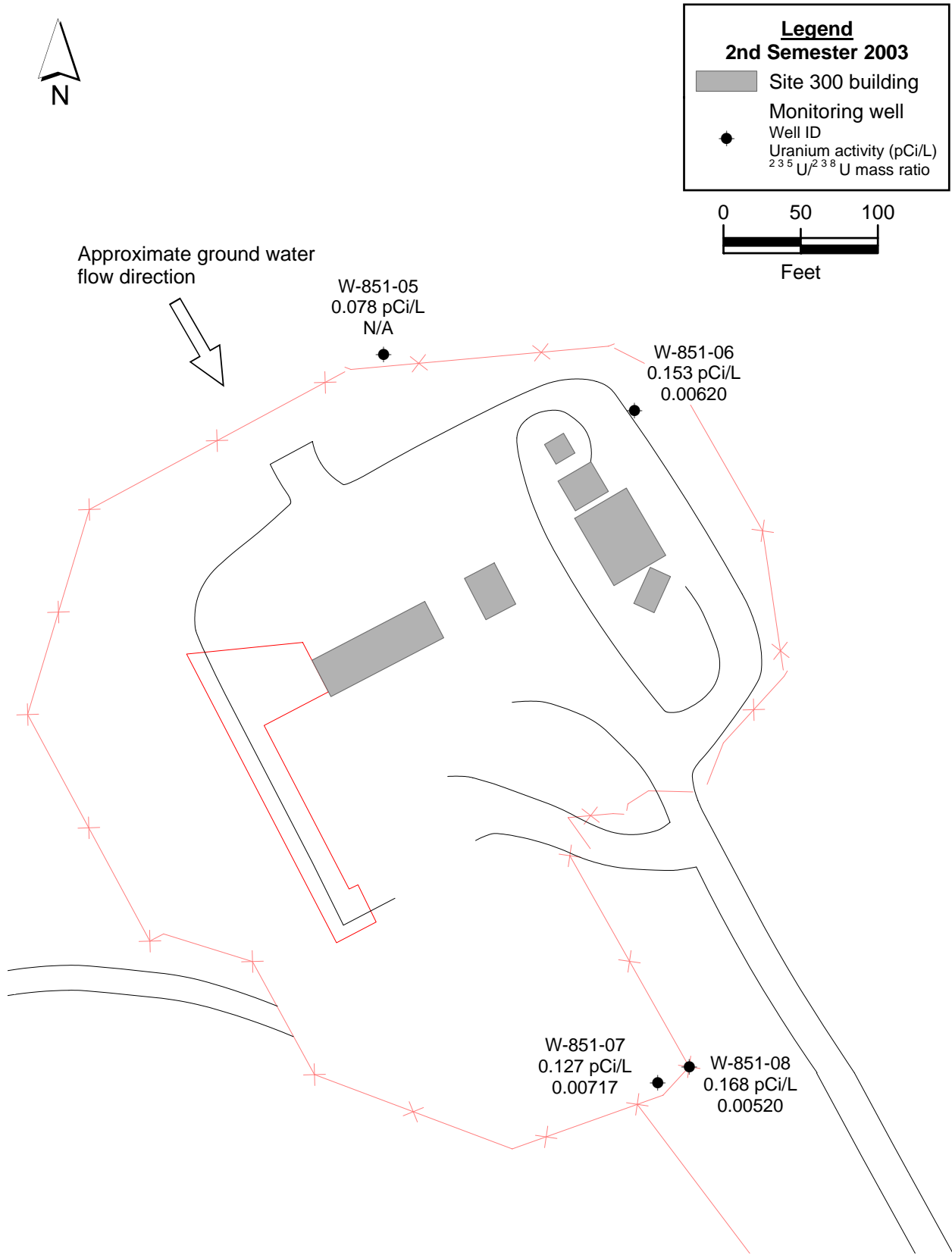
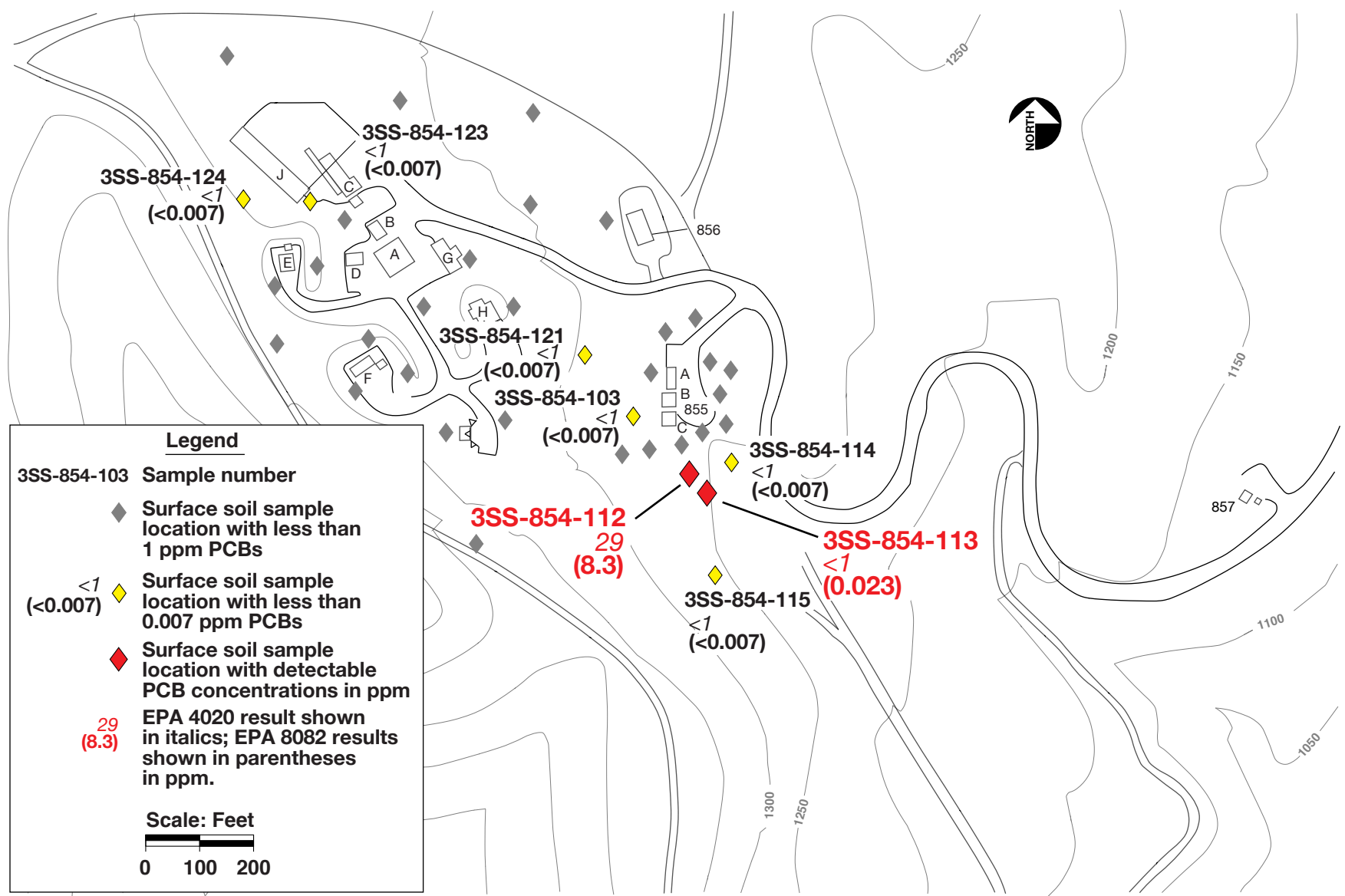
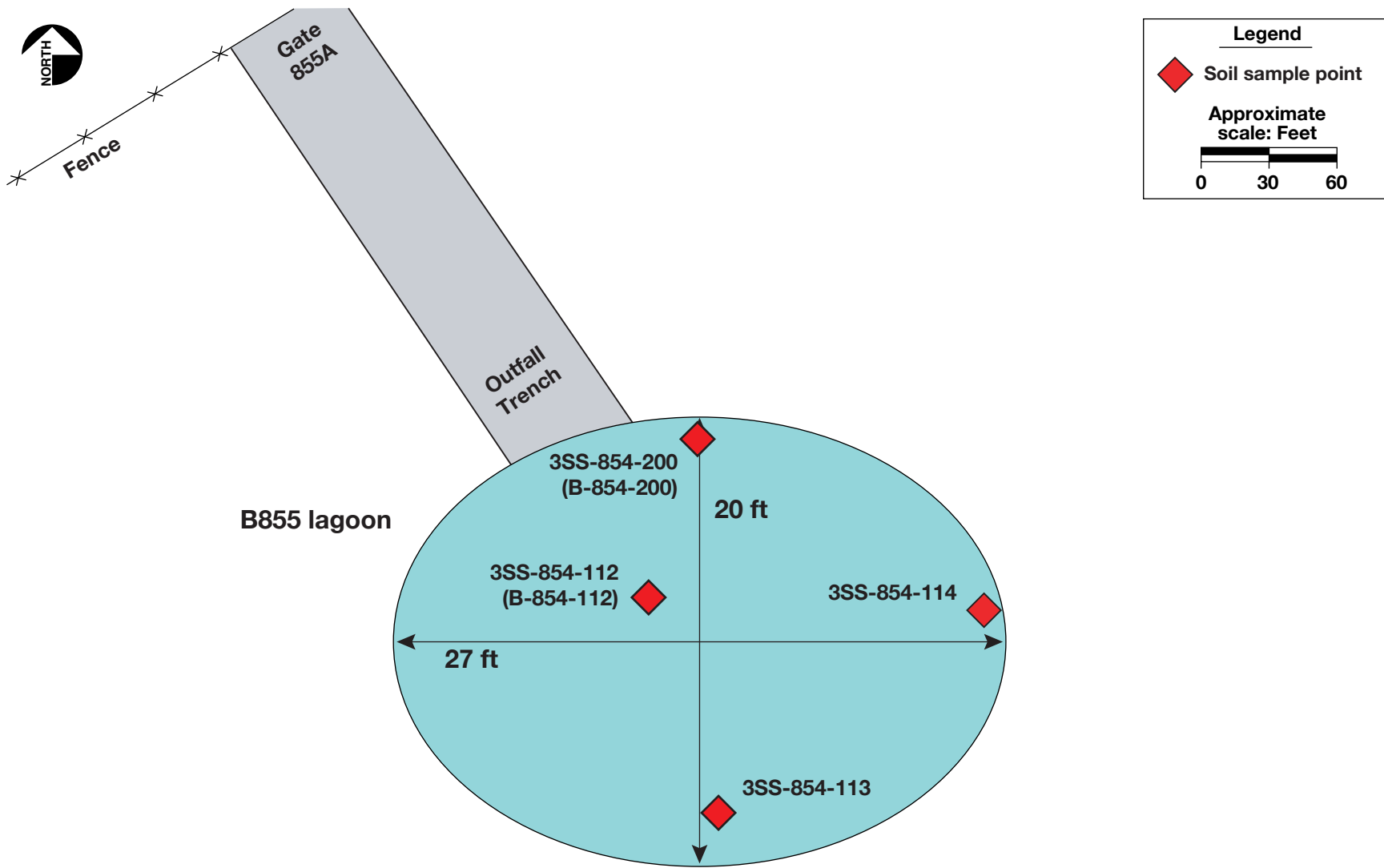


Figure 2.8-9. Building 851 Firing Table site map showing total uranium activities and  $^{235}\text{U}/^{238}\text{U}$  isotope mass ratios in ground water samples from Tmss HSU wells.



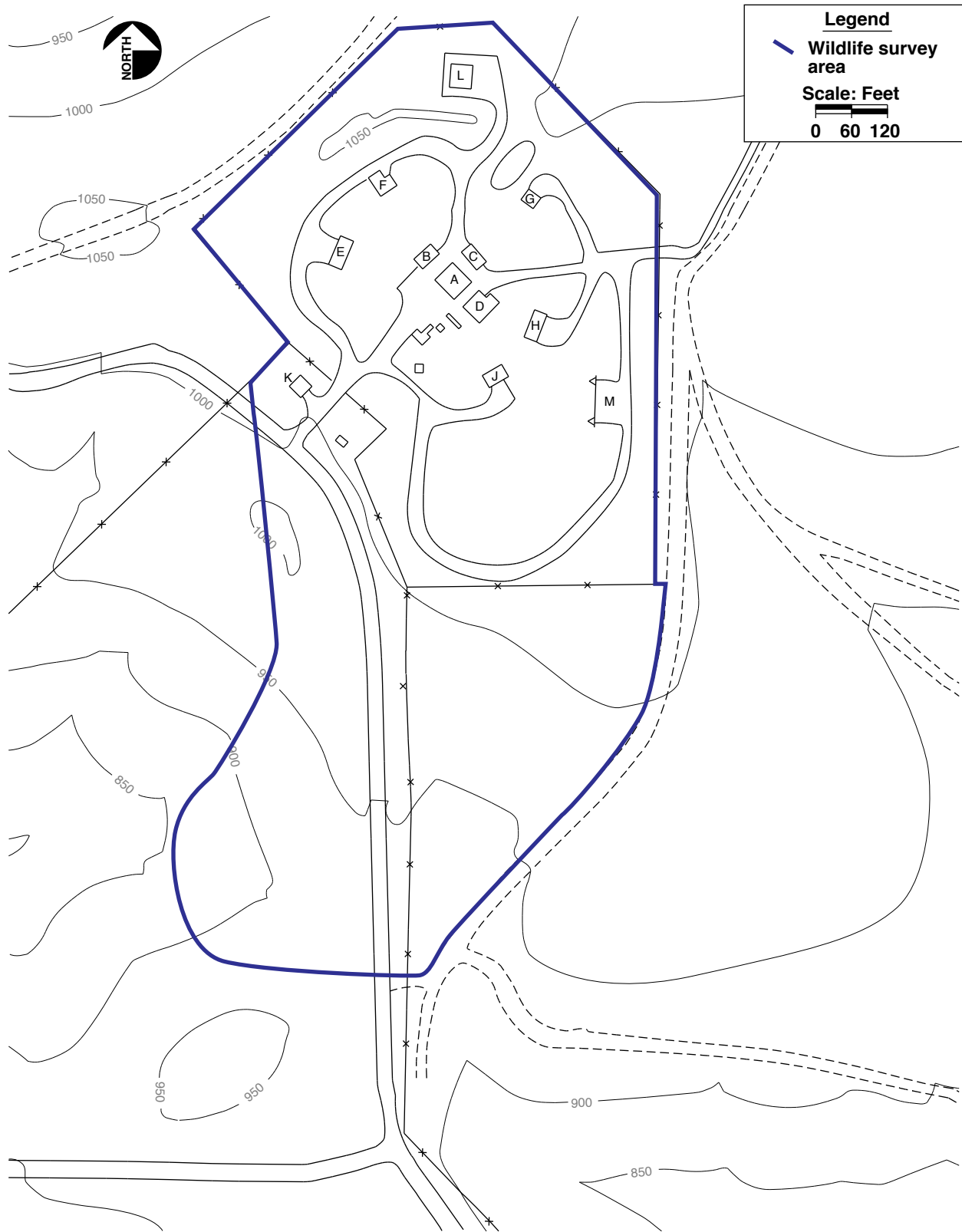
ERD-S3R-04-0032

Figure 4.1-1. Surface soil sample locations collected during January 2003 in the Building 854 OU.



ERD-S3R-04-0028

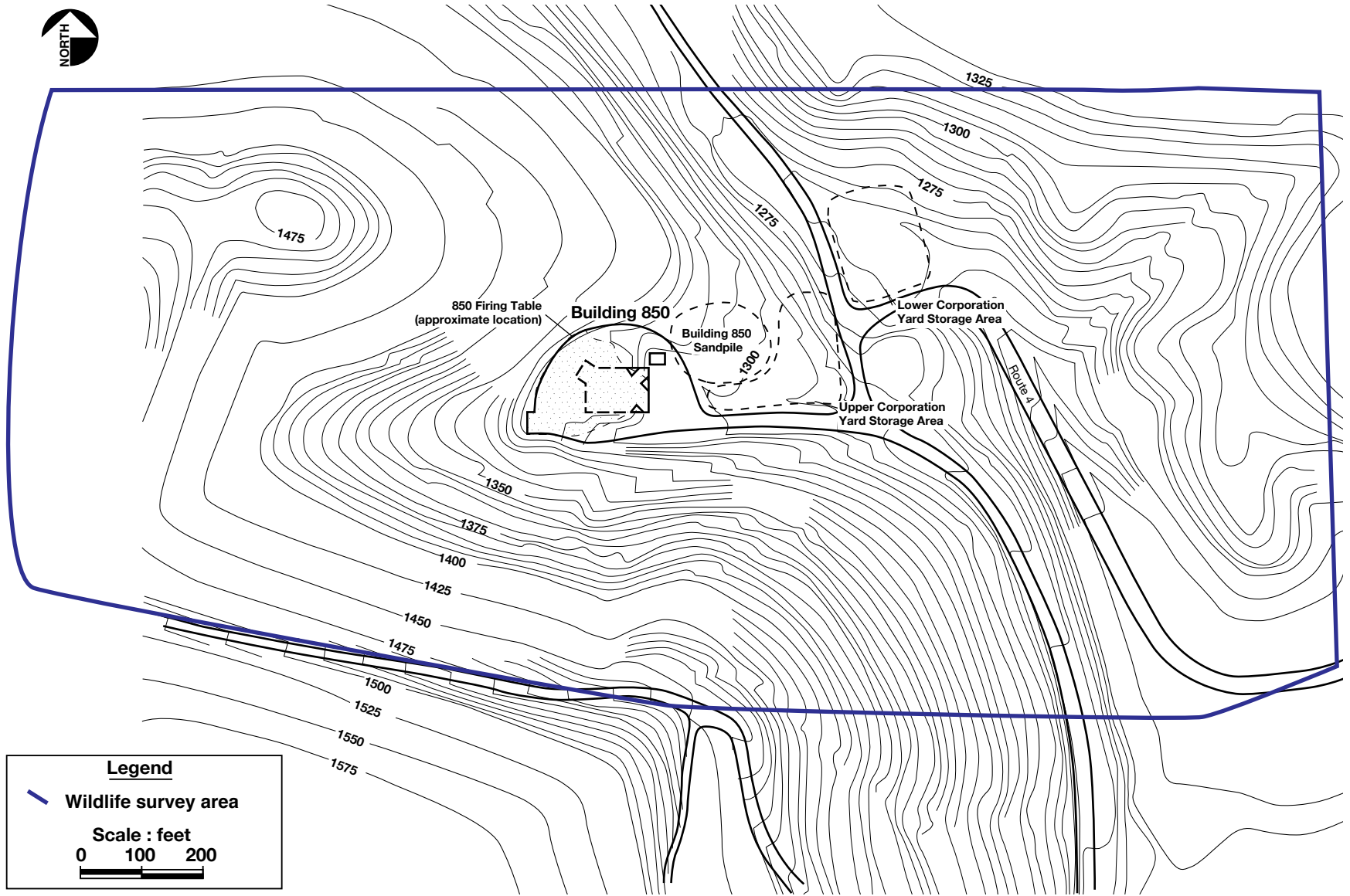
Figure 4.1-2. Surface soil sample locations collected in the Building 855 former disposal lagoon in the Building 854 OU.



ERD-S3R-04-0026

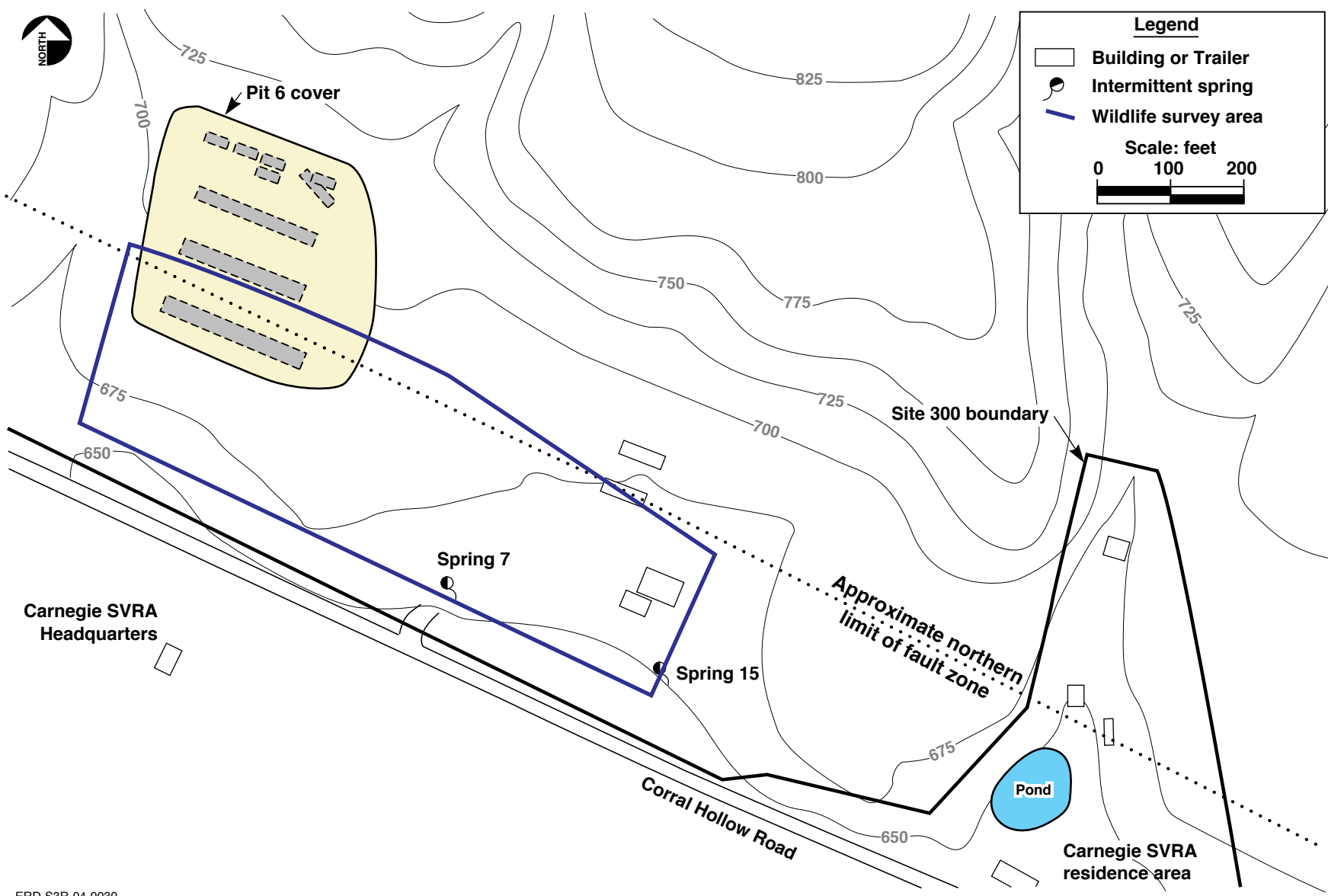
**Figure 4.2-1. Area surveyed for important burrowing species at Building 834.**





ERD-S3R-04-0027

Figure 4.2-2. Area surveyed for important burrowing species at Building 850.



ERD-S3R-04-0030

Figure 4.2-3. Area surveyed for important burrowing species at Pit 6.

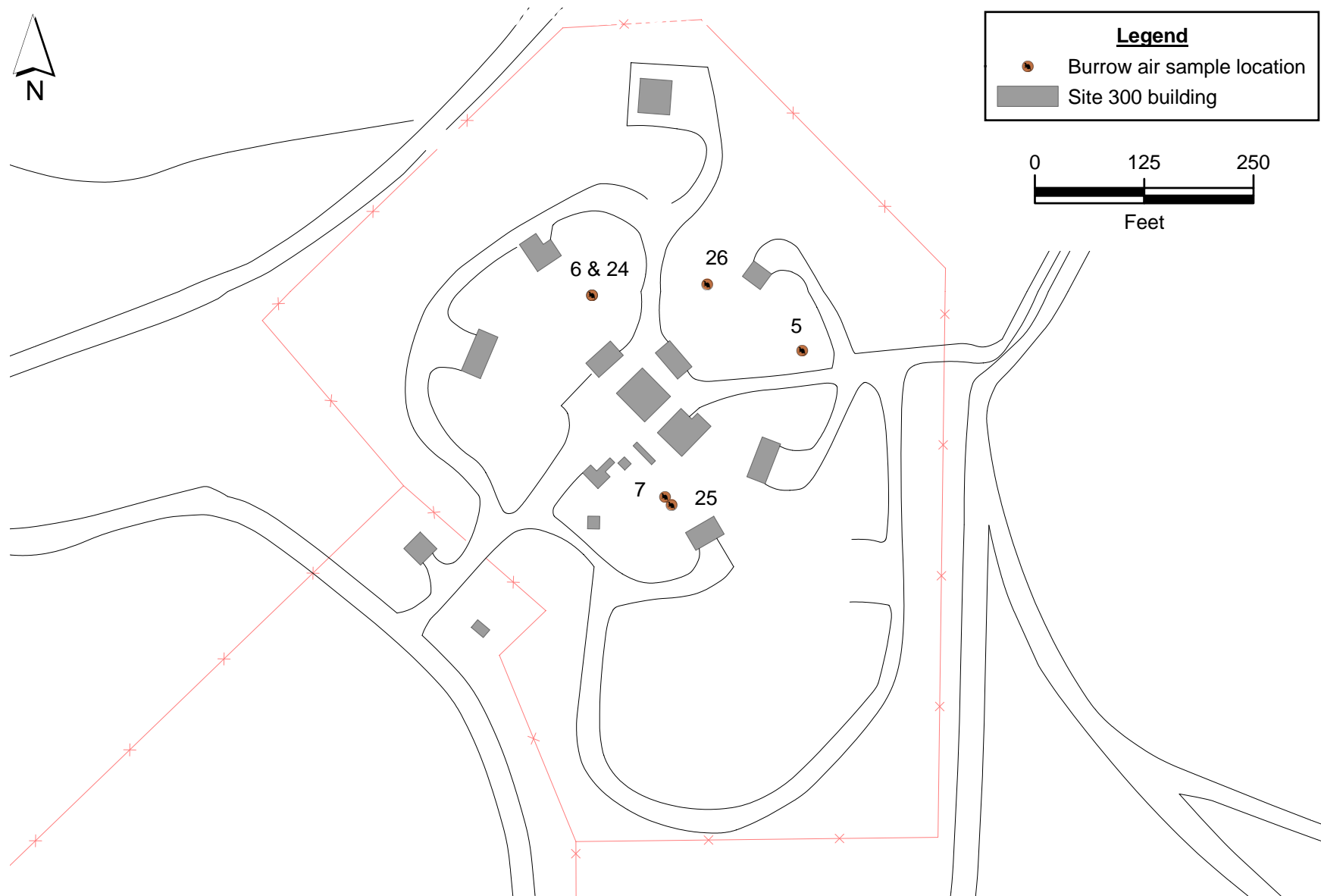


Figure 4.2-4. Burrow air sampling locations at Bldg 834.

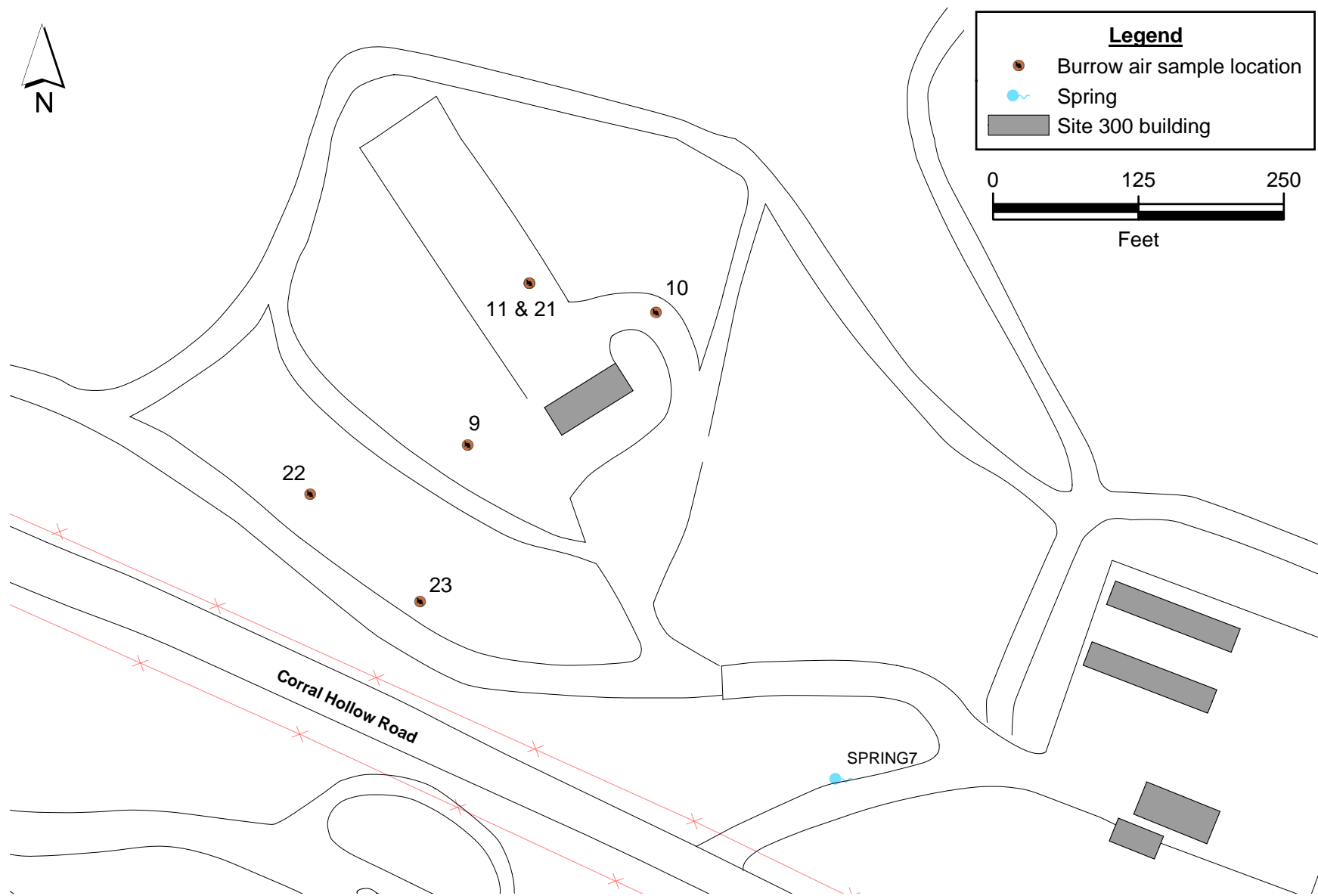


Figure 4.2-5. Burrow air sampling locations at Pit 6.

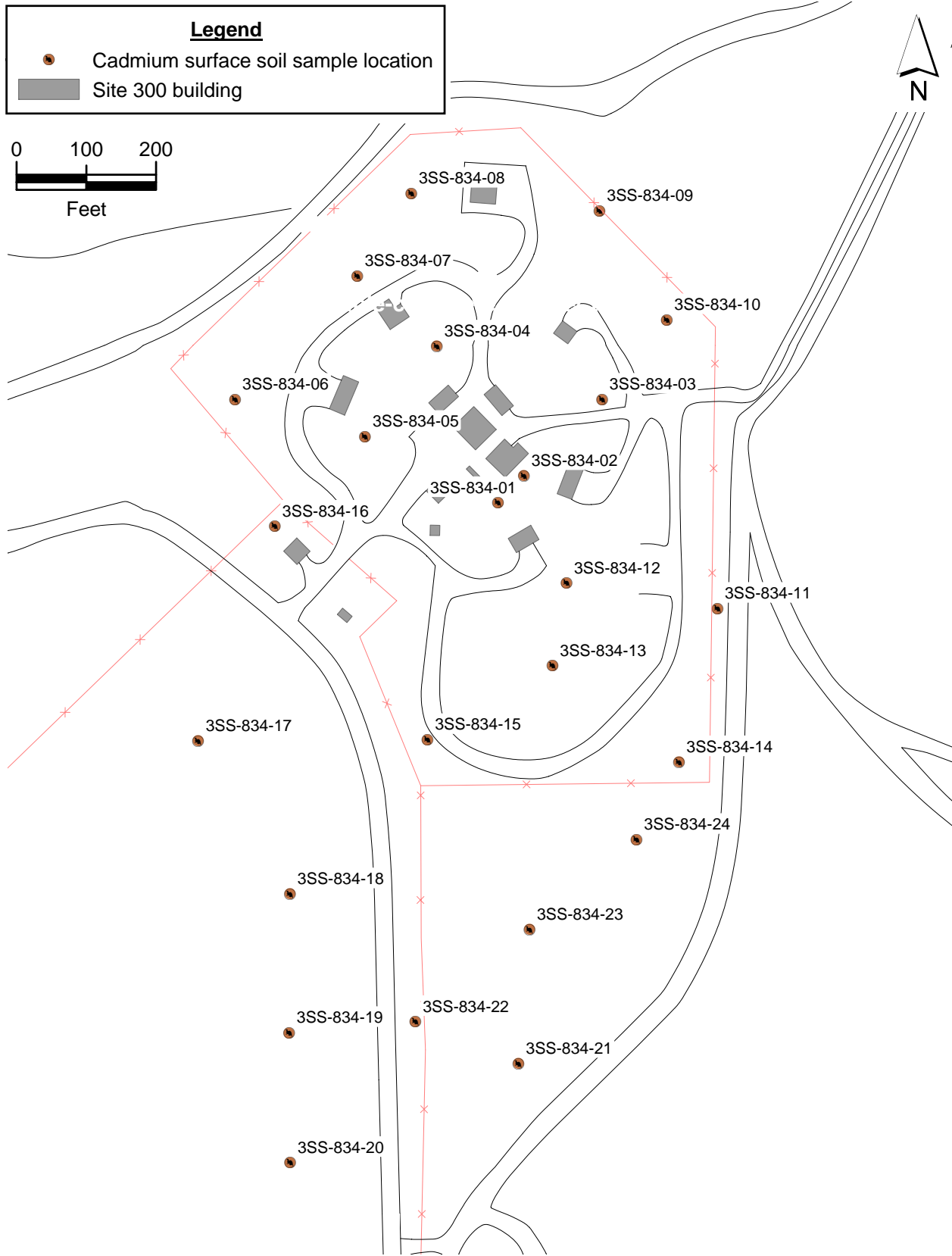


Figure 4.2-6. Cadmium surface soil sampling locations at Building 834.

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## Tables

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## Table Acronyms and Abbreviations

1,1,1-TCA	1,1,1-trichloroethane
1,1-DCA	1,1-dichloroethane
1,2-DCA	1,2-dichloroethane
1,2-DCE	1,2-dichloroethylene
A	Annual
B	Biennial
BBSA	n-Butyl-Benzenesulfonamide
BTU	Biotreatment Unit
BUD	Borehole undeclared.
CDD	Chlorinated dibenzo-p-dioxin.
CDF	Chlorinated dibenzofuran
CMP	Compliance Monitoring Plan
COC	Contaminants of Concern
CB	Christy box
DIS	Discretionary sampling of non-required analyte
DISS	Distal south
DMW	Detection monitor well (non-CMP)
DSB	Distal Site Boundary
EPA	Environmental Protection Agency
ERD	Environmental Restoration Division
ft <sup>3</sup>	Cubic feet
FL	Flowing
g	Gram(s)
GAC	Granular activated carbon
gal	gallon(s)
GSA	General Services Area
GTU	GAC Treatment Unit
GWTS	Ground Water Treatment System
H <sub>2</sub> O	Water
HEPA	High Explosives Process Area
HMX	High-Melting Explosive
HpCDD	Heptachlorinated dibenzo-p-dioxin
HpCDF	Heptachlorinated dibenzofuran.
HxCDD	Hexachlorinated dibenzo-p-dioxin
HxCDF	Hexachlorinated dibenzofuran
μg/L	Micrograms per liter
μmhos/cm	Micro ohms per centimeter
M	Monthly
MCL	Maximum Contaminant Level
MT	Measured twice
ME	Measurement error

mg/L	Milligrams per liter
mg/kg	Milligrams per kilogram
MSL	Mean sea level
N	No
NO <sub>3</sub>	Nitrate
NA	Not applicable
NM	No measurement
OCDD	Octachlorodibenzo-p-dioxin
OCDF	Octachlorodibenzofuran
OU	Operable unit
PCB	Polychlorinated biphenyl
PCE	Tetrachloroethylene
PeCDD	Pentachlorinated dibenzo-p-dioxin
PeCDF	Pentachlorinated dibenzofuran
PE	Pump extraction
pCi/L	Picocuries per liter
pg/g	picogram per gram
pH	A measure of the acidity or alkalinity of an aqueous solution
ppb	Parts per billion
ppm <sub>v/v</sub>	Parts per million on a volume-to-volume basis
PRG	Preliminary Remediation Goal
PRXN	Proximal north
PTU	Portable Treatment Unit
PTU	Portable treatment unit
Q	Quarterly
RA	Restricted access
RDX	Research Department explosive
S	Semi-annual
SRC	Source
STU	Solor-powered Treatment Unit
SVE	Soil Vapor Extraction
TBOS	Tetra-butyl-orthosilicate
TCDD	Tetrachlorodibenzo-p-dioxin
TCDF	Tetrachlorodibenzofuran
TCE	Trichloroethylene
TEF	Toxicity Equivalency Factor.
TF	Treatment facility
Y	Yes

### Requested Analyses

ANIONS = Anions suite performed by various analytical methods.

AS:UIISO = 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:Be = Beryllium 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.
  - E218.2 = Chromium performed by EPA Method 218.2.
  - E239.2 = Lead performed by EPA Method 239.2.
  - E245.2 = Mercury performed by EPA Method 245.2.
  - E300.0:NO2 = Nitrite performed by EPA Method 300.0.
  - E300.0:NO3 = Nitrate performed by EPA Method 300.0.
  - E300.0:O-PO2 = Orthophosphate 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.
  - E350.2 = Ammonia nitrogen (as N) performed by EPA Method 350.2
  - E502.2 = Drinking water volatile organic compounds performed by EPA Method 502.2.
  - E601 = Halogenated volatile organic compounds performed by EPA Method 601.
  - E602 = Aromatic volatile organic compounds performed by EPA Method 602.
  - E624 = Volatile organic compounds performed by EPA Method 624.
  - E8082A = Polychlorinated biphenyls performed by EPA Method 8082A.
  - 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.
- MS:THISO = Thorium isotopes performed by mass spectrometry.
- MS:UIISO = Uranium isotopes performed by mass spectrometry.
- NUTRIENTS = Nutrients suite performed by various analytical methods.
- T26METALS = Title 26 metals.
- TBOS = Tetrabutylorthosilicate.

### **Hydrogeologic Units**

- Qal = Quaternary alluvium.
- Tmss = Miocene Cierbo Formation—lower siltstone/claystone member.
- Tnbs<sub>2</sub> = Miocene Neroly upper blue sandstone.

- Tnsc<sub>1a</sub>, Tnsc<sub>1b</sub>, Tnsc<sub>1c</sub> = Sandstone bodies within the Tnsc<sub>1</sub> Neroly middle siltstone/claystone (1a = deepest).  
 Tnsc<sub>0</sub> = Tertiary Neroly Formation—lower siltstone/claystone member.  
 Tps = Pliocene non-marine unit.  
 Tpsg = Miocene non-marine unit (gravel facies).  
 Tts = Tesla Formation.  
 Upper Tnbs<sub>1</sub> = Upper member of the Neroly lower blue sandstone, above claystone marker bed.  
 Lower Tnbs<sub>1</sub> = Lower member of the Neroly lower blue sandstone, below claystone marker bed (regional aquifer).

### Data Qualifier Flag Definitions

- D = Analysis performed at a secondary dilution or concentration (i.e., vapor samples).  
 E = The analyte was detected below the LLNL reporting limit, but above the analytical laboratory minimum detection limit.  
 F = Analyte found in field blank, trip blank, or equipment blank.  
 H = Sample analyzed outside of holding time, sample results should be evaluated.  
 I = Surrogate recoveries were outside of QC limits.  
 J = Analyte was positively identified; the associated numerical value is the proximate concentration of the analyte in the sample.  
 L = Spike accuracy not within control limits.  
 O = Duplicate spike or sample precision not within control limits.  
 S = Analytical results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.  
 T = Analyte is tentatively identified compound; result is approximate.  
 U = Compound was analyzed for, but not detected above detection limit.

Table Summ-1. Mass removed, January 1, 2003 through December 31, 2003.

Treatment facility	Volume of ground water treated (gal)	Volume of soil vapor treated (ft <sup>3</sup> )	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	1,419,985	NA	417	NA	NA	NA	NA
CGSA SVE	NA	9,794,000	1,149	NA	NA	NA	NA
B834 GWTS	0	NA	0	0	0	0	0
B834 SVE	NA	0	0	0	0	0	0
B815-SRC GWTS	360,971	NA	8.8	25	121,495	93	NA
B815-PRX GWTS	1,074,939	NA	134	29	353,625	NA	NA
B815-DSB GWTS	729,136	NA	22	NA	NA	NA	NA
B817-SRC GWTS	1,322	NA	0	0.13	0	0.25	NA
B854-SRC GWTS	505,309	NA	389	15	99,300	NA	NA
B854-PRX GWTS	235,220	NA	71	9.2	41,200	NA	NA
B832-SRC GWTS	25,760	NA	5.4	0.9	12,125	NA	NA
B832-SRC SVE	NA	2,079,000	175	NA	NA	NA	NA
B830-SRC GWTS	3,861	NA	45.6	0.027	1,678	NA	NA
B830-SRC SVE	NA	0	0	NA	NA	NA	NA
B830-PRXN GWTS	244,220	NA	30	NA	15,740	NA	NA
B830-DISS GWTS	474,630	NA	169	3.6	120,597	NA	NA
<b>Total</b>	<b>5,075,353</b>	<b>11,873,000</b>	<b>2,616</b>	<b>83</b>	<b>765,760</b>	<b>93</b>	<b>0</b>

## Notes:

B815 = Building 815.

B830 = Building 830.

B832 = Building 832

B834 = Building 834.

CGSA = Central General Services Area.

DISS = Distal south.

DSB = Distal site boundary.

ft<sup>3</sup> = 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.

B817 = Building 817.

<sup>a</sup> B834-SRC was non-operational during the reporting period.<sup>b</sup> B830-SRC SVE system in testing phase.

**Table Summ-2. Summary of cumulative remediation.**

Treatment facility	Volume of ground water treated (gal)	Volume of soil vapor treated (kft <sup>3</sup> )	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	9,124,657	NA	.01265	NA	NA	NA	NA
CGSA SVE	NA	69,199	66.73	NA	NA	NA	NA
B834 GWTS	245,279	NA	31.8	NA	49.3	NA	9.6
B834 SVE	NA	58,536	108	NA	NA	NA	NA
B815-SRC GWTS	1,452,067	NA	0.034	0.105	510.5	0.432	NA
B815-PRX GWTS	1,798,054	NA	0.229	0.046	575.6	NA	NA
B815-DSB GWTS	3,086,181	NA	0.072	NA	NA	NA	NA
B817-SRC GWTS	1,322	NA	0	0.13	0	0.25	NA
B854-SRC GWTS	3,294,470	NA	3.6	0.078	668	NA	NA
B854-PRX GWTS	724,507	NA	0.3	0.028	115	NA	NA
B832-SRC GWTS	144,585	NA	31.6	4.3	59,985	NA	NA
B832-SRC SVE	NA	13,501	1.42	NA	NA	NA	NA
B830-SRC GWTS	6,126	NA	27.2	0.01	954.7	NA	NA
B830-SRC SVE	NA	0 <sup>a</sup>	0 <sup>a</sup>	NA	NA	NA	NA
B830-PRXN GWTS	344,708	NA	12.6	0	6,573	NA	NA
B830-DISS GWTS	643,080	NA	63.5	1.6	43,203	NA	NA
<b>Total</b>	<b>20,865,036</b>	<b>141,236</b>	<b>360</b>	<b>6.3</b>	<b>112,634</b>	<b>0.68</b>	<b>9.6</b>

**Notes:**

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

Table 1-1. Wells and boreholes installed during 2003.

Well name	Well type	OU	Well installation date	Strat Unit	Drill depth (ft)	Casing depth (ft)	Primary COC(s)	Primary COC sampling frequency	Secondary COC(s)	Secondary COC sampling frequency
	Horizontal well for de-watering experiments									
W-Pit7-1838	PRB Monitor	NC	01/07/03	Colluvium/Tn	150	147	NA	NA	NA	NA
W-Pit7-1903	PRB Monitor	NC	01/09/03	Qal/WBR	23.5	23.5	NC	NC	NC	NC
W-Pit7-1904	PRB Monitor	NC	01/13/03	Qal/WBR	23.5	23.5	NC	NC	NC	NC
W-Pit7-1905	PRB Monitor	NC	01/14/03	Qal/WBR	23.5	23.5	NC	NC	NC	NC
B-Pit7-1906	Borehole	NC	01/16/03	Qal/WBR	25	NA	NA	NA	NA	NA
W-Pit7-1907	PRB Monitor	NC	01/22/03	Qal/WBR	25	25	NC	NC	NC	NC
B-Pit7-1908	PRB Borehole	NC	01/23/03	Qal/WBR	25	NA	NA	NA	NA	NA
B-Pit7-1909	PRB Borehole	NC	01/28/03	Qal/WBR	25	NA	NA	NA	NA	NA
B-Pit7-1910	PRB Borehole	NC	01/29/03	Qal/WBR	25	NA	NA	NA	NA	NA
B-Pit7-1911	PRB Borehole	NC	02/04/03	Qal/WBR	25	NA	NA	NA	NA	NA
B-Pit7-1912	PRB Borehole	NC	02/05/03	Qal/WBR	25	NA	NA	NA	NA	NA
W-854-1834	Soil Vapor	6	02/06/03	Tnbs <sub>1</sub>	4	120.8	NA	NA	NA	NA
B-Pit7-1913	PRB Borehole	NC	02/06/03	Qal/WBR	25	NA	NA	NA	NA	NA
B-Pit7-1914	PRB Borehole	NC	02/11/03	Qal/WBR	25	NA	NA	NA	NA	NA
W-Pit7-1915	PRB Monitor	NC	02/13/03	Qal/WBR	25	25	NC	NC	NC	NC
W-Pit7-1916	PRB Monitor	NC	02/13/03	Qal/WBR	25	25	NC	NC	NC	NC
W-Pit7-1917	PRB Monitor	NC	02/18/03	Qal/WBR	25.2	25.2	NC	NC	NC	NC
W-Pit7-1918	PRB Monitor	NC	10/01/03	Qal/WBR	25.2	25.2	NC	NC	NC	NC
W-Pit7-1919	PRB Monitor	NC	02/18/03	Qal/WBR	25.2	25.2	NC	NC	NC	NC
W-815-1918	Injection	4	02/24/03	Tnbs2	121	110.6	NA	NA	NA	NA
W-815-1928	Monitor	4	03/03/03	Tps	30	26.3	VOCs	S	Nitrate, Perchlorate, RDX	A
W-832-1927	Monitor	7	03/19/03	Tnsc <sub>1b</sub>	297.6	243	VOCs	S	Nitrate, Perchlorate	A
W-812-1929	Monitor	NC	04/07/03	Tnbs <sub>1</sub>	138.3	74.8	NC	NC	NC	NC
W-812-1926	Monitor	NC	04/17/03	Tnbs <sub>1</sub>	100.5	43.3	NC	NC	NC	NC
W-812-1931	Monitor	NC	04/24/03	Tnbs <sub>1</sub>	26	19.2	NC	NC	NC	NC
W-854-1835	Soil Vapor	6	05/06/03	Tnbs <sub>1</sub>	135	120.8	NA	NA	NA	NA

Table 1-1. Wells and boreholes installed during 2003. (Cont. Page 2 of 2)

Well name	Well type	OU	Well installation date	Strat Unit	Drill depth (ft)	Casing depth (ft)	Primary COC(s)	Primary COC sampling frequency	Secondary COC(s)	Secondary COC sampling frequency
W-812-1924	Monitor	NC	05/12/03	Tnbs <sub>1</sub>	159	153.5	NC	NC	NC	NC
W-812-1932	Monitor	NC	05/20/03	Tnbs <sub>1</sub>	52	15.5	NC	NC	NC	NC
W-812-1925	Monitor	NC	05/28/03	Tnbs <sub>1</sub>	32	30.5	NC	NC	NC	NC
W-812-1933	Monitor	NC	06/11/03	Tnbs <sub>1</sub>	111	85.5	NC	NC	NC	NC
W-812-1937	Monitor	NC	06/19/03	Tnbs <sub>1</sub>	42	40.5	NC	NC	NC	NC
W-812-1923	Monitor	NC	07/02/03	Tnbs <sub>1</sub>	92	52.5	NC	NC	NC	NC
W-812-1920	Monitor	NC	07/15/03	Tnbs <sub>1</sub>	70	27.5	NC	NC	NC	NC
W-812-1939	Monitor	NC	07/22/03	Tnbs <sub>1</sub>	60	51.5	NC	NC	NC	NC
W-812-1921	Monitor	NC	07/22/03	Tnbs <sub>1</sub>	21	12.5	NC	NC	NC	NC
W-812-1922	Monitor	NC	07/30/03	Cierbo	90.5	76.5	NC	NC	NC	NC
W-829-1938	DMW	4	09/11/03	L Tnbs <sub>1</sub>	392	381	*	*	*	*
W-829-1940	Monitor	4	10/01/03	Tnsc <sub>1</sub>	122	121	VOCs	S	Nitrate, Perchlorate, RDX	A
W-Pit2-1935	DMW	5b	10/13/03	L Tnbs <sub>1</sub>	120	82.5	**	**	**	**
W-Pit2-1934	DMW	5b	10/23/03	L Tnbs <sub>1</sub>	120	70.5	**	**	**	**
W-834-2001	Monitor	2	10/26/03	Tpsg	25	24.5	VOCs	S	Nitrate, TBOS, Diesel	A
W-865-2005	Monitor	NC	12/11/03	Tnbs <sub>0</sub>	400	350.5	NC	NC	NC	NC
B-854-1836	Borehole	6	NA	Tnbs <sub>1</sub>	90	NA	NA	NA	NA	NA
B-854-1862	Borehole	6	NA	Tnbs <sub>1</sub>	92	NA	NA	NA	NA	NA

## Notes:

NA = Not applicable.

NC = Non-CMP well/borehole.

DMW = Detection monitor well (non-CMP).

\* = To be sampled quarterly for detection monitoring analytes as specified in the HE Burn Pit Post-closure monitoring plan.

\*\* = To be sampled annually for detection monitoring analytes: tritium, VOCs, fluoride, HE compounds, nitrate, perchlorate, Title 26 metals plus uranium, thorium, lithium and beryllium, and uranium and thorium isotopes.



**Table 1.2-2. High explosive compounds in soil for boreholes drilled during 2003.**

Location	Date	Depth (ft)	HMX (mg/kg)	RDX (mg/kg)
B-815-1918	02/13/03 BUD	7.8	<0.3	<0.3
B-815-1918	02/13/03 BUD	10.25	<0.3	<0.3
B-815-1918	02/13/03 BUD	15.25	<0.3	<0.3
B-815-1918	02/13/03 BUD	28.75	<0.3	<0.3
B-815-1918	02/13/03 BUD	39.2	<0.3	<0.3
B-815-1918	02/13/03 BUD	48.5	<0.3	<0.3
B-815-1918	02/13/03 BUD	60.5	<0.3	<0.3
B-815-1918	02/18/03 BUD	67.25	<0.3	<0.3
B-815-1918	02/18/03 BUD	80.7	<0.3	<0.3
B-815-1918	02/18/03 BUD	89.2	<0.3	<0.3
B-815-1918	02/18/03 BUD	100.7	<0.3	<0.3
B-815-1918	02/18/03 BUD	109.5	<0.3	<0.3
B-815-1928	02/27/03 BUD	10.3	<0.3	<0.3
B-815-1928	02/27/03 BUD	26	<0.3	<0.3
B-829-1940	09/18/03 BUD	0	<0.3	<0.3
B-829-1940	09/22/03 BUD	10	<300	<300
B-829-1940	09/22/03 BUD	20	<300	<300
B-829-1940	09/22/03 BUD	30	<300	<300
B-829-1940	09/22/03 BUD	40	<300	<300
B-829-1940	09/22/03 BUD	50	<300	<300
B-829-1940	09/22/03 BUD	60	<300	<300
B-829-1940	09/22/03 BUD	70	<300	<300
B-829-1940	09/23/03 BUD	80	<0.3	<0.3
B-829-1940	09/23/03 BUD	90	<0.3	<0.3
B-829-1940	09/23/03 BUD	99.7	<0.3	<0.3
B-829-1940	09/24/03 BUD	110	<0.3	<0.3
B-829-1940	09/24/03 BUD	117	<0.3	<0.3
B-829-1938	08/07/03 BUD	0	<500	<500
B-829-1938	08/07/03 BUD	10	<500	<500
B-829-1938	08/07/03 BUD	20	<500	<500
B-829-1938	08/07/03 BUD	30	<500	<500
B-829-1938	08/07/03 BUD	40	<500	<500
B-829-1938	08/07/03 BUD	50	<500	<500
B-829-1938	08/11/03 BUD	60	<500	<500
B-829-1938	08/11/03 BUD	70	<500	<500
B-829-1938	08/11/03 BUD	80	<500	<500



**Table 1.2-2. High explosive compounds in soil for boreholes drilled during 2003.**

Location	Date	Depth (ft)	HMX (mg/kg)	RDX (mg/kg)
B-829-1938	08/11/03 BUD	90	<500	<500
B-829-1938	08/11/03 BUD	99.5	<500	<500
B-829-1938	08/11/03 BUD	110	<500	<500
B-829-1938	08/11/03 BUD	120	<500	<500

**Table 1.2-3. Perchlorate in soil for boreholes drilled during 2003.**

Location	Date	Depth (ft)	Perchlorate ( $\mu\text{g}/\text{kg}$ )
B-832-1927	03/05/03 BUD	25	<10
B-832-1927	03/05/03 BUD	36.4	<10

**Table 1.2-4. Radiological constituents in soil for boreholes drilled during 2003.**

Location	Date	Depth (ft)	Tritium (pCi/L)
B-PIT2-1934	10/15/2003 BUD	5	<200
B-PIT2-1934	10/15/2003 BUD	10	<2,020
B-PIT2-1934	10/15/2003 BUD	13.4	<200
B-PIT2-1934	10/15/2003 BUD	20	<200
B-PIT2-1934	10/15/2003 BUD	25	<200
B-PIT2-1934	10/15/03 BUD	30	<632
B-PIT2-1934	10/15/03 BUD	35	<605
B-PIT2-1934	10/15/03 BUD	40	<633
B-PIT2-1934	10/15/03 BUD	47	2,020
B-PIT2-1934	10/15/03 BUD	50	1,460
B-PIT2-1934	10/15/03 BUD	60	1,850
B-PIT2-1934	10/15/03 BUD	70	972
B-PIT2-1934	10/15/03 BUD	105	<200
B-PIT2-1935	10/02/03 BUD	10	<200
B-PIT2-1935	10/02/03 BUD	15	287
B-PIT2-1935	10/02/03 BUD	20	<295
B-PIT2-1935	10/02/03 BUD	25	<274
B-PIT2-1935	10/02/03 BUD	30	<204
B-PIT2-1935	10/02/03 BUD	39.5	3,760
B-PIT2-1935	10/02/03 BUD	50	1,700
B-PIT2-1935	10/06/03 BUD	60	1,630
B-PIT2-1935	10/06/03 BUD	70	3,820
B-PIT2-1935	10/06/03 BUD	80	2,600
B-PIT2-1935	10/06/03 BUD	90	3,780

Table 1.2-5. TBOS in soil for boreholes drilled during 2003.

Location	Date	Depth (ft)	TBOS (mg/kg)
B-834-2001	10/23/03 BUD	15	<0.06 D
B-834-2001	10/23/03 BUD	17.5	<1.5 DIJ
B-834-2001	10/23/03 BUD	21	<0.3 D
B-834-2001	10/23/03 BUD	24.7	<0.6 D

Table 1.2-6. STLC metals in soil for boreholes drilled during 2003.

Constituents of concern	B-812-1926 04/10/23 BUD	B-812-1926 04/10/03 BUD	B-812-1926 04/10/03 BUD
Antimony (mg/L)	<0.06	<0.6	<0.6
Arsenic (mg/L)	0.29	<0.5	<0.5 E
Barium (mg/L)	10	1.7	1.1
Beryllium (mg/L)	<0.04	<0.4	<0.4
Boron (mg/L)	1	<0.5	<0.5
Cadmium (mg/L)	<0.05	<0.5	<0.5
Chromium (mg/L)	<0.5	1.1	2.2
Cobalt (mg/L)	<0.5	<0.5	<0.5
Copper (mg/L)	0.62	<0.5	<0.5
Iron (mg/L)	78	940 D	1,800 D
Lead (mg/L)	<0.5	<0.5	<0.5
Manganese (mg/L)	210 L	2.5	4.1
Mercury (mg/L)	<0.003	<0.005	<0.005
Molybdenum (mg/L)	<0.5	<0.5	<0.5
Nickel (mg/L)	1.1	<0.5	0.88
Selenium (mg/L)	<0.05	<0.5	<0.5
Silver (mg/L)	<0.5	<0.5	<0.5
Thallium (mg/L)	0.02	<0.2	<0.2
Vanadium (mg/L)	0.7	1.8	4
Zinc (mg/L)	<0.5	<0.5	<0.5

**Table 1.2-7. Diesel range organic compounds in soil for boreholes drilled during 2003.**

Location	Date	Depth (ft)	Diesel fuel (mg/kg)
B-834-2001	10/23/03 BUD	15	40 D
B-834-2001	10/23/03 BUD	17.5	2,000 DIJ
B-834-2001	10/23/03 BUD	21	130 D
B-834-2001	10/23/03 BUD	24.7	460 D

**Table 2.1-1. Central General Services Area (CGSA) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Volume of vapor extracted (thousands of ft <sup>3</sup> )	Average weekly volume of water treated (gal)
CGSA	January	840	127,211	876	31,802
	February	672	91,693	287	22,923
	March	768	137,398	313	27,479
	April	720	123,757	260	24,751
	May	696	126,699	465	31,674
	June	792	145,135	627	29,027
	July	720	131,976	1,030	32,994
	August	672	115,898	1,099	28,974
	September	816	142,692	1,544	28,517
	October	696	88,357	1,322	22,089
	November	624	71,875	1,126	17,968
	December	840	117,294	845	23,458
<b>Total</b>		<b>8,856</b>	<b>1,419,985</b>	<b>9,794</b>	

Table 2.1-2. Central General Services Area volumes 2003 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)
PTU7-E	01/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PTU7-E	02/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PTU7-E	03/05/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PTU7-E	04/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PTU7-E	05/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PTU7-E	06/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PTU7-E	07/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PTU7-E	09/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PTU7-E	10/02/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PTU7-E	11/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PTU7-E	12/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PTU7-I	01/07/03	E601	100	5	2.1	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	0.53	<0.5	<0.5
PTU7-I	05/12/03	E601	70	3.1	2.1	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	<0.5	<0.5	<0.5
PTU7-I	07/08/03	E601	61	3.1	1.3	<0.5	<0.5	<0.5	<0.5	0.97	<0.5	0.82	<0.5	<0.5
PTU7-I	10/02/03	E601	49	3.2	<1	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	0.66	<0.5	<0.5

## Other VOCs detected not in the table above:

Location	Date	Method	cis-1,2-Dichloroethene (µg/L)
PTU7-E	01/07/03	E601	-
PTU7-E	02/13/03	E601	-
PTU7-E	03/05/03	E601	-
PTU7-E	04/03/03	E601	-
PTU7-E	05/07/03	E601	-
PTU7-E	06/10/03	E601	-
PTU7-E	07/08/03	E601	-
PTU7-E	09/03/03	E601	-
PTU7-E	10/02/03	E601	-
PTU7-E	11/11/03	E601	-
PTU7-E	12/03/03	E601	-
PTU7-I	01/07/03	E601	2.1
PTU7-I	05/12/03	E601	2
PTU7-I	07/08/03	E601	1.3
PTU7-I	10/02/03	E601	0.7

**Table 2.1-3. Central General Services Area 2003 VOCs in soil vapor extraction treatment system influent and effluent.**

Location	Date	1,1-Dichloroethene (ppm <sub>V/V</sub> )	cis-1,2-Dichloroethene (ppm <sub>V/V</sub> )	Tetrachloroethene (ppm <sub>V/V</sub> )	Trichloroethene ppm <sub>V/V</sub>
TF-GSA2-IV	03/10/03	<0.2	<0.2	<0.2	1.9
TF-GSA2-IV	04/03/03	<0.2	<0.2	<0.2	0.9
TF-GSA2-IV	05/07/03	<0.2	<0.2	<0.2	1.2
TF-GSA2-IV	06/02/03	<0.2	<0.2	0.4	1.5

**Table 2.1-4. Central General Services Area (CGSA) treatment facility sampling plan.**

Sample Location	Sample Identification	Parameter	Frequency
<i>CGSA GWTS</i>			
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
<i>CGSA SVE System</i>			
Influent Vapor	TF-GSA2-IV	VOCs	Monthly
Effluent Vapor	TF-GSA2-EV	VOCs	Monthly
Intermediate GAC	TF-GSA2-CFV2	VOCs	Monthly

Table 2.1-5. Central GSA 2003 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	B	B	CGSA CMP	E200.7:Cd	2	Y	Next sample required 2005.
W-35A-01	MWPT	Qal	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2005.
W-35A-01	MWPT	Qal		Q	DIS	E601	1	Y	
W-35A-01	MWPT	Qal	S	Q	CGSA CMP	E601	2	Y	
W-35A-01	MWPT	Qal		Q	DIS	E601	3	Y	
W-35A-01	MWPT	Qal	S	Q	CGSA CMP	E601	4	Y	
W-35A-02	MWPT	Qal	B	B	CGSA CMP	E200.7:Zn	2	Y	Next sample required 2005.
W-35A-02	MWPT	Qal	S	S	CGSA CMP	E601	1	Y	
W-35A-02	MWPT	Qal		S	DIS	E601	2	Y	
W-35A-02	MWPT	Qal	S	S	CGSA CMP	E601	3	Y	
W-35A-03	MWPT	Qal	S	S	CGSA CMP	E601	2	N	Pump down.
W-35A-03	MWPT	Qal	S	S	CGSA CMP	E601	4	N	Pump down.
					CGSA				
W-35A-04	MWPT	Qal	B	B	CMP/WGMG	E200.7:Cu	2	Y	Next sample required 2005.
W-35A-04	MWPT	Qal		Q	ERD/WGMG	E601	1	Y	
					CGSA				
W-35A-04	MWPT	Qal	S	Q	CMP/WGMG	E601	2	Y	
W-35A-04	MWPT	Qal		Q	ERD/WGMG	E601	3	Y	
					CGSA				
W-35A-04	MWPT	Qal	S	Q	CMP/WGMG	E601	4	Y	
W-35A-05	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2005.
W-35A-05	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	
W-35A-05	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	Y	
W-35A-06	MWPT	Qal	S	S	CGSA CMP	E601	2	Y	
W-35A-06	MWPT	Qal	S	S	CGSA CMP	E601	4	Y	
W-35A-07	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-35A-07	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-35A-08	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	
W-35A-08	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	Y	
W-35A-09	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	



Table 2.1-5. Central GSA 2003 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-09	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	Y	
W-35A-10	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	
W-35A-10	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	Y	
W-35A-11	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-35A-11	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-35A-12	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-35A-12	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-35A-13	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-35A-13	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-35A-14	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	
W-35A-14	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	Y	
W-7A	MWPT	Tnbs <sub>1</sub>	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2005.
W-7A	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-7A	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-7B	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-7B	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-7C	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-7C	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-7E	MWPT	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	1	Y	
W-7E	MWPT	Tnbs <sub>1</sub>	S	Q	CGSA CMP/WGMG	E601	2	Y	
W-7E	MWPT	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	3	Y	
W-7E	MWPT	Tnbs <sub>1</sub>	S	Q	CGSA CMP/WGMG	E601	4	Y	
W-7ES	MWPT	Qal		Q	ERD/WGMG	E300.0:PERC	1	Y	

Table 2.1-5. Central GSA 2003 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-7ES	MWPT	Qal		Q	ERD/WGMG	E300.0:PERC	2	Y	
W-7ES	MWPT	Qal		Q	ERD/WGMG	E300.0:PERC	3	Y	
W-7ES	MWPT	Qal		Q	ERD/WGMG	E300.0:PERC	4	N	
W-7ES	MWPT	Qal	S	S	CGSA CMP	E601	1	Y	
W-7ES	MWPT	Qal		S	DIS	E601	2	Y	
W-7ES	MWPT	Qal	S	S	CGSA CMP	E601	3	Y	
W-7F	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	2	N	Pump down.
W-7F	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-7G	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-7G	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-7H	MWPT	Qal	S	S	CGSA CMP	E601	2	Y	
W-7H	MWPT	Qal	S	S	CGSA CMP	E601	4	Y	
W-7I	EW	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	1	N	Manpower shortage.
W-7I	EW	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	
W-7I	EW	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	3	Y	
W-7J	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	
W-7J	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	Y	
W-7K	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-7K	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-7L	MWPT	Tnbs <sub>1</sub>	B	B	CGSA CMP	E200.7:Cu	2	Y	Next sample required 2005.
W-7L	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-7L	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-7M	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-7M	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-7N	MWPT	Tnbs <sub>1</sub>	B	B	CGSA CMP	E245.2	2	Y	Next sample required 2005.
W-7N	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	

Table 2.1-5. Central GSA 2003 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-7N	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-7O	EW	Qal	B	B	CGSA CMP	E200.7:Cu	2	N	Manpower shortage.
W-7O	EW	Qal	B	B	CGSA CMP	E200.7:Cu	4	Y	Next sample required 2005.
W-7O	EW	Qal	B	B	CGSA CMP	E200.7:Zn	2	N	Manpower shortage.
W-7O	EW	Qal	B	B	CGSA CMP	E200.7:Zn	4	Y	Next sample required 2005.
W-7O	EW	Qal	S	S	CGSA CMP	E601	1	N	Manpower shortage.
W-7O	EW	Qal	S	S	CGSA CMP	E601	2	Y	
W-7O	EW	Qal	S	S	CGSA CMP	E601	3	Y	
W-7P	MWPT	Tnbs <sub>1</sub>	Q	Q	CGSA CMP	E601	1	Y	
W-7P	MWPT	Tnbs <sub>1</sub>	Q	Q	CGSA CMP	E601	2	Y	
W-7P	MWPT	Tnbs <sub>1</sub>	Q	Q	CGSA CMP	E601	3	Y	
W-7P	MWPT	Tnbs <sub>1</sub>	Q	Q	CGSA CMP	E601	4	Y	
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	Y	
W-7PS	MWPT	Qal	Q	Q	CGSA CMP/WGMG	E601	4	Y	
W-7Q	MWPT	Tnbs <sub>2</sub>		S	DIS	E601	1	Y	
W-7Q	MWPT	Tnbs <sub>2</sub>		S	DIS	E601	2	Y	
W-7Q	MWPT	Tnbs <sub>2</sub>		S	DIS	E601	3	Y	
W-7R	MWPT	Qal		S	DIS	E601	1	Y	
W-7R	MWPT	Qal		S	DIS	E601	2	Y	
W-7R	MWPT	Qal		S	DIS	E601	3	Y	
W-7S	MWPT	Qal		S	DIS	E601	1	Y	
W-7S	MWPT	Qal		S	DIS	E601	2	Y	
W-7S	MWPT	Qal		S	DIS	E601	3	Y	

Table 2.1-5. Central GSA 2003 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-7T	MWPT	Qal		S	DIS	E601	1	Y	
W-7T	MWPT	Qal		S	DIS	E601	2	Y	
W-7T	MWPT	Qal		S	DIS	E601	3	Y	
W-843-01	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-843-01	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-843-02	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-843-02	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-872-01	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E200.7:Cu	2	Y	Next sample required 2005.
W-872-01	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2005.
W-872-01	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	
W-872-01	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	N	Dry.
W-872-02	EW	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	1	N	Manpower shortage.
W-872-02	EW	Tnbs <sub>2</sub>		S	DIS	E601	2	Y	
W-872-02	EW	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	3	Y	
W-873-01	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-873-01	MWPT	Tnbs <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-873-02	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	
W-873-02	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	Y	
W-873-03	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-873-03	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-873-04	MWPT	Tnsc <sub>1</sub>	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2005.
W-873-04	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-873-04	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-873-06	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E200.7:Cd	2	Y	Next sample required 2005.
W-873-06	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	

Table 2.1-5. Central GSA 2003 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-873-06	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	Y	
W-873-07	EW	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	1	N	Manpower shortage.
W-873-07	EW	Tnbs <sub>2</sub>		S	DIS	E601	2	Y	
W-873-07	EW	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	3	Y	
W-875-01	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E200.7: Cd	2	Y	Next sample required 2005.
W-875-01	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E200.7: Cu	2	Y	Next sample required 2005.
W-875-01	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E200.7: Zn	2	Y	Next sample required 2005.
W-875-01	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2005.
W-875-01	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	
W-875-01	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	Y	
W-875-02	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-875-02	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-875-03	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	
W-875-03	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	Y	
W-875-04	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2005.
W-875-04	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	
W-875-04	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	Y	
W-875-05	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-875-05	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-875-06	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-875-06	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-875-07	EW	Tnbs <sub>2</sub>	B	B	CGSA CMP	E239.2	2	Y	Next sample required 2005.
W-875-07	EW	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	1	N	Manpower shortage.
W-875-07	EW	Tnbs <sub>2</sub>		S	DIS	E601	2	Y	

Table 2.1-5. Central GSA 2003 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-875-07	EW	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	3	Y	
W-875-08	EW	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	1	N	Manpower shortage.
W-875-08	EW	Tnbs <sub>2</sub>		S	DIS	E601	2	Y	
W-875-08	EW	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	3	Y	
W-875-09	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	N	Insufficient water.
W-875-09	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	N	No sample port.
W-875-10	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E200.7:Ba	2	N	Insufficient water.
W-875-10	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E200.7:Ba	4	N	No sample port.
W-875-10	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E239.2	2	N	Insufficient water.
W-875-10	MWPT	Tnbs <sub>2</sub>	B	B	CGSA CMP	E239.2	4	N	No sample port.
W-875-10	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	N	Insufficient water.
W-875-10	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	N	No sample port.
W-875-11	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	N	Insufficient water.
W-875-11	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	N	No sample port.
W-875-15	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	N	Insufficient water.
W-875-15	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	N	No sample port.
W-876-01	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	2	Y	
W-876-01	MWPT	Tnbs <sub>2</sub>	S	S	CGSA CMP	E601	4	Y	
W-879-01	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-879-01	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-889-01	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	2	Y	
W-889-01	MWPT	Tnsc <sub>1</sub>	S	S	CGSA CMP	E601	4	Y	
W-CGSA-1732	MWPT	Qal		A	DIS	E601	2	N	Dry.
W-CGSA-1733	MWPT	Qal		S	DIS	E601	2	Y	
W-CGSA-1733	MWPT	Qal		S	DIS	E601	4	Y	

Table 2.1-5. Central GSA 2003 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-CGSA-1735	MWPT	Qal		A	DIS	E601	2	N	Dry.
W-CGSA-1736	MWPT	Qal		S	DIS	E601	2	Y	
W-CGSA-1736	MWPT	Qal		S	DIS	E601	4	Y	
W-CGSA-1737	MWPT	Qal		S	DIS	E601	2	Y	
W-CGSA-1737	MWPT	Qal		S	DIS	E601	4	Y	
W-CGSA-1739	MWPT	Qal		S	DIS	E601	2	Y	
W-CGSA-1739	MWPT	Qal		S	DIS	E601	4	Y	

CGSA CMP/DIS = Sampling more frequently than required.

CGSA CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.

CGSA CMP = Central GSA groundwater sampling and analysis plan specified in the GSA RD.

CMP DMW = CMP detection monitor well.

CMP/DIS = Sampling required analyte more frequently than required.

CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.

CMP = Compliance Monitoring.

DIS = Discretionary sampling of non-required analyte.

DMW = Detection monitor well (non-CMP).

ERD/WGMG = Non-CMP analyte sampled from a well shared by ERD and WGMG.

EW = Extraction well.

GW = Guard well.

MWB = Monitor well used for background.

MWPT = Monitor well used for plume tracking.

SPR = Spring.

WS = Water supply well.

Table 2.1-6. Central GSA Services Area 2003 VOCs in ground water.

Location	Date	Method	Carbon											
			TCE (µg/L)	PCE (µg/L)	Total 1,2-DCE (µg/L)	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)
W-35A-01	04/29/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-01	10/15/03	E601	71	4.4	<1	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	0.61	<0.5
W-35A-02	01/27/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-02	05/19/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-02	08/05/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-04	01/27/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-04	05/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-04	09/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-04	10/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-05	05/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-05	10/27/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-06	05/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-06	10/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-07	04/30/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-07	10/22/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-08	05/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-08	10/22/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-09	04/30/03	E601	1.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	<0.5
W-35A-09	04/30/03 DUP	E601	1.5 LO	<0.5 LO	<0.5 LO	<0.5 LO	<0.5 LO	<0.5 LO	<0.5 LO	<0.5 LO	<0.5 LO	1.8 LO	<0.5 LO	<0.5 LO
W-35A-09	10/27/03	E601	2.7	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	<0.5
W-35A-10	04/30/03	E601	8.9	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	11	<0.5	<0.5
W-35A-10	12/15/03	E601	15	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	10	<0.5	<0.5
W-35A-11	05/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-11	10/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-12	05/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-12	10/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-13	05/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-13	10/24/03	E601	0.59	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-13	10/24/03 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
W-35A-14	05/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-14	10/27/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7A	05/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7A	10/17/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5



Table 2.1-6. Central GSA Services Area 2003 VOCs in ground water. (Cont. Page 2 of 6)

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	Carbon		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)
					Total 1,2-DCE (µg/L)	tetrachloride (µg/L)								
W-7B	05/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7B	05/07/03 DUP	E601	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7B	10/20/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7C	05/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7C	10/20/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7E	01/25/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7E	05/07/03	E601	<0.5	<0.5	<1	<0.5	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7E	09/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7E	12/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7E	12/11/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7ES	03/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7ES	05/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7ES	09/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7F	10/29/03	E601	0.75	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7G	04/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7G	04/26/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7G	10/16/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7H	04/23/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7H	10/17/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7I	05/20/03	E601	580 D	41	24	<0.5	<0.5	0.64	1.7	4.1	<0.5	<0.5	<0.5	<0.5
W-7I	07/09/03	E601	390 D	4.6	21	<0.5	<0.5	<0.5	<0.5	5.7	<0.5	<0.5	<0.5	<0.5
W-7I	10/07/03	E601	150 D	4.9	22	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	<0.5	<0.5	<0.5
W-7J	04/29/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7J	10/28/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7K	05/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7K	10/20/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7L	05/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7L	10/20/03	E601	0.57	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7M	05/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7M	10/20/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7N	05/13/03	E601	0.96	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7N	10/20/03	E601	1.1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7O	05/20/03	E601	42	3.4	<1	<0.5	<0.5	<0.5	<0.5	0.72	<0.5	<0.5	<0.5	<0.5
W-7O	07/09/03	E601	40	2.9	<1	<0.5	<0.5	<0.5	<0.5	0.67	<0.5	<0.5	<0.5	<0.5

Table 2.1-6. Central GSA Services Area 2003 VOCs in ground water. (Cont. Page 3 of 6)

Location	Date	Method	Carbon											
			TCE (µg/L)	PCE (µg/L)	Total 1,2-DCE (µg/L)	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)
W-7O	10/07/03	E601	42	3.4	<1	<0.5	<0.5	<0.5	<0.5	<0.5	0.67	<0.5	<0.5	<0.5
W-7P	03/06/03	E601	24	1.7	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7P	05/13/03	E601	21	1.7	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7P	08/05/03	E601	26	1.8	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7P	10/28/03	E601	25	1.7	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7PS	01/25/03	E601	3.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7PS	05/13/03	E601	2.2	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7PS	08/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7PS	10/21/03	E601	2.8	0.51	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7Q	01/25/03	E601	190 D	13	1.6	<0.5	<0.5	<0.5	<0.5	1.9	<0.5	<0.5	<0.5	<0.5
W-7Q	04/23/03	E601	100 D	9.3	<1	<0.5	<0.5	<0.5	<0.5	0.94	<0.5	<0.5	<0.5	<0.5
W-7Q	07/28/03	E601	88	8.6	<1	<0.5	<0.5	<0.5	<0.5	0.78	<0.5	<0.5	<0.5	<0.5
W-7R	01/25/03	E601	11	1.4	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7R	04/28/03	E601	9.3	1.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7R	08/04/03	E601	8.4	1.1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7S	01/25/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7S	05/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7S	08/05/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7T	01/25/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7T	05/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7T	08/05/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-843-01	05/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-843-01	10/24/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-843-02	04/29/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-843-02	12/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-872-01	04/23/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-872-02	05/20/03	E601	210 D	15	12	<0.5	<0.5	<0.5	<0.5	4.7	<0.5	<0.5	<0.5	<0.5
W-872-02	07/09/03	E601	11	0.5	<1	<0.5	<0.5	<0.5	<0.5	0.85	<0.5	15	<0.5	<0.5
W-872-02	10/07/03	E601	10	<0.5	<1	<0.5	<0.5	<0.5	<0.5	0.69	<0.5	12	<0.5	<0.5
W-873-01	04/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-01	10/24/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-02	04/26/03	E601	7.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	12	<0.5	<0.5
W-873-02	10/24/03	E601	6.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	9.1	<0.5	<0.5
W-873-03	04/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.1-6. Central GSA Services Area 2003 VOCs in ground water. (Cont. Page 4 of 6)

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	Carbon		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)
					Total 1,2-DCE (µg/L)	tetrachloride (µg/L)								
W-873-03	10/24/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-04	04/23/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-04	10/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-06	04/23/03	E601	4.8	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-06	04/23/03 DUP	E601	6.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-06	10/14/03	E601	4.1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-07	05/20/03	E601	91	4.4	4.8	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	<0.5	<0.5	<0.5
W-873-07	07/09/03	E601	36	2.2	1.6	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	<0.5	<0.5	<0.5
W-873-07	10/07/03	E601	9	<0.5	<1	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5
W-CGSA-1733	02/20/03	E601	9.7	1.4	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1733	04/28/03	E601	7	1.1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1733	10/20/03	E601	8.9	1.4	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1736	02/20/03	E601	10	1	<1	<0.5	0.73	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1736	04/28/03	E601	9.8	0.99	<1	<0.5	0.59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1736	10/21/03	E601	8	0.89	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1737	02/20/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1737	04/28/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1737	10/20/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1739	02/20/03	E601	2.7	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1739	04/28/03	E601	2.2	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1739	10/20/03	E601	2	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-01	04/29/03	E601	28	1.8	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-01	10/16/03	E601	24	1.6	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-02	04/24/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-02	12/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-03	04/24/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-03	04/24/03 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
W-875-03	10/17/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-04	04/24/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-04	10/16/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-05	04/24/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-05	10/16/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-06	04/24/03	E601	0.79	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-06	10/16/03	E601	2.7	<0.5	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.1-6. Central GSA Services Area 2003 VOCs in ground water. (Cont. Page 5 of 6)

Location	Date	Method	Carbon											
			TCE (µg/L)	PCE (µg/L)	Total 1,2-DCE (µg/L)	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)
W-875-07	05/20/03	E601	710 D	93 D	21 D	<3 D	<3 D	<3 D	<3 D	7.2 D	<3 D	<3 D	<3 D	<3 D
W-875-07	07/09/03	E601	460 D	45	14	<0.5	<0.5	<0.5	1.2	3.2	<0.5	<0.5	<0.5	<0.5
W-875-07	10/07/03	E601	410 D	1.6	21	<0.5	<0.5	<0.5	<0.5	7.5	<0.5	<0.5	<0.5	<0.5
W-875-08	05/20/03	E601	430 D	1.8	24	<0.5	<0.5	<0.5	<0.5	9.2	<0.5	<0.5	<0.5	<0.5
W-875-08	07/09/03	E601	460 D	1.5	22	<0.5	<0.5	<0.5	<0.5	8.4	<0.5	<0.5	<0.5	<0.5
W-875-08	10/07/03	E601	430 D	1.1	19	<0.5	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	<0.5
W-876-01	04/28/03	E601	22	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-876-01	10/16/03	E601	5.4	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-879-01	04/28/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-879-01	10/17/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-879-01	10/17/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-889-01	05/08/03	E601	36	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-889-01	05/08/03 DUP	E601	39	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-889-01	10/17/03	E601	31	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.1-6. Central GSA Services Area 2003 VOCs in ground water. (Cont. Page 6 of 6) Other VOCs not included in Table 2.1.6. Pages 1 through 5:

Location	Date	Method	1,1,2-trichloroethane (µg/L)	Bromo-dichloromethane (µg/L)	Chloromethane (µg/L)	Methylene chloride (µg/L)	Total trihalomethanes (µg/L)	cis-1,2-dichloroethene (µg/L)	trans-1,2-dichloroethene (µg/L)
W-35A-01	10/15/03	E601	-	-	-	-	-	0.59	-
W-7A	10/17/03	E601	-	-	-	-	-	0.7	-
W-7B	10/20/03	E601	-	-	-	1.2	-	-	-
W-7C	10/20/03	E601	-	-	-	2	-	-	-
W-7E	05/07/03	E601	-	0.99	-	-	15	-	-
W-7F	10/29/03	E601	-	-	0.54	-	-	-	-
W-7G	10/16/03	E601	-	-	-	1.9	-	-	-
W-7H	10/17/03	E601	-	-	-	1.1	-	-	-
W-7I	05/20/03	E601	2	-	-	-	-	24	-
W-7I	07/09/03	E601	-	-	-	-	-	20	0.94
W-7I	10/07/03	E601	-	-	-	-	-	21	1.1
W-7L	10/20/03	E601	-	-	-	2.5	-	-	-
W-7P	08/05/03	E601	-	-	-	-	-	0.66	-
W-7P	10/28/03	E601	-	-	-	-	-	0.84	-
W-7Q	01/25/03	E601	-	-	-	-	-	1.6	-
W-7Q	04/23/03	E601	-	-	-	-	-	0.78	-
W-7Q	07/28/03	E601	-	-	-	-	-	0.79	-
W-872-02	05/20/03	E601	-	-	-	-	-	11	0.98
W-873-07	05/20/03	E601	-	-	-	-	-	4.2	0.65
W-873-07	07/09/03	E601	-	-	-	-	-	1.3	-
W-CGSA-1739	10/20/03	E601	-	-	-	1.2	-	-	-
W-875-05	10/16/03	E601	-	-	-	1.1	-	-	-
W-875-06	10/16/03	E601	-	-	-	-	-	1.3	0.88
W-875-07	05/20/03	E601	-	-	-	-	-	21 D	-
W-875-07	07/09/03	E601	1.4	-	-	-	-	14	-
W-875-07	10/07/03	E601	-	-	-	-	-	20	0.88
W-875-08	05/20/03	E601	-	-	-	-	-	23	0.97
W-875-08	07/09/03	E601	-	-	-	-	-	21	0.92
W-875-08	10/07/03	E601	-	-	-	-	-	19	0.87
W-879-01	10/17/03 DUP	E601	-	-	-	1	-	-	-
W-889-01	05/08/03	E601	-	-	-	-	-	0.61	-
W-889-01	05/08/03 DUP	E601	-	-	-	-	-	0.7	-
W-889-01	10/17/03	E601	-	-	-	-	-	0.54	-

Table 2.1-7. Central General Services Area 2003 metals in ground water.

Location	Date	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Potassium (mg/L)	Zinc (mg/L)
W-35A-01	04/29/03	<0.01	-	<0.002	-	-	-
W-35A-02	05/19/03	-	-	-	-	-	<0.01
W-35A-04	05/09/03	-	<0.01	-	-	-	-
W-35A-04	09/03/03	-	-	-	-	6.2	-
W-7A	05/07/03	-	-	<0.008 D	-	-	-
W-7L	05/13/03	-	<0.01	-	-	-	-
W-7N	05/13/03	-	-	-	<0.0002	-	-
W-7O	12/08/03	-	<0.01	-	-	-	<0.01
W-872-01	04/23/03	-	<0.01	0.002	-	-	-
W-873-04	04/23/03	-	-	<0.002	-	-	-
W-873-06	04/23/03	<0.01	-	<0.002	-	-	-
W-873-06	04/23/03 DUP	<0.005	-	-	-	-	-
W-875-01	04/29/03	<0.01	<0.01	<0.002	-	-	<0.01
W-875-04	04/24/03	-	-	<0.002	-	-	-
W-875-07	05/20/03	-	-	<0.008 D	-	-	-
W-875-07	07/09/03	-	-	<0.02 D	-	-	-
W-875-07	10/07/03	-	-	<0.008 D	-	-	-

Table 2.1-8. Central General Services Area 2003 in vapor.

Location	Date	1,1-Dichloroethene (ppmv/v)	cis-1,2- Dichloroethene (ppmv/v)	Tetrachloroethene (ppmv/v)	Trichloroethene (ppmv/v)
W-7I	03/10/03	<0.2	<0.2	<0.2	1.5
W-7I	06/02/03	<0.2	<0.2	0.5	3.9
W-875-07	03/10/03	<0.2	<0.2	<0.2	2.1
W-875-07	06/02/03	<0.2	<0.2	0.4	2.9
W-875-08	03/10/03	<0.2	<0.2	<0.2	<0.2
W-875-08	06/02/03	<0.2	<0.2	<0.2	1.9
W-875-09	03/11/03	<0.2	<0.2	<0.2	5.6
W-875-09	06/03/03	<0.2	<0.2	<0.2	0.6
W-875-10	03/10/03	2.3	<0.2	6.6	59
W-875-10	06/03/03	<0.2	<0.2	0.5	2.2
W-875-11	03/11/03	<0.2	<0.2	<0.2	<0.2
W-875-11	06/03/03	<0.2	<0.2	<0.2	<0.2
W-875-15	03/10/03	<0.2	<0.2	<0.2	1.4
W-875-15	06/03/03	<0.2	<0.2	<0.2	<0.2

Table 2.1-9. Central General Services Area 2003 perchlorate in ground water.

Location	Date	Perchlorate ( $\mu\text{g/L}$ )
W-7ES	03/06/03	<3
W-7ES	05/07/03	<4
W-7ES	09/04/03	<4

Table 2.1-10. Central General Services Area 2003 ground water elevations.

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-35A-01	01/08/03	13.6	494.81		
W-35A-01	04/09/03	10.92	497.49		
W-35A-01	07/14/03	12.43	495.98		
W-35A-01	10/02/03	14.71	493.7		
W-35A-02	01/08/03	12.47	497.23		
W-35A-02	02/03/03	11.76	497.94		
W-35A-02	03/05/03	10.66	499.04		
W-35A-02	04/09/03	9.33	500.37		
W-35A-02	07/14/03	11.12	498.58		
W-35A-02	10/08/03	13.58	496.12		
W-35A-03	01/08/03	12.7	494.14		
W-35A-03	04/14/03	9.8	497.04		
W-35A-03	07/14/03	11.55	495.29		
W-35A-03	10/02/03	13.62	493.22		
W-35A-04	01/08/03	11.5	492.48		
W-35A-04	04/14/03	8.93	495.05		
W-35A-04	07/14/03	10.4	493.58		
W-35A-04	10/02/03	12.49	491.49		
W-35A-05	01/08/03	13.61	494.36		
W-35A-05	04/09/03	10.9	497.07		
W-35A-05	07/14/03	12.41	495.56		
W-35A-05	10/02/03	14.68	493.29		
W-35A-06	01/08/03	11.76	492.56		
W-35A-06	04/09/03	9.09	495.23		
W-35A-06	07/14/03	10.5	493.82		
W-35A-06	10/02/03	12.66	491.66		
W-35A-07	01/08/03	2.27	508.32		
W-35A-07	02/03/03	1.81	508.78		
W-35A-07	03/05/03	1.27	509.32		
W-35A-07	04/09/03	0.98	509.61		
W-35A-07	07/14/03	1.06	509.53		
W-35A-07	10/08/03	2.18	508.41		



Table 2.1-10. Central General Services Area 2003 ground water elevations.

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-35A-08	01/08/03	15.9	501.96		
W-35A-08	02/03/03	15.56	502.3		
W-35A-08	03/05/03	14.69	503.17		
W-35A-08	04/09/03	13.57	504.29		
W-35A-08	07/14/03	15.41	502.45		
W-35A-08	10/08/03	17.03	500.83		
W-35A-09	01/08/03	15.98	499.57		
W-35A-09	02/03/03	15.2	500.35		
W-35A-09	03/05/03	14.03	501.52		
W-35A-09	04/09/03	12.75	502.8		
W-35A-09	07/14/03	14.6	500.95		
W-35A-09	10/08/03	17.14	498.41		
W-35A-10	01/08/03	13.31	498.41		
W-35A-10	02/03/03	12.77	498.95		
W-35A-10	03/05/03	11.84	499.88		
W-35A-10	04/09/03	10.53	501.19		
W-35A-10	07/14/03	11.91	499.81		
W-35A-10	10/08/03	14.22	497.5		
W-35A-11	01/08/03	5.85	499.5		
W-35A-11	02/03/03	5.24	500.11		
W-35A-11	03/05/03	4.73	500.62		
W-35A-11	04/09/03	3.94	501.41		
W-35A-11	07/14/03	4.73	500.62		
W-35A-11	10/02/03	6.38	498.97		
W-35A-12	01/08/03	6.63	499.19		
W-35A-12	02/03/03	6.44	499.38		
W-35A-12	03/05/03	5.62	500.2		
W-35A-12	04/09/03	4.76	501.06		
W-35A-12	07/14/03	5.83	499.99		
W-35A-12	10/02/03	7.29	498.53		
W-35A-13	01/08/03	10.08	493.26		
W-35A-13	02/03/03	9.78	493.56		
W-35A-13	03/05/03	8.85	494.49		

Table 2.1-10. Central General Services Area 2003 ground water elevations.

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-35A-13	04/14/03	7.62	495.72		
W-35A-13	07/14/03	9.12	494.22		
W-35A-13	10/02/03	10.33	493.01		
W-35A-14	01/08/03	13.23	499.3		
W-35A-14	02/03/03	12.46	500.07		
W-35A-14	03/05/03	11.38	501.15		
W-35A-14	04/14/03	10.07	502.46		
W-35A-14	07/14/03	11.71	500.82		
W-35A-14	10/08/03	14.11	498.42		
W-7A	01/09/03	13.81	511.5		
W-7A	04/11/03	12.51	512.8		
W-7A	07/15/03	12.73	512.58		
W-7A	10/08/03	13.93	511.38		
W-7B	01/09/03	18.4	493.04		
W-7B	04/11/03	15.9	495.54		
W-7B	07/16/03	17.31	494.13		
W-7B	10/04/03	17.3	494.14		
W-7C	01/09/03	12.14	505.73		
W-7C	04/11/03	10.75	507.12		
W-7C	07/16/03	11.31	506.56		
W-7C	10/04/03	12.82	505.05		
W-7E	01/09/03	16.44	493.56		
W-7E	04/11/03	13.95	496.05		
W-7E	07/15/03	15.33	494.67		
W-7E	10/04/03	17.3	492.7		
W-7ES	01/09/03	16.16	493.55		
W-7ES	04/11/03	13.5	496.21		
W-7ES	07/15/03	15.03	494.68		
W-7ES	10/08/03	17.01	492.7		
W-7F	01/09/03	41.78	485.3		
W-7F	04/11/03	28.58	498.5		
W-7F	07/16/03	42.35	484.73		
W-7F	10/08/03	42.16	484.92		

Table 2.1-10. Central General Services Area 2003 ground water elevations.

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-7G	01/09/03	16.52	496.37		
W-7G	02/01/03	16.02	496.87		
W-7G	03/01/03	11.24	501.65		
W-7G	04/11/03	14.6	498.29		
W-7G	07/15/03	15.11	497.78		
W-7G	10/04/03	16.5	496.39		
W-7H	01/09/03	11.44	500		
W-7H	04/11/03	10.79	500.65		
W-7H	07/15/03	11.19	500.25		
W-7H	10/04/03	12.4	499.04		
W-7I	01/13/03	43.38	485.8		
W-7I	04/11/03	23.46	505.72		
W-7I	07/16/03	48.76	480.42		
W-7I	10/08/03	50.71	478.47		
W-7J	01/09/03	44.08	484.08		
W-7J	04/11/03	29.34	498.82		
W-7J	07/15/03	46.58	481.58		
W-7J	10/04/03	45.75	482.41		
W-7K	01/09/03	13.27	497.66		
W-7K	04/11/03	11.29	499.64		
W-7K	07/16/03	11.84	499.09		
W-7K	10/04/03	13.22	497.71		
W-7L	01/09/03	16.17	496.59		
W-7L	04/11/03	14.15	498.61		
W-7L	07/16/03	14.7	498.06		
W-7L	10/04/03	16.03	496.73		
W-7M	01/09/03	12.62	495.13		
W-7M	04/11/03	10.63	497.12		
W-7M	07/16/03	11.75	496		
W-7M	10/04/03	13.25	494.5		
W-7N	01/09/03	15.07	493.11		
W-7N	04/11/03	12.62	495.56		
W-7N	07/16/03	14.02	494.16		

Table 2.1-10. Central General Services Area 2003 ground water elevations.

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-7N	10/09/03	16.15	492.03		
W-7O	01/09/03	24.56	491.53		
W-7O	04/11/03	22.18	493.91		
W-7O	07/16/03	24.66	491.43		
W-7O	10/08/03	26.62	489.47		
W-7P	01/09/03	17	492.64		
W-7P	02/01/03	16.68	492.96		
W-7P	03/01/03	15.83	493.81		
W-7P	04/11/03	14.53	495.11		
W-7P	07/16/03	15.95	493.69		
W-7P	10/04/03	17.9	491.74		
W-7PS	01/09/03	15.85	492.65		
W-7PS	02/01/03	15.52	492.98		
W-7PS	03/01/03	14.64	493.86		
W-7PS	04/11/03	13.37	495.13		
W-7PS	07/15/03	14.8	493.7		
W-7PS	10/04/03	16.76	491.74		
W-7Q	01/09/03	21.77	493.85		
W-7Q	02/01/03	22.09	493.53		
W-7Q	03/01/03	20.57	495.05		
W-7Q	04/11/03	19.19	496.43		
W-7Q	07/15/03	21.25	494.37		
W-7Q	10/04/03	23.56	492.06		
W-7R	01/09/03	16.81	491.69		
W-7R	02/01/03	16.46	492.04		
W-7R	03/01/03	15.51	492.99		
W-7R	04/11/03	14.19	494.31		
W-7R	07/16/03	15.73	492.77		
W-7R	10/04/03	17.78	490.72		
W-7S	01/09/03	16.31	491.65		
W-7S	02/01/03	15.92	492.04		
W-7S	03/01/03	15	492.96		
W-7S	04/11/03	13.65	494.31		

Table 2.1-10. Central General Services Area 2003 ground water elevations.

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-7S	07/16/03	15.2	492.76		
W-7S	10/04/03	17.23	490.73		
W-7T	01/09/03	16.16	491.7		
W-7T	02/01/03	15.75	492.11		
W-7T	03/01/03	14.88	492.98		
W-7T	04/11/03	13.49	494.37		
W-7T	07/16/03	14.99	492.87		
W-7T	10/04/03	17.1	490.76		
W-843-01	01/13/03	120.61	503.15		
W-843-01	04/15/03	118.98	504.78		
W-843-01	07/15/03	119.43	504.33		
W-843-01	10/10/03	120.77	502.99		
W-843-02	01/13/03	101.48	521.11		
W-843-02	02/07/03	101.51	521.08		
W-843-02	03/01/03	100.84	521.75		
W-843-02	04/15/03	100.41	522.18		
W-843-02	07/15/03	100.12	522.47		
W-843-02	10/10/03	100.73	521.86		
W-872-01	01/13/03	32.59	498.05		
W-872-01	04/09/03	30.37	500.27		
W-872-01	07/15/03	-	-		DRY
W-872-01	10/04/03	33.82	496.82		
W-872-02	01/13/03	34.5	497.27		
W-872-02	04/15/03	32.31	499.46		
W-872-02	07/15/03	-	-		DRY
W-872-02	10/11/03	-	-		DRY
W-873-01	01/13/03	28.29	505.64		
W-873-01	04/12/03	26.26	507.67		
W-873-01	07/15/03	28.75	505.18		
W-873-01	10/04/03	29.96	503.97		
W-873-02	01/13/03	32.23	500.9		
W-873-02	04/12/03	30.46	502.67		
W-873-02	07/15/03	30.6	502.53		

Table 2.1-10. Central General Services Area 2003 ground water elevations.

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-873-02	10/04/03	32.15	500.98		
W-873-03	01/13/03	29.3	504.49		
W-873-03	02/05/03	29.21	504.58		
W-873-03	03/01/03	29.28	504.51		
W-873-03	04/12/03	28.57	505.22		
W-873-03	07/15/03	29.26	504.53		
W-873-03	10/04/03	30.32	503.47		
W-873-04	01/13/03	19.43	511.98		
W-873-04	04/15/03	19.38	512.03		
W-873-04	07/15/03	19.12	512.29		
W-873-04	10/10/03	19.49	511.92		
W-873-06	01/13/03	32.03	499.8		
W-873-06	02/05/03	31.53	500.3		
W-873-06	03/01/03	31.13	500.7		
W-873-06	04/12/03	30.13	501.7		
W-873-06	07/15/03	30.38	501.45		
W-873-06	10/04/03	32	499.83		
W-873-07	01/13/03	33.18	498.33		
W-873-07	04/12/03	31.14	500.37		
W-873-07	07/15/03	31.13	500.38		
W-873-07	10/10/03	32.76	498.75		
W-875-01	01/13/03	20.26	512.14		
W-875-01	04/09/03	20.67	511.73		
W-875-01	07/15/03	21.1	511.3		
W-875-01	10/04/03	21.25	511.15		
W-875-02	01/13/03	21.52	509.84		
W-875-02	04/09/03	21.59	509.77		
W-875-02	07/15/03	21.83	509.53		
W-875-02	10/13/03	22.1	509.26		
W-875-03	01/13/03	30.78	497.86		
W-875-03	04/09/03	28.21	500.43		
W-875-03	07/15/03	-	-		DRY
W-875-03	10/10/03	-	-		DRY

Table 2.1-10. Central General Services Area 2003 ground water elevations.

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-875-04	01/13/03	21.05	511.18		
W-875-04	04/09/03	21.45	510.78		
W-875-04	07/15/03	21.65	510.58		
W-875-04	10/04/03	21.76	510.47		
W-875-05	01/13/03	22.88	513.82		
W-875-05	04/09/03	22.93	513.77		
W-875-05	07/15/03	23.09	513.61		
W-875-05	10/04/03	23.15	513.55		
W-875-06	01/13/03	22.25	507.17		
W-875-06	04/09/03	23.4	506.02		
W-875-06	07/15/03	-	-		NM/LID STUCK
W-875-06	10/04/03	25.18	504.24		
W-875-07	01/13/03	33.62	494.82		
W-875-07	04/11/03	24	504.44		
W-875-07	07/16/03	33.68	494.76		
W-875-07	10/08/03	35.33	493.11		
W-875-08	01/13/03	49.17	478.98		
W-875-08	04/11/03	26.98	501.17		
W-875-08	07/16/03	50.91	477.24		
W-875-08	10/08/03	52.68	475.47		
W-875-09	01/13/03	-	-		DRY
W-875-09	04/11/03	29.12	500.43		
W-875-09	07/16/03	-	-		DRY
W-875-09	10/08/03	-	-		DRY
W-875-10	01/13/03	-	-		DRY
W-875-10	04/11/03	23.7	505.62		
W-875-10	07/16/03	37.14	492.18		
W-875-10	10/10/03	39.15	490.17		
W-875-11	01/13/03	40.41	488.75		
W-875-11	04/11/03	29.48	499.68		
W-875-11	07/16/03	-	-		DRY/MUD
W-875-11	10/08/03	-	-		DRY
W-875-15	01/13/03	-	-		DRY

Table 2.1-10. Central General Services Area 2003 ground water elevations.

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-875-15	04/11/03	28.55	499.79		
W-875-15	07/15/03	-	-		DRY
W-875-15	10/08/03	-	-		DRY
W-876-01	01/13/03	23.41	514.57		
W-876-01	04/11/03	23.14	514.84		
W-876-01	07/15/03	23.98	514		
W-876-01	10/04/03	24.43	513.55		
W-879-01	01/13/03	37.95	514.37		
W-879-01	04/15/03	36.71	515.61		
W-879-01	07/15/03	36.74	515.58		
W-879-01	10/10/03	37.75	514.57		
W-889-01	01/13/03	38.79	514.84		
W-889-01	04/15/03	38.8	514.83		
W-889-01	07/15/03	38.86	514.77		
W-889-01	10/10/03	38.92	514.71		
W-CGSA-1732	01/09/03	-	-		DRY
W-CGSA-1732	02/01/03	-	-		DRY
W-CGSA-1732	03/01/03	-	-		DRY
W-CGSA-1732	04/11/03	-	-		DRY
W-CGSA-1732	07/01/03	-	-		DRY
W-CGSA-1732	10/08/03	-	-		DRY
W-CGSA-1733	01/09/03	18.23	495.02		
W-CGSA-1733	02/01/03	17.83	495.42		
W-CGSA-1733	03/01/03	16.93	496.32		
W-CGSA-1733	04/11/03	15.62	497.63		
W-CGSA-1733	07/16/03	17.15	496.1		
W-CGSA-1733	10/04/03	19.2	494.05		
W-CGSA-1735	01/09/03	-	-		DRY
W-CGSA-1735	02/01/03	-	-		DRY
W-CGSA-1735	03/01/03	-	-		DRY
W-CGSA-1735	04/11/03	-	-		DRY
W-CGSA-1735	07/01/03	-	-		DRY
W-CGSA-1735	10/08/03	-	-		DRY



**Table 2.1-10. Central General Services Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-CGSA-1736	01/09/03	18.12	489.45		
W-CGSA-1736	02/01/03	17.97	489.6		
W-CGSA-1736	03/01/03	16.51	491.06		
W-CGSA-1736	04/11/03	15.19	492.38		
W-CGSA-1736	07/16/03	16.51	491.06		
W-CGSA-1736	10/04/03	18.49	489.08		
W-CGSA-1737	01/09/03	14.53	490.35		
W-CGSA-1737	02/01/03	14.22	490.66		
W-CGSA-1737	03/01/03	13.34	491.54		
W-CGSA-1737	04/11/03	12.05	492.83		
W-CGSA-1737	07/16/03	13.48	491.4		
W-CGSA-1737	10/04/03	15.45	489.43		
W-CGSA-1739	01/09/03	18.07	493.95		
W-CGSA-1739	02/01/03	17.89	494.13		
W-CGSA-1739	03/01/03	17.45	494.57		
W-CGSA-1739	04/11/03	16.17	495.85		
W-CGSA-1739	07/16/03	17.58	494.44		
W-CGSA-1739	10/04/03	19.19	492.83		

**Table 2.1-11. Central General Services Area (CGSA) mass removed, January 1, 2003 through December 31, 2003.**

<b>Treatment facility</b>	<b>Month</b>	<b>GWTS VOC mass removed (g)</b>	<b>SVE VOC mass removed (g)</b>
<b>CGSA</b>	<b>January</b>	<b>52.7</b>	<b>253.3</b>
	<b>February</b>	<b>38.0</b>	<b>68.1</b>
	<b>March</b>	<b>56.9</b>	<b>90.4</b>
	<b>April</b>	<b>51.3</b>	<b>75.2</b>
	<b>May</b>	<b>36.7</b>	<b>84.8</b>
	<b>June</b>	<b>25.8</b>	<b>143.2</b>
	<b>July</b>	<b>33.2</b>	<b>145.8</b>
	<b>August</b>	<b>29.1</b>	<b>55.2</b>
	<b>September</b>	<b>35.8</b>	<b>75.1</b>
	<b>October</b>	<b>18.2</b>	<b>75.4</b>
	<b>November</b>	<b>14.8</b>	<b>65.9</b>
	<b>December</b>	<b>24.2</b>	<b>16.1</b>
<b>Total</b>		<b>417</b>	<b>1,149</b>

Table 2.2-1. Building 834 OU treatment facility sampling plan.

Sample location	Sample identification	Parameter	Frequency
<i>B834 GTWS</i>			
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
<i>B834 SVTS</i>			
Influent Port	TF-834-VI	No CMP requirements	NA
Effluent Port	TF-834-VE	VOCs	Weekly <sup>a</sup>

<sup>a</sup> 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 2.2-2. Building 834 2003 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	DIS	ANIONS	2	Y	
W-834-1709	MWPT	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-1709	MWPT	Tpsg		Q	DIS	E624	1	N	Access limitations.
W-834-1709	MWPT	Tpsg	S	Q	CMP	E624	2	Y	
W-834-1709	MWPT	Tpsg		Q	DIS	E624	3	Y	
W-834-1709	MWPT	Tpsg	S	Q	CMP	E601	4	Y	
W-834-1709	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-1709	MWPT	Tpsg		Q	DIS	TBOS	1	N	Access limitations.
W-834-1709	MWPT	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-1709	MWPT	Tpsg		Q	DIS	TBOS	3	Y	
W-834-1709	MWPT	Tpsg		Q	DIS	TBOS	4	Y	
W-834-1711	MWPT	Tps	A	A	CMP	E300.0:NO3	2	N	Insufficient water.
W-834-1711	MWPT	Tps	A	A	CMP	E300.0:NO3	4	Y	
W-834-1711	MWPT	Tps		Q	DIS	E624	1	N	Access limitations.
W-834-1711	MWPT	Tps	S	Q	CMP	E624	2	Y	
W-834-1711	MWPT	Tps		Q	DIS	E624	3	Y	
W-834-1711	MWPT	Tps	S	Q	CMP	E601	4	Y	
W-834-1711	MWPT	Tps	A	A	CMP	EM8015:DIESEL	2	N	Insufficient water.
W-834-1711	MWPT	Tps	A	A	CMP	EM8015:DIESEL	4	N	Insufficient water.
W-834-1711	MWPT	Tps		Q	DIS	TBOS	1	N	Access limitations.
W-834-1711	MWPT	Tps		Q	DIS	TBOS	2	N	Insufficient water.
W-834-1711	MWPT	Tps	A	Q	CMP	TBOS	3	Y	
W-834-1711	MWPT	Tps		Q	DIS	TBOS	4	N	Insufficient water.
W-834-1712	MWPT	Tps	A		CMP	E300.0:NO3		N	Vadose zone well, remove from CMP list.
W-834-1712	MWPT	Tps	S		CMP	E624		N	Vadose zone well, remove from CMP list.
W-834-1712	MWPT	Tps	S		CMP	E624		N	Vadose zone well, remove from CMP list.
W-834-1712	MWPT	Tps	A		CMP	EM8015:DIESEL		N	Vadose zone well, remove from CMP list.
W-834-1712	MWPT	Tps	A		CMP	TBOS		N	Vadose zone well, remove from CMP list.
W-834-1824	MWPT	Tpsg		Q	DIS	ANIONS	1	N	Access limitations.
W-834-1824	MWPT	Tpsg		Q	DIS	ANIONS	2	Y	
W-834-1824	MWPT	Tpsg		Q	DIS	ANIONS	3	N	
W-834-1824	MWPT	Tpsg		Q	DIS	ANIONS	4	N	Changed to semi-annual

Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 2 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-1824	MWPT	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-1824	MWPT	Tpsg		Q	DIS	E624	1	N	Access limitations.
W-834-1824	MWPT	Tpsg	S	Q	CMP	E624	2	Y	
W-834-1824	MWPT	Tpsg		Q	DIS	E624	3	Y	
W-834-1824	MWPT	Tpsg	S	Q	CMP	E601	4	Y	
W-834-1824	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-1824	MWPT	Tpsg		Q	DIS	TBOS	1	N	Access limitations.
W-834-1824	MWPT	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-1824	MWPT	Tpsg		Q	DIS	TBOS	3	N	
W-834-1824	MWPT	Tpsg		Q	DIS	TBOS	4	N	Changed to semi-annual
W-834-1825	MWPT	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-1825	MWPT	Tpsg		Q	DIS	ANIONS	1	N	
W-834-1825	MWPT	Tpsg		Q	DIS	ANIONS	2	Y	
W-834-1825	MWPT	Tpsg		Q	DIS	ANIONS	3	N	
W-834-1825	MWPT	Tpsg		Q	DIS	ANIONS	4	N	Changed to semi -annual
W-834-1825	MWPT	Tpsg		Q	DIS	DWMETALS	1	N	Removed from plan
W-834-1825	MWPT	Tpsg		Q	DIS	DWMETALS	2	Y	
W-834-1825	MWPT	Tpsg		Q	DIS	DWMETALS	3	N	Removed from plan
W-834-1825	MWPT	Tpsg		Q	DIS	DWMETALS	4	N	Removed from plan
W-834-1825	MWPT	Tpsg		Q	DIS	E624	1	N	Access limitations.
W-834-1825	MWPT	Tpsg	S	Q	CMP	E624	2	Y	
W-834-1825	MWPT	Tpsg		Q	DIS	E624	3	Y	
W-834-1825	MWPT	Tpsg	S	Q	CMP	E601	4	Y	
W-834-1825	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-1825	MWPT	Tpsg		Q	DIS	TBOS	1	N	Access limitations.
W-834-1825	MWPT	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-1825	MWPT	Tpsg		Q	DIS	TBOS	3	N	
W-834-1825	MWPT	Tpsg		Q	DIS	TBOS	4	N	Changed to semi -annual
W-834-1833	MWPT	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-1833	MWPT	Tpsg		Q	DIS	ANIONS	1	N	Access limitations.
W-834-1833	MWPT	Tpsg		Q	DIS	ANIONS	2	Y	

Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 3 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-1833	MWPT	Tpsg		Q	DIS	ANIONS	3	N	
W-834-1833	MWPT	Tpsg		Q	DIS	ANIONS	4	N	
W-834-1833	MWPT	Tpsg		Q	DIS	DWMETALS	1	N	Access limitations.
W-834-1833	MWPT	Tpsg		Q	DIS	DWMETALS	2	Y	
W-834-1833	MWPT	Tpsg		Q	DIS	DWMETALS	3	N	
W-834-1833	MWPT	Tpsg		Q	DIS	DWMETALS	4	N	
W-834-1833	MWPT	Tpsg		Q	DIS	E624	1	N	Access limitations.
W-834-1833	MWPT	Tpsg	S	Q	CMP	E624	2	Y	
W-834-1833	MWPT	Tpsg		Q	DIS	E624	3	Y	
W-834-1833	MWPT	Tpsg	S	Q	CMP	E601	4	Y	
W-834-1833	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-1833	MWPT	Tpsg		Q	DIS	TBOS	1	N	Access limitations.
W-834-1833	MWPT	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-1833	MWPT	Tpsg		Q	DIS	TBOS	3	N	
W-834-1833	MWPT	Tpsg		Q	DIS	TBOS	4	N	Changed to semi -annual
W-834-A1	MWPT	Tps		A	DIS	ANIONS	2	Y	
W-834-A1	MWPT	Tps	A	A	CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-A1	MWPT	Tps	S	S	CMP	E601	2	Y	
W-834-A1	MWPT	Tps	S	S	CMP	E601	3	Y	
W-834-A1	MWPT	Tps	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-A1	MWPT	Tps	A	A	CMP	TBOS	2	Y	
W-834-A1	MWPT	Tps			DIS	E8270	3	Y	
W-834-A2	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Access limitations.
W-834-A2	MWPT	Tpsg	S	S	CMP	E601	1	Y	
W-834-A2	MWPT	Tpsg	S	S	CMP	E601	3	N	Dry.
W-834-A2	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-A2	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-B2	EW	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-B2	EW	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-B2	EW	Tpsg	S	S	CMP	E601	2	N	Dry.
W-834-B2	EW	Tpsg	S	S	CMP	E601	3	N	Dry.

Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 4 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-B2	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-B2	EW	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-B2	EW	Tpsg	A	A	CMP	EM8015:DIESEL	4	N	System down.
W-834-B2	EW	Tpsg	A	Q	CMP	TBOS	1	N	Dry.
W-834-B2	EW	Tpsg		Q	DIS	TBOS	2	N	Dry.
W-834-B2	EW	Tpsg		Q	DIS	TBOS	3	N	Dry.
W-834-B2	EW	Tpsg		Q	DIS	TBOS	4	N	System down.
W-834-B3	EW	Tpsg	A	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-B3	EW	Tpsg	A	A	CMP	E300.0:NO3	4	N	System down.
W-834-B3	EW	Tpsg	S	S	CMP	E601	2	Y	
W-834-B3	EW	Tpsg	S	S	CMP	E601	3	Y	
W-834-B3	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-B3	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-B3	EW	Tpsg	A	Q	CMP	TBOS	1	N	Access limitations.
W-834-B3	EW	Tpsg		Q	DIS	TBOS	2	Y	
W-834-B3	EW	Tpsg		Q	DIS	TBOS	3	N	
W-834-B3	EW	Tpsg		Q	DIS	TBOS	4	N	System down.
W-834-B4	MWPT	Tpsg		A	DIS	ANIONS	2	Y	
W-834-B4	MWPT	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-B4	MWPT	Tpsg	S	S	CMP	E601	1	Y	
W-834-B4	MWPT	Tpsg	S	S	CMP	E601	3	N	Dry.
W-834-B4	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-B4	MWPT	Tpsg	A	A	CMP	TBOS	1	Y	
W-834-C2	EW	Tpsg	A	A	CMP	E300.0:NO3	2	N	Dry.
W-834-C2	EW	Tpsg	S	S	CMP	E601	2	N	Dry.
W-834-C2	EW	Tpsg	S	S	CMP	E601	3	N	Dry.
W-834-C2	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-C2	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	N	Dry.
W-834-C2	EW	Tpsg	A	A	CMP	EM8015:DIESEL	4	N	System down.
W-834-C2	EW	Tpsg		A	DIS	GENMIN	2	N	Dry.
W-834-C2	EW	Tpsg		Q	DIS	TBOS	1	N	Dry.

Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 5 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-C2	EW	Tpsg		Q	DIS	TBOS	2	N	Dry.
W-834-C2	EW	Tpsg		Q	DIS	TBOS	3	N	Dry.
W-834-C2	EW	Tpsg	A	Q	CMP	TBOS	4	N	System down.
W-834-C4	MWPT	Tpsg		A	DIS	ANIONS	2	Y	
W-834-C4	MWPT	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-C4	MWPT	Tpsg	S	S	CMP	E601	2	Y	
W-834-C4	MWPT	Tpsg	S	S	CMP	E601	3	Y	
W-834-C4	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	2	N	Insufficient water.
W-834-C4	MWPT	Tpsg	A	A	CMP	TBOS	2	Y	
W-834-C5	MWPT	Tpsg		A	DIS	ANIONS	2	Y	
W-834-C5	MWPT	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-C5	MWPT	Tpsg	S	S	CMP	E601	2	Y	
W-834-C5	MWPT	Tpsg		S	DIS	E601	3	Y	
W-834-C5	MWPT	Tpsg	S	S	CMP	E601	4	Y	
W-834-C5	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-C5	MWPT	Tpsg	A	A	CMP	TBOS	2	Y	
W-834-C5	MWPT	Tpsg			DIS	E8270	3	Y	
W-834-D10	MWPT	Tps	A	A	CMP	E300.0:NO3	2	N	Insufficient water.
W-834-D10	MWPT	Tps	S	S	CMP	E601	2	Y	
W-834-D10	MWPT	Tps	S	S	CMP	E601	3	Y	
W-834-D10	MWPT	Tps	A	A	CMP	EM8015:DIESEL	2	N	Insufficient water.
W-834-D10	MWPT	Tps	A	A	CMP	TBOS	2	N	Insufficient water.
W-834-D11	EW	Tpsg	A	A	CMP	E300.0:NO3	2	N	Insufficient water.
W-834-D11	EW	Tpsg	A	A	CMP	E300.0:NO3	4	N	System down.
W-834-D11	EW	Tpsg	S	S	CMP	E601	2	Y	
W-834-D11	EW	Tpsg	S	S	CMP	E601	3	Y	
W-834-D11	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-D11	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	N	Insufficient water.
W-834-D11	EW	Tpsg	A	A	CMP	EM8015:DIESEL	4	N	System down.
W-834-D11	EW	Tpsg	A	A	CMP	TBOS	2	N	Insufficient water.
W-834-D11	EW	Tpsg	A	A	CMP	TBOS	4	N	System down.



Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 6 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-D12	EW	Tpsg		A	DIS	ANIONS	2	Y	
W-834-D12	EW	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-D12	EW	Tpsg	S	S	CMP	E601	1	Y	
W-834-D12	EW	Tpsg	S	S	CMP	E601	3	Y	
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	EW	Tpsg		A	DIS	ANIONS	2	Y	
W-834-D13	EW	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-D13	EW	Tpsg	S	S	CMP	E601	2	Y	
W-834-D13	EW	Tpsg	S	S	CMP	E601	3	Y	
W-834-D13	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-D13	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-D13	EW	Tpsg		Q	DIS	TBOS	1	N	
W-834-D13	EW	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-D13	EW	Tpsg		Q	DIS	TBOS	3	Y	
W-834-D13	EW	Tpsg		Q	DIS	TBOS	4	N	System down.
W-834-D14	EW	Tpsg		A	DIS	ANIONS	2	Y	
W-834-D14	EW	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-D14	EW	Tpsg	S	S	CMP	E601	2	Y	
W-834-D14	EW	Tpsg	S	S	CMP	E601	3	Y	
W-834-D14	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-D14	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-D14	EW	Tpsg		Q	DIS	TBOS	1	N	
W-834-D14	EW	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-D14	EW	Tpsg		Q	DIS	TBOS	3	Y	
W-834-D14	EW	Tpsg		Q	DIS	TBOS	4	N	System down.
W-834-D15	MWPT	Tpsg		A	DIS	ANIONS	2	Y	
W-834-D15	MWPT	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-D15	MWPT	Tpsg	S	S	CMP	E601	2	Y	
W-834-D15	MWPT	Tpsg	S	S	CMP	E601	3	Y	
W-834-D15	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	

Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 7 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-D15	MWPT	Tpsg	A	A	CMP	TBOS	2	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	N	Dry.
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	2	N	Insufficient water.
W-834-D17	MWPT	Tpsg	S	S	CMP	E601	2	N	Insufficient water.
W-834-D17	MWPT	Tpsg	S	S	CMP	E601	3	N	Dry.
W-834-D17	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	2	N	Insufficient water.
W-834-D17	MWPT	Tpsg	A	A	CMP	TBOS	2	N	Insufficient water.
W-834-D18	MWPT	Tpsg	A	A	CMP	E300.0:NO3	2	N	Insufficient water.
W-834-D18	MWPT	Tpsg	S	S	CMP	E601	2	N	Insufficient water.
W-834-D18	MWPT	Tpsg	S	S	CMP	E601	3	Y	
W-834-D18	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	2	N	Insufficient water.
W-834-D18	MWPT	Tpsg	A	A	CMP	TBOS	2	N	Insufficient water.
W-834-D2	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D2	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	N	Dry.
W-834-D2	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	4	N	DRY
W-834-D2	MWPT	Tnbs <sub>1</sub>	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-D2	MWPT	Tnbs <sub>1</sub>	A	A	CMP	TBOS	1	N	Dry.
W-834-D3	EW	Tpsg		A	DIS	ANIONS	2	Y	
W-834-D3	EW	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-D3	EW	Tpsg	S	S	CMP	E601	2	Y	
W-834-D3	EW	Tpsg	S	S	CMP	E601	3	Y	
W-834-D3	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-D3	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-D3	EW	Tpsg		Q	DIS	TBOS	1	N	Access limitations.
W-834-D3	EW	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-D3	EW	Tpsg		Q	DIS	TBOS	3	Y	
W-834-D3	EW	Tpsg		Q	DIS	TBOS	4	N	System down.

Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 8 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-D4	EW	Tpsg		A	DIS	ANIONS	2	Y	
W-834-D4	EW	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-D4	EW	Tpsg	S	S	CMP	E601	2	Y	
W-834-D4	EW	Tpsg	S	S	CMP	E601	3	Y	
W-834-D4	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-D4	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-D4	EW	Tpsg		Q	DIS	TBOS	1	N	Access limitations.
W-834-D4	EW	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-D4	EW	Tpsg		Q	DIS	TBOS	3	Y	
W-834-D4	EW	Tpsg		Q	DIS	TBOS	4	N	System down.
W-834-D5	EW	Tpsg		A	DIS	ANIONS	2	Y	
W-834-D5	EW	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-D5	EW	Tpsg	S	S	CMP	E601	2	Y	
W-834-D5	EW	Tpsg	S	S	CMP	E601	3	Y	
W-834-D5	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-D5	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-D5	EW	Tpsg		Q	DIS	TBOS	1	N	Access limitations.
W-834-D5	EW	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-D5	EW	Tpsg		Q	DIS	TBOS	3	Y	
W-834-D5	EW	Tpsg		Q	DIS	TBOS	4	N	System down.
W-834-D6	EW	Tpsg		A	DIS	ANIONS	2	Y	
W-834-D6	EW	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-D6	EW	Tpsg	S	S	CMP	E601	2	Y	
W-834-D6	EW	Tpsg	S	S	CMP	E601	3	Y	
W-834-D6	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-D6	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-D6	EW	Tpsg		Q	DIS	TBOS	1	N	Access limitations.
W-834-D6	EW	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-D6	EW	Tpsg		Q	DIS	TBOS	3	Y	
W-834-D6	EW	Tpsg		Q	DIS	TBOS	4	N	System down.
W-834-D7	EW	Tpsg		A	DIS	ANIONS	2	Y	

Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 9 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-D7	EW	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-D7	EW	Tpsg	S	S	CMP	E601	2	Y	
W-834-D7	EW	Tpsg	S	S	CMP	E601	3	Y	
W-834-D7	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-D7	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-D7	EW	Tpsg		A	DIS	TBOS	1	N	Access limitations.
W-834-D7	EW	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-D7	EW	Tpsg		Q	DIS	TBOS	3	N	
W-834-D7	EW	Tpsg		Q	DIS	TBOS	4	N	System down.
W-834-D9A	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D9A	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	N	Dry.
W-834-D9A	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	N	Dry.
W-834-D9A	MWPT	Tnbs <sub>2</sub>	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-D9A	MWPT	Tnbs <sub>2</sub>	A	A	CMP	TBOS	1	N	Dry.
W-834-G3	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-G3	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-G3	MWPT	Tpsg	S	S	CMP	E601	3	N	Dry.
W-834-G3	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-G3	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-H2	EW	Tpsg	A	A	CMP	E300.0:NO3	2	N	Insufficient water.
W-834-H2	EW	Tpsg	A	A	CMP	E300.0:NO3	4	N	System down.
W-834-H2	EW	Tpsg	S	S	CMP	E601	2	Y	
W-834-H2	EW	Tpsg	S	S	CMP	E601	3	Y	
W-834-H2	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-H2	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-H2	EW	Tpsg		Q	DIS	TBOS	1	N	Access limitations.
W-834-H2	EW	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-H2	EW	Tpsg		Q	DIS	TBOS	3	N	Insufficient water.
W-834-H2	EW	Tpsg		Q	DIS	TBOS	4	N	System down.
W-834-J1	EW	Tpsg		A	DIS	ANIONS	2	Y	
W-834-J1	EW	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.

Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 10 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-J1	EW	Tpsg	S	S	CMP	E601	2	Y	
W-834-J1	EW	Tpsg	S	S	CMP	E601	3	Y	
W-834-J1	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-J1	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-J1	EW	Tpsg		Q	DIS	TBOS	1	N	Access limitations.
W-834-J1	EW	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-J1	EW	Tpsg		Q	DIS	TBOS	3	N	Insufficient water.
W-834-J1	EW	Tpsg		Q	DIS	TBOS	4	N	System down.
W-834-J2	EW	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-J2	EW	Tpsg	S	S	CMP	E601	2	Y	
W-834-J2	EW	Tpsg	S	S	CMP	E601	3	Y	
W-834-J2	EW	Tpsg	S	S	CMP	E601	4	N	System down.
W-834-J2	EW	Tpsg	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-J2	EW	Tpsg		Q	DIS	TBOS	1	N	Access limitations.
W-834-J2	EW	Tpsg	A	Q	CMP	TBOS	2	Y	
W-834-J2	EW	Tpsg		Q	DIS	TBOS	3	Y	
W-834-J2	EW	Tpsg		Q	DIS	TBOS	4	N	System down.
W-834-J3	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-J3	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-J3	MWPT	Tpsg	S	S	CMP	E601	3	N	Dry.
W-834-J3	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-J3	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-K1A	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-K1A	MWPT	Tpsg	S	S	CMP	E601	1	N	Insufficient water.
W-834-K1A	MWPT	Tpsg	S	S	CMP	E601	3	N	Dry.
W-834-K1A	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Insufficient water.
W-834-K1A	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Insufficient water.
W-834-M1	MWPT	Tpsg		S	DIS	E218.2	2	Y	
W-834-M1	MWPT	Tpsg		S	DIS	E218.2	3	Y	
W-834-M1	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Access limitations.
W-834-M1	MWPT	Tpsg	S	S	CMP	E601	2	Y	

Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 11 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-M1	MWPT	Tpsg	S	S	CMP	E601	3	Y	
W-834-M1	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-M1	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Access limitations.
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	N	Dry.
W-834-M2	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-M2	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-S1	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Access limitations.
W-834-S1	MWPT	Tpsg	S	S	CMP	E601	1	N	Access limitations.
W-834-S1	MWPT	Tpsg	S	S	CMP	E601	3	Y	
W-834-S1	MWPT	Tpsg	S	S	CMP	E601	4	Y	
W-834-S1	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-S1	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Access limitations.
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	N	Dry.
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	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	N	Dry.
W-834-S12A	MWPT	Tpsg	S	S	CMP	E601	4	N	Dry.
W-834-S12A	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-S12A	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-S13	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Access limitations.
W-834-S13	MWPT	Tpsg	S	S	CMP	E601	1	N	Access limitations.
W-834-S13	MWPT	Tpsg	S	S	CMP	E601	3	Y	
W-834-S13	MWPT	Tpsg	S	S	CMP	E601	4	Y	
W-834-S13	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-S13	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Access limitations.

Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 12 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-S13	MWPT	Tpsg			DIS	E8270	3	Y	
W-834-S4	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Access limitations.
W-834-S4	MWPT	Tpsg	S	S	CMP	E601	1	N	Access limitations.
W-834-S4	MWPT	Tpsg	S	S	CMP	E601	3	Y	
W-834-S4	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-S4	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Access limitations.
W-834-S5	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Access limitations.
W-834-S5	MWPT	Tpsg	S	S	CMP	E601	1	N	Access limitations.
W-834-S5	MWPT	Tpsg	S	S	CMP	E601	3	N	Dry.
W-834-S5	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-S5	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Access limitations.
W-834-S6	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Access limitations.
W-834-S6	MWPT	Tpsg	S	S	CMP	E601	1	N	Access limitations.
W-834-S6	MWPT	Tpsg	S	S	CMP	E601	3	Y	
W-834-S6	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-S6	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Access limitations.
W-834-S7	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Access limitations.
W-834-S7	MWPT	Tpsg	S	S	CMP	E601	1	N	Access limitations.
W-834-S7	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-S7	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Access limitations.
W-834-S8	MWPT	Tnsc <sub>2</sub>		S	DIS	E218.2	1	N	Access limitations.
W-834-S8	MWPT	Tnsc <sub>2</sub>		S	DIS	E218.2	3	Y	
W-834-S8	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Access limitations.
W-834-S8	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	1	N	Access limitations.
W-834-S8	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	3	Y	
W-834-S8	MWPT	Tnsc <sub>2</sub>		S	DIS	E602	1	N	Access limitations.
W-834-S8	MWPT	Tnsc <sub>2</sub>		S	DIS	E602	3	Y	
W-834-S8	MWPT	Tnsc <sub>2</sub>	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-S8	MWPT	Tnsc <sub>2</sub>	A	A	CMP	TBOS	1	N	Access limitations.
W-834-S9	MWPT	Tnsc <sub>2</sub>		S	DIS	E218.2	1	N	Access limitations.

Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 13 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-S9	MWPT	Tnsc <sub>2</sub>		S	DIS	E218.2	3	Y	
W-834-S9	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Access limitations.
W-834-S9	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	1	N	Access limitations.
W-834-S9	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	3	Y	
W-834-S9	MWPT	Tnsc <sub>2</sub>	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-S9	MWPT	Tnsc <sub>2</sub>	A	A	CMP	TBOS	1	N	Access limitations.
W-834-T1	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-834-T1	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-834-T1	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	1	Y	
W-834-T1	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	2	Y	
W-834-T1	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	3	Y	
W-834-T1	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	4	Y	
W-834-T1	GW	Tnbs <sub>1</sub>	S	S	CMP	EM8015:DIESEL	1	Y	
W-834-T1	GW	Tnbs <sub>1</sub>	S	S	CMP	EM8015:DIESEL	3	Y	
W-834-T1	GW	Tnbs <sub>1</sub>		A	DIS	GENMIN	1	Y	
W-834-T1	GW	Tnbs <sub>1</sub>	S	S	CMP	TBOS	1	Y	
W-834-T1	GW	Tnbs <sub>1</sub>	S	S	CMP	TBOS	3	Y	
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	N	Dry.
W-834-T11	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-T11	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-T2	MWPT	Tpsg		A	DIS	ANIONS	2	Y	
W-834-T2	MWPT	Tpsg		A	DIS	DWMETALS	2	Y	
W-834-T2	MWPT	Tpsg		A	DIS	E218.2	2	Y	
W-834-T2	MWPT	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-T2	MWPT	Tpsg	S	S	CMP	E601	2	Y	
W-834-T2	MWPT	Tpsg	S	S	CMP	E601	3	Y	
W-834-T2	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.



Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 14 of 16)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-834-T2	MWPT	Tpsg	A	A	CMP	TBOS	2	Y	
W-834-T2A	MWPT	Tpsg		A	DIS	ANIONS	2	Y	
W-834-T2A	MWPT	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-T2A	MWPT	Tpsg	S	S	CMP	E601	2	Y	
W-834-T2A	MWPT	Tpsg	S	S	CMP	E601	3	Y	
W-834-T2A	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-T2A	MWPT	Tpsg	A	A	CMP	TBOS	2	Y	
W-834-T2A	MWPT	Tpsg		A	DIS	DWMETALS	2	Y	
W-834-T2B	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T2B	MWPT	Tpsg	S	S	CMP	E601	1	N	Dry.
W-834-T2B	MWPT	Tpsg	S	S	CMP	E601	3	N	Dry.
W-834-T2B	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-T2B	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
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	N	Dry.
W-834-T2C	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-T2C	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-T2D	MWPT	Tpsg		A	DIS	ANIONS	2	Y	
W-834-T2D	MWPT	Tpsg	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-T2D	MWPT	Tpsg	S	S	CMP	E601	2	Y	
W-834-T2D	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-T2D	MWPT	Tpsg	A	A	CMP	TBOS	2	Y	
W-834-T3	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-834-T3	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-834-T3	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	1	Y	
W-834-T3	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	2	Y	
W-834-T3	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	3	Y	
W-834-T3	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	4	Y	
W-834-T3	GW	Tnbs <sub>1</sub>	S	S	CMP	EM8015:DIESEL	1	Y	

Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 15 of 16)

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 <sub>1</sub>	S	S	CMP	EM8015:DIESEL	3	Y	
W-834-T3	GW	Tnbs <sub>1</sub>		A	DIS	GENMIN	1	Y	
W-834-T3	GW	Tnbs <sub>1</sub>	S	S	CMP	TBOS	1	Y	
W-834-T3	GW	Tnbs <sub>1</sub>	S	S	CMP	TBOS	3	Y	
W-834-T5	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Access limitations.
W-834-T5	MWPT	Tpsg	S	S	CMP	E601	1	N	Access limitations.
W-834-T5	MWPT	Tpsg	S	S	CMP	E601	3	Y	
W-834-T5	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-T5	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Access limitations.
W-834-T7A	MWPT	Tpsg	A	A	CMP	E300.0:NO3	1	N	Access limitations.
W-834-T7A	MWPT	Tpsg	S	S	CMP	E601	1	N	Access limitations.
W-834-T7A	MWPT	Tpsg	S	S	CMP	E601	3	Y	
W-834-T7A	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Access limitations.
W-834-T7A	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Access limitations.
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	N	Dry.
W-834-T8A	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
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	N	Dry.
W-834-T9	MWPT	Tpsg	A	A	CMP	EM8015:DIESEL	1	N	Dry.
W-834-T9	MWPT	Tpsg	A	A	CMP	TBOS	1	N	Dry.
W-834-U1	MWPT	Tps		A	DIS	ANIONS	2	Y	
W-834-U1	MWPT	Tps	A		CMP	E300.0:NO3	2	Y	NO3 part of ANIONS analyte suite.
W-834-U1	MWPT	Tps	S	S	CMP	E601	2	Y	
W-834-U1	MWPT	Tps	S	S	CMP	E601	3	Y	
W-834-U1	MWPT	Tps	A	A	CMP	EM8015:DIESEL	2	Y	
W-834-U1	MWPT	Tps	A	A	CMP	TBOS	2	Y	
W-834-U1	MWPT	Tps			DIS	E8270	3	Y	

**Table 2.2-2. Building 834 2003 ground water sampling and analysis plan. (Cont. Page 16 of 16)**

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
<b>Notes:</b>									
Building 834 primary COC: VOCs (E601, 502.2, or E624).									
Building 834 secondary COC: Nitrate (E300.0:NO3).									
Building 834 secondary COC: TBOS/TKEBS.									
Building 834 secondary COC: Diesel.									
CGSA CMP/DIS = Sampling more frequently then required.									
CGSA CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes then required by the CMP. Non-CMP analytes are reported separately by ORAD.									
CGSA CMP = Central GSA groundwater sampling and analysis plan specified in the GSA RD									
CMP DMW = CMP detection monitor well.									
CMP/DIS = Sampling required analyte more frequently then required.									
CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes then required by the CMP. Non-CMP analytes are reported separately by ORAD.									
CMP = Compliance Monitoring.									
DIS = Discretionary sampling of non-required analyte.									
DMW = Detection monitor well (non-CMP).									
ERD/WGMG = Non-CMP analyte sampled from a well shared by ERD and WGMG.									
EW = Extraction well.									
GW = Guard well.									
MWB = Monitor well used for background.									
MWPT = Monitor well used for plume tracking.									
SPR = Spring.									
WS = Water supply well.									

Table 2.2-3. Building 834 OU 2003 VOCs in ground water.

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)
W-834-2001	10/30/03	E601	31,000 D	59 D	300 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-2001	10/30/03 DUP	E601	14,000 D	59 D	300 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-1709	06/11/03	E624	11,000 D	58 D	95 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-1709	09/16/03	E624	14,000 D	88	650 D	<0.5	1.3	<0.5	<0.5	2.2	0.58	<0.5	<0.5	<0.5
W-834-1709	11/04/03	E601	1,200 D	100 D	300 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-1711	06/11/03	E624	1,400 D	24	1.4	<0.5	0.63	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-1711	09/16/03	E624	1,400 D	20	1.6	<0.5	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-1711	11/04/03	E601	24,000 D	20 D	<5 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D
W-834-1824	06/17/03	E624	25,000 D	49 D	42 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-1824	09/16/03	E624	23,000 D	59	42	4.1	5.3	<0.5	0.61	5.4	<0.5	4	<0.5	<0.5
W-834-1824	11/04/03	E601	16,000 D	90 D	<100 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-1825	06/17/03	E601	18,000 D	27 D	23 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-1825	09/16/03	E624	13,000 D	33	27	3	4	<0.5	0.59	3.8	<0.5	2.5	<0.5	<0.5
W-834-1825	11/04/03	E601	17,000 D	31 D	<50 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-1833	06/23/03	E624	20,000 D	32 D	<50 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-1833	09/16/03	E624	18,000 D	37	33	3.4	4.7	<0.5	0.75	5	<0.5	2.9	<0.5	<0.5
W-834-1833	11/04/03	E601	120,000 D	<50 D	<100 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-1709	06/11/03	E624	200,000 D	58 D	95 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-1709	09/16/03	E624	13,000 D	88	650 D	<0.5	1.3	<0.5	<0.5	2.2	0.58	<0.5	<0.5	<0.5
W-834-1709	11/04/03	E601	82 D	100 D	300 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-1711	06/11/03	E624	200 D	24	1.4	<0.5	0.63	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-1711	09/16/03	E624	-	20	1.6	<0.5	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-1711	11/04/03	E601	8,900 D	20 D	<5 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D
W-834-1824	06/17/03	E624	17,000 D	49 D	42 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-1824	09/16/03	E624	39	59	42	4.1	5.3	<0.5	0.61	5.4	<0.5	4	<0.5	<0.5
W-834-1824	11/04/03	E601	120 D	90 D	<100 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-1825	06/17/03	E601	33,000 D	27 D	23 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-1825	09/16/03	E624	48,000 D	33	27	3	4	<0.5	0.59	3.8	<0.5	2.5	<0.5	<0.5
W-834-1825	11/04/03	E601	36,000 D	31 D	<50 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-1833	06/23/03	E624	31,000 D	32 D	<50 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-1833	09/16/03	E624	550 D	37	33	3.4	4.7	<0.5	0.75	5	<0.5	2.9	<0.5	<0.5
W-834-1833	11/04/03	E601	1,700 D	<50 D	<100 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-A1	06/16/03	E601	-	640 D	<300 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D
W-834-A1	09/03/03	E601	50 D	1,100 D	<500 D	<300 D	<300 D	<300 D	<300 D	<300 D	<300 D	<300 D	<300 D	<300 D
W-834-A2	04/01/03	E601	120 D	40 D	1,000 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-B3	06/20/03	E601	1,200 D	<3 D	1,000 D	<3 D	<3 D	<3 D	<3 D	4.0 D	<3 D	<3 D	<3 D	<3 D

Table 2.2-3. Building 834 OU 2003 VOCs in ground water. (Cont. Page 2 of 6)

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)
W-834-B3	09/19/03	E601	<30 D	<5 D	3,500 D	<5 D	<5 D	<5 D	<5 D	9.7 D	<5 D	<5 D	<5 D	<5 D
W-834-B3	10/08/03	E601	<50 D	-	-	-	-	-	-	-	-	-	-	-
W-834-B4	04/01/03	E601	-	19 D	2,000 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-B4	06/12/03	E601	1,400 D	43 D	4,300 D	<10 D	<10 D	<10 D	<10 D	23 D	<10 D	<10 D	<10 D	<10 D
W-834-C4	06/12/03	E601	8,300 D	<0.5	35	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-C4	09/03/03	E601	8,500 D	<0.5	130 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-C5	06/12/03	E601	-	130 D	8,700 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-C5	09/15/03	E601	9,500 D	150 D	25,000 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D
W-834-C5	09/15/03 DUP	E601	14,000 D	140 D	20,000 D	<0.5	4.4	1.3	4.7	110 D	2.8	<0.5	<0.5	5
W-834-C5	11/04/03	E601	4,000 D	120 D	33,000 D	<50 D	<50 D	<50 D	<50 D	98 D	<50 D	<50 D	<50 D	<50 D
W-834-D3	06/18/03	E601	2,800 D	<50 D	17,000 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	520 D
W-834-D3	09/19/03	E601	4,600 D	<50 D	10,000 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	83 D
W-834-D3	10/08/03	E601	2,200 D	-	-	-	-	-	-	-	-	-	-	-
W-834-D4	06/18/03	E601	39,000 D	<30 D	17,000 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	140 D
W-834-D4	06/19/03	E601	5,400 D	<30 D	20,000 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	200 D
W-834-D4	07/09/03	E601	4,100 D	<30 D	18,000 D	<30 D	<30 D	<30 D	<30 D	31 D	<30 D	<30 D	<30 D	100 D
W-834-D4	08/13/03	E601	3,100 D	<30 D	17,000 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	68 D
W-834-D4	09/19/03	E601	420 D	<50 D	18,000 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	88 D
W-834-D4	10/08/03	E601	21,000 D	-	-	-	-	-	-	-	-	-	-	-
W-834-D5	06/18/03	E601	15,000 D	13 D	7,600 D	<3 D	<3 D	<3 D	<3 D	13 D	<3 D	<3 D	<3 D	180 D
W-834-D5	09/19/03	E601	15,000 D	69 D	3,600 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	23 D
W-834-D5	09/19/03 DUP	E601	14,000 D	74 D	4,300 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	21 D
W-834-D5	10/08/03	E601	18,000 D	-	-	-	-	-	-	-	-	-	-	-
W-834-D6	06/19/03	E601	22,000 D	66 D	350 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D
W-834-D6	09/19/03	E601	1,600 D	95 D	480 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-D7	06/23/03	E601	270 D	18 D	33 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-D7	09/19/03	E601	540 D	26 D	57 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D10	06/16/03	E601	570 D	13 D	<20 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-D10	09/23/03	E601	610 D	15 D	<10 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D11	06/16/03	E601	550 D	57 D	170 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-D11	09/23/03	E601	480 D	11 D	30 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-D12	04/01/03	E601	510 D	20 D	65 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D12	06/12/03	E601	530 D	15 D	76 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-D12	09/19/03	E601	<0.5	0.96	32	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D13	06/18/03	E601	<0.5	260 D	1,400 D	<30 D	<30 D	<30 D	<30 D	<30 D	99 D	<30 D	<30 D	<30 D
W-834-D13	09/19/03	E601	<0.5	140 D	420 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D

Table 2.2-3. Building 834 OU 2003 VOCs in ground water. (Cont. Page 3 of 6)

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)
W-834-D14	06/18/03	E601	6,800 D	52 D	1,600 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-D14	09/19/03	E601	7,300 D	72 D	930 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-D15	06/16/03	E601	19,000 D	31 D	520 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-D15	09/03/03	E601	19,000 D	<50 D	890 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-D17	06/16/03	E601	3.7	32 D	400 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D
W-834-D18	09/15/03	E601	1.6	<0.5	48	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-H2	06/19/03	E601	<0.5	<1 D	<2 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D
W-834-H2	09/23/03	E601	2,500 D	2.4 D	<2 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D
W-834-J1	06/19/03	E601	2,100 D	1.4 D	<2 D	<1 D	1.3 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D
W-834-J1	09/19/03	E601	<0.5	<3 D	<5 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D
W-834-J2	06/19/03	E601	<0.5 L	1.2 D	<2 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D
W-834-J2	07/09/03	E601	<0.5	2.2 D	<2 D	<1 D	1.2 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D
W-834-J2	09/23/03	E601	<0.5	1.3 D	<2 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D
W-834-M1	06/17/03	E601	25,000 D	<0.5	<1	<0.5	6.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-M1	09/10/03	E601	26,000 D	<0.5	<1	<0.5	6.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-M1	09/10/03 DUP	E601	24,000 D	<0.5	<0.5	<0.5	5.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S1	09/11/03	E601	23,000 D	170 D	340 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	69 D	<30 D
W-834-S1	11/04/03	E601	23,000 D	190 D	360 D	<20 D	<20 D	<20 D	<20 D	<20 D	<20 D	<20 D	<20 D	<20 D
W-834-S13	09/15/03	E601	12,000 D	96 D	2,400 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-S13	11/05/03	E601	<0.5	92 D	3,900 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-S4	09/10/03	E601	<0.5 L	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S6	09/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S7	09/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S8	09/11/03	E601	<0.5	22 D	39 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-S9	09/11/03	E601	<0.5	5.3 D	<10 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-T1	03/18/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T1	05/23/03	E601	<0.5	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L
W-834-T1	09/09/03	E601	39,000 D	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T1	10/10/03	E601	61,000 D	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T2	06/23/03	E601	42,000 DL	59 D	<100 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-T2	09/11/03	E601	31,000 D	52 D	<50 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-T2A	06/23/03	E601	14,000 D	48 D	<50 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-T2A	09/11/03	E601	11,000 D	<50 D	<100 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-T2A	09/11/03 DUP	E601	14,000 D	52 D	<100 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-T2D	06/18/03	E601	1,200 D	<30 D	<50 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D	<30 D
W-834-T3	03/17/03	E601	1,400 D	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.2-3. Building 834 OU 2003 VOCs in ground water. (Cont. Page 4 of 6)

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)
W-834-T3	05/23/03	E601	1,400 D	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L
W-834-T3	09/11/03	E601	24,000 D	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T3	09/11/03 DUP	E601	25,000 D	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T3	10/10/03	E601	23,000 D	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T5	09/16/03	E601	16,000 D	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T5	09/16/03 DUP	E601	18,000 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T7A	09/15/03	E601	13,000 D	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-U1	06/16/03	E601	17,000 D	230 D	690 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D
W-834-U1	09/03/03	E601	20,000 D	290 D	950 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D
W-834-U1	09/03/03 DUP	E601	18,000 D	<1,000 D	<1,000 D	<1,000 D	<1,000 D	<1,000 D	<1,000 D	<1,000 DL	<1,000 D	<1,000 D	<1,000 D	<1,000 D

See following pages for other VOCs not detected in this table (pages 1 through 4).

Table 2.2-3. Building 834 OU 2003 VOCs in ground water. (Cont. Page 5 of 6) Other VOCs not detected in the table on pages 1 through 4:

Location	Date	Method	1,1,2-Trichloroethane (µg/L)	1,3-Dichlorobenzene (µg/L)	Bromo-Dichloromethane (µg/L)	Bromoform (µg/L)	Carbon disulfide (µg/L)	Chlorobenzene (µg/L)	Dibromochloromethane (µg/L)	Total trihalomethanes (µg/L)	cis-1,2-Dichloroethene (µg/L)	trans-1,2-Dichloroethene (µg/L)
W-834-2001	10/30/03 MSC	E601	-	-	-	-	-	-	-	-	300 D	-
W-834-1709	06/11/03	E624	-	-	-	-	-	-	-	-	95 D	-
W-834-1709	09/16/03	E624	1.8	-	-	-	-	-	-	-	650 D	0.86
W-834-1709	11/04/03	E601	-	-	-	-	-	-	-	-	300 D	-
W-834-1711	06/11/03	E624	-	-	-	-	1.9	-	-	-	1.2	-
W-834-1711	09/16/03	E624	-	-	-	-	-	-	-	-	1.4	-
W-834-1824	06/17/03	E624	-	-	-	-	-	-	-	-	40 D	-
W-834-1824	09/16/03	E624	5	-	-	-	-	-	-	-	41	0.89
W-834-1825	06/17/03	E601	-	-	-	-	-	-	-	-	22 D	-
W-834-1825	09/16/03	E624	4.3	-	-	-	-	-	-	-	27	0.68
W-834-1833	09/16/03	E624	4.8	-	-	-	-	-	-	-	32	0.84
W-834-A2	04/01/03	E601	-	-	-	-	-	-	-	-	1,000 D	-
W-834-B3	06/20/03	E601	-	-	-	-	-	-	-	-	1,000 D	-
W-834-B3	09/19/03	E601	-	-	-	-	-	-	-	-	3,500 D	-
W-834-B4	04/01/03	E601	-	-	-	-	-	-	-	-	2,000 D	-
W-834-B4	06/12/03	E601	-	-	-	-	-	-	-	-	4,300 D	-
W-834-C4	06/12/03	E601	-	-	-	-	-	-	-	-	35	-
W-834-C4	09/03/03	E601	-	-	-	-	-	-	-	-	130 D	-
W-834-C5	06/12/03	E601	-	-	-	-	-	-	-	-	8,600 D	-
W-834-C5	09/15/03	E601	-	-	-	-	-	-	-	-	25,000 D	-
W-834-C5	09/15/03 DUP	E601	6.5	-	-	-	-	-	-	-	20,000 D	42
W-834-C5	11/04/03	E601	-	-	-	-	-	-	-	-	33,000 D	-
W-834-D3	06/18/03	E601	-	-	-	-	-	-	-	-	17,000 D	-
W-834-D3	09/19/03	E601	-	-	-	-	-	-	-	-	10,000 D	-
W-834-D4	06/18/03	E601	-	-	-	-	-	-	-	-	17,000 D	-
W-834-D4	06/19/03	E601	-	-	-	-	-	-	-	-	20,000 D	-
W-834-D4	07/09/03	E601	-	-	-	-	-	-	-	-	18,000 D	-
W-834-D4	08/13/03	E601	-	-	-	-	-	-	-	-	17,000 D	-
W-834-D4	09/19/03	E601	-	-	-	-	-	-	-	-	18,000 D	-
W-834-D5	06/18/03	E601	-	-	-	-	-	-	-	-	7,600 D	14 D
W-834-D5	09/19/03	E601	-	-	-	-	-	-	-	-	3,600 D	-
W-834-D5	09/19/03 DUP	E601	-	-	-	-	-	-	-	-	4,300 D	-
W-834-D6	06/19/03	E601	-	-	-	-	-	-	-	-	350 D	-
W-834-D6	09/19/03	E601	-	-	-	-	-	-	-	-	480 D	-
W-834-D7	06/23/03	E601	-	-	-	-	-	-	-	-	33 D	-
W-834-D7	09/19/03	E601	-	-	-	-	-	-	-	-	57 D	-
W-834-D11	06/16/03	E601	-	-	-	-	-	-	-	-	170 D	-
W-834-D11	09/23/03	E601	-	-	-	-	-	-	-	-	30 D	-
W-834-D12	04/01/03	E601	-	-	-	-	-	-	-	-	65 D	-
W-834-D12	06/12/03	E601	-	-	-	-	-	-	-	-	76 D	-
W-834-D12	09/19/03	E601	-	-	-	-	-	0.67	-	-	32	-
W-834-D13	06/18/03	E601	-	-	-	-	-	-	-	-	1,400 D	-
W-834-D13	09/19/03	E601	-	-	-	-	-	-	-	-	420 D	-



Table 2.2-3. Building 834 OU 2003 VOCs in ground water. (Cont. Page 6 of 6) Other VOCs not detected in the table on pages 1 through 4:

Location	Date	Method	1,1,2-Trichloroethane (µg/L)	1,3-Dichlorobenzene (µg/L)	Bromo-Dichloromethane (µg/L)	Bromoform (µg/L)	Carbon disulfide (µg/L)	Chlorobenzene (µg/L)	Dibromochloromethane (µg/L)	Total trihalomethanes (µg/L)	cis-1,2-Dichloroethene (µg/L)	trans-1,2-Dichloroethene (µg/L)
W-834-D14	06/18/03	E601	-	-	-	-	-	-	-	-	1,600 D	-
W-834-D14	09/19/03	E601	-	-	-	-	-	-	-	-	930 D	-
W-834-D15	06/16/03	E601	-	-	-	-	-	-	-	-	520 D	-
W-834-D15	09/03/03	E601	-	-	-	-	-	-	-	-	890 D	-
W-834-D17	06/16/03	E601	-	-	-	-	-	-	-	-	400 D	-
W-834-D18	09/15/03	E601	-	-	-	-	-	-	-	-	48	-
W-834-H2	06/19/03	E601	2.7 D	-	-	-	-	-	-	-	-	-
W-834-H2	09/23/03	E601	4.0 D	-	-	-	-	-	-	-	-	-
W-834-J1	09/19/03	E601	-	-	-	-	-	-	-	-	4.0 D	-
W-834-J2	06/19/03	E601	-	-	-	-	-	-	-	-	-	-
W-834-M1	06/17/03	E601	-	1.3	0.95	0.52	-	-	0.69	8.9	-	-
W-834-M1	09/10/03	E601	-	1.7	1	0.56	-	-	0.72	8.9	-	-
W-834-M1	09/10/03 DUP	E601	-	2.1	0.8	0.5	-	-	0.7	-	-	-
W-834-S1	09/11/03	E601	-	-	-	-	-	-	-	-	340 D	-
W-834-S1	11/04/03	E601	-	-	-	-	-	-	-	-	360 D	-
W-834-S13	09/15/03	E601	-	-	-	-	-	-	-	-	2,400 D	35 D
W-834-S13	11/05/03	E601	-	-	-	-	-	-	-	-	3,900 D	67 D
W-834-S8	09/11/03	E601	-	-	-	-	-	-	-	-	39 D	-
W-834-S9	09/11/03	E601	-	-	-	-	-	-	-	-	5.0 D	-
W-834-T2	09/11/03	E601	-	-	-	-	-	-	-	-	35 D	-
W-834-T2A	06/23/03	E601	-	-	-	-	-	-	-	-	44 D	-
W-834-T2D	06/18/03	E601	-	-	-	-	-	-	-	-	34 D	-
W-834-U1	06/16/03	E601	-	-	-	-	-	-	-	-	670 D	-
W-834-U1	09/03/03	E601	-	-	-	-	-	-	-	-	950 D	-

Table 2.2-4. Building 834 OU 2003 TBOS in ground water.

Location	Date	TBOS ( $\mu\text{g/L}$ )
W-834-2001	10/30/03	<1
W-834-1709	06/11/03	14 O
W-834-1709	09/16/03	10 D
W-834-1709	11/04/03	6.9
W-834-1711	09/16/03	67 D
W-834-1824	06/17/03	<1
W-834-1825	06/17/03	<1
W-834-1833	06/23/03	<1
W-834-A1	06/16/03	1.5
W-834-A2	04/01/03	1.3 IJ
W-834-B3	06/20/03	<500 D
W-834-B4	04/01/03	<1
W-834-B4	06/12/03	<1 O
W-834-C4	06/12/03	<1 O
W-834-C5	06/12/03	<1 O
W-834-D3	06/18/03	10,000 D
W-834-D3	09/19/03	2,100 DIJ
W-834-D4	06/18/03	520,000 D
W-834-D4	09/19/03	9,000 DIJ
W-834-D5	06/18/03	88 D
W-834-D5	09/19/03	44 D
W-834-D5	09/19/03 DUP	18 DIJ
W-834-D6	06/20/03	<1
W-834-D6	09/19/03	<10 D
W-834-D7	06/23/03	<1
W-834-D12	04/01/03	11
W-834-D12	06/12/03	<1 O
W-834-D13	06/18/03	5.6
W-834-D13	09/19/03	<10 D
W-834-D14	06/18/03	34 D
W-834-D14	09/19/03	2.8 DIJ
W-834-D15	06/16/03	<1
W-834-H2	06/19/03	6.1 O
W-834-J1	06/19/03	<1 O
W-834-J2	06/19/03	<1 O
W-834-J2	09/23/03	<10 D
W-834-T1	03/18/03	<1
W-834-T1	09/09/03	<1
W-834-T2	06/23/03	<1
W-834-T2A	06/23/03	<1
W-834-T2D	06/18/03	1.7
W-834-T3	03/17/03	<1 O
W-834-T3	09/11/03	<1
W-834-U1	06/16/03	<1

Table 2.2-5. Building 834 OU 2003 anions in ground water.

Location	Date	Bromide (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as N) (mg/L)	Nitrate (as NO <sub>3</sub> ) (mg/L)	Nitrate (as NO <sub>3</sub> ) (mg/L)	Nitrate plus Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Nitrite (as NO <sub>2</sub> ) (mg/L)	Ortho- Phosphate (mg/L)	Sulfate (mg/L)
W-834-1709	06/11/03	0.20 H	12 H	0.48 H	0.23	1	-	0.28 L	0.051	0.17	0.86 D	18 H
W-834-1711	11/04/03	-	-	-	-	-	81	-	-	-	-	-
W-834-1824	06/17/03	0.70 H	180 H	1.2 H	20 D	90 D	-	20 DL	<0.02	<0.065	0.81	78 H
W-834-1825	06/17/03	0.70 H	190 H	1.2 H	16 D	69 D	-	16 DL	<0.02	<0.065	1	73 H
W-834-1833	06/23/03	0.70 H	190 H	1.1 H	14 DH	62 DH	-	14 DH	<0.02	<0.065	0.47	72 H
W-834-A1	06/16/03	0.2	53	0.7	<0.5 D	<2 D	-	<0.5 D	<0.02	<0.065	1.1	22
W-834-B4	06/12/03	0.20 H	26 H	0.47 H	3.4 DH	15 DH	-	3.4 DH	<0.02	<0.065	1.4	16 H
W-834-C4	06/12/03	0.20 H	7.4 H	0.62 H	22 DH	98 DH	-	22 DH	0.02	0.066	0.87	29 H
W-834-C5	06/12/03	0.30 H	14 H	0.36 H	25 DH	110 DH	-	25 DH	<0.02	<0.065	1.1	18 H
W-834-D3	06/18/03	0.20 H	35 H	0.35 H	<0.1	<0.4	-	<0.1 L	<0.02	<0.065	2.4 D	<1 H
W-834-D4	06/18/03	2.5 H	75 H	0.18 H	<0.1	<0.4	-	<0.1 L	<0.02	<0.065	2.8 D	<1 H
W-834-D5	06/18/03	0.30 H	62 H	0.56 H	1.4 D	6.0 D	-	2.9 DL	1.5 D	5.1 D	0.85	90 H
W-834-D6	06/19/03	0.20 H	37 H	0.53 H	7.1 DH	31 DH	-	7.1 D	<0.02	<0.065	0.075 H	100 H
W-834-D7	06/23/03	0.40 H	60 H	0.48 H	8.1 DH	36 DH	-	8.1 DH	0.033	0.11	<0.05	71 H
W-834-D12	06/12/03	0.30 H	78 H	0.39 H	14 DH	62 DH	-	14 DH	<0.02	<0.065	0.97	100 H
W-834-D13	06/18/03	0.20 H	35 H	0.39 H	9.4 D	42 D	-	10 DL	0.75 D	2.5 D	1	120 H
W-834-D14	06/18/03	0.30 H	26 H	0.82 H	10 D	45 D	-	10 DL	<0.02	<0.065	0.91	90 H
W-834-D15	06/16/03	0.2	24	0.51	17 D	74 D	-	17 D	0.023	0.075	0.94	61
W-834-J1	06/19/03	0.40 H	82 H	0.60 H	20 DH	89 DH	-	20 D	<0.02	<0.065	0.66	35 H
W-834-J2	06/19/03	0.20 H	39 H	0.59 H	16 DH	71 DH	-	16 D	<0.02	<0.065	0.6	33 H
W-834-T1	03/18/03	-	-	-	-	-	<0.44	-	-	-	-	-
W-834-T1	09/09/03	-	-	-	-	-	<0.44	-	-	-	-	-
W-834-T2	06/23/03	0.70 H	180 H	0.87 H	13 DH	58 DH	-	13 DH	<0.02	<0.065	<0.05	67 H
W-834-T2A	06/23/03	0.40 H	120 H	1.2 H	8.6 DH	38 DH	-	8.6 DH	<0.02	<0.065	<0.05	65 H
W-834-T2D	06/18/03	0.60 H	160 H	0.94 H	20 D	89 D	-	20 DL	<0.02	<0.065	0.54	63 H
W-834-T3	03/17/03	-	-	-	-	-	<0.44	-	-	-	-	-
W-834-T3	09/11/03	-	-	-	-	-	<0.44	-	-	-	-	-
W-834-T3	09/11/03 DUP	-	-	-	-	-	<0.1	-	-	-	-	-
W-834-U1	06/16/03	0.3	56	0.87	<0.5 D	<2 D	-	<0.5 D	<0.02	<0.065	1.2	42

**Table 2.2-6. Building 834 OU 2003 diesel range organic compounds in ground water.**

Location	Date	Diesel fuel ( $\mu\text{g/L}$ )
W-834-2001	10/30/03	72,000 HD
W-834-A1	06/16/03	89 G
W-834-B3	06/20/03	43,000 DG
W-834-B4	06/12/03	60 G
W-834-C5	06/12/03	77
W-834-D3	06/18/03	<10,000 D
W-834-D4	06/18/03	42,000 DG
W-834-D5	06/18/03	3,800 DG
W-834-D6	06/20/03	<50
W-834-D7	06/23/03	380 L
W-834-D12	04/01/03	<50
W-834-D12	06/12/03	<50
W-834-D13	06/18/03	770 DG
W-834-D14	06/18/03	580 DG
W-834-D15	06/16/03	<50
W-834-H2	06/19/03	1,500 G
W-834-J1	06/19/03	300 G
W-834-J2	06/19/03	1,000 DG
W-834-T1	03/18/03	<50
W-834-T1	09/09/03	<50
W-834-T3	03/17/03	60
W-834-T3	09/11/03	<50
W-834-T3	09/11/03 DUP	<56
W-834-U1	06/16/03	200 G

Table 2.2-7. Analytical results for n-Butyl-Benzenesulfonamide (BBSA) at Site 300.

Sample ID	Sample date	BBSA conc. ( $\mu\text{g/L}$ )	Sample description
<i>Building 834 OU</i>			
W-834-1709	11/18/03	14	Bailed grab sample; no pump installed
W-834-1709	01/12/04	< 4	Bailed grab sample; no pump installed
W-834-1711	11/18/03	<5	Bailed grab sample; no pump installed
W-834-A1	11/18/03	<5	Bailed grab sample; no pump installed
W-834-A2	01/12/04	< 4	Bailed grab sample; no pump installed
W-834-B3	12/12/03	29,500	Solo pump sample
W-834-C4	12/12/03	<5	Bailed grab sample; no pump installed
W-834-C5	11/18/03	<5	Bailed grab sample; no pump installed
W-834-D3	11/18/03	22,000	Solo pump sample
W-834-D4	11/18/03	197,000	Solo pump sample
W-834-D5	11/18/03	22,000	Solo pump sample
W-834-D7	11/18/03	232,000	Solo pump sample
W-834-D12	11/18/03	531,000	Solo pump sample
W-834-D13	11/18/03	16,000	Solo pump sample
W-834-D14	11/18/03	800	Bailed grab sample; Solo pump inoperable
W-834-D15	11/18/03	<5	Bailed grab sample; no pump installed
W-834-J2	11/18/03	187,000	Solo pump sample
W-834-M1	12/18/03	<5	Bailed grab sample; no pump installed
W-834-S1	11/18/03	<5	Bailed grab sample; no pump installed
W-834-S8	11/18/03	6,500	Bailed grab sample; Solo pump installed
W-834-S8	120/8/03	541,000	Solo pump sample
W-834-S8	12/08/03	165,000	Solo pump sample
W-834-S8	12/08/03	2,200	Bailed grab sample; Solo pump removed
W-834-S8	12/10/03	<5	Bailed grab sample; Solo pump removed
W-834-S8	12/12/03	<5	Bailed grab sample; Solo pump removed
W-834-S8	01/08/04	< 4	Bailed grab sample; Solo pump removed
W-834-S9	11/18/03	508,000	Solo pump sample
W-834-S9	12/08/03	397,000	Solo pump sample
W-834-S9	12/08/03	1,500	Bailed grab sample; Solo pump installed
W-834-S9	12/10/03	2,900	Bailed grab sample; Solo pump removed on 12/8
W-834-S9	12/12/03	480	Bailed grab sample
W-834-S9	01/08/04	< 4	Bailed grab sample

Table 2.2-7. Analytical results for n-Butyl-Benzenesulfonamide (BBSA) at Site 300. (Cont. Page 2 of 2)

Sample ID	Sample date	BBSA conc. (µg/L)	Sample description
W-834-S9	01/08/04	270	Bailed 90% casing volume sample
W-834-S9	01/12/04	< 4	Bailed grab sample
W-834-S13	11/18/03	<5	Bailed grab sample; no pump installed
W-834-T2A	12/18/03	<5	Bailed grab sample; no pump installed
W-834-T2	12/18/03	<5	Bailed grab sample; no pump installed
W-834-T5	12/18/03	<5	Well Wizard sample; 3 casing volumes purged
<i>Building 832 Canyon OU</i>			
W-832-05	01/30/04	<4	Bailed grab sample; no pump installed
W-832-12	12/11/03	17	Solo pump sample
W-832-13	12/11/03	<5	Solo pump sample
W-832-15	12/11/03	4,500	Solo pump sample
W-832-23	01/30/04	<4	Bailed grab sample; no pump installed
TF-832-I	01/15/04	5	Treatment Facility Influent grab sample
TF-832-I	01/29/04	<4	Treatment Facility Influent grab sample
TF-832-E	01/15/04	92	Treatment Facility Effluent grab sample
TF-832-E	01/29/04	87	Treatment Facility Effluent grab sample
<i>GSA OU</i>			
W-7F1	01/30/04	485,000	Solo pump sample
W-7F2	01/30/04	482,000	Solo pump sample
W-7I	12/11/03	330	Solo pump sample
W-7Q	01/30/04	<4	Bailed grab sample; no pump installed
W-872-01	01/30/04	<4	Bailed grab sample; no pump installed
W-872-02	12/11/03	<5	Bailed grab sample; Solo pump inoperable
W-873-06	01/30/04	<4	Bailed grab sample; no pump installed
W-873-07	12/11/03	<5	Bailed grab sample; Solo pump inoperable
W-875-03	01/30/04	<4	Bailed grab sample; no pump installed
W-875-07	12/11/03	5	Solo pump sample
W-875-08	12/11/03	6	Solo pump sample
PTU07-E	01/15/04	<4	Treatment Facility Effluent grab sample

Table 2.2-8. Building 834 OU 2003 metals in ground water.

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
W-834-1824	06/17/03	0.017	<0.025	<0.0005	0.0019	-	<0.005	<0.0002	0.0052	<0.001
W-834-1825	06/17/03	0.013	<0.025	<0.0005	0.0052	-	<0.005	<0.0002	0.0044	<0.001
W-834-1833	06/23/03	0.016	<0.025	<0.0005	0.0022	-	<0.005	<0.0002	0.0032	<0.001
W-834-M1	06/17/03	-	-	-	-	0.020 D	-	-	-	-
W-834-M1	09/11/03	-	-	-	-	0.019 D	-	-	-	-
W-834-M1	09/11/03 DUP	-	-	-	-	3.5 D	-	-	-	-
W-834-S8	09/11/03	-	-	-	-	0.0057	-	-	-	-
W-834-S9	09/11/03	-	-	-	-	0.004	-	-	-	-
W-834-T2	06/23/03	0.018	0.05	<0.0005	<0.001	-	<0.005	<0.0002	0.003	<0.001
W-834-T2A	06/23/03	0.028	0.037	<0.0005	<0.001	-	<0.005	<0.0002	<0.002	<0.001

**Table 2.2-9. Building 834 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-834-1709	04/01/03	20.22	996.2		
W-834-1709	06/11/03	20.67	995.75		
W-834-1709	07/01/03	-	-		NM
W-834-1709	10/10/03	22.45	993.97		
W-834-1711	04/01/03	-	-		DRY
W-834-1711	06/11/03	36.46	980.34		
W-834-1711	07/01/03	-	-		DRY
W-834-1711	10/04/03	-	-		DRY
W-834-1712	04/01/03	-	-		DRY
W-834-1712	07/01/03	-	-		DRY
W-834-1712	10/04/03	-	-		DRY
W-834-1824	06/13/03	38.41	922.37		
W-834-1825	06/13/03	38.25	919.42		
W-834-1833	06/13/03	38.56	917.55		
W-834-A1	01/02/03	-	-		NM/CB
W-834-A1	02/02/03	-	-		NM/RA
W-834-A1	03/12/03	-	-		CB/NM
W-834-A1	04/02/03	-	-		NM
W-834-A1	06/11/03	28.47	986.62		
W-834-A1	07/02/03	-	-		NM
W-834-A1	10/04/03	29.65	985.44		
W-834-A2	01/22/03	-	-		NM/CB
W-834-A2	02/22/03	-	-		NM/RA
W-834-A2	03/12/03	-	-		CB/NM
W-834-A2	04/01/03	17.81	997.67		
W-834-A2	06/10/03	18.21	997.27		
W-834-A2	07/01/03	-	-		NM
W-834-A2	10/04/03	-	-		DRY
W-834-B2	01/22/03	-	-		NM
W-834-B2	02/22/03	-	-		NM/RA
W-834-B2	03/12/03	-	-		NM
W-834-B2	04/01/03	17.02	1001.37		
W-834-B2	06/10/03	-	-		DRY



**Table 2.2-9. Building 834 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-834-B2	07/01/03	-	-		DRY
W-834-B2	10/04/03	-	-		DRY
W-834-B3	01/02/03	-	-		NM
W-834-B3	01/15/03	5.52	1012.63		
W-834-B3	02/02/03	-	-		NM/RA
W-834-B3	02/15/03	7.38	1010.77		
W-834-B3	03/04/03	-	-		NM
W-834-B3	03/15/03	6.87	1011.28		
W-834-B3	04/01/03	8.3	1009.85		
W-834-B3	04/15/03	8.53	1009.62		
W-834-B3	05/15/03	9.34	1008.81		
W-834-B3	06/09/03	10.53	1007.62		
W-834-B3	06/10/03	10.62	1007.53		
W-834-B3	07/01/03	-	-		NM
W-834-B3	10/04/03	12.35	1005.8		
W-834-B4	01/02/03	-	-		NM/CB
W-834-B4	02/02/03	-	-		NM/RA
W-834-B4	03/12/03	-	-		CB/NM
W-834-B4	04/01/03	12.83	1002.74		
W-834-B4	06/10/03	13.64	1001.93		
W-834-B4	07/01/03	-	-		NM
W-834-B4	10/04/03	-	-		DRY
W-834-C2	01/02/03	-	-		NM
W-834-C2	02/02/03	-	-		NM/RA
W-834-C2	03/09/03	-	-		NM
W-834-C2	04/01/03	17.82	1001.98		
W-834-C2	06/10/03	-	-		DRY
W-834-C2	07/01/03	-	-		DRY
W-834-C2	10/04/03	-	-		DRY
W-834-C4	01/02/03	-	-		NM
W-834-C4	02/02/03	-	-		NM/RA
W-834-C4	03/12/03	-	-		NM
W-834-C4	04/01/03	7.48	1011.92		

**Table 2.2-9. Building 834 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-834-C4	06/10/03	9.11	1010.29		
W-834-C4	07/01/03	-	-		NM
W-834-C4	10/04/03	11.25	1008.15		
W-834-C5	01/02/03	-	-		NM/CB
W-834-C5	02/02/03	-	-		NM/RA
W-834-C5	03/12/03	-	-		CB/NM
W-834-C5	04/01/03	10.12	1005.55		
W-834-C5	06/10/03	11.34	1004.33		
W-834-C5	07/01/03	-	-		NM
W-834-C5	10/04/03	13.25	1002.42		
W-834-D10	01/02/03	-	-		NM
W-834-D10	02/02/03	-	-		NM/RA
W-834-D10	03/12/03	-	-		NM
W-834-D10	04/01/03	34.57	983.61		
W-834-D10	06/11/03	34.24	983.94		
W-834-D10	07/01/03	-	-		NM
W-834-D10	10/10/03	34.31	983.87		
W-834-D11	01/02/03	-	-		NM
W-834-D11	02/02/03	-	-		NM/RA
W-834-D11	03/12/03	-	-		NM
W-834-D11	04/01/03	22.97	994.57		
W-834-D11	06/11/03	23.62	993.92		
W-834-D11	07/01/03	-	-		NM
W-834-D11	10/10/03	24.12	993.42		
W-834-D12	01/02/03	-	-		NM
W-834-D12	02/02/03	-	-		NM/RA
W-834-D12	03/12/03	-	-		NM
W-834-D12	04/01/03	26.59	989.7		
W-834-D12	06/11/03	26.87	989.42		
W-834-D12	07/01/03	-	-		NM
W-834-D12	10/10/03	28.07	988.22		
W-834-D13	01/02/03	-	-		NM
W-834-D13	01/15/03	27.78	990.21		

**Table 2.2-9. Building 834 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-834-D13	02/02/03	-	-		NM/RA
W-834-D13	02/15/03	26.75	991.24		
W-834-D13	03/04/03	-	-		NM
W-834-D13	03/15/03	26.57	991.42		
W-834-D13	04/01/03	26.4	991.59		
W-834-D13	04/15/03	26.4	991.59		
W-834-D13	05/15/03	26.4	991.59		
W-834-D13	06/09/03	26.48	991.51		
W-834-D13	06/11/03	26.51	991.48		
W-834-D13	07/01/03	-	-		NM
W-834-D13	10/10/03	27.88	990.11		
W-834-D14	01/02/03	-	-		NM
W-834-D14	02/02/03	-	-		NM/RA
W-834-D14	03/04/03	-	-		NM
W-834-D14	04/01/03	26.61	991.76		
W-834-D14	06/11/03	26.81	991.56		
W-834-D14	07/01/03	-	-		NM
W-834-D14	10/10/03	28.31	990.06		
W-834-D15	01/02/03	-	-		NM
W-834-D15	01/15/03	21.63	996.53		
W-834-D15	02/02/03	-	-		NM/RA
W-834-D15	02/15/03	21.53	996.63		
W-834-D15	03/04/03	-	-		NM
W-834-D15	03/15/03	21.74	996.42		
W-834-D15	04/01/03	21.66	996.5		
W-834-D15	04/15/03	21.68	996.48		
W-834-D15	05/15/03	21.88	996.28		
W-834-D15	06/09/03	22.11	996.05		
W-834-D15	06/10/03	22.26	995.9		
W-834-D15	07/01/03	-	-		NM
W-834-D15	10/10/03	24.31	993.85		
W-834-D16	01/05/03	-	-		NM
W-834-D16	02/05/03	-	-		NM/RA

**Table 2.2-9. Building 834 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-834-D16	03/12/03	-	-	-	NM
W-834-D16	04/01/03	-	-	-	DRY
W-834-D16	06/10/03	-	-	-	DRY
W-834-D16	07/01/03	-	-	-	DRY
W-834-D16	10/04/03	-	-	-	DRY
W-834-D17	01/02/03	-	-	-	NM
W-834-D17	02/02/03	-	-	-	NM/RA
W-834-D17	03/04/03	-	-	-	NM
W-834-D17	04/01/03	33.02	984.2		
W-834-D17	06/10/03	32.98	984.24		
W-834-D17	07/01/03	-	-	-	NM
W-834-D17	10/04/03	-	-	-	DRY
W-834-D18	01/02/03	-	-	-	NM
W-834-D18	02/02/03	-	-	-	NM/RA
W-834-D18	03/09/03	-	-	-	NM
W-834-D18	04/01/03	26.34	992.12		
W-834-D18	06/10/03	25.09	993.37		
W-834-D18	07/01/03	-	-	-	NM
W-834-D18	10/04/03	26.15	992.31		
W-834-D2	01/02/03	-	-	-	NM
W-834-D2	04/01/03	-	-	-	NM
W-834-D2	06/10/03	-	-	-	DRY
W-834-D2	07/01/03	-	-	-	NM
W-834-D2	10/04/03	-	-	-	DRY
W-834-D3	01/02/03	-	-	-	NM
W-834-D3	02/02/03	-	-	-	NM/RA
W-834-D3	03/04/03	-	-	-	NM
W-834-D3	04/01/03	24.24	994.31		
W-834-D3	06/11/03	24.42	994.13		
W-834-D3	07/01/03	-	-	-	NM
W-834-D3	10/10/03	26.09	992.46		
W-834-D4	01/02/03	-	-	-	NM
W-834-D4	02/02/03	-	-	-	NM/RA

**Table 2.2-9. Building 834 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-834-D4	03/04/03	-	-		NM
W-834-D4	04/01/03	24.82	993.54		
W-834-D4	06/11/03	25.02	993.34		
W-834-D4	07/01/03	-	-		NM
W-834-D4	10/10/03	26.57	991.79		
W-834-D5	01/02/03	-	-		NM
W-834-D5	02/02/03	-	-		NM/RA
W-834-D5	03/04/03	-	-		NM
W-834-D5	04/01/03	26.21	992.26		
W-834-D5	06/11/03	26.39	992.08		
W-834-D5	07/01/03	-	-		NM
W-834-D5	10/10/03	28.97	989.5		
W-834-D6	01/02/03	-	-		NM
W-834-D6	02/02/03	-	-		NM/RA
W-834-D6	03/04/03	-	-		NM
W-834-D6	04/01/03	27.11	991.17		
W-834-D6	06/11/03	27.21	991.07		
W-834-D6	07/01/03	-	-		NM
W-834-D6	10/10/03	27.42	990.86		
W-834-D7	01/02/03	-	-		NM
W-834-D7	01/15/03	26.6	987.32		
W-834-D7	02/02/03	-	-		NM/RA
W-834-D7	02/15/03	25.95	987.97		
W-834-D7	03/04/03	-	-		NM
W-834-D7	03/15/03	25.72	988.2		
W-834-D7	04/01/03	25.53	988.39		
W-834-D7	04/15/03	25.53	988.39		
W-834-D7	05/15/03	25.54	988.38		
W-834-D7	06/09/03	25.71	988.21		
W-834-D7	06/11/03	25.8	988.12		
W-834-D7	07/01/03	-	-		NM
W-834-D7	10/10/03	26.95	986.97		
W-834-D9A	01/02/03	-	-		NM

**Table 2.2-9. Building 834 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-834-D9A	04/01/03	-	-	-	NM
W-834-D9A	07/01/03	-	-	-	NM
W-834-D9A	10/10/03	-	-	-	DRY
W-834-G3	01/02/03	-	-	-	NM
W-834-G3	04/01/03	-	-	-	NM
W-834-G3	06/10/03	-	-	-	DRY
W-834-G3	07/01/03	-	-	-	NM
W-834-G3	10/10/03	-	-	-	DRY
W-834-H2	01/02/03	-	-	-	NM
W-834-H2	02/02/03	-	-	-	NM/RA
W-834-H2	03/09/03	-	-	-	NM
W-834-H2	04/01/03	31.07	995.7		
W-834-H2	06/10/03	30.76	996.01		NEEDS CAP
W-834-H2	07/01/03	-	-	-	NM
W-834-H2	10/10/03	31	995.77		
W-834-J1	01/02/03	-	-	-	NM
W-834-J1	02/02/03	-	-	-	NM/RA
W-834-J1	03/12/03	-	-	-	NM
W-834-J1	04/01/03	29.37	993.08		
W-834-J1	06/10/03	29.05	993.4		
W-834-J1	07/01/03	-	-	-	NM
W-834-J1	10/04/03	29.6	992.85		
W-834-J2	01/02/03	-	-	-	NM
W-834-J2	02/02/03	-	-	-	NM/RA
W-834-J2	03/04/03	-	-	-	NM
W-834-J2	04/01/03	30.15	992.7		
W-834-J2	06/10/03	29.86	992.99		
W-834-J2	07/01/03	-	-	-	NM
W-834-J2	10/04/03	30.55	992.3		
W-834-J3	01/02/03	-	-	-	NM
W-834-J3	02/02/03	-	-	-	NM/RA
W-834-J3	03/12/03	-	-	-	NM
W-834-J3	04/01/03	75.23	963.2		

**Table 2.2-9. Building 834 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-834-J3	06/10/03	75.25	963.18		MUD
W-834-J3	07/01/03	-	-		NM
W-834-J3	10/04/03	74.4	964.03		
W-834-K1A	01/02/03	-	-		NM
W-834-K1A	02/02/03	-	-		NM/RA
W-834-K1A	03/12/03	-	-		NM
W-834-K1A	04/01/03	30.64	967.4		
W-834-K1A	06/13/03	30.66	967.38		
W-834-K1A	07/01/03	-	-		NM
W-834-K1A	10/01/03	-	-		DRY
W-834-M1	01/02/03	-	-		NM
W-834-M1	04/01/03	61.3	963.21		
W-834-M1	06/10/03	61.38	963.13		
W-834-M1	07/01/03	-	-		NM
W-834-M1	10/04/03	61.5	963.01		
W-834-M2	01/02/03	-	-		NM
W-834-M2	04/01/03	-	-		DRY
W-834-M2	06/18/03	-	-		DRY
W-834-M2	07/01/03	-	-		DRY
W-834-M2	10/04/03	-	-		DRY
W-834-S1	01/05/03	-	-		NM
W-834-S1	02/05/03	-	-		NM/RA
W-834-S1	03/04/03	-	-		NM
W-834-S1	04/01/03	32.19	970.19		
W-834-S1	06/13/03	31.54	970.14		
W-834-S1	07/01/03	-	-		NM
W-834-S1	10/04/03	31.23	970.45		
W-834-S10	01/05/03	-	-		NM
W-834-S10	02/05/03	-	-		NM/RA
W-834-S10	04/01/03	-	-		DRY
W-834-S10	06/13/03	-	-		DRY
W-834-S10	07/01/03	-	-		DRY
W-834-S10	10/04/03	-	-		DRY

**Table 2.2-9. Building 834 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-834-S12A	01/05/03	-	-		NM
W-834-S12A	02/05/03	-	-		NM/RA
W-834-S12A	04/01/03	-	-		DRY
W-834-S12A	06/13/03	-	-		DRY
W-834-S12A	07/01/03	-	-		DRY
W-834-S12A	10/04/03	-	-		DRY
W-834-S13	01/05/03	-	-		NM
W-834-S13	02/05/03	-	-		NM/RA
W-834-S13	04/01/03	46.44	956.29		
W-834-S13	06/13/03	45.55	957.18		
W-834-S13	07/01/03	-	-		NM
W-834-S13	10/04/03	46.5	956.23		
W-834-S4	01/02/03	-	-		NM
W-834-S4	04/01/03	78.16	947.79		
W-834-S4	06/10/03	78.28	947.67		
W-834-S4	07/01/03	-	-		NM
W-834-S4	10/04/03	78.3	947.65		
W-834-S5	01/02/03	-	-		NM
W-834-S5	04/01/03	61.02	935.62		
W-834-S5	06/18/03	61.12	935.52		
W-834-S5	07/01/03	-	-		NM
W-834-S5	10/04/03	-	-		DRY
W-834-S6	01/02/03	-	-		NM
W-834-S6	02/02/03	-	-		NM/RA
W-834-S6	03/12/03	-	-		NM
W-834-S6	04/01/03	31.87	897.55		
W-834-S6	06/18/03	32.07	897.35		
W-834-S6	07/01/03	-	-		NM
W-834-S6	10/04/03	32.3	897.12		
W-834-S7	01/02/03	-	-		NM
W-834-S7	04/01/03	47.72	890.85		
W-834-S7	06/18/03	47.75	890.82		
W-834-S7	07/01/03	-	-		NM



**Table 2.2-9. Building 834 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-834-S7	10/04/03	47.95	890.62		
W-834-S8	01/05/03	-	-		NM
W-834-S8	02/05/03	-	-		NM/RA
W-834-S8	03/12/03	-	-		NM
W-834-S8	04/01/03	56.7	946.02		
W-834-S8	06/13/03	56.14	946.58		
W-834-S8	07/01/03	-	-		NM
W-834-S8	10/04/03	55.8	946.92		
W-834-S9	01/05/03	-	-		NM
W-834-S9	02/05/03	-	-		NM/RA
W-834-S9	03/09/03	-	-		NM
W-834-S9	04/01/03	54.83	945.67		
W-834-S9	06/13/03	54.09	946.41		
W-834-S9	07/01/03	-	-		NM
W-834-S9	10/04/03	54.15	946.35		
W-834-T1	01/14/03	314.11	644.81		
W-834-T1	02/06/03	314.05	644.87		
W-834-T1	03/10/03	313.94	644.98		
W-834-T1	04/01/03	313.61	645.31		
W-834-T1	07/01/03	-	-		NM
W-834-T1	10/04/03	313.6	645.32		
W-834-T11	01/14/03	-	-		DRY
W-834-T11	02/06/03	-	-		DRY
W-834-T11	03/10/03	-	-		DRY
W-834-T11	04/01/03	-	-		DRY
W-834-T11	07/01/03	-	-		DRY
W-834-T11	10/04/03	-	-		DRY
W-834-T2	01/14/03	38.54	921.07		
W-834-T2	04/01/03	37.94	921.67		
W-834-T2	06/19/03	38.79	918.72		
W-834-T2	07/01/03	-	-		NM
W-834-T2	10/04/03	39	918.96		
W-834-T2A	01/14/03	38.91	919.85		

**Table 2.2-9. Building 834 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-834-T2A	04/01/03	37.51	921.25		
W-834-T2A	06/13/03	37.73	921.03		
W-834-T2A	07/01/03	-	-		NM
W-834-T2A	10/04/03	37.95	920.83		
W-834-T2B	01/14/03	-	-		DRY
W-834-T2B	04/01/03	-	-		DRY
W-834-T2B	06/13/03	-	-		DRY
W-834-T2B	07/01/03	-	-		DRY
W-834-T2B	10/04/03	-	-		DRY
W-834-T2C	01/14/03	-	-		DRY
W-834-T2C	04/01/03	-	-		DRY
W-834-T2C	06/13/03	-	-		DRY
W-834-T2C	07/01/03	-	-		DRY
W-834-T2C	10/04/03	-	-		DRY
W-834-T2D	01/14/03	36.13	918.27		
W-834-T2D	04/01/03	35.44	918.96		
W-834-T2D	06/18/03	35.45	918.95		
W-834-T2D	07/01/03	-	-		NM
W-834-T2D	10/04/03	36	918.39		
W-834-T3	01/14/03	326.54	606		
W-834-T3	02/06/03	326.35	606.19		
W-834-T3	03/10/03	326.26	606.28		
W-834-T3	04/01/03	325.83	606.71		
W-834-T3	07/01/03	-	-		NM
W-834-T3	10/04/03	326.3	606.24		
W-834-T5	01/14/03	76.4	854.57		
W-834-T5	02/06/03	76.43	854.54		
W-834-T5	03/04/03	76.47	854.5		
W-834-T5	04/01/03	-	-		NM
W-834-T5	07/10/03	76.6	854.37		
W-834-T5	10/03/03	76.58	854.39		
W-834-T7A	01/14/03	76.04	843.84		
W-834-T7A	02/06/03	75.86	844.02		

**Table 2.2-9. Building 834 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-834-T7A	03/10/03	76.13	843.75		
W-834-T7A	04/01/03	-	-		NM
W-834-T7A	07/01/03	-	-		NM
W-834-T7A	10/10/03	76.12	843.76		
W-834-T8A	01/14/03	-	-		DRY
W-834-T8A	02/14/03	-	-		NM/RA
W-834-T8A	03/12/03	-	-		NM
W-834-T8A	04/01/03	-	-		DRY
W-834-T8A	06/18/03	-	-		DRY
W-834-T8A	07/01/03	-	-		DRY
W-834-T8A	10/04/03	-	-		DRY
W-834-T9	01/14/03	-	-		DRY
W-834-T9	04/01/03	-	-		DRY
W-834-T9	06/13/03	-	-		DRY
W-834-T9	07/01/03	-	-		DRY
W-834-T9	10/04/03	-	-		DRY
W-834-U1	01/05/03	-	-		NM/CB
W-834-U1	02/05/03	-	-		NM/RA/CB
W-834-U1	03/12/03	-	-		CB/NM
W-834-U1	04/05/03	-	-		NM/CB
W-834-U1	06/11/03	22.81	989.45		CB
W-834-U1	07/01/03	-	-		NM/CB
W-834-U1	10/10/03	24.35	987.91		CB

Table 2.3-1. Pit 6 Landfill OU 2003 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
BC6-10	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
BC6-10	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
BC6-10	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
BC6-10	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
BC6-10	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	1	Y	
BC6-10	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	3	Y	
BC6-13	MWPT	Qt/Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	Dry.
BC6-13	MWPT	Qt/Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	Dry.
BC6-13	MWPT	Qt/Tnbs <sub>1</sub>	S	S	CMP	E601	1	N	Dry.
BC6-13	MWPT	Qt/Tnbs <sub>1</sub>	S	S	CMP	E601	3	N	Dry.
BC6-13	MWPT	Qt/Tnbs <sub>1</sub>	S	S	CMP	E906	1	N	Dry.
BC6-13	MWPT	Qt/Tnbs <sub>1</sub>	S	S	CMP	E906	3	N	Dry.
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	1	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	1	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	1	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	2	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	2	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	2	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	3	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	3	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	3	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	4	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	4	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	4	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	1	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	1	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 2 of 21)

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 <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	1	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	2	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	2	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	2	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	3	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	3	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	3	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	4	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	4	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	4	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	1	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	1	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	1	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	2	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	2	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	2	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	3	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	3	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	3	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	4	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	4	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	4	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	1	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	1	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	1	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	2	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	2	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 3 of 21)

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 <sub>1</sub> /Tmss	M	M	CMP	E906	2	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	3	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	3	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	3	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	4	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	4	Y	
CARNRW1	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:NO3	1	N	Sampling personnel shortage.
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:NO3	1	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:NO3	1	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:NO3	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:NO3	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:NO3	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:NO3	3	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:NO3	3	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:NO3	3	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:NO3	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:NO3	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:NO3	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	1	N	Sampling personnel shortage.
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	1	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	1	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	3	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	3	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 4 of 21)

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 <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	3	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E300.0:PERC	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss		Q	ERD/WGMG	E502.2	1	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss		Q	ERD/WGMG	E502.2	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss		Q	ERD/WGMG	E502.2	3	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss		Q	ERD/WGMG	E502.2	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E601	1	N	E502.2 analyzed.
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E601	1	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E601	1	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E601	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E601	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E601	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E601	3	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E601	3	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E601	3	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E601	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E601	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E601	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	1	N	Sampling personnel shortage.
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	1	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	1	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	2	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	3	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 5 of 21)

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 <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	3	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	3	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	4	Y	
CARNRW2	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP/WGMG	E906	4	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	1	N	Pump down.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	1	N	Pump down.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	1	N	Pump down.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	2	N	Sampling personnel shortage.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	2	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	2	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	4	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	4	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:NO3	4	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	1	N	Pump down.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	1	N	Pump down.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	1	N	Pump down.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	2	N	Sampling personnel shortage.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	2	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	2	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	4	Y	



Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 6 of 21)

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 <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	4	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E300.0:PERC	4	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	1	N	Pump down.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	1	N	Pump down.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	1	N	Pump down.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	2	N	Sampling personnel shortage.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	2	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	2	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	4	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	4	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E601	4	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	1	N	Pump down.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	1	N	Pump down.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	1	N	Pump down.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	2	N	Sampling personnel shortage.
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	2	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	2	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	3	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	4	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	4	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	4	Y	
CARNRW3	WS	Tnbs <sub>1</sub> /Tmss	M	M	CMP	E906	4	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	1	N	Sampling personnel shortage.

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 7 of 21)

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:NO3	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	2	N	Sampling personnel shortage.
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	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	3	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	3	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	4	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	4	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:NO3	4	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	2	N	Sampling personnel shortage.
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	2	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	3	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	3	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	3	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	4	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	4	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E300.0:PERC	4	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	1	N	Sampling personnel shortage.
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	1	N	Sampling personnel shortage.
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	2	N	Sampling personnel shortage.
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	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	3	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	3	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 8 of 21)

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	E601	4	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	4	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E601	4	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	1	N	Sampling personnel shortage.
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	1	N	Sampling personnel shortage.
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	1	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	2	N	Sampling personnel shortage.
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	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	3	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	3	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	4	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	4	Y	
CARNRW4	WS	Qal/Tts	M	M	CMP	E906	4	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	3	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	1	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	2	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	3	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	4	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 9 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	Y	
EP6-06	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	Y	
EP6-07	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
EP6-07	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
EP6-07	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
EP6-07	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
EP6-07	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	1	Y	
EP6-07	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	3	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	3	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	1	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	2	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	3	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	4	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	Y	
EP6-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 10 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	3	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	1	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	2	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	3	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	4	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	Y	
EP6-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	Y	
K6-01	DMW	Tnbs <sub>1</sub>	Q <sup>a</sup>	A	CMP/WGMG	E300.0:NO3	1	Y	
K6-01	DMW	Tnbs <sub>1</sub>	Q <sup>a</sup>	A	CMP/WGMG	E300.0:PERC	1	Y	
K6-01	DMW	Tnbs <sub>1</sub>	Q <sup>a</sup>	S	CMP/WGMG	E601	1	Y	
K6-01	DMW	Tnbs <sub>1</sub>	Q <sup>a</sup>	S	CMP/WGMG	E601	3	N	Not on sampling plan.
K6-01	DMW	Tnbs <sub>1</sub>	Q <sup>a</sup>	S	CMP/WGMG	E906	1	Y	
K6-01	DMW	Tnbs <sub>1</sub>	Q <sup>a</sup>	S	CMP/WGMG	E906	3	N	Not on sampling plan.
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	3	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 11 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	1	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	2	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	3	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	4	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	Y	
K6-01S	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	Y	
K6-03	MWPT	Tnbs <sub>1</sub>	A	Q	CMP/WGMG	E300.0:NO3	1	Y	
K6-03	MWPT	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:NO3	2	Y	
K6-03	MWPT	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:NO3	3	N	No longer on WGMGs quarterly plan. No longer on WGMGs quarterly plan.
K6-03	MWPT	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:NO3	4	N	
K6-03	MWPT	Tnbs <sub>1</sub>	A	A	CMP/WGMG	E300.0:PERC	1	Y	
K6-03	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E601	1	Y	
K6-03	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E601	3	Y	
K6-03	MWPT	Tnbs <sub>1</sub>		A	ERD/WGMG	E624	1	Y	
K6-03	MWPT	Tnbs <sub>1</sub>	S	Q	CMP/WGMG	E906	1	Y	
K6-03	MWPT	Tnbs <sub>1</sub>	S	Q	CMP/WGMG	E906	3	Y	
K6-04	MWPT	Tnbs <sub>1</sub>		A	DIS	E239.2	3	Y	
K6-04	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
K6-04	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
K6-04	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
K6-04	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
K6-04	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	1	Y	
K6-04	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	3	Y	
K6-14	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 12 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K6-14	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
K6-14	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
K6-14	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
K6-14	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	1	Y	
K6-14	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	3	Y	
K6-15	MWPT	Qt/Tnbs <sub>1</sub>	A	A	CMP/WGMG	E300.0:NO3	1	N	Dry.
K6-15	MWPT	Qt/Tnbs <sub>1</sub>	A	A	CMP/WGMG	E300.0:NO3	2	N	Dry.
K6-15	MWPT	Qt/Tnbs <sub>1</sub>	A	A	CMP/WGMG	E300.0:NO3	3	N	Dry.
K6-15	MWPT	Qt/Tnbs <sub>1</sub>	A	A	CMP/WGMG	E300.0:PERC	1	N	Dry.
K6-15	MWPT	Qt/Tnbs <sub>1</sub>	A	A	CMP/WGMG	E300.0:PERC	2	N	Dry.
K6-15	MWPT	Qt/Tnbs <sub>1</sub>	A	A	CMP/WGMG	E300.0:PERC	3	N	Dry.
K6-15	MWPT	Qt/Tnbs <sub>1</sub>	S	Q	CMP/WGMG	E624	1	N	Dry.
K6-15	MWPT	Qt/Tnbs <sub>1</sub>	S	Q	CMP/WGMG	E624	2	N	Dry.
K6-15	MWPT	Qt/Tnbs <sub>1</sub>	S	Q	CMP/WGMG	E624	3	N	Dry.
K6-15	MWPT	Qt/Tnbs <sub>1</sub>	S	Q	CMP/WGMG	E906	1	N	Dry.
K6-15	MWPT	Qt/Tnbs <sub>1</sub>	S	Q	CMP/WGMG	E906	2	N	Dry.
K6-15	MWPT	Qt/Tnbs <sub>1</sub>	S	Q	CMP/WGMG	E906	3	N	Dry.
K6-16	MWPT	Qt/Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
K6-16	MWPT	Qt/Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
K6-16	MWPT	Qt/Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
K6-16	MWPT	Qt/Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
K6-16	MWPT	Qt/Tnbs <sub>1</sub>	S	S	CMP	E906	1	Y	
K6-16	MWPT	Qt/Tnbs <sub>1</sub>	S	S	CMP	E906	3	Y	
K6-17	GW	Qt/Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	1	Y	
K6-17	GW	Qt/Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	3	Y	
K6-17	GW	Qt/Tnbs <sub>1</sub>	S	S	CMP	E300.0:PERC	1	Y	
K6-17	GW	Qt/Tnbs <sub>1</sub>	S	S	CMP	E300.0:PERC	3	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 13 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K6-17	GW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP	E601	1	Y	
K6-17	GW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP	E601	2	Y	
K6-17	GW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP	E601	3	Y	
K6-17	GW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP	E601	4	Y	
K6-17	GW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP	E906	1	Y	
K6-17	GW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP	E906	2	Y	
K6-17	GW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP	E906	3	Y	
K6-17	GW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP	E906	4	Y	
K6-18	MWPT	Qt/Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
K6-18	MWPT	Qt/Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
K6-18	MWPT	Qt/Tnbs <sub>1</sub>		A	DIS	E300.0:PERC	4	Y	
K6-18	MWPT	Qt/Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
K6-18	MWPT	Qt/Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
K6-18	MWPT	Qt/Tnbs <sub>1</sub>	S	S	CMP	E906	1	Y	
K6-18	MWPT	Qt/Tnbs <sub>1</sub>	S	S	CMP	E906	3	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	3	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	1	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	2	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	3	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	4	Y	



Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 14 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	Y	
K6-19	DMW	Qt/Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	Y	
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	S	S	CMP	E601	1	N	Dry.
K6-21	MWPT	Qt	S	S	CMP	E601	3	N	Dry.
K6-21	MWPT	Qt	S	S	CMP	E906	1	N	Dry.
K6-21	MWPT	Qt	S	S	CMP	E906	3	N	Dry.
K6-22	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	1	Y	
K6-22	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	3	Y	
K6-22	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:PERC	1	Y	
K6-22	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:PERC	3	Y	
K6-22	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	1	Y	
K6-22	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	2	Y	
K6-22	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	3	Y	
K6-22	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	4	Y	
K6-22	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	1	Y	
K6-22	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	2	Y	
K6-22	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	3	Y	
K6-22	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	4	Y	
K6-23	MWPT	Tmss		Q	DIS	E239.2	3	Y	
K6-23	MWPT	Tmss		Q	DIS	E239.2	4	Y	
K6-23	MWPT	Tmss	A	Q	CMP	E300.0:NO3	1	Y	
K6-23	MWPT	Tmss		Q	DIS	E300.0:NO3	3	Y	
K6-23	MWPT	Tmss		Q	DIS	E300.0:NO3	4	Y	
K6-23	MWPT	Tmss	A	A	CMP	E300.0:PERC	1	Y	
K6-23	MWPT	Tmss	S	S	CMP	E601	1	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 15 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K6-23	MWPT	Tmss	S	S	CMP	E601	3	Y	
K6-23	MWPT	Tmss	S	S	CMP	E906	1	Y	
K6-23	MWPT	Tmss	S	S	CMP	E906	3	Y	
K6-24	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
K6-24	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
K6-24	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
K6-24	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
K6-24	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	1	Y	
K6-24	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	3	Y	
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	Y	
K6-25	MWPT	Tmss	S	S	CMP	E906	1	Y	
K6-25	MWPT	Tmss	S	S	CMP	E906	3	Y	
K6-26	MWPT	Tnbs <sub>1</sub>		A	DIS	E239.2	3	Y	
K6-26	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
K6-26	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
K6-26	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
K6-26	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
K6-26	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	1	Y	
K6-26	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	3	Y	
K6-27	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
K6-27	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
K6-27	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
K6-27	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
K6-27	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	1	Y	
K6-27	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	3	Y	
K6-32	MWPT	Tnbs <sub>1</sub>	A	A	CMP/WGMG	E300.0:NO3	1	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 16 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K6-32	MWPT	Tnbs <sub>1</sub>	A	A	CMP/WGMG	E300.0:PERC	1	Y	
K6-32	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E601	1	Y	
K6-32	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E601	3	Y	
K6-32	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E906	1	Y	
K6-32	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E906	3	Y	
K6-33	MWPT	Tnbs <sub>1</sub>		A	DIS	E239.2	3	Y	
K6-33	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
K6-33	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
K6-33	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
K6-33	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
K6-33	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	1	Y	
K6-33	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	3	Y	
K6-34	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	1	Y	
K6-34	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	3	Y	
K6-34	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:PERC	1	Y	
K6-34	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:PERC	3	Y	
K6-34	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	1	Y	
K6-34	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	2	Y	
K6-34	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	3	Y	
K6-34	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	4	Y	
K6-34	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	1	Y	
K6-34	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	2	Y	
K6-34	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	3	Y	
K6-34	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	4	Y	
K6-35	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
K6-35	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
K6-35	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 17 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K6-35	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
K6-35	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	1	Y	
K6-35	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	3	Y	
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	N	Dry.
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	N	Dry.
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	Y	
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	Y	
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	3	N	Dry.
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	N	Dry.
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	1	Y	
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	2	Y	
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	3	N	Dry.
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	4	N	Dry.
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	N	Dry.
K6-36	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	N	Dry.
SPRING15	SPR	Qt	A	A	CMP	E300.0:NO3	1	N	Dry.
SPRING15	SPR	Qt	A	A	CMP	E300.0:NO3	4		
SPRING15	SPR	Qt	A	A	CMP	E300.0:PERC	1	N	Dry.
SPRING15	SPR	Qt	A	A	CMP	E300.0:PERC	4		
SPRING15	SPR	Qt	S	S	CMP	E601	1	N	Dry.
SPRING15	SPR	Qt	S	S	CMP	E601	3	N	Dry.
SPRING15	SPR	Qt	S	S	CMP	E906	1	N	Dry.
SPRING15	SPR	Qt	S	S	CMP	E906	3	N	Dry.
SPRING7	SPR	Qt	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
SPRING7	SPR	Qt	A	A	CMP	E300.0:NO3	4	N	Dry.

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 18 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
SPRING7	SPR	Qt	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
SPRING7	SPR	Qt	A	A	CMP	E300.0:PERC	4	N	Dry.
SPRING7	SPR	Qt	S	S	CMP	E601	1	N	Sampling personnel shortage.
SPRING7	SPR	Qt	S	S	CMP	E601	3		
SPRING7	SPR	Qt	S	S	CMP	E906	1	N	Sampling personnel shortage.
SPRING7	SPR	Qt	S	S	CMP	E906	3		
SPRING8	SPR	Qt		A	DIS	DWMETALS	4	N	Dry.
SPRING8	SPR	Qt		A	DIS	E210.2	4	N	Dry.
SPRING8	SPR	Qt		A	DIS	E300.0:PERC	4	N	Dry.
SPRING8	SPR	Qt		A	DIS	E601	4	N	Dry.
SPRING8	SPR	Qt		A	DIS	E8330:R+H	4	N	Dry.
SPRING8	SPR	Qt		A	DIS	E906	4	N	Dry.
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	Y	
W-33C-01	MWPT	Tts	S	S	CMP	E906	1	Y	
W-33C-01	MWPT	Tts	S	S	CMP	E906	3	Y	
W-34-01	MWB	Tnsc <sub>1</sub>		A	DIS	E300.0:NO3	1	Y	
W-34-01	MWB	Tnsc <sub>1</sub>		A	DIS	E300.0:PERC	1	Y	
W-34-01	MWB	Tnsc <sub>1</sub>		S	DIS	E601	1	Y	
W-34-01	MWB	Tnsc <sub>1</sub>		S	DIS	E601	3	Y	
W-34-01	MWB	Tnsc <sub>1</sub>		S	DIS	E906	1	Y	
W-34-01	MWB	Tnsc <sub>1</sub>		S	DIS	E906	3	Y	
W-34-02	MWB	Upper Tnbs <sub>1</sub>		A	DIS	E300.0:NO3	1	Y	
W-34-02	MWB	Upper Tnbs <sub>1</sub>		A	DIS	E300.0:PERC	1	Y	
W-34-02	MWB	Upper Tnbs <sub>1</sub>		S	DIS	E601	1	Y	
W-34-02	MWB	Upper Tnbs <sub>1</sub>		S	DIS	E601	3	Y	

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 19 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-34-02	MWB	Upper Tnbs <sub>1</sub>		S	DIS	E906	1	Y	
W-34-02	MWB	Upper Tnbs <sub>1</sub>		S	DIS	E906	3	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	AS:UIISO	1	N	Sampling personnel shortage.
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	AS:UIISO	2	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	AS:UIISO	3	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	AS:UIISO	4	N	No longer required.
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	DWMETALS	1	N	Sampling personnel shortage.
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	DWMETALS	2	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	DWMETALS	3	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	DWMETALS	4	N	No longer required.
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E239.2	3	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>	S	Q	CMP	E300.0:NO3	1	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E300.0:NO3	2	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>	S	Q	CMP	E300.0:NO3	3	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E300.0:NO3	4	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>	S	Q	CMP	E300.0:PERC	1	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E300.0:PERC	2	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>	S	Q	CMP	E300.0:PERC	3	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E300.0:PERC	4	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	1	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	2	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	3	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	4	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E8330:R+H	1	N	Sampling personnel shortage.
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E8330:R+H	2	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E8330:R+H	3	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E8330:R+H	4	N	No longer required.

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 20 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E900	1	N	Sampling personnel shortage.
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E900	2	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E900	3	Y	No longer required.
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	E900	4	N	
W-PIT6-1819	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	1	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	2	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	3	Y	No longer required.
W-PIT6-1819	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	4	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	GENMIN	1	N	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	GENMIN	2	Y	
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	GENMIN	3	Y	No longer required.
W-PIT6-1819	GW	Tnbs <sub>1</sub>		Q	DIS	GENMIN	4	N	

Notes and footnotes appear on following page.

Table 2.3-1. Pit 6 Landfill OU 2003 ground water sampling and analysis plan. (Cont. Page 21 of 21)

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

DWM Analytes and sampling frequency are specified in the Pit 6 Landfill Post-Closure Plan.

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).

CGSA CMP/DIS = Sampling more frequently than required.

CGSA CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.

CGSA CMP = Central GSA groundwater sampling and analysis plan specified in the GSA RD

CMP DMW = CMP detection monitor well.

CMP/DIS = Sampling required analyte more frequently than required.

CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.

CMP = Compliance Monitoring.

DIS = Discretionary sampling of non-required analyte.

DMW = Detection monitor well (non-CMP).

ERD/WGMG = non-CMP analyte sampled from a well shared by ERD and WGMG.

EW = Extraction well.

GW = Guard well.

MWB = Monitor well used for background.

MWPT = Monitor well used for plume tracking.

SPR = Spring.

WS = Water supply well.

<sup>a</sup> K6-01 TO BE SAMPLED QUARTERLY IF K6-01S IS DRY.





Table 2.3-2. Pit 6 Landfill OU 2003 VOCs in ground water. (Cont. Page 2 of 4)

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)
CARNRW4	09/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	10/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	11/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	12/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BC6-10	03/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BC6-10	08/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-06	02/13/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-06	05/08/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-06	07/30/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-06	10/21/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-07	02/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-07	08/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-08	02/18/03	E624	<0.5	1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-08	05/23/03	E624	<0.5	0.76	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-08	05/23/03 DUP	E624	<0.5	0.81	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-08	08/25/03	E624	<0.5	0.53	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5
EP6-08	10/22/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	02/14/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	05/22/03	E624	4.8	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	08/20/03	E624	5.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	10/22/03	E624	4.9	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01	02/14/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01	08/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01S	02/14/03	E624	5.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01S	04/02/03	E624	<0.5	<0.5	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01S	04/09/03	E624	<0.5	<0.5	2.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01S	05/07/03	E624	<0.5	<0.5	2.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01S	08/20/03	E624	<0.5	<0.5	2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01S	08/20/03 DUP	E624	<0.5	<0.5	2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01S	10/21/03	E624	<0.5	<0.5	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-03	02/20/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-03	08/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-04	02/19/03	E601	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L
K6-04	02/19/03 DUP	E601	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L
K6-04	08/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-14	02/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-14	07/30/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-16	02/19/03	E601	0.63	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-16	02/19/03 DUP	E601	0.63	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-16	07/30/03	E601	2.2	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-16	07/30/03 DUP	E601	2.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.3-2. Pit 6 Landfill OU 2003 VOCs in ground water. (Cont. Page 3 of 4)

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)
K6-17	02/19/03	E601	0.9	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	05/02/03	E601	0.97	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	05/02/03 DUP	E601	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	07/30/03	E601	0.85	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	10/09/03	E601	0.87	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-18	02/26/03	E601	3.2	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-18	02/26/03 DUP	E601	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-18	07/30/03	E601	2.8	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-19	02/18/03	E624	1.6	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-19	05/07/03	E624	1.6	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-19	08/19/03	E624	3.9	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-19	10/21/03	E624	3.4	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-19	10/21/03 DUP	E624	3.6	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-22	02/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-22	05/02/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-22	07/30/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-22	10/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-23	02/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-23	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-24	02/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-24	07/30/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-25	03/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-25	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-26	02/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-26	08/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-27	02/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-27	08/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-27	08/06/03 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
K6-32	02/20/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-32	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-33	02/19/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-33	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-34	03/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-34	05/23/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-34	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-34	10/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-35	02/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-35	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-35	08/13/03 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5
K6-36	02/18/03	E624	0.76	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-36	05/22/03	E624	0.88	0.52	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.3-2. Pit 6 Landfill OU 2003 VOCs in ground water. (Cont. Page 4 of 4)

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)
W-33C-01	03/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-33C-01	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-34-01	03/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-34-01	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-34-02	03/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-34-02	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	02/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	05/02/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	06/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	08/20/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5
W-PIT6-1819	10/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

## Other VOCs not detected in the table above:

Location	Date	Method	2-Butanone (µg/L)	Acetone (µg/L)	Bromo- dichloromethane (µg/L)	Bromoform (µg/L)	Dibromo- chloromethane (µg/L)	Total Trihalomethanes (µg/L)	cis-1,2-Dichloroethene (µg/L)
CARNRW2	02/27/03	E601	-	-	4.5	19	13	39	-
CARNRW2	03/13/03	E601	-	-	2.6	18	9.3	31	-
EP6-08	10/22/03	E624	34	78	-	-	-	-	-
K6-01	02/14/03	E601	-	-	-	-	-	-	0.5
K6-01	08/06/03	E601	-	-	-	-	-	-	0.54
K6-01S	04/02/03	E624	-	-	-	-	-	-	2.2
K6-01S	04/09/03	E624	-	-	-	-	-	-	2.3
K6-01S	05/07/03	E624	-	-	-	-	-	-	2.3
K6-01S	08/20/03	E624	-	-	-	-	-	-	2.5
K6-01S	08/20/03 DUP	E624	-	-	-	-	-	-	2.5
K6-01S	10/21/03	E624	-	-	-	-	-	-	2.2

Table 2.3-3. Pit 6 Landfill OU 2003 radiological constituents in ground water.

Location	Date	Gross alpha (pCi/L)	Gross beta (pCi/L)	Tritium (pCi/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 238 (pCi/L)
CARNRW1	01/30/03	-	-	<94.3	-	-	-
CARNRW1	02/27/03	-	-	<99.6	-	-	-
CARNRW1	03/12/03	-	-	<98.8	-	-	-
CARNRW1	04/28/03	-	-	<212	-	-	-
CARNRW1	05/15/03	-	-	<92.2	-	-	-
CARNRW1	06/12/03	-	-	<92.3	-	-	-
CARNRW1	07/22/03	-	-	<94.7	-	-	-
CARNRW1	08/13/03	-	-	<90.4	-	-	-
CARNRW1	09/10/03	-	-	<91.2	-	-	-
CARNRW1	10/16/03	-	-	<103	-	-	-
CARNRW1	11/13/03	-	-	<97.4	-	-	-
CARNRW1	12/10/03	-	-	<102	-	-	-
CARNRW2	01/30/03	<2.04	8.01 ± 1.80	-	-	-	-
CARNRW2	02/27/03	-	-	136 ± 62.0	-	-	-
CARNRW2	03/13/03	-	-	<92.8	-	-	-
CARNRW2	04/07/03	-	-	<102	-	-	-
CARNRW2	04/16/03	-	-	<102	-	-	-
CARNRW2	04/28/03	<1.49 LO	<1.91 L	<219	-	-	-
CARNRW2	05/15/03	-	-	<93.1	-	-	-
CARNRW2	06/12/03	-	-	<93.9	-	-	-
CARNRW2	07/16/03	<10.3	9.43 ± 6.50	<87.9	-	-	-
CARNRW2	08/13/03	-	-	<89	-	-	-
CARNRW2	09/10/03	-	-	<90.6	-	-	-
CARNRW2	10/15/03	<1.82	6.43 ± 1.50	<98.1	-	-	-
CARNRW2	11/13/03	-	-	<92	-	-	-
CARNRW2	12/10/03	-	-	<97.6	-	-	-
CARNRW3	05/15/03	-	-	<90.4	-	-	-
CARNRW3	06/12/03	-	-	<94.3	-	-	-
CARNRW3	07/22/03	-	-	<94.6	-	-	-
CARNRW3	08/13/03	-	-	<86.7	-	-	-
CARNRW3	09/10/03	-	-	<90.6	-	-	-
CARNRW3	10/15/03	-	-	<100	-	-	-
CARNRW3	11/13/03	-	-	<93.2	-	-	-

Table 2.3-3. Pit 6 Landfill OU 2003 radiological constituents in ground water.

Location	Date	Gross alpha (pCi/L)	Gross beta (pCi/L)	Tritium (pCi/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 238 (pCi/L)
CARNRW3	12/10/03	-	-	<97.6	-	-	-
CARNRW4	02/27/03	-	-	<98.5	-	-	-
CARNRW4	05/14/03	-	-	<88.7	-	-	-
CARNRW4	06/11/03	-	-	<100	-	-	-
CARNRW4	07/16/03	-	-	<86	-	-	-
CARNRW4	08/13/03	-	-	<88.9	-	-	-
CARNRW4	09/10/03	-	-	<93.6	-	-	-
CARNRW4	10/15/03	-	-	<99.9	-	-	-
CARNRW4	11/13/03	-	-	<96.3	-	-	-
CARNRW4	12/10/03	-	-	<97.9	-	-	-
BC6-10	03/06/03	-	-	<97.4	-	-	-
BC6-10	08/06/03	-	-	<89.9	-	-	-
EP6-06	02/13/03	5.21 ± 3.40	8.55 ± 2.50	<108	0.282 ± 0.0570	<0.022	0.198 ± 0.0460
EP6-06	05/08/03	<1.46	8.78 ± 1.90	<98.8	0.731 ± 0.120	<0.025	0.488 ± 0.0890
EP6-06	07/30/03	<2.13	9.62 ± 2.10	<88.4 L	0.254 ± 0.0510	<0.017	0.211 ± 0.0450
EP6-06	10/21/03	<1.87	7.07 ± 1.90	<97.9	0.423 ± 0.0830	<0.025 E	0.238 ± 0.0600
EP6-07	02/26/03	-	-	313 ± 74.0	-	-	-
EP6-07	08/06/03	-	-	<88.8	-	-	-
EP6-08	02/18/03	<1.76	7.99 ± 2.60	<104	0.596 ± 0.130	<0.041	0.394 ± 0.0960
EP6-08	05/23/03	<1.74	9.95 ± 2.00	<90.5	0.630 ± 0.110	<0.024	0.454 ± 0.0830
EP6-08	05/23/03 DUP	<1.52	10.2 ± 2.10	<91.8	0.626 ± 0.110	<0.025	0.374 ± 0.0760
EP6-08	09/12/03	<2.13	9.94 ± 2.30	<89.9	0.616 ± 0.0980	<0.02 E	0.445 ± 0.0770
EP6-08	10/22/03	<2.28	13.0 ± 2.50	<96.5	-	-	-
EP6-08	12/16/03	-	-	-	0.381 ± 0.0680	<0.017 E	0.310 ± 0.0580
EP6-09	02/14/03	<2.02	9.31 ± 3.50	<105	1.16 ± 0.160	<0.022 E	0.962 ± 0.140
EP6-09	05/22/03	<2.32	11.0 ± 2.50	<102	1.20 ± 0.170	<0.025 E	0.993 ± 0.140
EP6-09	08/20/03	<2.66	10.9 ± 2.80	<89.5	1.19 ± 0.160	<0.022 E	0.913 ± 0.140
EP6-09	10/22/03	<1.86	11.0 ± 2.40	<94.7	1.10 ± 0.160	<0.025 E	0.904 ± 0.130
K6-01	02/14/03	-	-	257 ± 71.0	-	-	-
K6-01	08/06/03	-	-	266 ± 64.0	-	-	-
K6-01S	02/14/03	<6.37	<18.5	104 ± 66.0	1.87 ± 0.230	<0.022 E	1.23 ± 0.160
K6-01S	05/07/03	4.54 ± 3.40	17.2 ± 6.00	<95.1	2.14 ± 0.270	<0.024 E	1.56 ± 0.210
K6-01S	08/20/03	6.35 ± 5.30	<15.2	181 ± 60.0	2.22 ± 0.280	<0.024 E	1.55 ± 0.210

Table 2.3-3. Pit 6 Landfill OU 2003 radiological constituents in ground water.

Location	Date	Gross alpha (pCi/L)	Gross beta (pCi/L)	Tritium (pCi/L)	Uranium 234 and	Uranium 235 and	Uranium 238 (pCi/L)
					Uranium 233 (pCi/L)	Uranium 236 (pCi/L)	
K6-01S	08/20/03 DUP	<4.81	13.9 ± 5.90	195 ± 63.0	2.58 ± 0.320	<0.024 E	1.69 ± 0.220
K6-01S	10/21/03	<6.21	14.9 ± 7.20	107 ± 61.0	2.44 ± 0.300	<0.024 E	1.82 ± 0.240
K6-03	02/20/03	-	-	116 ± 64.0	-	-	-
K6-03	04/07/03	-	-	<98.4	-	-	-
K6-03	04/16/03	-	-	<106	-	-	-
K6-03	08/06/03	-	-	<88.2	-	-	-
K6-04	02/19/03	-	-	<105	-	-	-
K6-04	02/19/03 DUP	-	-	<106	-	-	-
K6-04	08/06/03	-	-	<88.1	-	-	-
K6-14	02/26/03	-	-	<104	-	-	-
K6-14	07/30/03	-	-	<92.3 L	-	-	-
K6-16	02/19/03	-	-	654 ± 97.0	-	-	-
K6-16	02/19/03 DUP	-	-	584 ± 91.0	-	-	-
K6-16	07/30/03	-	-	567 ± 85.0 L	-	-	-
K6-16	07/30/03 DUP	-	-	524 ± 82.0 L	-	-	-
K6-17	02/19/03	-	-	<98	-	-	-
K6-17	02/19/03 DUP	-	-	<159	-	-	-
K6-17	05/02/03	-	-	<96.6	-	-	-
K6-17	05/02/03 DUP	-	-	<217 L	-	-	-
K6-17	07/30/03	-	-	<88.8 L	-	-	-
K6-17	10/09/03	-	-	<89.3	-	-	-
K6-18	02/26/03	-	-	364 ± 79.0	-	-	-
K6-18	02/26/03 DUP	-	-	324 ± 109	-	-	-
K6-18	07/30/03	-	-	337 ± 68.0 L	-	-	-
K6-19	02/18/03	<1.73	8.45 ± 2.20	253 ± 71.0	1.66 ± 0.210	<0.022 E	0.981 ± 0.140
K6-19	05/07/03	2.01 ± 1.60	9.71 ± 2.90	268 ± 68.0	1.84 ± 0.240	<0.025 E	1.12 ± 0.160
K6-19	08/19/03	3.90 ± 2.10	8.04 ± 2.20	304 ± 67.0	1.62 ± 0.210	<0.021 E	0.962 ± 0.140
K6-19	10/21/03	<2.36	10.6 ± 2.20	295 ± 69.0	1.85 ± 0.230	<0.018 E	1.10 ± 0.150
K6-19	10/21/03 DUP	<1.57 E	8.68 ± 1.80	303 ± 70.0	1.70 ± 0.230	<0.027 E	1.08 ± 0.160
K6-22	02/26/03	-	-	<104	-	-	-
K6-22	05/02/03	-	-	<96.4	-	-	-
K6-22	07/30/03	-	-	<89.1 L	-	-	-
K6-22	10/09/03	-	-	<89.2	-	-	-

Table 2.3-3. Pit 6 Landfill OU 2003 radiological constituents in ground water.

Location	Date	Gross alpha (pCi/L)	Gross beta (pCi/L)	Tritium (pCi/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 238 (pCi/L)
K6-23	02/26/03	-	-	<102	-	-	-
K6-23	08/13/03	-	-	<91.1	-	-	-
K6-24	02/26/03	-	-	492 ± 86.0	-	-	-
K6-24	07/30/03	-	-	442 ± 75.0 L	-	-	-
K6-25	03/06/03	-	-	<100	-	-	-
K6-25	08/13/03	-	-	<90.8	-	-	-
K6-26	02/26/03	-	-	<102	-	-	-
K6-26	08/06/03	-	-	<88.3	-	-	-
K6-27	02/26/03	-	-	<103	-	-	-
K6-27	08/06/03	-	-	<88.4	-	-	-
K6-27	08/06/03 DUP	-	-	<163 O	-	-	-
K6-32	02/20/03	-	-	<104	-	-	-
K6-32	08/13/03	-	-	<92.2	-	-	-
K6-33	02/19/03	-	-	460 ± 80.0	-	-	-
K6-33	08/13/03	-	-	295 ± 66.0	-	-	-
K6-34	03/07/03	-	-	<95.6	-	-	-
K6-34	05/23/03	-	-	<104	-	-	-
K6-34	08/13/03	-	-	<89.4	-	-	-
K6-34	10/09/03	-	-	<89.8	-	-	-
K6-35	02/26/03	-	-	294 ± 75.0	-	-	-
K6-35	08/13/03	-	-	388 ± 72.0	-	-	-
K6-35	08/13/03 DUP	-	-	383 ± 92.5 O	-	-	-
K6-36	02/18/03	<2.8	11.4 ± 2.90	1,590 ± 180	1.58 ± 0.200	<0.023 E	1.03 ± 0.150
K6-36	04/02/03	<1.92	8.77 ± 1.80	-	0.627 ± 0.110	<0.024	0.418 ± 0.0810
K6-36	04/09/03	<1.75	8.76 ± 1.80	-	0.502 ± 0.0920	<0.025	0.335 ± 0.0690
K6-36	05/22/03	<1.99	17.6 ± 4.10	1,850 ± 200	0.222 ± 0.0600	<0.029	0.166 ± 0.0520
W-33C-01	03/13/03	-	-	<94.3	-	-	-
W-33C-01	08/13/03	-	-	<92.1	-	-	-
W-34-01	03/07/03	-	-	<91.8	-	-	-
W-34-01	08/13/03	-	-	<91.5	-	-	-
W-34-02	03/07/03	-	-	<90.8	-	-	-
W-34-02	08/13/03	-	-	<91.3	-	-	-
W-PIT6-1819	02/26/03	-	-	<104	-	-	-



**Table 2.3-3. Pit 6 Landfill OU 2003 radiological constituents in ground water.**

Location	Date	Gross alpha (pCi/L)	Gross beta (pCi/L)	Tritium (pCi/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 238 (pCi/L)
W-PIT6-1819	06/26/03	<1.87	10.0 ± 1.90	123 ± 54.0	0.485 ± 0.0930	<0.028	0.376 ± 0.0770
W-PIT6-1819	08/13/03	-	-	145 ± 60.0	-	-	-
W-PIT6-1819	08/20/03	-	-	263 ± 64.0	-	-	-
W-PIT6-1819	10/09/03	-	-	146 ± 57.0	-	-	-

**Table 2.3-4. Pit 6 Landfill OU 2003 nitrate and perchlorate in ground water.**

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
CARNRW1	01/30/03	<0.44	<3
CARNRW1	02/27/03	<0.44	<3
CARNRW1	03/12/03	<0.44	<3
CARNRW1	04/28/03	<0.44	<4
CARNRW1	05/15/03	<0.44	<4
CARNRW1	06/12/03	<0.44	<4
CARNRW1	07/22/03	<0.44	<4
CARNRW1	08/13/03	<0.44	<4
CARNRW1	09/10/03	<0.44	<4
CARNRW1	10/16/03	<0.44	<4
CARNRW1	11/13/03	<0.44	<4 H
CARNRW1	12/10/03	<0.44	<4
CARNRW2	02/27/03	<0.44	<3
CARNRW2	03/13/03	<0.44	<3
CARNRW2	04/28/03	<0.44	<4
CARNRW2	05/15/03	<0.44	<4
CARNRW2	06/12/03	<0.44	<4
CARNRW2	07/16/03	<0.44	<4
CARNRW2	08/13/03	<0.44	<4
CARNRW2	09/10/03	<0.44	<4
CARNRW2	10/15/03	<0.44	<4 H
CARNRW2	11/13/03	<0.44	<4 H
CARNRW2	12/10/03	<0.44	<4
CARNRW3	05/15/03	<0.44	<4
CARNRW3	06/12/03	<0.44	<4
CARNRW3	07/22/03	<0.44	<4
CARNRW3	08/13/03	<0.44	<4
CARNRW3	09/10/03	<0.44	<4
CARNRW3	10/15/03	<0.44	<4 H
CARNRW3	11/13/03	<0.44	<4 H
CARNRW3	12/10/03	<0.44	<4
CARNRW4	02/27/03	8.4 D	<3
CARNRW4	05/14/03	2.8 D	<4
CARNRW4	06/11/03	1.8 D	<4
CARNRW4	07/16/03	<0.88 D	<4
CARNRW4	08/13/03	<0.88 D	<4
CARNRW4	09/10/03	<0.88 D	<4
CARNRW4	10/15/03	<0.88 D	<4 H
CARNRW4	11/13/03	<0.44	<4 H
CARNRW4	12/10/03	<0.44	<4
BC6-10	03/06/03	0.75	<3
EP6-06	02/13/03	0.62	<3
EP6-06	05/08/03	<0.44	<4
EP6-06	07/30/03	<0.44	<4
EP6-06	10/21/03	<0.44	<4

**Table 2.3-4. Pit 6 Landfill OU 2003 nitrate and perchlorate in ground water.**

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
EP6-07	02/26/03	<0.44	<3
EP6-08	02/18/03	3.5	<3
EP6-08	05/23/03	3.5	<4
EP6-08	05/23/03 DUP	3.5	<4
EP6-08	09/12/03	5.7	<4
EP6-08	10/22/03	<0.44	-
EP6-08	12/16/03	-	<4
EP6-09	02/14/03	2.8	4.2
EP6-09	05/22/03	2.7	<4
EP6-09	08/20/03	2.7	<4 H
EP6-09	10/22/03	2.6	<4
K6-01	02/14/03	<0.44	<3
K6-01S	02/14/03	<0.88 D	<3
K6-01S	05/07/03	<0.88 D	<4
K6-01S	08/20/03	<0.88 D	<4 H
K6-01S	08/20/03 DUP	<0.88 D	<4 H
K6-01S	10/21/03	<0.88 D	<4
K6-03	02/20/03	<0.44	<3
K6-03	05/22/03	<0.44	-
K6-04	02/19/03	12	<4
K6-04	02/19/03 DUP	12	<4
K6-04	05/23/03	10	-
K6-14	02/26/03	0.45	<3
K6-16	02/19/03	<2.2 D	<3
K6-16	02/19/03 DUP	<2.2 D	<3
K6-17	02/19/03	1.9	<3
K6-17	07/30/03	0.91	<4
K6-18	02/26/03	36 D	12
K6-18	02/26/03 DUP	16	8
K6-18	07/30/03	-	11
K6-18	10/21/03	-	14
K6-19	02/18/03	<0.44	<3
K6-19	05/07/03	<0.44	<4
K6-19	08/19/03	<0.44	<4
K6-19	10/21/03	<0.44	<4
K6-19	10/21/03 DUP	<0.44	<4
K6-22	02/26/03	<0.88 D	<3
K6-22	07/30/03	<0.44	<4
K6-23	02/26/03	160 D	<15 D
K6-23	08/13/03	160 D	-
K6-23	10/21/03	170 D	-
K6-24	02/26/03	<0.44	<3
K6-25	03/06/03	<0.44	<3
K6-26	02/26/03	<0.44	<3
K6-27	02/26/03	<0.44	<3

**Table 2.3-4. Pit 6 Landfill OU 2003 nitrate and perchlorate in ground water.**

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
K6-32	02/20/03	<0.44	<3
K6-32	05/22/03	<0.44	-
K6-33	02/19/03	1.2	<3
K6-34	03/07/03	<0.44	4.4
K6-34	08/13/03	<0.44	<4
K6-35	02/26/03	<0.44	<3
K6-35	10/21/03 DUP	-	14
K6-36	02/18/03	1.6	<3
K6-36	05/22/03	0.59	5.8
W-33C-01	03/13/03	3.2 D	<3
W-34-01	03/07/03	<0.44	<3
W-34-02	03/07/03	<0.44	<3
W-PIT6-1819	02/26/03	<0.44	<3
W-PIT6-1819	06/26/03	<0.44	<4
W-PIT6-1819	08/13/03	<0.44	<4
W-PIT6-1819	08/20/03	<0.44	<4
W-PIT6-1819	10/09/03	<0.44	<4 H

**Table 2.3-5. Pit 6 Landfill OU 2003 metals in ground water.**

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
W-PIT6-1819	06/26/03	0.021	<0.025	<0.0005	<0.001	<0.005	<0.0002	<0.002	<0.001
W-PIT6-1819	08/20/03	0.018	<0.025	<0.0005	<0.001	<0.005	<0.0002	<0.002	<0.001

**2.3-6. Pit 6 Landfill OU 2003 high explosive compounds in ground water.**

Location	Date	HMX ( $\mu\text{g/L}$ )	RDX ( $\mu\text{g/L}$ )
CARNRW2	01/30/03	210	<5
W-PIT6-1819	06/26/03	<5	<5
W-PIT6-1819	08/20/03	<5	<5

Table 2.3-7. Pit 6 Landfill OU 2003 general minerals in ground water.

Constituents of concern	W-PIT6-1819 06/26/03	W-PIT6-1819 08/20/03
Total Alkalinity (as CaCO <sub>3</sub> ) (mg/L)	200 DH	200 DH
Aluminum (mg/L)	<0.05	<0.05 H
Bicarbonate Alk (as CaCO <sub>3</sub> ) (mg/L)	200 DH	200 DH
Calcium (mg/L)	45 L	47 HL
Carbonate Alk (as CaCO <sub>3</sub> ) (mg/L)	<5 DH	<10 DH
Chloride (mg/L)	89	88 H
Copper (mg/L)	<0.01	<0.01 H
Fluoride (mg/L)	0.40 H	0.36 H
Hydroxide Alk (as CaCO <sub>3</sub> ) (mg/L)	<5 DH	<10 DH
Iron (mg/L)	<0.05	<0.05 H
Magnesium (mg/L)	21	22 H
Manganese (mg/L)	0.01	0.013 H
Nickel (mg/L)	<0.05	<0.05 H
Nitrate (as N) (mg/L)	<0.1 H	<0.1 H
Nitrate (as NO <sub>3</sub> ) (mg/L)	<0.4 H	<0.4 H
Nitrate plus Nitrite (as N) (mg/L)	<0.1 H	<0.1 H
Nitrite (as N) (mg/L)	<0.02	<0.02
pH (Units)	8	8
Ortho-Phosphate (mg/L)	0.42	0.33
Total Phosphorus (as P) (mg/L)	<0.05 H	<0.05 H
Potassium (mg/L)	9.7	9.9 H
Sodium (mg/L)	150 L	160 HL
Total dissolved solids (TDS) (mg/L)	710 DH	740 DH
Specific Conductance ( $\mu$ mhos/cm)	1,000	1,000 H
Sulfate (mg/L)	210 H	220 H
Surfactants (mg/L)	<0.5	-
Total Hardness (as CaCO <sub>3</sub> ) (mg/L)	200	210
Zinc (mg/L)	<0.05	<0.05 H

**Table 2.3-8. Pit 6 Landfill OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
BC6-10	01/02/03	25.97	661.58		
BC6-10	02/04/03	25.93	661.62		
BC6-10	03/06/03	25.78	661.77		
BC6-10	04/09/03	26.17	661.38		
BC6-10	07/21/03	25.91	661.64		
BC6-10	10/02/03	26.53	661.02		
BC6-13	01/02/03	-	-		DRY
BC6-13	02/04/03	-	-		DRY
BC6-13	03/06/03	-	-		DRY
BC6-13	04/09/03	-	-		DRY
BC6-13	07/01/03	-	-		DRY
BC6-13	10/02/03	-	-		DRY
CARNRW1	01/02/03	22.38	656.35		
CARNRW1	02/04/03	21.82	656.91		
CARNRW1	03/06/03	28.51	650.22		
CARNRW1	04/09/03	22.12	656.61		
CARNRW1	07/22/03	29.48	649.25		
CARNRW1	10/02/03	33.11	645.62		
CARNRW3	01/02/03	30.84	672.16		
CARNRW3	02/04/03	31.11	671.89		
CARNRW3	03/06/03	31.12	671.88		
CARNRW3	04/09/03	31.01	671.99		
CARNRW3	07/21/03	34.26	668.74		
CARNRW3	10/02/03	36.35	666.65		
CARNRW4	01/02/03	6.67	645.08		
CARNRW4	02/04/03	59.94	591.81		
CARNRW4	03/06/03	6.44	645.31		
CARNRW4	04/09/03	6.92	644.83		
CARNRW4	07/21/03	8.8	642.95		
CARNRW4	10/02/03	12.66	639.09		
EP6-06	01/02/03	27.3	660.81		
EP6-06	02/04/03	26.61	661.5		
EP6-06	03/06/03	30.56	657.55		

**Table 2.3-8. Pit 6 Landfill OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
EP6-06	04/09/03	28.06	660.05		
EP6-06	07/21/03	28.67	659.44		
EP6-06	10/02/03	28.27	659.84		
EP6-07	01/02/03	47.09	660.46		
EP6-07	02/04/03	47.14	660.41		
EP6-07	03/06/03	46.44	661.11		
EP6-07	04/09/03	46.86	660.69		
EP6-07	07/21/03	54.85	652.7		
EP6-07	10/02/03	57.72	649.83		
EP6-08	01/02/03	48.09	660.32		
EP6-08	02/04/03	48.23	660.18		
EP6-08	03/06/03	47.98	660.43		
EP6-08	04/09/03	47.88	660.53		
EP6-08	07/21/03	55.97	652.44		
EP6-08	10/02/03	58.74	649.67		
EP6-09	01/02/03	31.22	663.06		
EP6-09	02/04/03	31.17	663.11		
EP6-09	03/06/03	31.19	663.09		
EP6-09	04/07/03	31.2	663.08		
EP6-09	07/21/03	31.2	663.08		
EP6-09	10/02/03	31.39	662.89		
K6-01	01/02/03	28.36	663.25		
K6-01	02/04/03	28.47	663.14		
K6-01	03/06/03	28.43	663.18		
K6-01	04/07/03	28.43	663.18		
K6-01	07/21/03	28.37	663.24		
K6-01	10/02/03	28.61	663		
K6-01S	01/02/03	29.46	663.06		
K6-01S	02/04/03	29.49	663.03		
K6-01S	03/06/03	29.51	663.01		
K6-01S	04/02/03	29.51	663.01		
K6-01S	07/21/03	29.45	663.07		
K6-01S	10/02/03	29.48	663.04		



**Table 2.3-8. Pit 6 Landfill OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
K6-03	01/02/03	66.21	660.54		
K6-03	02/04/03	66.24	660.51		
K6-03	03/06/03	66.04	660.71		
K6-03	04/07/03	66.26	660.49		
K6-03	07/21/03	73.96	652.79		
K6-03	10/02/03	76.97	649.78		
K6-04	01/02/03	47.48	660.84		
K6-04	02/04/03	47.26	661.06		
K6-04	03/06/03	47.19	661.13		
K6-04	04/07/03	47.24	661.08		
K6-04	07/21/03	54.65	653.67		
K6-04	10/02/03	57.72	650.6		
K6-14	01/02/03	26.34	654.53		
K6-14	02/04/03	25.85	655.02		
K6-14	03/06/03	25.77	655.1		
K6-14	04/09/03	25.36	655.51		
K6-14	07/21/03	26.4	654.47		
K6-14	10/02/03	26.88	653.99		
K6-15	01/02/03	-	-		DRY
K6-15	02/04/03	-	-		DRY
K6-15	03/06/03	-	-		DRY
K6-15	04/07/03	-	-		DRY
K6-15	07/01/03	-	-		DRY
K6-15	10/02/03	-	-		DRY
K6-16	01/02/03	19.43	660.02		
K6-16	02/04/03	19.18	660.27		
K6-16	03/06/03	18.41	661.04		
K6-16	04/09/03	18.81	660.64		
K6-16	07/21/03	19.57	659.88		
K6-16	10/02/03	20.12	659.33		
K6-17	01/02/03	19.52	659.19		
K6-17	02/04/03	19.21	659.5		
K6-17	03/06/03	18.7	660.01		

**Table 2.3-8. Pit 6 Landfill OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
K6-17	04/09/03	18.12	660.59		
K6-17	07/21/03	20	658.71		
K6-17	10/02/03	22.23	656.48		
K6-18	01/02/03	25.17	660.43		
K6-18	02/04/03	25.21	660.39		
K6-18	03/06/03	25.21	660.39		
K6-18	04/09/03	25.3	660.3		
K6-18	07/21/03	25.4	660.2		
K6-18	10/02/03	25.49	660.11		
K6-19	01/02/03	30.3	662.74		
K6-19	02/04/03	30.11	662.93		
K6-19	03/06/03	30.24	662.8		
K6-19	04/07/03	29.93	663.11		
K6-19	07/21/03	30.17	662.87		
K6-19	10/02/03	30.28	662.76		
K6-21	01/02/03	-	-		DRY
K6-21	02/04/03	-	-		DRY
K6-21	03/06/03	-	-		DRY
K6-21	04/07/03	-	-		DRY
K6-21	07/01/03	-	-		DRY
K6-21	10/02/03	-	-		DRY
K6-22	01/02/03	33.15	648.38		
K6-22	02/04/03	33.38	648.15		
K6-22	03/06/03	33.57	647.96		
K6-22	04/09/03	33.69	647.84		
K6-22	07/21/03	34.07	647.46		
K6-22	10/02/03	34.21	647.32		
K6-23	01/02/03	23.12	657.87		
K6-23	02/04/03	23.28	657.71		
K6-23	03/06/03	23.21	657.78		
K6-23	04/09/03	22.32	658.67		
K6-23	07/21/03	-	-		NM/ME
K6-23	10/02/03	24.19	656.8		

**Table 2.3-8. Pit 6 Landfill OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
K6-24	01/02/03	27.04	659.89		
K6-24	02/04/03	27.16	659.77		
K6-24	03/06/03	26.33	660.6		
K6-24	04/09/03	26.77	660.16		
K6-24	07/21/03	35.1	651.83		
K6-24	10/02/03	37.99	648.94		
K6-25	01/02/03	19.78	659.97		
K6-25	02/04/03	19.63	660.12		
K6-25	03/06/03	19.65	660.1		
K6-25	04/09/03	19.51	660.24		
K6-25	07/21/03	19.86	659.89		
K6-25	10/02/03	20.33	659.42		
K6-26	01/02/03	27.41	659.92		
K6-26	02/04/03	27.45	659.88		
K6-26	03/06/03	26.71	660.62		
K6-26	04/09/03	27.08	660.25		
K6-26	07/21/03	34.95	652.38		
K6-26	10/02/03	37.82	649.51		
K6-27	01/02/03	28.02	659.17		
K6-27	02/04/03	28.2	658.99		
K6-27	03/06/03	27.51	659.68		
K6-27	04/09/03	27.88	659.31		
K6-27	07/21/03	36.13	651.06		
K6-27	10/02/03	38.92	648.27		
K6-32	01/02/03	68.35	661.11		
K6-32	02/04/03	68.31	661.15		
K6-32	03/06/03	68.11	661.35		
K6-32	04/09/03	68.02	661.44		
K6-32	07/21/03	75.45	654.01		
K6-32	10/02/03	-	-		DRY
K6-33	01/02/03	25.49	656.75		
K6-33	02/04/03	24.37	657.87		
K6-33	03/06/03	25.18	657.06		

**Table 2.3-8. Pit 6 Landfill OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
K6-33	04/09/03	24.86	657.38		
K6-33	07/21/03	34.9	647.34		
K6-33	10/02/03	36.02	646.22		
K6-34	01/15/03	-	-		NM/NO ACCESS
K6-34	02/04/03	45.47	657.81		
K6-34	03/07/03	44.73	658.55		
K6-34	04/09/03	45.61	657.67		
K6-34	07/21/03	55.65	647.63		
K6-34	10/02/03	-	-		DRY
K6-35	01/02/03	32.67	661.33		
K6-35	02/04/03	32.72	661.28		
K6-35	03/06/03	32.52	661.48		
K6-35	04/02/03	32.51	661.49		
K6-35	07/21/03	40.5	653.5		
K6-35	10/02/03	43.33	650.67		
K6-36	01/02/03	30.04	659.96		CB
K6-36	02/04/03	30.14	659.86		CB
K6-36	03/06/03	29.83	660.17		CB
K6-36	04/02/03	29.89	660.11		CB
K6-36	07/21/03	-	-		DRY/CB
K6-36	10/02/03	-	-		DRY/CB
W-33C-01	01/02/03	11.22	641.29		
W-33C-01	02/04/03	8.93	643.58		
W-33C-01	03/06/03	9.28	643.23		
W-33C-01	04/09/03	9.74	642.77		
W-33C-01	07/21/03	12.15	640.36		
W-33C-01	10/02/03	16.51	636		
W-34-01	01/14/03	5.51	678.95		
W-34-01	02/04/03	5.64	678.82		
W-34-01	03/07/03	5.78	678.68		
W-34-01	04/10/03	6.5	677.96		
W-34-01	07/29/03	5.95	678.51		
W-34-01	10/02/03	6.41	678.05		

**Table 2.3-8. Pit 6 Landfill OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-34-02	01/14/03	23.91	660.95		
W-34-02	02/04/03	23.92	660.94		
W-34-02	03/07/03	23.64	661.22		
W-34-02	04/10/03	23.56	661.3		
W-34-02	07/29/03	29.25	655.61		
W-34-02	10/02/03	30.74	654.12		

**Table 2.4-1. Building 815-Source (B815-SRC) volumes of ground water extracted and discharged, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B815-SRC	January	548	33,017	7603
	February	507	33,187	11,059
	March	752	49,003	9,801
	April	553	35,981	8,995
	May	670	43,050	10,763
	June	627	39,229	7,846
	July	169	9,967	4,984
	August	407	25,400	8,467
	September	504	29,107	9,702
	October	0	0	0
	November	461	27,083	6,771
	December	607	35,947	8,995
<b>Total</b>		<b>5,805</b>	<b>360,971</b>	

**Table 2.4-2. Building 815-Proximal (B815-PRX) volumes of ground water extracted and discharged, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B815-PRX	January	541	85,384	21,346
	February	375	61,936	20,642
	March	647	94,163	18,833
	April	363	58,800	19,600
	May	631	104,214	26,054
	June	822	127,779	25,556
	July	679	100,732	25,183
	August	679	97,129	24,282
	September	850	118,470	23,694
	October	701	95,577	23,894
	November	566	75,032	18,758
	December	870	114,464	22,893
<b>Total</b>		<b>7,724</b>	<b>1,074,939</b>	

**Table 2.4-3. Building 815-Distal Site Boundary (B815-DSB) volumes of ground water extracted and discharged, January 1, 2003 through December 31, 2003.**

<b>Treatment facility</b>	<b>Month</b>	<b>Operational hours</b>	<b>Volume of ground water discharged (gal)</b>	<b>Average weekly volume of water treated (gal)</b>
<b>B815-DSB</b>	<b>January</b>	<b>228</b>	<b>53,442</b>	<b>10,688</b>
	<b>February</b>	<b>208</b>	<b>54,963</b>	<b>13,741</b>
	<b>March</b>	<b>521</b>	<b>89,685</b>	<b>17,937</b>
	<b>April</b>	<b>296</b>	<b>71,860</b>	<b>17,965</b>
	<b>May</b>	<b>321</b>	<b>78,188</b>	<b>19,547</b>
	<b>June</b>	<b>355</b>	<b>87,539</b>	<b>17,508</b>
	<b>July</b>	<b>300</b>	<b>73,322</b>	<b>18,331</b>
	<b>August</b>	<b>367</b>	<b>53,504</b>	<b>13,376</b>
	<b>September</b>	<b>518</b>	<b>62,056</b>	<b>12,411</b>
	<b>October</b>	<b>361</b>	<b>43,747</b>	<b>10,937</b>
	<b>November</b>	<b>281</b>	<b>33,672</b>	<b>8,418</b>
	<b>December</b>	<b>227</b>	<b>27,158</b>	<b>5,432</b>
<b>Total</b>		<b>3,983</b>	<b>729,136</b>	

**Table 2.4-4. Building 817-Source (B817-SRC) volumes of ground water extracted and discharged, September 22, 2003 through December 31, 2003.**

<b>Treatment facility</b>	<b>Month</b>	<b>Operational hours</b>	<b>Volume of ground water discharged (gal)</b>	<b>Average weekly volume of water treated (gal)</b>
<b>B817-SRC</b>	<b>September</b>	<b>11</b>	<b>231</b>	<b>77</b>
	<b>October</b>	<b>49</b>	<b>185</b>	<b>46</b>
	<b>November</b>	<b>121</b>	<b>474</b>	<b>119</b>
	<b>December</b>	<b>253</b>	<b>432</b>	<b>86</b>
<b>Total</b>		<b>434</b>	<b>1,322</b>	

Table 2.4-5. High Explosive Process Area OU 2003 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)
<b>B817-SRC</b>														
STU10-E	09/22/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU10-E	10/01/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.6
STU10-E	10/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.9
STU10-E	10/27/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU10-E	10/28/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU10-E	10/29/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU10-E	11/12/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU10-E	12/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU10-I	09/22/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU10-I	10/01/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<b>B815-SRC</b>														
GTU02-I	01/14/03	E601	5.8 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 DO	<2.5 D	<2.5 D
GTU02-I	04/08/03	E601	6	<0.5	<1	<0.5	<0.5	<0.5	<0.5	0.65	<0.5	<0.5	<0.5	<0.5
GTU02-I	07/15/03	E601	6.4	<0.5	<1	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5
GTU02-I	11/12/03	E601	5.9	<0.5	<1	<0.5	<0.5	<0.5	<0.5	0.83	<0.5	<0.5	<0.5	<0.5
GTU02-I	12/08/03	E601	5.7	<0.5	<1	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5
BTU02-E	01/14/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5
BTU02-E	02/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU02-E	03/12/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU02-E	04/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU02-E	05/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU02-E	06/04/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU02-E	07/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU02-E	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<b>B815-DSB</b>														
STU04-I	01/14/03	E601	8.0 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 DO	<2.5 D	<2.5 D
STU04-I	04/07/03	E601	7.8	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-I	07/09/03	E601	8.2	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-I	10/08/03	E601	8.8	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-E	01/14/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5
STU04-E	02/18/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-E	03/12/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-E	04/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-E	05/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-E	06/04/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-E	07/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-E	08/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-E	09/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-E	10/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-E	11/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU04-E	12/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5



Table 2.4-5. High Explosive Process Area OU 2003 VOCs in ground water treatment system influent and effluent. (Cont. Page 2 of 2)

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)
<i>B815-PRX</i>														
GTU06-I	01/14/03	E601	31 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 DO	<1 D	<1 D
GTU06-I	02/12/03	E601	38 L	<0.5 L	<0.5 L	<0.5 L	0.59 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L
GTU06-I	03/12/03	E601	31	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-I	04/07/03	E601	31	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-I	07/15/03	E601	31	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-I	10/08/03	E601	30	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-E	01/14/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5
GTU06-E	02/12/03	E601	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L
GTU06-E	03/12/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-E	04/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-E	05/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-E	06/04/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-E	07/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-E	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-E	09/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-E	10/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-E	11/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU06-E	12/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.4-6. High Explosive Process Area OU 2003 nitrate and perchlorate in ground water treatment system influent and effluent.

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
<u>B815-SRC</u>			
GTU02-I	01/14/03	82 D	18
GTU02-I	04/08/03	93 D	17
GTU02-I	07/15/03	92 D	19
GTU02-I	11/12/03	97 D	22
GTU02-I	12/08/03	95 D	20
BTU02-E	01/14/03	26 D	<4
BTU02-E	02/13/03	-	<3
BTU02-E	03/12/03	<0.44	<3
BTU02-E	04/08/03	<0.44	<4
BTU02-E	05/06/03	14	<4
BTU02-E	06/04/03	<0.44	<4
BTU02-E	07/15/03	1.9	<4
BTU02-E	08/13/03	<0.44	<4
<u>B815-PRX</u>			
GTU06-I	01/14/03	84 D	4.5
GTU06-I	02/12/03	78 D	5.4
GTU06-I	03/12/03	82	7.7
GTU06-I	04/07/03	83	7.3
GTU06-I	07/15/03	80	7.4
GTU06-I	10/08/03	85	5.9 H
GTU06-E	01/14/03	76 D	<4
GTU06-E	02/12/03	77 D	<4
GTU06-E	03/12/03	84	<3
GTU06-E	04/07/03	88	<4
GTU06-E	05/07/03	81	<4
GTU06-E	06/04/03	75	<4
GTU06-E	07/15/03	74	<4
GTU06-E	08/13/03	39	<4
GTU06-E	09/11/03	83	<4 H
GTU06-E	10/08/03	82	<4 H
GTU06-E	11/11/03	85	<4
GTU06-E	12/08/03	84	<4
<u>B817-SRC</u>			
STU10-E	09/22/03	<2.2 D	<4
STU10-E	10/01/03	<0.88 D	<4 H
STU10-E	11/12/03	<0.44	<4
STU10-E	12/09/03	3.4	<4
STU10-I	09/22/03	80	28
STU10-I	10/01/03	85	26 H

**Table 2.4-6. High Explosive Process Area OU 2003 nitrate and perchlorate in ground water treatment system influent and effluent.**

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
<i>B817-SRC (Cont.)</i>			
STU04-I	01/14/03	0.64	-
STU04-I	04/07/03	<0.44	-
STU04-I	07/09/03	<0.44	-
STU04-I	10/08/03	<0.44	-
STU04-E	01/14/03	0.86	-
STU04-E	02/18/03	<0.44	-
STU04-E	03/12/03	<0.44	-
STU04-E	04/07/03	<0.44	-
STU04-E	05/06/03	<0.44	-
STU04-E	06/04/03	<0.44	-
STU04-E	07/09/03	<0.44	-
STU04-E	08/11/03	<0.44	-
STU04-E	09/03/03	<0.44	-
STU04-E	10/08/03	<0.44	-
STU04-E	11/11/03	<0.44	-
STU04-E	12/09/03	<0.44	-

**Table 2.4-7. HEPA OU treatment facility sampling plans.**

<b>Sample location</b>	<b>Sample identification</b>	<b>Parameter</b>	<b>Frequency</b>
<b><i>B815-SRC GTWS</i></b>			
<b>Influent Port</b>	<b>GTU02-I</b>	<b>VOCs</b>	<b>Quarterly</b>
		<b>RDX</b>	<b>Quarterly</b>
		<b>Perchlorate</b>	<b>Quarterly</b>
		<b>Nitrate</b>	<b>Quarterly</b>
		<b>pH</b>	<b>Quarterly</b>
<b>Effluent Port (influent to misting system)</b>	<b>BTU02-E</b>	<b>VOCs</b>	<b>Monthly</b>
		<b>RDX</b>	<b>Monthly</b>
		<b>Perchlorate</b>	<b>Monthly</b>
		<b>Nitrate</b>	<b>Monthly</b>
		<b>pH</b>	<b>Monthly</b>
<b><i>B815-PRXN GWTS</i></b>			
<b>Influent Port</b>	<b>GTU06-I</b>	<b>VOCs</b>	<b>Quarterly</b>
		<b>Nitrate</b>	<b>Quarterly</b>
		<b>RDX</b>	<b>Quarterly</b>
		<b>Perchlorate</b>	<b>Quarterly</b>
		<b>pH</b>	<b>Quarterly</b>
<b>Effluent Port (influent to misting system)</b>	<b>GTU06-E</b>	<b>VOCs</b>	<b>Monthly</b>
		<b>Perchlorate</b>	<b>Monthly</b>
		<b>Nitrate</b>	<b>Monthly</b>
		<b>pH</b>	<b>Monthly</b>
		<b><i>B815-DSB GWTS</i></b>	
<b>Influent Port</b>	<b>STU04-I</b>	<b>VOCs</b>	<b>Quarterly</b>
		<b>Nitrate</b>	<b>Quarterly</b>
		<b>pH</b>	<b>Quarterly</b>
<b>Effluent Port</b>	<b>STU04-E</b>	<b>VOCs</b>	<b>Monthly</b>
		<b>Nitrate</b>	<b>Monthly</b>
		<b>pH</b>	<b>Monthly</b>

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

Sample location	Sample identification	Parameter	Frequency
<i>B815-SRC GWTS</i>			
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
<i>B815-PRX GWTS</i>			
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
<i>B815-DSB GWTS</i>			
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
<i>B817-SRC GWTS</i>			
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 2003 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
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:NO3	1	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:NO3	1	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:NO3	1	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:NO3	2	N	No samples collected 4/03 due to construction.
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:NO3	2	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:NO3	2	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:NO3	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:NO3	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:NO3	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:NO3	4	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:NO3	4	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:NO3	4	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:PERC	1	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:PERC	1	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:PERC	1	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:PERC	2	N	No samples collected 4/03 due to construction.
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:PERC	2	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:PERC	2	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:PERC	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:PERC	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:PERC	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:PERC	4	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:PERC	4	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E300.0:PERC	4	Y	
GALLO1	WS	Tnbs <sub>2</sub>		Q	ERD/WGMG	E502.2	1	Y	
GALLO1	WS	Tnbs <sub>2</sub>		Q	ERD/WGMG	E502.2	2	Y	
GALLO1	WS	Tnbs <sub>2</sub>		Q	ERD/WGMG	E502.2	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>		Q	ERD/WGMG	E502.2	4	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E601	1	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E601	1	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E601	1	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 2 of 31)

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 <sub>2</sub>	M	M	CMP/WGMG	E601	2	N	No samples collected 4/03 due to construction.
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E601	2	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E601	2	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E601	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E601	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E601	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E601	4	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E601	4	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E601	4	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E8330:R+H	1	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E8330:R+H	1	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E8330:R+H	1	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E8330:R+H	2	N	No samples collected 4/03 due to construction.
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E8330:R+H	2	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E8330:R+H	2	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E8330:R+H	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E8330:R+H	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E8330:R+H	3	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E8330:R+H	4	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E8330:R+H	4	Y	
GALLO1	WS	Tnbs <sub>2</sub>	M	M	CMP/WGMG	E8330:R+H	4	Y	
SPRING14	SPR	Tnbs <sub>2</sub>		B	DIS	DWMETALS	2	N	Sampling personnel shortage.
SPRING14	SPR	Tnbs <sub>2</sub>		B	DIS	DWMETALS	4	Y	
SPRING14	SPR	Tnbs <sub>2</sub>		B	DIS	E200.7:Zn	2	N	Sampling personnel shortage.
SPRING14	SPR	Tnbs <sub>2</sub>		B	DIS	E200.7:Zn	4	Y	
SPRING14	SPR	Tnbs <sub>2</sub>		B	DIS	E210.2	2	N	Sampling personnel shortage.
SPRING14	SPR	Tnbs <sub>2</sub>		B	DIS	E210.2	4	Y	
SPRING14	SPR	Tnbs <sub>2</sub>	B	B	CMP	E300.0:NO3	2	N	Sampling personnel shortage.
SPRING14	SPR	Tnbs <sub>2</sub>	B	B	CMP	E300.0:NO3	4	Y	
SPRING14	SPR	Tnbs <sub>2</sub>	B	B	CMP	E300.0:PERC	2	N	Sampling personnel shortage.
SPRING14	SPR	Tnbs <sub>2</sub>	B	B	CMP	E300.0:PERC	4	Y	



Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 3 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
SPRING14	SPR	Tnbs <sub>2</sub>	B	B	CMP	E601	2	N	Sampling personnel shortage.
SPRING14	SPR	Tnbs <sub>2</sub>	B	B	CMP	E601	4	Y	
SPRING14	SPR	Tnbs <sub>2</sub>	B	B	CMP	E8330:R+H	2	N	Sampling personnel shortage.
SPRING14	SPR	Tnbs <sub>2</sub>	B	B	CMP	E8330:R+H	4	Y	
SPRING14	SPR	Tnbs <sub>2</sub>		B	DIS	GENMIN	2	N	Sampling personnel shortage.
SPRING14	SPR	Tnbs <sub>2</sub>		B	DIS	GENMIN	4	Y	
SPRING5	SPR	Tps	A	A	CMP	E300.0:NO3	4	N	Dry.
SPRING5	SPR	Tps	A	A	CMP	E300.0:PERC	4	N	Dry.
SPRING5	SPR	Tps	S	S	CMP	E601	1	N	Sampling personnel shortage.
SPRING5	SPR	Tps	S	S	CMP	E601	4	N	Dry.
SPRING5	SPR	Tps	A	A	CMP	E8330:R+H	4	N	Dry.
W-35B-01	GW	Qal	S	S	CMP	E300.0:NO3	1	Y	
W-35B-01	GW	Qal	S	S	CMP	E300.0:NO3	3	Y	
W-35B-01	GW	Qal		S	DIS	E300.0:NO3	4	Y	
W-35B-01	GW	Qal	S	S	CMP	E300.0:PERC	1	Y	
W-35B-01	GW	Qal	S	S	CMP	E300.0:PERC	3	Y	
W-35B-01	GW	Qal		S	DIS	E300.0:PERC	4	Y	
W-35B-01	GW	Qal	Q	Q	CMP	E601	1	Y	
W-35B-01	GW	Qal	Q	Q	CMP	E601	2	Y	
W-35B-01	GW	Qal	Q	Q	CMP	E601	3	Y	
W-35B-01	GW	Qal	Q	Q	CMP	E601	4	Y	
W-35B-01	GW	Qal	S	S	CMP	E8330:R+H	1	Y	
W-35B-01	GW	Qal	S	S	CMP	E8330:R+H	3	Y	
W-35B-01	GW	Qal		S	DIS	E8330:R+H	4	Y	
W-35B-02	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-35B-02	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-35B-02	GW	Tnbs <sub>2</sub>		S	DIS	E300.0:NO3	4	Y	
W-35B-02	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	1	Y	
W-35B-02	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	3	Y	
W-35B-02	GW	Tnbs <sub>2</sub>		S	DIS	E300.0:PERC	4	Y	
W-35B-02	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	1	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 4 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-35B-02	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	2	Y	
W-35B-02	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	3	Y	
W-35B-02	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	4	Y	
W-35B-02	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	1	Y	
W-35B-02	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	3	Y	
W-35B-02	GW	Tnbs <sub>2</sub>		S	DIS	E8330:R+H	4	Y	
W-35B-03	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-35B-03	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-35B-03	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	1	Y	
W-35B-03	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	3	Y	
W-35B-03	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	1	Y	
W-35B-03	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	2	N	Pump down.
W-35B-03	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	3	Y	
W-35B-03	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	4	Y	
W-35B-03	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	1	Y	
W-35B-03	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	3	Y	
W-35B-04	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-35B-04	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-35B-04	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	1	Y	
W-35B-04	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	3	Y	
W-35B-04	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	1	Y	
W-35B-04	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	2	Y	
W-35B-04	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	3	Y	
W-35B-04	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	4	Y	
W-35B-04	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	1	Y	
W-35B-04	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	3	Y	
W-35B-05	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-35B-05	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-35B-05	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	1	Y	
W-35B-05	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	3	Y	
W-35B-05	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	1	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 5 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-35B-05	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	2	Y	
W-35B-05	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	3	Y	
W-35B-05	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	4	Y	
W-35B-05	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	1	Y	
W-35B-05	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	3	Y	
W-35C-01	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-35C-01	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-35C-01	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	1	Y	
W-35C-01	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	3	Y	
W-35C-01	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-35C-02	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-35C-02	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-35C-02	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-35C-02	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-35C-02	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-35C-02	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-35C-02	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-35C-02	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E8330:R+H	4	Y	
W-35C-04	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-35C-04	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-35C-04	EW	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-35C-04	EW	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-35C-04	EW	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
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	S	S	CMP	E601	3	Y	
W-35C-05	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-35C-06	MWPT	Qal	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-35C-06	MWPT	Qal	A	A	CMP	E300.0:NO3	4	Y	
W-35C-06	MWPT	Qal	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 6 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-35C-06	MWPT	Qal	A	A	CMP	E300.0:PERC	4	Y	
W-35C-06	MWPT	Qal	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-35C-06	MWPT	Qal	S	S	CMP	E601	3	Y	
W-35C-06	MWPT	Qal	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-35C-06	MWPT	Qal	A	A	CMP	E8330:R+H	4	Y	
W-35C-07	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-35C-07	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-35C-07	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-35C-07	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-35C-07	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-35C-07	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	3	Y	
W-35C-07	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-35C-07	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-35C-08	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-35C-08	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-35C-08	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-35C-08	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-35C-08	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-35C-08	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	3	Y	
W-35C-08	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-35C-08	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-4A	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-4A	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-4A	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-4A	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-4A	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-4A	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	3	Y	
W-4A	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-4A	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-4AS	MWPT	Tps	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-4AS	MWPT	Tps	A	A	CMP	E300.0:NO3	4	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 7 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-4AS	MWPT	Tps	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-4AS	MWPT	Tps	A	A	CMP	E300.0:PERC	4	Y	
W-4AS	MWPT	Tps	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-4AS	MWPT	Tps	S	S	CMP	E601	3	Y	
W-4AS	MWPT	Tps	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-4AS	MWPT	Tps	A	A	CMP	E8330:R+H	4	Y	
W-4B	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-4B	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-4B	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-4B	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-4B	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-4C	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-4C	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-4C	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	1	Y	
W-4C	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	3	Y	
W-4C	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E8330:R+H	1	Y	
W-6BD	MWPT	Tps	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-6BD	MWPT	Tps	A	A	CMP	E300.0:NO3	4	Y	
W-6BD	MWPT	Tps	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-6BD	MWPT	Tps	A	A	CMP	E300.0:PERC	4	Y	
W-6BD	MWPT	Tps	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-6BD	MWPT	Tps	S	S	CMP	E601	3	Y	
W-6BD	MWPT	Tps	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-6BD	MWPT	Tps	A	A	CMP	E8330:R+H	4	Y	
W-6BS	MWPT	Tps	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-6BS	MWPT	Tps	A	A	CMP	E300.0:NO3	4	Y	
W-6BS	MWPT	Tps	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-6BS	MWPT	Tps	A	A	CMP	E300.0:PERC	4	Y	
W-6BS	MWPT	Tps	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-6BS	MWPT	Tps	S	S	CMP	E601	3	Y	
W-6BS	MWPT	Tps	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 8 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-6BS	MWPT	Tps	A	A	CMP	E8330:R+H	4	Y	
W-6CD	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-6CD	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-6CD	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-6CD	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-6CD	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-6CD	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-6CD	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-6CD	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-6CI	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-6CI	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-6CI	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-6CI	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-6CI	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-6CI	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	3	Y	
W-6CI	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-6CI	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-6CS	MWPT	Tps	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-6CS	MWPT	Tps	A	A	CMP	E300.0:NO3	4	Y	
W-6CS	MWPT	Tps	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-6CS	MWPT	Tps	A	A	CMP	E300.0:PERC	4	Y	
W-6CS	MWPT	Tps	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-6CS	MWPT	Tps	S	S	CMP	E601	3	Y	
W-6CS	MWPT	Tps	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-6CS	MWPT	Tps	A	A	CMP	E8330:R+H	4	Y	
W-6EI	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-6EI	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-6EI	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-6EI	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-6EI	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-6EI	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	3	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 9 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-6EI	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-6EI	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-6ER	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-6ER	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	4	N	Pump down.
W-6ER	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-6ER	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	4	N	Pump down.
W-6ER	EW	Tnbs <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-6ER	EW	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-6ER	EW	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-6ER	EW	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	4	N	Pump down.
W-6ER	EW	Tnbs <sub>2</sub>		S	DIS	NUTRIENTS	1	N	Sampling personnel shortage.
W-6ER	EW	Tnbs <sub>2</sub>		S	DIS	NUTRIENTS	3	Y	
W-6ES	MWPT	Qal	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-6ES	MWPT	Qal	A	A	CMP	E300.0:NO3	4	Y	
W-6ES	MWPT	Qal	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-6ES	MWPT	Qal	A	A	CMP	E300.0:PERC	4	Y	
W-6ES	MWPT	Qal	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-6ES	MWPT	Qal	S	S	CMP	E601	3	Y	
W-6ES	MWPT	Qal	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-6ES	MWPT	Qal	A	A	CMP	E8330:R+H	4	Y	
W-6F	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-6F	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-6F	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-6F	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-6F	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-6F	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-6F	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-6F	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-6G	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-6G	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-6G	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 10 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-6G	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-6G	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-6G	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-6G	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-6G	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-6H	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-6H	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-6H	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	1	Y	
W-6H	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	3	Y	
W-6H	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	1	Y	
W-6H	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	2	Y	
W-6H	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	3	Y	
W-6H	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	4	Y	
W-6H	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	1	Y	
W-6H	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	3	Y	
W-6H	GW	Tnbs <sub>2</sub>		S	DIS	NUTRIENTS	1	Y	
W-6H	GW	Tnbs <sub>2</sub>		S	DIS	NUTRIENTS	3	Y	
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	S	S	CMP	E601	3	Y	
W-6I	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-6J	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-6J	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-6J	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	1	Y	
W-6J	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	3	Y	
W-6J	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	1	Y	
W-6J	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	2	Y	
W-6J	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	3	Y	
W-6J	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	4	Y	
W-6J	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	1	Y	



Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 11 of 31)

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 <sub>2</sub>	S	S	CMP	E8330:R+H	3	Y	
W-6J	GW	Tnbs <sub>2</sub>		S	DIS	NUTRIENTS	1	Y	
W-6J	GW	Tnbs <sub>2</sub>		S	DIS	NUTRIENTS	3	Y	
W-6K	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-6K	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-6K	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-6K	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-6K	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-6L	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-6L	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-6L	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-6L	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-6L	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-806-06	MWB	Tnsc <sub>1</sub>	B		CMP	E300.0:NO3			Borehole, never completed as a well.
W-806-06	MWB	Tnsc <sub>1</sub>	B		CMP	E300.0:PERC			Borehole, never completed as a well.
W-806-06	MWB	Tnsc <sub>1</sub>	B		CMP	E601			Borehole, never completed as a well.
W-806-06	MWB	Tnsc <sub>1</sub>	B		CMP	E8330:R+H			Borehole, never completed as a well.
W-806-06A	MWB	Tnsc <sub>1</sub>	B	B	CMP	E300.0:NO3	2	Y	Next sample required 2005.
W-806-06A	MWB	Tnsc <sub>1</sub>	B	B	CMP	E300.0:PERC	2	Y	Next sample required 2005.
W-806-06A	MWB	Tnsc <sub>1</sub>	B	B	CMP	E601	2	Y	Next sample required 2005.
W-806-06A	MWB	Tnsc <sub>1</sub>	B	B	CMP	E8330:R+H	2	Y	Next sample required 2005.
W-806-07	MWB	Tnbs <sub>2</sub>	B	B	CMP	E300.0:NO3	2	N	Dry.
W-806-07	MWB	Tnbs <sub>2</sub>	B	B	CMP	E300.0:NO3	4	N	Dry.
W-806-07	MWB	Tnbs <sub>2</sub>	B	B	CMP	E300.0:PERC	2	N	Dry.
W-806-07	MWB	Tnbs <sub>2</sub>	B	B	CMP	E300.0:PERC	4	N	Dry.
W-806-07	MWB	Tnbs <sub>2</sub>	B	B	CMP	E601	2	N	Dry.
W-806-07	MWB	Tnbs <sub>2</sub>	B	B	CMP	E601	4	N	Dry.
W-806-07	MWB	Tnbs <sub>2</sub>	B	B	CMP	E8330:R+H	2	N	Dry.
W-806-07	MWB	Tnbs <sub>2</sub>	B	B	CMP	E8330:R+H	4	N	Dry.
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	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 12 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-808-01	MWPT	Tps	S	S	CMP	E601	1	Y	
W-808-01	MWPT	Tps	S	S	CMP	E601	3	Y	
W-808-01	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-808-02	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Dry.
W-808-02	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:NO3	4	N	Dry.
W-808-02	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Dry.
W-808-02	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E300.0:PERC	4	N	Dry.
W-808-02	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	1	N	Dry.
W-808-02	MWPT	Tnsc <sub>2</sub>	S	S	CMP	E601	3	N	Dry.
W-808-02	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Dry.
W-808-02	MWPT	Tnsc <sub>2</sub>	A	A	CMP	E8330:R+H	4	N	Dry.
W-808-03	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-808-03	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-808-03	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
W-808-03	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-808-03	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E8330:R+H	1	Y	
W-809-01	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
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	S	S	CMP	E601	3	Y	
W-809-01	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-809-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-809-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-809-02	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-809-02	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-809-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-809-03	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-809-03	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-809-03	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-809-03	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-809-03	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 13 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-809-04	MWPT	Tps	A	A	CMP	E300.0:NO3	4	N	Dry.
W-809-04	MWPT	Tps	A	A	CMP	E300.0:PERC	4	N	Dry.
W-809-04	MWPT	Tps	S	S	CMP	E601	2		
W-809-04	MWPT	Tps	S	S	CMP	E601	4	N	Dry.
W-809-04	MWPT	Tps	A	A	CMP	E8330:R+H	4	N	Dry.
W-810-01	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-810-01	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-810-01	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
W-810-01	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-810-01	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E8330:R+H	1	Y	
W-814-01	MWPT	Tps	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-814-01	MWPT	Tps	A	A	CMP	E300.0:NO3	4	Y	
W-814-01	MWPT	Tps	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-814-01	MWPT	Tps	A	A	CMP	E300.0:PERC	4	Y	
W-814-01	MWPT	Tps	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-814-01	MWPT	Tps	S	S	CMP	E601	3	Y	
W-814-01	MWPT	Tps	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-814-01	MWPT	Tps	A	A	CMP	E8330:R+H	4	Y	
W-814-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-814-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-814-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-814-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-814-02	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-814-02	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-814-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-814-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-814-03	MWPT	Tps	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-814-03	MWPT	Tps	A	A	CMP	E300.0:NO3	4	N	Dry.
W-814-03	MWPT	Tps	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-814-03	MWPT	Tps	A	A	CMP	E300.0:PERC	4	N	Dry.
W-814-03	MWPT	Tps	S	S	CMP	E601	1	N	Sampling personnel shortage.

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 14 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-814-03	MWPT	Tps	S	S	CMP	E601	3	N	Dry.
W-814-03	MWPT	Tps	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-814-03	MWPT	Tps	A	A	CMP	E8330:R+H	4	N	Dry.
W-814-04	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-814-04	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-814-04	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-814-04	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-814-04	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-814-04	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	3	Y	
W-814-04	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-814-04	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E8330:R+H	4	Y	
W-815-01	MWPT	Tps	A	A	CMP	E300.0:NO3	2	N	Dry.
W-815-01	MWPT	Tps	A	A	CMP	E300.0:NO3	4	N	Dry.
W-815-01	MWPT	Tps	A	A	CMP	E300.0:PERC	2	N	Dry.
W-815-01	MWPT	Tps	A	A	CMP	E300.0:PERC	4	N	Dry.
W-815-01	MWPT	Tps	S	S	CMP	E601	2	N	Dry.
W-815-01	MWPT	Tps	S	S	CMP	E601	2	N	Dry.
W-815-01	MWPT	Tps	A	A	CMP	E8330:R+H	2	N	Dry.
W-815-01	MWPT	Tps	A	A	CMP	E8330:R+H	4	N	Dry.
W-815-02	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	Sampled as influent to B815-SRC.
W-815-02	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-815-02	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	Sampled as influent to B815-SRC.
W-815-02	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-815-02	EW	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	Sampled as influent to B815-SRC.
W-815-02	EW	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-815-02	EW	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	Sampled as influent to B815-SRC.
W-815-02	EW	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-815-03	MWPT	Tps	A	A	CMP	E300.0:NO3	1	Y	
W-815-03	MWPT	Tps	A	A	CMP	E300.0:PERC	1	Y	
W-815-03	MWPT	Tps	S	S	CMP	E601	1	Y	
W-815-03	MWPT	Tps	S	S	CMP	E601	4	N	Dry.

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 15 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-815-03	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-815-04	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-815-04	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-815-04	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-815-04	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-815-04	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
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	S	S	CMP	E601	3	Y	
W-815-05	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-815-06	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-815-06	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-815-06	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-815-06	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-815-06	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-815-07	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-815-07	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-815-07	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-815-07	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-815-07	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-815-07	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-815-07	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-815-07	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-815-08	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-815-08	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-815-08	GW	Tnbs <sub>1</sub>		S	DIS	E300.0:NO3	4	Y	
W-815-08	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:PERC	1	Y	
W-815-08	GW	Tnbs <sub>1</sub>	S	S	CMP	E300.0:PERC	3	Y	
W-815-08	GW	Tnbs <sub>1</sub>		S	DIS	E300.0:PERC	4	Y	
W-815-08	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	1	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 16 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-815-08	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	2	Y	
W-815-08	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	3	Y	
W-815-08	GW	Tnbs <sub>1</sub>	Q	Q	CMP	E601	4	Y	
W-815-08	GW	Tnbs <sub>1</sub>	S	S	CMP	E8330:R+H	1	Y	
W-815-08	GW	Tnbs <sub>1</sub>	S	S	CMP	E8330:R+H	3	Y	
W-815-08	GW	Tnbs <sub>1</sub>		S	DIS	E8330:R+H	4	Y	
W-815-1928	MWPT	Tps		A	DIS	DWMETAL	4	N	Insufficient water.
W-815-1928	MWPT	Tps	A	A	CMP	E300.0:NO3	4	N	Insufficient water.
W-815-1928	MWPT	Tps	A	A	CMP	E300.0:PERC	4	N	Insufficient water.
W-815-1928	MWPT	Tps	S	S	CMP	E624	2	N	Insufficient water.
W-815-1928	MWPT	Tps	S	S	CMP	E624	4	N	Insufficient water.
W-815-1928	MWPT	Tps		A	DIS	E625	4	N	Insufficient water.
W-815-1928	MWPT	Tps	A	A	CMP	E8330:R+H	4	N	Insufficient water.
W-815-1928	MWPT	Tps		A	DIS	E900	4	N	Insufficient water.
W-815-1928	MWPT	Tps		A	DIS	E906	4	N	Insufficient water.
W-815-1928	MWPT	Tps		A	DIS	GENMIN	4	N	Insufficient water.
W-815-1928	MWPT	Tps		A	DIS	MS:UIISO	4	N	Insufficient water.
W-817-01	EW	Tnbs <sub>2</sub>	S	S	CMP/WGMG	E300.0:NO3	1	Y	
W-817-01	EW	Tnbs <sub>2</sub>	S	S	CMP/WGMG	E300.0:NO3	3	N	Not on sampling plan.
W-817-01	EW	Tnbs <sub>2</sub>	S	S	CMP/WGMG	E300.0:PERC	1	Y	
W-817-01	EW	Tnbs <sub>2</sub>	S	S	CMP/WGMG	E300.0:PERC	3	N	
W-817-01	EW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E601	1	Y	
W-817-01	EW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E601	2	Y	
W-817-01	EW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E601	3	N	Not on sampling plan.
W-817-01	EW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E601	4	N	Not on sampling plan.
W-817-01	EW	Tnbs <sub>2</sub>	S	S	CMP/WGMG	W8330:LOW	3	Y	
W-817-01	EW	Tnbs <sub>2</sub>	S	S	CMP/WGMG	W8330:LOW	4	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	N	WDRMIN analyzed.
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	N	WDRMIN analyzed.

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 17 of 31)

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 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:PERC	3	N	Not on sampling plan.
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	N	Not on sampling plan.
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	W8330:LOW	1	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	W8330:LOW	2	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	W8330:LOW	3	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	W8330:LOW	4	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	WDRE624	1	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	WDRE624	2	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	WDRE624	3	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	WDRE624	4	Y	
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>		Q	CMP/WGMG	WDRMIN	1	Y	NO3
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>		Q	CMP/WGMG	WDRMIN	2	Y	NO3
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>		Q	CMP/WGMG	WDRMIN	3	Y	NO3
W-817-02 <sup>a</sup>	DMW	Tnbs <sub>2</sub>		Q	CMP/WGMG	WDRMIN	4	Y	NO3
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	N	WDRMIN analyzed.
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	N	WDRMIN analyzed.
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	Y	
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	Y	
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:PERC	3	N	Not on sampling plan.
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	N	Not on sampling plan.
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	W8330:LOW	1	Y	
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	W8330:LOW	2	Y	
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	W8330:LOW	3	Y	
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	W8330:LOW	4	Y	
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	WDRE624	1	Y	
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	WDRE624	2	Y	
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	WDRE624	3	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 18 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	WDRE624	4	Y	
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>		Q	CMP/WGMG	WDRMIN	1	Y	NO3
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>		Q	CMP/WGMG	WDRMIN	2	Y	NO3
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>		Q	CMP/WGMG	WDRMIN	3	Y	NO3
W-817-03 <sup>a</sup>	DMW	Tnbs <sub>2</sub>		Q	CMP/WGMG	WDRMIN	4	Y	NO3
W-817-03A	MWPT	Tps	A	A	CMP	E300.0:NO3	1	N	Dry.
W-817-03A	MWPT	Tps	A	A	CMP	E300.0:NO3	4	N	Dry.
W-817-03A	MWPT	Tps	A	A	CMP	E300.0:PERC	1	N	Dry.
W-817-03A	MWPT	Tps	A	A	CMP	E300.0:PERC	4	N	Dry.
W-817-03A	MWPT	Tps	S	S	CMP	E601	1	N	Dry.
W-817-03A	MWPT	Tps	S	S	CMP	E601	3	N	Dry.
W-817-03A	MWPT	Tps	A	A	CMP	E8330:R+H	1	N	Dry.
W-817-03A	MWPT	Tps	A	A	CMP	E8330:R+H	4	N	Dry.
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	N	WDRMIN analyzed.
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	N	WDRMIN analyzed.
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	Y	
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	Y	
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:PERC	3	N	Not on sampling plan.
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	N	Not on sampling plan.
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	W8330:LOW	1	Y	
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	W8330:LOW	2	Y	
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	W8330:LOW	3	Y	
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	W8330:LOW	4	Y	
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	WDRE624	1	Y	
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	WDRE624	2	Y	
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	WDRE624	3	Y	
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>	Q	Q	CMP/WGMG	WDRE624	4	Y	
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>		Q	CMP/WGMG	WDRMIN	1	Y	NO3
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>		Q	CMP/WGMG	WDRMIN	2	Y	NO3



Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 19 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>		Q	CMP/WGMG	WDRMIN	3	Y	NO3
W-817-04 <sup>a</sup>	DMW	Tnbs <sub>2</sub>		Q	CMP/WGMG	WDRMIN	4	Y	NO3
W-817-05	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	No access-washed out road.
W-817-05	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-817-05	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	No access-washed out road.
W-817-05	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-817-05	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	1	N	No access-washed out road.
W-817-05	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	3	N	Pump down.
W-817-05	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E8330:R+H	1	N	No access-washed out road.
W-817-05	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E8330:R+H	4	Y	
W-817-06A	Inj Well	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	B817-SRC injection well
W-817-06A	Inj Well	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	B817-SRC injection well
W-817-06A	Inj Well	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	B817-SRC injection well
W-817-06A	Inj Well	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	B817-SRC injection well
W-817-06A	Inj Well	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	B817-SRC injection well
W-817-07	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-817-07	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-817-07	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-817-07	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-817-07	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-818-01	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-818-01	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-818-01	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-818-01	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-818-01	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-818-03	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-818-03	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-818-03	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-818-03	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-818-03	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-818-03	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 20 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-818-03	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-818-03	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-818-04	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-818-04	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-818-04	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-818-04	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-818-04	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-818-06	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-818-06	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-818-06	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-818-06	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-818-06	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-818-07	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-818-07	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-818-07	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-818-07	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-818-07	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-818-08	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-818-08	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-818-08	EW	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-818-08	EW	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-818-08	EW	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-818-09	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-818-09	EW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-818-09	EW	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-818-09	EW	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-818-09	EW	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-818-11	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-818-11	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-818-11	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-818-11	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 21 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-818-11	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:RDX	1	Y	
W-819-02	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-819-02	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-819-02	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-819-02	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-819-02	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-819-02	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	3	Y	
W-819-02	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.
W-819-02	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E8330:R+H	4	Y	
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	S	S	CMP	E601	3	Y	
W-823-01	MWPT	Tps	A	A	CMP	E8330:R+H	1	Y	
W-823-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-823-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-823-02	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-823-02	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-823-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-823-03	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-823-03	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-823-03	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-823-03	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-823-03	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	Y	
W-823-13	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-823-13	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-823-13	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-823-13	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-823-13	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-823-13	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-823-13	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	1	N	Sampling personnel shortage.

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 22 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-823-13	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	4	Y	
W-827-01	MWB	Tnbs <sub>2</sub>	B	B	CMP	E300.0:NO3	2	N	Dry.
W-827-01	MWB	Tnbs <sub>2</sub>	B	B	CMP	E300.0:NO3	4	N	Dry.
W-827-01	MWB	Tnbs <sub>2</sub>	B	B	CMP	E300.0:PERC	2	N	Dry.
W-827-01	MWB	Tnbs <sub>2</sub>	B	B	CMP	E300.0:PERC	4	N	Dry.
W-827-01	MWB	Tnbs <sub>2</sub>	B	B	CMP	E601	2	N	Dry.
W-827-01	MWB	Tnbs <sub>2</sub>	B	B	CMP	E601	4	N	Dry.
W-827-01	MWB	Tnbs <sub>2</sub>	B	B	CMP	E8330:R+H	2	N	Dry.
W-827-01	MWB	Tnbs <sub>2</sub>	B	B	CMP	E8330:R+H	4	N	Dry.
W-827-02	MWB	Tnsc <sub>1</sub>	B	B	CMP	E300.0:NO3	2	Y	Next sample required 2005.
W-827-02	MWB	Tnsc <sub>1</sub>	B	B	CMP	E300.0:PERC	2	Y	Next sample required 2005.
W-827-02	MWB	Tnsc <sub>1</sub>	B	B	CMP	E601	2	Y	Next sample required 2005.
W-827-02	MWB	Tnsc <sub>1</sub>	B	B	CMP	E8330:R+H	2	Y	Next sample required 2005.
W-827-03	MWB	Tnsc <sub>1</sub>	B	B	CMP	E300.0:NO3	2	Y	Next sample required 2005.
W-827-03	MWB	Tnsc <sub>1</sub>	B	B	CMP	E300.0:PERC	2	Y	Next sample required 2005.
W-827-03	MWB	Tnsc <sub>1</sub>	B	B	CMP	E601	2	Y	Next sample required 2005.
W-827-03	MWB	Tnsc <sub>1</sub>	B	B	CMP	E8330:R+H	2	Y	Next sample required 2005.
W-827-03	MWB	Tnsc <sub>1</sub>	B	B	DIS	NUTRIENTS	2	Y	Next sample required 2005.
W-827-04 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	A	A	CMP/WGMG	E300.0:NO3	2	N	Dry.
W-827-04 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	N	Dry.
W-827-04 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	N	Dry.
W-827-04 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	N	Dry.
W-827-04 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	1	N	Dry.
W-827-04 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	2	N	Dry.
W-827-04 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	3	N	Not on sampling plan.
W-827-04 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	4	N	Dry.
W-827-04 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	1	N	Dry.
W-827-04 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	2	N	Dry.
W-827-04 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	3	N	Not on sampling plan.
W-827-04 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	4	N	Dry.
W-827-05	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	2	Y	No longer HEBP DMW; Replaced by W-829-

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 23 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
									1938
W-827-05	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	4	Y	No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E300.0:PERC	2	Y	No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E300.0:PERC	4	Y	No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	2	Y	No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	4	Y	No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E8330:R+H	2	Y	No longer HEBP DMW; Replaced by W-829-1938
W-827-05	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E8330:R+H	4	Y	No longer HEBP DMW; Replaced by W-829-1938
W-829-06 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	A	A	CMP/WGMG	E300.0:NO3	2	Y	
W-829-06 <sup>b</sup>	DMW	Tnsc <sub>1</sub>		S	DIS	E300.0:NO3	3	Y	
W-829-06 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	A	A	CMP/WGMG	E300.0:PERC	2	Y	
W-829-06 <sup>b</sup>	DMW	Tnsc <sub>1</sub>		S	DIS	E300.0:PERC	3	Y	
W-829-06 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E601	3	Y	
W-829-06 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E601	4	Y	
W-829-06 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E624	1	Y	
W-829-06 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E624	2	Y	
W-829-06 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	1	Y	
W-829-06 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	2	Y	
W-829-06 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	3	Y	
W-829-06 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	4	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	A	A	CMP/WGMG	E300.0:NO3	2	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>		S	DIS	E300.0:NO3	3	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	3	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 24 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E601	3	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E601	4	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E624	1	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E624	2	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	1	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	2	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	3	Y	
W-829-08 <sup>b</sup>	DMW	Tnsc <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	4	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>		Q	CMP/WGMG	ANIONS	1	Y	NO3
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>		Q	CMP/WGMG	ANIONS	2	Y	NO3
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>		Q	CMP/WGMG	ANIONS	3	Y	NO3
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>		Q	CMP/WGMG	ANIONS	4	Y	NO3
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	N	ANIONS analyzed.
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	3	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	1	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	2	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	3	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	4	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	1	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	2	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	3	Y	
W-829-15 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	4	Y	
W-829-1938 <sup>b</sup>	DMW	Tnbs <sub>1</sub>		Q	CMP/WGMG	ANIONS	4	N	New HEBP WGMG DMW; Replaces W-827-05. No samples collected-no pump.
W-829-1938 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	N	New HEBP WGMG DMW; Replaces W-827-05. No samples collected-no pump.
W-829-1938 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	N	New HEBP WGMG DMW; Replaces W-827-05. No samples collected-no pump.

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 25 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-829-1938 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	4	N	New HEBP WGMG DMW; Replaces W-827-05. No samples collected-no pump.
W-829-1938 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	4	N	New HEBP WGMG DMW; Replaces W-827-05. No samples collected-no pump.
W-829-1940	MWPT	Tnsc <sub>1</sub>		A	DIS	DWMETAL	4	N	Dry.
W-829-1940	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Dry.
W-829-1940	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	4	N	Dry.
W-829-1940	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E624	2	N	Not drilled until 4 <sup>th</sup> Q.
W-829-1940	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E624	4	N	Dry.
W-829-1940	MWPT	Tnsc <sub>1</sub>		A	DIS	E625	4	N	Dry.
W-829-1940	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E8330:R+H	4	N	Dry.
W-829-1940	MWPT	Tnsc <sub>1</sub>		A	DIS	E900	4	N	Dry.
W-829-1940	MWPT	Tnsc <sub>1</sub>		A	DIS	E906	4	N	Dry.
W-829-1940	MWPT	Tnsc <sub>1</sub>		A	DIS	GENMIN	4	N	Dry.
W-829-1940	MWPT	Tnsc <sub>1</sub>		A	DIS	MS:UISO	4	N	Dry.
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>		Q	CMP/WGMG	ANIONS	1	Y	NO3
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>		Q	CMP/WGMG	ANIONS	2	Y	NO3
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>		Q	CMP/WGMG	ANIONS	3	Y	NO3
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>		Q	CMP/WGMG	ANIONS	4	Y	NO3
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	N	ANIONS analyzed.
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	1	Y	
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	2	Y	
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	3	Y	
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:PERC	4	Y	
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	1	Y	
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	2	Y	
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	3	Y	
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E624	4	Y	
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	1	Y	
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	2	Y	
W-829-22 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	3	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 26 of 31)

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 <sup>b</sup>	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E8330:R+H	4	Y	
W-880-01	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-880-01	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-880-01	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	1	Y	
W-880-01	GW	Tnbs <sub>2</sub>	S	S	CMP	E300.0:PERC	3	Y	
W-880-01	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	1	Y	
W-880-01	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	2	Y	
W-880-01	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	3	Y	
W-880-01	GW	Tnbs <sub>2</sub>	Q	Q	CMP	E601	4	Y	
W-880-01	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	1	Y	
W-880-01	GW	Tnbs <sub>2</sub>	S	S	CMP	E8330:R+H	3	Y	
W-880-02	GW	Qal	S	S	CMP	E300.0:NO3	1	Y	
W-880-02	GW	Qal	S	S	CMP	E300.0:NO3	3	Y	
W-880-02	GW	Qal	S	S	CMP	E300.0:PERC	1	Y	
W-880-02	GW	Qal	S	S	CMP	E300.0:PERC	3	Y	
W-880-02	GW	Qal	Q	Q	CMP	E601	1	Y	
W-880-02	GW	Qal	Q	Q	CMP	E601	2	Y	
W-880-02	GW	Qal	Q	Q	CMP	E601	3	Y	
W-880-02	GW	Qal	Q	Q	CMP	E601	4	Y	
W-880-02	GW	Qal	S	S	CMP	E8330:R+H	1	Y	
W-880-02	GW	Qal	S	S	CMP	E8330:R+H	3	Y	
W-880-03	GW	Tnsc <sub>1</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-880-03	GW	Tnsc <sub>1</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-880-03	GW	Tnsc <sub>1</sub>	S	S	CMP	E300.0:PERC	1	Y	
W-880-03	GW	Tnsc <sub>1</sub>	S	S	CMP	E300.0:PERC	3	Y	
W-880-03	GW	Tnsc <sub>1</sub>	Q	Q	CMP	E601	1	Y	
W-880-03	GW	Tnsc <sub>1</sub>	Q	Q	CMP	E601	2	Y	
W-880-03	GW	Tnsc <sub>1</sub>	Q	Q	CMP	E601	3	Y	
W-880-03	GW	Tnsc <sub>1</sub>	Q	Q	CMP	E601	4	Y	
W-880-03	GW	Tnsc <sub>1</sub>	S	S	CMP	E8330:R+H	1	Y	
W-880-03	GW	Tnsc <sub>1</sub>	S	S	CMP	E8330:R+H	3	Y	



Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 27 of 31)

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 <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	3	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 28 of 31)

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 <sub>1</sub>	M	M	CMP/WGMG	E601	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>		M	CMP/WGMG	E8330:R+H	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>		Q	ERD/WGMG	E900	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>		Q	ERD/WGMG	E900	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>		Q	ERD/WGMG	E900	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>		Q	ERD/WGMG	E900	4	Y	
WELL 18	WS	Tnbs <sub>1</sub>		Q	ERD/WGMG	E906	1	Y	
WELL 18	WS	Tnbs <sub>1</sub>		Q	ERD/WGMG	E906	2	Y	
WELL 18	WS	Tnbs <sub>1</sub>		Q	ERD/WGMG	E906	3	Y	
WELL 18	WS	Tnbs <sub>1</sub>		Q	ERD/WGMG	E906	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	1	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	1	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	1	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	2	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	2	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	2	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 29 of 31)

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 <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	3	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	3	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	3	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:NO3	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	1	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	1	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	1	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	2	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	2	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	2	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	3	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	3	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	3	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E300.0:PERC	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	1	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	1	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	1	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	2	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	2	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	2	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	3	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	3	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	3	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E502.2	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	4	Y	

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 30 of 31)

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 <sub>1</sub>	M	M	CMP/WGMG	E601	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E601	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	1	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	1	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	1	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	2	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	2	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	2	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	3	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	3	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	3	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	4	Y	
WELL 20	WS	Tnbs <sub>1</sub>	M	M	CMP/WGMG	E8330:R+H	4	Y	

Notes and footnotes appear on following page.

Table 2.4-9. High Explosive Process Area 2003 ground water sampling and analysis plan. (Cont. Page 31 of 31)

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

CGSA CMP/DIS = Sampling more frequently than required.

CGSA CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.

CGSA CMP = Central GSA groundwater sampling and analysis plan specified in the GSA RD

CMP DMW = CMP detection monitor well.

CMP/DIS = Sampling required analyte more frequently than required.

CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.

CMP = Compliance Monitoring.

DIS = Discretionary sampling of non-required analyte.

DMW = Detection monitor well (non-CMP).

ERD/WGMG = Non-CMP analyte sampled from a well shared by ERD and WGMG.

EW = Extraction well.

GW = Guard well.

MWB = Monitor well used for background.

MWPT = Monitor well used for plume tracking.

SPR = Spring.

WS = Water supply well.

<sup>a</sup> Analytes and sampling frequency are specified in the Waste Discharge Requirements for the High Explosives Surface Water Impoundments.

<sup>b</sup> Analytes and sampling frequency are specified in the RCRA Closure Plan for the High Explosives Open Burn Facility.

Table 2.4-10. High Explosive Process Area OU 2003 VOCs in ground and surface water.

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)
W-815-1928	03/04/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-1938	09/18/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-1940	10/01/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	01/30/03	E502.2	0.44	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
GALLO1	01/30/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	02/27/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	03/12/03	E601	0.7	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	03/12/03 DUP	E502.2	0.50 L	<0.2	<0.5	<0.2	<0.5	<0.2	<0.2	<0.5 L	<0.2	<0.2	<0.5	<0.2
GALLO1	05/15/03	E502.2	0.45	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
GALLO1	05/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	06/11/03	E502.2	0.43	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
GALLO1	06/11/03	E601	0.54	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	06/11/03 DUP	E502.2	0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.5	<0.2
GALLO1	07/16/03	E502.2	0.26	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
GALLO1	07/16/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	09/11/03	E601	0.55	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	10/22/03	E502.2	0.44	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.25	<0.2
GALLO1	10/22/03	E601	0.52	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	10/22/03 DUP	E502.2	0.45	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.25	<0.2
GALLO1	11/17/03	E601	0.64	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	12/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-01	03/14/03	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
W-35B-01	04/23/03	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
W-35B-01	07/15/03	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
W-35B-01	10/10/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5
W-35B-02	03/14/03	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
W-35B-02	04/23/03	E601	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-02	07/15/03	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
W-35B-02	10/10/03	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
W-35B-03	03/14/03	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
W-35B-03	07/15/03	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
W-35B-03	10/10/03	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
W-35B-04	03/14/03	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
W-35B-04	04/23/03	E601	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-04	07/15/03	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
W-35B-04	10/10/03 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
W-35B-04	10/10/03 DUP	E601	0.62	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-05	03/14/03	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
W-35B-05	04/23/03	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
W-35B-05	07/15/03	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
W-35B-05	10/10/03	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
W-35C-01	03/26/03	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

Table 2.4-10. High Explosive Process Area OU 2003 VOCs in ground and surface water. (Cont. Page 2 of 6)

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)
W-35C-01	09/05/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-35C-02	09/24/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-35C-04	02/18/03	E601	7.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-04	08/11/03	E601	8.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-04	08/11/03 DUP	E601	8.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-05	02/21/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-05	07/28/03	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
W-35C-06	08/05/03	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
W-35C-07	08/21/03	E601	1.8 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-35C-08	08/05/03	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
W-4A	08/21/03	E601	5.2 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-4AS	08/21/03	E601	1.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5
W-4AS	08/21/03 DUP	E601	0.90 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-4B	03/28/03	E601	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4B	08/05/03	E601	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4C	03/28/03	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
W-4C	08/05/03	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
W-6BD	08/21/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-6BS	08/21/03	E601	0.90 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-6BS	08/21/03 DUP	E601	0.90 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-6CD	09/05/03	E601	0.70 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-6CI	09/05/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-6CS	09/05/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-6EI	08/05/03	E601	6.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ER	07/28/03	E601	7.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ES	08/21/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-6F	09/05/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-6G	09/17/03	E601	6.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6G	09/17/03 DUP	E601	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6H	03/21/03	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
W-6H	04/24/03	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
W-6H	09/05/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-6H	10/11/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-6I	03/26/03	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
W-6I	08/28/03	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
W-6J	03/21/03	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
W-6J	04/24/03	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
W-6J	09/05/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-6J	10/11/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-6K	03/21/03	E601	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.62
W-6K	08/21/03	E601	10 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5

Table 2.4-10. High Explosive Process Area OU 2003 VOCs in ground and surface water. (Cont. Page 3 of 6)

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)
W-6L	03/26/03	E601	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6L	03/26/03 DUP	E601	24	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6L	08/21/03	E601	23 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-806-06A	06/20/03	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
W-808-01	03/31/03	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
W-808-01	09/17/03	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
W-808-03	03/31/03	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
W-808-03	09/17/03	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
W-809-01	03/31/03	E601	2	<0.5	<0.5	<0.5	2	<0.5	<0.5	2	<0.5	<0.5	<0.5	<0.5
W-809-01	03/31/03 DUP	E601	2	<0.5	<0.5	<0.5	2	<0.5	<0.5	2	<0.5	<0.5	<0.5	<0.5
W-809-01	08/29/03	E601	3	<0.5	<0.5	<0.5	2.2	<0.5	<0.5	2.6	<0.5	<0.5	<0.5	<0.5
W-809-02	03/31/03	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
W-809-02	08/28/03	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
W-809-03	03/28/03	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
W-809-03	08/28/03	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
W-810-01	03/28/03	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
W-810-01	09/18/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-814-01	09/04/03	E601	1.4	<0.5	<0.5	0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-02	09/16/03	E601	7.6	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5
W-814-04	09/17/03	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
W-815-02	02/13/03	E601	6.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	0.72	<0.5	<0.5	<0.5	<0.5
W-815-03	03/28/03	E601	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3	<0.5	<0.5	<0.5	<0.5
W-815-04	03/28/03	E601	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-04	08/28/03	E601	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5
W-815-05	03/28/03	E601	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-05	08/29/03	E601	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-06	03/28/03	E601	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-06	03/28/03 DUP	E601	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-06	09/16/03	E601	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5
W-815-07	09/16/03	E601	16	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-08	03/18/03	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
W-815-08	04/29/03	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
W-815-08	08/29/03	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
W-815-08	10/14/03	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
W-817-01	01/24/03	WDRE624	<0.5 E	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	04/29/03	WDRE624	<0.5 E	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	04/29/03 DUP	WDRE624	<0.5 E	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	08/18/03	WDRE624	<0.5 E	<0.5 E	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	11/18/03	WDRE624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-02	01/28/03	WDRE624	0.62	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-02	04/18/03	WDRE624	0.59	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5



Table 2.4-10. High Explosive Process Area OU 2003 VOCs in ground and surface water. (Cont. Page 4 of 6)

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)
W-817-02	08/19/03	WDRE624	0.55	<0.5 E	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-02	10/31/03	WDRE624	0.73	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-02	10/31/03 DUP	WDRE624	0.68	<0.5 E	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03	01/24/03	WDRE624	15	<0.5	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5
W-817-03	01/24/03 DUP	WDRE624	14	<0.5 E	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5
W-817-03	04/18/03	WDRE624	15	<0.5 E	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5
W-817-03	08/18/03	WDRE624	14	<0.5 E	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03	08/18/03 DUP	WDRE624	14	<0.5	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5
W-817-03	10/31/03	WDRE624	14	<0.5 E	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5
W-817-04	01/23/03	WDRE624	10	<0.5 E	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-04	04/29/03	WDRE624	9.2	<0.5	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-04	08/19/03	WDRE624	6.3	<0.5	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-04	11/03/03	WDRE624	6.6	<0.5	<1	<0.5	<0.5 E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-06A	03/28/03	E601	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-06A	08/29/03	E601	1.5	2.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-07	03/28/03	E601	6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-07	08/29/03	E601	5.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-01	03/28/03	E601	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-01	09/18/03	E601	15 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-818-03	09/18/03	E601	9.8 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-818-04	03/28/03	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
W-818-04	08/29/03	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
W-818-06	03/26/03	E601	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-06	08/29/03	E601	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-07	03/28/03	E601	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-07	08/28/03	E601	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-07	08/29/03 DUP	E601	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-08	03/26/03	E601	56	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-08	07/15/03	E601	49	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-09	03/26/03	E601	20	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-09	07/15/03	E601	21	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-09	07/15/03 DUP	E601	21	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-11	03/28/03	E601	56 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-11	09/04/03	E601	44	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-819-02	09/16/03	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
W-823-01	03/21/03	E601	<0.5	<0.5 O	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5 O	<0.5
W-823-01	08/28/03	E601	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-02	03/21/03	E601	<0.5	<0.5 O	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5 O	<0.5
W-823-02	09/05/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-823-03	03/21/03	E601	0.74	<0.5 O	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5 O	<0.5
W-823-03	09/05/03	E601	0.70 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5

Table 2.4-10. High Explosive Process Area OU 2003 VOCs in ground and surface water. (Cont. Page 5 of 6)

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)
W-823-13	08/28/03	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
W-827-02	05/30/03	E601	2.7	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-827-03	05/30/03	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
W-827-05	02/21/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-827-05	05/23/03	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
W-827-05	11/20/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	02/21/03	E624	210 D	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	05/23/03	E601	170 D	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	09/04/03	E601	150 D	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	11/19/03	E601	130 D	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-08	02/21/03	E624	21	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-08	02/21/03 DUP	E624	20	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-08	05/23/03	E601	29	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-08	09/23/03	E601	23	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-08	11/19/03	E601	25	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-15	02/24/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-15	05/09/03	E624	<0.5 H	<0.5 H	<1 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H
W-829-15	05/09/03 DUP	E624	<0.5 H	<0.5 H	<1 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H
W-829-15	07/29/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-15	10/23/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-15	10/23/03 DUP	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-22	02/25/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-22	05/09/03	E624	<0.5 H	<0.5 H	<1 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H	<0.5 H
W-829-22	07/28/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-22	07/28/03 DUP	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-22	10/28/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	01/22/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	01/22/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	02/12/03	E601	<0.5	<0.5	<1	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	02/12/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	03/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	03/13/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	04/16/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O
WELL18	04/16/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O
WELL18	05/14/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	05/14/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	06/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	06/11/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	07/16/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	07/16/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	08/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.4-10. High Explosive Process Area OU 2003 VOCs in ground and surface water. (Cont. Page 6 of 6)

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)
WELL18	09/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	10/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	11/12/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	11/12/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	12/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	01/23/03	E502.2	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
WELL20	02/12/03	E502.2	<0.2	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
WELL20	03/13/03	E502.2	<0.2	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
WELL20	04/16/03	E502.2	<0.2 L	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
WELL20	05/14/03	E502.2	<0.2	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
WELL20	06/11/03	E502.2	<0.2	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
WELL20	07/16/03	E502.2	<0.2	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
WELL20	08/13/03	E502.2	<0.2	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
WELL20	09/10/03	E502.2	<0.2	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
WELL20	10/15/03	E502.2	<0.2	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
WELL20	10/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	11/12/03	E502.2	<0.2	<0.2	<0.4	<0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.21	<0.23	<0.24
WELL20	11/12/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	12/10/03	E502.2	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
WELL20	12/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SPRING14	12/18/03	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

## Other VOCs not detected in the table above:

Location	Date	Method	1,2,4- Trimethylbenzene (µg/L)	Bromo- dichloromethane (µg/L)	Bromoform (µg/L)	Toluene (µg/L)	Total xylene isomers (µg/L)	cis-1,2- Dichloroethene (µg/L)
W-815-1928	03/04/03	E601	-	-	1.1	-	-	-
W-829-1940	10/01/03	E601	-	-	1.3	-	-	-
GALLO1	06/11/03	E502.2	-	-	-	0.24	-	-
GALLO1	06/11/03 DUP	E502.2	-	-	-	0.3	0.3	-
GALLO1	07/16/03	E502.2	0.27	-	-	0.73	0.99	-
W-814-01	09/04/03	E601	-	-	-	-	-	0.5
W-827-02	05/30/03	E601	-	0.5	-	-	-	-
W-829-06	02/21/03	E624	-	-	-	-	-	1.2
W-829-06	05/23/03	E601	-	-	-	-	-	0.8

Table 2.4-11. High Explosive Process Area OU 2003 nitrate, perchlorate, and ortho-phosphate in ground water.

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (μg/L)	Ortho-Phosphate (mg/L)
W-815-1928	03/04/03	80	3.2	-
GALLO1	01/30/03	<0.44	<3	-
GALLO1	02/27/03	1.3	<3	-
GALLO1	03/12/03	1.2	<3	-
GALLO1	05/15/03	<0.44	<4	-
GALLO1	06/11/03	<0.44	<4	-
GALLO1	07/16/03	<0.44	<4	-
GALLO1	08/13/03	<0.44	<4	-
GALLO1	09/11/03	<0.44	<4 H	-
GALLO1	10/22/03	<0.44	<4	-
GALLO1	11/17/03	<0.44	<4	-
GALLO1	12/10/03	<0.44	<4	-
W-35B-01	03/14/03	<0.1	<4	-
W-35B-01	07/15/03	<0.1	<4	-
W-35B-01	10/10/03	<0.1 O	<4 H	-
W-35B-02	03/14/03	19	<4	-
W-35B-02	07/15/03	21 D	<4	-
W-35B-02	10/10/03	<0.1 O	<4 H	-
W-35B-03	03/14/03	<0.1	<4	-
W-35B-03	07/15/03	<0.1	<4	-
W-35B-04	03/14/03	0.2	<4	-
W-35B-04	07/15/03	0.4	<4	-
W-35B-05	03/14/03	0.4	<4	-
W-35B-05	07/15/03	0.4	<4	-
W-35C-01	03/26/03	<0.1	<4	-
W-35C-02	11/05/03	<0.1	<4	-
W-35C-04	02/18/03	<0.44	<3	-
W-35C-05	02/21/03	3.6	<3	-
W-35C-06	10/28/03	<0.1	<4 H	-
W-35C-07	10/28/03	<0.1	<4 H	-
W-35C-08	10/28/03	<0.1	<4 H	-
W-4A	10/28/03	<0.1	<4 H	-
W-4AS	10/28/03	<0.1	<4 H	-

Table 2.4-11. High Explosive Process Area OU 2003 nitrate, perchlorate, and ortho-phosphate in ground water.

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)	Ortho-Phosphate (mg/L)
W-4B	03/28/03	<0.1	<4	-
W-4C	03/28/03	<0.1	<4	-
W-6BD	10/28/03	<0.1	<4 H	-
W-6BS	10/28/03	<0.1	<4 H	-
W-6CD	11/05/03	26	<4	-
W-6CI	11/05/03	<0.1	<4	-
W-6CS	11/05/03	640 D	<4	-
W-6EI	10/29/03	<0.1	<4 H	-
W-6ES	10/29/03	<0.1	<4 H	-
W-6F	11/05/03	<0.1	<4	-
W-6G	11/05/03	<0.1	5	-
W-6H	03/21/03	<0.5 H	<4	-
W-6H	09/05/03	<0.1	<4 H	-
W-6I	03/26/03	<0.1	<4	-
W-6J	03/21/03	<0.5 H	<4	-
W-6J	09/05/03	<0.1	<4 H	-
W-6K	03/21/03	<0.5 H	<4	-
W-6L	03/26/03	12	<4	-
W-6L	03/26/03 DUP	11	<4	-
W-806-06A	06/20/03	<0.1 H	<4	-
W-808-01	03/31/03	97 D	<4	-
W-808-03	03/31/03	<0.1	10	-
W-809-01	03/31/03	120 D	<4	-
W-809-01	03/31/03 DUP	120 D	<4	-
W-809-02	03/31/03	130 D	<4	-
W-809-03	03/28/03	100 D	5	-
W-810-01	03/28/03	<0.1	<4	-
W-814-01	11/18/03	83 D	<4	-
W-814-02	11/18/03	100 D	<4	-
W-814-04	11/18/03	<0.1	<4	-
W-815-02	02/13/03	90 D	17	-
W-815-03	03/28/03	110 D	<4	-
W-815-04	03/28/03	100 D	10	-

Table 2.4-11. High Explosive Process Area OU 2003 nitrate, perchlorate, and ortho-phosphate in ground water.

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)	Ortho-Phosphate (mg/L)
W-815-05	03/28/03	110 D	7	-
W-815-06	03/28/03	110 D	6	-
W-815-06	03/28/03 DUP	120 D	6	-
W-815-07	11/19/03	23 D	4	-
W-815-08	03/18/03	<0.1	<4	-
W-815-08	08/29/03	<0.1	<4 H	-
W-815-08	10/14/03	<0.1	<4 H	-
W-817-02	09/05/03	-	-	0.41
W-817-03	09/05/03	-	-	0.39
W-817-03	09/05/03 DUP	-	-	0.39
W-817-04	09/05/03	-	-	0.39
W-817-05	11/18/03	<0.1	<4	-
W-817-06A	03/28/03	110 D	4	-
W-817-07	03/28/03	95 D	17	-
W-818-01	03/28/03	89 D	4	-
W-818-03	11/25/03	52 D	<4	-
W-818-04	03/28/03	<0.1	<4	-
W-818-06	03/26/03	62 D	<4	-
W-818-07	03/28/03	15	<4	-
W-818-08	03/26/03	81	8.5	-
W-818-09	03/26/03	85	6.3	-
W-818-11	03/28/03	78 D	7	-
W-819-02	11/18/03	<0.1	<4	-
W-823-01	03/21/03	20 DH	<4	-
W-823-02	03/21/03	<0.5 H	<4	-
W-823-03	03/21/03	<5 DH	<4	-
W-823-13	11/05/03	77 D	<4	-
W-827-02	05/30/03	16	<4	-
W-827-03	05/30/03	7.9	<4	-
W-827-05	02/21/03	-	<3	-
W-827-05	05/23/03	0.2	<4	-
W-827-05	11/20/03	0.46	<4	-
W-829-06	05/23/03	150 D	6	-

Table 2.4-11. High Explosive Process Area OU 2003 nitrate, perchlorate, and ortho-phosphate in ground water.

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)	Ortho-Phosphate (mg/L)
W-829-06	09/04/03	140 D	9.9	-
W-829-08	05/23/03	110 D	7	-
W-829-08	09/23/03	94 D	9.9	-
W-829-08	11/19/03	-	11	-
W-829-15	02/24/03	-	<3	-
W-829-15	05/09/03	-	<4	-
W-829-15	05/09/03 DUP	-	<4	-
W-829-15	07/29/03	-	<4 H	-
W-829-15	10/23/03	<0.44	<4	-
W-829-15	10/23/03 DUP	<0.44	<4	-
W-829-22	02/25/03	-	<3	-
W-829-22	05/09/03	-	<4	-
W-829-22	07/28/03	-	<4 H	-
W-829-22	07/28/03 DUP	-	<4 H	-
W-829-22	10/28/03	<0.44	<4	-
WELL18	01/22/03	<0.44	<3	-
WELL18	02/12/03	<0.44	<3	-
WELL18	03/13/03	<0.44	<3	-
WELL18	04/16/03	<0.44	<4	-
WELL18	05/14/03	<0.44	<4	-
WELL18	06/11/03	<0.44	<4	-
WELL18	07/16/03	<0.44	<4	-
WELL18	08/13/03	<0.44	<4	-
WELL18	09/10/03	<0.44	<4 H	-
WELL18	10/15/03	<0.44	<4	-
WELL18	11/12/03	<0.44	<4	-
WELL18	12/10/03	<0.44	<4	-
WELL20	01/28/03	<0.44	<3	-
WELL20	02/12/03	<0.44	<3	-
WELL20	03/13/03	<0.44	<3	-
WELL20	04/16/03	<0.44	<4	-
WELL20	05/14/03	<0.44	<4	-
WELL20	06/11/03	<0.44	<4	-

Table 2.4-11. High Explosive Process Area OU 2003 nitrate, perchlorate, and ortho-phosphate in ground water.

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (μg/L)	Ortho-Phosphate (mg/L)
WELL20	07/16/03	<0.44	<4	-
WELL20	08/13/03	<0.44	<4	-
WELL20	09/10/03	<0.44	<4	-
WELL20	10/15/03	<0.44	<4 H	-
WELL20	11/12/03	<0.44	<4	-
WELL20	12/10/03	<0.44	<4	-
SPRING14	12/18/03	32	<4	-



Table 2.4-12. High Explosive Process Area 2003 high explosive compounds in ground and surface water.

Location	Date	HMX ( $\mu\text{g/L}$ )	RDX ( $\mu\text{g/L}$ )	TNT ( $\mu\text{g/L}$ )
W-815-1928	03/04/03	<5 IJ	<5 IJ	-
W-829-1938	09/18/03	<5	<5	-
W-829-1940	10/01/03	<5	<5	-
GALLO1	01/30/03	<5 L	<5	-
GALLO1	02/27/03	<5	<5	-
GALLO1	03/12/03	<5	<5	-
GALLO1	05/15/03	<5	<5	-
GALLO1	06/11/03	<5	<5	-
GALLO1	07/16/03	<5	<5	-
GALLO1	08/13/03	<5	<5	-
GALLO1	09/11/03	<5	<5	-
GALLO1	10/22/03	<5	<5	-
GALLO1	11/17/03	<5	-	-
GALLO1	12/10/03	<5	<5	-
W-35B-01	03/14/03	<1	<1	-
W-35B-01	07/15/03	<1	<1	-
W-35B-01	10/10/03	<1	<1	-
W-35B-02	03/14/03	<1	<1	-
W-35B-02	07/15/03	<1	<1	-
W-35B-02	10/10/03	<1	<1	-
W-35B-03	03/14/03	<1	<1	-
W-35B-03	07/15/03	<1	<1	-
W-35B-04	03/14/03	<1	<1	-
W-35B-04	07/15/03	<1	<1	-
W-35B-05	03/14/03	<1	<1	-
W-35B-05	07/15/03	<1	<1	-
W-35C-01	03/26/03	<1	<1	-
W-35C-02	11/05/03	<1	<1	-
W-35C-04	02/18/03	<5	<5	-
W-35C-05	02/21/03	<5	<5	-
W-35C-06	10/28/03	<1	<1	-
W-35C-07	10/28/03	<1	<1	-
W-35C-08	10/28/03	<1	<1	-
W-4A	10/28/03	<1	<1	-
W-4AS	10/28/03	<1	<1	-
W-4B	03/28/03	<1	<1	-
W-4C	03/28/03	<1	<1	-
W-6BD	10/28/03	<1	<1	-
W-6BS	10/28/03	<1	<1	-
W-6CD	11/05/03	<1	<1	-
W-6CI	11/05/03	<1	<1	-

Table 2.4-12. High Explosive Process Area 2003 high explosive compounds in ground and surface water.

Location	Date	HMX ( $\mu\text{g/L}$ )	RDX ( $\mu\text{g/L}$ )	TNT ( $\mu\text{g/L}$ )
W-6CS	11/05/03	<1	<1	-
W-6EI	10/29/03	<1	<1	-
W-6ES	10/29/03	<1	<1	-
W-6F	11/05/03	<1	<1	-
W-6G	11/05/03	<1	<1	-
W-6H	03/21/03	<2.1	<2.1	-
W-6H	09/05/03	<1	<1	-
W-6I	03/26/03	<1	<1	-
W-6J	03/21/03	<2.1	<2.1	-
W-6J	09/05/03	<1	<1	-
W-6K	03/21/03	<2	<2	-
W-6L	03/26/03	<1	<1	-
W-6L	03/26/03 DUP	<5	<5	-
W-806-06A	06/20/03	<1	<1	-
W-808-01	03/31/03	<1	<1	-
W-808-03	03/31/03	<1	<1	-
W-809-01	03/31/03	<1	<1	-
W-809-01	03/31/03 DUP	<1	<1	-
W-809-02	03/31/03	<1	<1	-
W-809-03	03/28/03	<1	<1	-
W-810-01	03/28/03	<1	<1	-
W-814-01	11/18/03	<1	<1	-
W-814-02	11/18/03	<1	<1	-
W-814-04	11/18/03	<1	<1	-
W-815-02	02/13/03	<5	73	-
W-815-03	03/28/03	18 D	100 D	-
W-815-04	03/28/03	5.0 D	83 D	-
W-815-05	03/28/03	<1	<1	-
W-815-06	03/28/03	<2	18	-
W-815-06	03/28/03 DUP	<1	18	-
W-815-07	11/19/03	<1	1	-
W-815-08	03/18/03	<1	<1	-
W-815-08	08/29/03	<1	<1	-
W-815-08	10/14/03	<1	<1	-
W-817-05	11/18/03	<1	<1	-
W-817-06A	03/28/03	<1	<1	-
W-817-07	03/28/03	<1	2	-
W-818-01	03/28/03	<1	1	-
W-818-03	11/25/03	<1	<1	-
W-818-04	03/28/03	<1	<1	-
W-818-06	03/26/03	<1	<1	-
W-818-07	03/28/03	<1	<1	-
W-818-08	03/26/03	<5	<5	-
W-818-09	03/26/03	<5	<5	-
W-818-11	03/28/03	<1	12	-

Table 2.4-12. High Explosive Process Area 2003 high explosive compounds in ground and surface water.

Location	Date	HMX ( $\mu\text{g/L}$ )	RDX ( $\mu\text{g/L}$ )	TNT ( $\mu\text{g/L}$ )
W-819-02	11/18/03	<1	<1	-
W-823-01	03/21/03	<2.1	<2.1	-
W-823-02	03/21/03	<2.1	<2.1	-
W-823-03	03/21/03	<2	<2	-
W-823-13	11/05/03	<1	<1	-
W-827-02	05/30/03	<1	<1	-
W-827-03	05/30/03	<1	<1	-
W-827-05	02/21/03	<5	<5	<5
W-827-05	05/23/03	<1	<1	-
W-827-05	11/20/03	<5	-	-
W-829-06	02/21/03	<5	<5	<5
W-829-06	05/23/03	<1	<1	-
W-829-06	09/04/03	<5	<5	<5
W-829-06	11/19/03	<5	-	-
W-829-08	02/21/03	<5	<5	<5
W-829-08	02/21/03 DUP	<5	<5	<5
W-829-08	05/23/03	<1	<1	-
W-829-08	09/23/03	<5	<5	<5
W-829-08	11/19/03	<5	-	-
W-829-15	02/24/03	<5	<5	<5
W-829-15	05/09/03	<5	<5	<5
W-829-15	05/09/03 DUP	<5	<5	<5
W-829-15	07/29/03	<5	<5	<5
W-829-15	10/23/03	<5	<5	<5
W-829-15	10/23/03 DUP	<5	<5	<5
W-829-22	02/25/03	<5	<5	<5
W-829-22	05/09/03	<5	<5	<5
W-829-22	07/28/03	<5	<5	<5
W-829-22	07/28/03 DUP	<5	<5	<5
W-829-22	10/28/03	<5	<5	<5
WELL18	01/22/03	<5	<5	-
WELL18	02/12/03	<5	<5	-
WELL18	03/13/03	<5	<5	-
WELL18	04/16/03	<5 O	<5 O	-
WELL18	05/14/03	<5	<5	-
WELL18	06/11/03	<5	<5	-
WELL18	07/16/03	<5	<5	-
WELL18	08/13/03	<5	<5	-
WELL18	09/10/03	<5	<5	-
WELL18	10/15/03	<5	<5	-
WELL18	11/12/03	<5	<5	-
WELL18	12/10/03	<5	<5	-
WELL20	01/28/03	19 LS	<5	-
WELL20	01/28/03	17	-	-
WELL20	02/12/03	<5	<5	-

**Table 2.4-12. High Explosive Process Area 2003 high explosive compounds in ground and surface water.**

Location	Date	HMX ( $\mu\text{g/L}$ )	RDX ( $\mu\text{g/L}$ )	TNT ( $\mu\text{g/L}$ )
WELL20	03/13/03	<5	<5	-
WELL20	03/20/03	<5	<5	-
WELL20	04/16/03	<5 O	<5 O	-
WELL20	05/14/03	<5	<5	-
WELL20	06/11/03	<5	<5	-
WELL20	07/16/03	<5	<5	-
WELL20	08/13/03	<5	<5	-
WELL20	09/10/03	<5	<5	-
WELL20	10/15/03	<5	<5	-
WELL20	11/12/03	<5	<5	-
WELL20	12/10/03	<5	<5	-
SPRING14	12/18/03	<1	<1	-

Table 2.4-13. High Explosive Process Area OU 2003 nutrients in ground water.

Location	Date	Ammonia Nitrogen (as N) (mg/L)	Nitrate (as N) (mg/L)	Nitrate (as NO <sub>3</sub> ) (mg/L)	Nitrite (as N) (mg/L)	Nitrite (as NO <sub>2</sub> ) (mg/L)	Total Kjeldahl Nitrogen (mg/L)
W-6ER	07/28/03	0.40 H	<0.1	<0.1	<0.1	<0.1	0.40 H
W-6H	03/21/03	<0.25 H	<0.1 H	<0.5	<0.1 HO	<0.5 HO	<0.5 H
W-6H	09/05/03	0.40 H	<0.1	<0.1	<0.1	<0.1	0.40 H
W-6J	03/21/03	0.26 H	<0.1 H	<0.5	<0.1 HO	<0.5 HO	<0.5 H
W-6J	09/05/03	<0.1 H	<0.1	<0.1	<0.1	<0.1	<0.2 H
W-827-03	05/30/03	0.20 H	0.1	0.5	<0.1	<0.1	3.1 HLO

Table 2.4-14. High Explosive Process Area OU 2003 radiological constituents in ground water.

Location	Date	Gross alpha (pCi/L)	Gross beta (pCi/L)	Tritium (pCi/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 238 (pCi/L)
GALLO1	01/30/03	<2.27	<1.87 E	<97.1	-	-	-
GALLO1	06/11/03	<2.02	4.14 ± 1.40	<96.5	-	-	-
GALLO1	07/16/03	<13.3	<12.8	<85.6	<0.025	<0.021	<0.018
GALLO1	10/22/03	<1.89	3.91 ± 1.60	<98.2	-	-	-
GALLO1	10/22/03 DUP	<2.98	<1.95 E	<97.2	-	-	-
W-827-05	02/21/03	<2.7	20.0 ± 4.00	-	-	-	-
W-829-15	02/24/03	<1.66	28.6 ± 4.70	-	-	-	-
W-829-15	05/09/03	<1.51	30.7 ± 5.00	793 ± 110	-	-	-
W-829-15	05/09/03 DUP	<1.61	29.2 ± 4.70	255 ± 66.0	-	-	-
W-829-15	05/09/03 <sup>a</sup>	-	-	<91.9	-	-	-
W-829-15	05/09/03 <sup>a</sup>	-	-	<92.1	-	-	-
W-829-15	07/22/03	<2.47	32.4 ± 5.30	-	-	-	-
W-829-15	08/18/03	-	-	<132	-	-	-
W-829-15	08/18/03 DUP	-	-	<89.3	-	-	-
W-829-15	10/23/03	<2.3	29.2 ± 4.80	-	-	-	-
W-829-15	10/23/03 DUP	<1.87	30.0 ± 4.90	-	-	-	-
W-829-22	02/25/03	<1.76	6.83 ± 1.70	-	-	-	-
W-829-22	05/09/03	<2.34	6.71 ± 1.70	<94.8	-	-	-
W-829-22	07/23/03	<1.59	7.39 ± 1.70	-	-	-	-
W-829-22	07/23/03 DUP	<1.95	8.43 ± 1.80	-	-	-	-
W-829-22	10/28/03	<2.2	6.25 ± 2.80	-	-	-	-
WELL18	01/22/03	2.51 ± 1.80	5.62 ± 1.70	<104	-	-	-
WELL18	04/16/03	<2.45	5.61 ± 2.00	<105	-	-	-
WELL18	07/16/03	<1.89	5.74 ± 1.70	<89.2	-	-	-
WELL18	10/15/03	<1.22	6.52 ± 1.50	<93.8	-	-	-
WELL20	01/23/03	<1.64	6.52 ± 1.60	<98.5	-	-	-
WELL20	04/16/03	<1.52	7.34 ± 1.70	<105	-	-	-
WELL20	07/16/03	<2.33	7.91 ± 1.80	<89.1	-	-	-
WELL20	01/30/03	<1.75	6.18 ± 2.20	<98.5	<0.02	<0.024	<0.02

<sup>a</sup> Re-analysis.

03-04/ERD CMP:VRD:rttd

**Table 2.4-15. High Explosive Process Area OU 2003 general minerals in surface water.**

Constituents of concern	SPRING14 12/18/03
Total Alkalinity (as CaCO <sub>3</sub> ) (mg/L)	280 DH
Aluminum (mg/L)	<0.2
Bicarbonate Alk (as CaCO <sub>3</sub> ) (mg/L)	280 DH
Calcium (mg/L)	26
Carbonate Alk (as CaCO <sub>3</sub> ) (mg/L)	<2 DH
Chloride (mg/L)	170 D
Copper (mg/L)	<0.05
Fluoride (mg/L)	1.2
Hydroxide Alk (as CaCO <sub>3</sub> ) (mg/L)	<2 DH
Iron (mg/L)	<0.1
Magnesium (mg/L)	14
Manganese (mg/L)	0.05
Nickel (mg/L)	<0.1
Nitrate (as N) (mg/L)	6.8
Nitrate (as NO <sub>3</sub> ) (mg/L)	30
Nitrite (as N) (mg/L)	0.10 L
pH (Units)	7.6
Ortho-Phosphate (mg/L)	0.38
Total Phosphorus (as PO <sub>4</sub> ) (mg/L)	0.70 H
Potassium (mg/L)	18 L
Sodium (mg/L)	230 D
Total dissolved solids (TDS) (mg/L)	840 H
Specific Conductance (µmhos/cm)	1,300 H
Sulfate (mg/L)	90 D
Surfactants (mg/L)	<0.5
Total Hardness (as CaCO <sub>3</sub> ) (mg/L)	120 H
Zinc (mg/L)	<0.05

**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-35B-01	01/08/03	18.06		504.96	
W-35B-01	02/03/03	17.92		505.1	
W-35B-01	03/05/03	17.21		505.81	
W-35B-01	04/14/03	16.17		506.85	
W-35B-01	07/14/03	17.91		505.11	
W-35B-01	10/08/03	18.87		504.15	
W-35B-02	01/08/03	17.45		505.58	
W-35B-02	02/03/03	16.97		506.06	
W-35B-02	03/05/03	16.22		506.81	
W-35B-02	04/14/03	15.33		507.7	
W-35B-02	07/14/03	16.97		506.06	
W-35B-02	10/08/03	18.23		504.8	
W-35B-03	01/08/03	16.15		506.95	
W-35B-03	02/03/03	16		507.1	
W-35B-03	03/05/03	15.6		507.5	
W-35B-03	04/14/03	14.63		508.47	
W-35B-03	07/14/03	16.04		507.06	
W-35B-03	10/08/03	17.77		505.33	
W-35B-04	01/08/03	-		-	FL
W-35B-04	02/03/03	-		-	FL
W-35B-04	03/05/03	2.02		526.94	
W-35B-04	04/15/03	0.3		528.66	
W-35B-04	07/14/03	1.86		527.1	
W-35B-04	10/08/03	0.3		528.66	
W-35B-05	01/08/03	-		-	FL
W-35B-05	02/03/03	-		-	FL
W-35B-05	03/05/03	0.78		527.95	
W-35B-05	04/15/03	0.5		528.23	
W-35B-05	07/14/03	0.76		527.97	
W-35B-05	10/08/03	0.5		528.23	
W-35C-01	01/14/03	-		-	NM/NO ACCESS
W-35C-01	04/15/03	-		-	FL

**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-35C-01	07/29/03	-	-	-	NM/UC OVERGROWN WITH THORNY WEEDS
W-35C-01	10/06/03	-	-	-	FL
W-35C-02	01/14/03	47.35		525.45	
W-35C-02	04/14/03	42.49		530.31	
W-35C-02	07/29/03	77.6		495.2	
W-35C-02	10/06/03	61.19		511.61	
W-35C-04	01/06/03	-	-	-	FL
W-35C-04	02/03/03	-	-	-	FL
W-35C-04	03/01/03	-	-	-	FL
W-35C-04	04/12/03	-	-	-	FL
W-35C-04	07/07/03	-	-	-	FL
W-35C-04	10/02/03	-	-	-	FL
W-35C-05	01/06/03	24.65		507.3	
W-35C-05	04/12/03	23.02		508.93	
W-35C-05	07/07/03	21.06		510.89	
W-35C-05	10/02/03	23.18		508.77	
W-35C-06	01/06/03	23.23		508.69	
W-35C-06	02/03/03	22.18		509.74	
W-35C-06	03/01/03	21.23		510.69	
W-35C-06	04/12/03	20.45		511.47	
W-35C-06	07/07/03	22.21		509.71	
W-35C-06	10/02/03	24.29		507.63	
W-35C-07	01/06/03	-	-	-	FL
W-35C-07	04/12/03	-	-	-	FL
W-35C-07	07/07/03	-	-	-	FL
W-35C-07	10/02/03	-	-	-	FL
W-35C-08	01/06/03	23.09		509.2	
W-35C-08	04/12/03	20.98		511.31	
W-35C-08	07/07/03	21.2		511.09	
W-35C-08	10/02/03	23.52		508.77	
W-4A	01/14/03	2.21		528.26	
W-4A	02/05/03	2.71		527.76	



**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-4A	03/01/03	2.85		527.62	
W-4A	04/14/03	2.65		527.82	
W-4A	07/29/03	3.17		527.3	
W-4A	10/02/03	2.48		527.99	
W-4AS	01/14/03	5.18		526.47	
W-4AS	02/05/03	5.6		526.05	
W-4AS	03/01/03	5.78		525.87	
W-4AS	04/14/03	5.86		525.79	
W-4AS	07/29/03	6.3		525.35	
W-4AS	10/02/03	5.61		526.04	
W-4B	01/06/03	-		-	FL
W-4B	02/04/03	-		-	FL
W-4B	03/04/03	-		-	FL
W-4B	04/12/03	-		-	FL
W-4B	07/14/03	0.61		529.73	FL
W-4B	10/02/03	-		-	FL
W-4C	01/06/03	11.45		518.33	
W-4C	02/04/03	10.02		519.76	
W-4C	03/04/03	8.72		521.06	
W-4C	04/12/03	7.96		521.82	
W-4C	07/14/03	14.44		515.34	MT
W-4C	10/02/03	18.58		511.2	
W-6BD	01/06/03	23.97		509.3	
W-6BD	04/15/03	19.3		513.97	
W-6BD	07/09/03	21.18		512.09	
W-6BD	10/02/03	22.98		510.29	
W-6BS	01/06/03	23.69		509.54	
W-6BS	04/15/03	19.3		513.93	
W-6BS	07/10/03	20.73		512.5	
W-6BS	10/02/03	22.68		510.55	
W-6CD	01/14/03	25.86		554.18	
W-6CD	02/04/03	26.63		553.41	
W-6CD	03/10/03	26.79		553.25	

**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-6CD	04/14/03	27.3		552.74	
W-6CD	07/29/03	28.16		551.88	
W-6CD	10/06/03	28.14		551.9	
W-6CI	01/14/03	25.92		554.59	
W-6CI	04/14/03	28.43		552.08	
W-6CI	07/29/03	29.16		551.35	
W-6CI	10/06/03	27.78		552.73	
W-6CS	01/14/03	26.28		553.4	
W-6CS	04/14/03	28.79		550.89	
W-6CS	07/29/03	30.25		549.43	
W-6CS	10/06/03	29.87		549.81	
W-6EI	01/06/03	-		-	FL
W-6EI	04/12/03	-		-	FL
W-6EI	07/14/03	-		-	FL
W-6EI	10/02/03	-		-	FL
W-6ER	01/06/03	-		-	FL
W-6ER	02/04/03	-		-	FL
W-6ER	03/01/03	-		-	FL
W-6ER	04/14/03	-		-	FL
W-6ER	07/14/03	-		-	FL
W-6ER	10/02/03	-		-	FL
W-6ES	01/06/03	23.16		508.33	
W-6ES	02/04/03	22.18		509.31	
W-6ES	03/01/03	21.31		510.18	
W-6ES	04/12/03	20.44		511.05	
W-6ES	07/14/03	22.41		509.08	
W-6ES	10/02/03	24.18		507.31	
W-6F	01/14/03	55.79		563.07	
W-6F	04/14/03	56.92		561.94	
W-6F	07/29/03	57.74		561.12	
W-6F	10/06/03	57.88		560.98	
W-6G	01/14/03	56.04		563.88	
W-6G	02/04/03	56.62		563.3	

**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-6G	03/10/03	57.08		562.84	
W-6G	04/14/03	57.14		562.78	
W-6G	07/29/03	58.04		561.88	
W-6G	10/06/03	58.53		561.39	
W-6H	01/14/03	-	-		NM/NO ACCESS
W-6H	02/14/03	-	-		NM/NO ACCESS
W-6H	03/05/03	8.81		552.53	
W-6H	04/15/03	7.78		553.56	
W-6H	07/29/03	8.79		552.55	
W-6H	10/06/03	6.07		555.27	
W-6I	01/14/03	-	-		NM/NO ACCESS
W-6I	02/14/03	-	-		NM/NO ACCESS
W-6I	03/05/03	22.71		538.58	
W-6I	04/15/03	24.58		536.71	
W-6I	07/29/03	28.23		533.06	
W-6I	10/06/03	28.03		533.26	
W-6J	01/14/03	-	-		NM/NO ACCESS
W-6J	02/14/03	-	-		NM/NO ACCESS
W-6J	03/05/03	9.56		549.8	
W-6J	04/15/03	8.08		551.28	NM/NO ACCESS
W-6J	07/29/03	9.42		549.94	
W-6J	10/06/03	6.37		552.99	
W-6K	01/06/03	-	-		FL
W-6K	02/04/03	-	-		FL
W-6K	03/01/03	-	-		FL
W-6K	04/12/03	-	-		FL
W-6K	07/09/03	-	-		FL
W-6K	10/02/03	-	-		FL
W-6L	01/06/03	-	-		FL
W-6L	02/04/03	-	-		FL
W-6L	03/01/03	-	-		FL
W-6L	04/12/03	-	-		FL
W-6L	07/09/03	-	-		FL

**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-6L	10/02/03	-	-	-	FL
W-806-06A	01/03/03	124.98		696.33	
W-806-06A	02/07/03	125		696.31	
W-806-06A	03/01/03	125.22		696.09	
W-806-06A	04/05/03	125.32		695.99	
W-806-06A	07/11/03	125.28		696.03	
W-806-06A	10/03/03	125		696.31	
W-806-07	01/03/03	-	-	-	DRY
W-806-07	04/05/03	-	-	-	DRY
W-806-07	07/01/03	-	-	-	DRY
W-806-07	10/03/03	-	-	-	DRY
W-808-01	01/03/03	48.37		853.64	
W-808-01	04/05/03	47.98		854.03	
W-808-01	07/11/03	48.38		853.63	
W-808-01	10/03/03	49		853.01	
W-808-02	01/03/03	-	-	-	DRY
W-808-02	04/05/03	-	-	-	DRY
W-808-02	07/01/03	-	-	-	DRY
W-808-02	10/03/03	-	-	-	DRY
W-808-03	01/03/03	296.02		606.87	
W-808-03	02/06/03	296.04		606.85	
W-808-03	03/01/03	296.02		606.87	
W-808-03	04/05/03	295.82		607.07	
W-808-03	07/11/03	295.81		607.08	
W-808-03	10/03/03	295.8		607.09	
W-809-01	01/03/03	68.01		722.22	
W-809-01	04/05/03	67.87		722.36	
W-809-01	07/11/03	67.61		722.62	
W-809-01	10/03/03	68		722.23	
W-809-02	01/07/03	139.62		652.2	
W-809-02	04/05/03	139.71		652.11	
W-809-02	07/11/03	139.71		652.11	
W-809-02	10/03/03	139.65		652.17	

**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-809-03	01/03/03	104.59		641.48	
W-809-03	02/06/03	104.62		641.45	
W-809-03	03/01/03	104.76		641.31	
W-809-03	04/05/03	104.64		641.43	
W-809-03	07/11/03	104.51		641.56	
W-809-03	10/03/03	104.6		641.47	
W-809-04	01/03/03	69.04		707.01	
W-809-04	02/06/03	-		-	NM
W-809-04	03/01/03	-		-	NM
W-809-04	04/05/03	77.04		699.01	
W-809-04	07/11/03	80.35		695.7	
W-809-04	10/14/03	-		-	DRY
W-810-01	01/03/03	238.27		602.76	
W-810-01	02/07/03	238.3		602.73	
W-810-01	03/01/03	237.84		603.19	
W-810-01	04/05/03	237.84		603.19	
W-810-01	07/11/03	237.51		603.52	
W-810-01	10/03/03	237.85		603.18	
W-814-01	01/10/03	110.13		698.7	
W-814-01	04/22/03	110.08		698.75	
W-814-01	07/28/03	110.16		698.67	
W-814-01	10/03/03	110.23		698.6	
W-814-02	01/15/03	162.34		631.34	
W-814-02	04/22/03	162.07		631.61	
W-814-02	07/28/03	162.13		631.55	
W-814-02	10/03/03	162.25		631.43	
W-814-03	01/10/03	-		-	DRY
W-814-03	04/22/03	-		-	DRY
W-814-03	07/01/03	-		-	DRY
W-814-03	10/03/03	-		-	DRY
W-814-04	01/10/03	232.87		581.82	
W-814-04	02/01/03	232.94		581.75	
W-814-04	03/01/03	232.73		581.96	

**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-814-04	04/22/03	232.63		582.06	
W-814-04	07/28/03	233.32		581.37	
W-814-04	10/03/03	233.16		581.53	
W-815-01	01/03/03	-		-	DRY
W-815-01	02/06/03	-		-	DRY
W-815-01	03/01/03	-		-	DRY
W-815-01	04/05/03	-		-	DRY
W-815-01	07/01/03	-		-	DRY
W-815-01	10/03/03	-		-	DRY
W-815-02	01/03/03	98.2		623.41	
W-815-02	02/06/03	102.1		619.51	
W-815-02	03/01/03	142.8		578.81	
W-815-02	04/05/03	103.1		618.51	
W-815-02	07/11/03	99.5		622.11	
W-815-02	10/03/03	89.8		631.81	
W-815-03	01/03/03	47.05		675.41	
W-815-03	02/06/03	45.66		676.8	
W-815-03	03/01/03	45.27		677.19	
W-815-03	04/05/03	43.3		679.16	
W-815-03	07/11/03	45.25		677.21	
W-815-03	10/03/03	45.42		677.04	
W-815-04	01/03/03	84.42		638.23	
W-815-04	02/06/03	84.46		638.19	
W-815-04	03/01/03	84.34		638.31	
W-815-04	04/05/03	84.46		638.19	
W-815-04	07/11/03	84.22		638.43	
W-815-04	10/03/03	84.27		638.38	
W-815-05	01/03/03	30.83		681.38	
W-815-05	02/06/03	28.41		683.8	
W-815-05	03/01/03	28.23		683.98	
W-815-05	04/05/03	27.85		684.36	
W-815-05	07/11/03	30.75		681.46	
W-815-05	10/03/03	31.78		680.43	

**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-815-06	01/15/03	131.37		624.61	
W-815-06	04/22/03	131.17		624.81	
W-815-06	07/28/03	131.2		624.78	
W-815-06	10/03/03	131.24		624.74	
W-815-07	01/15/03	139.45		623.22	
W-815-07	04/22/03	139.33		623.34	
W-815-07	07/28/03	139.37		623.3	
W-815-07	10/03/03	139.37		623.3	
W-815-08	01/03/03	124.85		598.94	
W-815-08	02/06/03	124.56		599.23	
W-815-08	03/01/03	124.41		599.38	
W-815-08	04/05/03	124.21		599.58	
W-815-08	07/11/03	124.25		599.54	
W-815-08	10/03/03	124.78		599.01	
W-817-01	01/03/03	138.03		636.08	
W-817-01	04/05/03	138.05		636.06	
W-817-01	07/11/03	138.06		636.05	
W-817-01	10/03/03	-		-	DRY
W-817-02	01/03/03	113.04		588.72	
W-817-02	02/07/03	113.12		588.64	
W-817-02	03/01/03	113.01		588.75	
W-817-02	04/05/03	113.33		588.43	
W-817-02	07/11/03	113.92		587.84	
W-817-02	10/14/03	114.1		587.66	
W-817-03	01/03/03	98.78		575.13	
W-817-03	04/05/03	99.45		574.46	
W-817-03	07/11/03	100.2		573.71	
W-817-03	10/03/03	100.7		573.21	
W-817-03A	01/03/03	12.75		665.25	
W-817-03A	04/05/03	-		-	DRY
W-817-03A	07/01/03	-		-	DRY
W-817-03A	10/03/03	-		-	DRY
W-817-04	01/03/03	75.44		607.75	

**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-817-04	04/05/03	75.89		607.3	
W-817-04	07/11/03	75.95		607.24	
W-817-04	10/03/03	75.97		607.22	
W-817-05	01/03/03	128.71		635.62	
W-817-05	02/06/03	128.67		635.66	
W-817-05	03/01/03	128.61		635.72	
W-817-05	04/05/03	128.75		635.58	
W-817-05	07/11/03	128.43		635.9	
W-817-05	10/14/03	128.82		635.51	
W-817-06A	01/03/03	111.02		657.44	
W-817-06A	04/05/03	111.08		657.38	
W-817-06A	07/11/03	111.14		657.32	
W-817-06A	10/14/03	111.34		657.12	
W-817-07	01/03/03	93.07		574.88	
W-817-07	04/05/03	93.84		574.11	
W-817-07	07/11/03	94.57		573.38	
W-817-07	10/03/03	95.23		572.72	
W-818-01	01/15/03	95.72		585.05	
W-818-01	02/01/03	95.52		585.25	
W-818-01	03/05/03	95.76		585.01	
W-818-01	04/22/03	95.92		584.85	
W-818-01	07/28/03	96		584.77	
W-818-01	10/03/03	96.04		584.73	
W-818-03	01/15/03	51.81		547.06	
W-818-03	02/07/03	51.71		547.16	
W-818-03	03/05/03	52.26		546.61	
W-818-03	04/18/03	52.63		546.24	
W-818-03	07/28/03	53.35		545.52	
W-818-03	10/08/03	53.59		545.28	
W-818-04	01/10/03	60.81		553.25	
W-818-04	04/12/03	61.36		552.7	
W-818-04	07/28/03	61.84		552.22	
W-818-04	10/03/03	62.56		551.5	



**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-818-06	01/10/03	64.89		548.63	
W-818-06	04/12/03	66.46		547.06	
W-818-06	07/28/03	67.8		545.72	
W-818-06	10/03/03	67.18		546.34	
W-818-07	01/10/03	64.94		549.27	
W-818-07	04/12/03	66.41		547.8	
W-818-07	07/28/03	67.85		546.36	
W-818-07	10/03/03	67.31		546.9	
W-818-08	01/10/03	96.6		552.3	
W-818-08	07/28/03	98.45		550.45	
W-818-08	10/08/03	99.3		549.6	
W-818-09	01/10/03	92.7		548.2	
W-818-09	02/01/03	-		-	NM
W-818-09	03/05/03	83.7		557.2	
W-818-09	04/22/03	83.3		557.6	
W-818-09	07/28/03	-		-	NM/RA
W-818-09	10/08/03	103.6		537.3	
W-818-11	01/15/03	149.02		598.67	
W-818-11	02/01/03	148.72		598.97	
W-818-11	03/05/03	148.9		598.79	
W-818-11	04/22/03	149.56		598.13	
W-818-11	07/28/03	149.23		598.46	
W-818-11	10/03/03	149.39		598.3	
W-819-02	01/10/03	225.32		596.8	
W-819-02	02/07/03	225.37		596.75	
W-819-02	03/05/03	225		597.12	
W-819-02	04/18/03	224.78		597.34	
W-819-02	07/28/03	225.08		597.04	
W-819-02	10/03/03	225.14		596.98	
W-823-01	01/15/03	-		-	NM/NO ACCESS
W-823-01	04/15/03	17.57		573.68	
W-823-01	07/29/03	19.53		571.72	
W-823-01	10/06/03	18.67		572.58	

**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-823-02	01/15/03	-	-	-	NM/NO ACCESS
W-823-02	04/15/03	16.68		573.7	
W-823-02	07/29/03	18.65		571.73	
W-823-02	10/06/03	17.85		572.53	
W-823-03	01/15/03	-	-	-	NM/NO ACCESS
W-823-03	02/15/03	-	-	-	NM/NO ACCESS
W-823-03	03/05/03	15.46		574.56	
W-823-03	04/15/03	15.66		574.36	
W-823-03	07/29/03	16.95		573.07	
W-823-03	10/06/03	16.86		573.16	
W-823-13	01/15/03	-	-	-	NM/NO ACCESS
W-823-13	04/15/03	47.19		575.05	
W-823-13	07/29/03	48.15		574.09	
W-823-13	10/06/03	50.14		572.1	
W-827-01	01/10/03	-	-	-	DRY
W-827-01	04/18/03	-	-	-	DRY
W-827-01	07/01/03	-	-	-	DRY
W-827-01	10/06/03	-	-	-	DRY
W-827-02	01/10/03	55.45		867.4	
W-827-02	04/18/03	58.01		864.84	
W-827-02	07/29/03	56.73		866.12	
W-827-02	10/06/03	60.66		862.19	
W-827-03	01/10/03	193.9		730.5	
W-827-03	04/18/03	194.02		730.38	
W-827-03	07/29/03	193.61		730.79	
W-827-03	10/06/03	193.25		731.15	
W-827-04	01/10/03	-	-	-	DRY
W-827-04	04/18/03	-	-	-	DRY
W-827-04	07/01/03	-	-	-	DRY
W-827-04	10/06/03	-	-	-	
W-827-05	01/10/03	382.2		651.68	
W-827-05	04/18/03	382.3		651.58	
W-827-05	07/29/03	382.32		651.56	

**Table 2.4-16. High Explosive Process Area 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-827-05	10/06/03	382.27		651.61	
W-829-06	01/10/03	95.4		976.89	
W-829-08	01/10/03	97.25		977.5	
W-829-15	01/10/03	337.56		696.44	
W-829-15	02/01/03	337.66		696.34	
W-829-15	03/04/03	337.46		696.54	
W-829-15	04/18/03	337.54		696.46	
W-829-15	07/22/03	337.68		696.32	
W-829-15	10/06/03	337.66		696.34	
W-829-22	01/10/03	399.7		653.37	
W-829-22	02/01/03	399.86		653.21	
W-829-22	03/04/03	399.49		653.58	
W-829-22	04/18/03	399.74		653.33	
W-829-22	07/22/03	399.98		653.09	
W-829-22	10/06/03	400.01		653.06	
WELL18	01/06/03	-		-	FL
WELL18	04/14/03	-		-	FL
WELL18	07/09/03	-		-	FL
WELL18	10/02/03	-		-	FL

**Table 2.4-17. Building 815-Source (B815-SRC) mass removed, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	VOC mass removed (g)	RDX mass removed (g)	Nitrate mass removed (g)	Perchlorate mass removed (g)
B815-SRC	January	0.7	5.3	10,248	2.2
	February	0.9	5.4	10,301	2.2
	March	1.0	7.9	15,210	3.3
	April	0.9	9.2	12,680	2.3
	May	1.0	11	15,171	2.7
	June	0.9	10	13,824	2.5
	July	0.3	2.8	3,474	0.7
	August	0.7	7.2	8,854	1.8
	September	0.8	8.3	10,147	2.1
	October	0.0	0.0	0	0.0
	November	0.7	7.5	9,913	2.3
	December	0.9	18	12,858	2.7
<b>Total</b>		<b>8.8</b>	<b>93</b>	<b>121,495</b>	<b>25</b>

**Table 2.4-18. Building 815-Proximal (B815-PRX) mass removed, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (g)
B815-PRX	January	10.0	1.4	27,149
	February	9.0	1.2	18,287
	March	11.0	2.7	29,335
	April	6.9	1.7	18,318
	May	12.3	2.8	32,545
	June	15.0	3.5	39,904
	July	11.8	2.8	30,654
	August	11.4	2.7	29,558
	September	13.9	3.3	36,052
	October	10.9	2.1	30,786
	November	8.5	1.7	24,168
	December	13.0	2.6	36,869
<b>Total</b>		<b>134</b>	<b>29</b>	<b>353,625</b>

**Table 2.4-19. Building 815-Distal Site Boundary (B815-DSB) mass removed, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	VOC mass removed (g)
B815-DSB	January	1.6
	February	1.6
	March	2.7
	April	2.1
	May	2.3
	June	2.5
	July	2.3
	August	1.7
	September	1.9
	October	1.5
	November	1.1
	December	0.9
<b>Total</b>		<b>22</b>

**Table 2.4-20. Building 817-Source (B817-SRC) mass removed, September 22, 2003 through December 31, 2003.**

Treatment facility	Month	VOC mass removed (g)	RDX mass removed (g)	Perchlorate mass removed (g)
B817-SRC	September	0.0	0.06	0.02
	October	0.0	0.04	0.02
	November	0.0	0.08	0.05
	December	0.0	0.07	0.04
<b>Total</b>		<b>0.0</b>	<b>0.25</b>	<b>0.13</b>

Table 2.5-1. Building 850 (OU5A) 2003 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
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	1	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	2	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	3	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	4	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UISO	1	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UISO	2	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UISO	3	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UISO	4	Y	
K1-01C	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
K1-01C	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
K1-01C	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	
K1-01C	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	3	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	4	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	1	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	2	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	3	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	4	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E624	4	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	1	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	2	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	3	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	4	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 2 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K1-01C	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
K1-01C	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	
K1-01C	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	Y	
K1-01C	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	Y	
K1-01C	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	1	N	AS:UIISO analyzed.
K1-01C	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	2	N	AS:UIISO analyzed.
K1-01C	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	3	N	AS:UIISO analyzed.
K1-01C	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	4	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	1	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	2	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	3	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	4	Y	
K1-01C	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET2	4	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:THISO	1	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:THISO	2	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:THISO	3	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:THISO	4	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:UIISO	1	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:UIISO	2	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:UIISO	3	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:UIISO	4	Y	
K1-02B	DMW	Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
K1-02B	DMW	Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
K1-02B	DMW	Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	
K1-02B	DMW	Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 3 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E300.0:PERC	3	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E300.0:PERC	4	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E601	1	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E601	2	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E601	3	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E601	4	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E624	4	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E8330:R+H	1	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E8330:R+H	2	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E8330:R+H	3	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	E8330:R+H	4	Y	
K1-02B	DMW	Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E906	1	Y	
K1-02B	DMW	Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E906	2	Y	
K1-02B	DMW	Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E906	3	Y	
K1-02B	DMW	Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E906	4	Y	
K1-02B	DMW	Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	MS:UIISO	1	N	AS:UIISO analyzed.
K1-02B	DMW	Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	MS:UIISO	2	N	AS:UIISO analyzed.
K1-02B	DMW	Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	MS:UIISO	3	N	AS:UIISO analyzed.
K1-02B	DMW	Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	MS:UIISO	4	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	WGMGMET1	1	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	WGMGMET1	2	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	WGMGMET1	3	Y	



Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 4 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	WGMGMET1	4	Y	
K1-02B	DMW	Tnbs <sub>0</sub>		Q	ERD/WGMG	WGMGMET2	4	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	1	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	2	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	3	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	4	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UIISO	1	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UIISO	2	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UIISO	3	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UIISO	4	Y	
K1-03	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
K1-03	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
K1-03	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	
K1-03	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	3	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	4	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	1	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	2	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	3	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	4	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E624	4	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	1	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	2	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 5 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	3	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	4	Y	
K1-03	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
K1-03	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	
K1-03	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	Y	
K1-03	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	Y	
K1-03	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	1	N	AS:UIISO analyzed.
K1-03	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	2	N	AS:UIISO analyzed.
K1-03	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	3	N	AS:UIISO analyzed.
K1-03	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	4	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	1	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	2	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	3	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	4	Y	
K1-03	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET2	4	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:THISO	1	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:THISO	2	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:THISO	3	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:THISO	4	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:UIISO	1	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:UIISO	2	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:UIISO	3	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	AS:UIISO	4	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 6 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E300.0:PERC	3	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E300.0:PERC	4	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E601	1	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E601	2	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E601	3	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E601	4	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E624	4	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E8330:R+H	1	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E8330:R+H	2	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E8330:R+H	3	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	E8330:R+H	4	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E906	1	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E906	2	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E906	3	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	E906	4	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	MS:UIISO	1	N	AS:UIISO analyzed.
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	MS:UIISO	2	N	AS:UIISO analyzed.
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	MS:UIISO	3	N	AS:UIISO analyzed.
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	Q	Q	CMP/WGMG	MS:UIISO	4	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	WGMGMET1	1	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 7 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	WGMGMET1	2	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	WGMGMET1	3	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	WGMGMET1	4	Y	
K1-04	DMW	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>		Q	ERD/WGMG	WGMGMET2	4	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	1	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	2	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	3	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	4	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UIISO	1	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UIISO	2	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UIISO	3	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UIISO	4	Y	
K1-05	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
K1-05	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
K1-05	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	
K1-05	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	3	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	4	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	1	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	2	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	3	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	4	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E624	4	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 8 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	1	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	2	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	3	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	4	Y	
K1-05	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
K1-05	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	
K1-05	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	Y	
K1-05	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	Y	
K1-05	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	1	N	AS:UIISO analyzed.
K1-05	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	2	N	AS:UIISO analyzed.
K1-05	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	3	N	AS:UIISO analyzed.
K1-05	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	4	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	1	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	2	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	3	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	4	Y	
K1-05	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET2	4	Y	
K1-06	DMW	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
K1-06	DMW	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
K1-06	DMW	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
K1-06	DMW	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	N	Insufficient water.
K1-06	DMW	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	3	N	Inadvertently left off sampling plan.
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	1	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	2	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	3	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 9 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	4	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UISO	1	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UISO	2	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UISO	3	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UISO	4	Y	
K1-07	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
K1-07	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
K1-07	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	
K1-07	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	3	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	4	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	1	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	2	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	3	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	4	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E624	4	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	1	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	2	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	3	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	4	Y	
K1-07	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
K1-07	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	
K1-07	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 10 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K1-07	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	Y	
K1-07	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	1	N	AS:UIISO analyzed.
K1-07	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	2	N	AS:UIISO analyzed.
K1-07	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	3	N	AS:UIISO analyzed.
K1-07	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	4	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	1	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	2	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	3	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	4	Y	
K1-07	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET2	4	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	1	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	2	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	3	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	4	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UIISO	1	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UIISO	2	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UIISO	3	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UIISO	4	Y	
K1-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
K1-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
K1-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	
K1-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	3	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 11 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	4	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	1	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	2	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	3	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	4	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E624	4	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	1	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	2	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	3	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	4	Y	
K1-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
K1-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	
K1-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	Y	
K1-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	Y	
K1-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	1	N	AS:UIISO analyzed.
K1-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	2	N	AS:UIISO analyzed.
K1-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	3	N	AS:UIISO analyzed.
K1-08	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	4	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	1	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	2	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	3	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	4	Y	
K1-08	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET2	4	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	1	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	2	Y	



Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 12 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	3	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:THISO	4	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UISO	1	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UISO	2	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UISO	3	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	AS:UISO	4	Y	
K1-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	1	Y	
K1-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	2	Y	
K1-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	3	Y	
K1-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E300.0:NO3	4	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	1	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	2	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	3	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E300.0:PERC	4	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	1	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	2	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	3	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E601	4	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E624	4	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	1	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	2	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	3	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	E8330:R+H	4	Y	
K1-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
K1-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 13 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K1-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	Y	
K1-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	Y	
K1-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	1	N	AS:UIISO analyzed.
K1-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	2	N	AS:UIISO analyzed.
K1-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	3	N	AS:UIISO analyzed.
K1-09	DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	MS:UIISO	4	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	1	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	2	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	3	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET1	4	Y	
K1-09	DMW	Tnbs <sub>1</sub>		Q	ERD/WGMG	WGMGMET2	4	Y	
K2-03	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
K2-03	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
K2-03	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
K2-03	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
K2-04C	MWPT	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	A	A	CMP	E300.0:NO3	4	N	Well was abandoned.
K2-04C	MWPT	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	S	S	CMP	E906	2	N	Well was abandoned.
K2-04C	MWPT	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	S	S	CMP	E906	4	N	Well was abandoned.
K2-04C	MWPT	Tnbs <sub>1</sub> /Tnbs <sub>0</sub>	A	A	CMP	MS:UIISO	4	N	Well was abandoned.
K2-04D	MWPT	Tnbs <sub>1</sub>	A	A	CMP/WGMG	AS:UIISO	2	Y	
K2-04D	MWPT	Tnbs <sub>1</sub>		A	ERD/WGMG	AS:UIISO	4	Y	
K2-04D	MWPT	Tnbs <sub>1</sub>	A	S	CMP/WGMG	E300.0:NO3	2	Y	
K2-04D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:NO3	4	Y	
K2-04D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:PERC	2	Y	
K2-04D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:PERC	4	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 14 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K2-04D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E601	2	Y	
K2-04D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E601	4	Y	
K2-04D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E8330:R+H	2	Y	
K2-04D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E8330:R+H	4	Y	
K2-04D	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E906	2	Y	
K2-04D	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E906	4	Y	
K2-04D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	WGMGMET3	2	Y	
K2-04D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	WGMGMET3	4	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>	A	S	CMP/WGMG	E300.0:NO3	2	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:NO3	4	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:PERC	2	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:PERC	4	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E601	2	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E601	4	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E8330:R+H	2	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E8330:R+H	4	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E906	2	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E906	4	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>	A	A	CMP/WGMG	MS:UIISO	2	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	WGMGMET3	2	Y	
K2-04S	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	WGMGMET3	4	Y	
NC2-05	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-05	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-05	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-05	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 15 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
NC2-05A	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-05A	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-05A	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-05A	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC2-06	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-06	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-06	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-06	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC2-06A	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-06A	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-06A	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-06A	MWPT	Tnbs <sub>1</sub>	A	S	CMP	MS:UIISO	2	Y	
NC2-06A	MWPT	Tnbs <sub>1</sub>		S	DIS	MS:UIISO	4	Y	
NC2-09	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-09	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-09	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-09	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC2-09A	MWPT	Tnbs <sub>1</sub>	A		CMP	E300.0:NO3	4	N	Well was abandoned.
NC2-09A	MWPT	Tnbs <sub>1</sub>	S		CMP	E906	2	N	Well was abandoned.
NC2-09A	MWPT	Tnbs <sub>1</sub>	S		CMP	E906	4	N	Well was abandoned.
NC2-09A	MWPT	Tnbs <sub>1</sub>	A		CMP	MS:UIISO	4	N	Well was abandoned.
NC2-10	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-10	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-10	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-10	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 16 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
NC2-11D	MWPT	Tnbs <sub>1</sub>		A	ERD/WGMG	AS:UIISO	4	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>	A	S	CMP/WGMG	E300.0:NO3	2	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:NO3	4	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:PERC	2	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:PERC	4	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E601	2	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E601	4	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E8330:R+H	2	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E8330:R+H	4	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E906	2	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E906	4	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>	A	A	CMP/WGMG	MS:UIISO	2	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	WGMGMET3	2	Y	
NC2-11D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	WGMGMET3	4	Y	
NC2-11I	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-11I	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-11I	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-11I	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC2-11S	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-11S	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-11S	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-11S	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>		A	ERD/WGMG	AS:UIISO	4	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>	A	S	CMP/WGMG	E300.0:NO3	2	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:NO3	4	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 17 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
NC2-12D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:PERC	2	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:PERC	4	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E601	2	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E601	4	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E8330:R+H	2	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	E8330:R+H	4	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E906	2	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>	S	S	CMP/WGMG	E906	4	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>	A	A	CMP/WGMG	MS:UIISO	2	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	WGMGMET3	2	Y	
NC2-12D	MWPT	Tnbs <sub>1</sub>		S	ERD/WGMG	WGMGMET3	4	Y	
NC2-12I	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-12I	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-12I	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-12I	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC2-12S	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-12S	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-12S	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-12S	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC2-13	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	Y	
NC2-13	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-13	MWPT	Tnbs <sub>1</sub>		A	DIS	E601	2	Y	
NC2-13	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-13	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-13	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 18 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
NC2-14S	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	Y	
NC2-14S	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-14S	MWPT	Tnbs <sub>1</sub>		A	DIS	E601	2	Y	
NC2-14S	MWPT	Tnbs <sub>1</sub>		A	DIS	E8330:R+H	2	Y	
NC2-14S	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-14S	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-14S	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC2-15	MWPT	Tnbs <sub>1</sub>		A	DIS	AS:UIISO	2	Y	
NC2-15	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-15	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-15	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-15	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	4	Y	
NC2-16	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-16	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-16	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-16	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC2-17	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-17	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-17	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-17	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC2-18	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-18	MWPT	Tnbs <sub>1</sub>	S	A	CMP	E906	2	Y	
NC2-18	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC2-19	MWPT	Tnbs <sub>1</sub>		A	DIS	AS:UIISO	2	Y	
NC2-19	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 19 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
NC2-19	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-19	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-19	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	4	Y	
NC2-20	MWPT	Tnbs <sub>0</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-20	MWPT	Tnbs <sub>0</sub>	S	S	CMP	E906	2	Y	
NC2-20	MWPT	Tnbs <sub>0</sub>	S	S	CMP	E906	4	Y	
NC2-20	MWPT	Tnbs <sub>0</sub>	A	A	CMP	MS:UIISO	2	Y	
NC2-21	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-21	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC2-21	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC2-21	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-10	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-10	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-10	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-10	MWPT	Tnbs <sub>1</sub>	A	A	DIS	MS:UIISO	2	Y	
NC7-11	MWPT	Qal/Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-11	MWPT	Qal/Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-11	MWPT	Qal/Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-11	MWPT	Qal/Tnbs <sub>1</sub>	A	A	DIS	MS:UIISO	2	Y	
NC7-14	MWPT	Qal/Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	N	Dry.
NC7-14	MWPT	Qal/Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Dry.
NC7-14	MWPT	Qal/Tnbs <sub>1</sub>	S	S	CMP	E906	2	N	Dry.
NC7-14	MWPT	Qal/Tnbs <sub>1</sub>	S	S	CMP	E906	4	N	Dry.
NC7-14	MWPT	Qal/Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	N	Dry.



Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 20 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
NC7-14	MWPT	Qal/Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	4	N	Dry.
NC7-15	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	Y	
NC7-15	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	Y	
NC7-15	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-15	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-15	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-19	MWPT	Qal/Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-19	MWPT	Qal/Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-19	MWPT	Qal/Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-19	MWPT	Qal/Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-27	MWPT	Tnsc <sub>0</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-27	MWPT	Tnsc <sub>0</sub>	S	S	CMP	E906	2	Y	
NC7-27	MWPT	Tnsc <sub>0</sub>	S	S	CMP	E906	4	Y	
NC7-27	MWPT	Tnsc <sub>0</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-28	MWPT	Tnbs <sub>1</sub>		A	DIS	AS:UIISO	2	Y	
NC7-28	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-28	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-28	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-28	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	1	Y	
NC7-28	MWPT	Tnbs <sub>1</sub>	A	A	DIS	MS:UIISO	4	Y	
NC7-29	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	Y	
NC7-29	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-29	MWPT	Tnbs <sub>1</sub>		A	DIS	E601	2	Y	
NC7-29	MWPT	Tnbs <sub>1</sub>		A	DIS	E8330:R+H	2	Y	
NC7-29	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 21 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
NC7-29	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-29	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-43	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-43	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-43	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-43	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-44	MWPT	Tnbs <sub>1</sub>		A	DIS	AS:UIISO	2	Y	
NC7-44	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	Y	
NC7-44	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-44	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-44	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-44	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	4	Y	
NC7-45	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	N	Dry 4/03. Casing bent 6/03.
NC7-45	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	N	Dry 4/03. Casing bent 6/03.
NC7-45	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Dry.
NC7-45	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	N	Dry 4/03. Casing bent 6/03.
NC7-45	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	N	Dry.
NC7-45	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	N	Dry 4/03. Casing bent 6/03.
NC7-45	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	4	N	Dry.
NC7-46	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-46	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-46	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-46	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-54	MWPT	Qal		A	DIS	AS:UIISO	2	N	Insufficient water.
NC7-54	MWPT	Qal		A	DIS	DWMETALS	2	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 22 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
NC7-54	MWPT	Qal	A	A	CMP	E300.0:NO3	2	N	Insufficient water.
NC7-54	MWPT	Qal	A	A	CMP	E300.0:NO3	4	N	Well surrounded by stinging nettle.
NC7-54	MWPT	Qal		A	DIS	E601	2	Y	
NC7-54	MWPT	Qal		A	DIS	E8330:R+H	2	N	Insufficient water.
NC7-54	MWPT	Qal	S	S	CMP	E906	2	N	Insufficient water.
NC7-54	MWPT	Qal	S	S	CMP	E906	4	N	Well surrounded by stinging nettle.
NC7-54	MWPT	Qal	A	S	CMP	MS:UIISO	2	N	Insufficient water.
NC7-54	MWPT	Qal		S	DIS	MS:UIISO	4	N	Well surrounded by stinging nettle.
NC7-55	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	N	Dry.
NC7-55	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	N	Dry.
NC7-55	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Dry.
NC7-55	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	N	Dry.
NC7-55	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	N	Dry.
NC7-55	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	N	Dry.
NC7-55	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	4	N	Dry.
NC7-56	MWPT	Qal/Tnbs <sub>1</sub>		S	DIS	DWMETALS	2	Y	
NC7-56	MWPT	Qal/Tnbs <sub>1</sub>		S	DIS	DWMETALS	4	Y	
NC7-56	MWPT	Qal/Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-56	MWPT	Qal/Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-56	MWPT	Qal/Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-56	MWPT	Qal/Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-57	MWPT	Qal	A	A	CMP	E300.0:NO3	2	N	Dry.
NC7-57	MWPT	Qal	A	A	CMP	E300.0:NO3	4	N	Dry.
NC7-57	MWPT	Qal	S	S	CMP	E906	2	N	Dry.
NC7-57	MWPT	Qal	S	S	CMP	E906	4	N	Dry.

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 23 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
NC7-57	MWPT	Qal	A	A	CMP	MS:UIISO	2	N	Dry.
NC7-57	MWPT	Qal	A	A	CMP	MS:UIISO	4	N	Dry.
NC7-58	MWPT	Qal		A	DIS	DWMETALS	2	Y	
NC7-58	MWPT	Qal	A	A	CMP	E300.0:NO3	2	Y	
NC7-58	MWPT	Qal	S	S	CMP	E906	2	Y	
NC7-58	MWPT	Qal	S	S	CMP	E906	4	Y	
NC7-58	MWPT	Qal	A	A	CMP	MS:UIISO	2	Y	
NC7-59	MWPT	Qal/Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	Y	
NC7-59	MWPT	Qal/Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-59	MWPT	Qal/Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-59	MWPT	Qal/Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-59	MWPT	Qal/Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-60	MWPT	Tnbs <sub>0</sub>		A	DIS	DWMETALS	2	Y	
NC7-60	MWPT	Tnbs <sub>0</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-60	MWPT	Tnbs <sub>0</sub>	S	S	CMP	E906	2	Y	
NC7-60	MWPT	Tnbs <sub>0</sub>	S	S	CMP	E906	4	Y	
NC7-60	MWPT	Tnbs <sub>0</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>		A	ERD/WGMG	AS:UIISO	4	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>		A	ERD/WGMG	DWMETALS	2	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>	A	S	CMP/WGMG	E300.0:NO3	2	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>		S	ERD/WGMG	E300.0:NO3	4	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>		S	ERD/WGMG	E300.0:PERC	2	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>		S	ERD/WGMG	E300.0:PERC	4	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>		S	ERD/WGMG	E601	2	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 24 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
NC7-61	MWPT	Tnbs <sub>0</sub>		S	ERD/WGMG	E601	4	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>		S	ERD/WGMG	E8330:R+H	2	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>		S	ERD/WGMG	E8330:R+H	4	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>	S	S	CMP/WGMG	E906	2	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>	S	S	CMP/WGMG	E906	4	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>	A	A	CMP/WGMG	MS:UIISO	2	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>		S	ERD/WGMG	WGMGMET3	2	Y	
NC7-61	MWPT	Tnbs <sub>0</sub>		S	ERD/WGMG	WGMGMET3	4	Y	
NC7-62	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	Y	
NC7-62	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-62	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-62	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-62	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-69	MWPT	Tmss		A	ERD/WGMG	AS:UIISO	4	Y	
NC7-69	MWPT	Tmss		A	ERD/WGMG	AS:UIISO	2	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E300.0:NO2	2	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E300.0:NO2	4	N	Not on sampling plan.
NC7-69	MWPT	Tmss	A	A	CMP/WGMG	E300.0:NO3	2	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E300.0:O-PO2	2	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E300.0:O-PO2	4	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E300.0:PERC	2	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E300.0:PERC	4	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E350.2	2	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E350.2	4	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E601	2	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 25 of 31)

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	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E8330:R+H	2	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	E8330:R+H	4	Y	
NC7-69	MWPT	Tmss	S	S	CMP/WGMG	E906	2	Y	
NC7-69	MWPT	Tmss	S	S	CMP/WGMG	E906	4	Y	
NC7-69	MWPT	Tmss	A	A	CMP/WGMG	MS:UIISO	4	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	WGMGMET3	2	Y	
NC7-69	MWPT	Tmss		S	ERD/WGMG	WGMGMET3	4	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>		A	DIS	AS:UIISO	2	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>		A	DIS	E601	2	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>		A	DIS	E8082A	2	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>		A	DIS	E8330:R+H	2	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>		A	DIS	EM8015:DIESE L	2	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>	A	Q	CMP	MS:UIISO	1	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>		Q	DIS	MS:UIISO	2	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>		Q	DIS	MS:UIISO	3	Y	
NC7-70	MWPT	Tnbs <sub>1</sub>		Q	DIS	MS:UIISO	4	Y	
NC7-71	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	N	Unsafe sampling conditions.
NC7-71	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	4	N	Control box down.
NC7-71	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	4	N	Not on samping plan.

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 26 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
NC7-71	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-71	MWPT	Tnbs <sub>1</sub>		A	DIS	E8330:R+H	2	N	Unsafe sampling conditions.
NC7-71	MWPT	Tnbs <sub>1</sub>		A	DIS	E8330:R+H	4	N	Control box down.
NC7-71	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-71	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	N	Control box down.
NC7-71	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-72	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	Y	
NC7-72	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	N	Inadvertently left off sampling plan.
NC7-72	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-72	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	4	Y	
NC7-73	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	Y	
NC7-73	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-73	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-73	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-73	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
NC7-76	MWPT	Tnbs <sub>1</sub>		A	DIS	AS:UIISO	2	Y	
NC7-76	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC7-76	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
NC7-76	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
NC7-76	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	4	Y	
SPRING24	SPR	Tnbs <sub>0</sub> /Tnbs <sub>1</sub>		A	DIS	E200.7 SIO2	4	N	Insufficient water.
SPRING24	SPR	Tnbs <sub>0</sub> /Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Insufficient water.
SPRING24	SPR	Tnbs <sub>0</sub> /Tnbs <sub>1</sub>		Q	DIS	E906	1	N	Sampling personnel shortage.
SPRING24	SPR	Tnbs <sub>0</sub> /Tnbs <sub>1</sub>	S	Q	CMP	E906	2	N	Sampling personnel shortage.
SPRING24	SPR	Tnbs <sub>0</sub> /Tnbs <sub>1</sub>		Q	DIS	E906	3	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 27 of 31)

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 <sub>0</sub> /Tnbs <sub>1</sub>	S	Q	CMP	E906	4	Y	
SPRING24	SPR	Tnbs <sub>0</sub> /Tnbs <sub>1</sub>		A	DIS	GENMIN	4	N	Insufficient water.
SPRING24	SPR	Tnbs <sub>0</sub> /Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	4	N	Insufficient water.
W-850-05	MWPT	Tnbs <sub>1</sub>		S	DIS	DWMETALS	2	Y	
W-850-05	MWPT	Tnbs <sub>1</sub>		S	DIS	DWMETALS	4	Y	
W-850-05	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-850-05	MWPT	Tnbs <sub>1</sub>	B	A	CMP	E8082A	2	Y	
W-850-05	MWPT	Tnbs <sub>1</sub>		A	DIS	E8330:R+H	2	Y	
W-850-05	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
W-850-05	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E906	4	Y	
W-850-05	MWPT	Tnbs <sub>1</sub>		A	DIS	EM8015:DIESE L	2	Y	
W-850-05	MWPT	Tnbs <sub>1</sub>	A	A	CMP	MS:UIISO	2	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	DWMETALS	2	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	DWMETALS	4	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>	A	A	CMP	E300.0:NO3	4	Y	GENMIN analyzed.
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	E300.0:PERC	2	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	E300.0:PERC	4	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	E601	3	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	E624	1	N	Pump not yet installed.
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	E624	2	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	E624	4	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	E8330:R+H	2	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	E8330:R+H	4	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	E900	2	Y	



Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 28 of 31)

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 <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	E900	4	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>	S	Q	CMP	E906	1	N	Pump not yet installed.
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	E906	2	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>	S	Q	CMP	E906	3	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	E906	4	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		A	DIS	GENMIN	4	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>	A	S	CMP	MS:UIISO	2	Y	
W-865-1802	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	MS:UIISO	4	Y	
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		A	DIS	AS:UIISO	2	Y	
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	DWMETALS	2	Y	
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	DWMETALS	4	N	Inaccessible due to road conditions.
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>	A	A	CMP	E300.0:NO3	2	Y	GENMIN analyzed.
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	E300.0:PERC	2	Y	
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	E300.0:PERC	4	N	Inaccessible due to road conditions.
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	E601	3	Y	
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	E624	1	N	Pump not yet installed.
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	E624	2	Y	
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	E624	4	N	Inaccessible due to road conditions.
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	E8330:R+H	2	Y	
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	E8330:R+H	4	N	Inaccessible due to road conditions.
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	E900	2	Y	
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	E900	4	N	Inaccessible due to road conditions.
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	E906	1	N	Pump not yet installed.
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>	S	Q	CMP	E906	2	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 29 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>	S	Q	CMP	E906	3	Y	
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	E906	4	N	Inaccessible due to road conditions.
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		A	DIS	GENMIN	2	Y	
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>	A	S	CMP	MS:UISO	2	Y	AS:UISO analyzed.
W-865-1803	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		S	DIS	MS:UISO	4	N	Inaccessible due to road conditions.
W8SPRNG	SPR	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	Y	
W8SPRNG	SPR	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
W8SPRNG	SPR	Tnbs <sub>1</sub>	S	S	CMP	E906	2	Y	
W8SPRNG	SPR	Tnbs <sub>1</sub>	S	S	CMP	E906	4	N	No access due to stinging nettles.
W8SPRNG	SPR	Tnbs <sub>1</sub>	A	A	CMP	MS:UISO	2	Y	
W-PIT1-01	MW	Tnbs <sub>1</sub>		Q	DIS	E601	1	N	Dry.
W-PIT1-01	MW	Tnbs <sub>1</sub>		Q	DIS	E601	2	N	Not on sampling plan.
W-PIT1-01	MW	Tnbs <sub>1</sub>		Q	DIS	E601	3	Y	
W-PIT1-01	MW	Tnbs <sub>1</sub>		Q	DIS	E601	4	N	Dry.
W-PIT1-01	MW	Tnbs <sub>1</sub>		Q	DIS	E906	1	N	Dry.
W-PIT1-01	MW	Tnbs <sub>1</sub>		Q	DIS	E906	2	N	Not on sampling plan.
W-PIT1-01	MW	Tnbs <sub>1</sub>		Q	DIS	E906	3	N	Insufficient water.
W-PIT1-01	MW	Tnbs <sub>1</sub>		Q	DIS	E906	4	N	Dry.
W-PIT1-02	MW	Tnbs <sub>1</sub>		Q	DIS	E601	1	N	Not on sampling plan.
W-PIT1-02	MW	Tnbs <sub>1</sub>		Q	DIS	E601	2	N	Not on sampling plan.
W-PIT1-02	MW	Tnbs <sub>1</sub>		Q	DIS	E601	3	Y	
W-PIT1-02	MW	Tnbs <sub>1</sub>		Q	DIS	E601	4	Y	
W-PIT1-02	MW	Tnbs <sub>1</sub>		Q	DIS	E906	1	N	Not on sampling plan.
W-PIT1-02	MW	Tnbs <sub>1</sub>		Q	DIS	E906	2	N	Not on sampling plan.
W-PIT1-02	MW	Tnbs <sub>1</sub>		Q	DIS	E906	3	Y	

Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 30 of 31)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-PIT1-02	MW	Tnbs <sub>1</sub>		Q	DIS	E906	4	Y	
W-PIT7-16	MWPT	Tnsc <sub>0</sub>		Q	DIS	E601	1	N	Not on sampling plan.
W-PIT7-16	MWPT	Tnsc <sub>0</sub>		Q	DIS	E601	2	Y	
W-PIT7-16	MWPT	Tnsc <sub>0</sub>		Q	DIS	E601	3	Y	
W-PIT7-16	MWPT	Tnsc <sub>0</sub>		Q	DIS	E601	4	Y	
W-PIT7-16	MWPT	Tnsc <sub>0</sub>		Q	DIS	E906	1	N	Inadvertently left off sampling plan.
W-PIT7-16	MWPT	Tnsc <sub>0</sub>	S	Q	CMP	E906	2	Y	
W-PIT7-16	MWPT	Tnsc <sub>0</sub>		Q	DIS	E906	3	Y	
W-PIT7-16	MWPT	Tnsc <sub>0</sub>	S	Q	CMP	E906	4	Y	
W-PIT7-16	MWPT	Tnsc <sub>0</sub>	A	A	CMP	MS:UIISO	2	Y	

Notes and footnotes appear on following page.

**Table 2.5-1. Building 850 (OU5A) 2003 ground water sampling and analysis plan. (Cont. Page 31 of 31)**

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- Notes:**
- Analytes and sampling frequency for detection monitoring wells (DMW) are specified in Waste Discharge Requirements for the Pit 1 Landfill.**
  - 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.**
  - CGSA CMP/WGMG = Sampling more frequently then required.**
  - CGSA CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes then required by the CMP. Non-CMP analytes are reported separately by ORAD.**
    - CGSA CMP = Central GSA groundwater sampling and analysis plan specified in the GSA RD**
    - CMP DMW = CMP detection monitor well.**
    - CMP/DIS = Sampling required analyte more frequently then required.**
  - CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes then required by the CMP. Non-CMP analytes are reported separately by ORAD.**
    - CMP = Compliance Monitoring.**
    - DIS = Discretionary sampling of non-required analyte.**
    - DMW = Detection monitor well (non-CMP).**
  - ERD/WGMG = non-CMP analyte sampled from a well shared by ERD and WGMG.**
    - EW = Extraction well.**
    - GW = Guard well.**
    - MW = Monitor well.**
    - MWB = Monitor well used for background.**
    - MWPT = Monitor well used for plume tracking.**
    - SPR = Spring.**
    - WS = Water supply well.**

Table 2.5-2. Building 850 OU 2003 VOCs in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	Total 1,2-DCE (µg/L)	Carbon		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)
						tetrachloride (µg/L)	Chloroform (µg/L)							
K1-01C	01/31/03	E601	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L
K1-01C	04/17/03	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
K1-01C	09/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-01C	09/08/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-01C	10/30/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-01C	10/30/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	01/30/03	E601	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L
K1-02B	04/17/03	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
K1-02B	04/17/03 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
K1-02B	09/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	11/04/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	11/04/03	E624	0.59	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-03	01/30/03	E601	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L
K1-03	04/17/03	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
K1-03	07/24/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-03	11/04/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-03	11/04/03	E624	0.51	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	01/29/03	E601	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
K1-04	01/29/03 DUP	E601	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
K1-04	04/18/03	E601	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	07/24/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	11/18/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	11/18/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	11/18/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	11/18/03 DUP	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-05	01/29/03	E601	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	22	<1
K1-05	04/18/03	E601	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	15	<0.5
K1-05	07/24/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	14	<0.5
K1-05	11/19/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	13	<0.5
K1-05	11/19/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	13	<0.5
K1-07	01/30/03	E601	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L
K1-07	05/01/03	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
K1-07	08/28/03	E601	<0.5 IJL	<0.5	<0.5 IJL	<0.5 IJL	<0.5 IJL	<0.5 IJL	<0.5 IJL	<0.5 IJL	<0.5 IJL	<0.5 IJL	<0.5	<0.5 IJL
K1-07	11/24/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-07	11/24/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-08	02/07/03	E601	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	21	<1
K1-08	05/02/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	18	<0.5
K1-08	09/04/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	17	<0.5
K1-08	11/24/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	19	<0.5
K1-08	11/24/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.5-2. Building 850 OU 2003 VOCs in ground water. (Cont. Page 2 of 2)

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	Total 1,2-DCE (µg/L)	Carbon		1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Methylene chloride (µg/L)
						tetrachloride (µg/L)	Chloroform (µg/L)					
K1-09	01/31/03	E601	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	<1 L	56 L	<1 L
K1-09	05/02/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	42	<0.5
K1-09	09/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	40	<0.5
K1-09	11/25/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	41	<0.5
K1-09	11/25/03	E624	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	41	<0.5
K2-04D	05/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K2-04D	11/25/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K2-04D	11/25/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K2-04S	05/02/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K2-04S	12/05/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC2-11D	05/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC2-11D	12/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC2-12D	05/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC2-12D	12/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC2-13	05/03/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC2-14S	06/18/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC2-14S	06/18/03 SLI	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-29	06/17/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-54	05/27/03	E601	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L
NC7-61	05/02/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-61	05/02/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-61	12/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-69	05/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-69	12/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-70	06/20/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-16	05/03/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-16	08/29/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5
W-PIT7-16	10/17/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-1802	06/27/03	E624	<1 H	<1 H	<1 H	<1 H	<1 H	<1 H	<1 H	<1 H	<1 H	<1 H
W-865-1802	08/26/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5
W-865-1802	12/22/03	E624	<1 HL	<1 H	<1 H	<1 H	<1 H	<1 H	<1 HL	<1 H	<1 H	<1 H
W-865-1803	06/26/03	E624	<1 H	<1 H	<1 H	<1 H	<1 H	<1 H	<1 H	<1 H	<1 H	<1 H
W-865-1803	08/26/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5

## Other VOC not detected in the table:

Location	Date	Method	Dichlorodifluoromethane (µg/L)
NC7-70	06/20/03	E601	1

Table 2.5-3. Building 850 OU 2003 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
K1-01C	01/31/03	376 ± 76.0
K1-01C	09/08/03	543 ± 83.0
K1-01C	09/08/03 DUP	500 ± 80.0
K1-01C	10/30/03	658 ± 94.0
K1-02B	01/30/03	4,100 ± 420
K1-02B	04/17/03	4,010 ± 420
K1-02B	04/17/03 DUP	3,910 ± 410
K1-02B	09/08/03	4,060 ± 420
K1-02B	11/04/03	4,080 ± 420
K1-03	01/30/03	600 ± 90.0
K1-03	04/17/03	523 ± 91.0
K1-03	07/24/03	672 ± 96.0
K1-03	11/04/03	616 ± 96.0
K1-04	01/29/03	127 ± 62.0
K1-04	01/29/03 DUP	<109
K1-04	04/18/03	<105
K1-04	07/24/03	136 ± 60.0
K1-04	11/18/03	178 ± 63.0
K1-04	11/18/03 DUP	186 ± 63.0
K1-05	01/29/03	<100
K1-05	04/18/03	<108
K1-05	07/24/03	194 ± 62.0
K1-05	11/19/03	<94.8 E
K1-06	06/03/03	4,880 ± 500
K1-06	11/19/03	4,760 ± 490
K1-07	01/30/03	<98.5
K1-07	05/01/03	<98.5
K1-07	08/28/03	<94.1
K1-07	11/24/03	<90.8
K1-08	02/07/03	155 ± 64.0 E
K1-08	05/02/03	<96
K1-08	09/04/03	226 ± 59.0
K1-08	11/24/03	244 ± 63.0
K1-09	01/31/03	<97.5
K1-09	05/02/03	<94.5
K1-09	09/08/03	<91.8 E
K1-09	11/25/03	139 ± 57.0
K2-03	05/03/03	<90.8
K2-03	11/25/03	<90.6
K2-03	11/25/03 DUP	<141
K2-04D	05/15/03	4,960 ± 510
K2-04D	11/25/03	4,790 ± 490
K2-04D	11/25/03 DUP	4,730 ± 490
K2-04S	05/02/03	14,900 ± 1,500
K2-04S	12/05/03	14,000 ± 1,400
NC2-05	05/03/03	<89

Table 2.5-3. Building 850 OU 2003 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
NC2-05	10/11/03	<91.4
NC2-05A	05/03/03	4,840 ± 500
NC2-05A	10/11/03	4,220 ± 430
NC2-06	05/10/03	2,920 ± 310
NC2-06	10/17/03	3,230 ± 340
NC2-06A	05/10/03	102 ± 60.0
NC2-06A	10/17/03	<102
NC2-09	05/03/03	<91.4
NC2-09	10/25/03	131 ± 59.0
NC2-09	10/25/03 DUP	<220
NC2-10	05/03/03	369 ± 71.0
NC2-10	11/11/03	336 ± 71.0
NC2-11D	05/08/03	4,390 ± 450
NC2-11D	12/10/03	4,650 ± 480
NC2-11I	04/19/03	4,360 ± 450
NC2-11I	10/11/03	4,580 ± 470
NC2-11S	04/19/03	4,990 ± 520
NC2-11S	10/11/03	4,850 ± 500
NC2-11S	10/11/03 DUP	4,260 ± 212
NC2-12D	05/08/03	8,550 ± 870
NC2-12D	12/10/03	8,370 ± 850
NC2-12I	04/19/03	7,120 ± 730
NC2-12I	10/11/03	7,560 ± 770
NC2-12S	04/19/03	5,070 ± 520
NC2-12S	04/19/03 DUP	5,310 ± 550
NC2-12S	10/11/03	3,180 ± 330
NC2-13	05/03/03	7,300 ± 740
NC2-13	10/17/03	5,780 ± 590
NC2-14S	04/19/03	9,130 ± 930
NC2-14S	04/19/03 DUP	8,540 ± 345 L
NC2-14S	10/25/03	4,830 ± 500
NC2-15	04/19/03	7,270 ± 740
NC2-15	10/25/03	7,330 ± 750
NC2-16	04/19/03	3,140 ± 330
NC2-16	10/17/03	1,860 ± 200
NC2-16	10/17/03 DUP	1,800 ± 151
NC2-17	10/25/03	15,000 ± 1,500
NC2-18	04/19/03	21,900 ± 2,200
NC2-19	05/10/03	<93.4
NC2-19	10/17/03	<104
NC2-20	05/10/03	<89.4
NC2-20	10/25/03	<95.7
NC2-21	05/10/03	<93.1
NC2-21	10/25/03	<92.6
NC2-21	10/25/03 DUP	<220
NC7-10	04/19/03	29,100 ± 2,900



Table 2.5-3. Building 850 OU 2003 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
NC7-10	11/11/03	25,000 ± 2,500
NC7-11	04/19/03	23,700 ± 2,400
NC7-11	11/12/03	26,300 ± 2,600
NC7-15	04/26/03	1,470 ± 180
NC7-15	04/26/03 DUP	1,400 ± 175
NC7-15	12/09/03	1,560 ± 180
NC7-19	04/19/03	8,050 ± 820
NC7-19	05/28/03	8,210 ± 830
NC7-19	10/25/03	8,550 ± 870
NC7-27	04/19/03	<98.3
NC7-27	10/17/03	15,500 ± 1,600
NC7-28	04/26/03	38,500 ± 687
NC7-28	04/26/03 DUP	38,700 ± 694
NC7-28	12/09/03	38,200 ± 3,800
NC7-29	04/26/03	<217
NC7-29	10/25/03	<92.7
NC7-43	04/19/03	6,770 ± 690
NC7-43	04/19/03 DUP	6,330 ± 304 L
NC7-43	10/25/03	6,430 ± 660
NC7-43	10/25/03 DUP	6,400 ± 650
NC7-44	05/10/03	<94.7
NC7-44	10/31/03	<100
NC7-46	04/26/03	<212
NC7-46	04/26/03 DUP	<216 L
NC7-46	10/31/03	<102
NC7-46	10/31/03 DUP	<99.6
NC7-54	04/19/03	29,700 ± 3,000
NC7-56	04/26/03	15,600 ± 569
NC7-56	11/18/03	17,800 ± 1,800
NC7-58	04/26/03	15,300 ± 445
NC7-58	11/12/03	15,900 ± 1,600
NC7-59	06/12/03	18,500 ± 1,900
NC7-59	11/18/03	19,100 ± 1,900
NC7-60	04/19/03	1,830 ± 200
NC7-60	10/25/03	1,610 ± 180
NC7-61	05/02/03	44,200 ± 4,400
NC7-61	05/02/03 DUP	44,800 ± 4,500
NC7-61	12/09/03	42,500 ± 4,300
NC7-62	04/26/03	18,900 ± 484
NC7-62	11/12/03	18,200 ± 1,800
NC7-69	05/08/03	<94.6
NC7-69	12/10/03	<101
NC7-70	04/19/03	81,400 ± 8,200
NC7-70	10/31/03	77,700 ± 7,800
NC7-71	04/19/03	162 ± 65.0
NC7-72	11/12/03	16,600 ± 1,700

**Table 2.5-3. Building 850 OU 2003 tritium in ground and surface water.**

Location	Date	Tritium (pCi/L)
NC7-72	11/12/03 DUP	22,100 ± 2,200
NC7-73	05/21/03	19,200 ± 1,900
NC7-73	11/12/03	22,200 ± 2,200
NC7-76	04/26/03	9,810 ± 363
NC7-76	04/26/03 DUP	9,520 ± 359 L
NC7-76	10/25/03	8,920 ± 900
W-850-05	04/19/03	19,900 ± 2,000
W-850-05	10/31/03	21,500 ± 2,200
W-PIT7-16	05/03/03	<91.2
W-PIT7-16	08/29/03	<87.6
W-PIT7-16	10/17/03	<102
W-865-1802	06/27/03	<85
W-865-1802	08/26/03	<88.9
W-865-1802	12/22/03	<87.5
W-865-1803	06/26/03	1,410 ± 160
W-865-1803	08/26/03	<88.8
SPRING24	09/24/03	2,290 ± 240
SPRING24	12/08/03	2,380 ± 250
W8SPRNG	06/26/03	29,200 ± 2,900
W8SPRNG	06/26/03 DUP	29,300 ± 2,900

Table 2.5-4. Building 850 OU 2003 nitrate, nitrite, ortho-phosphate, ammonia nitrogen, and perchlorate in ground and surface water.

Location	Date	Ammonia nitrogen (as N) (mg/L)	Nitrate (as NO <sub>3</sub> ) (mg/L)	Nitrite (as NO <sub>2</sub> ) (mg/L)	Perchlorate (μg/L)	Ortho- Phosphate (mg/L)
K1-01C	01/31/03	-	42 D	-	<4	-
K1-01C	04/17/03	-	35	-	<4	-
K1-01C	09/08/03	-	36	-	<4	-
K1-01C	09/08/03 DUP	-	36	-	<4	-
K1-01C	10/30/03	-	38	-	<4	-
K1-02B	01/30/03	-	38	-	<4	-
K1-02B	04/17/03	-	37 D	-	<4	-
K1-02B	04/17/03 DUP	-	39 D	-	<4	-
K1-02B	09/08/03	-	34	-	6.5	-
K1-02B	11/04/03	-	36	-	6.7	-
K1-03	01/30/03	-	35 D	-	<4	-
K1-03	04/17/03	-	35 D	-	<4	-
K1-03	07/24/03	-	32	-	<4	-
K1-03	11/04/03	-	32	-	<4	-
K1-04	01/29/03	-	43 D	-	<4	-
K1-04	01/29/03 DUP	-	44 D	-	<4	-
K1-04	04/18/03	-	30 D	-	<4	-
K1-04	07/24/03	-	34	-	<4	-
K1-04	11/18/03	-	36	-	<4	-
K1-04	11/18/03 DUP	-	36	-	<4	-
K1-05	01/29/03	-	46 D	-	<4	-
K1-05	04/18/03	-	35 D	-	<4	-
K1-05	07/24/03	-	38	-	<4	-
K1-05	11/19/03	-	39	-	<4	-
K1-06	06/03/03	-	10	-	-	-
K1-07	01/30/03	-	36 D	-	<4	-
K1-07	05/01/03	-	37 D	-	<4	-
K1-07	08/28/03	-	29	-	<4 H	-
K1-07	11/24/03	-	30	-	<4	-
K1-08	02/07/03	-	43	-	<4	-
K1-08	05/02/03	-	40 D	-	<4	-
K1-08	09/04/03	-	38	-	<4	-
K1-08	11/24/03	-	38	-	<4	-
K1-09	01/31/03	-	42 D	-	<4	-
K1-09	05/02/03	-	43 D	-	<4	-
K1-09	09/08/03	-	38	-	<4	-
K1-09	11/25/03	-	39	-	<4	-
K2-03	06/05/03	-	10	-	-	-
K2-04D	05/15/03	-	-	-	<4	-
K2-04D	05/15/03 DUP	-	40 D	-	-	-
K2-04D	11/25/03	-	37	-	4.4	-
K2-04D	11/25/03 DUP	-	37	-	<4	-
K2-04S	05/02/03	-	-	-	8.1	-

Table 2.5-4. Building 850 OU 2003 nitrate, nitrite, ortho-phosphate, ammonia nitrogen, and perchlorate in ground and surface water.

Location	Date	Ammonia nitrogen (as N) (mg/L)	Nitrate (as NO <sub>3</sub> ) (mg/L)	Nitrite (as NO <sub>2</sub> ) (mg/L)	Perchlorate (µg/L)	Ortho- Phosphate (mg/L)
K2-04S	05/02/03 DUP	-	43 D	-	-	-
K2-04S	12/05/03	-	38	-	10	-
NC2-05	06/12/03	-	39 D	-	-	-
NC2-05A	06/05/03	-	41 D	-	-	-
NC2-06	06/05/03	-	15	-	-	-
NC2-06A	06/20/03	-	4.6	-	-	-
NC2-09	06/05/03	-	<0.1	-	-	-
NC2-10	06/10/03	-	140 D	-	-	-
NC2-11D	05/08/03	-	31	-	<4	-
NC2-11D	12/10/03	-	32	-	4.2	-
NC2-11I	05/23/03	-	40 D	-	-	-
NC2-11S	05/23/03	-	42 D	-	-	-
NC2-12D	05/08/03	-	29	-	<4	-
NC2-12D	12/10/03	-	29	-	5.4	-
NC2-12I	05/23/03	-	35 D	-	-	-
NC2-12S	05/23/03	-	52 D	-	-	-
NC2-13	06/10/03	-	52 D	-	-	-
NC2-14S	06/18/03 DUP	-	42 D	-	-	-
NC2-14S	06/18/03	-	33	-	-	-
NC2-15	06/23/03	-	43 D	-	-	-
NC2-16	06/10/03	-	9	-	-	-
NC2-17	06/05/03	-	47 D	-	-	-
NC2-18	06/06/03	-	56 D	-	-	-
NC2-19	06/23/03	-	83 D	-	-	-
NC2-20	06/17/03	-	45 D	-	-	-
NC2-21	06/23/03	-	40 D	-	-	-
NC7-10	05/27/03	-	60 D	-	-	-
NC7-11	05/27/03	-	65 D	-	-	-
NC7-15	12/09/03	-	8.0 D	-	-	-
NC7-19	05/28/03	-	39 D	-	-	-
NC7-27	06/16/03	-	56 D	-	-	-
NC7-28	05/28/03	-	69 D	-	-	-
NC7-29	06/17/03	-	120 D	-	-	-
NC7-43	06/10/03 DUP	-	<0.1	-	-	-
NC7-43	06/10/03 DUP	-	0.75	-	-	-
NC7-44	05/28/03	-	72 D	-	-	-
NC7-46	06/12/03	-	<0.1	-	-	-
NC7-46	06/12/03 DUP	-	<0.44	-	-	-
NC7-56	06/17/03	-	48 D	-	-	-
NC7-58	06/12/03	-	51 D	-	-	-
NC7-59	06/12/03	-	45 D	-	-	-
NC7-60	06/16/03	-	5.2	-	-	-
NC7-61	05/02/03	-	62 D	-	39	-

**Table 2.5-4. Building 850 OU 2003 nitrate, nitrite, ortho-phosphate, ammonia nitrogen, and perchlorate in ground and surface water.**

Location	Date	Ammonia nitrogen (as N) (mg/L)	Nitrate (as NO <sub>3</sub> ) (mg/L)	Nitrite (as NO <sub>2</sub> ) (mg/L)	Perchlorate (µg/L)	Ortho- Phosphate (mg/L)
NC7-61	05/02/03 DUP	-	63 D	-	38	-
NC7-61	12/09/03	-	60	-	53	-
NC7-62	06/12/03	-	51 D	-	-	-
NC7-69	05/08/03	0.52 D	<0.44	<0.065	<4	0.076
NC7-69	12/10/03	0.48	-	<0.065	<4	0.087
NC7-70	06/17/03	-	67 D	-	-	-
NC7-71	06/17/03	-	<0.1	-	-	-
NC7-72	11/12/03	-	53 D	-	-	-
NC7-73	05/21/03	-	4	-	-	-
NC7-76	06/10/03 DUP	-	39 D	-	-	-
NC7-76	06/10/03 DUP	-	30	-	-	-
W-850-05	06/10/03	-	<0.1	-	-	-
W-865-1802	06/27/03	-	-	-	<4	-
W-865-1802	12/22/03	-	-	-	<4	-
W-865-1803	06/26/03	-	-	-	<4	-
W8SPRNG	06/26/03	-	54 D	-	-	-
W8SPRNG	06/26/03 DUP	-	53 D	-	-	-

Table 2.5-5. Building 850 OU 2003 uranium isotopes by alpha spectrometry in ground and surface water.

Location	Date	Thorium 228 (pCi/L)	Thorium 230 (pCi/L)	Thorium 232 (pCi/L)	Total uranium (pCi/L)
K1-01C	01/31/03	<0.078	<0.132	<0.032	2.68 ± 0.240
K1-01C	04/17/03	<0.061	-	<0.025	2.68 ± 0.230
K1-01C	09/08/03	<0.036	<0.105	<0.028	3.42 ± 0.290
K1-01C	09/08/03 DUP	<0.021	<0.125	<0.021	3.20 ± 0.250
K1-01C	10/30/03	<0.065	<0.107	<0.037	2.87 ± 0.240
K1-02B	01/30/03	<0.092	<0.133	<0.032	2.20 ± 0.180
K1-02B	04/17/03	<0.15	-	<0.071	2.43 ± 0.210
K1-02B	04/17/03 DUP	<0.025	-	<0.025	2.27 ± 0.190
K1-02B	09/08/03	<0.032	<0.105	<0.028	2.86 ± 0.220
K1-02B	11/04/03	<0.045	<0.1	<0.035	2.93 ± 0.250
K1-03	01/30/03	<0.097	<0.106	<0.036	1.35 ± 0.130
K1-03	04/17/03	<0.041	-	<0.036	1.26 ± 0.130
K1-03	07/24/03	<0.072	<0.104 L	<0.034	1.60 ± 0.160
K1-03	11/04/03	<0.036	<0.105	<0.036	1.62 ± 0.160
K1-04	01/29/03	<0.038	<0.113	<0.024	0.759 ± 0.0820
K1-04	01/29/03 DUP	<0.078	<0.124	<0.03	0.781 ± 0.0870
K1-04	04/18/03	<0.042	-	<0.029	1.34 ± 0.140
K1-04	07/24/03	<0.078	<0.131 L	<0.044	1.66 ± 0.150
K1-04	11/18/03	<0.034	<0.096	<0.023	1.62 ± 0.160
K1-04	11/18/03 DUP	<0.032	<0.102	<0.035	1.74 ± 0.150
K1-05	01/29/03	<0.043	<0.098	<0.021	1.38 ± 0.130
K1-05	04/18/03	<0.043	-	<0.037	1.85 ± 0.190
K1-05	07/24/03	<0.033	<0.109 L	<0.026	2.36 ± 0.210
K1-05	11/19/03	<0.166	<0.096	<0.04	2.44 ± 0.210
K1-07	01/30/03	<0.114	<0.108	<0.037	1.84 ± 0.170
K1-07	05/01/03	<0.077	<0.105	<0.023	2.37 ± 0.200
K1-07	08/28/03	<0.048	<0.111	<0.038	2.38 ± 0.220
K1-07	11/24/03	<0.034	<0.109	<0.029	2.07 ± 0.180
K1-08	02/07/03	<0.073	<0.109	<0.023	2.16 ± 0.210
K1-08	05/02/03	<0.143	<0.106	<0.022	2.36 ± 0.220
K1-08	09/04/03	<0.036	<0.118 O	<0.025	2.63 ± 0.250
K1-08	11/24/03	<0.041	<0.096	<0.03	2.74 ± 0.230
K1-09	01/31/03	<0.043	<0.1	<0.043	1.81 ± 0.170
K1-09	05/02/03	<0.097	<0.106	<0.023	2.24 ± 0.210
K1-09	09/08/03	<0.039	<0.109	<0.027	2.03 ± 0.190
K1-09	11/25/03	<0.03	<0.099	<0.03	2.31 ± 0.200
K2-04D	11/25/03	-	-	-	2.39 ± 0.190
K2-04D	11/25/03 DUP	-	-	-	2.45 ± 0.190
K2-04S	12/05/03	-	-	-	3.19 ± 0.220
NC2-11D	12/10/03	-	-	-	4.91 ± 0.360
NC2-12D	12/10/03	-	-	-	3.20 ± 0.230
NC7-61	12/09/03	-	-	-	3.20 ± 0.200
NC7-69	12/10/03	-	-	-	<0.036 E

Table 2.5-6. Building 850 OU 2003 uranium isotopes by mass spectrometry in ground and surface water.

Location	Date	Thorium 232 (pCi/L)	Uranium (pCi/L)	Uranium 234 by mass measurement (pCi/L)	Uranium 235 by mass measurement (pCi/L)	Uranium 236 by mass measurement (pCi/L)	Uranium 238 by mass measurement (pCi/L)	Uranium 235/238
K1-01C	10/30/03	<0.0001	3.38 ± 0.0416	2.33 ± 0.0410	0.0472 ± 0.000370	<0.007	1.01 ± 0.00699	0.00727 ± 0.0000260
K1-02B	11/04/03	<0.0001	2.88 ± 0.0603	1.87 ± 0.0590	0.0452 ± 0.000610	<0.007	0.969 ± 0.0125	0.00726 ± 0.0000280
K1-03	11/04/03	<0.0001	1.64 ± 0.0325	1.09 ± 0.0320	0.0246 ± 0.000280	<0.007	0.528 ± 0.00564	0.00726 ± 0.0000320
K1-04	11/18/03	<0.0001	1.85 ± 0.136	1.23 ± 0.135	0.0275 ± 0.000740	<0.007	0.587 ± 0.0154	0.00729 ± 0.0000480
K1-05	11/19/03	<0.0001	2.48 ± 0.102	1.67 ± 0.0990	0.0359 ± 0.00108	<0.007	0.771 ± 0.0229	0.00725 ± 0.0000370
K1-07	11/24/03	<0.0001	2.53 ± 0.175	1.74 ± 0.174	0.0351 ± 0.00101	<0.007	0.752 ± 0.0210	0.00726 ± 0.0000520
K1-08	11/24/03	<0.0001	2.72 ± 0.134	1.84 ± 0.132	0.0390 ± 0.00105	<0.007	0.835 ± 0.0210	0.00727 ± 0.0000670
K1-09	11/25/03	<0.0001	2.49 ± 0.0957	1.69 ± 0.0940	0.0358 ± 0.000870	<0.007	0.764 ± 0.0180	0.00729 ± 0.0000420
K2-03	06/05/03	<0.0001 E	9.02 ± 0.411	5.79 ± 0.410	0.144 ± 0.00209	<0.0007	3.09 ± 0.0310	0.00725 ± 0.0000760
K2-04D	05/15/03	<0.0001 E	2.88 ± 0.125	1.84 ± 0.122	0.0466 ± 0.00140	<0.0007	0.993 ± 0.0280	0.00730 ± 0.0000730
K2-04S	05/02/03	<0.0001 E	2.97 ± 0.0938	1.68 ± 0.0930	0.0573 ± 0.000810	<0.0007	1.24 ± 0.0120	0.00720 ± 0.0000720
NC2-05	06/12/03	0.000130 ± 0.0000450	4.54 ± 0.0541	<0.062	0.187 ± 0.00312	<0.0007	4.35 ± 0.0540	0.00668 ± 0.0000750
NC2-05A	06/05/03	0.000154 ± 0.00000810	5.14 ± 0.131	3.30 ± 0.130	0.0805 ± 0.00113	<0.0007	1.76 ± 0.0170	0.00710 ± 0.0000710
NC2-06	06/05/03	<0.0001 E	0.534 ± 0.0140	<0.062	0.0235 ± 0.000710	<0.0007	0.510 ± 0.0140	0.00717 ± 0.0000900
NC2-06A	06/20/03	<0.0001 E	1.16 ± 0.0703	0.550 ± 0.0700	0.0167 ± 0.000250	0.00160 ± 0.000570	0.595 ± 0.00640	0.00436 ± 0.0000440
NC2-06A	10/17/03	<0.0001	1.11 ± 0.0316	0.554 ± 0.0310	0.0157 ± 0.000220	<0.007	0.543 ± 0.00625	0.00451 ± 0.0000370
NC2-09	06/05/03	<0.0001 E	<0.0627 E	<0.062	0.00230 ± 0.0000900	<0.0007	0.0509 ± 0.00120	0.00703 ± 0.000210
NC2-10	06/10/03	<0.0001 E	5.70 ± 0.451	3.92 ± 0.450	0.0792 ± 0.00150	<0.0007	1.70 ± 0.0280	0.00723 ± 0.0000720
NC2-11D	05/08/03	<0.0001 E	4.76 ± 0.131	2.99 ± 0.130	0.0797 ± 0.00115	<0.0007	1.70 ± 0.0180	0.00731 ± 0.0000730
NC2-11I	05/23/03	0.000177 ± 0.0000250	4.38 ± 0.340	2.80 ± 0.339	0.0697 ± 0.00128	<0.0007	1.51 ± 0.0230	0.00719 ± 0.0000720
NC2-11S	05/23/03	<0.0001 E	3.98 ± 0.467	2.53 ± 0.466	0.0643 ± 0.00123	<0.0007	1.39 ± 0.0230	0.00719 ± 0.0000730
NC2-12D	05/08/03	<0.0001 E	3.70 ± 0.198	2.33 ± 0.197	0.0615 ± 0.00110	<0.0007	1.31 ± 0.0190	0.00730 ± 0.0000730
NC2-12I	05/23/03	0.000115 ± 0.0000100	3.54 ± 0.116	2.27 ± 0.115	0.0571 ± 0.000810	<0.0007	1.21 ± 0.0120	0.00733 ± 0.0000730
NC2-12S	05/23/03	0.000645 ± 0.0000180	4.72 ± 0.271	3.04 ± 0.270	0.0744 ± 0.00136	<0.0007	1.61 ± 0.0230	0.00720 ± 0.0000840
NC2-13	06/10/03	0.000203 ± 0.0000100	5.54 ± 0.451	3.74 ± 0.450	0.0803 ± 0.00157	<0.0007	1.72 ± 0.0250	0.00724 ± 0.0000940

Table 2.5-6. Building 850 OU 2003 uranium isotopes by mass spectrometry in ground and surface water.

Location	Date	Thorium 232 (pCi/L)	Uranium (pCi/L)	Uranium 234 by mass measurement (pCi/L)	Uranium 235 by mass measurement (pCi/L)	Uranium 236 by mass measurement (pCi/L)	Uranium 238 by mass measurement (pCi/L)	Uranium 235/238
NC2-14S	06/18/03	0.000125 ± 0.00000430	3.32 ± 0.121	1.98 ± 0.120	0.0592 ± 0.000950	<0.0007	1.28 ± 0.0160	0.00717 ± 0.0000720
NC2-14S	06/18/03 DUP	0.000124 ± 0.00000410	3.32 ± 0.101	1.99 ± 0.100	0.0586 ± 0.000830	<0.0007	1.27 ± 0.0130	0.00716 ± 0.0000720
NC2-15	06/23/03	<0.0001 E	2.93 ± 0.110	1.88 ± 0.110	0.0466 ± 0.000660	<0.0007	1.00 ± 0.0100	0.00721 ± 0.0000720
NC2-15	10/25/03	<0.0001	3.07 ± 0.0867	1.95 ± 0.0850	0.0495 ± 0.000850	<0.007	1.06 ± 0.0168	0.00724 ± 0.0000490
NC2-16	06/10/03	<0.0001 E	1.04 ± 0.150	0.680 ± 0.150	0.0159 ± 0.000410	<0.0007	0.343 ± 0.00810	0.00722 ± 0.0000750
NC2-17	06/05/03	0.000106 ± 0.00000580	4.18 ± 0.231	2.57 ± 0.230	0.0709 ± 0.00139	<0.0007	1.54 ± 0.0200	0.00716 ± 0.000106
NC2-18	06/06/03	<0.0001 E	1.36 ± 0.0200	<0.062	0.0605 ± 0.00113	<0.0007	1.30 ± 0.0200	0.00726 ± 0.0000730
NC2-19	06/23/03	0.000337 ± 0.0000128	9.02 ± 0.192	5.50 ± 0.191	0.157 ± 0.00140	<0.007	3.37 ± 0.0233	0.00726 ± 0.0000410
NC2-19	10/17/03	0.000124 ± 0.00000840	8.77 ± 0.135	5.27 ± 0.132	0.156 ± 0.00143	<0.007	3.34 ± 0.0287	0.00725 ± 0.0000240
NC2-20	06/17/03	<0.0001 E	5.42 ± 0.202	3.23 ± 0.200	0.0979 ± 0.00172	<0.0007	2.10 ± 0.0300	0.00726 ± 0.0000730
NC2-21	06/23/03	<0.0001 E	3.91 ± 0.330	2.38 ± 0.330	0.0672 ± 0.000950	<0.0007	1.46 ± 0.0140	0.00716 ± 0.0000720
NC7-10	05/27/03	0.000155 ± 0.00000540	2.67 ± 0.174	1.60 ± 0.173	0.0451 ± 0.000770	<0.0007	1.02 ± 0.0140	0.00684 ± 0.0000680
NC7-11	05/27/03	0.000400 ± 0.0000130	2.67 ± 0.193	1.59 ± 0.193	0.0472 ± 0.000810	<0.0007	1.03 ± 0.0130	0.00711 ± 0.0000840
NC7-15	05/28/03	0.000269 ± 0.00000990	2.38 ± 0.169	1.33 ± 0.168	0.0461 ± 0.000760	<0.0007	0.997 ± 0.0130	0.00719 ± 0.0000720
NC7-19	05/28/03	0.000215 ± 0.00000810	3.97 ± 0.166	2.13 ± 0.165	0.0821 ± 0.00123	<0.0007	1.76 ± 0.0200	0.00723 ± 0.0000720
NC7-27	06/16/03	<0.0001 E	3.15 ± 0.0712	1.83 ± 0.0700	0.0587 ± 0.000830	<0.0007	1.26 ± 0.0130	0.00724 ± 0.0000720
NC7-28	01/25/03	0.000590 ± 0.0000600	10.2 ± 0.0500	<0.062	0.157 ± 0.00160	0.0590 ± 0.00700	9.94 ± 0.0500	0.00246 ± 0.0000200
NC7-28	05/28/03	0.000279 ± 0.0000166	11.2 ± 0.292	3.41 ± 0.286	0.120 ± 0.00143	0.0426 ± 0.00296	7.66 ± 0.0601	0.00243 ± 0.0000220
NC7-28	12/09/03	0.000204 ± 0.0000245	11.5 ± 0.376	2.85 ± 0.376	0.131 ± 0.00177	0.0473 ± 0.000230	8.45 ± 0.0000110	0.00241 ± 0.0000330
NC7-29	06/17/03	0.000397 ± 0.0000950	16.1 ± 1.08	10.0 ± 1.08	0.272 ± 0.00382	<0.0007	5.81 ± 0.0570	0.00730 ± 0.0000730
NC7-43	06/10/03	0.000226 ± 0.00000430	<0.0627 E	<0.062	<0.000022	<0.0007	0.0308 ± 0.000570	<0.005902
NC7-44	05/28/03	0.000105 ± 0.00000330	1.59 ± 0.171	1.03 ± 0.171	0.0251 ± 0.000610	<0.0007	0.538 ± 0.0100	0.00726 ± 0.000113
NC7-44	10/31/03	<0.0001	1.44 ± 0.0181	0.955 ± 0.0180	0.0218 ± 0.000120	<0.007	0.464 ± 0.00223	0.00731 ± 0.0000220
NC7-46	06/12/03	0.000102 ± 0.00000610	<0.0627 E	<0.062	<0.000022	<0.0007	0.0417 ± 0.00130	<0.008022
NC7-46	06/12/03 DUP	0.000101 ± 0.00000650	<0.0627 E	<0.062	0.00200 ± 0.000110	<0.0007	0.0429 ± 0.00150	0.00724 ± 0.000290



Table 2.5-6. Building 850 OU 2003 uranium isotopes by mass spectrometry in ground and surface water.

Location	Date	Thorium 232 (pCi/L)	Uranium (pCi/L)	Uranium 234 by mass measurement (pCi/L)	Uranium 235 by mass measurement (pCi/L)	Uranium 236 by mass measurement (pCi/L)	Uranium 238 by mass measurement (pCi/L)	Uranium 235/238
NC7-56	06/17/03	0.000732 ± 0.0000231	3.92 ± 0.117	2.29 ± 0.117	0.0718 ± 0.000630	<0.007	1.56 ± 0.00937	0.00715 ± 0.0000460
NC7-58	06/12/03	0.000298 ± 0.0000140	3.67 ± 0.240	2.21 ± 0.240	0.0637 ± 0.000910	<0.0007	1.40 ± 0.0140	0.00708 ± 0.0000710
NC7-59	06/12/03	0.000950 ± 0.00000910	3.44 ± 0.0818	1.92 ± 0.0800	0.0661 ± 0.00101	<0.0007	1.46 ± 0.0170	0.00706 ± 0.0000710
NC7-60	06/16/03	0.000121 ± 0.0000110	0.482 ± 0.00471	<0.062	0.0215 ± 0.000330	<0.0007	0.460 ± 0.00470	0.00726 ± 0.0000840
NC7-61	05/02/03	<0.0001 E	<0.0627 E	<0.062	<0.000022	<0.0007	0.00480 ± 0.000970	<0.00519
NC7-61	05/02/03 DUP	<0.0001 E	3.06 ± 0.111	1.55 ± 0.110	0.0440 ± 0.000710	0.00448 ± 0.000840	1.46 ± 0.0180	0.00469 ± 0.0000470
NC7-62	06/12/03	0.000174 ± 0.0000210	4.17 ± 0.181	2.54 ± 0.180	0.0712 ± 0.00100	<0.0007	1.56 ± 0.0150	0.00711 ± 0.0000710
NC7-69	05/08/03	<0.0001 E	<0.0627 E	<0.062	<0.000022	<0.0007	0.0296 ± 0.000840	<0.00818
NC7-69	12/10/03	<0.0001	<0.0627	<0.106	0.00157 ± 0.0000250	<0.0002	0.0346 ± 0.0000380	0.00705 ± 0.000114
NC7-70	01/25/03	0.000812 ± 0.0000460	2.55 ± 0.0655	1.67 ± 0.0650	0.0344 ± 0.000480	0.00147 ± 0.000330	0.849 ± 0.00840	0.00631 ± 0.0000630
NC7-70	06/17/03	0.000150 ± 0.00000570	2.25 ± 0.0903	1.46 ± 0.0900	0.0310 ± 0.000440	<0.0007	0.762 ± 0.00770	0.00633 ± 0.0000630
NC7-70	09/18/03	<0.0001	2.16 ± 0.0705	1.40 ± 0.0700	0.0301 ± 0.000440	<0.007	0.738 ± 0.00826	0.00634 ± 0.0000590
NC7-70	10/31/03	<0.0001	2.01 ± 0.0274	1.30 ± 0.0270	0.0279 ± 0.000200	<0.007	0.685 ± 0.00450	0.00633 ± 0.0000190
NC7-71	06/17/03	<0.0001 E	<0.0627 E	<0.062	<0.000022	<0.0007	0.0105 ± 0.00110	<0.007934
NC7-72	11/12/03	0.000373 ± 0.0000104	4.03 ± 0.135	2.25 ± 0.132	0.0780 ± 0.00131	<0.007	1.71 ± 0.0275	0.00711 ± 0.0000330
NC7-73	05/21/03	0.0110 ± 0.000160	4.90 ± 0.404	2.86 ± 0.402	0.0908 ± 0.00194	<0.0007	1.95 ± 0.0370	0.00723 ± 0.0000720
NC7-76	06/10/03	0.00114 ± 0.000200	17.9 ± 0.341	<0.062	0.796 ± 0.0184	<0.0007	17.1 ± 0.340	0.00723 ± 0.0000890
NC7-76	10/25/03	<0.0001	4.21 ± 0.105	2.30 ± 0.104	0.0837 ± 0.000870	<0.007	1.82 ± 0.0169	0.00714 ± 0.0000330
W-850-05	06/10/03	0.000121 ± 0.00000240	0.0763 ± 0.00110	<0.062	0.00273 ± 0.0000800	<0.0007	0.0736 ± 0.00110	0.00577 ± 0.000139
W-PIT7-16	06/17/03	<0.0001 E	0.0807 ± 0.00200	<0.062	0.00352 ± 0.000120	<0.0007	0.0772 ± 0.00200	0.00709 ± 0.000147
W-865-1802	06/27/03	0.000189 ± 0.0000120	3.39 ± 0.381	2.20 ± 0.380	0.0538 ± 0.00148	<0.0007	1.14 ± 0.0250	0.00734 ± 0.000120
W-865-1802	12/22/03	<0.0001	1.77 ± 0.0779	1.20 ± 0.0780	0.0253 ± 0.000163	<0.00053	0.538 ± 0.0000160	0.00732 ± 0.0000470
W-865-1803	06/26/03	<0.0001 E	3.16 ± 0.371	2.14 ± 0.370	0.0456 ± 0.00112	<0.0007	0.977 ± 0.0220	0.00727 ± 0.0000730
W8SPRNG	06/26/03	0.000423 ± 0.0000140	3.08 ± 0.431	1.75 ± 0.430	0.0553 ± 0.00153	<0.0007	1.27 ± 0.0300	0.00676 ± 0.0000960
W8SPRNG	06/26/03 DUP	0.000364 ± 0.0000160	3.05 ± 0.231	1.80 ± 0.230	0.0518 ± 0.00129	<0.0007	1.20 ± 0.0260	0.00674 ± 0.0000800

Table 2.5-7. Building 850 OU 2003 metals in ground and surface water.

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
NC2-13	06/10/03	0.019	<0.025	<0.0005	0.001	<0.005	<0.0002	<0.005	<0.001
NC2-14S	06/18/03 DUP	0.009	0.066	<0.0005	<0.001	<0.005	<0.0002	<0.005	<0.001
NC2-14S	06/18/03 DUP	0.011	0.065	<0.0005	<0.001	<0.005	<0.0002	<0.002	<0.001
NC7-15	05/28/03	0.01	0.082	<0.0005	<0.001	<0.005	<0.0002	<0.005	<0.001
NC7-29	06/17/03	0.035	0.18	<0.0005	0.001	<0.005	<0.0002	<0.005	<0.001
NC7-44	05/28/03	0.016	0.14	<0.0005	<0.001	<0.005	<0.0002	<0.005	<0.001
NC7-54	05/27/03	0.014	0.08	<0.0005	<0.001	<0.005	<0.0002	<5	<0.001
NC7-56	06/17/03	0.019	0.053	<0.0005	<0.001	<0.005	<0.0002 L	<0.005	<0.001
NC7-56	11/18/03	0.018	0.061	<0.0005	<0.001	<0.005	<0.0002	<0.005	<0.001
NC7-58	06/12/03	0.016	0.048	0.0011	<0.001	<0.005	<0.0002	<0.005	<0.001
NC7-59	06/12/03	0.01	0.038	<0.0005	<0.001	<0.005	<0.0002	<0.005	<0.001
NC7-60	06/16/03	0.015	0.036	0.0008	0.001	<0.005	<0.0002 L	<0.005	<0.001
NC7-61	05/02/03	0.016	0.093	0.0006	0.002	<0.005	<0.0002	<0.005	<0.001
NC7-61	05/02/03 DUP	0.016	0.094	0.0005	0.002	<0.005	<0.0002	<0.005	<0.001
NC7-62	06/12/03	0.015	0.041	0.0061	<0.001	<0.005	<0.0002	<0.005	<0.001
NC7-70	06/20/03	0.017	0.044	<0.0005	<0.001	<0.005	<0.0002	<0.005	<0.001
NC7-73	05/21/03	0.015	0.074	0.0005	0.001	<0.005	<0.0002	<0.005	<0.001
W-850-05	06/10/03	<0.002	0.064	<0.0005	<0.001	<0.005	<0.0002	<0.005	<0.001
W-850-05	10/31/03	<0.002	0.07	<0.0005	<0.001	<0.005	<0.0002	<0.005	<0.001
W-865-1802	06/27/03	0.017	0.033	<0.0005	0.001	<0.005	<0.0002	<0.005	<0.001
W-865-1802	12/22/03	0.014	0.055	<0.0005	<0.001	<0.005	<0.0002	<0.005	<0.001
W-865-1803	06/26/03	0.008	<0.025	<0.0005	<0.001	<0.005	<0.0002	<0.005	<0.001
W8SPRNG	06/26/03	0.013	0.071	<0.0005	<0.001	<0.005	<0.0002	<0.005	<0.001
W8SPRNG	06/26/03 DUP	0.014	0.074	<0.0005	<0.001	<0.005	<0.0002	<0.005	<0.001

Table 2.5-8. Building 850 OU 2003 high explosive compounds in ground and surface water.

Location	Date	2-Amino-4,6-dinitrotoluene (µg/L)	4-Amino-2,6-dinitrotoluene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	RDX (µg/L)	Tetryl (µg/L)	TNT (µg/L)	1,3,5-Trinitrobenzene (µg/L)
K1-01C	01/31/03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1
K1-01C	04/17/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
K1-01C	09/08/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K1-01C	09/08/03 DUP	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K1-01C	10/30/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K1-02B	01/30/03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1
K1-02B	04/17/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
K1-02B	04/17/03 DUP	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
K1-02B	09/08/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K1-02B	11/04/03	-	-	-	-	-	<5 O	-	-	-	-	<5 O	-	-	-
K1-03	01/30/03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1
K1-03	04/17/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
K1-03	07/24/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K1-03	11/04/03	-	-	-	-	-	<5 O	-	-	-	-	<5 O	-	-	-
K1-04	01/29/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
K1-04	01/29/03 DUP	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
K1-04	04/18/03	-	-	-	-	-	<2.2	-	-	-	-	<2.2	-	-	-
K1-04	07/24/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K1-04	11/18/03	-	-	-	-	-	<5	-	-	-	-	-	-	-	-
K1-04	11/18/03 DUP	-	-	-	-	-	<5	-	-	-	-	-	-	-	-
K1-05	01/29/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
K1-05	04/18/03	-	-	-	-	-	<2.2	-	-	-	-	<2.2	-	-	-
K1-05	07/24/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K1-05	11/19/03	-	-	-	-	-	<5	-	-	-	-	-	-	-	-
K1-07	01/30/03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1
K1-07	05/01/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
K1-07	08/28/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
K1-07	11/24/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K1-08	02/07/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
K1-08	05/02/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
K1-08	09/04/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K1-08	11/24/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K1-09	01/31/03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1
K1-09	05/02/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
K1-09	09/08/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K1-09	11/25/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K2-04D	05/15/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K2-04D	11/25/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K2-04D	11/25/03 DUP	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K2-04S	05/02/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
K2-04S	12/05/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
NC2-11D	05/08/03	-	-	-	-	-	<5 IJ	-	-	-	-	<5 IJ	-	-	-
NC2-11D	12/10/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-

Table 2.5-8. Building 850 OU 2003 high explosive compounds in ground and surface water.

Location	Date	2-Amino-4,6-dinitrotoluene (µg/L)	4-Amino-2,6-dinitrotoluene (µg/L)	1,3-Dinitrobenzene (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	HMX (µg/L)	Nitrobenzene (µg/L)	2-Nitrotoluene (µg/L)	3-Nitrotoluene (µg/L)	4-Nitrotoluene (µg/L)	RDX (µg/L)	Tetryl (µg/L)	TNT (µg/L)	1,3,5-Trinitrobenzene (µg/L)
NC2-12D	05/08/03	-	-	-	-	-	<5 IJ	-	-	-	-	<5 IJ	-	-	-
NC2-12D	12/10/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
NC2-14S	06/18/03 DUP	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
NC2-14S	06/18/03 DUP	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
NC7-29	06/17/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
NC7-61	05/02/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
NC7-61	05/02/03 DUP	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
NC7-61	12/09/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
NC7-69	05/08/03	-	-	-	-	-	<5 IJ	-	-	-	-	<5 IJ	-	-	-
NC7-69	12/10/03	-	-	-	-	-	<5	-	-	-	-	<5	-	-	-
NC7-70	06/20/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
W-850-05	06/10/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
W-865-1802	06/27/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
W-865-1802	12/22/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-
W-865-1803	06/26/03	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-

**Table 2.5-9. Building 850 OU 2003 gross alpha and gross beta in ground and surface water.**

Location	Date	Gross alpha (pCi/L)	Gross beta (pCi/L)
W-865-1802	06/27/03	2.3	3.5
W-865-1802	12/22/03	<2	3.6
W-865-1803	06/26/03	4.1	5.1

**Table 2.5-10. Building 850 OU 2003 general minerals in ground and surface water.**

	W-865-1802	W-865-1802	W-865-1803
Constituents of concern	06/27/03	12/22/03	06/26/03
Total Alkalinity (as CaCO <sub>3</sub> ) (mg/L)	130 LH	120 H	150 H
Aluminum (mg/L)	<0.1 H	<0.2	<0.2 H
Bicarbonate Alk (as CaCO <sub>3</sub> ) (mg/L)	130 H	120 H	150 H
Calcium (mg/L)	35 H	35	47 H
Carbonate Alk (as CaCO <sub>3</sub> ) (mg/L)	<5 H	<1 H	<1 H
Chloride (mg/L)	40 D	30 D	39 DH
Copper (mg/L)	<0.01 H	<0.05	<0.05 H
Fluoride (mg/L)	0.59 H	0.44	0.54 H
Hydroxide Alk (as CaCO <sub>3</sub> ) (mg/L)	<5 H	<1 H	<1 H
Iron (mg/L)	<0.1 H	<0.1	<0.1 H
Magnesium (mg/L)	16 H	16	21 H
Manganese (mg/L)	<0.01 H	<0.03	<0.03 H
Nickel (mg/L)	<0.05 H	<0.1	<0.1 H
Nitrate (as N) (mg/L)	6.1 DH	4.1	7.2 H
Nitrate (as NO <sub>3</sub> ) (mg/L)	27 DH	18	32 H
Nitrite (as N) (mg/L)	<0.1 H	<0.1	<0.1 H
pH (Units)	7.7	7.8	7.7 H
Ortho-Phosphate (mg/L)	<0.1 H	0.08	0.10 H
Total Phosphorus (as P) (mg/L)	0.11 H	-	-
Total Phosphorus (as PO <sub>4</sub> ) (mg/L)	-	0.13 H	0.080 H
Potassium (mg/L)	3.2	5	5.0 H
Sodium (mg/L)	58 H	50	48 H
Total dissolved solids (TDS) (mg/L)	-	400	410 H
Specific Conductance (µmhos/cm)	550	530 H	610 H
Sulfate (mg/L)	61 D	60 D	50 DH
Surfactants (mg/L)	<0.05	<0.5	<0.5 H
Total Hardness (as CaCO <sub>3</sub> ) (mg/L)	160 H	150 H	200 H
Zinc (mg/L)	<0.05 H	<0.05	<0.05 H

**Table 2.5-11. Building 850 OU 2003 PCBs in ground and surface water.**

Location	Date	PCB 1016 ( $\mu\text{g/L}$ )	PCB 1221 ( $\mu\text{g/L}$ )	PCB 1232 ( $\mu\text{g/L}$ )	PCB 1242 ( $\mu\text{g/L}$ )	PCB 1248 ( $\mu\text{g/L}$ )	PCB 1254 ( $\mu\text{g/L}$ )	PCB 1260 ( $\mu\text{g/L}$ )
NC7-70	06/20/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-850-05	06/10/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L

**Table 2.5-12. Building 850 OU 2003 diesel range organic compounds in ground and surface water.**

Location	Date	Diesel fuel ( $\mu\text{g/L}$ )
NC7-70	06/20/03	<50
W-850-05	06/10/03	<50 L

**Table 2.5-13. Building 850 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
K1-01C	01/08/03	99.02	982.2		
K1-01C	02/01/03	99.33	981.89		
K1-01C	03/01/03	99.35	981.87		
K1-01C	04/05/03	99.5	981.72		
K1-01C	07/11/03	99.78	981.44		
K1-01C	10/04/03	100.19	981.03		
K1-02B	01/08/03	127.64	979.59		
K1-02B	02/01/03	128.04	979.19		
K1-02B	03/01/03	128.17	979.06		
K1-02B	04/05/03	128.2	979.03		
K1-02B	07/11/03	128.5	978.73		
K1-02B	10/04/03	128.84	978.39		
K1-03	01/08/03	130.65	977.4		
K1-03	02/01/03	130.95	977.1		
K1-03	03/01/03	130.95	977.1		
K1-03	04/05/03	131.15	976.9		
K1-03	07/11/03	131.35	976.7		
K1-03	10/04/03	131.27	976.78		
K1-04	01/08/03	149.71	972.96		
K1-04	02/01/03	150.37	972.3		
K1-04	03/01/03	150.17	972.5		
K1-04	04/05/03	150.2	972.47		
K1-04	07/11/03	150.49	972.18		
K1-04	10/04/03	150.82	971.85		
K1-05	01/08/03	165.58	965.28		
K1-05	02/01/03	165.81	965.05		
K1-05	03/01/03	165.74	965.12		
K1-05	04/05/03	165.9	964.96		
K1-05	07/11/03	166.2	964.66		
K1-05	10/04/03	166.38	964.48		
K1-06	01/08/03	110.1	979.44		
K1-06	04/05/03	110.4	979.14		
K1-06	07/11/03	110.6	978.94		
K1-06	10/04/03	110.87	978.67		
K1-07	01/08/03	134.55	975.08		

**Table 2.5-13. Building 850 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
K1-07	02/01/03	134.83	974.8		
K1-07	03/01/03	134.87	974.76		
K1-07	04/05/03	135	974.63		
K1-07	07/11/03	135.2	974.43		
K1-07	10/04/03	135.68	973.95		
K1-08	01/08/03	149.14	973.6		
K1-08	02/01/03	149.15	973.59		
K1-08	03/01/03	149.15	973.59		
K1-08	04/05/03	149.25	973.49		
K1-08	07/11/03	149.58	973.16		
K1-08	10/04/03	150.06	972.68		
K1-09	01/08/03	156.01	970.67		
K1-09	02/01/03	155.92	970.76		
K1-09	03/01/03	156.08	970.6		
K1-09	04/05/03	156.1	970.58		
K1-09	07/11/03	156.33	970.35		
K1-09	10/04/03	156.84	969.84		
K2-03	01/10/03	48.55	1018.09		
K2-03	04/12/03	48.44	1018.2		
K2-03	07/11/03	49	1017.64		
K2-03	10/03/03	48.8	1017.84		
K2-04D	01/04/03	22.45	1070.07		
K2-04D	04/05/03	22.65	1069.87		
K2-04D	07/11/03	24.45	1068.07		
K2-04D	10/03/03	25.17	1067.35		
K2-04S	01/04/03	20.98	1070.97		
K2-04S	04/05/03	21.2	1070.75		
K2-04S	07/11/03	23.23	1068.72		
K2-04S	10/03/03	23.99	1067.96		
NC2-05	01/08/03	43.95	990.96		
NC2-05	04/12/03	44.03	990.88		
NC2-05	07/02/03	45.23	989.68		
NC2-05	10/04/03	46.03	988.88		
NC2-05A	01/08/03	44.76	990.67		
NC2-05A	04/12/03	45.07	990.36		
NC2-05A	07/02/03	45.39	990.04		



**Table 2.5-13. Building 850 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
NC2-05A	10/04/03	45.75	989.68		
NC2-06	01/10/03	43	990.54		
NC2-06	04/05/03	43.78	989.76		
NC2-06	07/11/03	43.5	990.04		
NC2-06	10/04/03	44.09	989.45		
NC2-06A	01/10/03	43.88	990.35		
NC2-06A	04/05/03	42.95	991.28		
NC2-06A	07/11/03	44.3	989.93		
NC2-06A	10/04/03	44.84	989.39		
NC2-09	01/08/03	44.95	990.52		
NC2-09	04/05/03	45	990.47		
NC2-09	07/02/03	45.41	990.06		
NC2-09	10/04/03	46.22	989.25		
NC2-10	01/03/03	60.21	980.5		
NC2-10	04/05/03	60	980.71		
NC2-10	07/02/03	60.18	980.53		
NC2-10	10/07/03	60.53	980.18		
NC2-11D	01/03/03	47.05	981.57		
NC2-11D	04/12/03	46.77	981.85		
NC2-11D	07/02/03	47.43	981.19		
NC2-11D	10/04/03	47.87	980.75		
NC2-11I	01/03/03	47.23	981.53		
NC2-11I	04/12/03	47.03	981.73		
NC2-11I	07/02/03	47.61	981.15		
NC2-11I	10/04/03	48.13	980.63		
NC2-11S	01/03/03	46.94	981.58		
NC2-11S	04/12/03	46.79	981.73		
NC2-11S	07/02/03	47.42	981.1		
NC2-11S	10/04/03	47.85	980.67		
NC2-12D	01/03/03	45.76	982.68		
NC2-12I	01/03/03	46.13	982.62		
NC2-12S	01/03/03	45.83	982.69		
NC2-12S	04/05/03	45.8	982.72		
NC2-12S	07/02/03	46.09	982.43		
NC2-12S	10/04/03	46.55	981.97		
NC2-13	01/03/03	38.95	982.55		

**Table 2.5-13. Building 850 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
NC2-13	04/05/03	39	982.5		
NC2-13	07/11/03	39.67	981.83		
NC2-13	10/04/03	40.08	981.42		
NC2-14S	01/04/03	12.41	1061.49		
NC2-14S	04/10/03	12.96	1060.94		
NC2-14S	07/11/03	14.1	1059.8		
NC2-14S	10/03/03	14.64	1059.26		
NC2-15	01/10/03	73.8	999.66		
NC2-15	04/05/03	73.65	999.81		
NC2-15	07/11/03	74.45	999.01		
NC2-15	10/04/03	75.32	998.14		
NC2-16	01/04/03	21.03	1061.43		
NC2-16	04/10/03	21.5	1060.96		
NC2-16	07/11/03	22.45	1060.01		
NC2-16	10/07/03	22.96	1059.5		
NC2-17	01/10/03	98.8	990.69		
NC2-17	04/05/03	98.7	990.79		
NC2-17	07/11/03	99.2	990.29		
NC2-17	10/04/03	99.69	989.8		
NC2-18	01/10/03	71	1060.17		
NC2-18	04/05/03	71	1060.17		
NC2-18	07/11/03	72.13	1059.04		
NC2-18	10/03/03	72.63	1058.54		
NC2-19	01/10/03	106.15	986.24		
NC2-19	04/05/03	106.15	986.24		
NC2-19	07/11/03	106.3	986.09		
NC2-19	10/04/03	106.78	985.61		
NC2-20	01/10/03	32.45	969.82		
NC2-20	04/18/03	32.97	969.3		
NC2-20	07/11/03	33.4	968.87		
NC2-20	10/04/03	33.63	968.64		
NC2-21	01/10/03	32.12	970.02		
NC2-21	04/18/03	32.62	969.52		
NC2-21	07/11/03	33.1	969.04		
NC2-21	10/04/03	33.37	968.77		
NC7-10	01/04/03	9.07	1217.23		

**Table 2.5-13. Building 850 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
NC7-10	04/17/03	9.8	1216.5		
NC7-10	07/17/03	9.9	1216.4		
NC7-10	10/03/03	9.95	1216.35		
NC7-11	01/04/03	19.49	1224.9		
NC7-11	02/01/03	20	1224.39		
NC7-11	03/01/03	20.27	1224.12		
NC7-11	04/17/03	20.34	1224.05		
NC7-11	07/17/03	20.36	1224.03		
NC7-11	10/03/03	20.4	1223.99		
NC7-14	01/04/03	28.97	1228.02		
NC7-14	04/17/03	-	-		DRY
NC7-14	07/01/03	-	-		DRY
NC7-14	10/01/03	-	-		DRY
NC7-15	01/04/03	21.2	1248.21		
NC7-15	02/01/03	21.15	1248.26		
NC7-15	03/01/03	21.22	1248.19		
NC7-15	04/10/03	21.32	1248.09		
NC7-15	07/11/03	21.59	1247.82		
NC7-15	10/03/03	21.67	1247.74		
NC7-19	01/04/03	20.89	1242.09		
NC7-19	02/01/03	21.1	1241.88		
NC7-19	03/01/03	21.3	1241.68		
NC7-19	04/10/03	21.38	1241.6		
NC7-19	07/01/03	21.65	1241.33		
NC7-19	10/03/03	21.83	1241.15		
NC7-27	01/10/03	86.6	1195.8		
NC7-27	02/01/03	86.26	1196.14		
NC7-27	03/01/03	86.54	1195.86		
NC7-27	04/16/03	86.75	1195.65		
NC7-27	07/17/03	87.1	1195.3		
NC7-27	10/07/03	86.93	1195.47		
NC7-28	01/04/03	39.87	1259.66		
NC7-28	02/01/03	40.05	1259.48		
NC7-28	03/01/03	40.55	1258.98		
NC7-28	04/14/03	40.7	1258.83		
NC7-28	07/17/03	40.56	1258.97		

**Table 2.5-13. Building 850 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
NC7-28	10/03/03	40.81	1258.72		
NC7-29	01/11/03	52.53	1202.21		
NC7-29	04/10/03	52.5	1202.24		
NC7-29	07/11/03	52.62	1202.12		
NC7-29	10/07/03	52.91	1201.83		
NC7-43	01/04/03	45.17	1245.01		
NC7-43	02/01/03	44.65	1245.53		
NC7-43	03/01/03	45.11	1245.07		
NC7-43	04/12/03	45.14	1245.04		
NC7-43	07/11/03	46.26	1243.92		
NC7-43	10/03/03	45.5	1244.68		
NC7-44	01/11/03	32.3	1323.83		
NC7-44	02/01/03	32.25	1323.88		
NC7-44	03/01/03	32.31	1323.82		
NC7-44	04/12/03	32.3	1323.83		
NC7-44	07/27/03	32.35	1323.78		
NC7-44	10/03/03	32.45	1323.68		
NC7-45	01/04/03	32.92	1158.44		
NC7-45	04/17/03	35.63	1153.06		
NC7-45	07/01/03	-	-		DRY
NC7-45	10/03/03	-	-		DRY
NC7-46	01/04/03	23.53	1107.9		
NC7-46	04/10/03	23.73	1107.7		
NC7-46	07/17/03	23.83	1107.6		
NC7-46	10/03/03	23.77	1107.66		
NC7-54	01/11/03	10.85	1196.4		
NC7-54	02/01/03	11.13	1196.12		
NC7-54	03/01/03	11.45	1195.8		
NC7-54	04/17/03	11.57	1195.68		
NC7-54	07/17/03	11.85	1195.4		
NC7-54	10/01/03	11.89	1195.36		
NC7-55	01/04/03	-	-		DRY
NC7-55	04/10/03	-	-		DRY
NC7-55	07/01/03	-	-		DRY
NC7-55	10/03/03	-	-		DRY
NC7-56	01/11/03	18.57	1113.6		

**Table 2.5-13. Building 850 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
NC7-56	04/17/03	19.3	1112.87		
NC7-56	07/17/03	19.86	1112.31		
NC7-56	10/03/03	19.62	1112.55		
NC7-57	01/04/03	-	-		DRY
NC7-57	04/10/03	-	-		DRY
NC7-57	07/01/03	-	-		DRY
NC7-57	10/03/03	-	-		DRY
NC7-58	01/04/03	20.8	1085.93		
NC7-58	04/10/03	22.57	1084.16		
NC7-58	07/17/03	23.74	1082.99		
NC7-58	10/03/03	23.7	1083.03		
NC7-59	01/04/03	12.32	1103.44		
NC7-59	04/10/03	12.86	1102.9		
NC7-59	07/17/03	13.3	1102.46		
NC7-59	10/03/03	13.14	1102.62		
NC7-60	01/11/03	158.45	1169.17		
NC7-60	04/16/03	158.59	1169.03		
NC7-60	07/17/03	159.77	1167.85		
NC7-60	10/07/03	159.04	1168.58		
NC7-61	01/11/03	48.18	1231.19		
NC7-61	02/01/03	48.15	1231.22		
NC7-61	03/01/03	48.19	1231.18		
NC7-61	04/12/03	48.22	1231.15		
NC7-61	07/17/03	48.24	1231.13		
NC7-61	10/03/03	48.29	1231.08		
NC7-62	01/04/03	20.89	1104.22		
NC7-62	04/17/03	21.8	1103.31		
NC7-62	07/17/03	22.36	1102.75		
NC7-62	10/03/03	22.2	1102.91		
NC7-69	01/04/03	1.98	1250.48		
NC7-69	04/14/03	1.97	1250.49		
NC7-69	07/17/03	2.07	1250.39		
NC7-69	10/03/03	2.17	1250.29		
NC7-70	01/04/03	32.69	1274.73		
NC7-70	02/01/03	31.85	1275.57		
NC7-70	03/01/03	32.63	1274.79		

**Table 2.5-13. Building 850 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
NC7-70	04/14/03	32.78	1274.64		
NC7-70	07/17/03	33.02	1274.4		
NC7-70	10/03/03	33.38	1274.04		
NC7-71	01/04/03	55.82	1247.4		
NC7-71	02/01/03	55.45	1247.77		
NC7-71	03/01/03	55.9	1247.32		
NC7-71	04/14/03	55.97	1247.25		
NC7-71	07/17/03	56.13	1247.09		
NC7-71	10/03/03	56.2	1247.02		
NC7-72	01/04/03	30.66	1125.69		
NC7-72	04/17/03	31.77	1124.58		
NC7-72	07/17/03	32.33	1124.02		
NC7-72	10/03/03	32.05	1124.3		
NC7-73	01/04/03	26.3	1139.97		
NC7-73	04/17/03	27.21	1139.06		
NC7-73	07/17/03	27.58	1138.69		
NC7-73	10/03/03	27.27	1139		
NC7-76	01/04/03	22.62	1254.26		
NC7-76	02/01/03	22.35	1254.53		
NC7-76	03/01/03	22.4	1254.48		
NC7-76	04/10/03	22.51	1254.37		
NC7-76	07/11/03	22.92	1253.96		
NC7-76	10/03/03	23.13	1253.75		
W-850-05	01/11/03	27.8	1275.59		
W-850-05	02/01/03	28.13	1275.26		
W-850-05	03/01/03	28.46	1274.93		
W-850-05	04/14/03	28.74	1274.65		
W-850-05	07/11/03	28.88	1274.51		
W-850-05	10/03/03	29.06	1274.33		
W-865-1802	04/12/03	48.04	1019.01		
W-865-1802	07/24/03	48.72	1018.33		
W-865-1802	10/04/03	49.07	1017.98		
W-865-1803	10/04/03	105.15	1072.84		
W-PIT7-16	01/04/03	20.74	1250.26		
W-PIT7-16	02/01/03	20.7	1250.3		
W-PIT7-16	03/01/03	20.65	1250.35		

**Table 2.5-13. Building 850 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.	
			MSL	Notes
W-PIT7-16	04/01/03	20.7	1250.3	
W-PIT7-16	07/11/03	20.91	1250.09	
W-PIT7-16	10/03/03	21	1250	

**Table 2.6-1. Building 854-Source (B854-SRC) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B854-SRC	January	715	44,243	11,061
	February	536	32,952	8,238
	March	572	35,502	5,917
	April	694	44,959	11,240
	May	678	44,685	11,171
	June	702	47,717	9,543
	July	675	47,434	11,859
	August	335	22,617	7,539
	September	793	49,733	9,947
	October	720	44,705	11,176
	November	627	39,005	9,751
	December	838	51,757	10,351
<b>Total</b>		<b>7,885</b>	<b>505,309</b>	

**Table 2.6-2. Building 854-Proximal (B854-PRX) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B854-PRX	January	201	13,267	4,422
	February	267	17,067	4,267
	March	406	25,843	6,461
	April	361	23,016	5,754
	May	339	21,056	5,264
	June	418	25,370	5,074
	July	405	23,832	5,958
	August	366	21,250	5,313
	September	380	21,389	4,278
	October	283	18,725	6,242
	November	235	15,306	3,827
	December	141	9,099	2,275
<b>Total</b>		<b>3,802</b>	<b>235,220</b>	



Table 2.6-3. Building 854 OU 2003 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)
<u>B854-PRX</u>														
STU02-I	01/15/03	E601	69 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
STU02-I	01/15/03 DUP	E601	57 D	<2.5 DIJ	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
STU02-I	04/09/03	E601	77 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
STU02-I	07/09/03	E601	93	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU02-I	10/14/03	E601	86	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU03-E	01/15/03	E601	<0.5	<0.5 IJS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU03-E	02/12/03	E601	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L
BTU03-E	03/11/03	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
BTU03-E	04/09/03	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
BTU03-E	05/01/03	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
BTU03-E	06/11/03	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
BTU03-E	07/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU03-E	08/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU03-E	09/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU03-E	10/14/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU03-E	11/12/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTU03-E	12/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<u>B5854-SRC</u>														
STU08-I	01/15/03	E601	210 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
STU08-I	01/15/03 DUP	E601	150 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
STU08-I	04/09/03	E601	230 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
STU08-I	07/09/03	E601	200 D	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU08-I	10/08/03	E601	200 D	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU08-E	01/15/03	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
STU08-E	02/12/03	E601	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L	<0.5 L
STU08-E	03/11/03	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
STU08-E	04/09/03	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
STU08-E	05/01/03	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
STU08-E	06/11/03	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
STU08-E	07/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU08-E	08/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU08-E	09/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU08-E	10/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU08-E	11/12/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU08-E	12/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 2.6-4. Building 854 OU 2003 nitrate and perchlorate in ground water treatment system influent and effluent.**

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
<u>B854-PRX</u>			
STU02-I	01/15/03	43 DL	9.4
STU02-I	01/15/03 DUP	49 DL	11
STU02-I	04/09/03	47 DL	10
STU02-I	07/09/03	47	10
STU02-I	10/14/03	49	11 H
BTU03-E	01/15/03	3.2 L	<4
BTU03-E	02/12/03	6.8	<4
BTU03-E	03/11/03	9.7	<4
BTU03-E	04/09/03	25 DL	<4
BTU03-E	05/01/03	19 D	<4
BTU03-E	06/11/03	19	<4
BTU03-E	07/09/03	30	<4
BTU03-E	08/06/03	12	<4
BTU03-E	09/10/03	11	<4
BTU03-E	10/14/03	7.5	<4 H
BTU03-E	11/12/03	8.4	<4
BTU03-E	12/09/03	13	<4
<u>B854-SRC</u>			
STU08-I	01/15/03	52 DL	5.1
STU08-I	01/15/03 DUP	34 DL	4.4
STU08-I	04/09/03	54 DL	6.2
STU08-I	07/09/03	54	6.3
STU08-I	10/08/03	56	5.9 H
STU08-E	01/15/03	54 D	<4
STU08-E	02/12/03	52 D	<4
STU08-E	03/11/03	53 D	<4
STU08-E	04/09/03	53 DL	<4
STU08-E	05/01/03	52 D	<4
STU08-E	06/11/03	46 D	<4
STU08-E	07/09/03	50	<4
STU08-E	08/06/03	48	<4
STU08-E	09/10/03	49	<4
STU08-E	10/08/03	54	<4 H
STU08-E	11/12/03	50	<4
STU08-E	12/09/03	48	<4

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

Sample location	Sample identification	Parameter	Frequency
<i>B854-SRC GWTS</i>			
Influent Port	STU08-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		pH	Quarterly
Effluent Port	STU08-E	VOCs	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		pH	Monthly
<i>B854-PRX GWTS</i>			
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 (OU6) 2003 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
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	Y	
SPRING10	SPR	Qls	Q	Q	CMP	E601	4	Y	
SPRING10	SPR	Qls		A	DIS	MS:UIISO	2	Y	
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 <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
SPRING11	SPR	Qls-Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	
SPRING11	SPR	Qls-Tnbs <sub>1</sub>	Q	Q	CMP	E601	1	Y	
SPRING11	SPR	Qls-Tnbs <sub>1</sub>	Q	Q	CMP	E601	2	Y	
SPRING11	SPR	Qls-Tnbs <sub>1</sub>	Q	Q	CMP	E601	3	Y	
SPRING11	SPR	Qls-Tnbs <sub>1</sub>	Q	Q	CMP	E601	4	Y	
SPRING11	SPR	Qls-Tnbs <sub>1</sub>		A	DIS	MS:UIISO	2	N	Insufficient water.
SPRING11	SPR	Qls-Tnbs <sub>1</sub>		A	DIS	MS:UIISO	4	N	
SPRING12	SPR	Qls		A	DIS	AS:UIISO	4	Y	
SPRING12	SPR	Qls		A	DIS	DWMETALS	4	Y	
SPRING12	SPR	Qls		A	DIS	E210.2	4	Y	
SPRING12	SPR	Qls		A	DIS	E601	4	Y	
SPRING12	SPR	Qls		A	DIS	E8330:R+H	4	Y	
SPRING12	SPR	Qls		A	DIS	E900	4	Y	
SPRING12	SPR	Qls		A	DIS	E906	4	Y	
SPRING16	SPR	Qls		A	DIS	AS:UIISO	4	N	Inaccessible due to road conditions.
SPRING16	SPR	Qls		A	DIS	DWMETALS	4	N	Inaccessible due to road conditions.
SPRING16	SPR	Qls		A	DIS	E210.2	4	N	Inaccessible due to road conditions.
SPRING16	SPR	Qls		A	DIS	E601	4	N	Inaccessible due to road conditions.
SPRING16	SPR	Qls		A	DIS	E8330:R+H	4	N	Inaccessible due to road conditions.
SPRING16	SPR	Qls		A	DIS	E900	4	N	Inaccessible due to road conditions.
SPRING16	SPR	Qls		A	DIS	E906	4	N	Inaccessible due to road conditions.

Table 2.6-6. Building 854 (OU6) 2003 ground water sampling and analysis plan. (Cont. Page 2 of 10)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
SPRING18	SPR	Qls		A	DIS	AS:UIISO	4	N	Inaccessible due to road conditions.
SPRING18	SPR	Qls		A	DIS	DWMETALS	4	N	Inaccessible due to road conditions.
SPRING18	SPR	Qls		A	DIS	E210.2	4	N	Inaccessible due to road conditions.
SPRING18	SPR	Qls		A	DIS	E601	4	N	Inaccessible due to road conditions.
SPRING18	SPR	Qls		A	DIS	E8330:R+H	4	N	Inaccessible due to road conditions.
SPRING18	SPR	Qls		A	DIS	E900	4	N	Inaccessible due to road conditions.
SPRING18	SPR	Qls		A	DIS	E906	4	N	Inaccessible due to road conditions.
SPRING22	SPR	Qt		A	DIS	AS:UIISO	4	N	Inaccessible due to road conditions.
SPRING22	SPR	Qt		A	DIS	DWMETALS	4	N	Inaccessible due to road conditions.
SPRING22	SPR	Qt		A	DIS	E210.2	4	N	Inaccessible due to road conditions.
SPRING22	SPR	Qt		A	DIS	E300.0:PERC	4	N	Inaccessible due to road conditions.
SPRING22	SPR	Qt		A	DIS	E601	4	N	Inaccessible due to road conditions.
SPRING22	SPR	Qt		A	DIS	E8330:R+H	4	N	Inaccessible due to road conditions.
SPRING22	SPR	Qt		A	DIS	E900	4	N	Inaccessible due to road conditions.
SPRING22	SPR	Qt		A	DIS	E906	4	N	Inaccessible due to road conditions.
SPRING22	SPR	Qt		A	DIS	GENMIN	4	N	Inaccessible due to road conditions.
SPRING23	SPR	Qt		A	DIS	AS:UIISO	4	N	Inaccessible due to road conditions.
SPRING23	SPR	Qt		A	DIS	DWMETALS	4	N	Inaccessible due to road conditions.
SPRING23	SPR	Qt		A	DIS	E210.2	4	N	Inaccessible due to road conditions.
SPRING23	SPR	Qt		A	DIS	E300.0:PERC	4	N	Inaccessible due to road conditions.
SPRING23	SPR	Qt		A	DIS	E601	4	N	Inaccessible due to road conditions.
SPRING23	SPR	Qt		A	DIS	E8330:R+H	4	N	Inaccessible due to road conditions.
SPRING23	SPR	Qt		A	DIS	E900	4	N	Inaccessible due to road conditions.
SPRING23	SPR	Qt		A	DIS	E906	4	N	Inaccessible due to road conditions.
SPRING23	SPR	Qt		A	DIS	GENMIN	4	N	Inaccessible due to road conditions.
SPRING9	SPR	Qls		A	DIS	AS:UIISO	4	N	Inaccessible due to road conditions.
SPRING9	SPR	Qls		A	DIS	DWMETALS	4	N	Inaccessible due to road conditions.
SPRING9	SPR	Qls		A	DIS	E210.2	4	N	Inaccessible due to road conditions.
SPRING9	SPR	Qls		A	DIS	E601	4	N	Inaccessible due to road conditions.

Table 2.6-6. Building 854 (OU6) 2003 ground water sampling and analysis plan. (Cont. Page 3 of 10)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
SPRING9	SPR	Qls		A	DIS	E8330:R+H	4	N	Inaccessible due to road conditions.
SPRING9	SPR	Qls		A	DIS	E900	4	N	Inaccessible due to road conditions.
SPRING9	SPR	Qls		A	DIS	E906	4	N	Inaccessible due to road conditions.
W-854-01	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-01	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-01	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	2	Y	
W-854-01	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	4	Y	
W-854-02	EW	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-02	EW	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-02	EW	Tnbs <sub>1</sub>	S	S	CMP	E601	2	Y	
W-854-02	EW	Tnbs <sub>1</sub>	S	S	CMP	E601	4	Y	
W-854-02	EW	Tnbs <sub>1</sub>		Q	DIS	TBOS	1	Y	
W-854-02	EW	Tnbs <sub>1</sub>		Q	DIS	TBOS	2	Y	
W-854-02	EW	Tnbs <sub>1</sub>		Q	DIS	TBOS	3	N	Not on sampling plan.
W-854-02	EW	Tnbs <sub>1</sub>		Q	DIS	TBOS	4	Y	
W-854-03	EW	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-03	EW	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-03	EW	Tnbs <sub>1</sub>	S	S	CMP	E601	2	Y	
W-854-03	EW	Tnbs <sub>1</sub>	S	S	CMP	E601	4	Y	
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	Y	
W-854-05	MWPT	Qls-Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-05	MWPT	Qls-Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-05	MWPT	Qls-Tnbs <sub>1</sub>	S	S	CMP	E601	2	Y	
W-854-05	MWPT	Qls-Tnbs <sub>1</sub>	S	S	CMP	E601	4	Y	
W-854-06	MWPT	Tnsc <sub>0</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-06	MWPT	Tnsc <sub>0</sub>	A	A	CMP	E300.0:PERC	2	Y	

Table 2.6-6. Building 854 (OU6) 2003 ground water sampling and analysis plan. (Cont. Page 4 of 10)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-854-06	MWPT	Tnsc <sub>0</sub>	S	S	CMP	E601	2	Y	
W-854-06	MWPT	Tnsc <sub>0</sub>	S	S	CMP	E601	4	Y	
W-854-07	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-07	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-07	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	2	Y	
W-854-07	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	4	Y	
W-854-08	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-08	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-08	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	2	Y	
W-854-08	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	4	Y	
W-854-09	MWPT	Tnsbs <sub>0</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-09	MWPT	Tnsbs <sub>0</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-09	MWPT	Tnsbs <sub>0</sub>	S	S	CMP	E601	2	Y	
W-854-09	MWPT	Tnsbs <sub>0</sub>	S	S	CMP	E601	4	Y	
W-854-10	MWPT	Tnsbs <sub>0</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-10	MWPT	Tnsbs <sub>0</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-10	MWPT	Tnsbs <sub>0</sub>	S	S	CMP	E601	2	Y	
W-854-10	MWPT	Tnsbs <sub>0</sub>	S	S	CMP	E601	4	Y	
W-854-10	MWPT	Tnsbs <sub>0</sub>		Q	DIS	TBOS	1	Y	
W-854-10	MWPT	Tnsbs <sub>0</sub>		Q	DIS	TBOS	2	Y	
W-854-10	MWPT	Tnsbs <sub>0</sub>		Q	DIS	TBOS	3	N	Not on sampling plan.
W-854-10	MWPT	Tnsbs <sub>0</sub>		Q	DIS	TBOS	4	Y	
W-854-11	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	N	Dry.
W-854-11	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Dry.
W-854-11	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	N	Dry.
W-854-11	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	4	N	Dry.
W-854-11	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	2	N	Dry.
W-854-11	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	4	N	Dry.
W-854-12	MWPT	Tmss	A	A	CMP	E300.0:NO3	2	N	Dry.

Table 2.6-6. Building 854 (OU6) 2003 ground water sampling and analysis plan. (Cont. Page 5 of 10)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-854-12	MWPT	Tmss	A	A	CMP	E300.0:NO3	4	N	Insufficient water.
W-854-12	MWPT	Tmss	A	A	CMP	E300.0:PERC	2	N	Dry.
W-854-12	MWPT	Tmss	A	A	CMP	E300.0:PERC	4	N	Insufficient water.
W-854-12	MWPT	Tmss	S	S	CMP	E601	2	N	Dry.
W-854-12	MWPT	Tmss	S	S	CMP	E601	4	N	Insufficient water.
W-854-13	MWPT	Tnsc <sub>0</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-13	MWPT	Tnsc <sub>0</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-13	MWPT	Tnsc <sub>0</sub>	S	S	CMP	E601	2	Y	
W-854-13	MWPT	Tnsc <sub>0</sub>	S	S	CMP	E601	4	Y	
W-854-13	MWPT	Tnsc <sub>0</sub>	B		CMP	PCBS	4	Y	
W-854-14	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	N	Dry.
W-854-14	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Dry.
W-854-14	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	N	Dry.
W-854-14	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	4	N	Dry.
W-854-14	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	2	N	Dry.
W-854-14	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	4	N	Dry.
W-854-14	MWPT	Tnbs <sub>1</sub>		Q	DIS	MS:UIISO	1	Y	
W-854-14	MWPT	Tnbs <sub>1</sub>		Q	DIS	MS:UIISO	2	N	Dry.
W-854-14	MWPT	Tnbs <sub>1</sub>		Q	DIS	MS:UIISO	3	N	Dry.
W-854-14	MWPT	Tnbs <sub>1</sub>		Q	DIS	MS:UIISO	4	N	Dry.
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	Y	
W-854-15	MWPT	Qls		Q	DIS	MS:UIISO	1	Y	
W-854-15	MWPT	Qls		Q	DIS	MS:UIISO	2	Y	
W-854-15	MWPT	Qls		Q	DIS	MS:UIISO	3	N	Not on sampling plan.
W-854-15	MWPT	Qls		Q	DIS	MS:UIISO	4	Y	
W-854-17	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>	A	A	CMP	E300.0:NO3	2	Y	



Table 2.6-6. Building 854 (OU6) 2003 ground water sampling and analysis plan. (Cont. Page 6 of 10)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-854-17	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-17	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>	S	S	CMP	E601	2	Y	
W-854-17	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>	S	S	CMP	E601	4	Y	
W-854-17	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	TBOS	1	Y	
W-854-17	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	TBOS	2	Y	
W-854-17	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	TBOS	3	N	Not on sampling plan.
W-854-17	MWPT	Tnbs <sub>0</sub> -Tnsc <sub>0</sub>		Q	DIS	TBOS	4	Y	
W-854-1701	MWPT	Tnsc <sub>0</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-1701	MWPT	Tnsc <sub>0</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-1701	MWPT	Tnsc <sub>0</sub>	S	S	CMP	E601	2	Y	
W-854-1701	MWPT	Tnsc <sub>0</sub>	S	S	CMP	E601	4	Y	
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>		S	DIS	AS:UIISO	2	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>		S	DIS	DWMETALS	2	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>		S	DIS	DWMETALS	4	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	4	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>	S	S	CMP	E601	2	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>	S	S	CMP	E601	4	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>		S	DIS	E8330:R+H	2	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>		S	DIS	E8330:R+H	4	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>		S	DIS	E900	2	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>		S	DIS	E900	4	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>		S	DIS	E906	2	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>		S	DIS	E906	4	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>		S	DIS	GENMIN	2	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>		S	DIS	GENMIN	4	N	Dry.
W-854-1706	MWPT	Qal-Tnbs <sub>1</sub>		S	DIS	MS:UIISO	4	N	Dry.

Table 2.6-6. Building 854 (OU6) 2003 ground water sampling and analysis plan. (Cont. Page 7 of 10)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-854-1707	MWPT	Tnsc <sub>0</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-1707	MWPT	Tnsc <sub>0</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-1707	MWPT	Tnsc <sub>0</sub>	S	S	CMP	E601	2	Y	
W-854-1707	MWPT	Tnsc <sub>0</sub>	S	S	CMP	E601	4	Y	
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	Y	
W-854-1731	MWPT	Tmss		S	DIS	E906	2	Y	
W-854-1731	MWPT	Tmss		S	DIS	E906	4	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	AS:UIISO	1	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	AS:UIISO	2	N	Sampling personnel shortage.
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	1	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	2	N	Sampling personnel shortage.
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	3	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	DWMETALS	4	N	Not on sampling plan.
W-854-1822	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	GENMIN analyzed.
W-854-1822	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E624	1	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	E8330:R+H	1	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	E900	1	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	E900	2	N	Sampling personnel shortage.
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	E900	3	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	E906	1	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	E906	2	N	Sampling personnel shortage.
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	E906	3	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	GENMIN	1	Y	
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	GENMIN	2	N	Sampling personnel shortage.

Table 2.6-6. Building 854 (OU6) 2003 ground water sampling and analysis plan. (Cont. Page 8 of 10)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-854-1822	MWPT	Tnbs <sub>1</sub>		A	DIS	TBOS	3	Y	
W-854-1823	MWPT	Tnsbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	AS:UIISO	3	Y	
W-854-1823	MWPT	Tnsbs <sub>1</sub> -Tnsc <sub>0</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-854-1823	MWPT	Tnsbs <sub>1</sub> -Tnsc <sub>0</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-854-1823	MWPT	Tnsbs <sub>1</sub> -Tnsc <sub>0</sub>	S	S	CMP	E601	3	Y	
W-854-1823	MWPT	Tnsbs <sub>1</sub> -Tnsc <sub>0</sub>	S	S	CMP	E601	4	Y	
W-854-1823	MWPT	Tnsbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	E900	3	Y	
W-854-1823	MWPT	Tnsbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	E906	3	Y	
W-854-1823	MWPT	Tnsbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	TBOS	3	Y	
W-854-1823	MWPT	Tnsbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	TBOS	4	Y	
W-854-18A	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-18A	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-18A	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	2	Y	
W-854-18A	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	4	Y	
W-854-18A	MWPT	Tnbs <sub>1</sub>		Q	DIS	MS:UIISO	1	Y	
W-854-18A	MWPT	Tnbs <sub>1</sub>		Q	DIS	MS:UIISO	2	Y	
W-854-18A	MWPT	Tnbs <sub>1</sub>		Q	DIS	MS:UIISO	4	Y	
W-854-18A	MWPT	Tnbs <sub>1</sub>		Q	DIS	TBOS	1	Y	
W-854-18A	MWPT	Tnbs <sub>1</sub>		Q	DIS	TBOS	2	Y	
W-854-18A	MWPT	Tnbs <sub>1</sub>		Q	DIS	TBOS	4	Y	
W-854-19	MWPT	Qls		A	DIS	AS:UIISO	2	N	Dry.
W-854-19	MWPT	Qls		A	DIS	DWMETALS	2	N	Dry.
W-854-19	MWPT	Qls		A	DIS	DWMETALS	4	N	Dry.
W-854-19	MWPT	Qls	A	A	CMP	E300.0:NO3	2	N	Dry.
W-854-19	MWPT	Qls	A	A	CMP	E300.0:NO3	4	N	Dry.
W-854-19	MWPT	Qls	A	A	CMP	E300.0:PERC	2	N	Dry.
W-854-19	MWPT	Qls	A	A	CMP	E300.0:PERC	4	N	Dry.
W-854-19	MWPT	Qls	S	S	CMP	E601	2	N	Dry.
W-854-19	MWPT	Qls	S	S	CMP	E601	4	N	Dry.

Table 2.6-6. Building 854 (OU6) 2003 ground water sampling and analysis plan. (Cont. Page 9 of 10)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-854-19	MWPT	Qls		A	DIS	E8330:R+H	2	N	Dry.
W-854-19	MWPT	Qls		A	DIS	E8330:R+H	4	N	Dry.
W-854-19	MWPT	Qls		A	DIS	E900	2	N	Dry.
W-854-19	MWPT	Qls		A	DIS	E900	4	N	Dry.
W-854-19	MWPT	Qls		A	DIS	E906	2	N	Dry.
W-854-19	MWPT	Qls		A	DIS	E906	4	N	Dry.
W-854-19	MWPT	Qls		A	DIS	GENMIN	2	N	Dry.
W-854-19	MWPT	Qls		A	DIS	GENMIN	4	N	Dry.
W-854-19	MWPT	Qls		A	DIS	MS:UISO	4	N	Dry.
W-854-1902	MWPT	Tnbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	AS:UISO	3	Y	
W-854-1902	MWPT	Tnbs <sub>1</sub> -Tnsc <sub>0</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-854-1902	MWPT	Tnbs <sub>1</sub> -Tnsc <sub>0</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-854-1902	MWPT	Tnbs <sub>1</sub> -Tnsc <sub>0</sub>	S	S	CMP	E601	3	Y	
W-854-1902	MWPT	Tnbs <sub>1</sub> -Tnsc <sub>0</sub>	S	S	CMP	E624	4	Y	
W-854-1902	MWPT	Tnbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	E900	3	Y	
W-854-1902	MWPT	Tnbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	E900	4	Y	
W-854-1902	MWPT	Tnbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	E906	3	Y	
W-854-1902	MWPT	Tnbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	E906	4	Y	
W-854-1902	MWPT	Tnbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	MS:UISO	4	Y	
W-854-1902	MWPT	Tnbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	TBOS	3	Y	
W-854-1902	MWPT	Tnbs <sub>1</sub> -Tnsc <sub>0</sub>		A	DIS	TBOS	4	Y	
W-854-45	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
W-854-45	MWPT	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	
W-854-45	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	2	Y	
W-854-45	MWPT	Tnbs <sub>1</sub>	S	S	CMP	E601	4	Y	
W-854-45	MWPT	Tnbs <sub>1</sub>		S	DIS	MS:UISO	2	Y	
W-854-45	MWPT	Tnbs <sub>1</sub>		S	DIS	MS:UISO	4	Y	
W-854-F2	MWPT	Qls-Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	N	Dry.
W-854-F2	MWPT	Qls-Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Dry.

Table 2.6-6. Building 854 (OU6) 2003 ground water sampling and analysis plan. (Cont. Page 10 of 10)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-854-F2	MWPT	Qls-Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	N	Dry.
W-854-F2	MWPT	Qls-Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	4	N	Dry.
W-854-F2	MWPT	Qls-Tnbs <sub>1</sub>	S	S	CMP	E601	2	N	Dry.
W-854-F2	MWPT	Qls-Tnbs <sub>1</sub>	S	S	CMP	E601	4	N	Dry.

## 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

CGSA CMP/DIS = Sampling more frequently than required.

CGSA CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.

CGSA CMP = Central GSA groundwater sampling and analysis plan specified in the GSA RD

CMP DMW = CMP detection monitor well.

CMP/DIS = Sampling required analyte more frequently than required.

CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.

CMP = Compliance Monitoring.

DIS = Discretionary sampling of non-required analyte.

DMW = Detection monitor well (non-CMP).

ERD/WGMG = non-CMP analyte sampled from a well shared by ERD and WGMG.

EW = Extraction well.

GW = Guard well.

MWB = Monitor well used for background.

MWPT = Monitor well used for plume tracking.

SPR = Spring.

WS = Water supply well.

Table 2.6-7. Building 854 OU 2003 VOCs in ground and surface water.

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)
W-865-2005	12/18/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5
W-854-01	05/21/03	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
W-854-01	10/24/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-02	05/21/03	E601	210 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-02	05/21/03 DUP	E601	210 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-04	05/22/03	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
W-854-04	11/12/03	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
W-854-05	05/21/03 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
W-854-05	05/21/03 DUP	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-05	10/24/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-06	05/10/03	E601	1.9 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-854-06	11/13/03	E601	2.0 L	<1	<1	<1	<1	<1	<1	<1 L	<1	<1	<1	<1
W-854-07	05/10/03 DUP	E601	35 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-854-07	11/13/03	E601	35 L	<1	<1	<1	<1	<1	<1	<1 L	<1	<1	<1	<1
W-854-08	05/21/03	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
W-854-08	10/24/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-09	05/16/03	E601	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-09	10/24/03	E601	12 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-10	05/01/03	E601	4.1 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-854-10	05/01/03 DUP	E601	4.1 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-854-10	11/12/03	E601	7.1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-10	11/12/03 DUP	E601	7.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-13	05/16/03	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
W-854-13	10/24/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-15	05/01/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-854-15	10/24/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-17	05/01/03	E601	6.6 L	<0.5	12	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-854-17	11/17/03	E601	6.2 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-854-18A	05/01/03	E601	32 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-854-18A	11/17/03	E601	25 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-854-45	05/01/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-854-45	11/12/03	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
W-854-1701	05/22/03	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
W-854-1701	11/13/03	E601	<1 L	<1	<1	<1	<1	<1	<1	<1 L	<1	<1	<1	<1
W-854-1707	05/16/03	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
W-854-1707	11/24/03	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
W-854-1731	05/02/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-854-1731	11/13/03	E601	<1 L	<1	<1	<1	<1	<1	<1	<1 L	<1	<1	<1	<1
W-854-1822	03/11/03	E624	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-854-1822	09/19/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.6-7. Building 854 OU 2003 VOCs in ground and surface water. (Cont. Page 2 of 2)

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)
W-854-1823	03/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1823	03/20/03	E624	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-854-1823	09/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1823	11/13/03	E601	<1 L	<1	<1	<1	<1	<1	<1	<1 L	<1	<1	<1	<1
W-854-1902	03/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1902	03/20/03	E624	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-854-1902	09/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1902	11/13/03	E624	<1 HL	<1 H	<1 H	<1 H	<1 H	<1 H	<1 H	<1 HL	<1 H	<1 H	<1 H	<1 H
SPRING10	03/26/03	E601	1.4	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SPRING10	03/26/03 DUP	E601	1.1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SPRING10	06/26/03	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
SPRING10	09/22/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
SPRING10	12/08/03	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
SPRING11	03/26/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SPRING11	06/26/03	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
SPRING11	09/22/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
SPRING11	12/08/03	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
SPRING12	12/19/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

## Other VOCs not detected in the table above.

Location	Date	Method	Chloromethane (µg/L)	cis-1,2-Dichloroethene (µg/L)
W-854-17	05/01/03	E601	-	12
W-854-17	11/17/03	E601	-	11
W-854-1902	09/09/03	E601	0.56	-

Table 2.6-8. Building 854 OU 2003 nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
W-865-2005	12/18/03	34	-
W-854-01	05/21/03	<0.1	<4
W-854-02	05/21/03	53 D	<4
W-854-02	05/21/03 DUP	54	<4
W-854-04	05/22/03	<0.1	<4
W-854-05	05/21/03 DUP	54	<4
W-854-05	05/21/03 DUP	57	<4
W-854-06	06/23/03	0.2	8
W-854-07	06/23/03	47 D	<4
W-854-07	06/23/03 DUP	38 D	<4
W-854-08	05/21/03	35	<4
W-854-09	05/16/03	41 D	<4
W-854-10	05/30/03	16	<4
W-854-10	05/30/03 DUP	16	<4
W-854-13	05/16/03	6	<4
W-854-15	06/10/03	14	<4
W-854-17	05/30/03	6.1	<4
W-854-18A	06/18/03	38 D	<4
W-854-45	06/18/03	36 D	<4
W-854-1701	05/22/03	<0.1	<4
W-854-1707	05/16/03	9	<4
W-854-1731	05/30/03	6.6	<4
W-854-1822	03/11/03	-	<4
W-854-1823	03/07/03	29	27
W-854-1823	11/17/03	<0.1	18
W-854-1902	03/07/03	17	7.8
W-854-1902	11/13/03	14	5
SPRING10	06/26/03	<0.1	<4
SPRING11	06/26/03	21	<4



**Table 2.6-9. Building 854 OU 2003 TBOS in ground water.**

Location	Date	TBOS ( $\mu\text{g/L}$ )
W-854-02	03/26/03	<1
W-854-02	05/22/03	<1
W-854-10	02/20/03	<56
W-854-10	03/26/03	<1
W-854-10	05/30/03	<1
W-854-10	05/30/03 DUP	<1
W-854-10	11/12/03	<1
W-854-17	02/20/03	<50
W-854-17	03/26/03	<1
W-854-17	05/30/03	<1
W-854-17	11/17/03	<1
W-854-18A	02/19/03	<56
W-854-18A	03/26/03	<1
W-854-18A	06/18/03	<1
W-854-18A	11/17/03	<1
W-854-1822	09/19/03	<1
W-854-1823	03/07/03	1.2
W-854-1823	09/09/03	<2 D
W-854-1823	11/17/03	<1
W-854-1902	03/07/03	4.3
W-854-1902	09/09/03	<2 D
W-854-1902	11/17/03	<1

**Table 2.6-10. Building 854 OU 2003 metals in ground and surface water.**

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
W-854-1822	03/11/03	0.008	<0.025	-	<0.0005	<0.001	<0.005	<0.0002 L	<0.005	<0.001
W-854-1823	03/20/03	0.007	<0.025	-	<0.0005	0.029	<0.005	<0.0002	0.018	<0.001
W-854-1902	03/20/03	0.025	<0.025	-	<0.0005	0.032	0.007	<0.0002	0.024	<0.001
SPRING12	12/19/03	0.014	0.031	<0.0002	<0.0005	<0.001	<0.005	<0.0002	0.0083 L	<0.001

**Table 2.6-11. Building 854 OU 2003 high explosive compounds in ground and surface water.**

Location	Date	HMX ( $\mu\text{g/L}$ )	RDX ( $\mu\text{g/L}$ )
W-854-07	09/19/03	<10 D	<10 D
W-854-1822	03/11/03	<1	<1
W-854-1823	03/20/03	<1	<1
W-854-1902	03/20/03	<1	<1
SPRING12	12/19/03	<5 D	<5 D

Table 2.6-12. Building OU 2003 radiological constituents in ground and surface water.

Location	Date	Gross alpha (pCi/L)	Gross beta (pCi/L)	Thorium 232 (pCi/L)	Tritium (pCi/L)	Uranium (pCi/L)	Uranium 234/233 (pCi/L)	Uranium 234 by mass measurement (pCi/L)	Uranium 235/236 (pCi/L)	Uranium 235 by mass measurement (pCi/L)	Uranium 236 by mass measurement (pCi/L)	Uranium 238 (pCi/L)	Uranium 238 by mass measurement (pCi/L)	Uranium 235/238
W-854-15	01/25/03	-	-	0.00021	-	10.9	-	6.13	-	0.215	<0.0007	-	4.59	0.00727
W-854-15	06/10/03	-	-	0.000168	-	20.4	-	11.2	-	0.408	<0.0007	-	8.78	0.00724
W-854-18A	02/19/03	-	-	0.00075	-	64.1	-	43.9	-	0.903	<0.007	-	19.3	0.00727
W-854-18A	06/18/03	-	-	<0.0001	-	60.9	-	42.9	-	0.8	<0.0007	-	17.1	0.00726
W-854-45	06/18/03	-	-	<0.0001	-	83.4	-	52.2	-	1.4	<0.0007	-	29.9	0.00728
W-854-1731	05/30/03	-	-	-	<102	-	-	-	-	-	-	-	-	-
W-854-1731	11/13/03	-	-	-	<93.3	-	-	-	-	-	-	-	-	-
W-854-1822	03/11/03	<2	7.75	-	<99	-	1.53 ± 0.210	-	<0.041	-	-	0.743 ± 0.130	-	-
W-854-1822	09/19/03	4.48	5.49	-	<84.3	-	1.91 ± 0.240	-	<0.024 E	-	-	0.990 ± 0.140	-	-
W-854-1823	03/20/03	16.4	11.8	-	<102	-	5.86 ± 0.650	-	0.182 ± 0.0580	-	-	3.93 ± 0.460	-	-
W-854-1823	09/09/03	17.2	11.8	-	<88.2	-	7.19 ± 0.780	-	0.220 ± 0.0560	-	-	5.08 ± 0.560	-	-
W-854-1902	03/20/03	2.78	8.49	-	<99.9	-	2.11 ± 0.260	-	<0.026 E	-	-	1.29 ± 0.180	-	-
W-854-1902	09/09/03	5.39	6.94	-	<88.3	-	2.05 ± 0.260	-	<0.034 E	-	-	1.12 ± 0.160	-	-
W-854-1902	11/17/03	4.21	7.74	-	<96.7	-	-	-	-	-	-	-	-	-
SPRING10	06/26/03	-	-	0.00317	-	30.8	-	17.2	-	0.604	<0.007	-	13	0.00721
SPRING12	12/19/03	<2	8.7	-	<85.4	-	1.80 ± 0.220	-	<0.017 E	-	-	1.55 ± 0.190	-	-

Table 2.6-13. Building 854 OU 2003 general minerals in ground water.

Constituents of concern	W-854-1822 03/11/03	W-854-1823 03/20/03	W-854-1902 03/20/03
Total Alkalinity (as CaCO <sub>3</sub> ) (mg/L)	90 H	190 H	120 H
Aluminum (mg/L)	0.4	<0.2	<0.2
Bicarbonate Alk (as CaCO <sub>3</sub> ) (mg/L)	90 H	190 H	120 H
Calcium (mg/L)	53	49	30
Carbonate Alk (as CaCO <sub>3</sub> ) (mg/L)	<1 H	<1 H	<1 H
Chloride (mg/L)	300 D	280 D	140 D
Copper (mg/L)	<0.05	<0.05	<0.05
Fluoride (mg/L)	0.8	0.56	0.84
Hydroxide Alk (as CaCO <sub>3</sub> ) (mg/L)	<1 H	<1 H	<1 H
Iron (mg/L)	0.2	<0.1	<0.1
Magnesium (mg/L)	18	24	4.7
Manganese (mg/L)	<0.03	<0.03	<0.03
Nickel (mg/L)	<0.1	<0.1	<0.1
Nitrate (as N) (mg/L)	1	6.5	2.8
Nitrate (as NO <sub>3</sub> ) (mg/L)	4.4	29	12
Nitrite (as N) (mg/L)	0.2	<0.1 H	<0.1
pH (Units)	8.2	7.8	8.8
Ortho-Phosphate (mg/L)	0.17	0.15	0.23
Total Phosphorus (as PO <sub>4</sub> ) (mg/L)	0.18 H	0.17 H	0.32 H
Potassium (mg/L)	14 L	16 L	16 L
Sodium (mg/L)	200 LD	160 D	150 D
Total dissolved solids (TDS) (mg/L)	790	700 H	600 H
Specific Conductance (μmhos/cm)	1,300 H	1,200 H	980 H
Sulfate (mg/L)	160 D	28	120 D
Surfactants (mg/L)	<0.5	<0.5	<0.5
Total Hardness (as CaCO <sub>3</sub> ) (mg/L)	210 H	220 H	94 H
Zinc (mg/L)	<0.05	<0.05	<0.05

**Table 2.6-14. Building 854 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.	
			MSL	Notes
W-854-01	01/04/03	217.4	1117.04	
W-854-01	02/01/03	217.24	1117.2	
W-854-01	03/01/03	217.22	1117.22	
W-854-01	04/10/03	217.3	1117.14	
W-854-01	07/08/03	217.35	1117.09	
W-854-01	10/03/03	217.21	1117.23	
W-854-02	01/04/03	-	-	NM
W-854-02	02/01/03	-	-	NM
W-854-02	03/01/03	-	-	NM
W-854-02	04/10/03	-	-	NM/SWAT UNIT
W-854-02	07/08/03	-	-	NM/SWAT UNIT
W-854-02	10/03/03	-	-	NM
W-854-03	01/04/03	117.49	1121.34	
W-854-03	02/01/03	117.89	1120.94	
W-854-03	03/01/03	118.03	1122.51	
W-854-03	04/10/03	118.12	1122.42	
W-854-03	07/08/03	118.24	1122.3	
W-854-03	10/03/03	117.71	1122.83	
W-854-04	01/04/03	302.11	936.27	
W-854-04	02/01/03	301.96	936.42	
W-854-04	03/01/03	302.4	935.98	
W-854-04	04/17/03	301.5	936.88	
W-854-04	07/08/03	301.2	937.18	
W-854-04	10/03/03	302.07	936.31	
W-854-05	01/04/03	89.09	1241.25	
W-854-05	02/01/03	89.11	1241.23	
W-854-05	03/01/03	89.1	1241.24	
W-854-05	04/10/03	89.15	1241.19	
W-854-05	07/08/03	89.17	1241.17	
W-854-05	10/03/03	89.45	1240.89	
W-854-06	01/04/03	116.93	991.52	
W-854-06	02/01/03	116.93	991.52	
W-854-06	03/01/03	117.02	991.43	
W-854-06	04/10/03	117.05	991.4	
W-854-06	07/08/03	117.18	991.27	

**Table 2.6-14. Building 854 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-854-06	10/03/03	117.31	991.14		
W-854-07	01/04/03	116.01	992.85		
W-854-07	02/01/03	116.2	992.66		
W-854-07	03/01/03	116.39	992.47		
W-854-07	04/10/03	116.32	992.54		
W-854-07	07/08/03	116.46	992.4		
W-854-07	10/03/03	116.5	992.36		
W-854-08	01/04/03	118.65	1155.55		
W-854-08	02/01/03	118.61	1155.59		
W-854-08	03/01/03	118.63	1155.57		
W-854-08	04/10/03	118.78	1155.42		
W-854-08	07/08/03	118.87	1155.33		
W-854-08	10/03/03	119.08	1155.12		
W-854-09	01/04/03	-	-		NM/NO ACCESS
W-854-09	02/01/03	184.58	1174.63		
W-854-09	03/01/03	184.39	1174.82		
W-854-09	04/10/03	185.19	1174.02		
W-854-09	07/08/03	185.24	1173.97		
W-854-09	10/03/03	185.79	1173.42		
W-854-10	01/04/03	114.87	1211.51		CB
W-854-10	02/01/03	114.9	1211.48		CB
W-854-10	03/01/03	113.85	1212.53		CB
W-854-10	04/10/03	113.98	1212.4		CB
W-854-10	07/08/03	114.08	1212.3		CB
W-854-10	10/03/03	115.04	1211.34		CB
W-854-11	01/04/03	-	-		DRY/CB
W-854-11	02/01/03	-	-		DRY/CB
W-854-11	03/01/03	-	-		CB/DRY
W-854-11	04/10/03	-	-		DRY/CB
W-854-11	07/01/03	-	-		DRY/CB
W-854-11	10/03/03	-	-		DRY/CB
W-854-12	01/04/03	226.87	1029.92		
W-854-12	02/01/03	226.89	1029.9		
W-854-12	03/01/03	226.83	1029.96		
W-854-12	04/10/03	226.99	1029.8		
W-854-12	07/08/03	226.91	1029.88		

**Table 2.6-14. Building 854 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-854-12	10/03/03	226.91	1029.88		
W-854-13	01/04/03	101.64	1155.53		
W-854-13	02/01/03	101.64	1155.53		
W-854-13	03/01/03	101.61	1155.56		
W-854-13	04/10/03	101.78	1155.39		
W-854-13	07/08/03	101.65	1155.52		
W-854-13	10/03/03	101.84	1155.33		
W-854-14	01/04/03	-	-		DRY/CB
W-854-14	02/01/03	-	-		DRY/CB
W-854-14	03/01/03	-	-		CB/DRY
W-854-14	04/10/03	-	-		DRY/CB
W-854-14	07/01/03	-	-		DRY/CB
W-854-14	10/03/03	-	-		DRY/CB
W-854-15	01/04/03	74.93	1057.07		CB
W-854-15	02/01/03	75.22	1056.78		CB
W-854-15	03/01/03	74.73	1057.27		CB
W-854-15	04/10/03	74.8	1057.2		CB
W-854-15	07/08/03	74.95	1057.05		CB
W-854-15	10/03/03	75.11	1056.89		CB
W-854-17	01/04/03	143.77	1190.37		
W-854-17	02/01/03	143.58	1190.56		
W-854-17	03/01/03	143.45	1190.69		
W-854-17	04/10/03	143.2	1190.94		
W-854-17	07/08/03	143.11	1191.03		
W-854-17	10/03/03	143.52	1190.62		
W-854-1701	01/04/03	-	-		NM/NO ACCESS
W-854-1701	02/01/03	242.45	1007.87		
W-854-1701	03/01/03	242.42	1007.9		
W-854-1701	04/10/03	242.42	1007.9		
W-854-1701	07/08/03	242.25	1008.07		
W-854-1701	10/03/03	242	1008.32		
W-854-1706	01/04/03	-	-		NM/NO ACCESS
W-854-1706	02/01/03	-	-		DRY
W-854-1706	03/01/03	-	-		DRY
W-854-1706	04/10/03	-	-		DRY
W-854-1706	07/01/03	-	-		DRY

**Table 2.6-14. Building 854 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-854-1706	10/03/03	-	-		DRY
W-854-1707	01/04/03	-	-		NM/NO ACCESS
W-854-1707	02/01/03	12.69	844.31		
W-854-1707	03/01/03	13.04	843.96		
W-854-1707	04/10/03	14.27	842.73		
W-854-1707	07/08/03	15.95	841.05		
W-854-1707	10/03/03	16.73	840.27		
W-854-1731	01/04/03	74.31	929.18		
W-854-1731	02/01/03	73.76	929.73		
W-854-1731	03/01/03	73.82	929.67		
W-854-1731	04/10/03	73.55	929.94		
W-854-1731	07/08/03	72.98	930.51		CB
W-854-1731	10/03/03	72.56	930.93		CB
W-854-1822	04/10/03	145.76	1036.24		
W-854-1822	07/08/03	144.36	1037.64		
W-854-1822	10/03/03	144.79	1037.21		
W-854-1823	04/10/03	52.2	1100.06		
W-854-1823	07/08/03	52.43	1099.83		
W-854-1823	10/03/03	52.84	1099.42		
W-854-1834	10/03/03	-	-		DRY
W-854-1835	10/03/03	-	-		DRY
W-854-18A	01/04/03	141.33	1194.57		
W-854-18A	02/01/03	141.07	1194.83		
W-854-18A	03/01/03	140.91	1194.99		
W-854-18A	04/10/03	140.78	1195.12		
W-854-18A	07/08/03	140.76	1195.14		
W-854-18A	10/03/03	140.98	1194.92		
W-854-19	01/04/03	-	-		DRY
W-854-19	02/01/03	-	-		DRY
W-854-19	03/01/03	-	-		DRY
W-854-19	04/10/03	-	-		DRY
W-854-19	07/01/03	-	-		DRY
W-854-19	10/03/03	-	-		DRY
W-854-1902	04/10/03	147.31	1042.69		
W-854-1902	07/08/03	147.09	1042.91		
W-854-1902	10/03/03	147.3	1042.7		



**Table 2.6-14. Building 854 OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-854-45	01/04/03	95.64	908.36		
W-854-45	02/01/03	95.27	908.73		
W-854-45	03/01/03	95.23	908.77		
W-854-45	04/10/03	95.16	908.84		
W-854-45	07/08/03	94.86	909.14		
W-854-45	10/03/03	94.52	909.48		
W-854-F2	01/04/03	-	-		DRY
W-854-F2	04/10/03	-	-		DRY
W-854-F2	07/01/03	-	-		DRY
W-854-F2	10/03/03	-	-		DRY

**Table 2.6-15. Building 854-Source (B854-SRC) mass removed, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	VOC mass removed (g)	Nitrate mass removed (g)	Perchlorate mass removed (g)
B854-SRC	January	30.1	7,200	0.8
	February	22.5	5,400	0.6
	March	24.2	5,800	0.6
	April	39.1	9,200	1.1
	May	38.9	9,100	1.0
	June	41.5	9,800	1.1
	July	35.9	9,600	1.1
	August	17.1	4,600	0.5
	September	37.6	10,100	1.2
	October	33.8	9,400	1.0
	November	29.5	8,200	0.9
	December	39.2	10,900	1.2
<b>Total</b>		<b>389</b>	<b>99,300</b>	<b>15</b>

**Table 2.6-16. Building 854-Proximal (B854-PRX) mass removed, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	VOC mass removed (g)	Nitrate mass removed (g)	Perchlorate mass removed (g)
B854-PRX	January	3.2	2,100	0.5
	February	4.1	2,800	0.7
	March	6.2	4,200	1.0
	April	6.7	4,100	0.9
	May	6.1	3,700	0.8
	June	7.4	4,500	1.0
	July	8.4	4,200	0.9
	August	7.5	3,800	0.8
	September	7.5	3,800	0.8
	October	6.1	3,500	0.8
	November	5.0	2,800	0.6
	December	3.0	1,700	0.4
<b>Total</b>		<b>71</b>	<b>41,200</b>	<b>9.2</b>

**Table 2.7-1. Building 832-Source (B832-SRC) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Volume of vapor extracted (thousands of ft <sup>3</sup> )	Average weekly volume of water treated (gal)
B832-SRC	January	837	5,707	282	1,427
	February	696	4,450	230	1,113
	March	768	3,917	245	783
	April	720	3,318	233	664
	May	696	2,350	219	588
	June	768	2,445	184	489
	July	744	1,297	179	324
	August	600	822	144	206
	September	816	679	196	136
	October	696	380	167	95
	November	624	213	0	53
	December	840	182	0	36
<b>Total</b>		<b>8,805</b>	<b>25,760</b>	<b>2,079</b>	

**Table 2.7-2. Building 830-Source (B830-SRC) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	Operational hours (SVE)	Volume of ground water discharged (gal)	Volume of vapor extracted (thousands of ft <sup>3</sup> )	Average weekly volume of water treated (gal)
B830-SRC	January	NA	NA	NA	NA
	February	0 <sup>a</sup>	61	0 <sup>a</sup>	NA
	March	0 <sup>a</sup>	400	0 <sup>a</sup>	80
	April	0 <sup>a</sup>	624	0 <sup>a</sup>	125
	May	0 <sup>a</sup>	419	0 <sup>a</sup>	105
	June	0 <sup>a</sup>	594	0 <sup>a</sup>	119
	July	106	775	0 <sup>a</sup>	194
	August	217	25	0 <sup>a</sup>	NA
	September	335	83	0 <sup>a</sup>	41.5
	October	360	180	0 <sup>a</sup>	45
	November	452	257	0 <sup>a</sup>	64
	December	688	358	0 <sup>a</sup>	89
<b>Total</b>		<b>2,158</b>	<b>3,861</b>	<b>0<sup>a</sup></b>	

<sup>a</sup> B830-SRC SVE system in testing phase.

**Table 2.7-3. Building 830-Proximal North (B830-PRXN) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B830-PRX	January	153	12,225	2,445
	February	224	17,579	4,395
	March	326	25,760	5,152
	April	147	12,256	3,064
	May	233	10,106	2,526
	June	233	22,562	4,512
	July	181	17,445	4,361
	August	188	18,034	4,509
	September	217	20,651	4,130
	October	308	26,979	6,745
	November	387	33,130	8,282
	December	328	27,493	5,499
<b>Total</b>		<b>2,925</b>	<b>244,220</b>	

**Table 2.7-4. Building 830-Distal South (B830-DISS) volumes of ground water and soil vapor extracted and discharged, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	Operational hours	Volume of ground water discharged (gal)	Average weekly volume of water treated (gal)
B830-DISS	January	744	29,800	7,450
	February	672	12,510	3,128
	March	744	30,070	6,014
	April	720	29,500	7,375
	May	744	32,560	8,140
	June	720	34,010	6,802
	July	744	33,570	8,393
	August	744	40,150	10,038
	September	720	43,180	8,636
	October	744	42,260	10,565
	November	720	53,547	13,387
	December	744	93,473	18,695
<b>Total</b>		<b>8,760</b>	<b>474,630</b>	

Table 2.7-5. Building 832 Canyon OU 2003 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)
<u>B830-PRXN</u>														
STU03-E	01/14/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5
STU03-E	02/05/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU03-E	03/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU03-E	04/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU03-E	05/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU03-E	06/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU03-E	07/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU03-E	08/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU03-E	09/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU03-E	10/15/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU03-E	11/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU03-E	12/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STU03-I	01/14/03	E601	33 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 DO	<1 D	<1 D
STU03-I	04/03/03	E601	33	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.59	<0.5	<0.5
STU03-I	07/08/03	E601	32	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.59	0.57	<0.5
STU03-I	10/15/03	E601	29	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.53	<0.5
<u>B830-SRC</u>														
GTU05-I	02/26/03	E601	2,500 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
GTU05-I	02/27/03	E601	2,800 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
GTU05-I	03/03/03	E601	2,700 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 DO	<25 DO	<25 D
GTU05-I	03/04/03	E601	2,900 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 DO	<25 DO	<25 D
GTU05-I	03/05/03	E601	2,700 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	-	<50 D	<50 D	<50 D
GTU05-I	03/11/03	E601	3,200 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
GTU05-I	03/19/03	E601	3,800 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D
GTU05-I	03/26/03	E601	16 O	<0.5 O	<0.5	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5	<0.5 O
GTU05-I	04/02/03	E601	3,200 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
GTU05-I	07/09/03	E601	4,000 D	10	<1	<0.5	0.69	<0.5	2.8	<0.5	<0.5	<0.5	<0.5	<0.5
GTU05-I	07/30/03	E601	4,100 D	11 D	<20 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
GTU05-I	07/30/03	E601	3,100 D	12 D	<5 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D
GTU05-I	10/08/03	E601	2,100 D	7.6 D	<10 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
GTU05-E	02/26/03	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
GTU05-E	02/27/03	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
GTU05-E	03/03/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5 O	<0.5
GTU05-E	03/04/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5 O	<0.5
GTU05-E	03/05/03	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5
GTU05-E	03/11/03	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
GTU05-E	03/19/03	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
GTU05-E	03/26/03	E601	<0.5 O	<0.5 O	<0.5	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5	<0.5 O
GTU05-E	04/02/03	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

Table 2.7-5. Building 832 Canyon OU 2003 VOCs in ground water treatment system influent and effluent. (Cont. Page 2 of 3)

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	Total 1,2-DCE (µg/L)	Carbon		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)
						tetrachloride (µg/L)	Chloroform (µg/L)							
<u>B830-SRC (Cont.)</u>														
GTU05-E	05/01/03	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
GTU05-E	06/11/03	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
GTU05-E	07/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU05-E	07/22/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU05-E	07/30/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU05-E	09/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU05-E	09/18/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU05-E	10/01/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU05-E	10/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU05-E	10/20/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU05-E	10/21/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU05-E	10/22/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU05-E	11/12/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GTU05-E	12/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<u>B832-SRC</u>														
TF-832-I	02/13/03	E601	57	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-I	03/05/03	E601	56	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-I	06/03/03	E601	55	<0.5	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-I	07/08/03	E601	46	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-I	10/02/03	E601	46	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-E	01/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-E	02/13/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-E	03/05/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-E	04/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-E	05/07/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-E	06/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-E	07/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-E	08/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-E	09/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-E	10/02/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-E	11/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF-832-E	12/03/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<u>B830-DISS</u>														
TF830DS-I	01/15/03	E601	85 D	<2.5 D	<2.5 D	<2.5 D	-	<2.5 D	-	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
TF830DS-I	04/09/03	E601	110 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
TF830DS-I	07/09/03	E601	93	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF830DS-I	10/08/03	E601	90	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF830DS-E	01/15/03	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
TF830DS-E	02/20/03	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

Table 2.7-5. Building 832 Canyon OU 2003 VOCs in ground water treatment system influent and effluent. (Cont. Page 3 of 3)

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	Total 1,2-DCE (µg/L)	Carbon		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)
						tetrachloride (µg/L)	Chloroform (µg/L)							
<i>B830-DISS (Cont.)</i>														
TF830DS-E	03/11/03	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
TF830DS-E	04/09/03	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
TF830DS-E	05/01/03	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
TF830DS-E	06/11/03	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
TF830DS-E	07/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF830DS-E	08/06/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF830DS-E	09/10/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF830DS-E	10/08/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF830DS-E	11/12/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TF830DS-E	12/09/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

## Other VOCs not detected in the table above:

Location	Date	Method	Methylene chloride (µg/L)	cis-1,2-Dichloroethene (µg/L)
GTU05-E	03/04/03	E601	0.69 F	-
GTU05-E	03/05/03	E601	-	-
GTU05-E	03/11/03	E601	1.1	-
GTU05-E	03/19/03	E601	2.1	-
GTU05-E	03/26/03	E601	2.2 O	-
GTU05-E	04/02/03	E601	2.7	-
GTU05-E	05/01/03	E601	1.8	-
GTU05-E	06/11/03	E601	4.6	-
GTU05-E	07/09/03	E601	3.8	-
GTU05-E	07/22/03	E601	4.1	-
GTU05-E	07/30/03	E601	3.8	-
GTU05-E	09/10/03	E601	5.8	-
GTU05-E	09/18/03	E601	4.3	-
GTU05-E	10/01/03	E601	3.6	-
TF-832-I	02/13/03	E601	-	0.96
TF-832-I	03/05/03	E601	-	1
TF-832-I	06/03/03	E601	-	1.4
TF-832-I	07/08/03	E601	-	0.92
TF-832-I	10/02/03	E601	-	0.63
TF830DS-E	01/15/03	E601	0.6	-

**Table 2.7-6. Building 832 OU 2003 nitrate and perchlorate in ground water treatment system influence and effluent.**

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
<b><u>B830-PRXN</u></b>			
STU03-E	01/14/03	16	<4
STU03-E	02/05/03	17 D	<3
STU03-E	03/11/03	16 D	<3
STU03-E	04/03/03	13 D	<4
STU03-E	05/06/03	-	<4
STU03-E	06/03/03	-	<4
STU03-E	07/08/03	16	<4
STU03-E	08/11/03	-	<4
STU03-E	09/03/03	-	<4
STU03-E	10/15/03	15 D	<4 H
STU03-E	11/11/03	-	<4
STU03-E	12/09/03	-	<4
STU03-I	01/14/03	18	<4
STU03-I	04/03/03	16 D	<4
STU03-I	07/08/03	17	<4
STU03-I	10/15/03	17 D	<4 H
GTU05-I	02/26/03	100 D	11
<b><u>B830-SRC</u></b>			
GTU05-I	02/27/03	100 D	4.9
GTU05-I	03/03/03	100 D	<4
GTU05-I	03/04/03	110 D	4.3
GTU05-I	03/05/03	120 D	4.2
GTU05-I	03/11/03	93 D	<4
GTU05-I	03/19/03	120 LD	<4
GTU05-I	03/26/03	110 D	<4
GTU05-I	04/02/03	110 D	<4
GTU05-I	07/09/03	99 D	<4
GTU05-I	10/08/03	130 D	5.6 H
GTU05-E	02/26/03	<0.5	<4
GTU05-E	02/27/03	<0.5	<4
GTU05-E	03/03/03	<0.5	<4
<b><u>B830-SRC</u></b>			
GTU05-E	03/04/03	<0.5	<4
GTU05-E	03/05/03	<0.5	<4



**Table 2.7-6. Building 832 OU 2003 nitrate and perchlorate in ground water treatment system influence and effluent.**

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
GTU05-E	03/11/03	<0.5	<4
GTU05-E	03/19/03	<0.5 L	<4
GTU05-E	03/26/03	<0.5	<4
GTU05-E	04/02/03	<0.5	<4
GTU05-E	05/01/03	<0.5	<4
GTU05-E	06/11/03	0.5	<4
GTU05-E	07/09/03	<0.44	<4
GTU05-E	09/10/03	<0.44	<4
GTU05-E	10/08/03	95 D	<4 H
GTU05-E	11/12/03	48 D	<4
GTU05-E	12/09/03	23 D	<4
<u>B832-SRC</u>			
TF-832-I	02/13/03	130 D	10
TF-832-I	03/05/03	130 D	10
TF-832-I	06/03/03	130 D	7.2
TF-832-I	07/08/03	130 D	8.4
TF-832-I	10/02/03	140 D	9.2 H
TF-832-E	01/07/03	110 D	<4 L
TF-832-E	02/13/03	120 D	<3
TF-832-E	03/05/03	120 D	<3
TF-832-E	04/03/03	110 D	<4
TF-832-E	05/07/03	120 D	<4
TF-832-E	06/03/03	150 D	<4
TF-832-E	07/08/03	130 D	<4
TF-832-E	08/06/03	120 D	<4
TF-832-E	09/03/03	140 D	<4
TF-832-E	10/02/03	130 D	<4 H
TF-832-E	11/11/03	100 D	<4
TF-832-E	12/03/03	100 D	<4
<u>B830-DISS</u>			
TF830DS-I	01/15/03	67 DL	<4
TF830DS-I	04/09/03	68 DL	4.3
TF830DS-I	07/09/03	65	4.5 H
TF830DS-I	10/08/03	68 D	<4 H
TF830DS-E	01/15/03	25 DL	<4

**Table 2.7-6. Building 832 OU 2003 nitrate and perchlorate in ground water treatment system influence and effluent.**

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
TF830DS-E	02/20/03	25 D	<4
TF830DS-E	03/11/03	27 D	4.7
TF830DS-E	04/09/03	35 DL	5.9
TF830DS-E	05/01/03	43 D	6.6
TF830DS-E	06/11/03	1.1	6.5
TF830DS-E	07/09/03	<0.44	<4
TF830DS-E	08/06/03	<0.44	<4
TF830DS-E	09/10/03	1.9	<4
TF830DS-E	10/08/03	<0.88 D	<4 H
TF830DS-E	11/12/03	19	<4
TF830DS-E	12/09/03	24	<4

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

Sample location	Sample identification	Parameter	Frequency
<i>B832-SRC GTWS</i>			
Influent Port	B832-SRC-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		pH	Quarterly
Effluent Port (influent to misting system)	B832-SRC-E	VOCs	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		PH	Monthly
<i>B830-SRC GTWS</i>			
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
<i>B830-PRXN GWTS</i>			
Influent Port	STU03-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
Effluent Port	STU03-E	VOCs	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
<i>B830-DISS GTWS</i>			
Influent Port	B830-DISS-I	VOCs	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		pH	Quarterly
Effluent Port	B830-DISS-E	VOCs	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		pH	Monthly

Table 2.7-8. Building 832 Canyon 2003 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
SPRING19	SPR	Upper Tnbs <sub>1</sub>							See Building 833.
SPRING3	SPR	Qal	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
SPRING3	SPR	Qal Qal	A	A	CMP	E300.0:NO3	4	Y	
SPRING3	SPR	Qal	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
SPRING3	SPR	Qal	A	A	CMP	E300.0:PERC	4	Y	
SPRING3	SPR	Qal	S	S	CMP	E601	1	N	Sampling personnel shortage.
SPRING3	SPR	Qal	S	S	CMP	E601	3	Y	
SPRING4	SPR	Tps	B	B	CMP	E300.0:NO3	2	N	Sampling personnel shortage.
SPRING4	SPR	Tps	B	B	CMP	E300.0:NO3	4	Y	
SPRING4	SPR	Tps	B	B	CMP	E300.0:PERC	2	N	Sampling personnel shortage.
SPRING4	SPR	Tps	B	B	CMP	E300.0:PERC	4	Y	
SPRING4	SPR	Tps	B	B	CMP	E601	2	N	Sampling personnel shortage.
SPRING4	SPR	Tps	B	B	CMP	E601	4	Y	
SVI-830-031	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
SVI-830-031	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
SVI-830-031	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	1	Y	
SVI-830-031	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	3	N	Dry.
SVI-830-031	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	4	N	Insufficient water.
SVI-830-032	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
SVI-830-032	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	3	N	Dry.
SVI-830-032	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Insufficient water.
SVI-830-032	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
SVI-830-032	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	3	N	Dry.
SVI-830-032	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	4	N	Insufficient water.
SVI-830-032	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
SVI-830-032	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	3	N	Dry.
SVI-830-032	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	4	N	Insufficient water.

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 2 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
SVI-830-033	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
SVI-830-033	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	3	N	Dry.
SVI-830-033	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Insufficient water.
SVI-830-033	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
SVI-830-033	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	3	N	Dry.
SVI-830-033	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	4	N	Insufficient water.
SVI-830-033	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
SVI-830-033	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	3	N	Dry.
SVI-830-033	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	4	N	Insufficient water.
SVI-830-035	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
SVI-830-035	MWPT	Tnsc <sub>1</sub>		A	DIS	E300.0:NO3	3	Y	
SVI-830-035	MWPT	Tnsc <sub>1</sub>		A	DIS	E300.0:NO3	4	N	Insufficient water..
SVI-830-035	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
SVI-830-035	MWPT	Tnsc <sub>1</sub>		A	DIS	E300.0:PERC	3	Y	
SVI-830-035	MWPT	Tnsc <sub>1</sub>		A	DIS	E300.0:PERC	4	N	Insufficient water..
SVI-830-035	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	1	Y	
SVI-830-035	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	3	Y	
SVI-830-035	MWPT	Tnsc <sub>1</sub>		S	DIS	E601	4	Y	
W-830-04A	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-04A	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-04A	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-04A	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-05	MWPT	Tnbs <sub>2</sub> -Tnsc <sub>1c</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-05	MWPT	Tnbs <sub>2</sub> -Tnsc <sub>1c</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-05	MWPT	Tnbs <sub>2</sub> -Tnsc <sub>1c</sub>	S	S	CMP	E601	1	Y	

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 3 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-05	MWPT	Tnbs <sub>2</sub> -Tnsc <sub>1c</sub>	S	S	CMP	E601	3	Y	
W-830-07	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	Dry.
W-830-07	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Dry.
W-830-07	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	Dry.
W-830-07	MWPT	Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	4	N	Dry.
W-830-07	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	1	N	Dry.
W-830-07	MWPT	Tnsc <sub>1</sub>	S	S	CMP	E601	3	N	Dry.
W-830-09	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	No access.
W-830-09	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-830-09	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	No access.
W-830-09	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-830-09	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	1	N	No access.
W-830-09	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-830-10	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-10	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-10	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-10	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-11	MWPT	Tnsc <sub>1c</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-11	MWPT	Tnsc <sub>1c</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-11	MWPT	Tnsc <sub>1c</sub>	S	S	CMP	E601	1	Y	
W-830-11	MWPT	Tnsc <sub>1c</sub>	S	S	CMP	E601	3	Y	
W-830-12	MWPT	Lower Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	No access.
W-830-12	MWPT	Lower Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-830-12	MWPT	Lower Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	No access.
W-830-12	MWPT	Lower Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-830-12	MWPT	Lower Tnbs <sub>1</sub>	S	S	CMP	E601	1	N	No access.
W-830-12	MWPT	Lower Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 4 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-13	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-13	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-13	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-830-13	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-830-14	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-14	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-14	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-14	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-15	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	CB flooded.
W-830-15	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	CB flooded.
W-830-15	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	1	N	CB flooded.
W-830-15	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-830-16	GW	Tnsc <sub>1b</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-830-16	GW	Tnsc <sub>1b</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-830-16	GW	Tnsc <sub>1b</sub>	S	S	CMP	E300.0:PERC	1	Y	
W-830-16	GW	Tnsc <sub>1b</sub>	S	S	CMP	E300.0:PERC	3	Y	
W-830-16	GW	Tnsc <sub>1b</sub>	Q	Q	CMP	E601	1	Y	
W-830-16	GW	Tnsc <sub>1b</sub>	Q	Q	CMP	E601	2	Y	
W-830-16	GW	Tnsc <sub>1b</sub>	Q	Q	CMP	E601	3	Y	
W-830-16	GW	Tnsc <sub>1b</sub>	Q	Q	CMP	E601	4	Y	
W-830-17	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-17	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-17	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-830-17	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-830-1730	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-1730	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-1730	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-1730	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 5 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-18	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-18	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-18	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
W-830-18	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	AS:UIISO	1	N	Sampling personnel shortage.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	AS:UIISO	2	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	AS:UIISO	3	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	AS:UIISO	4	N	Not sampled.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	DWMETALS	1	N	Sampling personnel shortage.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	DWMETALS	2	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	DWMETALS	3	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	DWMETALS	4	N	Not sampled.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E300.0:NO3	1	N	Sampling personnel shortage.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>	A	Q	CMP	E300.0:NO3	2	Y	Sampled as GTU05-I 4/03
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E300.0:NO3	3	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E300.0:NO3	4	N	Not sampled.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E300.0:PERC	1	N	Sampling personnel shortage.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>	A	Q	CMP	E300.0:PERC	2	Y	Sampled as GTU05-I 4/03
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E300.0:PERC	3	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E300.0:PERC	4	N	Not sampled.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E601	1	N	Sampling personnel shortage.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>	S	Q	CMP	E601	2	Y	Sampled as GTU05-I 4/03
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E601	3	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>	S	Q	CMP	E601	4	Y	
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E602	1	N	Sampling personnel shortage.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E602	2	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E602	3	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E602	4	N	Not sampled.



Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 6 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E8330:R+H	1	N	Sampling personnel shortage.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E8330:R+H	2	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E8330:R+H	3	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E8330:R+H	4	N	Not sampled.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E900	1	N	Sampling personnel shortage.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E900	2	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E900	3	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E900	4	N	Not sampled.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E906	1	N	Sampling personnel shortage.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E906	2	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E906	3	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	E906	4	N	Not sampled.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	GENMIN	1	N	Sampling personnel shortage.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	GENMIN	2	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	GENMIN	3	N	Dry.
W-830-1807	EW	Qal/Tnsc <sub>1</sub>		Q	DIS	GENMIN	4	N	Not sampled.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	AS:UISO	1	N	Sampling personnel shortage.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	AS:UISO	2	N	Dry.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	AS:UISO	3	N	Not sampled.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	AS:UISO	4	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	DWMETALS	1	N	Sampling personnel shortage.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	DWMETALS	2	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	DWMETALS	3	N	Not sampled.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	DWMETALS	4	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E300.0:NO3	1	N	Sampling personnel shortage.
W-830-1829	MWPT	Tnsc <sub>1b</sub>	A	Q	CMP	E300.0:NO3	2	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E300.0:NO3	3	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E300.0:NO3	4	Y	

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 7 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E300.0:PERC	1	N	Sampling personnel shortage.
W-830-1829	MWPT	Tnsc <sub>1b</sub>	A	Q	CMP	E300.0:PERC	2	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E300.0:PERC	3	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E300.0:PERC	4	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E601	1	N	Sampling personnel shortage.
W-830-1829	MWPT	Tnsc <sub>1b</sub>	S	Q	CMP	E601	2	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E601	3	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>	S	Q	CMP	E601	4	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E602	1	N	Sampling personnel shortage.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E602	2	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E602	3	N	Not sampled.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E602	4	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E8330:R+H	1	N	Sampling personnel shortage.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E8330:R+H	2	N	Dry.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E8330:R+H	3	N	Not sampled.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E8330:R+H	4	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E900	1	N	Sampling personnel shortage.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E900	2	N	Dry.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E900	3	N	Not sampled.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E900	4	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E906	1	N	Sampling personnel shortage.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E906	2	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E906	3	N	Not sampled.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E906	4	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	GENMIN	1	N	Sampling personnel shortage.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	GENMIN	2	Y	
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	GENMIN	3	N	Not sampled.
W-830-1829	MWPT	Tnsc <sub>1b</sub>		Q	DIS	GENMIN	4	Y	

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 8 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	AS:UIISO	1	N	Sampling personnel shortage.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	AS:UIISO	2	N	Dry.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	AS:UIISO	3	N	Not sampled.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	AS:UIISO	4	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	DWMETALS	1	N	Sampling personnel shortage.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	DWMETALS	2	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	DWMETALS	3	N	Not sampled.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	DWMETALS	4	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E300.0:NO3	1	N	Sampling personnel shortage.
W-830-1830	MWPT	Tnsc <sub>1b</sub>	A	Q	CMP	E300.0:NO3	2	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E300.0:NO3	3	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E300.0:NO3	4	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E300.0:PERC	1	N	Sampling personnel shortage.
W-830-1830	MWPT	Tnsc <sub>1b</sub>	A	Q	CMP	E300.0:PERC	2	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E300.0:PERC	3	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E300.0:PERC	4	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E601	1	N	Sampling personnel shortage.
W-830-1830	MWPT	Tnsc <sub>1b</sub>	S	Q	CMP	E601	2	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E601	3	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>	S	Q	CMP	E601	4	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E602	1	N	Sampling personnel shortage.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E602	2	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E602	3	N	Not sampled.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E602	4	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E8330:R+H	1	N	Sampling personnel shortage.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E8330:R+H	2	N	Dry.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E8330:R+H	3	N	Not sampled.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E8330:R+H	4	Y	

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 9 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E900	1	N	Sampling personnel shortage.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E900	2	N	Dry.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E900	3	N	Not sampled.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E900	4	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E906	1	N	Sampling personnel shortage.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E906	2	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E906	3	N	Not sampled.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	E906	4	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	GENMIN	1	N	Sampling personnel shortage.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	GENMIN	2	Y	
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	GENMIN	3	N	Not sampled.
W-830-1830	MWPT	Tnsc <sub>1b</sub>		Q	DIS	GENMIN	4	Y	
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	AS:UISO	1	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	AS:UISO	2	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	AS:UISO	3	N	Not sampled.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	AS:UISO	4	N	No pump.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	DWMETALS	1	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	DWMETALS	2	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	DWMETALS	3	N	Not sampled.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	DWMETALS	4	N	No pump.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E300.0:NO3	1	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E300.0:NO3	2	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>	A	Q	CMP	E300.0:NO3	3	Y	
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E300.0:NO3	4	Y	
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E300.0:PERC	1	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E300.0:PERC	2	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>	A	Q	CMP	E300.0:PERC	3	Y	
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E300.0:PERC	4	Y	

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 10 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E601	1	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>	S	Q	CMP	E601	2	Y	
W-830-1831	GW	Tnsc <sub>1b</sub>	S	Q	CMP	E601	3	Y	
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E601	4	N	No pump.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E602	1	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E602	2	Y	
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E602	3	N	Not sampled.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E602	4	N	Not sampled.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E8330:R+H	1	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E8330:R+H	2	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E8330:R+H	3	N	Not sampled.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E8330:R+H	4	N	No pump.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E900	1	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E900	2	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E900	3	N	Not sampled.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E900	4	N	No pump.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E906	1	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E906	2	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E906	3	N	Not sampled.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	E906	4	N	No pump.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	GENMIN	1	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	GENMIN	2	N	Sampling personnel shortage.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	GENMIN	3	N	Not sampled.
W-830-1831	GW	Tnsc <sub>1b</sub>		Q	DIS	GENMIN	4	N	No pump.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	AS:UISO	1	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	AS:UISO	2	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	AS:UISO	3	Y	Not sampled.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	AS:UISO	4	N	No pump.

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 11 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	DWMETALS	1	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	DWMETALS	2	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	DWMETALS	3	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	DWMETALS	4	N	No pump.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E300.0:NO3	1	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E300.0:NO3	2	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>	A	Q	CMP	E300.0:NO3	3	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E300.0:NO3	4	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E300.0:PERC	1	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E300.0:PERC	2	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>	A	Q	CMP	E300.0:PERC	3	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E300.0:PERC	4	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E601	1	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>	S	Q	CMP	E601	2	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>	S	Q	CMP	E601	3	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E601	4	N	No pump.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E602	1	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E602	2	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E602	3	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E602	4	N	No pump.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E8330:R+H	1	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E8330:R+H	2	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E8330:R+H	3	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E8330:R+H	4	N	No pump.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E900	1	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E900	2	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E900	3	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E900	4	N	No pump.

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 12 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E906	1	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E906	2	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E906	3	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	E906	4	N	No pump.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	GENMIN	1	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	GENMIN	2	N	Sampling personnel shortage.
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	GENMIN	3	Y	
W-830-1832	MWPT	Upper Tnbs <sub>1</sub>		Q	DIS	GENMIN	4	N	No pump.
W-830-19	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-19	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-19	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-19	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	N	TF Well not operating.
W-830-20	GW	Upper Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	1	Y	
W-830-20	GW	Upper Tnbs <sub>1</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-830-20	GW	Upper Tnbs <sub>1</sub>	S	S	CMP	E300.0:PERC	1	Y	
W-830-20	GW	Upper Tnbs <sub>1</sub>	S	S	CMP	E300.0:PERC	3	Y	
W-830-20	GW	Upper Tnbs <sub>1</sub>	Q	Q	CMP	E601	1	Y	
W-830-20	GW	Upper Tnbs <sub>1</sub>	Q	Q	CMP	E601	2	Y	
W-830-20	GW	Upper Tnbs <sub>1</sub>	Q	Q	CMP	E601	3	Y	
W-830-20	GW	Upper Tnbs <sub>1</sub>	Q	Q	CMP	E601	4	Y	
W-830-21	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-21	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-21	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-21	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-22	MWPT	Tnsc <sub>1a</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-22	MWPT	Tnsc <sub>1a</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-22	MWPT	Tnsc <sub>1a</sub>	S	S	CMP	E601	1	Y	
W-830-22	MWPT	Tnsc <sub>1a</sub>	S	S	CMP	E601	3	Y	

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 13 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-25	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-25	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-25	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-25	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-26	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-26	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-26	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
W-830-26	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-830-27	MWPT	Tnsc <sub>1a</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-27	MWPT	Tnsc <sub>1a</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-27	MWPT	Tnsc <sub>1a</sub>	S	S	CMP	E601	1	Y	
W-830-27	MWPT	Tnsc <sub>1a</sub>	S	S	CMP	E601	3	Y	
W-830-28	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-28	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-28	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
W-830-28	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-830-29	MWPT	Lower Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-29	MWPT	Lower Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-29	MWPT	Lower Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
W-830-29	MWPT	Lower Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-830-30	MWPT	Qal/Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	No Access.
W-830-30	MWPT	Qal/Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	4	Y	
W-830-30	MWPT	Qal/Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	No Access.
W-830-30	MWPT	Qal/Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-830-30	MWPT	Qal/Tnsc <sub>1</sub>	S	S	CMP	E601	1	N	No Access.
W-830-30	MWPT	Qal/Tnsc <sub>1</sub>	S	S	CMP	E601	3	Y	
W-830-34	MWPT	Qal/Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	No Access.
W-830-34	MWPT	Qal/Tnsc <sub>1</sub>	A	A	CMP	E300.0:NO3	4	Y	



Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 14 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-34	MWPT	Qal/Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	No Access.
W-830-34	MWPT	Qal/Tnsc <sub>1</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-830-34	MWPT	Qal/Tnsc <sub>1</sub>	S	S	CMP	E601	1	N	No Access.
W-830-34	MWPT	Qal/Tnsc <sub>1</sub>	S	S	CMP	E601	3	N	No Access.
W-830-49	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-49	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-49	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-49	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-50	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-50	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-50	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-50	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-51	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-51	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-51	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-51	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-52	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-52	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-52	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-52	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-53	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-53	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-53	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-53	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-54	MWPT	Tnsc <sub>1c</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-54	MWPT	Tnsc <sub>1c</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-54	MWPT	Tnsc <sub>1c</sub>	S	S	CMP	E601	1	Y	
W-830-54	MWPT	Tnsc <sub>1c</sub>	S	S	CMP	E601	3	Y	

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 15 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-830-55	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-55	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-55	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-55	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-56	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-56	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-56	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-56	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-57	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-57	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-57	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
W-830-57	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-830-58	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-58	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-58	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-830-58	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-59	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-830-59	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-830-59	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	N	Sampling personnel shortage.
W-830-59	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-830-60	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-830-60	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-830-60	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
W-830-60	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-831-01	MWB	Lower Tnbs <sub>1</sub>	B	B	CMP	E300.0:NO3	1	N	Sampling personnel shortage.
W-831-01	MWB	Lower Tnbs <sub>1</sub>	B	B	CMP	E300.0:NO3	4	Y	
W-831-01	MWB	Lower Tnbs <sub>1</sub>	B	B	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-831-01	MWB	Lower Tnbs <sub>1</sub>	B	B	CMP	E300.0:PERC	4	Y	

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 16 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-831-01	MWB	Lower Tnbs <sub>1</sub>	B	B	CMP	E601	1	N	Sampling personnel shortage.
W-831-01	MWB	Lower Tnbs <sub>1</sub>	B	B	CMP	E601	4	Y	
W-832-01	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-01	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-832-01	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-01	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-832-05	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-05	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-832-05	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-05	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-832-06	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-06	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-832-06	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-06	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-832-09	MWPT	Lower Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-09	MWPT	Lower Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-832-09	MWPT	Lower Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
W-832-09	MWPT	Lower Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-832-10	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-10	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-832-10	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-10	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-832-11	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-11	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-832-11	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-11	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-832-12	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-12	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 17 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-832-12	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-12	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-832-13	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-13	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-832-13	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-13	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-832-14	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-14	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	4	N	Dry.
W-832-14	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-14	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	4	N	Dry.
W-832-14	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	N	Dry.
W-832-14	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	N	Dry.
W-832-15	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-15	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	N	Sampling personnel shortage.
W-832-15	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	4	Y	
W-832-15	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-15	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-832-15	EW	Tnsc <sub>1b</sub>	B	B	CMP	E8330	1	N	Sampling personnel shortage.
W-832-15	EW	Tnsc <sub>1b</sub>	B	B	CMP	E8330	4	Y	
W-832-16	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-16	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	4	N	Insufficient water..
W-832-16	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-16	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	4	N	Insufficient water..
W-832-16	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	N	Dry.
W-832-16	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	N	Dry.
W-832-17	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-17	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	4	N	Insufficient water..
W-832-17	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	N	Dry.

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 18 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-832-17	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	4	N	Insufficient water..
W-832-17	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	N	Dry.
W-832-17	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	N	Dry.
W-832-18	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-18	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	N	Insufficient water..
W-832-18	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	4	N	Insufficient water..
W-832-18	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-18	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-832-19	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-19	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	N	Insufficient water..
W-832-19	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	4	N	Dry.
W-832-19	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-19	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	N	Dry.
W-832-1927	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E300.0:NO3	3	Y	
W-832-1927	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E300.0:NO3	4	Y	
W-832-1927	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E300.0:PERC	3	Y	
W-832-1927	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E300.0:PERC	4	Y	
W-832-1927	MWPT	Tnsc <sub>1b</sub>	Q	Q	CMP	E601	1	N	New well.
W-832-1927	MWPT	Tnsc <sub>1b</sub>	Q	Q	CMP	E601	2	Y	
W-832-1927	MWPT	Tnsc <sub>1b</sub>	Q	Q	CMP	E601	3	Y	
W-832-1927	MWPT	Tnsc <sub>1b</sub>	Q	Q	CMP	E601	4	Y	
W-832-20	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-20	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	4	N	Insufficient water..
W-832-20	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-20	EW	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	4	N	Insufficient water..
W-832-20	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	N	Dry.
W-832-20	EW	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	N	Dry.
W-832-21	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	N	Dry.

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 19 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-832-21	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	4	N	Insufficient water..
W-832-21	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-21	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	4	N	Insufficient water..
W-832-21	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	N	Dry.
W-832-21	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	N	Dry.
W-832-22	EW	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	1	N	Dry.
W-832-22	EW	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	4	N	Insufficient water..
W-832-22	EW	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	1	N	Dry.
W-832-22	EW	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	4	N	Insufficient water..
W-832-22	EW	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	1	N	Dry.
W-832-22	EW	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	3	N	Dry.
W-832-23	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-23	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-832-23	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-23	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-832-24	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-24	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-832-24	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-24	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-832-25	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-832-25	MWPT	Tnsc <sub>1b</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-832-25	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	1	Y	
W-832-25	MWPT	Tnsc <sub>1b</sub>	S	S	CMP	E601	3	Y	
W-832-SC1	MWPT	Qal	A	A	CMP	E300.0:NO3	1	N	Mud-no sample.
W-832-SC1	MWPT	Qal	A	A	CMP	E300.0:NO3	4	Y	
W-832-SC1	MWPT	Qal	A	A	CMP	E300.0:PERC	1	N	Mud-no sample.
W-832-SC1	MWPT	Qal	A	A	CMP	E300.0:PERC	4	Y	
W-832-SC1	MWPT	Qal	S	S	CMP	E601	1	N	Mud-no sample.

Table 2.7-8. Building 832 Canyon 2003 ground water sampling and analysis plan. (Cont. Page 20 of 21)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-832-SC1	MWPT	Qal	S	S	CMP	E601	3	Y	
W-832-SC2	MWPT	Qal	A	A	CMP	E300.0:NO3	1	N	Mud-no sample.
W-832-SC2	MWPT	Qal	A	A	CMP	E300.0:NO3	4	N	Dry.
W-832-SC2	MWPT	Qal	A	A	CMP	E300.0:PERC	1	N	Mud-no sample.
W-832-SC2	MWPT	Qal	A	A	CMP	E300.0:PERC	4	N	Dry.
W-832-SC2	MWPT	Qal	S	S	CMP	E601	1	N	Mud-no sample.
W-832-SC2	MWPT	Qal	S	S	CMP	E601	3	N	Dry.
W-832-SC3	MWPT	Qal	A	A	CMP	E300.0:NO3	1	Y	
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	Y	
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	Y	
W-870-01	MWPT	Qal	A	A	CMP	E300.0:NO3	1	N	Dry.
W-870-01	MWPT	Qal	A	A	CMP	E300.0:NO3	4	N	Dry.
W-870-01	MWPT	Qal	A	A	CMP	E300.0:PERC	1	N	Dry.
W-870-01	MWPT	Qal	A	A	CMP	E300.0:PERC	4	N	Dry.
W-870-01	MWPT	Qal	S	S	CMP	E601	1	N	Dry.
W-870-01	MWPT	Qal	S	S	CMP	E601	3	N	Dry.
W-870-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	1	Y	
W-870-02	MWPT	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	1	Y	
W-870-02	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	1	Y	
W-870-02	MWPT	Tnbs <sub>2</sub>	S	S	CMP	E601	3	Y	
W-880-01	GW	Tnbs <sub>2</sub>							See High Explosives Process Area
W-880-02	GW	Qal							See High Explosives Process Area
W-880-03	GW	Tnsc <sub>1b</sub>							See High Explosives Process Area

Notes and footnotes appear on following page.

**Table 2.7-8. Building 832 Canyon (OU7) 2003 ground water sampling and analysis plan. (Cont. Page 21 of 21)**

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**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).**

**Building 832 Contaminants of Concern in the Vadose Zone not detected in Ground Water: HE compounds.**

**CGSA CMP/DIS = Sampling more frequently then required.**

**CGSA CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes then required by the CMP. Non-CMP analytes are reported separately by ORAD.**

**CGSA CMP = Central GSA groundwater sampling and analysis plan specified in the GSA RD**

**CMP DMW = CMP detection monitor well.**

**CMP/DIS = Sampling required analyte more frequently then required.**

**CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes then required by the CMP. Non-CMP analytes are reported separately by ORAD.**

**CMP = Compliance Monitoring Plan.**

**DIS = Discretionary sampling of non-required analyte.**

**DMW = Detection monitor well (non-CMP).**

**ERD/WGMG = Non-CMP analyte sampled from a well shared by ERD and WGMG.**

**EW = Extraction well.**

**GW = Guard well.**

**MWB = Monitor well used for background.**

**MWPT = Monitor well used for plume tracking.**

**SPR = Spring.**

**WS = Water supply well.**



Table 2.7-9. Building 832 Canyon OU 2003 VOCs in ground and surface water.

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)
W-830-04A	03/14/03	E601	4.9	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-04A	08/20/03	E601	4.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-05	03/14/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-05	07/30/03	E601	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-09	08/28/03	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
W-830-10	03/14/03	E601	94	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-10	03/14/03 DUP	E601	91	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-10	08/25/03	E601	78 DL	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D	<1 D
W-830-11	03/14/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-11	07/30/03	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
W-830-12	08/28/03	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
W-830-13	03/21/03	E601	21 O	<0.5 O	<0.5	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5	<0.5 O
W-830-13	08/20/03	E601	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-14	03/14/03	E601	2.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-14	03/14/03 DUP	E601	2.2	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-14	08/20/03	E601	1.6 L	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-830-15	08/20/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-830-16	03/19/03	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
W-830-16	04/30/03	E601	<0.5 LJ	<0.5	<0.5	<0.5 IJ	<0.5 IJ	<0.5	<0.5 IJ	<0.5	<0.5 IJ	<0.5 IJ	<0.5	<0.5
W-830-16	09/10/03	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
W-830-16	11/06/03	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
W-830-17	03/25/03	E601	0.54 O	<0.5 O	<0.5	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5
W-830-17	09/10/03	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
W-830-1730	02/21/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1730	09/18/03	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
W-830-18	01/28/03	E601	5	<0.5	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5 O	<0.5
W-830-18	01/28/03 DUP	E601	5.3 D	<1 D	<1 D	<1 DO	<1 D	<1 D	<1 D	<1 D	<1 DO	<1 D	<1 DO	<1 D
W-830-18	08/14/03	E601	6.1	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-18	08/14/03 DUP	E601	5.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1807	10/08/03	E601	2,600 D	18 D	<10 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-830-1829	06/30/03	E601	2,400 D	<50 D	<50 D	<50 D	120 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-830-1829	06/30/03 DUP	E601	2,400 D	<50 D	<50 D	<50 D	100 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-830-1829	09/23/03	E601	2,900 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-830-1829	11/06/03	E601	3,100 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-830-1830	06/30/03	E601	1,100 D	<50 D	<50 D	<50 D	140 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-830-1830	09/23/03	E601	1,200 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-830-1830	11/06/03	E601	1,600 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-830-1831	06/30/03	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
W-830-1831	09/18/03	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
W-830-1832	06/30/03	E601	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.7-9. Building 832 Canyon OU 2003 VOCs in ground and surface water. (Cont. Page 2 of 6)

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)
W-830-1832	07/30/03	E601	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-19	03/19/03	E601	8,500 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D
W-830-19	03/19/03 DUP	E601	8,200 D	11	<1	<0.5	1.9	<0.5	2.2	1.7	<0.5	1.2	<0.5	<0.5
W-830-19	10/08/03	E601	1,900 D	5.8 D	<10 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-830-20	03/14/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-20	04/24/03	E601	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-20	09/08/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5
W-830-20	10/11/03	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
W-830-21	03/14/03	E601	63	<0.5	5.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-21	08/14/03	E601	69	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-22	03/19/03	E601	8.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-22	09/08/03	E601	7.5 L	<0.5	<0.5	<0.5	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5
W-830-25	03/24/03	E601	660 D	<50 DO	<50 D	<50 DO	<50 D	<50 DO	<50 DO	<50 D	<50 DO	<50 D	<50 DO	<50 D
W-830-25	08/27/03	E601	490 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-830-26	03/19/03	E601	3.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-26	08/28/03	E601	5.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-27	03/24/03	E601	880 D	<100 DO	<100 D	<100 DO	<100 D	<100 DO	<100 DO	<100 D	<100 DO	<100 D	<100 DO	<100 D
W-830-27	09/02/03	E601	1,400 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-830-28	03/24/03	E601	51 DO	<1 DO	<1 D	<1 DO	<1 DO	<1 DO	<1 DO	<1 DO	<1 DO	<1 DO	<1 DO	<1 D
W-830-28	09/02/03	E601	64	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-29	03/19/03	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
W-830-29	08/28/03	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
W-830-30	08/25/03	E601	3,200 DL	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-830-49	03/21/03	E601	-	<500 DO	<500 D	<500 DO	<500 DO	<500 DO	<500 DO	<500 DO	<500 DO	<500 DO	<500 D	<500 DO
W-830-49	08/25/03	E601	10,000 DL	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D
W-830-50	03/25/03	E601	28 O	<0.5 O	<0.5	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5
W-830-50	08/25/03	E601	24 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-51	01/15/03	E601	74 DL	<2.5 DL	<2.5 DL	<2.5 DL	<2.5 DL	<2.5 DL	-	<2.5 DL	<2.5 DL	<2.5 DL	<2.5 DL	<2.5 DL
W-830-51	04/16/03	E601	100 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-51	07/09/03	E601	94	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-51	10/08/03	E601	86	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-52	01/15/03	E601	55 DL	<5 DIJL	<5 DL	<5 DL	<5 DL	<5 DL	-	<5 DL	<5 DL	<5 DL	<5 DL	<5 DL
W-830-52	04/16/03	E601	86 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 DO	<2.5 D	<2.5 D	<2.5 D
W-830-52	07/09/03	E601	90	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-52	10/08/03	E601	84	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-53	01/15/03	E601	51 DL	<2.5 DL	<2.5 DL	<2.5 DL	<2.5 DL	<2.5 DL	-	<2.5 DL	<2.5 DL	<2.5 DL	<2.5 DL	<2.5 DL
W-830-53	04/16/03	E601	81 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-53	07/09/03	E601	81	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-53	10/08/03	E601	80	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-54	03/19/03	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

Table 2.7-9. Building 832 Canyon OU 2003 VOCs in ground and surface water. (Cont. Page 3 of 6)

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)
W-830-54	09/10/03	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
W-830-55	03/25/03	E601	2.3 O	<0.5 O	<0.5	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5
W-830-55	09/10/03	E601	3.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-56	03/14/03	E601	2.1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-56	08/25/03	E601	1.9 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-56	08/25/03 DUP	E601	1.9	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-58	03/21/03	E601	350 DO	<25 DO	<25 D	<25 DO	<25 DO	<25 DO	<25 DO	<25 DO	<25 DO	<25 DO	<25 D	<25 DO
W-830-58	03/21/03 DUP	E601	490 DO	<12 DO	<12 D	<12 DO	<12 DO	<12 DO	<12 DO	<12 DO	<12 DO	<12 DO	<12 D	<12 DO
W-830-58	08/27/03	E601	380 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-830-59	06/11/03	E601	2,900 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-830-59	10/08/03	E601	1,500 D	<3 D	<5 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D
W-830-60	03/14/03	E601	32	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-60	08/14/03	E601	33	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-831-01	11/04/03	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
W-832-01	03/19/03	E601	160 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-832-01	08/25/03	E601	130 DL	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-832-05	03/19/03	E601	4.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-05	09/08/03	E601	53 L	<0.5	<0.5	<0.5	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5
W-832-06	03/19/03	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
W-832-06	09/08/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5
W-832-09	03/20/03	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
W-832-09	09/08/03	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5
W-832-10	03/20/03	E601	130 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-832-10	03/20/03 DUP	E601	120 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-832-10	09/08/03	E601	14 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5
W-832-11	03/20/03	E601	130 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-832-11	09/08/03	E601	15 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5
W-832-12	03/11/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-12	03/31/03	E601	50	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-12	07/08/03	E601	55	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-12	10/02/03	E601	68	<0.5	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-12	10/06/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-12	12/03/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-12	12/10/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-13	03/11/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-13	03/31/03	E601	68	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-13	07/08/03	E601	46	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-13	10/02/03	E601	55	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-13	10/06/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-13	12/03/03	E601	-	-	-	-	-	-	-	-	-	-	-	-

Table 2.7-9. Building 832 Canyon OU 2003 VOCs in ground and surface water. (Cont. Page 4 of 6)

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)
W-832-13	12/10/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-14	03/12/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-14	10/06/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-14	12/03/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-14	12/10/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-15	03/11/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-15	03/31/03	E601	65	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-15	07/08/03	E601	42	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-15	10/02/03	E601	40	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-15	10/08/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-15	12/03/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-15	12/10/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-16	03/12/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-16	10/06/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-16	12/03/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-16	12/11/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-17	03/11/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-17	10/08/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-17	12/04/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-17	12/11/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-18	03/12/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-18	03/31/03	E601	480 D	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-18	07/08/03	E601	190 D	<0.5	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-18	10/02/03	E601	130 D	<0.5	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-18	10/08/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-18	12/04/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-18	12/11/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-19	03/21/03	E601	9.8 O	<0.5 O	<0.5	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5	<0.5 O
W-832-1927	03/25/03	E601	7.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-
W-832-1927	06/27/03	E601	28	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-1927	09/24/03	E601	31	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5 O	0.51	<0.5	<0.5
W-832-1927	11/06/03	E601	38	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-20	03/12/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-20	10/08/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-20	12/04/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-20	12/11/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-22	03/12/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-22	10/08/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-22	12/04/03	E601	-	-	-	-	-	-	-	-	-	-	-	-
W-832-22	12/11/03	E601	-	-	-	-	-	-	-	-	-	-	-	-

Table 2.7-9. Building 832 Canyon OU 2003 VOCs in ground and surface water. (Cont. Page 5 of 6)

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)
W-832-23	03/21/03	E601	200 DO	<5 DO	<5 D	<5 DO	<5 DO	<5 DO	<5 DO	<5 DO	<5 DO	<5 DO	<5 D	<5 DO
W-832-23	09/08/03	E601	23 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5
W-832-24	03/21/03	E601	58 DO	<2.5 DO	<2.5 D	<2.5 DO	<2.5 DO	<2.5 DO	<2.5 DO	<2.5 DO	<2.5 DO	<2.5 DO	<2.5 D	<2.5 DO
W-832-24	09/08/03	E601	76 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5
W-832-25	03/24/03	E601	35 D	<2.5 DO	<2.5 D	<2.5 DO	<2.5 D	<2.5 DO	<2.5 DO	<2.5 D	<2.5 DO	<2.5 D	<2.5 DO	<2.5 D
W-832-25	03/24/03 DUP	E601	89 D	<2.5 DO	<2.5 D	<2.5 DO	<2.5 D	<2.5 DO	<2.5 DO	<2.5 D	<2.5 DO	<2.5 D	<2.5 DO	<2.5 D
W-832-25	08/27/03	E601	94 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-832-25	08/27/03 DUP	E601	94 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-832-SC1	03/25/03	E601	39 DO	<1 DO	<1 D	<1 DO	<1 DO	<1 DO	<1 DO	<1 DO	<1 DO	<1 DO	<1 DO	<1 D
W-832-SC1	09/02/03	E601	77	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-SC1	09/02/03 DUP	E601	72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-SC2	03/25/03	E601	<0.5 O	<0.5 O	<0.5	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5
W-832-SC3	03/25/03	E601	14 O	<0.5 O	<0.5	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5
W-832-SC3	09/02/03	E601	45	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-SC4	03/21/03	E601	15	<0.5 O	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5 O	<0.5
W-832-SC4	09/02/03	E601	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-870-02	03/21/03	E601	1.6 O	<0.5 O	<0.5	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5	<0.5 O
W-870-02	09/24/03	E601	1.8	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5	<0.5
SVI-830-031	02/21/03	E601	1,100 D	3.4 D	<5 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D	<3 D
SVI-830-035	02/21/03	E601	10,000 D	<10 D	<20 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
SVI-830-035	07/30/03	E601	8,800 D	<120 D	<120 D	<120 D	<120 D	<120 D	<120 D	<120 D	<120 D	<120 D	<120 D	<120 D
SVI-830-035	10/30/03	E601	7,400 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 DO	<100 D
SPRING3	03/25/03	E601	45 O	<0.5 O	<0.5	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5 O	<0.5
SPRING3	08/04/03	E601	68 J	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5
W-880-01	03/14/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-01	04/24/03	E601	<0.5 J	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-01	07/23/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-01	10/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-02	03/14/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-02	04/24/03	E601	0.62 J	0.57	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-02	07/23/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-02	10/11/03	E601	0.59	0.53	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-03	03/14/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-03	04/24/03	E601	<0.5 J	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-03	07/23/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-03	10/11/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

See the following VOCs not detected in the table above.

Table 2.7-9. Building 834 Canyon OU 2003 VOCs in ground and surface water. (Cont. Page 6 of 6) Other VOCs not detected in the table on pages 1 through 5:

Location	Date	Method	1,1,2-Trichloroethane ( $\mu\text{g/L}$ )	Total Trihalomethanes ( $\mu\text{g/L}$ )	cis-1,2-Dichloroethene ( $\mu\text{g/L}$ )	trans-1,2-Dichloroethene ( $\mu\text{g/L}$ )
W-830-14	W-830-13	E601	-	-	0.56	-
W-830-14	W-830-13	E601	-	-	0.55	-
W-830-14	W-830-14	E601	-	-	0.5	-
W-830-18	W-830-1730	E601	-	-	0.68 O	-
W-830-18	W-830-1730	E601	-	-	-	-
W-830-18	W-830-18	E601	-	-	0.5	-
W-830-18	W-830-18	E601	-	-	0.58	-
W-830-19	W-830-1832	E601	1.4	2.2	-	-
W-830-21	W-830-20	E601	-	-	1.5	4.2
W-830-21	W-830-20	E601	-	-	1.7	5.5
W-830-50	W-830-49	E601	-	-	0.52 O	-
W-832-01	W-830-60	E601	-	-	6.7 DO	-
W-832-01	W-831-01	E601	-	-	5.8 D	-
W-832-05	W-832-01	E601	-	-	1.9 O	-
W-832-10	W-832-09	E601	-	-	5.3 D	-
W-832-10	W-832-10	E601	-	-	0.53	-
W-832-11	W-832-10	E601	-	-	5.4 D	-
W-832-11	W-832-10	E601	-	-	0.55	-
W-832-12	W-832-11	E601	-	-	1.3	-
W-832-12	W-832-12	E601	-	-	1.2	-
W-832-12	W-832-12	E601	-	-	1.6	-
W-832-13	W-832-12	E601	-	-	0.8	-
W-832-13	W-832-13	E601	-	-	1	-
W-832-13	W-832-13	E601	-	-	1.3	-
W-832-15	W-832-14	E601	-	-	1.3	-
W-832-15	W-832-15	E601	-	-	0.76	-
W-832-18	W-832-17	E601	0.5	-	1.5	-
W-832-18	W-832-18	E601	-	-	2	-
W-832-18	W-832-18	E601	-	-	1.4	-
W-832-SC1	W-832-25	E601	-	-	1.3 DO	1.0 DO
W-832-SC1	W-832-25	E601	-	-	3	5.3
W-832-SC1	W-832-SC1	E601	-	-	2.9	4.6
W-832-SC3	W-832-SC2	E601	-	-	0.55	1.2
SPRING3	SVI-830-035	E601	-	-	0.52 J	0.93 JL

**Table 2.7-10. Building 832 Canyon OU chloride, nitrate, perchlorate, and sulfate in ground water.**

Location	Date	Chloride (mg/L)	Nitrate (as NO <sub>3</sub> ) (mg/L)	Nitrite (as N) (mg/L)	Perchlorate (µg/L)	Sulfate (mg/L)
W-830-04A	03/14/03	-	78	-	5.2	-
W-830-05	03/14/03	-	65	-	<4	-
W-830-09	10/30/03 DUP	-	<5 D	-	<4	-
W-830-09	10/30/03	-	<0.88 D	-	<4	-
W-830-10	03/14/03	-	68	-	<4	-
W-830-10	03/14/03 DUP	-	69	-	6.7	-
W-830-11	03/14/03	-	23	-	<4	-
W-830-12	10/30/03	-	<5 D	-	<4	-
W-830-13	03/21/03	-	47 D	-	<4	-
W-830-14	03/14/03	-	<0.44	-	<4	-
W-830-14	03/14/03 DUP	-	<0.88 D	-	<4	-
W-830-15	10/27/03	-	8.6 D	-	<4	-
W-830-16	03/19/03	-	3	-	<4	-
W-830-16	09/10/03	-	3.5	-	<4 H	-
W-830-17	03/25/03	-	87 D	-	<4	-
W-830-1730	02/21/03	-	0.98	-	<3	-
W-830-18	01/28/03	-	0.57	-	<4	-
W-830-18	01/28/03 DUP	-	0.59	-	<4	-
W-830-1829	06/30/03	470 D	55 D	-	<4	82
W-830-1829	06/30/03 DUP	490 D	52 D	-	<4	<0.5
W-830-1829	09/23/03	-	57 D	-	<4 H	-
W-830-1829	11/06/03	-	62 DL	-	<4	-
W-830-1830	06/30/03	700 D	97 D	-	4.8	250 DL
W-830-1830	09/23/03	-	97 D	-	5.8 H	-
W-830-1830	11/06/03	-	94 DL	-	4.7	-
W-830-1831	09/18/03	-	2.8	-	<4 H	-
W-830-1831	11/06/03	-	3.1 L	-	<4	-
W-830-1832	09/12/03	-	2.6	-	<4	-
W-830-1832	11/06/03	-	3.2 L	-	<4	-
W-830-19	03/19/03	-	190 DL	-	<4	-
W-830-19	03/19/03 DUP	-	160 D	-	7.3	-
W-830-20	03/14/03	-	<0.44	-	<4	-
W-830-20	09/08/03	-	<0.88 D	-	<4	-
W-830-21	03/14/03	-	<0.44	-	<4	-
W-830-22	03/19/03	-	5.4	-	<4	-

**Table 2.7-10. Building 832 Canyon OU chloride, nitrate, perchlorate, and sulfate in ground water.**

Location	Date	Chloride (mg/L)	Nitrate (as NO <sub>3</sub> ) (mg/L)	Nitrite (as N) (mg/L)	Perchlorate (µg/L)	Sulfate (mg/L)
W-830-25	03/24/03	-	77 D	-	9.4	-
W-830-26	03/19/03	-	1.7	-	<4	-
W-830-27	03/24/03	-	83 D	-	7	-
W-830-28	03/24/03	-	10	-	<4	-
W-830-29	03/19/03	-	<0.5 L	-	<4	-
W-830-30	10/30/03	-	110 D	-	<4	-
W-830-30	10/30/03 DUP	-	120 D	-	<4	-
W-830-34	10/30/03	-	120 D	-	<4	-
W-830-49	03/21/03	-	170 D	-	<4	-
W-830-50	03/25/03	300 D	16	-	<4	260 D
W-830-51	01/15/03	-	60 DL	-	<4	-
W-830-51	04/16/03	-	56 D	-	<4	-
W-830-51	07/09/03	-	64	-	4.6	-
W-830-51	10/08/03	-	65 D	-	<4 H	-
W-830-52	01/15/03	-	63 DL	-	4.6	-
W-830-52	04/16/03	-	61 D	-	<4	-
W-830-52	07/09/03	-	68	-	<4	-
W-830-52	10/08/03	-	70	-	4.3 H	-
W-830-53	01/15/03	-	54 DL	-	<4	-
W-830-53	04/16/03	-	48 D	-	<4	-
W-830-53	07/09/03	-	56	-	<4	-
W-830-53	10/08/03	-	57	-	<4 H	-
W-830-54	03/19/03	-	2.2 L	-	<4	-
W-830-55	03/25/03	-	5	-	<4	-
W-830-56	03/14/03	-	24	-	<4	-
W-830-58	03/21/03	-	57 D	-	8.7	-
W-830-58	03/21/03 DUP	-	61 D	-	7.5	-
W-830-59	06/11/03	-	130 D	-	5.2	-
W-830-60	03/14/03	-	7.1 D	-	<4	-
W-831-01	11/04/03	-	<0.5	-	<4	-
W-832-01	03/19/03	-	93 DL	-	6.4	-
W-832-05	03/19/03	-	2.2	-	<4	-
W-832-06	03/19/03	-	19 DL	-	<4	-
W-832-09	03/20/03	-	-	<0.1	<4	-
W-832-10	03/20/03	-	-	<0.1	8.3	-



**Table 2.7-10. Building 832 Canyon OU chloride, nitrate, perchlorate, and sulfate in ground water.**

Location	Date	Chloride (mg/L)	Nitrate (as NO <sub>3</sub> ) (mg/L)	Nitrite (as N) (mg/L)	Perchlorate (µg/L)	Sulfate (mg/L)
W-832-10	03/20/03 DUP	-	-	<0.1	8.4	-
W-832-11	03/20/03	-	-	<0.1	7	-
W-832-12	03/31/03	-	120 D	-	-	-
W-832-12	07/08/03	-	130 D	-	-	-
W-832-12	10/02/03	-	130 D	-	-	-
W-832-13	03/31/03	-	140 D	-	-	-
W-832-13	07/08/03	-	130 D	-	-	-
W-832-13	10/02/03	-	120 D	-	-	-
W-832-15	03/31/03	-	130 D	-	-	-
W-832-15	07/08/03	-	130 D	-	-	-
W-832-15	10/02/03	-	130 D	-	-	-
W-832-15	12/17/03	-	-	-	12	-
W-832-18	03/31/03	-	9.8 D	-	-	-
W-832-18	07/08/03	-	12 D	-	-	-
W-832-18	10/02/03	-	36 D	-	-	-
W-832-19	03/21/03	-	88 D	-	<4	-
W-832-1927	03/25/03	-	48 DH	-	4.8	-
W-832-1927	09/24/03	-	56 D	-	5.2	-
W-832-1927	11/06/03	-	59 DL	-	4.2	-
W-832-23	03/21/03	-	81 D	-	13	-
W-832-24	03/21/03	-	72 D	-	<8 D	-
W-832-25	03/24/03	-	87 D	-	7.6	-
W-832-25	03/24/03 DUP	-	89 D	-	7.3	-
W-832-SC1	03/25/03	-	<0.5	-	<8 D	-
W-832-SC1	10/27/03	-	<5 D	-	<4	-
W-832-SC3	03/25/03	-	0.92	-	<4	-
W-832-SC4	03/21/03	-	51 DH	-	<4	-
W-870-02	03/21/03	-	35 D	-	<4	-
SVI-830-031	02/21/03	-	54	-	<3	-
SVI-830-035	02/21/03	-	110 D	-	3.8	-
SPRING3	03/25/03	-	43 D	-	<4	-
SPRING3	10/27/03	-	54 D	-	<4	-
W-880-01	03/14/03	-	<0.44	-	<4	-
W-880-01	07/23/03	-	<0.44	-	<4	-
W-880-02	03/14/03	-	<0.88 D	-	<8 D	-

**Table 2.7-10. Building 832 Canyon OU chloride, nitrate, perchlorate, and sulfate in ground water.**

Location	Date	Chloride (mg/L)	Nitrate (as NO <sub>3</sub> ) (mg/L)	Nitrite (as N) (mg/L)	Perchlorate (µg/L)	Sulfate (mg/L)
W-880-02	07/23/03	-	<0.88 D	-	<4	-
W-880-03	03/14/03	-	<0.44	-	<4	-
W-880-03	07/23/03	-	<0.44	-	<4	-
SPRING4	12/17/03	-	90 D	-	<4 L	-

**Table 2.7-11. Building 832 Canyon OU metals in ground water.**

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
W-830-1829	06/30/03	0.013	0.67	<0.0005	0.023	<0.005	<0.0002	<0.005 L	<0.001
W-830-1829	06/30/03 DUP	0.011	1.6	<0.0005	0.019	<0.005	0.00021	<0.005 L	<0.001
W-830-1829	11/06/03	0.015	<0.1	<0.001	0.007	<0.005	<0.0002	0.016	<0.001
W-830-1830	06/30/03	0.017	0.45	<0.0005	0.015	0.0079	<0.0002	0.016 L	<0.001
W-830-1830	11/06/03	0.014	<0.1	<0.001	<0.005	<0.005	<0.0002	0.033	<0.001
W-830-1832	09/10/03	<0.005	<0.1	<0.0005 O	<0.005	<0.005 O	<0.0002 L	<0.005 L	<0.001 LO
W-830-1832	09/10/03 DUP	0.0046	0.0093	<0.001	<0.005	<0.005	-	0.003	<0.001

Table 2.7-12. Building 832 Canyon OU general minerals in ground water.

Constituents of concern	W-830-1829 06/30/2003	W-830-1829 06/30/03 DUP	W-830-1829 11/06/03	W-830-1830 06/30/03	W-830-1830 11/06/03	W-830-1832 09/10/03	W-830-19 03/19/03	W-830-19 03/19/03 DUP	W-830-22 03/19/03	W-830-26 03/19/03	W-830-29 03/19/03
Total Alkalinity (as CaCO <sub>3</sub> ) (mg/L)	190 LH	170 LH	170 HDL	160 LH	160 HDL	240 DH	250 DH	290 DH	55 DH	210 DH	170 DH
Aluminum (mg/L)	0.15 LH	4.5 LH	<0.1	<0.1 LH	<0.1	<0.05	<0.1 L	<0.05	<0.1 L	<0.1 L	<0.1 L
Bicarbonate Alk (as CaCO <sub>3</sub> ) (mg/L)	190 H	170 H	170 HD	160 H	160 HD	240 DH	250 DH	290 DH	<10 DH	<10 DH	170 DH
Calcium (mg/L)	79 H	47 H	48	89 H	68	18	52 L	49 L	38 L	10 L	41 L
Carbonate Alk (as CaCO <sub>3</sub> ) (mg/L)	<5 H	<5 H	<25 DH	<5 H	<25 DH	<25 DH	<10 DH	<10 DH	47 DH	130 DH	<10 DH
Chloride (mg/L)	-	-	480 D	-	820 D	220 D	490 D	380 D	410 D	140 D	67 D
Copper (mg/L)	<0.01 H	0.016 H	<0.01	<0.01 H	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoride (mg/L)	0.71	<0.1	0.68	0.67	0.6	0.5	0.7	0.91 D	0.15	<0.1	0.53
Hydroxide Alk (as CaCO <sub>3</sub> ) (mg/L)	<5 H	<5 H	<25 DH	<5 H	<25 DH	<25 DH	<10 DH	<10 DH	<10 DH	87 DH	<10 DH
Iron (mg/L)	0.30 LH	4.2 LH	-	<0.1 LH	-	<0.1	<0.1	<0.05	<0.1	0.2	<0.1
Magnesium (mg/L)	70 H	130 H	28	36 H	37	2.9	30	24	1.7	3.7	21
Manganese (mg/L)	0.031 H	0.18 H	<0.01	0.048 H	0.046	0.012	<0.01	<0.01	<0.01	<0.01	0.14
Nickel (mg/L)	<0.05 H	<0.05 H	<0.05	<0.05 H	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrate (as N) (mg/L)	-	-	17 D	-	22 D	0.72	44 D	26 DH	1.2	0.37	<0.1
Nitrate (as NO <sub>3</sub> ) (mg/L)	53 D	53 D	74 D	96 D	96 D	3.2	-	160 DH	-	-	-
Nitrate plus Nitrite (as N) (mg/L)	-	-	-	-	-	-	-	26 DHL	-	-	-
Nitrite (as N) (mg/L)	-	-	<0.1	-	4.5 D	<0.1	<0.1 L	<0.02	<0.1	<0.1	<0.1 L
pH (Units)	-	-	8	-	7.8	8.2	7.9	8.1	9.6	11	7.9
Ortho-Phosphate (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 H	0.1	<0.1 H	<0.1 H	<0.1 H
Phosphate as P (mg/L)	-	-	-	-	-	-	0.064 H	-	0.15 H	0.20 H	0.076 H
Total Phosphorus (as P) (mg/L)	2.9 DH	0.47 H	0.082 H	2.2 DH	0.045 H	0.091 H	-	0.060 H	-	-	-
Potassium (mg/L)	20 H	20 H	21	23 H	25	14	21	20	19	51	7.6
Sodium (mg/L)	340 H	340 H	-	410 H	-	350	420 L	470 L	290 L	170 L	84 L
Total dissolved solids (TDS) (mg/L)	-	-	1,400 H	-	1,600 H	1,200 H	-	1,600 D	-	-	-
Specific Conductance (µmhos/cm)	2,100 L	2,200 L	2,100 L	2,700 L	2,600 L	1,700	-	2,000	-	-	-
Sulfate (mg/L)	-	-	230 D	-	170 D	410 D	280 D	240 D	290 D	65 D	140 D
Surfactants (mg/L)	<0.05 O	<0.05 O	<0.05	<0.05 O	<0.05	<0.05 O	<0.05	<0.5	<0.05	<0.05	<0.05
Total Hardness (as CaCO <sub>3</sub> ) (mg/L)	480 H	830 H	250 H	480 H	330 H	58	250 H	220	100 H	41 H	190 H
Zinc (mg/L)	<0.05 H	0.067 H	<0.05	<0.05 H	0.072	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

**Table 2.7-13. Building 832 OU 2003 tritium in ground water.**

Location	Date	Tritium (pCi/L)
W-830-1829	06/30/03	<99.6
W-830-1829	06/30/03 DUP	<110
W-830-1829	11/06/03	<95.2
W-830-1830	06/30/03	<104
W-830-1830	11/06/03	<97.3
W-830-1832	09/10/03	<88.8

**Table 2.7-14. Building 832 Canyon OU aromatic hydrocarbons in ground water.**

Location	Date	Benzene (µg/L)	Chlorobenzene (µg/L)	1,2-Dichlorobenzene (µg/L)	1,3-Dichlorobenzene (µg/L)	1,4-Dichlorobenzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	o-Xylene (µg/L)	m- and p-Xylene Isomers (µg/L)	Total xylene isomers (µg/L)
W-830-1829	06/30/03	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	-	-	<50 D
W-830-1829	06/30/03 DUP	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	-	-	<50 D
W-830-1829	11/06/03	<40 DH	<30 DH	<30 DH	<30 DH	<30 DH	<30 DH	<30 DH	<40 DH	<40 DH	42 HD
W-830-1830	06/30/03	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	-	-	<25 D
W-830-1830	11/06/03	<20 DH	<15 DH	<15 DH	<15 DH	<15 DH	<15 DH	<15 DH	<20 DH	<20 DH	<20 DH
W-830-1831	06/30/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5
W-830-1832	06/30/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5
W-830-1832	07/30/03	<0.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.4
W-830-1832	09/10/03	<0.4 H	<0.3 H	<0.3 H	<0.3 H	<0.3 H	<0.3 H	<0.3 H	<0.4 H	<0.4 H	<0.4 H

**Table 2.7-15. Building 832 OU 2003 high explosive compounds in ground water.**

Location	Date	HMX ( $\mu\text{g/L}$ )	RDX ( $\mu\text{g/L}$ )
W-830-1829	11/06/03	<1.4	<1.4
W-830-1830	11/06/03	1.4	<1.3
W-830-1832	09/10/03	<2.1	<2.1
W-832-15	12/17/03	<5 D	-
W-880-01	03/14/03	<5	<5
W-880-01	07/23/03	<5	<5
W-880-02	03/14/03	<5	<5
W-880-03	03/14/03	<5	<5
W-880-03	07/23/03	<5	<5

**Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
SPRING3	01/14/03	4.44	552.28		
SPRING3	02/06/03	4.4	552.32		
SPRING3	03/10/03	4.55	552.17		
SPRING3	04/15/03	4.62	552.1		
SPRING3	07/01/03	5.61	551.11		
SPRING3	10/10/03	4.96	551.76		
SVI-830-031	01/06/03	20.48	671.85		CB
SVI-830-031	02/05/03	21.71	670.62		CB
SVI-830-031	03/04/03	22.96	669.37		CB
SVI-830-031	04/05/03	23.77	668.56		CB
SVI-830-031	07/09/03	24.34	667.99		CB
SVI-830-031	10/01/03	23.66	668.67		CB
SVI-830-032	01/06/03	31.69	550.71		
SVI-830-032	02/05/03	32.61	549.79		
SVI-830-032	03/04/03	-	-		DRY
SVI-830-032	04/05/03	33.17	549.23		
SVI-830-032	07/09/03	-	-		DRY
SVI-830-032	10/01/03	-	-		DRY
SVI-830-033	01/06/03	23.91	668.44		
SVI-830-033	02/05/03	23.96	668.39		
SVI-830-033	03/04/03	24.87	667.48		
SVI-830-033	04/05/03	24.87	667.48		
SVI-830-033	07/09/03	24.83	667.52		
SVI-830-033	10/01/03	24.81	667.54		
SVI-830-035	01/06/03	21.04	671.32		
SVI-830-035	02/05/03	22.56	669.8		
SVI-830-035	03/04/03	23.17	669.19		
SVI-830-035	04/05/03	23.37	668.99		
SVI-830-035	07/09/03	23.63	668.73		
SVI-830-035	10/01/03	23.66	668.7		
W-830-04A	01/06/03	43.94	580.16		
W-830-04A	02/03/03	44.1	580		
W-830-04A	03/01/03	43.68	580.42		
W-830-04A	04/08/03	43.71	580.39		
W-830-04A	07/07/03	44.75	579.35		



**Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-830-04A	10/02/03	44.65	579.45		
W-830-05	01/06/03	24.92	559.45		
W-830-05	02/03/03	25	559.37		
W-830-05	03/01/03	24.96	559.41		
W-830-05	04/15/03	24.92	559.45		
W-830-05	07/07/03	24.96	559.41		
W-830-05	10/02/03	24.94	559.43		
W-830-07	01/11/03	11.5	623.3		MUD
W-830-07	02/05/03	-	-		DRY
W-830-07	03/04/03	-	-		DRY
W-830-07	04/08/03	-	-		DRY
W-830-07	07/01/03	-	-		DRY
W-830-07	10/02/03	-	-		DRY
W-830-09	01/06/03	100.65	596.45		
W-830-09	02/05/03	101.59	595.51		
W-830-09	03/04/03	101.36	595.74		
W-830-09	04/05/03	101.6	595.5		
W-830-09	07/09/03	100.86	596.24		
W-830-09	10/01/03	100.88	596.22		
W-830-10	01/06/03	16.67	580.03		
W-830-10	02/03/03	16.82	579.88		
W-830-10	03/01/03	16.45	580.25		
W-830-10	04/15/03	16.4	580.3		
W-830-10	07/07/03	17.5	579.2		
W-830-10	10/02/03	17.37	579.33		
W-830-11	01/06/03	33.15	563.04		
W-830-11	02/03/03	33.7	562.49		
W-830-11	03/01/03	33.49	562.7		
W-830-11	04/15/03	33.75	562.44		
W-830-11	07/07/03	35.59	560.6		
W-830-11	10/02/03	34.62	561.57		
W-830-12	01/06/03	103.4	589.22		
W-830-12	02/05/03	102.83	589.79		
W-830-12	03/06/03	102.53	590.09		
W-830-12	04/05/03	102.08	590.54		
W-830-12	07/09/03	102.95	589.67		

**Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-830-12	10/01/03	102.89	589.73		
W-830-13	01/06/03	24.73	539.78		
W-830-13	02/03/03	25.36	539.15		
W-830-13	03/05/03	25.22	539.29		
W-830-13	04/15/03	25.9	538.61		
W-830-13	07/07/03	27.88	536.63		
W-830-13	10/02/03	28.11	536.4		
W-830-14	01/06/03	20.18	545.32		
W-830-14	02/03/03	20.17	545.33		
W-830-14	03/05/03	20.21	545.29		
W-830-14	04/15/03	20.2	545.3		
W-830-14	07/07/03	20.22	545.28		
W-830-14	10/02/03	20.22	545.28		
W-830-15	01/06/03	2.14	562.95		CB
W-830-15	02/03/03	1.5	563.59		CB
W-830-15	03/05/03	0.76	564.33		CB
W-830-15	04/15/03	1	564.09		CB
W-830-15	07/07/03	3.58	561.51		CB
W-830-15	10/10/03	6.02	559.07		CB
W-830-16	01/11/03	94.86	576.02		
W-830-16	02/05/03	94.81	576.07		
W-830-16	03/05/03	94.58	576.3		
W-830-16	04/15/03	94.59	576.29		
W-830-16	07/28/03	95.94	574.94		
W-830-16	10/02/03	95.87	575.01		
W-830-17	01/11/03	108.65	564.57		
W-830-17	02/05/03	108.59	564.63		
W-830-17	03/05/03	108.58	564.64		
W-830-17	04/15/03	108.72	564.5		
W-830-17	07/28/03	108.49	564.73		
W-830-17	10/02/03	108.55	564.67		
W-830-1730	01/13/03	24.74	522.96		
W-830-1730	02/06/03	24.68	523.02		
W-830-1730	03/05/03	24.67	523.03		
W-830-1730	04/15/03	24.6	523.1		
W-830-1730	07/07/03	24.65	523.05		

**Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-830-1730	10/02/03	24.74	522.96		
W-830-18	01/06/03	63.08	591.41		
W-830-18	02/03/03	63	591.49		
W-830-18	03/01/03	63.96	590.53		
W-830-18	04/08/03	62.69	591.8		
W-830-18	07/07/03	62.06	592.43		
W-830-18	10/02/03	62.03	592.46		
W-830-1807	07/01/03	-	-		DRY
W-830-1807	10/01/03	-	-		DRY
W-830-1829	07/09/03	52.17	606.83		
W-830-1829	10/01/03	52.21	606.79		
W-830-1830	07/09/03	55.08	605.92		
W-830-1830	10/01/03	55.05	605.95		
W-830-19	01/06/03	39.33	616.51		
W-830-19	02/05/03	38.81	617.03		
W-830-19	03/04/03	38.85	616.99		
W-830-19	04/07/03	39.18	616.66		
W-830-19	07/09/03	-	-		PE
W-830-19	10/01/03	-	-		NM
W-830-20	01/06/03	13.31	583.65		
W-830-20	02/03/03	13.05	583.91		
W-830-20	03/01/03	12.9	584.06		
W-830-20	04/15/03	12.67	584.29		
W-830-20	07/07/03	12.94	584.02		
W-830-20	10/02/03	13.28	583.68		
W-830-21	01/06/03	66.82	587.12		
W-830-21	02/03/03	66.75	587.19		
W-830-21	03/01/03	66.73	587.21		
W-830-21	04/08/03	66.62	587.32		
W-830-21	07/07/03	66.66	587.28		
W-830-21	10/02/03	66.78	587.16		
W-830-22	01/06/03	48.24	606.78		CB
W-830-22	02/05/03	47.91	607.11		CB
W-830-22	03/04/03	47.56	607.46		CB
W-830-22	04/08/03	47.52	607.5		CB
W-830-22	07/09/03	47.77	607.25		CB

**Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-830-22	10/01/03	47.54	607.48		CB
W-830-25	01/11/03	23.15	597.19		
W-830-25	02/05/03	23	597.34		
W-830-25	03/04/03	22.8	597.54		
W-830-25	04/08/03	22.77	597.57		
W-830-25	07/28/03	23.13	597.21		
W-830-25	10/02/03	23.02	597.32		
W-830-26	01/06/03	65.28	593.25		
W-830-26	02/05/03	65.13	593.4		
W-830-26	03/04/03	64.83	593.7		
W-830-26	04/07/03	64.87	593.66		
W-830-26	07/09/03	64.4	594.13		
W-830-26	10/01/03	64.24	594.29		
W-830-27	01/11/03	19.76	604.5		
W-830-27	02/05/03	19.62	604.64		
W-830-27	03/04/03	18.69	605.57		
W-830-27	04/08/03	18.39	605.87		
W-830-27	07/28/03	20.03	604.23		
W-830-27	10/02/03	19.69	604.57		
W-830-28	01/11/03	31.7	590.46		
W-830-28	02/05/03	31.52	590.64		
W-830-28	03/04/03	31.32	590.84		
W-830-28	04/08/03	31.29	590.87		
W-830-28	07/28/03	30.6	591.56		
W-830-28	10/02/03	30.61	591.55		
W-830-29	01/06/03	98.42	562.61		CB
W-830-29	02/05/03	97.27	563.76		CB
W-830-29	03/04/03	96.27	564.76		CB
W-830-29	04/07/03	96.01	565.02		CB
W-830-29	07/09/03	100.49	560.54		CB
W-830-29	10/01/03	102.22	558.81		CB
W-830-30	01/06/03	18.74	674.07		
W-830-30	02/05/03	20.04	672.77		
W-830-30	03/04/03	20.9	671.91		
W-830-30	04/05/03	21.29	671.52		
W-830-30	07/09/03	21.87	670.64		

**Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-830-30	10/01/03	21.31	671.2		
W-830-34	01/06/03	18.68	673.97		
W-830-34	02/05/03	19.71	672.94		
W-830-34	03/04/03	20.13	672.52		
W-830-34	04/05/03	20.53	672.12		
W-830-34	07/09/03	-	-		NM/CB EQUIP ON CB
W-830-34	10/01/03	-	-		NM/CB
W-830-49	01/06/03	36.62	630.56		
W-830-49	02/05/03	36.29	630.89		
W-830-49	03/04/03	36.56	630.62		
W-830-49	04/07/03	37.21	629.97		
W-830-49	07/09/03	37.84	629.34		
W-830-49	10/01/03	38.09	629.09		
W-830-50	01/06/03	29.15	579.99		
W-830-50	02/03/03	29.3	579.84		
W-830-50	03/01/03	29	580.14		
W-830-50	04/15/03	28.95	580.19		
W-830-50	07/07/03	29.97	579.17		
W-830-50	10/02/03	29.93	579.21		
W-830-51	01/11/03	-	-		FL
W-830-51	02/03/03	-	-		FL
W-830-51	03/05/03	-	-		FL
W-830-51	04/15/03	-	-		FL
W-830-51	07/09/03	-	-		FL
W-830-51	10/02/03	-	-		FL
W-830-52	01/11/03	-	-		FL
W-830-52	02/03/03	-	-		FL
W-830-52	03/05/03	-	-		FL
W-830-52	04/15/03	-	-		FL
W-830-52	07/09/03	-	-		FL
W-830-52	10/02/03	-	-		FL
W-830-53	01/11/03	-	-		FL
W-830-53	02/03/03	-	-		FL
W-830-53	03/05/03	-	-		FL
W-830-53	04/15/03	-	-		FL
W-830-53	07/09/03	-	-		FL

**Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-830-53	10/02/03	-	-		FL
W-830-54	01/11/03	52.45	550.57		
W-830-54	02/05/03	52.47	550.55		
W-830-54	03/05/03	52.3	550.72		
W-830-54	04/15/03	52.5	550.52		
W-830-54	07/28/03	54.6	548.42		
W-830-54	10/02/03	55.21	547.81		
W-830-55	01/11/03	86.11	577.93		
W-830-55	02/05/03	86.18	577.86		
W-830-55	03/05/03	85.82	578.22		
W-830-55	04/15/03	85.87	578.17		
W-830-55	07/28/03	87.06	576.98		
W-830-55	10/02/03	87.1	576.94		
W-830-56	01/06/03	31.05	545.77		
W-830-56	02/03/03	31	545.82		
W-830-56	03/01/03	31.1	545.72		
W-830-56	04/15/03	31.08	545.74		
W-830-56	07/07/03	31.09	545.73		
W-830-56	10/02/03	31.13	545.69		
W-830-57	01/11/03	45.67	594.2		
W-830-57	02/05/03	47.95	591.92		
W-830-57	03/04/03	46.56	593.31		
W-830-57	04/08/03	47.65	592.22		
W-830-57	07/28/03	44.58	595.29		
W-830-57	10/02/03	44.62	595.25		
W-830-58	01/11/03	27.45	605.63		
W-830-58	02/05/03	23.11	609.97		
W-830-58	03/04/03	22.85	610.23		
W-830-58	04/08/03	22.82	610.26		
W-830-58	07/28/03	23.7	609.38		
W-830-58	10/02/03	23.77	609.31		
W-830-59	01/06/03	54.52	611.59		CB
W-830-59	02/05/03	53.05	613.06		CB
W-830-59	03/04/03	54.17	611.94		CB
W-830-59	04/05/03	-	-		NM/CB
W-830-59	07/09/03	-	-		NM/CB

**Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-830-59	10/01/03	-	-	-	SWAT UNIT
W-830-60	01/06/03	44.13		593.26	
W-830-60	02/03/03	44		593.39	
W-830-60	03/01/03	43.87		593.52	
W-830-60	04/08/03	43.63		593.76	
W-830-60	07/07/03	43.09		594.3	
W-830-60	10/02/03	43.02		594.37	
W-831-01	01/07/03	130.4		643.09	
W-831-01	04/08/03	130.28		643.21	
W-831-01	07/10/03	130.12		643.37	
W-831-01	10/01/03	130.13		643.36	
W-832-01	01/07/03	29.31		676.75	
W-832-01	02/05/03	29.38		676.68	
W-832-01	03/04/03	29.43		676.63	
W-832-01	04/07/03	29.7		676.36	
W-832-01	07/09/03	30.23		675.83	
W-832-01	10/01/03	28.89		677.17	
W-832-05	01/07/03	32.1		686.57	CB
W-832-05	02/06/03	32.06		686.61	CB
W-832-05	03/04/03	32		686.67	CB
W-832-05	04/08/03	32.22		686.45	CB
W-832-05	07/10/03	32.83		685.84	CB
W-832-05	10/01/03	31.21		687.46	CB
W-832-06	01/07/03	25.44		695.41	
W-832-06	02/06/03	25.16		695.69	
W-832-06	03/04/03	25.15		695.7	
W-832-06	04/08/03	25.46		695.39	
W-832-06	07/10/03	24.83		696.02	
W-832-06	10/01/03	25.24		695.61	
W-832-09	01/07/03	72.74		634.48	
W-832-09	02/05/03	72.49		634.73	
W-832-09	03/04/03	72.35		634.87	
W-832-09	04/07/03	72.47		634.75	
W-832-09	07/09/03	72.31		634.91	
W-832-09	10/01/03	72.66		634.56	
W-832-10	01/07/03	29.73		656.42	

**Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-832-10	02/05/03	29.28	656.87		
W-832-10	03/04/03	29.74	656.41		
W-832-10	04/07/03	30.2	655.95		
W-832-10	07/09/03	30.82	655.33		
W-832-10	10/09/03	30.85	655.3		
W-832-11	01/07/03	29.63	668.66		
W-832-11	02/05/03	29.81	668.48		
W-832-11	03/04/03	29.88	668.41		
W-832-11	04/07/03	30.08	668.21		
W-832-11	07/09/03	30.64	668.01		
W-832-11	10/09/03	30.18	668.47		
W-832-12	01/07/03	24.88	696.59		CB
W-832-12	02/06/03	24.88	696.59		CB
W-832-12	03/04/03	25	696.47		CB
W-832-12	04/08/03	24.91	696.56		CB
W-832-12	07/10/03	23.48	697.99		CB
W-832-12	10/03/03	25.1	696.37		CB
W-832-13	01/07/03	21.79	700.87		CB
W-832-13	02/06/03	21.1	701.56		CB
W-832-13	03/04/03	21.86	700.8		CB
W-832-13	04/08/03	21.88	700.78		CB
W-832-13	07/10/03	22.26	700.4		CB
W-832-13	10/01/03	-	-		DRY/CB
W-832-14	01/07/03	-	-		DRY
W-832-14	02/06/03	24.33	696.84		
W-832-14	03/04/03	24.52	696.65		CB
W-832-14	04/08/03	24.67	696.5		
W-832-14	07/10/03	25.31	695.86		
W-832-14	10/01/03	25.4	695.77		
W-832-15	01/07/03	22.07	698.81		CB
W-832-15	02/06/03	23.12	697.76		CB
W-832-15	03/04/03	22.87	698.01		CB
W-832-15	04/08/03	23.13	697.75		CB
W-832-15	07/10/03	20.71	700.17		CB
W-832-15	10/01/03	22.63	698.25		CB
W-832-16	01/07/03	17.73	703.01		CB



**Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-832-16	02/06/03	17.72	703.02		CB
W-832-16	03/04/03	17.51	703.23		CB
W-832-16	04/08/03	17.65	703.09		CB
W-832-16	07/10/03	18.5	702.24		CB/MUD
W-832-16	10/03/03	17.9	702.84		CB/MUD
W-832-17	01/07/03	-	-		DRY/CB
W-832-17	02/06/03	18.45	703.55		CB
W-832-17	03/04/03	18.55	703.45		CB
W-832-17	04/08/03	-	-		DRY/CB
W-832-17	07/01/03	-	-		DRY/CB
W-832-17	10/09/03	-	-		DRY/CB
W-832-18	01/07/03	22.42	698.78		CB
W-832-18	04/08/03	24.51	696.69		
W-832-18	07/10/03	24.85	696.35		
W-832-18	10/01/03	24.39	696.81		
W-832-19	01/07/03	-	-		DRY/CB
W-832-19	02/06/03	23.75	696.27		CB
W-832-19	03/04/03	23.96	696.06		CB
W-832-19	04/08/03	24.04	695.98		CB
W-832-19	07/10/03	24.58	695.44		CB
W-832-19	10/01/03	-	-		DRY/CB
W-832-20	01/07/03	-	-		DRY/CB
W-832-20	02/06/03	-	-		DRY/CB
W-832-20	03/04/03	-	-		CB/DRY
W-832-20	04/08/03	-	-		DRY/CB
W-832-20	07/01/03	-	-		DRY/CB
W-832-20	10/01/03	-	-		DRY/CB
W-832-21	01/07/03	-	-		DRY
W-832-21	04/08/03	-	-		DRY
W-832-21	07/01/03	-	-		DRY
W-832-21	10/01/03	-	-		DRY
W-832-22	01/07/03	-	-		DRY/CB
W-832-22	04/08/03	-	-		DRY/CB
W-832-22	07/01/03	-	-		DRY/CB
W-832-22	10/01/03	-	-		DRY/CB
W-832-23	01/07/03	31.83	688.31		CB

**Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-832-23	02/06/03	31.16	688.98		CB
W-832-23	03/04/03	31.82	688.32		CB
W-832-23	04/08/03	31.95	688.19		CB
W-832-23	07/10/03	32.62	687.52		CB
W-832-23	10/09/03	31.3	688.84		CB
W-832-24	01/06/03	41.94	620.62		
W-832-24	02/05/03	40.81	621.75		
W-832-24	03/04/03	40.14	622.42		
W-832-24	04/07/03	39.91	622.65		
W-832-24	07/09/03	40.11	622.45		
W-832-24	10/01/03	40.48	622.08		
W-832-25	01/14/03	32.91	633.9		
W-832-25	02/05/03	32.65	634.16		
W-832-25	03/06/03	32.65	634.16		
W-832-25	04/08/03	32.36	634.45		
W-832-25	07/09/03	33.11	633.7		
W-832-25	10/09/03	33.7	633.11		
W-832-SC1	01/14/03	-	-		NM
W-832-SC1	02/06/03	-	-		NM
W-832-SC1	03/10/03	4.62	580.08		
W-832-SC1	04/15/03	4.58	580.12		
W-832-SC1	07/28/03	4.7	580		
W-832-SC1	10/02/03	5.57	579.13		
W-832-SC2	01/14/03	4.71	570.16		
W-832-SC2	02/06/03	4.7	570.17		
W-832-SC2	03/10/03	4.24	570.63		
W-832-SC2	04/15/03	3.9	570.97		
W-832-SC2	07/28/03	-	-		DRY
W-832-SC2	10/02/03	-	-		DRY
W-832-SC3	01/14/03	4.39	559.28		
W-832-SC3	02/06/03	4.28	559.39		
W-832-SC3	03/10/03	4.56	559.11		
W-832-SC3	04/15/03	4.65	559.02		
W-832-SC3	07/28/03	-	-		DRY/MUD
W-832-SC3	10/02/03	-	-		DRY/MUD
W-832-SC4	01/14/03	5.46	531.84		

**Table 2.7-16. Building 832 Canyon OU 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-832-SC4	02/06/03	5.77	531.53		
W-832-SC4	03/01/03	5.66	531.64		
W-832-SC4	04/15/03	6.27	531.03		
W-832-SC4	07/28/03	7.93	529.37		
W-832-SC4	10/02/03	7.9	529.4		
W-870-01	01/06/03	-	-		DRY
W-870-01	04/15/03	-	-		DRY
W-870-01	07/01/03	-	-		DRY
W-870-01	10/08/03	-	-		DRY
W-870-02	01/15/03	-	-		NM/EQUIPMENT
W-870-02	04/15/03	16.78	507.04		
W-870-02	07/21/03	17.64	506.18		
W-870-02	10/01/03	17.95	505.87		
W-880-01	01/06/03	16.37	509.68		
W-880-01	02/04/03	16.51	509.54		
W-880-01	03/04/03	16.33	509.72		
W-880-01	04/14/03	15.82	510.23		
W-880-01	07/21/03	16.97	509.08		
W-880-01	10/08/03	17.15	508.9		
W-880-02	01/06/03	17.32	508.48		
W-880-02	02/04/03	17.61	508.19		
W-880-02	03/04/03	17.57	508.23		
W-880-02	04/14/03	17.2	508.6		
W-880-02	07/21/03	18.17	507.63		
W-880-02	10/08/03	18.33	507.47		
W-880-03	01/06/03	7.77	518.28		
W-880-03	02/04/03	6.53	519.52		
W-880-03	03/04/03	5.18	520.87		
W-880-03	04/14/03	4.42	521.63		
W-880-03	07/21/03	11.49	514.56		
W-880-03	10/08/03	14.58	511.47		

**Table 2.7-17. Building 832-Source (B832-SRC) mass removed, January 1, 2003 through December 31, 2003.**

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	1.3	2,571	0.2	30.0
	February	1.0	2,122	0.2	10.5
	March	0.9	1,853	0.2	15.0
	April	0.7	1,570	0.1	21.3
	May	0.5	1,112	0.1	20.0
	June	0.5	1,157	0.1	14.0
	July	0.2	623	0.0	10.9
	August	0.1	395	0.0	17.5
	September	0.1	326	0.0	17.9
	October	0.1	194	0.0	17.8
	November	0.0	109	0.0	0.0
	December	0.0	93	0.0	0.0
<b>Total</b>		<b>5.4</b>	<b>12,125</b>	<b>0.9</b>	<b>175</b>

**Table 2.7-18. Building 830-Source (B830-SRC) mass removed, January 1, 2003 through December 31, 2003.**

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	NA	NA	NA	NA
	February	1.6	55.3	0.003	0 <sup>a</sup>
	March	4.8	181.7	0.007	0 <sup>a</sup>
	April	7.5	259.8	0.000	0 <sup>a</sup>
	May	5.1	174.4	0.000	0 <sup>a</sup>
	June	8.2	281.4	0.000	0 <sup>a</sup>
	July	10.6	290.4	0.000	0 <sup>a</sup>
	August	0.3	9.4	0.000	0 <sup>a</sup>
	September	1.1	31.1	0.000	0 <sup>a</sup>
	October	1.4	89.3	0.004	0 <sup>a</sup>
	November	2.1	127.4	0.005	0 <sup>a</sup>
	December	2.9	177.5	0.008	0 <sup>a</sup>
<b>Total</b>		<b>45.6</b>	<b>1,678</b>	<b>0.027</b>	<b>0<sup>a</sup></b>

<sup>a</sup> B830-SRC SVE system in testing phase.

**Table 2.7-19. Building 830-Proximal North (B830-PRXN) mass removed, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	VOC mass removed (g)	Nitrate mass removed (g)
B830-PRX	January	1.5	833
	February	2.2	1,198
	March	3.2	1,755
	April	1.6	756
	May	1.3	623
	June	2.9	1,392
	July	2.2	1,123
	August	2.3	1,160
	September	2.6	1,329
	October	3.0	1,716
	November	3.7	2,107
	December	3.1	1,749
<b>Total</b>		<b>30</b>	<b>15,740</b>

**Table 2.7-20. Building 830-Distal South (B830-DISS) mass removed, January 1, 2003 through December 31, 2003.**

Treatment facility	Month	VOC mass removed (g)	Nitrate mass removed (g)	Perchlorate mass removed (g)
B830-DISS	January	9.6	7,557	0
	February	4.0	3,172	0
	March	9.7	7,626	0
	April	12.3	7,593	0.5
	May	13.6	8,380	0.5
	June	14.2	8,754	0.6
	July	11.8	8,208	0.6
	August	14.1	9,817	0.7
	September	15.2	10,558	0.7
	October	14.4	10,925	0.0
	November	18.2	13,843	0.0
	December	31.8	24,164	0.0
<b>Total</b>		<b>169</b>	<b>120,597</b>	<b>3.6</b>

**Table 2.8-1. Building 801 and Pit 8 landfill (OU8) 2003 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 <sub>1</sub>	A	A	CMP	E300.0:NO3	2	N	Sampling personnel shortage.
K8-01	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	3	Y	
K8-01	MWPT	Upper Tnbs <sub>1</sub>		A	DIS	E300.0:NO3	4	Y	
K8-01	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	N	Sampling personnel shortage.
K8-01	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	3	Y	
K8-01	MWPT	Upper Tnbs <sub>1</sub>		A	DIS	E300.0:PERC	4	Y	
K8-01	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	2	N	Sampling personnel shortage.
K8-01	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
K8-01	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	4	Y	
K8-01	MWPT	Upper Tnbs <sub>1</sub>		A	DIS	E906	3	Y	
	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>							
K8-02B		Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	A	A	CMP	CMPTRIMET	2	Y	
	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>							
K8-02B		Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>							
K8-02B		Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	
	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>							
K8-02B		Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	A	A	CMP	E340.2	2	Y	
	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>							
K8-02B		Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	A	A	CMP	E601	2	Y	
	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>							
K8-02B		Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>		A	DIS	E601	3	Y	
	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>							
K8-02B		Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	A	A	CMP	E8330:R+H	2	Y	

Table 2.8-1. Building 801 and Pit 8 landfill (OU8) 2003 ground water sampling and analysis plan. (Cont. Page 2 of 5)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K8-02B	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	Q	Q	CMP	E906	1	N	Sampling personnel shortage.
K8-02B	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	Q	Q	CMP	E906	2	Y	
K8-02B	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	Q	Q	CMP	E906	3	Y	
K8-02B	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	Q	Q	CMP	E906	4	Y	
K8-02B	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	B	B	CMP	MS:THISO	2	Y	Next sample required 2005.
K8-02B	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	B	B	CMP	MS:UISO	2	Y	Next sample required 2005.
K8-02B	CMP DMW	Tnsc <sub>1</sub> /Upper Tnbs <sub>1</sub>	A	A	CMP	T26METALS	2	Y	
K8-03B	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
K8-03B	MWPT	Upper Tnbs <sub>1</sub>		A	DIS	E300.0:NO3	3	Y	
K8-03B	MWPT	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	
K8-03B	MWPT	Upper Tnbs <sub>1</sub>		A	DIS	E300.0:PERC	3	Y	
K8-03B	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	2	Y	
K8-03B	MWPT	Upper Tnbs <sub>1</sub>		S	DIS	E601	3	Y	
K8-03B	MWPT	Upper Tnbs <sub>1</sub>	S	S	CMP	E601	4	Y	
K8-03B	MWPT	Upper Tnbs <sub>1</sub>		A	DIS	E906	3	Y	
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	A	A	CMP	CMPTRIMET	2	Y	
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	

Table 2.8-1. Building 801 and Pit 8 landfill (OU8) 2003 ground water sampling and analysis plan. (Cont. Page 3 of 5)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	A	A	CMP	E340.2	2	Y	
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	A	A	CMP	E601	2	Y	
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>		A	DIS	E601	3	Y	
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	A	A	CMP	E8330:R+H	2	Y	
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	Q	Q	CMP	E906	1	N	Sampling personnel shortage.
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	Q	Q	CMP	E906	2	Y	
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	Q	Q	CMP	E906	3	Y	
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	Q	Q	CMP	E906	4	Y	
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	B	B	CMP	MS:THISO	2	Y	Next sample required 2005.
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	B	B	CMP	MS:UISO	2	Y	Next sample required 2005.
K8-04	CMP DMW	Upper Tnbs <sub>1</sub>	A	A	CMP	T26METALS	2	Y	
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	CMPTRIMET	2	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	CMPTRIMET	4	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	2	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:NO3	4	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	2	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	E300.0:PERC	4	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	E340.2	2	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	E340.2	4	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	E601	2	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	E601	4	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	2	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	E8330:R+H	4	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	Q	Q	CMP	E906	1	N	Sampling personnel shortage.
K8-05	CMP DMW	Tnbs <sub>2</sub>	Q	Q	CMP	E906	2	N	Dry.



**Table 2.8-1. Building 801 and Pit 8 landfill (OU8) 2003 ground water sampling and analysis plan. (Cont. Page 4 of 5)**

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 <sub>2</sub>	Q	Q	CMP	E906	3	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	Q	Q	CMP	E906	4	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	B	B	CMP	MS:THISO	2	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	B	B	CMP	MS:THISO	4	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	B	B	CMP	MS:UISO	2	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	B	B	CMP	MS:UISO	4	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	T26METALS	2	N	Dry.
K8-05	CMP DMW	Tnbs <sub>2</sub>	A	A	CMP	T26METALS	4	N	Dry.

Notes appear on the following page.

**Table 2.8-1. Building 801 and Pit 8 landfill (OU8) 2003 ground water sampling and analysis plan. (Cont. Page 5 of 5)****Notes:**

No COCs in ground water.

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

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) sampled annually.

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

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

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

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

CGSA CMP/DIS = Sampling more frequently than required.

CGSA CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.

CGSA CMP = Central GSA groundwater sampling and analysis plan specified in the GSA RD

CMP DMW = CMP detection monitor well.

CMP/DIS = Sampling required analyte more frequently than required.

CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.

CMP = Compliance Monitoring Plan.

DIS = Discretionary sampling of non-required analyte.

DMW = Detection monitor well (non-CMP).

ERD/WGMG = Non-CMP analyte sampled from a well shared by ERD and WGMG.

EW = Extraction well.

GW = Guard well.

MWB = Monitor well used for background.

MWPT = Monitor well used for plume tracking.

SPR = Spring.

WS = Water supply well.

**Table 2.8-2. Building 801 firing table and Pit 8 landfill 2003 ground water sampling and analysis plan.**

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	Total 1,2- DCE (µg/L)	Carbon						Freon 11 (µg/L)	Freon 113 (µg/L)	Methylene chloride (µg/L)
						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)			
K8-01	08/29/03	E601	2.2 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-01	11/24/03	E601	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	2.4	<0.5	<0.5	<0.5	<0.5	<0.5
K8-02B	06/25/03	E601	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-02B	08/29/03	E601	1.1 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-03B	06/27/03	E601	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-03B	09/12/03	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
K8-03B	12/05/03	E601	0.62	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-04	05/15/03	E601	1	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-04	08/19/03	E601	1.0 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 2.8.3. Building 801 firing table and Pit 8 landfill 2003 tritium in ground water.**

Location	Date	Tritium (pCi/L)
K8-01	08/29/03	<85
K8-02B	06/25/03	<87.5
K8-02B	08/29/03	<85.7
K8-02B	08/29/03 DUP	96.3 ± 166
K8-02B	11/24/03	<88.2
K8-03B	09/12/03	<87
K8-04	05/15/03	<90.3
K8-04	08/19/03	<87.4
K8-04	11/24/03	<89.4
K8-04	11/24/03 DUP	<139

**Table 2.8.4. Building 801 firing table and Pit 8 landfill 2003 nitrate and perchlorate in ground water.**

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
K8-01	08/29/03	53 D	<4 H
K8-01	11/24/03	<0.1	<4
K8-02B	06/25/03	39	<4
K8-03B	06/27/03	<0.1	<4
K8-03B	09/12/03	<0.1	<4 H
K8-04	05/15/03	<0.1	5

**Table 2.8.5. Building 801 firing table and Pit 8 landfill 2003 fluoride in ground water.**

Location	Date	Fluoride (mg/L)
K8-02B	06/25/03	0.78
K8-04	05/15/03	10 D

**Table 2.8.6. Building 801 firing table and Pit 8 landfill 2003 high explosive compounds in ground water.**

Location	Date	HMX (µg/L)	RDX (µg/L)
K8-02B	06/25/03	<1	<1
K8-04	05/15/03	<1	<1 O

**Table 2.8-7. Building 801 firing table and Pit 8 landfill 2003 metals in ground water.**

<b>Constituents of concern</b>	<b>K8-02B (06/25/03)</b>	<b>K8-04 (05/15/03)</b>
<b>Antimony (mg/L)</b>	<b>&lt;0.06</b>	<b>&lt;0.06</b>
<b>Arsenic (mg/L)</b>	<b>0.02</b>	<b>0.023</b>
<b>Barium (mg/L)</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>
<b>Beryllium (mg/L)</b>	<b>&lt;0.002 D</b>	<b>&lt;0.002</b>
<b>Cadmium (mg/L)</b>	<b>&lt;0.005</b>	<b>&lt;0.005</b>
<b>Chromium (mg/L)</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>
<b>Cobalt (mg/L)</b>	<b>&lt;0.025</b>	<b>&lt;0.025</b>
<b>Copper (mg/L)</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>
<b>Lead (mg/L)</b>	<b>&lt;0.003</b>	<b>&lt;0.003</b>
<b>Lithium (<math>\mu</math>g/L)</b>	<b>-</b>	<b>46</b>
<b>Mercury (mg/L)</b>	<b>&lt;0.0002</b>	<b>&lt;0.0002</b>
<b>Molybdenum (mg/L)</b>	<b>&lt;0.02</b>	<b>&lt;0.02</b>
<b>Nickel (mg/L)</b>	<b>&lt;0.02</b>	<b>&lt;0.02</b>
<b>Selenium (mg/L)</b>	<b>&lt;0.005</b>	<b>0.005</b>
<b>Silver (mg/L)</b>	<b>&lt;0.0005</b>	<b>&lt;0.005</b>
<b>Thallium (mg/L)</b>	<b>&lt;0.005</b>	<b>&lt;0.005</b>
<b>Thorium (<math>\mu</math>g/L)</b>	<b>-</b>	<b>&lt;22.4</b>
<b>Uranium (<math>\mu</math>g/L)</b>	<b>-</b>	<b>&lt;20.5</b>
<b>Vanadium (mg/L)</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<b>Zinc (mg/L)</b>	<b>&lt;0.02</b>	<b>&lt;0.02</b>

**Table 2.8-8. Building 801 firing table and Pit 8 landfill 2003 uranium and thorium isotopes by mass spectrometry in ground water.**

Location	Date	Thorium 232 (pCi/L)	Uranium (pCi/L)	Uranium 234 by mass measurement (pCi/L)	Uranium 235 by mass measurement (pCi/L)	Uranium 236 by mass measurement (pCi/L)	Uranium 238 by mass measurement (pCi/L)	Uranium 235/238
K8-02B	06/25/03	0.000332 ± 0.0000148	13.5 ± 0.275	8.56 ± 0.273	0.220 ± 0.00197	<0.007	4.75 ± 0.0366	0.00721 ± 0.0000330
K8-04	05/15/03	<0.0001 E	0.559 ± 0.0110	<0.062	0.0246 ± 0.000630	<0.0007	0.534 ± 0.0110	0.00716 ± 0.000106

**Table 2.8-9. Building 801 firing table and Pit 8 landfill 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
K8-01	01/10/03	129.11	971.33		
K8-01	02/07/03	129.04	971.4		
K8-01	03/01/03	129.17	971.27		
K8-01	04/05/03	129.15	971.29		
K8-01	07/11/03	129.25	971.19		
K8-01	10/03/03	129.1	971.34		
K8-02B	01/10/03	158.7	969.72		
K8-02B	02/07/03	158.58	969.84		
K8-02B	03/01/03	158.7	969.72		
K8-02B	04/05/03	158.75	969.67		
K8-02B	07/11/03	158.72	969.7		
K8-02B	10/03/03	158.7	969.72		
K8-03B	01/03/03	103.82	992.77		
K8-03B	02/07/03	103.76	992.83		
K8-03B	03/01/03	103.71	992.88		
K8-03B	04/05/03	103.6	992.99		
K8-03B	07/11/03	103.65	992.94		
K8-03B	10/03/03	103.65	992.94		
K8-04	01/10/03	163.7	969.45		
K8-04	02/07/03	163.49	969.66		
K8-04	03/01/03	163.67	969.48		
K8-04	04/05/03	163.7	969.45		
K8-04	07/11/03	163.7	969.45		
K8-04	10/03/03	163.6	969.55		
K8-05	01/10/03	-	-		DRY
K8-05	02/07/03	-	-		DRY
K8-05	03/01/03	-	-		DRY
K8-05	04/05/03	-	-		DRY
K8-05	07/01/03	-	-		DRY
K8-05	10/03/03	-	-		DRY

**Table 2.8-10. Building 833 (OU8) 2003 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
SPRING19	SPR	Upper Tnbs <sub>1</sub>		A	DIS	AS:UIISO	4	N	Not sampled.
SPRING19	SPR	Upper Tnbs <sub>1</sub>		A	DIS	DWMETALS	4	N	Not sampled.
SPRING19	SPR	Upper Tnbs <sub>1</sub>		A	DIS	E210.2	4	N	Not sampled.
SPRING19	SPR	Upper Tnbs <sub>1</sub>		A	DIS	E300.0:PERC	4	N	Not sampled.
SPRING19	SPR	Upper Tnbs <sub>1</sub>		A	DIS	E601	4	N	Not sampled.
SPRING19	SPR	Upper Tnbs <sub>1</sub>		A	DIS	E8330:R+H	4	N	Not sampled.
SPRING19	SPR	Upper Tnbs <sub>1</sub>		A	DIS	E900	4	N	Not sampled.
SPRING19	SPR	Upper Tnbs <sub>1</sub>		A	DIS	E906	4	N	Not sampled.
SPRING19	SPR	Upper Tnbs <sub>1</sub>		A	DIS	GENMIN	4	N	Not sampled.
SPRING19	SPR	Upper Tnbs <sub>1</sub>		A	DIS	TBOS	4	N	Not sampled.
W-833-03	MWPT	Tps		A	DIS	E300.0:NO3	1	N	Dry.
W-833-03	MWPT	Tps		A	DIS	E300.0:PERC	1	N	Dry.
W-833-03	MWPT	Tps	S	S	CMP	E601	1	N	Dry.
W-833-03	MWPT	Tps	S	S	CMP	E601	3	N	Dry.
W-833-12	MWPT	Qt		A	DIS	DWMETALS	1	N	Dry.
W-833-12	MWPT	Qt		A	DIS	E300.0:NO3	1	N	Dry.
W-833-12	MWPT	Qt		A	DIS	E300.0:PERC	1	N	Dry.
W-833-12	MWPT	Qt	S	S	CMP	E601	1	N	Dry.
W-833-12	MWPT	Qt		A	DIS	GENMIN	1	N	Dry.
W-833-12	MWPT	Qt	S	S	CMP	E601	3	N	Dry.
W-833-18	MWPT	Tps		A	DIS	DWMETALS	1	N	Dry.
W-833-18	MWPT	Tps		A	DIS	E300.0:NO3	1	N	Dry.
W-833-18	MWPT	Tps		A	DIS	E300.0:PERC	1	N	Dry.
W-833-18	MWPT	Tps	S	S	CMP	E601	1	N	Dry.
W-833-18	MWPT	Tps		A	DIS	E8330:R+H	1	N	Dry.
W-833-18	MWPT	Tps		A	DIS	GENMIN	1	N	Dry.
W-833-18	MWPT	Tps	S	S	CMP	E601	3	N	Dry.



Table 2.8-10. Building 833 (OU8) 2003 ground water sampling and analysis plan. (Cont. Page 2 of 4)

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-833-22	MWPT	Tps		A	DIS	DWMETALS	1	N	Dry.
W-833-22	MWPT	Tps		A	DIS	E300.0:NO3	1	N	Dry.
W-833-22	MWPT	Tps		A	DIS	E300.0:PERC	1	N	Dry.
W-833-22	MWPT	Tps	S	S	CMP	E601	1	N	Dry.
W-833-22	MWPT	Tps		A	DIS	E8330:R+H	1	N	Dry.
W-833-22	MWPT	Tps		A	DIS	GENMIN	1	N	Dry.
W-833-22	MWPT	Tps	S	S	CMP	E601	3	N	Dry.
W-833-28	MWPT	Tps		A	DIS	DWMETALS	1	N	Dry.
W-833-28	MWPT	Tps		A	DIS	E300.0:NO3	1	N	Dry.
W-833-28	MWPT	Tps		A	DIS	E300.0:PERC	1	N	Dry.
W-833-28	MWPT	Tps	S	S	CMP	E601	1	N	Dry.
W-833-28	MWPT	Tps		A	DIS	E8330:R+H	1	N	Dry.
W-833-28	MWPT	Tps		A	DIS	GENMIN	1	N	Dry.
W-833-28	MWPT	Tps	S	S	CMP	E601	3	N	Dry.
W-833-30	MWPT	Lower Tnbs <sub>1</sub>		A	DIS	E300.0:NO3	1	Y	
W-833-30	MWPT	Lower Tnbs <sub>1</sub>		A	DIS	E300.0:PERC	1	Y	
W-833-30	MWPT	Lower Tnbs <sub>1</sub>	S	S	CMP	E601	1	Y	
W-833-30	MWPT	Lower Tnbs <sub>1</sub>	S	S	CMP	E601	3	Y	
W-833-33	MWPT	Tps		A	DIS	E300.0:NO3	1	N	Dry.
W-833-33	MWPT	Tps		A	DIS	E300.0:PERC	1	N	Dry.
W-833-33	MWPT	Tps	S	S	CMP	E601	1	N	Dry.
W-833-33	MWPT	Tps	S	S	CMP	E601	3	N	Dry.
W-833-34	MWPT	Tps		A	DIS	DWMETALS	1	N	Dry.
W-833-34	MWPT	Tps		A	DIS	E300.0:NO3	1	N	Dry.
W-833-34	MWPT	Tps		A	DIS	E300.0:PERC	1	N	Dry.
W-833-34	MWPT	Tps	S	S	CMP	E601	1	N	Dry.
W-833-34	MWPT	Tps		A	DIS	E8330:R+H	1	N	Dry.

**Table 2.8-10. Building 833 (OU8) 2003 ground water sampling and analysis plan. (Cont. Page 3 of 4)**

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-833-34	MWPT	Tps		A	DIS	GENMIN	1	N	Dry.
W-833-34	MWPT	Tps	S	S	CMP	E601	3	N	Dry.
W-833-43	MWPT	Tps		A	DIS	DWMETALS	1	N	Dry.
W-833-43	MWPT	Tps		A	DIS	E300.0:NO3	1	N	Dry.
W-833-43	MWPT	Tps		A	DIS	E300.0:PERC	1	N	Dry.
W-833-43	MWPT	Tps	S	S	CMP	E601	1	N	Dry.
W-833-43	MWPT	Tps		A	DIS	E8330:R+H	1	N	Dry.
W-833-43	MWPT	Tps		A	DIS	GENMIN	1	N	Dry.
W-833-43	MWPT	Tps	S	S	CMP	E601	3	N	Dry.
W-840-01	MWPT	Lower Tnbs <sub>1</sub>		A	DIS	E300.0:NO3	1	N	Dry.
W-840-01	MWPT	Lower Tnbs <sub>1</sub>		A	DIS	E300.0:PERC	1	N	Dry.
W-840-01	MWPT	Lower Tnbs <sub>1</sub>		A	DIS	E601	1	N	Dry.
W-840-01	MWPT	Lower Tnbs <sub>1</sub>		A	DIS	E601	3	N	Dry.
W-841-01	MWPT	Upper Tnbs <sub>1</sub>		A	DIS	E300.0:NO3	1	N	Dry.
W-841-01	MWPT	Upper Tnbs <sub>1</sub>		A	DIS	E300.0:PERC	1	N	Dry.
W-841-01	MWPT	Upper Tnbs <sub>1</sub>		A	DIS	E601	1	N	Dry.
W-841-01	MWPT	Upper Tnbs <sub>1</sub>		A	DIS	E601	3	N	Dry.

Notes appear on the following page.

**Table 2.8-10. Building 833 (OU8) 2003 ground water sampling and analysis plan. (Cont. Page 4 of 4)**

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**Notes:**

**Building 833 primary COC: VOCs (E601).**

**CGSA CMP/DIS = Sampling more frequently than required.**

**CGSA CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.**

**CGSA CMP = Central GSA groundwater sampling and analysis plan specified in the GSA RD**

**CMP DMW = CMP detection monitor well.**

**CMP/DIS = Sampling required analyte more frequently than required.**

**CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.**

**CMP = Compliance Monitoring Plan.**

**DIS = Discretionary sampling of non-required analyte.**

**DMW = Detection monitor well (non-CMP).**

**ERD/WGMG = Non-CMP analyte sampled from a well shared by ERD and WGMG.**

**EW = Extraction well.**

**GW = Guard well.**

**MWB = Monitor well used for background.**

**MWPT = Monitor well used for plume tracking.**

**SPR = Spring.**

**WS = Water supply well.**

Table 2.8-11. Building 833 2003 VOCs in ground water.

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)
W-833-30	03/24/03	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
W-833-30	08/27/03	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

Table 2.8-12. Building 833 2003 nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
W-833-30	03/24/03	<0.5	<4

**Table 2.8-13. Building 833 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-833-03	01/04/03	-	-	-	DRY
W-833-03	02/06/03	-	-	-	DRY
W-833-03	03/10/03	41.4		809.83	
W-833-03	04/17/03	41.32		809.91	
W-833-03	07/16/03	41.15		810.08	
W-833-03	10/10/03	41.3		809.93	
W-833-12	01/04/03	20.03		827.19	DRY
W-833-12	02/06/03	-		-	DRY
W-833-12	03/10/03	-		-	DRY
W-833-12	04/17/03	20.38		826.84	
W-833-12	07/16/03	-		-	DRY
W-833-12	10/10/03	-		-	DRY
W-833-18	01/04/03	-		-	DRY
W-833-18	02/06/03	-		-	DRY
W-833-18	03/10/03	-		-	DRY
W-833-18	04/17/03	-		-	DRY
W-833-18	07/01/03	-		-	DRY
W-833-18	10/10/03	-		-	DRY
W-833-22	01/04/03	-		-	DRY
W-833-22	02/06/03	-		-	DRY
W-833-22	03/10/03	-		-	DRY
W-833-22	04/17/03	-		-	DRY
W-833-22	07/01/03	-		-	DRY
W-833-22	10/10/03	-		-	DRY
W-833-28	01/04/03	41.65		814.27	
W-833-28	02/06/03	41.62		814.3	
W-833-28	03/10/03	41.62		814.3	
W-833-28	04/15/03	41.63		814.29	
W-833-28	07/01/03	-		-	NM
W-833-28	10/10/03	41.69		814.23	
W-833-30	01/04/03	-		-	NM
W-833-30	02/06/03	-		-	NM
W-833-30	03/10/03	286.98		564.68	
W-833-30	04/17/03	286.1		565.56	
W-833-30	07/17/03	288		563.66	

**Table 2.8-13. Building 833 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-833-30	10/10/03	289.9		561.76	
W-833-33	01/04/03	-		-	DRY
W-833-33	02/06/03	-		-	DRY
W-833-33	03/10/03	-		-	DRY
W-833-33	04/18/03	-		-	DRY
W-833-33	07/01/03	-		-	DRY
W-833-33	10/10/03	-		-	DRY
W-833-34	01/04/03	33.64		815.28	
W-833-34	02/06/03	33.62		815.3	
W-833-34	03/10/03	33.72		815.2	
W-833-34	04/18/03	33.71		815.21	
W-833-34	07/29/03	-		-	DRY
W-833-34	10/10/03	-		-	DRY
W-833-43	01/04/03	-		-	DRY
W-833-43	04/18/03	-		-	DRY
W-833-43	07/01/03	-		-	DRY
W-833-43	10/10/03	-		-	DRY
W-840-01	01/04/03	-		-	DRY
W-840-01	04/15/03	-		-	DRY
W-840-01	07/01/03	-		-	DRY
W-840-01	10/10/03	-		-	DRY
W-841-01	01/04/03	-		-	DRY
W-841-01	04/15/03	-		-	DRY
W-841-01	07/01/03	-		-	DRY
W-841-01	10/10/03	-		-	DRY

**Table 2.8-13. Building 833 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
				MSL	
W-833-03	01/04/03	-	-	-	DRY
W-833-03	02/06/03	-	-	-	DRY
W-833-03	03/10/03	41.4		809.83	
W-833-03	04/17/03	41.32		809.91	
W-833-03	07/16/03	41.15		810.08	
W-833-03	10/10/03	41.3		809.93	
W-833-12	01/04/03	20.03		827.19	DRY
W-833-12	02/06/03	-		-	DRY
W-833-12	03/10/03	-		-	DRY
W-833-12	04/17/03	20.38		826.84	
W-833-12	07/16/03	-		-	DRY
W-833-12	10/10/03	-		-	DRY
W-833-18	01/04/03	-		-	DRY
W-833-18	02/06/03	-		-	DRY
W-833-18	03/10/03	-		-	DRY
W-833-18	04/17/03	-		-	DRY
W-833-18	07/01/03	-		-	DRY
W-833-18	10/10/03	-		-	DRY
W-833-22	01/04/03	-		-	DRY
W-833-22	02/06/03	-		-	DRY
W-833-22	03/10/03	-		-	DRY
W-833-22	04/17/03	-		-	DRY
W-833-22	07/01/03	-		-	DRY
W-833-22	10/10/03	-		-	DRY
W-833-28	01/04/03	41.65		814.27	
W-833-28	02/06/03	41.62		814.3	
W-833-28	03/10/03	41.62		814.3	
W-833-28	04/15/03	41.63		814.29	
W-833-28	07/01/03	-		-	NM
W-833-28	10/10/03	41.69		814.23	
W-833-30	01/04/03	-		-	NM
W-833-30	02/06/03	-		-	NM
W-833-30	03/10/03	286.98		564.68	
W-833-30	04/17/03	286.1		565.56	
W-833-30	07/17/03	288		563.66	

**Table 2.8-13. Building 833 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-833-30	10/10/03	289.9	561.76		
W-833-33	01/04/03	-	-		DRY
W-833-33	02/06/03	-	-		DRY
W-833-33	03/10/03	-	-		DRY
W-833-33	04/18/03	-	-		DRY
W-833-33	07/01/03	-	-		DRY
W-833-33	10/10/03	-	-		DRY
W-833-34	01/04/03	33.64	815.28		
W-833-34	02/06/03	33.62	815.3		
W-833-34	03/10/03	33.72	815.2		
W-833-34	04/18/03	33.71	815.21		
W-833-34	07/29/03	-	-		DRY
W-833-34	10/10/03	-	-		DRY
W-833-43	01/04/03	-	-		DRY
W-833-43	04/18/03	-	-		DRY
W-833-43	07/01/03	-	-		DRY
W-833-43	10/10/03	-	-		DRY
W-840-01	01/04/03	-	-		DRY
W-840-01	04/15/03	-	-		DRY
W-840-01	07/01/03	-	-		DRY
W-840-01	10/10/03	-	-		DRY
W-841-01	01/04/03	-	-		DRY
W-841-01	04/15/03	-	-		DRY
W-841-01	07/01/03	-	-		DRY
W-841-01	10/10/03	-	-		DRY



**Table 2.8-14. Building 845 firing table and Pit 9 landfill 2003 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
K9-01	CMP DMW	Tmss	Q	Q	CMP	E906	1	Y	
K9-01	CMP DMW	Tmss	A	A	CMP	CMPTRIMET	2	Y	
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	2	Y	
K9-01	CMP DMW	Tmss	B	B	CMP	MS:THISO	2	Y	Next sample required 2005.
K9-01	CMP DMW	Tmss	B	B	CMP	MS:UIISO	2	Y	Next sample required 2005.
K9-01	CMP DMW	Tmss	A	A	CMP	T26METALS	2	Y	
K9-01	CMP DMW	Tmss	Q	Q	CMP	E906	3	Y	
K9-01	CMP DMW	Tmss	Q	Q	CMP	E906	4	Y	
K9-02	CMP DMW	Tmss	Q	Q	CMP	E906	1	Y	
K9-02	CMP DMW	Tmss	A	A	CMP	CMPTRIMET	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	2	Y	
K9-02	CMP DMW	Tmss	B	B	CMP	MS:THISO	2	Y	Next sample required 2005.
K9-02	CMP DMW	Tmss	B	B	CMP	MS:UIISO	2	Y	Next sample required 2005.
K9-02	CMP DMW	Tmss	A	A	CMP	T26METALS	2	Y	
K9-02	CMP DMW	Tmss	Q	Q	CMP	E906	3	Y	
K9-02	CMP DMW	Tmss	Q	Q	CMP	E906	4	Y	
K9-03	CMP DMW	Tmss	Q	Q	CMP	E906	1	Y	
K9-03	CMP DMW	Tmss	A	A	CMP	CMPTRIMET	2	Y	

Table 2.8-14. Building 845 firing table and Pit 9 landfill 2003 ground water sampling and analysis plan. (Cont. Page 2 of 3)

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	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	2	Y	
K9-03	CMP DMW	Tmss	B	B	CMP	MS:THISO	2	Y	Next sample required 2005.
K9-03	CMP DMW	Tmss	B	B	CMP	MS:UIISO	2	Y	Next sample required 2005.
K9-03	CMP DMW	Tmss	A	A	CMP	T26METALS	2	Y	
K9-03	CMP DMW	Tmss	Q	Q	CMP	E906	3	Y	
K9-03	CMP DMW	Tmss	Q	Q	CMP	E906	4	Y	
K9-04	CMP DMW	Tmss	Q	Q	CMP	E906	1	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	2	Y	
K9-04	CMP DMW	Tmss	B	B	CMP	MS:THISO	2	Y	Next sample required 2005.
K9-04	CMP DMW	Tmss	B	B	CMP	MS:UIISO	2	Y	Next sample required 2005.
K9-04	CMP DMW	Tmss	A	A	CMP	T26METALS	2	Y	
K9-04	CMP DMW	Tmss	Q	Q	CMP	E906	3	Y	
K9-04	CMP DMW	Tmss	Q	Q	CMP	E906	4	Y	

Notes appear on the following page.

**Table 2.8-14. Building 845 firing table and Pit 9 landfill 2003 ground water sampling and analysis plan. (Cont. Page 3 of 3)**

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**Notes:**

**No COCs in ground water.**

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

**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) sampled annually.**

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

**CGSA CMP/DIS = Sampling more frequently than required.**

**CGSA CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.**

**CGSA CMP = Central GSA groundwater sampling and analysis plan specified in the GSA RD**

**CMP DMW = CMP detection monitor well.**

**CMP/DIS = Sampling required analyte more frequently than required.**

**CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.**

**CMP = Compliance Monitoring Plan.**

**DIS = Discretionary sampling of non-required analyte.**

**DMW = Detection monitor well (non-CMP).**

**ERD/WGMG = Non-CMP analyte sampled from a well shared by ERD and WGMG.**

**EW = Extraction well.**

**GW = Guard well.**

**MWB = Monitor well used for background.**

**MWPT = Monitor well used for plume tracking.**

**SPR = Spring.**

**WS = Water supply well.**

**Table 2.8-15. Building 8845 firing table and Pit 9 landfill 2003 VOCs in ground water.**

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)
K9-01	5/29/03	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
K9-02	5/29/03	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
K9-03	5/30/03	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
K9-04	5/29/03	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

**Table 2.8-16. Building 845 firing table and Pit 9 landfill 2003 VOCs in ground water.**

Location	Date	Tritium (pCi/L)
K9-01	02/01/03	<95.7
K9-01	05/29/03	<95.8
K9-01	09/23/03	<84.8
K9-01	12/02/03	<91.6
K9-02	02/01/03	<99.8
K9-02	05/29/03	<94.4
K9-02	09/23/03	<84.8
K9-02	12/02/03	115 ± 58.0
K9-02	12/02/03 DUP	<139
K9-03	02/01/03	<94.1
K9-03	05/30/03	<96.1
K9-03	09/23/03	<82.8
K9-03	12/02/03	<92.4
K9-04	02/01/03	<95.3
K9-04	05/29/03	<95.2
K9-04	09/23/03	<83 E
K9-04	12/02/03	<91.8

**Table 2.8-17. Building 845 firing table and Pit 9 landfill 2003 nitrate and perchlorate in ground water.**

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
K9-01	05/29/03	<0.1	<4
K9-02	05/29/03	<0.1	<4
K9-03	05/30/03	<0.1	<4
K9-04	05/29/03	<0.1	<4

**Table 2.8-18. Building 845 firing table and Pit 9 landfill 2003 fluoride in ground water.**

Location	Date	Fluoride (mg/L)
K9-01	05/29/03	0.31
K9-02	05/29/03	0.49
K9-03	05/30/03	0.4
K9-04	05/29/03	0.5

Table 2.8-19. Building 845 firing table and Pit 9 landfill 2003 high explosive compounds in ground water.

Location	Date	HMX ( $\mu\text{g/L}$ )	RDX ( $\mu\text{g/L}$ )
K9-01	05/29/03	<1	<1
K9-02	05/29/03	<1	<1
K9-03	05/30/03	<1	<1
K9-04	05/29/03	<1	<1

Table 2.8-20. Building 845 firing table and Pit 9 landfill 2003 metals in ground water.

Constituents of concern	K9-01 05/29/03	K9-02 05/29/03	K9-03 05/30/03	K9-04 05/29/03
Antimony (mg/L)	<0.06	<0.06	<0.06	<0.06
Arsenic (mg/L)	<0.005	0.027	0.009	<0.005
Barium (mg/L)	0.01	0.02	0.01	0.01
Beryllium (mg/L)	<0.002	<0.002	<0.002	<0.002
Cadmium (mg/L)	<0.005	<0.005	<0.005	<0.005
Chromium (mg/L)	<0.01	<0.01	<0.01	<0.01
Cobalt (mg/L)	<0.025	<0.025	<0.025	<0.025
Copper (mg/L)	<0.01	<0.01	<0.01	<0.01
Lead (mg/L)	<0.003	<0.003	<0.003	<0.003
Lithium ( $\mu\text{g/L}$ )	100 F	97 F	120 F	97 F
Mercury (mg/L)	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum (mg/L)	0.03	0.05	0.03	0.03
Nickel (mg/L)	<0.02	<0.02	<0.02	<0.02
Selenium (mg/L)	<0.005	<0.005	<0.005	<0.005
Silver (mg/L)	<0.005	<0.005	<0.005	<0.005
Thallium (mg/L)	<0.005	<0.005	<0.005	<0.005
Thorium ( $\mu\text{g/L}$ )	<22.4	<22.4	<22.4	<22.4
Uranium ( $\mu\text{g/L}$ )	<20.5	<20.5	<20.5	<20.5
Vanadium (mg/L)	<0.5	<0.5	<0.5	<0.5
Zinc (mg/L)	0.06	<0.02	<0.02	<0.02

Table 2.8-21. Building 845 firing table and Pit 9 landfill 2003 metals in ground water.

Location	Date	Thorium 232 (pCi/L)	Uranium (pCi/L)	Uranium 234 by mass measurement (pCi/L)	Uranium 235 by mass measurement (pCi/L)	Uranium 236 by mass measurement (pCi/L)	Uranium 238 by mass measurement (pCi/L)	Uranium 235/238
K9-01	05/29/03	<0.0001 E	<0.0627 E	<0.062	0.00104 ± 0.0000300	<0.0007	0.0232 ± 0.000300	0.00697 ± 0.000200
K9-02	05/29/03	<0.0001 E	<0.0627 E	<0.062	0.00251 ± 0.0000700	<0.0007	0.0541 ± 0.000970	0.00720 ± 0.000139
K9-03	05/30/03	<0.0001 E	0.487 ± 0.0600	0.370 ± 0.0600	0.00526 ± 0.0000900	<0.0007	0.112 ± 0.00150	0.00730 ± 0.0000790
K9-04	05/29/03	<0.0001 E	0.261 ± 0.0400	0.200 ± 0.0400	0.00266 ± 0.0000700	<0.0007	0.0587 ± 0.00110	0.00703 ± 0.000140

**Table 2.8-22. Building 845 firing table and Pit 9 landfill 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft. MSL
K9-01	01/10/03	78.2	997.31
K9-01	04/18/03	78.18	997.33
K9-01	07/11/03	78.2	997.31
K9-01	10/07/03	78.03	997.48
K9-02	01/10/03	128.85	1006.54
K9-02	04/18/03	128.95	1006.44
K9-02	07/11/03	128.87	1006.52
K9-02	10/07/03	128.61	1006.78
K9-03	01/10/03	119.42	997.66
K9-03	04/18/03	119.54	997.54
K9-03	07/11/03	119.5	997.58
K9-03	10/07/03	119.6	997.48
K9-04	01/10/03	89.9	994.72
K9-04	04/18/03	89.92	994.7
K9-04	07/11/03	95	989.62
K9-04	10/07/03	89.47	995.15



**Table 2.8-23. Building 851 2003 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-851-05	MWPT	Tmss		A	DIS	AS:UIISO	2	Y	
W-851-05	MWPT	Tmss		A	DIS	DWMETALS	2	Y	
W-851-05	MWPT	Tmss		A	DIS	E200.7:Be	2	Y	
W-851-05	MWPT	Tmss		S	DIS	E200.7:SiO2	2	Y	
W-851-05	MWPT	Tmss		S	DIS	E200.7:SiO2	3	Y	
W-851-05	MWPT	Tmss		S	DIS	E300.0:PERC	2	Y	
W-851-05	MWPT	Tmss		S	DIS	E300.0:PERC	3	Y	
W-851-05	MWPT	Tmss	B	B	CMP	E601	2	Y	Next sample required 2005.
W-851-05	MWPT	Tmss		S	DIS	E8330:R+H	2	Y	
W-851-05	MWPT	Tmss		S	DIS	E8330:R+H	3	Y	
W-851-05	MWPT	Tmss	A	A	CMP	E906	2	Y	
W-851-05	MWPT	Tmss		S	DIS	GENMIN	2	Y	
W-851-05	MWPT	Tmss		S	DIS	GENMIN	3	Y	
W-851-05	MWPT	Tmss	S	S	CMP	MS:UIISO	2	Y	
W-851-05	MWPT	Tmss		S	DIS	MS:UIISO	3	Y	
W-851-05	MWPT	Tmss	S	S	CMP	MS:UIISO	4	Y	
W-851-06	MWPT	Tmss		A	DIS	AS:UIISO	2	Y	
W-851-06	MWPT	Tmss		A	DIS	DWMETALS	2	Y	
W-851-06	MWPT	Tmss		A	DIS	E200.7:Be	2	Y	
W-851-06	MWPT	Tmss		S	DIS	E200.7:SiO2	2	Y	
W-851-06	MWPT	Tmss		S	DIS	E200.7:SiO2	3	Y	
W-851-06	MWPT	Tmss		S	DIS	E300.0:PERC	2	Y	
W-851-06	MWPT	Tmss		S	DIS	E300.0:PERC	3	Y	
W-851-06	MWPT	Tmss		S	DIS	E601	2	Y	
W-851-06	MWPT	Tmss		S	DIS	E601	3	Y	
W-851-06	MWPT	Tmss		S	DIS	E8330:R+H	2	Y	
W-851-06	MWPT	Tmss		S	DIS	E8330:R+H	3	Y	
W-851-06	MWPT	Tmss	A	A	CMP	E906	2	Y	
W-851-06	MWPT	Tmss		S	DIS	GENMIN	2	Y	
W-851-06	MWPT	Tmss		S	DIS	GENMIN	3	Y	
W-851-06	MWPT	Tmss	S	S	CMP	MS:UIISO	2	Y	

**Table 2.8-23. Building 851 2003 ground water sampling and analysis plan. (Cont. Page 2 of 3)**

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-851-06	MWPT	Tmss		S	DIS	MS:UIISO	3	Y	
W-851-06	MWPT	Tmss	S	S	CMP	MS:UIISO	4	Y	
W-851-07	MWPT	Tmss		A	DIS	AS:UIISO	2	Y	
W-851-07	MWPT	Tmss		A	DIS	DWMETALS	2	Y	
W-851-07	MWPT	Tmss		A	DIS	E200.7:Be	2	Y	
W-851-07	MWPT	Tmss		S	DIS	E200.7:SiO2	2	Y	
W-851-07	MWPT	Tmss		S	DIS	E200.7:SiO2	3	Y	
W-851-07	MWPT	Tmss		A	DIS	E300.0:PERC	2	Y	
W-851-07	MWPT	Tmss		S	DIS	E601	2	Y	
W-851-07	MWPT	Tmss		S	DIS	E601	3	Y	
W-851-07	MWPT	Tmss		S	DIS	E8330:R+H	2	Y	
W-851-07	MWPT	Tmss		S	DIS	E8330:R+H	3	Y	
W-851-07	MWPT	Tmss	A	A	CMP	E906	2	Y	
W-851-07	MWPT	Tmss		S	DIS	GENMIN	2	Y	
W-851-07	MWPT	Tmss		S	DIS	GENMIN	3	Y	
W-851-07	MWPT	Tmss	S	S	CMP	MS:UIISO	2	Y	
W-851-07	MWPT	Tmss		S	DIS	MS:UIISO	3	Y	
W-851-07	MWPT	Tmss	S	S	CMP	MS:UIISO	4	Y	
W-851-08	MWPT	Tmss		A	DIS	DWMETALS	2	Y	
W-851-08	MWPT	Tmss		A	DIS	E200.7:Be	2	Y	
W-851-08	MWPT	Tmss		S	DIS	E200.7:SiO2	2	Y	
W-851-08	MWPT	Tmss		S	DIS	E200.7:SiO2	3	Y	
W-851-08	MWPT	Tmss		S	DIS	E300.0:PERC	2	Y	
W-851-08	MWPT	Tmss		S	DIS	E300.0:PERC	3	Y	
W-851-08	MWPT	Tmss		S	DIS	E601	2	Y	
W-851-08	MWPT	Tmss		S	DIS	E601	3	Y	
W-851-08	MWPT	Tmss		S	DIS	E8330:R+H	2	Y	
W-851-08	MWPT	Tmss		S	DIS	E8330:R+H	3	Y	
W-851-08	MWPT	Tmss	A	A	CMP	E906	2	Y	
W-851-08	MWPT	Tmss		S	DIS	GENMIN	2	Y	
W-851-08	MWPT	Tmss		S	DIS	GENMIN	3	Y	

**Table 2.8-23. Building 851 2003 ground water sampling and analysis plan. (Cont. Page 3 of 3)**

Sampling location	Location type	Completion interval	Sampling frequency required	Sampling frequency planned	Sampling type	Requested analysis	Sampling quarter	Sampled Y/N	Comment
W-851-08	MWPT	Tmss	S	S	CMP	MS:UIISO	2	Y	
W-851-08	MWPT	Tmss		S	DIS	MS:UIISO	3	Y	
W-851-08	MWPT	Tmss	S	S	CMP	MS:UIISO	4	Y	

**Notes:**

**Building 851 primary COC: uranium (MS:UIISO).**

**Building 851 secondary COC: tritium (E906).**

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

**CGSA CMP/DIS = Sampling more frequently than required.**

**CGSA CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.**

**CGSA CMP = Central GSA groundwater sampling and analysis plan specified in the GSA RD**

**CMP DMW = CMP detection monitor well.**

**CMP/DIS = Sampling required analyte more frequently than required.**

**CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.**

**CMP = Compliance Monitoring Plan.**

**DIS = Discretionary sampling of non-required analyte.**

**DMW = Detection monitor well (non-CMP).**

**ERD/WGMG = Non-CMP analyte sampled from a well shared by ERD and WGMG.**

**EW = Extraction well.**

**GW = Guard well.**

**MWB = Monitor well used for background.**

**MWPT = Monitor well used for plume tracking.**

**SPR = Spring.**

**WS = Water supply well.**

Table 2.8-24. Building 851 firing table 2003 VOCs in ground water.

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)
W-851-05	06/13/03	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
W-851-05	09/19/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-851-05	09/19/03 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
W-851-06	06/13/03	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
W-851-06	09/19/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-851-07	06/17/03	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
W-851-07	09/19/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-851-08	05/19/03	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
W-851-08	08/21/03	E601	LL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5

**Table 2.8-25. Building 851 firing table 2003 tritium in ground water.**

Location	Date	Tritium (pCi/L)
W-851-05	06/13/03	<88.3
W-851-06	05/23/03	<103
W-851-07	06/17/03	<85.5
W-851-08	05/19/03	270 ± 67.0

**Table 2.8-26. Building 851 firing table 2003 perchlorate in ground water.**

Location	Date	Perchlorate ( $\mu\text{g/L}$ )
W-851-05	06/13/03	<4
W-851-05	09/19/03	<4 H
W-851-05	09/19/03 DUP	<4
W-851-06	06/13/03	<4
W-851-06	09/19/03	<4 H
W-851-07	06/17/03	<4
W-851-07	09/19/03	<4 H
W-851-08	05/19/03	<4
W-851-08	08/21/03	<4 HL

**Table 2.8-27. Building 851 firing table 2003 high explosive compounds in ground water**

Location	Date	HMX ( $\mu\text{g/L}$ )	RDX ( $\mu\text{g/L}$ )
W-851-05	06/13/03	<1	<1
W-851-05	09/19/03	<5	<5
W-851-06	06/13/03	<1	<1
W-851-06	09/19/03	<5	<5
W-851-07	06/17/03	<1	<1
W-851-08	05/19/03	<1	<1 LO
W-851-08	08/21/03	<1 L	<1 L

**Table 2.8-28. Building 851 firing table 2003 uranium and thorium isotopes in ground water.**

Location	Date	Thorium 232 (pCi/L)	Uranium (pCi/L)	Uranium 234 by mass		Uranium 236 by mass measurement (pCi/L)	Uranium 238 by mass measurement (pCi/L)	Uranium 235/238
				measurement (pCi/L)	Uranium 235 by mass measurement (pCi/L)			
W-851-05	06/13/03	0.000111 ± 0.000320	<0.0627 E	<0.062	<0.000022	<0.0007	0.00852 ± 0.000320	<0.008961
W-851-05	09/19/03	0.000150 ± 0.00000250	0.0753 ± 0.0140	0.0640 ± 0.0140	0.000430 ± 0.0000200	<0.007	0.0109 ± 0.000155	0.00614 ± 0.000240
W-851-05	09/19/03 DUP	<0.0001	0.115 ± 0.00306	<0.062	0.00123 ± 0.0000100	<0.007	0.0787 ± 0.000618	0.00243 ± 0.0000220
W-851-05	12/05/03	<0.0001	<0.0627	<0.087	0.000536 ± 0.00000800	<0.00019	0.0118 ± 0.0000360	0.00704 ± 0.000107
W-851-06	05/23/03	0.000101 ± 0.00000310	0.0905 ± 0.00300	<0.062	0.00347 ± 0.000160	<0.0007	0.0870 ± 0.00300	0.00620 ± 0.000183
W-851-06	09/19/03	<0.0001	0.292 ± 0.0250	0.218 ± 0.0250	0.00286 ± 0.0000600	<0.007	0.0713 ± 0.00110	0.00624 ± 0.0000800
W-851-06	12/04/03	<0.0001	0.282 ± 0.00769	0.199 ± 0.00800	0.00301 ± 0.0000190	0.000100 ± 0.0000100	0.0801 ± 0.0000120	0.00585 ± 0.0000360
W-851-06	12/04/03 DUP	<0.0001	0.0792 ± 0.0000480	<0.319	0.00297 ± 0.0000400	<0.00072	0.0763 ± 0.0000270	0.00606 ± 0.0000810
W-851-07	06/17/03	<0.0001 E	0.0644 ± 0.00140	<0.062	0.00284 ± 0.000110	<0.0007	0.0616 ± 0.00140	0.00717 ± 0.000219
W-851-07	06/17/03	<0.0001 E	0.0644 ± 0.00140	<0.062	0.00284 ± 0.000110	<0.0007	0.0616 ± 0.00140	0.00717 ± 0.000219
W-851-07	09/19/03	<0.0001	0.258 ± 0.0320	0.204 ± 0.0320	0.00242 ± 0.000100	<0.007	0.0513 ± 0.00141	0.00734 ± 0.000216
W-851-07	11/24/03	<0.0001	<0.0627	<0.062	0.00238 ± 0.0000800	<0.007	0.0518 ± 0.00109	0.00713 ± 0.000193
W-851-08	05/19/03	0.00521 ± 0.000110	0.105 ± 0.00300	<0.062	0.00340 ± 0.000150	<0.0007	0.102 ± 0.00300	0.00520 ± 0.000176
W-851-08	08/28/03	0.000552 ± 0.0000148	0.168 ± 0.00414	<0.062	0.00573 ± 0.000230	<0.007	0.162 ± 0.00413	0.00550 ± 0.000174
W-851-08	11/24/03	<0.0001	0.381 ± 0.0971	0.245 ± 0.0970	0.00495 ± 0.000170	<0.007	0.131 ± 0.00336	0.00589 ± 0.000128

Note:

Above analyses performed by mass spectrometry.

**Uranium isotopes in ground water by alpha spectrometry.**

Location	Date	Uranium 234 and Uranium 233 (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 238 (pCi/L)
W-851-07	06/17/03	0.151 ± 0.0400	<0.019	<0.016 E

Table 2.8-29. Building 851 firing table 2003 metals and silica in ground water.

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silica (as SiO <sub>2</sub> ) (mg/L)	Silver (mg/L)
W-851-05	06/13/03	<0.002	<0.025	<0.001	<0.0005	<0.001	-	<0.005	<0.0002	<0.005	39	<0.001
W-851-05	09/19/03	-	-	-	-	-	-	-	-	-	37	-
W-851-05	09/19/03 DUP	-	-	-	-	-	<0.01	-	-	-	39 L	-
W-851-06	06/13/03	<0.002	<0.025	<0.001	<0.0005	<0.001	-	<0.005	<0.0002	<0.005	34	<0.001
W-851-06	09/19/03	-	-	-	-	-	-	-	-	-	37	-
W-851-07	06/17/03	<0.002	<0.025	<0.001	<0.0005	<0.001	-	<0.005	<0.0002	<0.005	42	<0.001
W-851-07	09/19/03	-	-	-	-	-	-	-	-	-	41	-
W-851-08	05/19/03	<0.002	<0.025	<0.001	<0.0005	<0.001	-	<0.005	<0.0002	<0.005	31	<0.001
W-851-08	08/21/03	-	-	-	-	-	-	-	-	-	31	-

Table 2.8-30. Building 851 firing table 2003 general minerals in ground water.

Constituents of concern	W-851-05 06/13/03	W-851-05 09/19/03	W-851-05 09/19/03 DUP	W-851-06 06/13/03	W-851-06 09/19/03	W-851-07 06/17/03	W-851-07 09/19/03	W-851-08 05/19/03	W-851-08 08/21/03
Total Alkalinity (as CaCO <sub>3</sub> ) (mg/L)	160 H	120 DH	160 H	140 H	130 H	170 H	130 H	160 H	150 H
Aluminum (mg/L)	<0.2 H	<0.05 H	<0.05 L	<0.2 H	<0.05 H	<0.2 H	<0.05 H	<0.2	<0.2 H
Bicarbonate Alk (as CaCO <sub>3</sub> ) (mg/L)	160 H	120 DH	160 H	140 H	130 H	170 H	130 H	160 H	150 H
Calcium (mg/L)	380 DH	360 HL	380 D	380 DH	370 HL	440 DH	430 HL	280 D	270 DH
Carbonate Alk (as CaCO <sub>3</sub> ) (mg/L)	<1 H	<5 DH	<5 H	<1 H	<2.5 H	<1 H	<2.5 H	<1 H	<1 H
Chloride (mg/L)	74 DH	54 DH	86 D	120 DH	71 DH	97 DH	75 DH	140 D	140 DH
Copper (mg/L)	<0.05 H	<0.01 H	-	<0.05 H	<0.01 H	<0.05 H	<0.01 H	<0.05	<0.05 H
Fluoride (mg/L)	0.59 H	0.46 DH	0.49 H	0.55 H	0.53 DH	1.0 H	0.63 DH	0.4	0.67 H
Hydroxide Alk (as CaCO <sub>3</sub> ) (mg/L)	<1 H	<5 DH	<5 H	<1 H	<2.5 H	<1 H	<2.5 H	<1 H	<1 H
Iron (mg/L)	<0.1 H	<0.05 H	0.48	<0.1 H	<0.05 H	0.40 HL	<0.05 H	<0.1	<0.1 H
Magnesium (mg/L)	130 DH	130 HL	130	120 DH	140 HL	160 H	160 HL	89	83 H
Manganese (mg/L)	0.87 H	0.85 HL	0.87	0.45 H	0.61 HL	2.2 H	2.4 HL	0.35	0.23 H
Nickel (mg/L)	<0.1 H	<0.05 H	<0.05	<0.1 H	<0.05 H	<0.1 H	<0.05 H	<0.1	<0.1 H
Nitrate (as N) (mg/L)	<0.1 H	<0.1 H	0.11 H	4.0 DH	0.34 H	<0.1 H	<0.1 H	<0.1	7.0 DH
Nitrate (as NO <sub>3</sub> ) (mg/L)	<0.1 H	<0.4 H	0.50 H	17 DH	1.5 H	<0.1 H	<0.4 H	<0.1	33 DH
Nitrate plus Nitrite (as N) (mg/L)	-	<0.1 H	-	-	0.34 H	-	<0.1 H	-	-
Nitrite (as N) (mg/L)	<0.1 H	<0.02	<0.1 H	0.10 H	<0.02	<0.1 H	<0.02	<0.1	<0.1 H
pH (Units)	7.4 H	7.5 H	7.2	8.3 H	8.0 H	7.5 H	7.6 H	7.3	7.5 H
Ortho-Phosphate (mg/L)	0.020 H	0.31	<0.1 H	<0.02 H	0.3	0.070 H	0.27	0.03	0.020 H
Total Phosphorus (as P) (mg/L)	-	<0.05 H	0.020 H	-	<0.05 H	-	0.090 H	-	-
Total Phosphorus (as PO <sub>4</sub> ) (mg/L)	<0.05 H	-	-	<0.05 H	-	0.070 H	-	0.070 H	0.050 H
Potassium (mg/L)	23 H	12 H	13	23 H	13 H	28 HL	16 H	23 L	22 LH
Sodium (mg/L)	340 DH	370 HL	340	330 DH	360 HL	320 H	350 HL	270 D	240 DLH
Total dissolved solids (TDS) (mg/L)	3,200 H	3,100 DH	3,000 H	3,000 H	3,300 DH	3,600 H	3,500 DH	2,400	2,300 H
Specific Conductance (µmhos/cm)	3,400 H	3,500 H	3,300 L	3,300 H	3,700 H	3,700 H	3,700 H	2,700 H	2,700 H
Sulfate (mg/L)	1,500 DH	1,900 DH	2,900 DLH	1,400 DH	1,900 DH	1,700 DHL	2,100 DH	1,200 DH	1,300 HD
Surfactants (mg/L)	<0.5 H	<0.5	<0.05	<0.5 H	<0.5	<0.5 H	<0.5	<0.5	<0.5 H
Total Hardness (as CaCO <sub>3</sub> ) (mg/L)	1,500 H	1,400 H	1,500 H	1,400 H	1,500 H	1,600 H	1,700 H	1,100 H	1,000 H
Zinc (mg/L)	<0.05 H	<0.05 H	<0.05	<0.05 H	<0.05 H	<0.05 HL	<0.05 H	<0.05	<0.05 H



**Table 2.8-31. Building 851 firing table 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft.		Notes
			MSL		
W-851-05	01/03/03	141.98	1129.81		
W-851-05	02/07/03	141.81	1129.98		
W-851-05	03/01/03	141.84	1129.95		
W-851-05	04/05/03	141.79	1130		
W-851-05	07/11/03	141.68	1130.11		
W-851-05	10/08/03	141.44	1130.35		
W-851-06	01/03/03	135.28	1130.22		
W-851-06	02/01/03	135.15	1130.35		
W-851-06	03/01/03	135	1130.5		
W-851-06	04/05/03	135.1	1130.4		
W-851-06	07/11/03	134.97	1130.53		
W-851-06	10/08/03	135.17	1130.33		
W-851-07	01/10/03	141.39	1130.2		
W-851-07	02/01/03	141.63	1129.96		
W-851-07	03/01/03	141.37	1130.22		
W-851-07	04/05/03	141.47	1130.12		
W-851-07	07/11/03	141.36	1130.23		
W-851-07	10/08/03	147.48	1124.11		
W-851-08	01/10/03	183.19	1089.13		
W-851-08	02/01/03	183.2	1089.12		
W-851-08	03/01/03	183.27	1089.05		
W-851-08	04/05/03	183.34	1088.98		
W-851-08	07/11/03	183.26	1089.06		
W-851-08	10/11/03	-	-		NM

Table 3.1-1. Pit 2 landfill 2003 VOCs in ground water.

Location	Date	Method	TCE ( $\mu\text{g/L}$ )	PCE ( $\mu\text{g/L}$ )	Total 1,2- DCE ( $\mu\text{g/L}$ )	Carbon		1,1-DCA ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )	1,1-DCE ( $\mu\text{g/L}$ )	1,1,1-TCA ( $\mu\text{g/L}$ )	Freon 11 ( $\mu\text{g/L}$ )	Freon 113 ( $\mu\text{g/L}$ )	Methylene chloride ( $\mu\text{g/L}$ )
						tetrachloride ( $\mu\text{g/L}$ )	Chloroform ( $\mu\text{g/L}$ )							
K2-01C	06/05/03	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
K2-01C	12/02/03	E601	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC2-08	05/30/03	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

Table 3.1-2. Pit 2 landfill 2003 tritium in ground water.

Location	Date	Tritium (pCi/L)
K2-01C	02/01/03	1,970 ± 220
K2-01C	06/05/03	8,580 ± 870
K2-01C	09/04/03	10,200 ± 1,000
K2-01C	12/02/03	7,260 ± 740
NC2-08	0/25/03	12,000 ± 1,200
NC2-08	04/19/03	10,400 ± 1,100
NC2-08	09/08/03	10,200 ± 1,000
NC2-08	10/11/03	10,200 ± 1,000

Table 3.1-3. Pit 2 landfill 2003 nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO <sub>3</sub> ) (mg/L)	Perchlorate (µg/L)
K2-01C	06/05/03	35 D	4
K2-01C	12/02/03	25	5.3
NC2-08	05/30/03	44 D	6

Table 3.1-4. Pit 2 landfill 2003 fluoride in ground water.

Location	Date	Fluoride (mg/L)
K2-01C	06/05/03	0.72 D
NC2-08	05/30/03	0.58

Table 3.1-5. Pit 2 landfill 2003 high explosive compounds in ground water.

Location	Date	HMX (µg/L)	RDX (µg/L)
K2-01C	06/05/03	<1	<1
K2-01C	12/02/03	<5	<5
NC2-08	05/30/03	<1	<1

Table 3.1-6. Pit 2 landfill 2003 metals in ground water.

Constituents of concern	K2-01C 06/05/03	NC2-08 05/30/03
Antimony (mg/L)	<0.06	<0.06
Arsenic (mg/L)	0.008	0.015
Barium (mg/L)	0.04	0.03
Beryllium (mg/L)	<0.002	<0.002
Cadmium (mg/L)	<0.005	<0.005
Chromium (mg/L)	<0.01	0.08
Cobalt (mg/L)	<0.025	<0.025
Copper (mg/L)	0.11	0.01
Lead (mg/L)	0.016 B	0.014
Lithium ( $\mu$ g/L)	20	26 T
Mercury (mg/L)	<0.0002	<0.0002
Molybdenum (mg/L)	<0.02	<0.02
Nickel (mg/L)	<0.02	<0.02
Selenium (mg/L)	<0.005	<0.005
Silver (mg/L)	<0.005	<0.005
Thallium (mg/L)	<0.005	<0.005
Thorium ( $\mu$ g/L)	<22.4	<22.4
Uranium ( $\mu$ g/L)	<20.5	<20.5
Vanadium (mg/L)	<0.5	<0.5
Zinc (mg/L)	0.12	<0.02

**Table 3.1-7. Pit 2 landfill 2003 uranium and thorium isotopes by mass spectrometry in ground water.**

Location	Date	Thorium 232 (pCi/L)	Uranium (pCi/L)	Uranium 234 by mass measurement (pCi/L)	Uranium 235 by mass measurement (pCi/L)	Uranium 236 by mass measurement (pCi/L)	Uranium 238 by mass measurement (pCi/L)	Uranium 235/238
K2-01C	12/2/03	<0.0001	9.75 ± 0.741	5.61 ± 0.740	0.159 ± 0.00162	<0.007	3.98 ± 0.0297	0.00623 ± 0.0000430
NC2-08	10/11/03	<0.0001	3.13 ± 0.0884	1.96 ± 0.0870	0.0521 ± 0.000770	<0.007	1.12 ± 0.0154	0.00722 ± 0.0000420

**Table 3.1-8. Pit 2 landfill 2003 ground water elevations.**

Well	Date	Depth to water ft.	Water elevation ft. MSL
K2-01C	01/10/03	55.3	995.33
K2-01C	04/17/03	55.61	995.02
K2-01C	07/11/03	56.38	994.25
K2-01C	10/04/03	57.5	993.13
NC2-08	01/10/03	51.95	997.42
NC2-08	04/05/03	52.05	997.32
NC2-08	07/02/03	52.88	996.49
NC2-08	10/04/03	53.66	995.71

Table 3.1-9. Pit 2 landfill 2003 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 <sub>1</sub>	A	A	CMP/WGMG	CMPTRIMET	2	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>	A	S	CMP/WGMG	E300.0:NO3	2	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:NO3	4	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>	A	S	CMP/WGMG	E300.0:PERC	2	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>		S	ERD/WGMG	E300.0:PERC	4	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>	A	A	CMP/WGMG	E340.2	2	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>	A	S	CMP/WGMG	E601	2	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>		S	ERD/WGMG	E601	4	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>	A	S	CMP/WGMG	E8330:R+H	2	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>		S	ERD/WGMG	E8330:R+H	4	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	1	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	2	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	3	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>	Q	Q	CMP/WGMG	E906	4	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>	B	B	CMP/WGMG	MS:THISO	4	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>	B	B	CMP/WGMG	MS:UISO	4	Y	
K2-01C	CMP DMW	Tnbs <sub>1</sub>	A	A	CMP/WGMG	T26METALS	2	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	A	A	CMP	CMPTRIMET	2	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	A	A	CMP	E300.0:NO3	2	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	A	A	CMP	E300.0:PERC	2	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	A	A	CMP	E340.2	2	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	A	A	CMP	E601	2	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	A	A	CMP	E8330:R+H	2	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	1	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	2	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	3	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	Q	Q	CMP	E906	4	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	B	B	CMP	MS:THISO	4	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	B	B	CMP	MS:UISO	4	Y	
NC2-08	CMP DMW	Tnbs <sub>1</sub>	A	A	CMP	T26METALS	2	Y	

Notes and footnotes appear on following page.

03-04/ERD CMP:VRD:rttd

**Table 3.1-9. Pit 2 landfill 2003 ground water sampling and analysis plan. (Cont. Page 2 of 2)****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) sampled annually.

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

CGSA CMP/DIS = Sampling more frequently than required.

CGSA CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.

CGSA CMP = Central GSA groundwater sampling and analysis plan specified in the GSA RD

CMP DMW = CMP detection monitor well.

CMP/DIS = Sampling required analyte more frequently than required.

CMP/WGMG = Well shared with the Operations and Regulatory Affairs Division, Water Guidance and Monitoring Group and may be sampled at a greater frequency and for additional analytes than required by the CMP. Non-CMP analytes are reported separately by ORAD.

CMP = Compliance Monitoring.

DIS = Discretionary sampling of non-required analyte.

DMW = Detection monitor well (non-CMP).

ERD/WGMG = non-CMP analyte sampled from a well shared by ERD and WGMG.

EW = Extraction well.

GW = Guard well.

MWB = Monitor well used for background.

MWPT = Monitor well used for plume tracking.

SPR = Spring.

WS = Water supply well.



**Table 4.1-1. Summary of inhalation risks and hazards resulting from transport of contaminant vapors to indoor and outdoor ambient air.**

Area	Pathway and model	Contaminant	Incremental risk	Hazard quotient	Comment
Building 834D	Indoor – JEM	TCE	$8 \times 10^{-3}$	4.3	Based on TCE concentration of 22,000 $\mu\text{g/L}$ (3-Sep-2003) in well W-834-D15
	Indoor – JEM	PCE	$5 \times 10^{-7}$	NA	Based on PCE concentration of 31 $\mu\text{g/L}$ (16-Jun-2003) in well W-834-D15
<b>Cumulative risk and hazard index</b>			<b><math>8 \times 10^{-3}</math></b>	<b>4.3</b>	<b>Institutional controls in place, building only used for storage.</b>
Building 854A	Indoor – JEM	Total VOCs	$1 \times 10^{-6}$	$7 \times 10^{-4}$	Based on Total VOCs (all TCE) concentration of 7.2 $\mu\text{g/L}$ (12-Nov-2003) in well W-854-10
	<b>Cumulative risk and hazard index</b>			<b><math>1 \times 10^{-6}</math></b>	<b><math>7 \times 10^{-4}</math></b>
Building 854F	Indoor – JEM	Chloroform	$1 \times 10^{-8}$	NA	Based on Chloroform detection limit of 0.5 $\mu\text{g/L}$ (21-May-2003) in well W-854-02
	Indoor – JEM	TCE	$6 \times 10^{-5}$	0.03	Based on TCE concentration of 210 $\mu\text{g/L}$ (21-May-2003) in well W-854-02
	Indoor – JEM	Other VOCs	NC	NC	The only detection is TCE
<b>Cumulative risk and hazard index</b>			<b><math>6 \times 10^{-5}</math></b>	<b>0.03</b>	<b>Institutional controls in place.</b>
Building 830	Indoor – JEM	Vinyl Chloride	$2 \times 10^{-6}$	0.005	Based on Vinyl Chloride detection limit of 50 $\mu\text{g/L}$ (25-Aug-2003) in well W-830-30
	Indoor – JEM	TCE	$5 \times 10^{-4}$	0.26	Based on TCE concentration of 3,200 $\mu\text{g/L}$ (25-Aug-2003) in well W-830-30
<b>Cumulative risk and hazard index</b>			<b><math>5 \times 10^{-4}</math></b>	<b>0.27</b>	<b>Institutional controls in place.</b>
Building 832F	Indoor – JEM	Dichloropropane	$4 \times 10^{-9}$	0.0001	Based on 1,2-Dichloropropane detection limit of 0.5 $\mu\text{g/L}$ (2-Oct-2003) in well W-832-18
	<b>Cumulative risk and hazard index</b>			<b><math>4 \times 10^{-9}</math></b>	<b>0.0001</b>
Building 833	Indoor – JEM	TCE	$2 \times 10^{-6}$	0.001	Based on TCE concentration of 20 $\mu\text{g/L}$ (20-Jun-2000) in well W-833-03. Contaminated wells in this area have been dry since 2000.
	Indoor – JEM	Chloroform	$6 \times 10^{-9}$	NA	Based on Chloroform detection limit of 0.5 $\mu\text{g/L}$ (20-Jun-2000) in well W-833-03. Contaminated wells in this area have been dry since 2000.
<b>Cumulative risk and hazard index</b>			<b><math>2 \times 10^{-6}</math></b>	<b>0.001</b>	<b>Institutional and engineering controls are in place. The air conditioning unit in Bldg. 833 is operated continuously to maintain neutral pressure differential between the subsurface and indoor air, and to maintain high exchange rates.</b>

**Table 4.1-1. Summary of inhalation risks and hazards resulting from transport of contaminant vapors to indoor and outdoor ambient air. (Cont. Page 2 of 2)**

Area	Pathway and model	Contaminant	Incremental risk	Hazard quotient	Comment
Building 834D	Outdoor – JURY	TCE	$6 \times 10^{-14}$	$5 \times 10^{-11}$	Based on TCE concentration of 22,000 $\mu\text{g/L}$ (3-Sep-2003) in well W-834-D15
	Outdoor – JURY	PCE	$3 \times 10^{-18}$	NA	Based on PCE concentration of 31 $\mu\text{g/L}$ (3-Sep-2003) in well W-834-D15
<b>Cumulative risk and hazard index</b>			<b><math>6 \times 10^{-14}</math></b>	<b><math>5 \times 10^{-1}</math></b>	<b>Inhalation risk or hazard did not exist in year 2003.</b>
Building 815	Outdoor – JURY	TCE	$2 \times 10^{-18}$	$2 \times 10^{-15}$	Based on TCE concentration of 6.3 $\mu\text{g/L}$ (13-Feb-2003) in well W-815-02
	Outdoor – JURY	PCE	$4 \times 10^{-21}$	NA	Based on PCE detection limit of 0.5 $\mu\text{g/L}$ (13-Feb-2003) in well W-815-02
<b>Cumulative risk and hazard index</b>			<b><math>2 \times 10^{-18}</math></b>	<b><math>2 \times 10^{-15}</math></b>	<b>Inhalation risk or hazard did not exist in year 2003.</b>
Building 854F	Outdoor – JURY	Chloroform	$4 \times 10^{-20}$	NA	Based on Chloroform detection limit of 0.5 $\mu\text{g/L}$ (21-May-2003) in well W-854-02
	Outdoor – JURY	1,2-DCA	NA	$2 \times 10^{-15}$	Based on 1,2-DCA detection limit of 0.5 $\mu\text{g/L}$ (21-May-2003) in well W-854-02
<b>Cumulative risk and hazard index</b>			<b><math>4 \times 10^{-20}</math></b>	<b><math>2 \times 10^{-15}</math></b>	<b>Inhalation risk or hazard did not exist in year 2003.</b>
Building 830	Outdoor – JURY	Chloroform	$2 \times 10^{-18}$	NA	Based on Chloroform detection limit of 50 $\mu\text{g/L}$ (25-Aug-2003) in well W-830-30
	Outdoor – JURY	1,2-DCA	NA	$1 \times 10^{-13}$	Based on 1,2-DCA detection limit of 50 $\mu\text{g/L}$ (25-Aug-2003) in well W-830-30
	Outdoor – JURY	Vinyl Chloride	$4 \times 10^{-18}$	$1 \times 10^{-13}$	Based on Vinyl Chloride detection limit of 50 $\mu\text{g/L}$ (25-Aug-2003) in well W-830-30
<b>Cumulative risk and hazard index</b>			<b><math>6 \times 10^{-18}</math></b>	<b><math>2 \times 10^{-13}</math></b>	<b>Inhalation risk or hazard did not exist in year 2003.</b>

## Notes:

JEM = Johnson-Ettinger Model for indoor air pathway (EQM for USEPA, 2003).

JURY = Infinite source term Jury Model for outdoor air pathway (Jury et. al., 1983).

NC = Not calculated.

NA = Applicable, Unit Risk Factor (URF) or Reference Concentration (RfC) does not exist for this chemical.

## Methodology:

A representative soil column was developed combining the borehole geology information from wells and boreholes that are within a 100 ft radius of a given building or site. The resulting soil column was simplified into three strata to input into the JEM model by conservatively selecting the most permeable soil types for each stratum. The highest observed ground water elevation at the site was used as the source depth. The highest observed VOC concentration in any nearby well was selected as the source concentration. If the VOC of interest was not detected in any of the nearby wells, then the highest detection limit was used as the source concentration. For the JEM model site-specific building dimensions were used. Default values were used for all other building related parameters. For the JURY model a 100 square feet area with 6 feet height was used as the outdoor ambient air mixing zone. A conservative air exchange rate of 1 volume per hour was used for the outdoor mixing zone. Using the average wind velocity at Site 300 would result in much higher air exchange rates.

Table 4.1-2. PCB concentrations in Building 850 OU surface soil collected during 2003.

Location	Date	Depth (ft)	PCB 1016 (mg/kg)	PCB 1221 (mg/kg)	PCB 1232 (mg/kg)	PCB 1242 (mg/kg)	PCB 1248 (mg/kg)	PCB 1254 (mg/kg)	PCB 1260 (mg/kg)	PCB 1268 (mg/kg)
3SS-850-204	10/24/03	0	<0.02 IL	<0.08 IL	<0.02 IL	<0.02 LI	<0.02 IL	0.057 JIL	<0.02 IL	<0.02 IL
3SS-850-205	10/24/03	0	<1 IL	<4 IL	<1 IL	<1 IL	<1 IL	3.7 JILD	<1 IDL	<1 IL
3SS-850-206	10/24/03	0	<20 IL	<80 IL	<20 IL	<20 IL	<20 IL	130 JILD	<20 IDL	<20 IL
3SS-850-207	10/24/03	0	<0.2 IL	<0.8 IL	<0.2 IL	<0.2 IL	<0.2 IL	1.5 JILD	<0.2 IDL	<0.2 IL
3SS-850-208	10/24/03	0	<0.8 IL	<3.2 IL	<0.8 IL	<0.8 IL	<0.8 IL	3.9 JILD	<0.8 IL	<0.8 IL
3SS-850-209	10/24/03	0	<0.1 IL	<0.4 IL	<0.1 IL	<0.1 IL	<0.1 IL	0.62 JILD	<0.1 IL	<0.1 IL
3SS-850-209	10/24/03	1	<0.1 IL	<0.4 IL	<0.1 IL	<0.1 IL	<0.1 IL	0.64 JILD	<0.1 IDL	<0.1 IL
3SS-850-210	10/24/03	0	<1 IL	<4 IL	<1 IL	<1 IL	<1 IL	5.4 JILD	<1 IDL	<1 IL
3SS-850-211	10/24/03	0	<4 IL	<16 IL	<4 IL	<4 IL	<4 IL	18 JILD	<4 IDL	<4 IL
3SS-850-212	10/24/03	0	<20 IL	<80 IL	<20 IL	<20 IL	<20 IL	110 JILD	<20 IDL	<20 IL
3SS-850-213	10/24/03	0	<0.02 IL	<0.08 IL	<0.02 IL	<0.02 IL	<0.02 IL	0.12 JIL	<0.02 IL	<0.02 IL
3SS-850-214	10/27/03	0	<0.004 D	<0.004 D	<0.004 D	<0.004 D	<0.004 D	0.91 D	0.24 D	-
3SS-850-215	10/27/03	0	<0.8 DIJ	<0.8 DIJ	<0.8 DIJ	<0.8 DIJ	<0.8 DIJ	7.0 DIJ	0.70 DIJ	-
3SS-850-216	10/27/03	0	<4 DIJ	<4 DIJ	<4 DIJ	<4 DIJ	<4 DIJ	68 DIJ	4.0 DIJ	-
3SS-850-217	10/24/03	0	<0.2 IL	<0.8 IL	<0.2 IL	<0.2 IL	<0.2 IL	3.0 JILD	<0.2 IDL	<0.2 IL
3SS-850-218	10/24/03	0	<0.1 IL	<0.4 IL	<0.1 IL	<0.1 IL	<0.1 IL	0.74 JILD	<0.1 IDL	<0.1 IL
3SS-850-219	10/24/03	0	<0.2 IL	<0.8 IL	<0.2 IL	<0.2 IL	<0.2 IL	4.0 JILD	<0.2 IDL	<0.2 IL
3SS-850-220	10/24/03	0	<1 IL	<4 IL	<1 IL	<1 IL	<1 IL	11 JILD	<1 IDL	<1 IL
3SS-850-220	10/24/03	1	<4 IL	<16 IL	<4 IL	<4 IL	<4 IL	17 JILD	<4 IDL	<4 IL
3SS-850-221	10/24/03	0	<0.2 IL	<0.8 IL	<0.2 IL	<0.2 IL	<0.2 IL	1.2 JILD	<0.2 IDL	<0.2 IL
3SS-850-222	10/27/03	0	<0.08 D	<0.08 D	<0.08 D	<0.08 D	<0.08 D	0.36 D	0.035 D	-
3SS-850-223	10/27/03	0	<0.2 DIJ	<0.2 DIJ	<0.2 DIJ	<0.2 DIJ	<0.2 DIJ	2.0 DIJ	0.12 DIJ	-
3SS-850-224	10/27/03	0	<0.04 D	<0.04 D	<0.04 D	<0.04 D	<0.04 D	0.21 D	0.053 D	-
3SS-850-224	10/27/03	1	<0.02 D	<0.02 D	<0.02 D	<0.02 D	<0.02 D	0.18 D	0.035 D	-
3SS-850-225	10/27/03	0	<0.008 D	<0.008 D	<0.008 D	<0.008 D	<0.008 D	0.033 D	<0.008 D	-
3SS-850-226	10/27/03	0	<0.008 D	<0.008 D	<0.008 D	<0.008 D	<0.008 D	0.040 D	<0.008 D	-
3SS-850-227	10/27/03	0	<0.08 D	<0.08 D	<0.08 D	<0.08 D	<0.08 D	0.46 D	0.10 D	-
3SS-850-228	10/27/03	0	<0.2 DIJ	<0.2 DIJ	<0.2 DIJ	<0.2 DIJ	<0.2 DIJ	2.0 DIJ	0.48 DIJ	-
3SS-850-229	10/27/03	0	<0.2 DIJ	<0.2 DIJ	<0.2 DIJ	<0.2 DIJ	<0.2 DIJ	2.0 DIJ	0.40 DIJ	-
3SS-850-229	10/27/03	1	<0.08 D	<0.08 D	<0.08 D	<0.08 D	<0.08 D	1.0 D	0.20 D	-
3SS-850-230	10/27/03	0	<0.4 DIJ	<0.4 DIJ	<0.4 DIJ	<0.4 DIJ	<0.4 DIJ	3.0 DIJ	0.67 DIJ	-
3SS-850-231	10/27/03	0	<0.04 D	<0.04 D	<0.04 D	<0.04 D	<0.04 D	0.45 D	0.045 D	-

**Table 4.1-2. PCB concentrations in Building 850 OU surface soil collected during 2003.**

Location	Date	Depth (ft)	PCB 1016 (mg/kg)	PCB 1221 (mg/kg)	PCB 1232 (mg/kg)	PCB 1242 (mg/kg)	PCB 1248 (mg/kg)	PCB 1254 (mg/kg)	PCB 1260 (mg/kg)	PCB 1268 (mg/kg)
3SS-850-232	10/24/03	0	<0.2 ILD	<0.8 ILD	<0.2 ILD	<0.2 ILD	<0.2 ILD	6.7 JILD	<0.2 ILDL	<0.2 ILD
3SS-850-233	10/27/03	0	<0.08 D	<0.08 D	<0.08 D	<0.08 D	<0.08 D	0.99 D	0.15 D	-
3SS-850-234	10/27/03	0	<0.04 D	<0.04 D	<0.04 D	<0.04 D	<0.04 D	0.50 D	0.060 D	-

Table 4.1-3. PCB concentrations in B854 OU surface soil as determined by EPA Method 8082.

Location	Sample depth	Sampled date	Result	Reporting limit	Analyte
3SS-854-103	0	29-Jan-03	<0.007	0.007	PCB 1016
3SS-854-103	0	29-Jan-03	<0.007	0.007	PCB 1221
3SS-854-103	0	29-Jan-03	<0.007	0.007	PCB 1232
3SS-854-103	0	29-Jan-03	<0.007	0.007	PCB 1242
3SS-854-103	0	29-Jan-03	<0.007	0.007	PCB 1248
3SS-854-103	0	29-Jan-03	<0.007	0.007	PCB 1254
3SS-854-103	0	29-Jan-03	<0.007	0.007	PCB 1260
3SS-854-112	0	29-Jan-03	<0.35	0.35	PCB 1016
3SS-854-112	0	29-Jan-03	<0.35	0.35	PCB 1221
3SS-854-112	0	29-Jan-03	<0.35	0.35	PCB 1232
3SS-854-112	0	29-Jan-03	<0.35	0.35	PCB 1242
3SS-854-112	0	29-Jan-03	3.6	0.35	PCB 1248
3SS-854-112	0	29-Jan-03	4.7	0.35	PCB 1254
3SS-854-112	0	29-Jan-03	<0.35	0.35	PCB 1260
3SS-854-113	0	29-Jan-03	<0.007	0.007	PCB 1016
3SS-854-113	0	29-Jan-03	<0.007	0.007	PCB 1221
3SS-854-113	0	29-Jan-03	<0.007	0.007	PCB 1232
3SS-854-113	0	29-Jan-03	<0.007	0.007	PCB 1242
3SS-854-113	0	29-Jan-03	<0.007	0.007	PCB 1248
3SS-854-113	0	29-Jan-03	0.023	0.007	PCB 1254
3SS-854-113	0	29-Jan-03	<0.007	0.007	PCB 1260
3SS-854-114	0	29-Jan-03	<0.007	0.007	PCB 1016
3SS-854-114	0	29-Jan-03	<0.007	0.007	PCB 1221
3SS-854-114	0	29-Jan-03	<0.007	0.007	PCB 1232
3SS-854-114	0	29-Jan-03	<0.007	0.007	PCB 1242
3SS-854-114	0	29-Jan-03	<0.007	0.007	PCB 1248
3SS-854-114	0	29-Jan-03	<0.007	0.007	PCB 1254
3SS-854-114	0	29-Jan-03	<0.007	0.007	PCB 1260
3SS-854-115	0	29-Jan-03	<0.007	0.007	PCB 1016
3SS-854-115	0	29-Jan-03	<0.007	0.007	PCB 1221
3SS-854-115	0	29-Jan-03	<0.007	0.007	PCB 1232

**Table 4.1-3. PCB sample results in mg/kg as determined by EPA Method 8082. (Cont. Page 2 of 8)**

Location	Sample depth	Sampled date	Result	Reporting limit	Analyte
3SS-854-115	0	29-Jan-03	<0.007	0.007	PCB 1242
3SS-854-115	0	29-Jan-03	<0.007	0.007	PCB 1248
3SS-854-115	0	29-Jan-03	<0.007	0.007	PCB 1254
3SS-854-115	0	29-Jan-03	<0.007	0.007	PCB 1260
3SS-854-121	0	29-Jan-03	<0.007	0.007	PCB 1016
3SS-854-121	0	29-Jan-03	<0.007	0.007	PCB 1221
3SS-854-121	0	29-Jan-03	<0.007	0.007	PCB 1232
3SS-854-121	0	29-Jan-03	<0.007	0.007	PCB 1242
3SS-854-121	0	29-Jan-03	<0.007	0.007	PCB 1248
3SS-854-121	0	29-Jan-03	<0.007	0.007	PCB 1254
3SS-854-121	0	29-Jan-03	<0.007	0.007	PCB 1260
3SS-854-123	0	29-Jan-03	<0.007	0.007	PCB 1016
3SS-854-123	0	29-Jan-03	<0.007	0.007	PCB 1221
3SS-854-123	0	29-Jan-03	<0.007	0.007	PCB 1232
3SS-854-123	0	29-Jan-03	<0.007	0.007	PCB 1242
3SS-854-123	0	29-Jan-03	<0.007	0.007	PCB 1248
3SS-854-123	0	29-Jan-03	<0.007	0.007	PCB 1254
3SS-854-123	0	29-Jan-03	<0.007	0.007	PCB 1260
3SS-854-124	0	29-Jan-03	<0.007	0.007	PCB 1016
3SS-854-124	0	29-Jan-03	<0.007	0.007	PCB 1221
3SS-854-124	0	29-Jan-03	<0.007	0.007	PCB 1232
3SS-854-124	0	29-Jan-03	<0.007	0.007	PCB 1242
3SS-854-124	0	29-Jan-03	<0.007	0.007	PCB 1248
3SS-854-124	0	29-Jan-03	<0.007	0.007	PCB 1254
3SS-854-124	0	29-Jan-03	<0.007	0.007	PCB 1260
3SS-854-112	0.5	23-Apr-03	<0.1	0.1	PCB 1016
3SS-854-112	0.5	23-Apr-03	<0.1	0.1	PCB 1221
3SS-854-112	0.5	23-Apr-03	<0.1	0.1	PCB 1232
3SS-854-112	0.5	23-Apr-03	<0.1	0.1	PCB 1242
3SS-854-112	0.5	23-Apr-03	0.9	0.1	PCB 1248
3SS-854-112	0.5	23-Apr-03	<0.1	0.1	PCB 1254
3SS-854-112	0.5	23-Apr-03	<0.1	0.1	PCB 1260

**Table 4.1-3. PCB sample results in mg/kg as determined by EPA Method 8082. (Cont. Page 3 of 8)**

Location	Sample depth	Sampled date	Result	Reporting limit	Analyte
3SS-854-112	1	23-Apr-03	<0.1	0.1	PCB 1016
3SS-854-112	1	23-Apr-03	<0.1	0.1	PCB 1221
3SS-854-112	1	23-Apr-03	<0.1	0.1	PCB 1232
3SS-854-112	1	23-Apr-03	<0.1	0.1	PCB 1242
3SS-854-112	1	23-Apr-03	0.4	0.1	PCB 1248
3SS-854-112	1	23-Apr-03	<0.1	0.1	PCB 1254
3SS-854-112	1	23-Apr-03	<0.1	0.1	PCB 1260
3SS-854-112	1.5	23-Apr-03	<0.1	0.1	PCB 1016
3SS-854-112	1.5	23-Apr-03	<0.1	0.1	PCB 1221
3SS-854-112	1.5	23-Apr-03	<0.1	0.1	PCB 1232
3SS-854-112	1.5	23-Apr-03	<0.1	0.1	PCB 1242
3SS-854-112	1.5	23-Apr-03	0.2	0.1	PCB 1248
3SS-854-112	1.5	23-Apr-03	<0.1	0.1	PCB 1254
3SS-854-112	1.5	23-Apr-03	<0.1	0.1	PCB 1260
3SS-854-112	2	23-Apr-03	<0.1	0.1	PCB 1016
3SS-854-112	2	23-Apr-03	<0.1	0.1	PCB 1221
3SS-854-112	2	23-Apr-03	<0.1	0.1	PCB 1232
3SS-854-112	2	23-Apr-03	<0.1	0.1	PCB 1242
3SS-854-112	2	23-Apr-03	0.2	0.1	PCB 1248
3SS-854-112	2	23-Apr-03	<0.1	0.1	PCB 1254
3SS-854-112	2	23-Apr-03	<0.1	0.1	PCB 1260
3SS-854-112	2.5	23-Apr-03	<0.1	0.1	PCB 1016
3SS-854-112	2.5	23-Apr-03	<0.1	0.1	PCB 1221
3SS-854-112	2.5	23-Apr-03	<0.1	0.1	PCB 1232
3SS-854-112	2.5	23-Apr-03	<0.1	0.1	PCB 1242
3SS-854-112	2.5	23-Apr-03	0.5	0.1	PCB 1248
3SS-854-112	2.5	23-Apr-03	<0.1	0.1	PCB 1254
3SS-854-112	2.5	23-Apr-03	<0.1	0.1	PCB 1260
3SS-854-112	3	23-Apr-03	<0.1	0.1	PCB 1016
3SS-854-112	3	23-Apr-03	<0.1	0.1	PCB 1221
3SS-854-112	3	23-Apr-03	<0.1	0.1	PCB 1232

**Table 4.1-3. PCB sample results in mg/kg as determined by EPA Method 8082. (Cont. Page 4 of 8)**

Location	Sample depth	Sampled date	Result	Reporting limit	Analyte
3SS-854-112	3	23-Apr-03	<0.1	0.1	PCB 1242
3SS-854-112	3	23-Apr-03	0.3	0.1	PCB 1248
3SS-854-112	3	23-Apr-03	<0.1	0.1	PCB 1254
3SS-854-112	3	23-Apr-03	<0.1	0.1	PCB 1260
3SS-854-200	0	23-Apr-03	<0.1	0.1	PCB 1016
3SS-854-200	0	23-Apr-03	<0.1	0.1	PCB 1221
3SS-854-200	0	23-Apr-03	<0.1	0.1	PCB 1232
3SS-854-200	0	23-Apr-03	<0.1	0.1	PCB 1242
3SS-854-200	0	23-Apr-03	10	0.1	PCB 1248
3SS-854-200	0	23-Apr-03	<0.1	0.1	PCB 1254
3SS-854-200	0	23-Apr-03	<0.1	0.1	PCB 1260
3SS-854-200	0.5	23-Apr-03	<0.1	0.1	PCB 1016
3SS-854-200	0.5	23-Apr-03	<0.1	0.1	PCB 1221
3SS-854-200	0.5	23-Apr-03	<0.1	0.1	PCB 1232
3SS-854-200	0.5	23-Apr-03	<0.1	0.1	PCB 1242
3SS-854-200	0.5	23-Apr-03	59	0.1	PCB 1248
3SS-854-200	0.5	23-Apr-03	<0.1	0.1	PCB 1254
3SS-854-200	0.5	23-Apr-03	<0.1	0.1	PCB 1260
3SS-854-200	1	23-Apr-03	<0.1	0.1	PCB 1016
3SS-854-200	1	23-Apr-03	<0.1	0.1	PCB 1221
3SS-854-200	1	23-Apr-03	<0.1	0.1	PCB 1232
3SS-854-200	1	23-Apr-03	<0.1	0.1	PCB 1242
3SS-854-200	1	23-Apr-03	26	0.1	PCB 1248
3SS-854-200	1	23-Apr-03	<0.1	0.1	PCB 1254
3SS-854-200	1	23-Apr-03	<0.1	0.1	PCB 1260
3SS-854-200	1.5	23-Apr-03	<0.1	0.1	PCB 1016
3SS-854-200	1.5	23-Apr-03	<0.1	0.1	PCB 1221
3SS-854-200	1.5	23-Apr-03	<0.1	0.1	PCB 1232
3SS-854-200	1.5	23-Apr-03	<0.1	0.1	PCB 1242
3SS-854-200	1.5	23-Apr-03	62	0.1	PCB 1248
3SS-854-200	1.5	23-Apr-03	<0.1	0.1	PCB 1254
3SS-854-200	1.5	23-Apr-03	<0.1	0.1	PCB 1260



**Table 4.1-3. PCB sample results in mg/kg as determined by EPA Method 8082. (Cont. Page 5 of 8)**

Location	Sample depth	Sampled date	Result	Reporting limit	Analyte
3SS-854-200	2	23-Apr-03	<0.1	0.1	PCB 1016
3SS-854-200	2	23-Apr-03	<0.1	0.1	PCB 1221
3SS-854-200	2	23-Apr-03	<0.1	0.1	PCB 1232
3SS-854-200	2	23-Apr-03	<0.1	0.1	PCB 1242
3SS-854-200	2	23-Apr-03	22	0.1	PCB 1248
3SS-854-200	2	23-Apr-03	<0.1	0.1	PCB 1254
3SS-854-200	2	23-Apr-03	<0.1	0.1	PCB 1260
3SS-854-200	2.5	23-Apr-03	<0.1	0.1	PCB 1016
3SS-854-200	2.5	23-Apr-03	<0.1	0.1	PCB 1221
3SS-854-200	2.5	23-Apr-03	<0.1	0.1	PCB 1232
3SS-854-200	2.5	23-Apr-03	<0.1	0.1	PCB 1242
3SS-854-200	2.5	23-Apr-03	21	0.1	PCB 1248
3SS-854-200	2.5	23-Apr-03	<0.1	0.1	PCB 1254
3SS-854-200	2.5	23-Apr-03	<0.1	0.1	PCB 1260
B-854-112	3.5	10-Sep-03	<1	1	PCB 1016
B-854-112	3.5	10-Sep-03	<1	1	PCB 1221
B-854-112	3.5	10-Sep-03	<1	1	PCB 1232
B-854-112	3.5	10-Sep-03	<1	1	PCB 1242
B-854-112	3.5	10-Sep-03	<1	1	PCB 1248
B-854-112	3.5	10-Sep-03	<1	1	PCB 1254
B-854-112	3.5	10-Sep-03	<1	1	PCB 1260
B-854-112	4	10-Sep-03	<1	1	PCB 1016
B-854-112	4	10-Sep-03	<1	1	PCB 1221
B-854-112	4	10-Sep-03	<1	1	PCB 1232
B-854-112	4	10-Sep-03	<1	1	PCB 1242
B-854-112	4	10-Sep-03	<1	1	PCB 1248
B-854-112	4	10-Sep-03	<1	1	PCB 1254
B-854-112	4	10-Sep-03	<1	1	PCB 1260
B-854-112	4.5	10-Sep-03	<1	1	PCB 1016
B-854-112	4.5	10-Sep-03	<1	1	PCB 1221
B-854-112	4.5	10-Sep-03	<1	1	PCB 1232

**Table 4.1-3. PCB sample results in mg/kg as determined by EPA Method 8082. (Cont. Page 6 of 8)**

Location	Sample depth	Sampled date	Result	Reporting limit	Analyte
B-854-112	4.5	10-Sep-03	<1	1	PCB 1242
B-854-112	4.5	10-Sep-03	<1	1	PCB 1248
B-854-112	4.5	10-Sep-03	<1	1	PCB 1254
B-854-112	4.5	10-Sep-03	<1	1	PCB 1260
B-854-112	5	10-Sep-03	<1	1	PCB 1016
B-854-112	5	10-Sep-03	<1	1	PCB 1221
B-854-112	5	10-Sep-03	<1	1	PCB 1232
B-854-112	5	10-Sep-03	<1	1	PCB 1242
B-854-112	5	10-Sep-03	<1	1	PCB 1248
B-854-112	5	10-Sep-03	<1	1	PCB 1254
B-854-112	5	10-Sep-03	<1	1	PCB 1260
B-854-112	5.5	10-Sep-03	<1	1	PCB 1016
B-854-112	5.5	10-Sep-03	<1	1	PCB 1221
B-854-112	5.5	10-Sep-03	<1	1	PCB 1232
B-854-112	5.5	10-Sep-03	<1	1	PCB 1242
B-854-112	5.5	10-Sep-03	<1	1	PCB 1248
B-854-112	5.5	10-Sep-03	<1	1	PCB 1254
B-854-112	5.5	10-Sep-03	<1	1	PCB 1260
B-854-112	6	10-Sep-03	<1	1	PCB 1016
B-854-112	6	10-Sep-03	<1	1	PCB 1221
B-854-112	6	10-Sep-03	<1	1	PCB 1232
B-854-112	6	10-Sep-03	<1	1	PCB 1242
B-854-112	6	10-Sep-03	<1	1	PCB 1248
B-854-112	6	10-Sep-03	<1	1	PCB 1254
B-854-112	6	10-Sep-03	<1	1	PCB 1260
B-854-200	3	10-Sep-03	<10	10	PCB 1016
B-854-200	3	10-Sep-03	<10	10	PCB 1221
B-854-200	3	10-Sep-03	<10	10	PCB 1232
B-854-200	3	10-Sep-03	<10	10	PCB 1242
B-854-200	3	10-Sep-03	46.2	10	PCB 1248
B-854-200	3	10-Sep-03	<10	10	PCB 1254
B-854-200	3	10-Sep-03	<10	10	PCB 1260

**Table 4.1-3. PCB sample results in mg/kg as determined by EPA Method 8082. (Cont. Page 7 of 8)**

Location	Sample depth	Sampled date	Result	Reporting limit	Analyte
B-854-200	3.5	10-Sep-03	<1	1	PCB 1016
B-854-200	3.5	10-Sep-03	<1	1	PCB 1221
B-854-200	3.5	10-Sep-03	<1	1	PCB 1232
B-854-200	3.5	10-Sep-03	<1	1	PCB 1242
B-854-200	3.5	10-Sep-03	52	1	PCB 1248
B-854-200	3.5	10-Sep-03	<1	1	PCB 1254
B-854-200	3.5	10-Sep-03	<1	1	PCB 1260
B-854-200	4	10-Sep-03	<1	1	PCB 1016
B-854-200	4	10-Sep-03	<1	1	PCB 1221
B-854-200	4	10-Sep-03	<1	1	PCB 1232
B-854-200	4	10-Sep-03	<1	1	PCB 1242
B-854-200	4	10-Sep-03	26	1	PCB 1248
B-854-200	4	10-Sep-03	<1	1	PCB 1254
B-854-200	4	10-Sep-03	<1	1	PCB 1260
B-854-200	4.5	10-Sep-03	<1	1	PCB 1016
B-854-200	4.5	10-Sep-03	<1	1	PCB 1221
B-854-200	4.5	10-Sep-03	<1	1	PCB 1232
B-854-200	4.5	10-Sep-03	<1	1	PCB 1242
B-854-200	4.5	10-Sep-03	17.9	1	PCB 1248
B-854-200	4.5	10-Sep-03	<1	1	PCB 1254
B-854-200	4.5	10-Sep-03	<1	1	PCB 1260
B-854-200	5	10-Sep-03	<1	1	PCB 1016
B-854-200	5	10-Sep-03	<1	1	PCB 1221
B-854-200	5	10-Sep-03	<1	1	PCB 1232
B-854-200	5	10-Sep-03	<1	1	PCB 1242
B-854-200	5	10-Sep-03	20.3	1	PCB 1248
B-854-200	5	10-Sep-03	<1	1	PCB 1254
B-854-200	5	10-Sep-03	<1	1	PCB 1260
B-854-200	5.5	10-Sep-03	<1	1	PCB 1016
B-854-200	5.5	10-Sep-03	<1	1	PCB 1221
B-854-200	5.5	10-Sep-03	<1	1	PCB 1232

**Table 4.1-3. PCB sample results in mg/kg as determined by EPA Method 8082. (Cont. Page 8 of 8)**

Location	Sample depth	Sampled date	Result	Reporting limit	Analyte
B-854-200	5.5	10-Sep-03	<1	1	PCB 1242
B-854-200	5.5	10-Sep-03	41.3	1	PCB 1248
B-854-200	5.5	10-Sep-03	<1	1	PCB 1254
B-854-200	5.5	10-Sep-03	<1	1	PCB 1260
B-854-200	6	10-Sep-03	<1	1	PCB 1016
B-854-200	6	10-Sep-03	<1	1	PCB 1221
B-854-200	6	10-Sep-03	<1	1	PCB 1232
B-854-200	6	10-Sep-03	<1	1	PCB 1242
B-854-200	6	10-Sep-03	33.4	1	PCB 1248
B-854-200	6	10-Sep-03	<1	1	PCB 1254
B-854-200	6	10-Sep-03	<1	1	PCB 1260

**Table 4.1-4. Results of the 2003 ambient air sampling at Spring 3.**

	TCE $\mu\text{g}/\text{m}^3$		PCE $\mu\text{g}/\text{m}^3$	
	Result	PRG	Result	PRG
<b>July 24, 2003</b>				
3AA-SPRING3-001	<0.22	0.017	<0.28	0.67
3AA-SPRING3-002	0.57	0.017	1.3	0.67
<b>October 13, 2003</b>				
3AA-SPRING3-001	<0.18	0.017	<0.23	0.67
3AA-SPRING3-002	0.42	0.017	0.44	0.67

Note:

PRG = Preliminary Remediation Goal.

Table 4.1-5. Ambient air sampling parameters at Spring 3.

Sample ID	Water/Green Vegetation?	On					Off				
		Time (PST)	Vacuum (Hg)	Wind		Temp (C)	Time	Vacuum (Hg)	Wind		Temp (C)
				Speed (m/s)	Direction (Degrees)				Speed (m/s)	Direction (Degrees)	
<b>July 24, 2003</b>											
3AA-SPRING3-001	Green veg/no water	0633	-29	0.5	162	28.0	1436	-10.5	7.3	269	33.8
3AA-SPRING3-002	Green veg/no water	0633	-29	0.5	162	28.0	1442	-11.0	7.3	269	33.8
<b>October 13, 2003</b>											
3AA-SPRING3-001	Green veg/no water	0700	-29	7.1	342	16.9	1520	-7	3.0	348	24.7
3AA-SPRING3-002	Green veg/no water	0700	-30	7.1	342	16.9	1521	-1	3.0	348	24.7

**Note:**

All meteorological data obtained from the 10 m Site 300 meteorological tower. All times in Pacific Standard Time.

**Table 4.2-1. Results of important species surveys in fall 2003 at Building 850, Building 834 and Pit 6.**

<b>Survey area</b>	<b>Date start time</b>	<b>Temperature weather</b>	<b>Results</b>
<b>Building 850</b>	<b>20 Nov. 2003 1130</b>	<b>60° F Sunny with scattered clouds</b>	<ul style="list-style-type: none"> <li>• A group of badger dens were observed east of building 850 near the W8 spring and in the area west of the shot table (both within the survey area).</li> <li>• A burrowing owl was observed in a burrow west of the B850 shot table (within the survey area).</li> <li>• Coyote scat was observed near B850.</li> <li>• The ground squirrel colony surrounding B850 was active, and many squirrels were observed.</li> </ul>
<b>Building 834</b>	<b>20 Nov. 2003 1030</b>	<b>60° F Partly cloudy</b>	<ul style="list-style-type: none"> <li>• Ground squirrel burrows were scattered throughout the survey area.</li> <li>• A recently active badger den was observed near the eastern fence line.</li> <li>• A kangaroo rat burrow was observed near the eastern fence line.</li> </ul>
<b>Pit 6</b>	<b>11 Nov. 2003 1115</b>	<b>58° F Overcast</b>	<ul style="list-style-type: none"> <li>• Loggerhead shrike observed on rifle range.</li> <li>• Many ground squirrel burrows observed. on south facing slope near Corral Hollow Rd.</li> </ul>
	<b>13 Nov. 2003 1500</b>	<b>67° F Overcast</b>	<ul style="list-style-type: none"> <li>• Owl pellet observed near pit.</li> <li>• Rabbit, coyote, and pig feces observed south of pit.</li> <li>• Flocks of white crowned sparrows, meadow larks, and brewer's blackbirds observed.</li> <li>• No special status species were observed.</li> </ul>

**Table 4.2-2. Burrow air sampling parameters.**

Sample ID	On					Off				
	Time (PST)	Vacuum (Hg)	Wind		Temp (C)	Time	Vacuum (Hg)	Wind		Temp (C)
			Speed (m/s)	Direction (degrees)				Speed (m/s)	Direction (degrees)	
<b>4-Sep-03</b>										
<i>Pit 6</i>										
Ambient (9)	7:27	28.5	4.6	274	28.4	15:30	6.0	4.0	280	30.4
9	7:27	28.5	4.6	274	28.4	15:30	6.0	4.0	280	30.4
9 co-located	7:27	29.5	4.6	274	28.4	15:30	6.6	4.0	280	30.4
10	7:31	28.5	4.6	274	28.4	15:48	6.6	3.1	287	30.4
11	7:34	29.3	4.6	274	28.4	15:40	6.4	3.1	287	30.4
<i>Building 834</i>										
Ambient (5)	6:37	30.0	2.1	308	26.1	14:44	6.6	5.5	308	30.7
5	6:38	27.5	2.1	308	26.1	14:44	6.8	5.5	308	30.7
5 co-located	6:36	29.5	2.1	308	26.1	14:44	7.0	5.5	308	30.7
6	6:34	29.7	2.1	308	26.1	14:36	7.0	5.3	308	30.7
7	6:40	28.4	2.1	308	26.1	15:00	7.0	5.3	315	30.7
<b>19-Dec-03</b>										
<i>Pit 6</i>										
Ambient (21)	7:16	29.1	1.2	300	8.85	14:44	7.8	4.0	319	7.44
21	7:16	28.9	1.2	300	8.85	14:44	8.0	4.0	319	7.44
21 co-located	7:16	29.0	1.2	300	8.85	14:44	8.1	4.0	319	7.44
22	7:11	29.0	1.2	300	8.85	14:38	8.5	4.0	319	7.44
23	7:08	28.9	1.2	300	8.85	14:35	8.4	4.0	319	7.44
<i>Building 834</i>										
Ambient (25)	7:38	26.5	1.3	345	9.89	15:38	6.6	3.4	323	9.29
24	7:41	29.5	1.3	345	9.89	15:43	6.5	3.4	323	9.29
25	7:38	29.2	1.3	345	9.89	15:38	6.5	3.4	323	9.29
26	7:44	25.6	1.3	345	9.89	15:48	6.6	3.4	323	9.29

<sup>a</sup> Ambient air samples were obtained adjacent to the location number in parenthesis

All meteorological data obtained from the 10 m Site 300 meteorological tower. All times are in Pacific Standard Time.



Table 4.2-3. Burrow air sampling results.

Sample ID <sup>a</sup>	cis-1,2-DCE	TCE	$\mu\text{g}/\text{m}^3$	PCE	trans-1,2-DCE
<b>Pit 6</b>					
<b>4-Sep-03</b>					
Ambient (9) <sup>b</sup>	<0.15	<0.20		<0.25	<0.74
9	<0.15	<0.20		<0.25	<0.74
9 co-located	<0.15	<0.20		<0.25	<0.74
10	<0.15	<0.20		0.34	<0.74
11	<0.15	<0.20		<0.25	<0.74
<b>19-Dec-03</b>					
Ambient (21) <sup>b</sup>	<0.14	0.63		<0.24	<0.70
21	<0.14	0.55		3.8	<0.69
21 co-located	<0.14	0.50		8.1	<0.69
22	<0.14	0.71		81.0	<0.70
23	<0.14	<0.19		<0.24	<0.70
<b>Building 834</b>					
<b>4-Sep-03</b>					
Ambient (5) <sup>b</sup>	<0.15	<0.21		<0.26	<0.77
5	<0.15	<0.20		<0.26	<0.75
5 co-located	<0.15	<0.21		0.29	<0.77
6	<0.15	<0.21		<0.26	<0.77
7	<0.15	<0.20		<0.26	<0.75
<b>19-Dec-03</b>					
Ambient (25) <sup>b</sup>	<0.14	<0.18		<0.23	<0.68
24	<0.14	0.27		0.61	<0.68
25	<0.14	4.2		0.33	<0.68
26	<0.14	0.19		<0.23	<0.68

<sup>a</sup> Full sample identifiers, as reported in analytical laboratory reports, are described in experiment 3x-068, maintained by the Environmental Restoration Division's Information Systems Management Group.

<sup>b</sup> Ambient air samples were obtained adjacent to the location number in parenthesis.

**Table 4.2-4. Cadmium surface soil sampling results at Building 834.**

	Date	Micro-location	Result (mg/kg)
3SS-B834-01	Oct 10, 2003	surface	0.10
3SS-B834-01B	Oct 10, 2003	burrow	0.10
3SS-B834-02	Oct 10, 2003	surface	0.20
3SS-B834-03	Oct 10, 2003	surface	0.10
3SS-B834-03B	Oct 10, 2003	burrow	0.09
3SS-B834-04	Oct 10, 2003	surface	0.10
3SS-B834-04B	Oct 10, 2003	burrow	0.10
3SS-B834-05	Oct 10, 2003	surface	0.20
3SS-B834-06	Oct 10, 2003	surface	0.08
3SS-B834-07	Oct 10, 2003	surface	0.10
3SS-B834-08	Oct 10, 2003	surface	0.10
3SS-B834-09	Oct 10, 2003	surface	0.32
3SS-B834-10	Oct 10, 2003	surface	0.10
3SS-B834-11	Oct 10, 2003	surface	0.09
3SS-B834-12	Oct 10, 2003	surface	0.09
3SS-B834-13	Oct 10, 2003	surface	0.10
3SS-B834-14	Oct 10, 2003	surface	0.10
3SS-B834-15	Oct 10, 2003	surface	0.06
3SS-B834-16	Oct 10, 2003	surface	0.08
3SS-B834-17	Oct 10, 2003	surface	0.09
3SS-B834-18	Oct 10, 2003	surface	0.10
3SS-B834-19	Oct 10, 2003	surface	0.10
3SS-B834-19 <sup>a</sup>	Oct 10, 2003	surface	0.10
3SS-B834-20	Oct 10, 2003	surface	0.20
3SS-B834-21	Oct 10, 2003	surface	0.10
3SS-B834-22	Oct 10, 2003	surface	0.10
3SS-B834-22 <sup>a</sup>	Oct 10, 2003	surface	0.10
3SS-B834-23	Oct 10, 2003	surface	0.10
3SS-B834-23 <sup>a</sup>	Oct 10, 2003	surface	0.10
3SS-B834-24	Oct 10, 2003	surface	0.10
Average			0.11
Standard deviation			0.05
Site 300 Background			1.9

<sup>a</sup> Co-located sample.

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**Appendix A**  
**Results of Influent and Effluent pH Monitoring**

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**Appendix A. Results of influent and effluent pH monitoring, July through December 2003.**

Sample location	Sample date	Influent pH Result	Effluent pH Result
<i>Central GSA</i>			
CGSA GWTS	7/8/03	6.5	7.5
CGSA GWTS	8/11/03	NM	7.2
CGSA GWTS	9/3/03	NM	7
CGSA GWTS	10/2/03	7	7
CGSA GWTS	11/11/03	NM	7.3
CGSA GWTS	12/3/03	NM	7
<i>Building 834 OU</i>			
B834 GWTS	NM	NM	NM
<i>HEPA OU</i>			
B815-SRC GWTS	07/15/03	7	7
B815-SRC GWTS	08/13/03	7	7
B815-SRC GWTS	09/11/03	7	7
B815-SRC GWTS	10/08/03	7	7
B815-SRC GWTS	11/12/03	7	7
B815-SRC GWTS	12/08/03	7	7
B815-PRXN GWTS	07/15/03	7	7
B815-PRXN GWTS	08/13/03	7	7
B815-PRXN GWTS	09/11/03	7	7
B815-PRXN GWTS	10/08/03	7	7
B815-PRXN GWTS	11/11/03	7	7
B815-PRXN GWTS	12/08/03	7	7
B815-DSB GWTS	07/09/03	7	7
B815-DSB GWTS	08/11/03	7	7
B815-DSB GWTS	09/03/03	7	7
B815-DSB GWTS	10/08/03	7	7
B815-DSB GWTS	11/11/03	7	7
B815-DSB GWTS	12/09/03	7	7
B817-SRC GWTS	09/22/03	7	9

**Appendix A. Results of influent and effluent pH monitoring.**

Sample location	Sample date	Influent pH Result	Effluent pH Result
B817-SRC GWTS	10/11/03	7.5	7
B817-SRC GWTS	11/12/03	NA	7.5
B817-SRC GWTS	12/09/03	NA	7.5
<i>Building 854 OU</i>			
B854-SRC GWTS	07/9/03	7	7
B854-SRC GWTS	08/6/03	NM	7
B854-SRC GWTS	09/10/03	NM	7
B854-SRC GWTS	10/8/03	7	7
B854-SRC GWTS	11/12/03	NM	7
B854-SRC GWTS	12/9/03	NM	7
B854-PRX GWTS	07/9/03	7	7
B854-PRX GWTS	08/6/03	NM	7
B854-PRX GWTS	09/10/03	NM	7
B854-PRX GWTS	10/14/03	7	7
B854-PRX GWTS	11/12/03	NM	7
B854-PRX GWTS	12/9/03	NM	7
<i>832 Canyon OU</i>			
B832-SRC GWTS	07/08/03	7	7
B832-SRC GWTS	08/06/03	NA	7
B832-SRC GWTS	09/03/03	NA	7
B832-SRC GWTS	10/02/03	7	7
B832-SRC GWTS	11/11/03	NA	6.5
B832-SRC GWTS	12/03/03	NA	7
B830-SRC GWTS	07/09/03	7	7
B830-SRC GWTS	08/13/03	NA	NA
B830-SRC GWTS	09/10/03	NA	7
B830-SRC GWTS	10/08/03	7	7
B830-SRC GWTS	11/12/03	NA	7
B830-SRC GWTS	12/09/03	NA	7
B830-PRX GWTS	07/08/03	7	7

**Appendix A. Results of influent and effluent pH monitoring.**

Sample location	Sample date	Influent pH Result	Effluent pH Result
B830-PRX GWTS	08/18/03	NA	7
B830-PRX GWTS	09/03/03	NA	7
B830-PRX GWTS	10/15/03	7	7
B830-PRX GWTS	11/11/03	NA	7
B830-PRX GWTS	12/09/03	NA	7
B830-DISS GWTS	07/09/03	7	7
B830-DISS GWTS	08/11/03	NA	7
B830-DISS GWTS	09/03/03	NA	7
B830-DISS GWTS	10/08/03	7	7
B830-DISS GWTS	11/11/03	NA	7
B830-DISS GWTS	12/09/03	NA	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.