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Delta Prime Site Aggregate Area Phase II Work Plan, Revision 1



Prepared by the Environmental Programs Directorate

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Delta Prime Site

Aggregate Area Phase II Work Plan, Revision 1

December 2008

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1.0 INTRODUCTION

Los Alamos National Laboratory (LANL or the Laboratory) Technical Area 21 (TA-21) Closure Project is investigating Delta Prime Site Area Aggregate sites potentially contaminated by past Laboratory operations. The sites addressed in this plan are located on Delta Prime Mesa within TA-21 (Figure 1 and Table 1). The sites under investigation are designated as solid waste management units (SWMUs) or areas of concern (AOCs). Individual SWMUs and AOCs may be grouped into consolidated units as a result of spatial proximity or function and are as follows:

Investigation Sites and Facility-Unimpacted Sites

- AOC 21-002(b)
- Consolidated Unit 21-003-99 and SWMU 21-024(c)
- SWMU 21-009
- SWMU 21-012(b)
- SWMU 21-013(c)
- SWMU 21-024(a)
- SWMU 21-024(e)
- SWMU 21-024(g)
- Consolidated Unit 21-024(l)-99
- SWMU 21-024(o)
- Consolidated Unit 21-026(a)-99
- SWMU 21-027(c)

Facility-Impacted Sites

- Consolidated Unit 21-006(c)-99
- SWMU 21-022(f)
- Consolidated Unit 21-022(h)-99
- Consolidated Unit 21-023(a)-99
- SWMU 21-024(b)
- SWMU 21-024(d)
- SWMU 21-024(h)
- SWMU 21-024(i)
- SWMU 21-024(j)
- SWMU 21-024(k)
- SWMU 21-024(n)
- SWMU 21-027(a)

This work plan presents the results of in-depth analysis of sample results from facility-unimpacted and facility-impacted corrective action sites within the Delta Prime Site Area Aggregate and proposes additional sampling to define extent of contamination. Proposed corrective actions activities for two polychlorinated biphenyl- (PCB-) contaminated sites are also presented.

2.0 NATURE AND EXTENT DETERMINATION

In the Delta Prime Site Aggregate Area Investigation Report, Revision 1 (LANL 2008, 102760) data were evaluated to determine if the vertical and lateral extent of contamination had been defined. Appendix B of the investigation report describes in detail the chemicals of potential concern (COPCs) for which extent of contamination is not defined.

For this Phase II Work Plan, EarthVision (a three-dimensional computer modeling program) was used to aid in further extent analysis and additional sampling location placement for COPCs at sites where extent is not defined. EarthVision converted numerical sample concentrations/activities into representative colors and allowed for three-dimensional representation of contamination (see Appendix A). This advanced presentation of the data aided in the determination of placement of additional samples to define extent of contamination. The new sampling locations proposed to further define the lateral and vertical extent of contamination are presented as Figures 2 through 25 and Tables 2 through 25.

3.0 PROPOSED EXTENT SAMPLING

During development of this Phase II Work Plan, which involved a thorough review of the data using EarthVision, the Laboratory refined recommendations to the proposed extent sampling presented in the investigation report. In most cases, this review resulted in an increase to the number of samples to be collected at the sites. The differences between the proposed extent sampling in the investigation report versus the Phase II Work Plan are as follows.

Extent of Contamination at SWMU 21-013(c)

- Aluminum is within 2 times background concentrations. Therefore, no further sampling for aluminum is necessary.
- Vertical extent is not defined for plutonium-239 at sampling location 21-25653; therefore, plutonium-239 has been added to the extent sampling (proposed sampling location 1).

Extent of Contamination at SWMU 21-012(b)

- Lateral extent is not defined for strontium or zinc downslope of the center of the outfall area; therefore, these inorganic chemicals have been added to the extent sampling (proposed sampling location 4).
- Toluene increases with depth at one location at blowdown pit 21-267; however, nearby sampling locations provide vertical extent for toluene at deeper depths. Vertical and lateral extent are not defined for toluene at the southeast corner of the outfall; therefore, toluene has been added to the extent sampling (proposed sampling location 4).
- Lateral extent is defined downslope of the western side of the outfall for americium-241, cesium-137, and isotopic plutonium by samples collected from adjoining SWMU 21-024(a) at sampling location 21-27327.

Extent of Contamination at SWMU 21-024(e)

- Vertical extent is not defined for cesium-137 at one outfall location because the surface sample result was rejected by the analytical laboratory; therefore, additional sampling for cesium-137 is warranted (proposed sampling location 3). Vertical extent is defined for the remaining radionuclide COPCs by decreasing activities with depth. Lateral extent is defined for all radionuclide COPCs by decreasing activities downslope of the outfall pipe mouth.

Extent of Contamination at SWMU 21-024(g)

- Vertical extent is defined for arsenic under the septic tank; concentrations decrease with depth at adjacent sampling location 21-27627.
- Lateral extent is not defined for americium-241 downslope of the septic tank outfall; therefore, americium-241 has been added to extent sampling (proposed sampling location 1).

Extent of Contamination at Consolidated Unit 21-024(l)-99

- Lateral extent is not defined for SVOCs east of the eastern outfall pipe mouth; therefore, SVOCs have been included in the extent sampling (proposed sampling location 15).

Extent of Contamination at SWMU 21-024(o)

- Lateral extent is not defined for zinc on the west side of the outfall; therefore, zinc has been added to extent sampling (proposed sampling location 2).
- Vertical extent is not defined for cesium-137 at one location at the outfall because the second depth sampled was rejected by the analytical laboratory; however, surface activity is below the fallout value. Therefore, no additional sampling for cesium-137 is necessary at this location. Vertical extent is defined for the remaining radionuclide COPCs by decreasing activities with depth.
- Lateral extent is not defined for americium-241 east of the outfall area; therefore, americium-241 has been added to extent sampling (proposed sampling location 1).
- Lateral extent is not defined for plutonium-239 west of the outfall area; therefore, plutonium-239 has been added to extent sampling (proposed sampling location 2).

Extent of Contamination at Consolidated Unit 21-026(a)-99

- Lateral extent is defined for copper at the outfall by decreasing concentrations laterally.
- Vertical extent is not defined for isotopic plutonium; therefore, isotopic plutonium has been added to the extent sampling (proposed sampling location 1).
- Lateral extent is defined for americium-241 and isotopic plutonium downslope of the septic tank outfall by decreasing activities laterally.

Extent of Contamination at SWMU 21-027(c)

- Vertical extent is defined for mercury at the outfall mouth by adjacent sampling location 21-27399 (within 5 ft).
- Vertical extent is defined for strontium-90 by decreasing activities with depth.

- Lateral extent is not defined for isotopic plutonium; therefore, isotopic plutonium has been added to the extent sampling (proposed sampling location 1).

Extent of Contamination at Consolidated Unit 21-023(a)-99

- Vertical extent is not defined for isotopic plutonium under septic tank 21-225; therefore, isotopic plutonium has been added to the extent sampling (proposed sampling location 2).

Extent of Contamination at SWMU 21-024(b)

- Nitrate concentrations on the east side of the outfall and under the removed pipe are low and likely naturally occurring; therefore, extent is defined in these areas. Lateral extent is not defined for nitrate because concentrations increase to the west of the outfall pipe mouth and concentrations are not likely naturally occurring; therefore, nitrate has been added to the extent sampling (proposed sampling location 1).
- Lateral extent is defined for isotopic plutonium by decreasing activities from the top to the bottom of the outfall.

Extent of Contamination at SWMU 21-024(d)

- Vertical extent is not defined for lead under the center of the septic tank; therefore, lead has been added to the extent sampling (proposed sampling location 1).
- Lateral extent is not defined for isotopic plutonium west of the outfall pipe mouth; therefore, isotopic plutonium has been added to the extent sampling (proposed sampling location 2).

Extent of Contamination at SWMU 21-024(n)

- Vertical extent is defined for barium at the western culvert outfall by decreasing concentrations with depth. Therefore, no further vertical extent sampling is necessary in this area.
- Vertical extent is not defined for lead under the storm grate pipe; therefore, lead has been added to the extent sampling (proposed sampling location 13).
- Vertical extent is defined for nitrate at the western culvert outfall by nearby sampling locations (within 5 ft). Therefore, no further vertical extent sampling is necessary in this area.
- Vertical extent is defined for cesium-137 at the site by decreasing activities with depth. Therefore, no further vertical extent sampling is necessary in this area.
- Vertical extent for americium-241 at the eastern culvert outfall is provided by nearby sampling locations (within 10 ft). Therefore, no further vertical extent sampling is necessary in this area.

3.1 Lateral Extent Sample Placement Strategy

There are two strategies for lateral extent sampling location placement: one for mesa-top locations and one for outfall locations. When lateral extent for a COPC is not defined on the mesa top, a sampling location is placed a distance (dependent upon the original sample spacing and the site boundary) from the original location in the direction in which lateral extent is not defined. When lateral extent for a COPC is not defined in an outfall, a sample is placed 10 ft or 20 ft from the original location in the direction in which lateral extent is not defined (depending upon the original sample spacing and the accessibility of the area to be sampled).

3.2 Vertical Extent Sample Placement Strategy

There are two strategies for vertical extent sampling location placement: one for mesa-top locations and one for outfall locations. When vertical extent for a COPC is not defined on the mesa top, a sample is collected at the original sampling location 5 ft deeper than the deepest depth previously sampled at the location of interest. When vertical extent for a COPC is not defined in an outfall that slopes down the side of the mesa to the bench, a sample is collected at the original sampling location 1 to 2 ft deeper than the deepest depth previously sampled at the location of interest.

This work plan will be executed following the processes and procedures described in the approved "Investigation Work Plan for Delta Prime Site Aggregate Area at Technical Area 21" (LANL 2004, 087461; NMED 2005, 089314).

4.0 CORRECTIVE ACTIONS AT THE PCB-CONTAMINATED SITES

As presented in the "Delta Prime Site Aggregate Area Investigation Report, Revision 1" (LANL 2008, 102760), additional investigation/remediation is required at Consolidated Unit 21-003-99 and SWMU 21-024(c), which are regulated under the Toxic Substances Control Act. At these two sites, PCB concentrations are above the cleanup level of 1 mg/kg. Table 26 presents the corrective action approach to these sites. Figures 26 and 27 present the pre- and postexcavation sampling locations and proposed excavation areas.

5.0 SCHEDULE

Upon New Mexico Environment Department (NMED) approval of the Phase II Work Plan, the Laboratory will schedule the field activities. The results from the Phase II extent samples will be reviewed as soon as they have gone through the verification and validation process to ensure all extent issues are resolved and there are sufficient data to perform a risk-screening assessment for each site. If the Phase II results indicate additional extent sampling is required, the Laboratory will work closely with NMED to choose additional sampling locations to resolve any extent issues.

Readiness review and mobilization will occur 45 d after approval of the work plan. Field activities, as presented in this plan, will require 2 mo to complete. Validated data will be received 2 mo after field activities are complete. The Laboratory assumes two additional weeks of field activities will be required after review of the validated data to finalize the nature and extent sampling. The Laboratory will submit the Phase II investigation report 6 mo after all the extent samples are collected.

The Phase II investigation report will present all of the Phase I and Phase II data in the figures and in table format. The Phase II investigation report will discuss only the results of the Phase II sampling effort. The Phase II investigation report will include a risk-screening assessment for each site that includes all of the Phase I and Phase II data.

6.0 REFERENCES

The following list includes all documents cited in this plan. Parenthetical information following each reference provides the author(s), publication date, and ER identification (ID) number. This information is also included in text citations. ER ID numbers are assigned by the EP Directorate Records Processing Facility (RPF) and are used to locate the document at the RPF and, where applicable, in the master reference set.

Copies of the master reference set are maintained at the NMED Hazardous Waste Bureau; the DOE-Los Alamos Site Office; EPA, Region 6; and the EP Directorate. The set was developed to ensure that the administrative authority has all material needed to review this document, and it is updated with every document submitted to the administrative authority. Documents previously submitted to the administrative authority are not included.

LANL (Los Alamos National Laboratory), August 2004. "Investigation Work Plan for Delta Prime Site Aggregate Area at Technical Area 21," Los Alamos National Laboratory document LA-UR-04-5009, Los Alamos, New Mexico. (LANL 2004, 087461)

LANL (Los Alamos National Laboratory), March 2008. "Delta Prime Site Aggregate Area Investigation Report, Revision 1," Los Alamos National Laboratory document LA-UR-08-1834, Los Alamos, New Mexico. (LANL 2008, 102760)

NMED (New Mexico Environment Department), April 13, 2005. "Approval with Modifications for the Investigation Work Plan for Delta Prime Site Aggregate Area at Technical Area 21," New Mexico Environment Department letter to D. Gregory (DOE LASO) and G.P. Nanos (LANL Director) from J.P. Bearzi (NMED-HWB), Santa Fe, New Mexico. (NMED 2005, 089314)

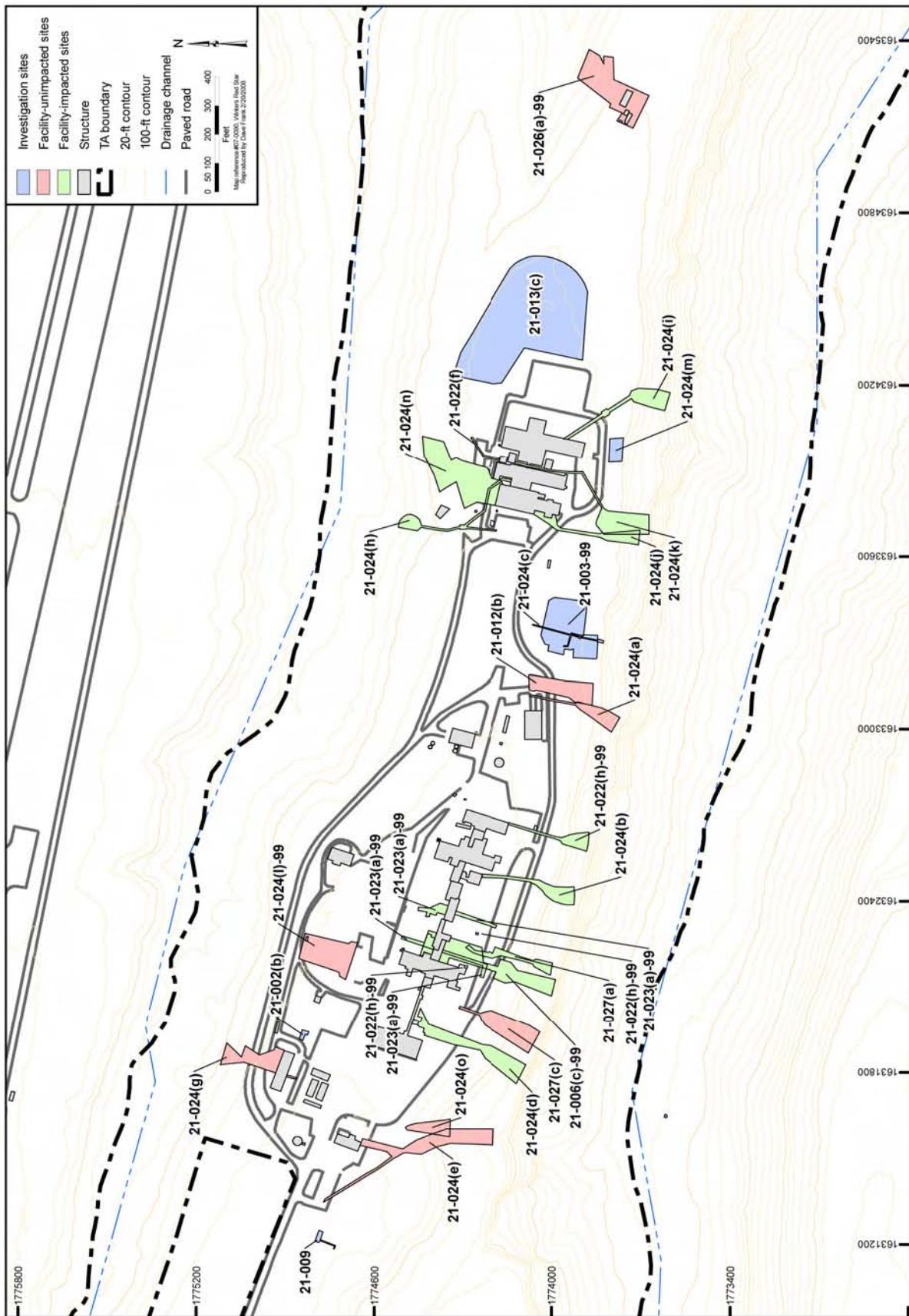


Figure 1 DP Site Aggregate Area sites addressed in this report

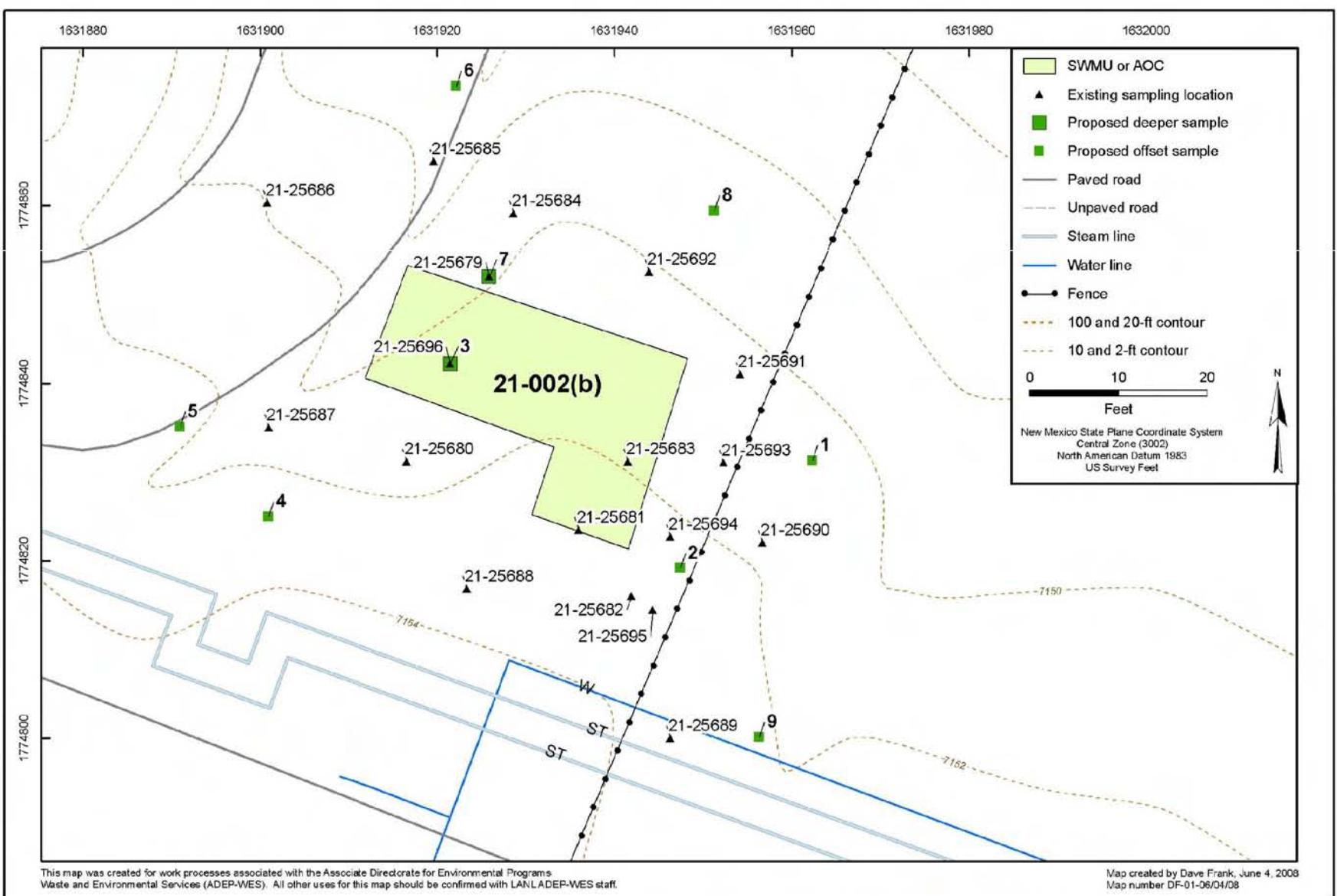


Figure 2 Proposed sampling at AOC 21-002(b)

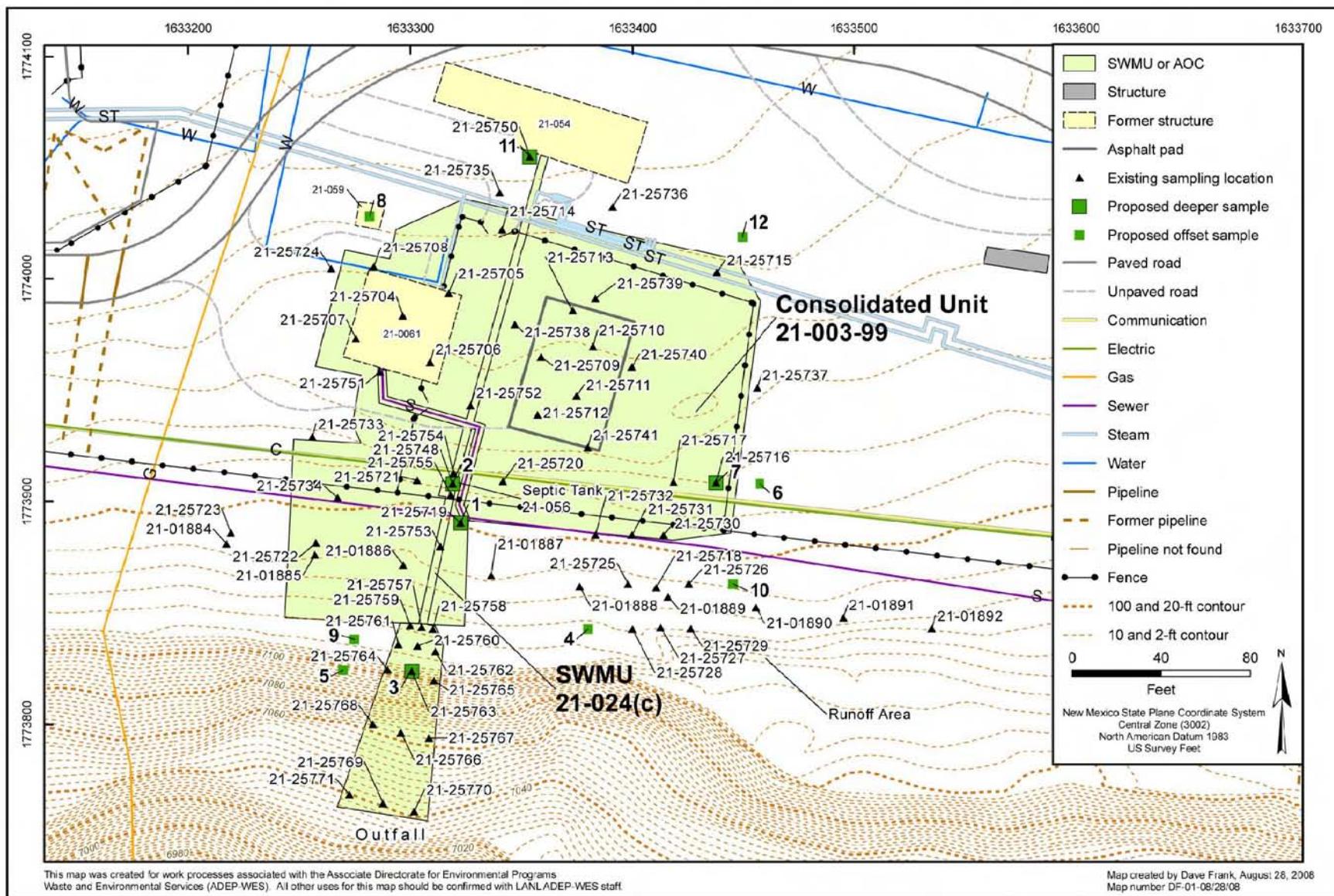


Figure 3 Proposed sampling at Consolidated Unit 21-003-99 and SWMU 21-024(c)

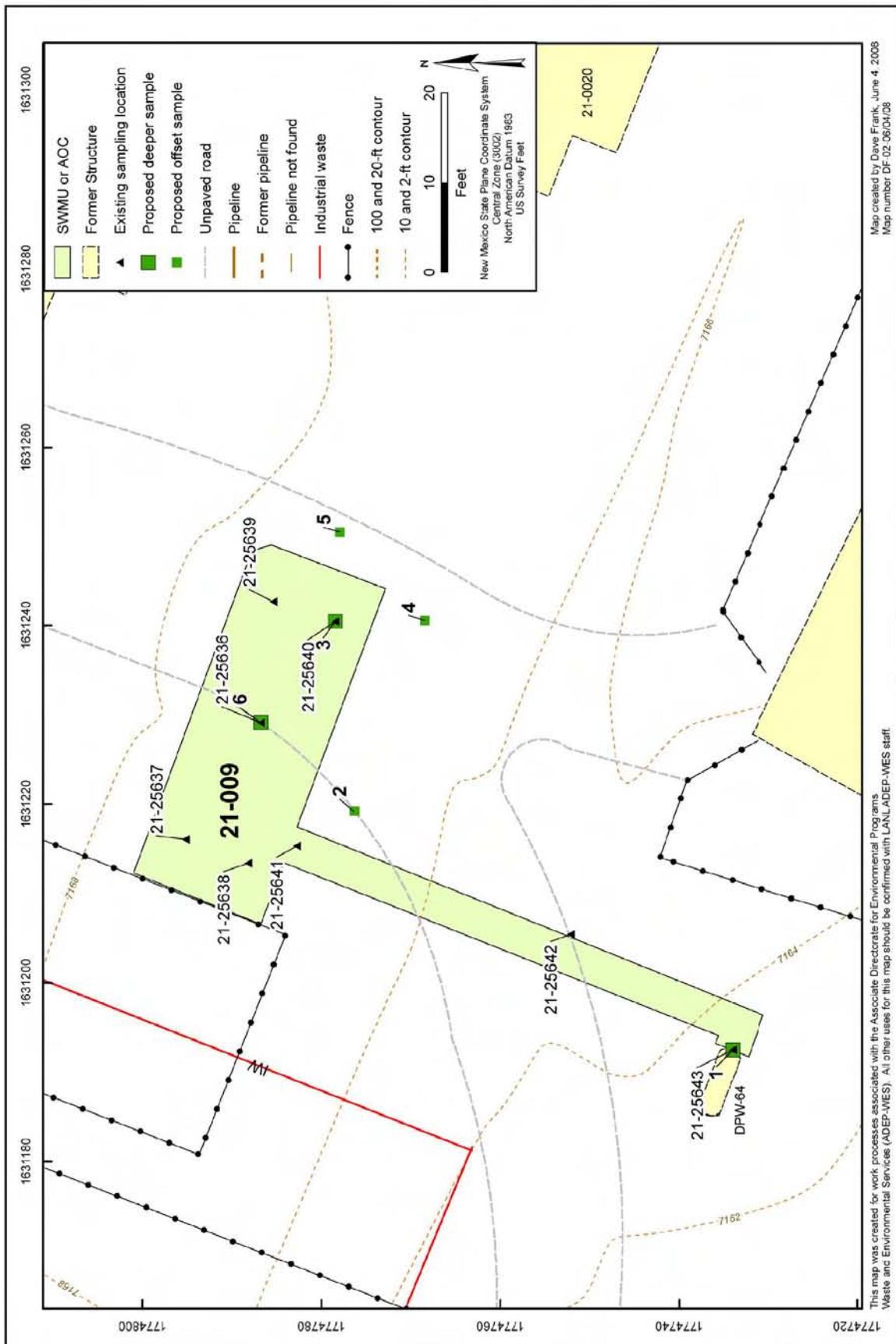


Figure 4 Proposed sampling at SWMU 21-009

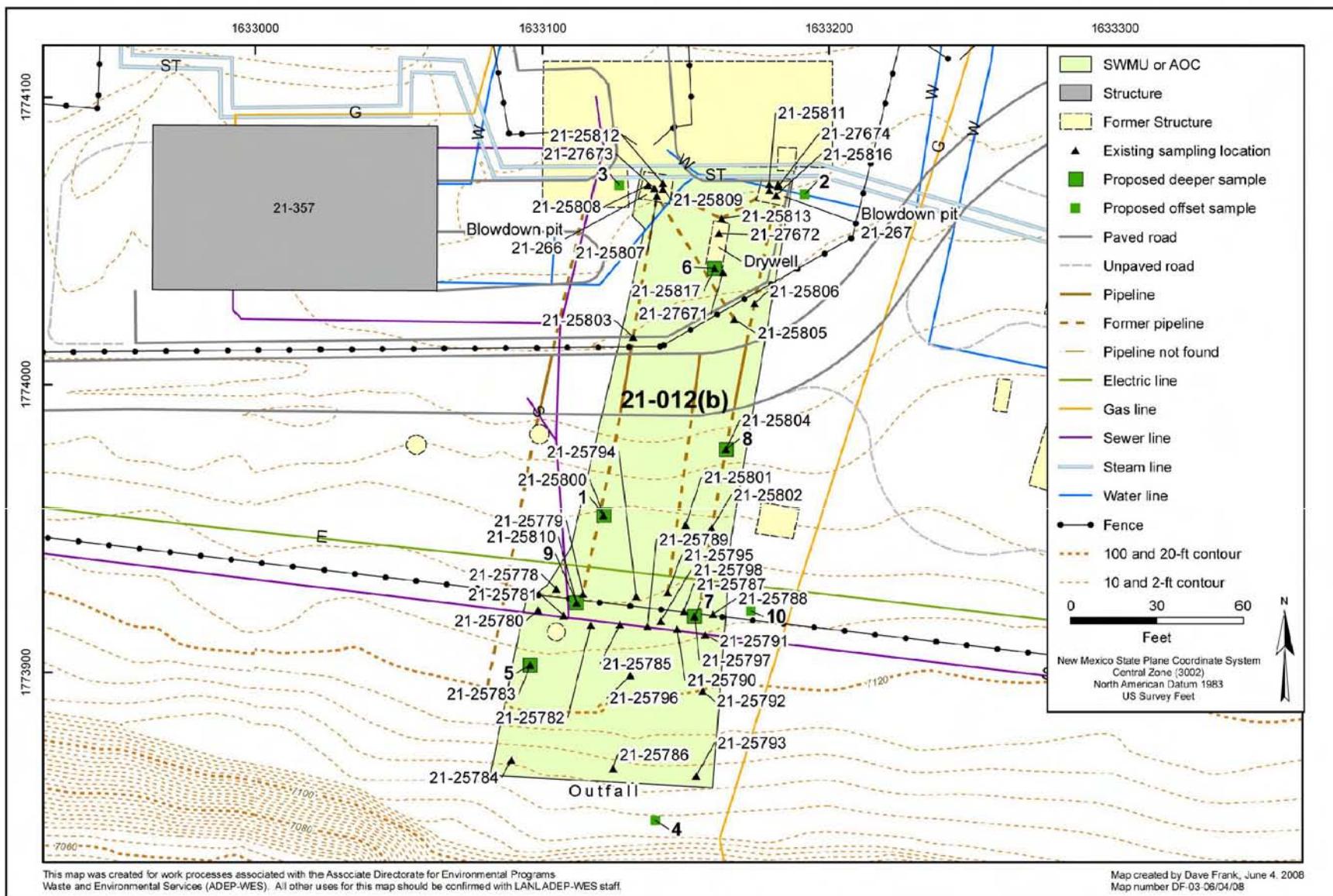


Figure 5 Proposed sampling at SWMU 21-012(b)

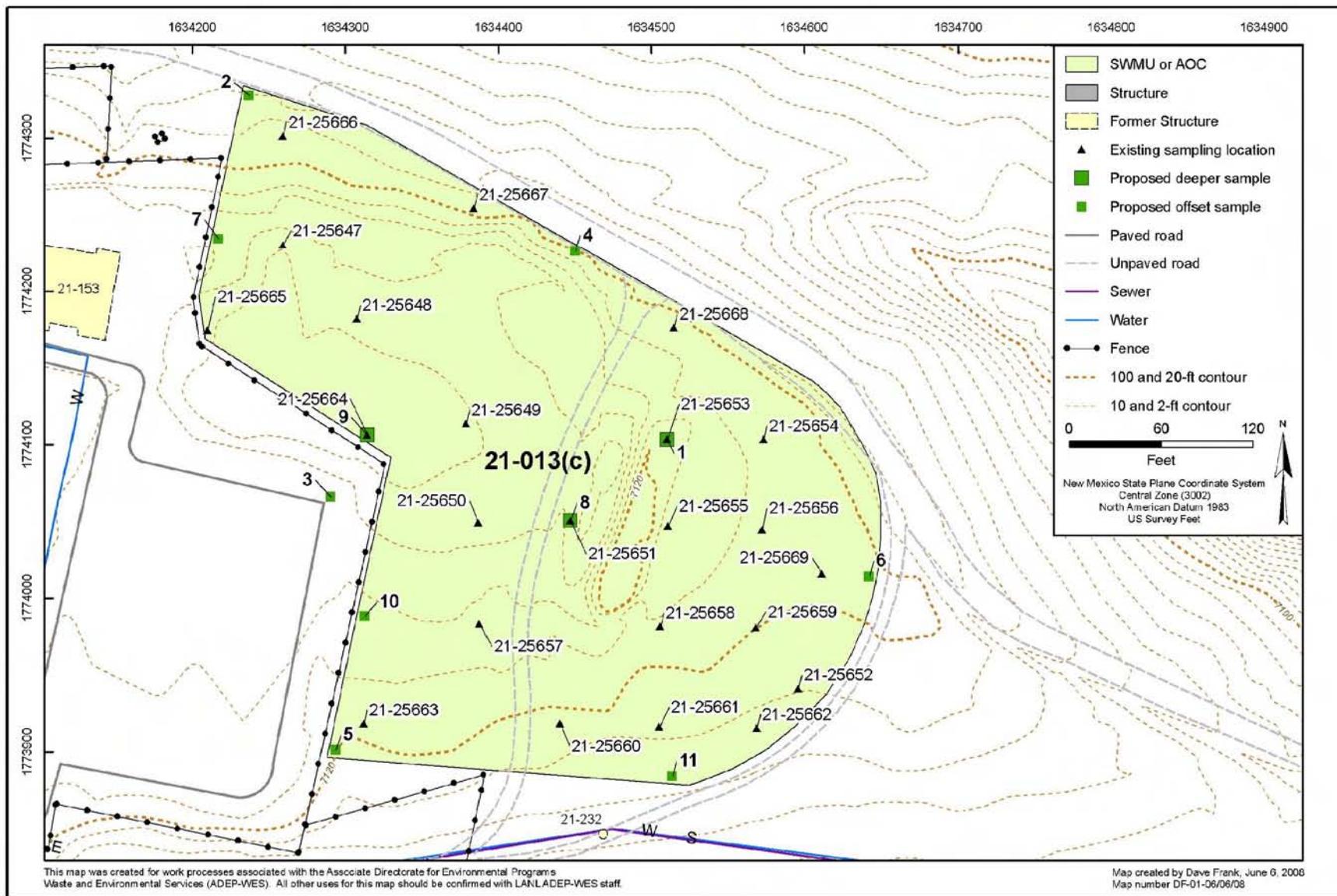


Figure 6 Proposed sampling at SWMU 21-013(c)

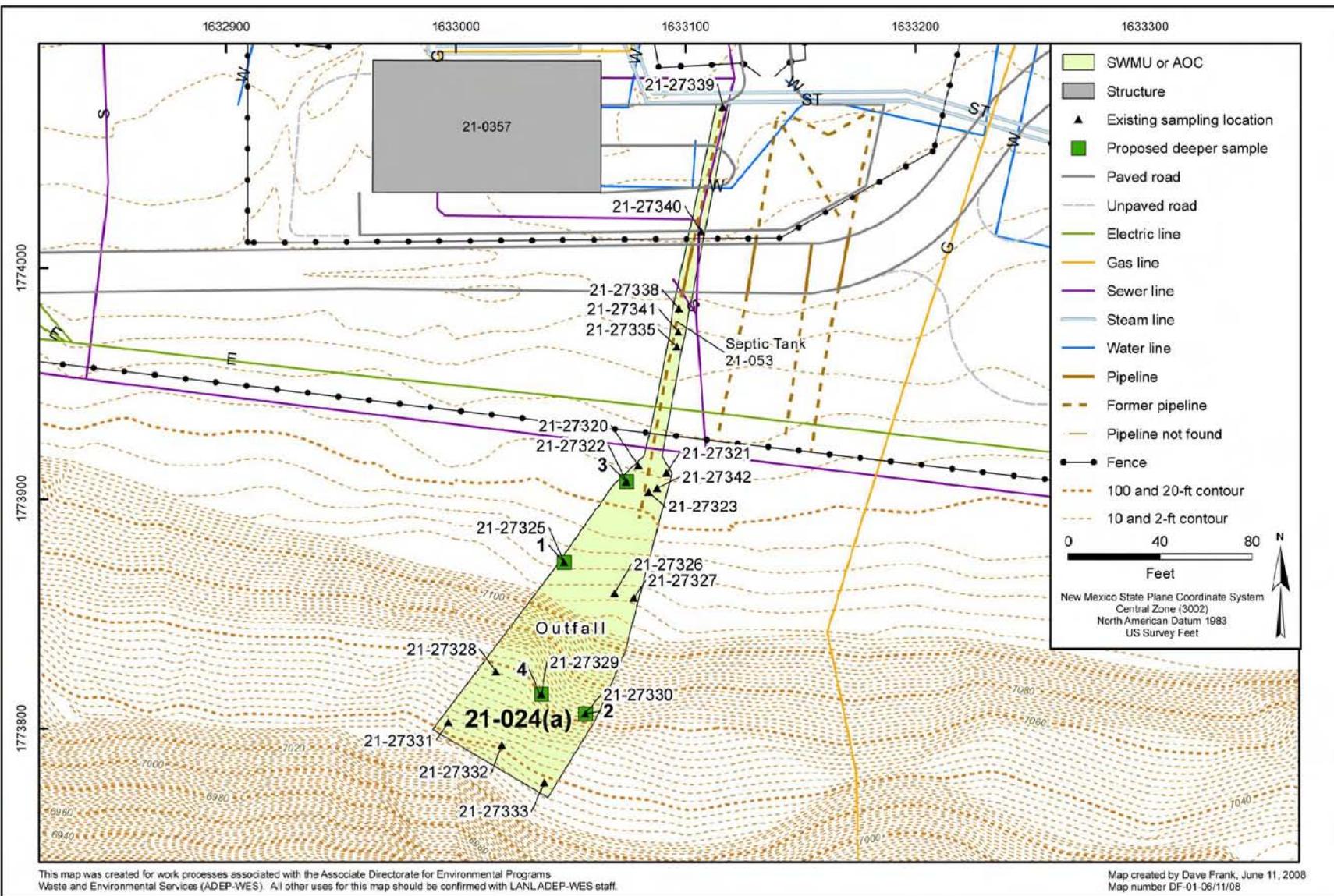


Figure 7 Proposed sampling at SWMU 21-024(a)

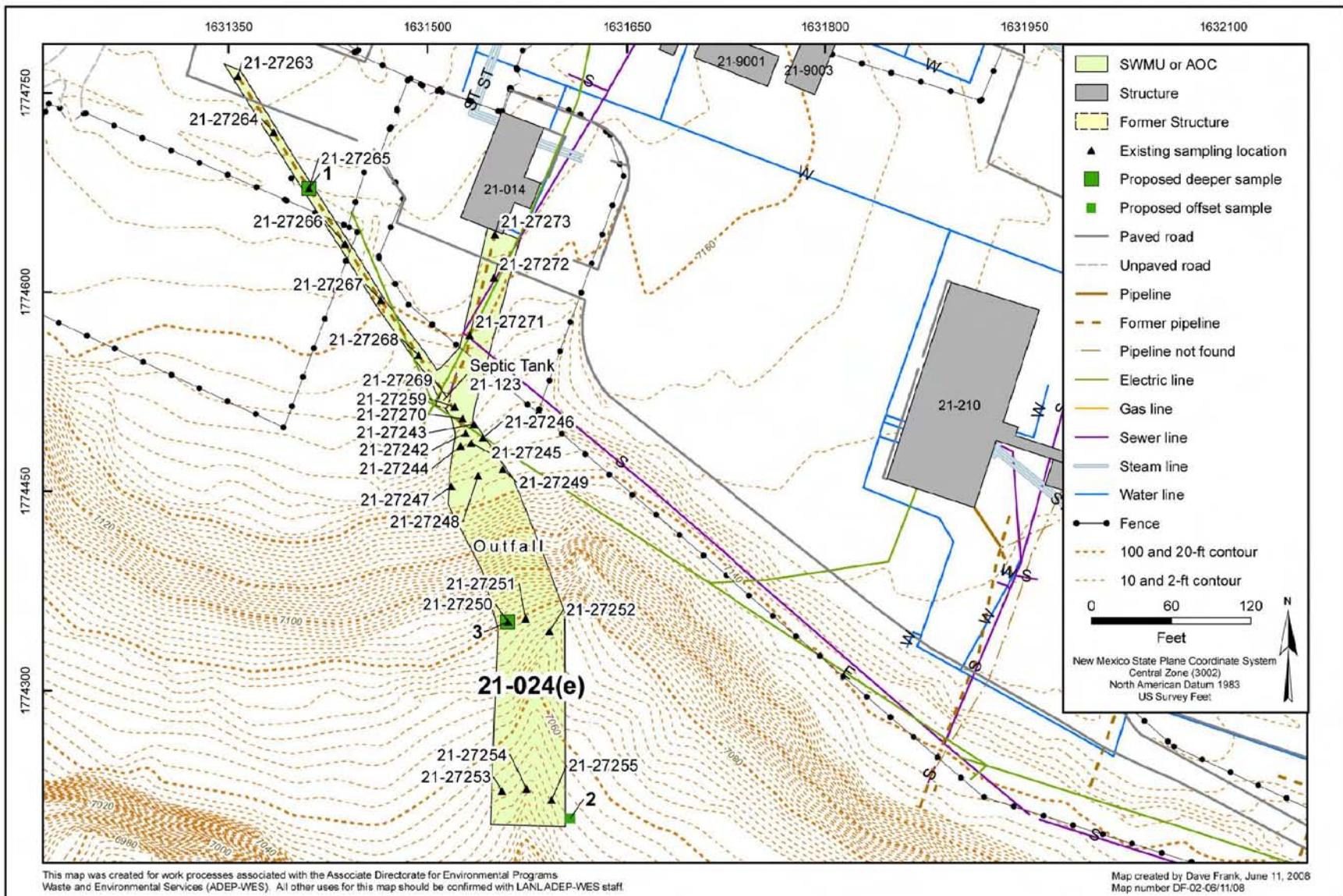


Figure 8 Proposed sampling at SWMU 21-024(e)

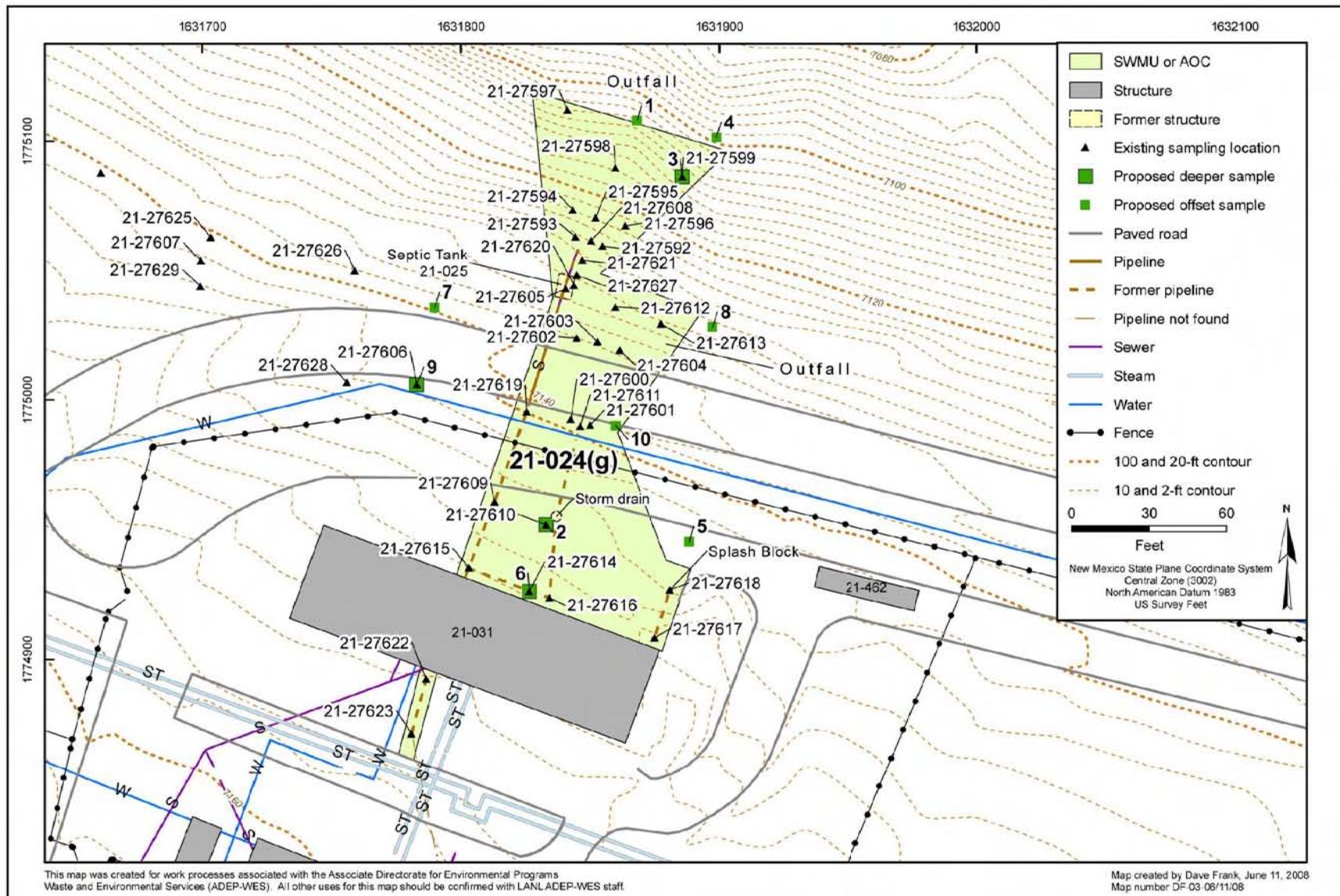


Figure 9 Proposed sampling at SWMU 21-024(g)

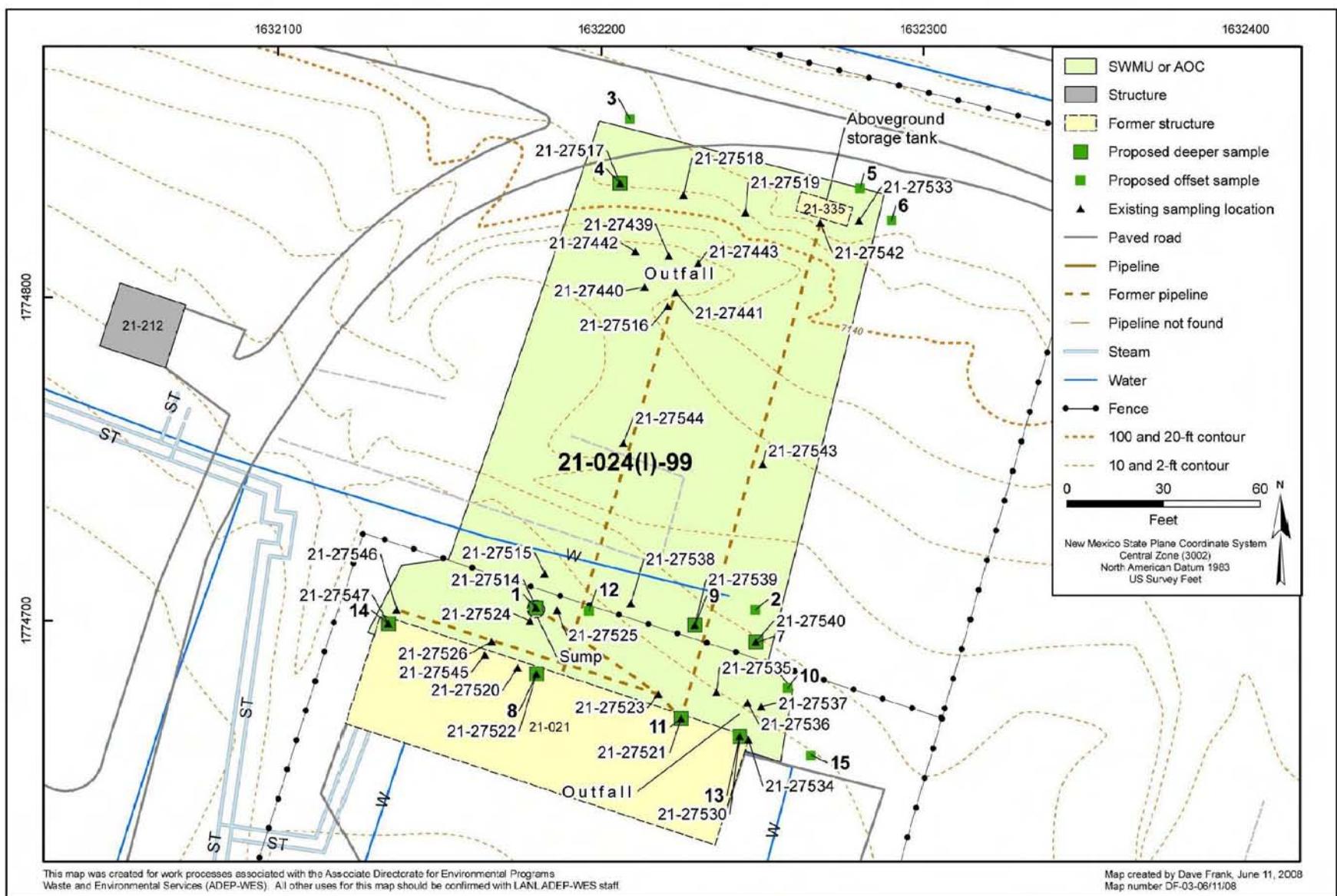


Figure 10 Proposed sampling at Consolidated Unit 21-024(I)-99

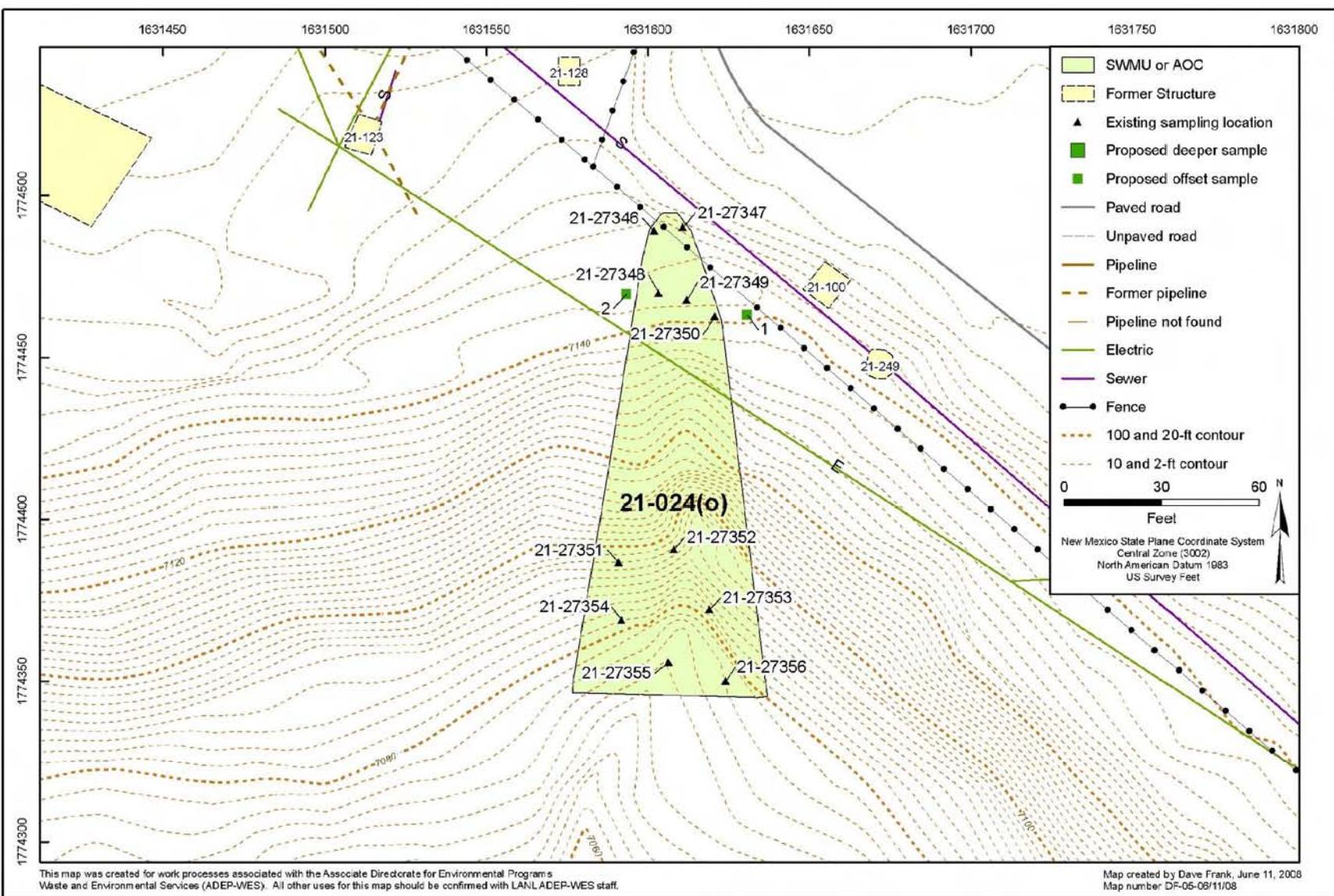


Figure 11 Proposed sampling at SWMU 21-024(o)

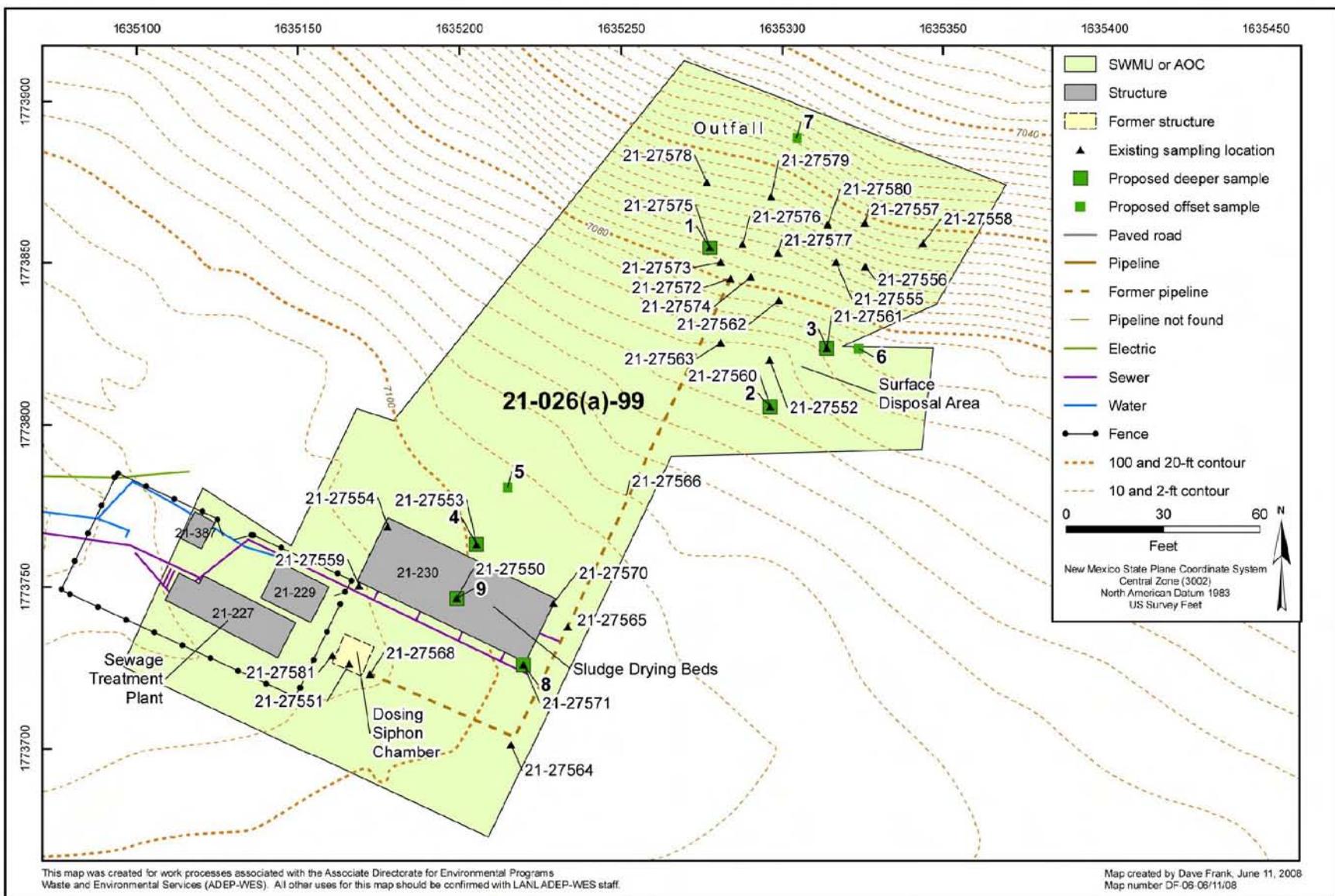


Figure 12 Proposed sampling at Consolidated Unit 21-026(a)-99

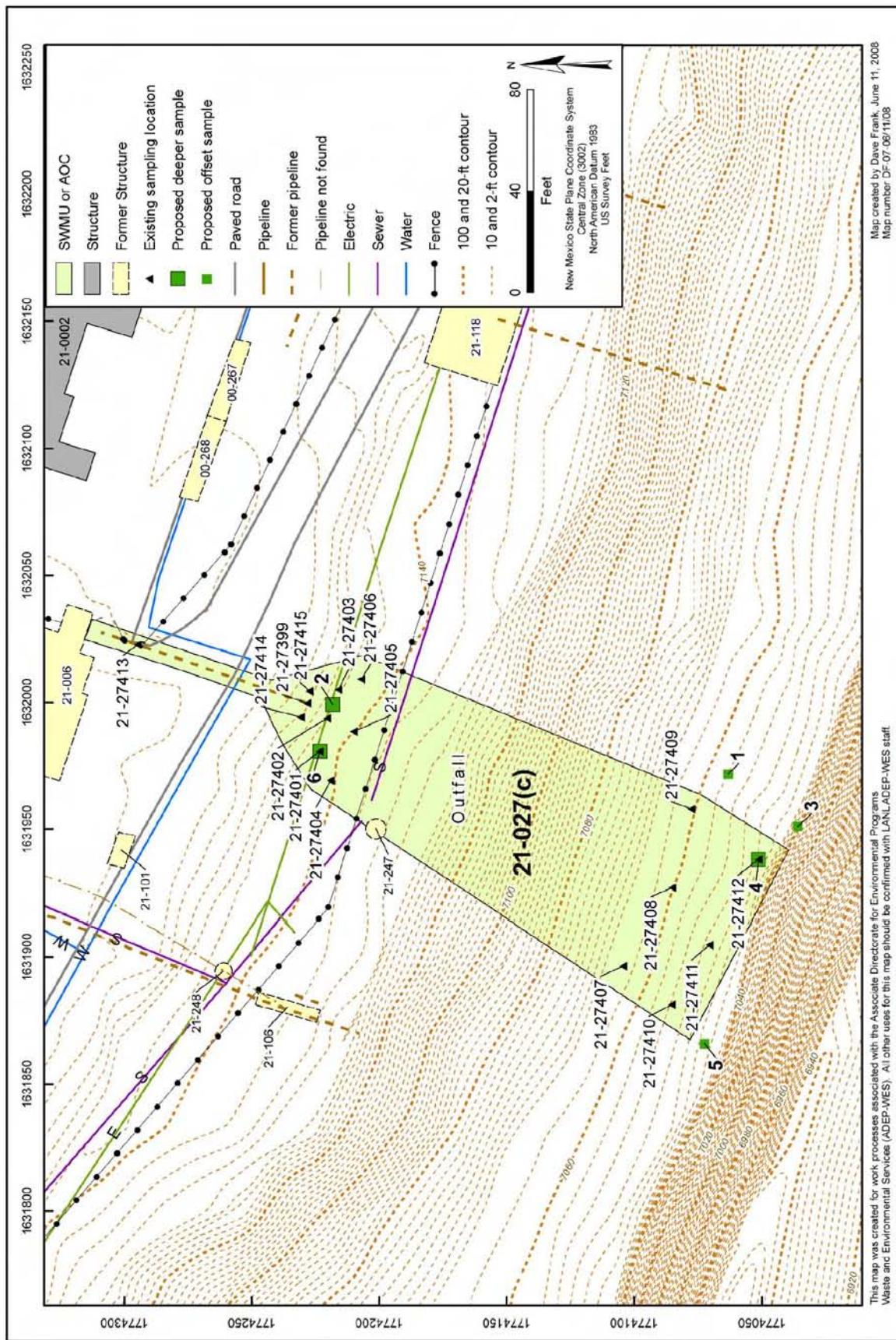


Figure 13 Proposed sampling at SWMU 21-027(c)

This map was created for work processes associated with the Associate Directorate for Environmental Programs
Waste and Environmental Services (ADEP-WES). All other uses for this map should be confirmed with LANL ADEP-WES staff.

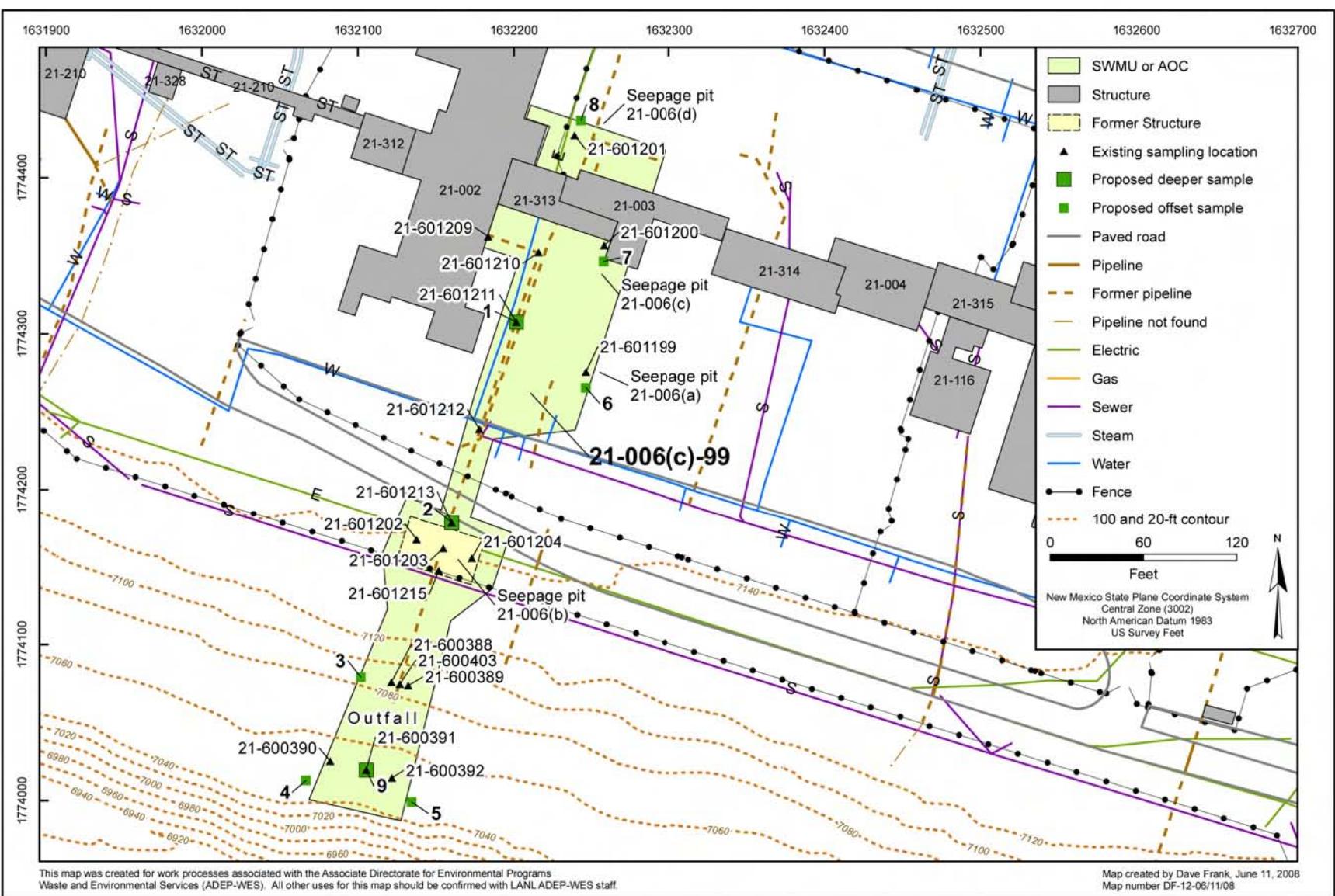


Figure 14 Proposed sampling at Consolidated Unit 21-006(c)-99

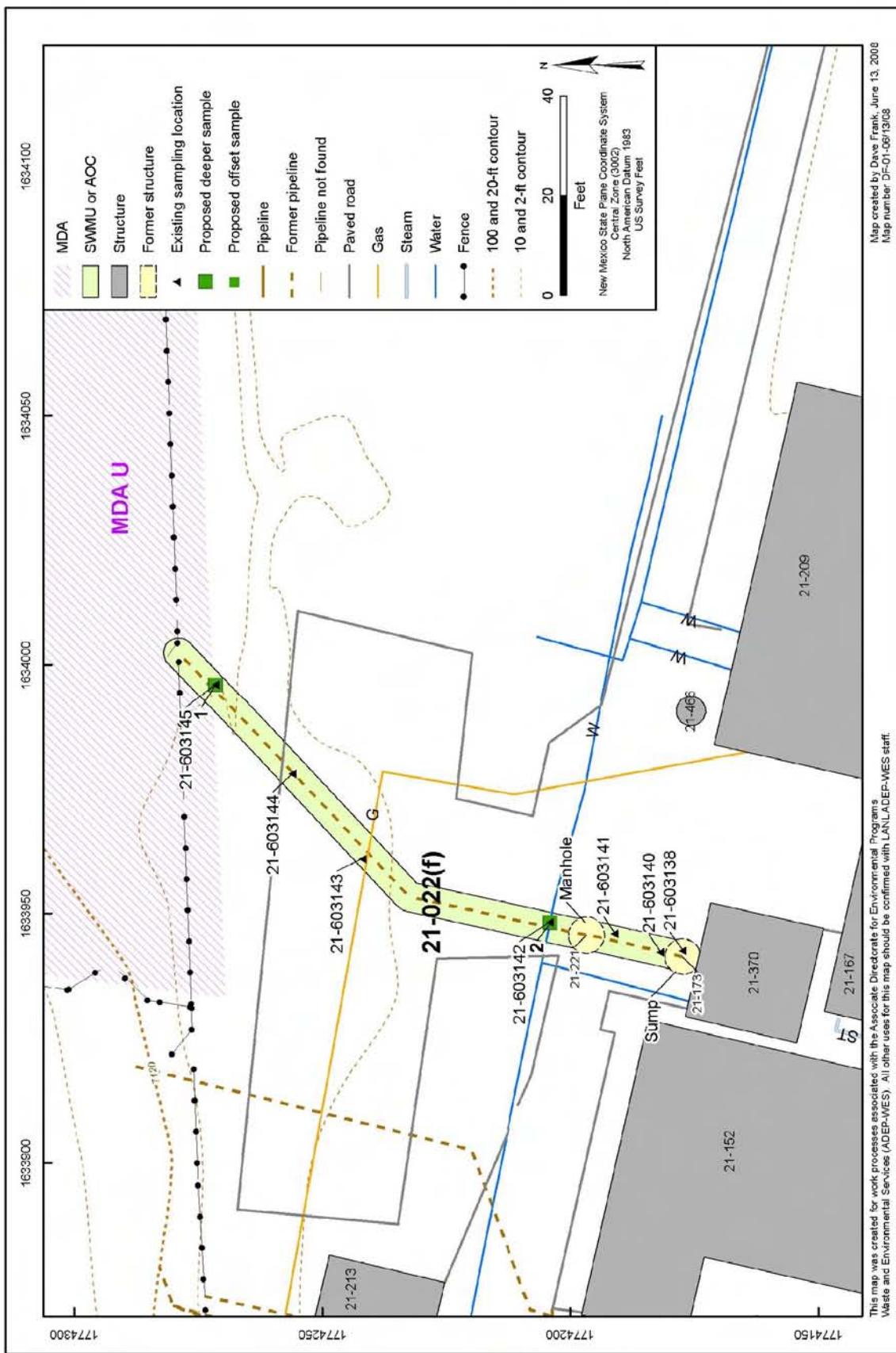


Figure 15 Proposed sampling at SWMU 21-022(f)

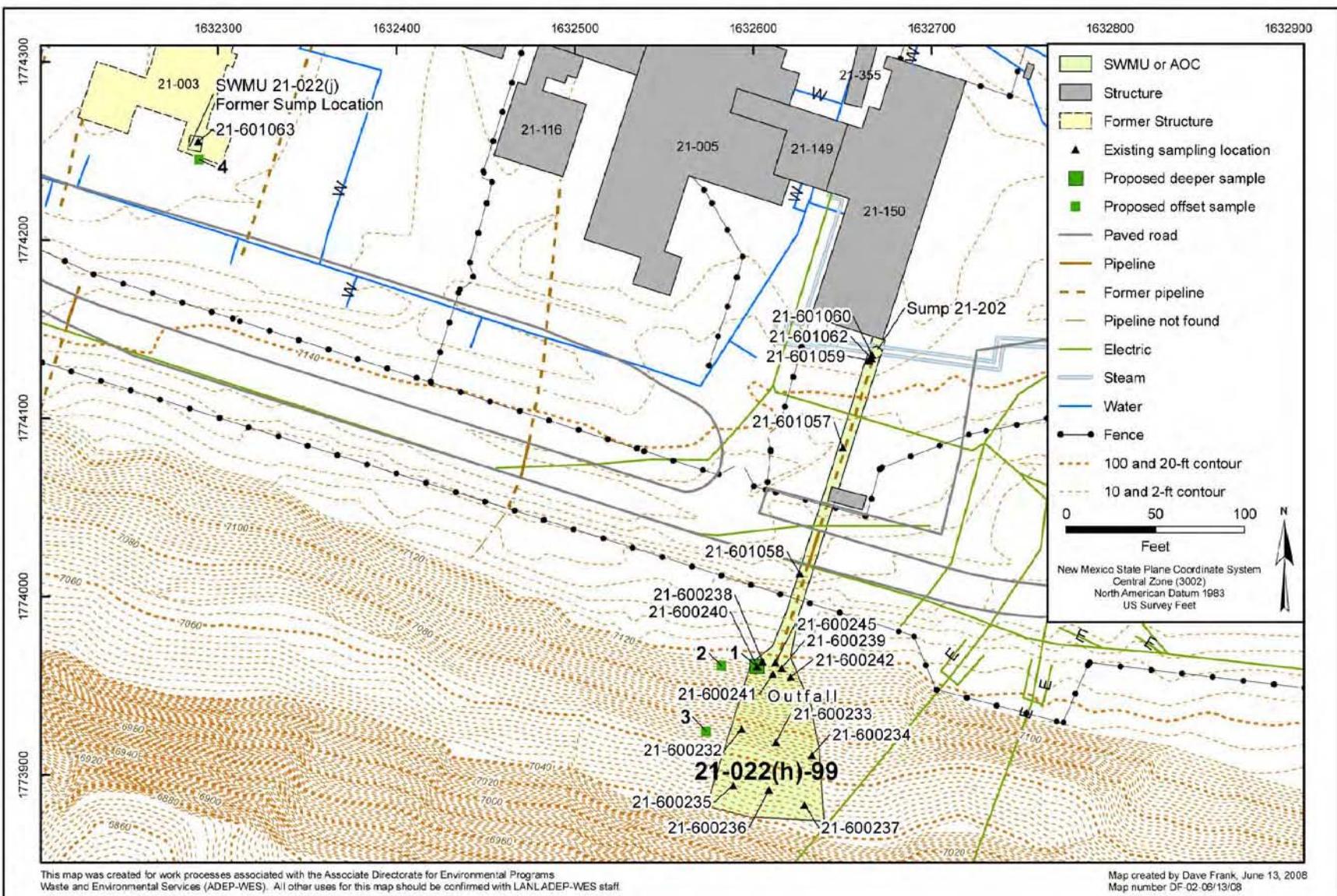


Figure 16 Proposed sampling at Consolidated Unit 21-022(h)-99

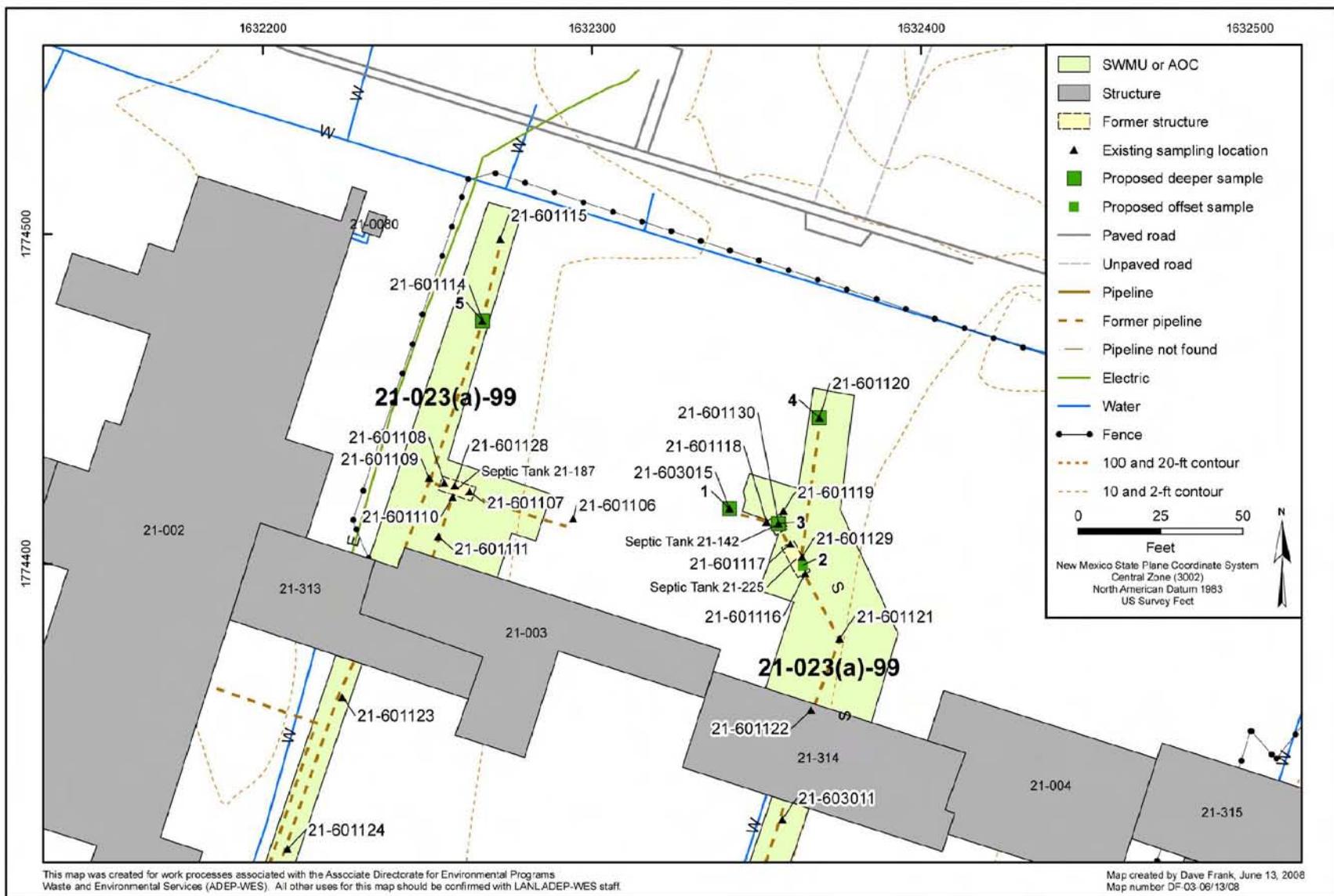


Figure 17 Proposed sampling at Consolidated Unit 21-023(a)-99

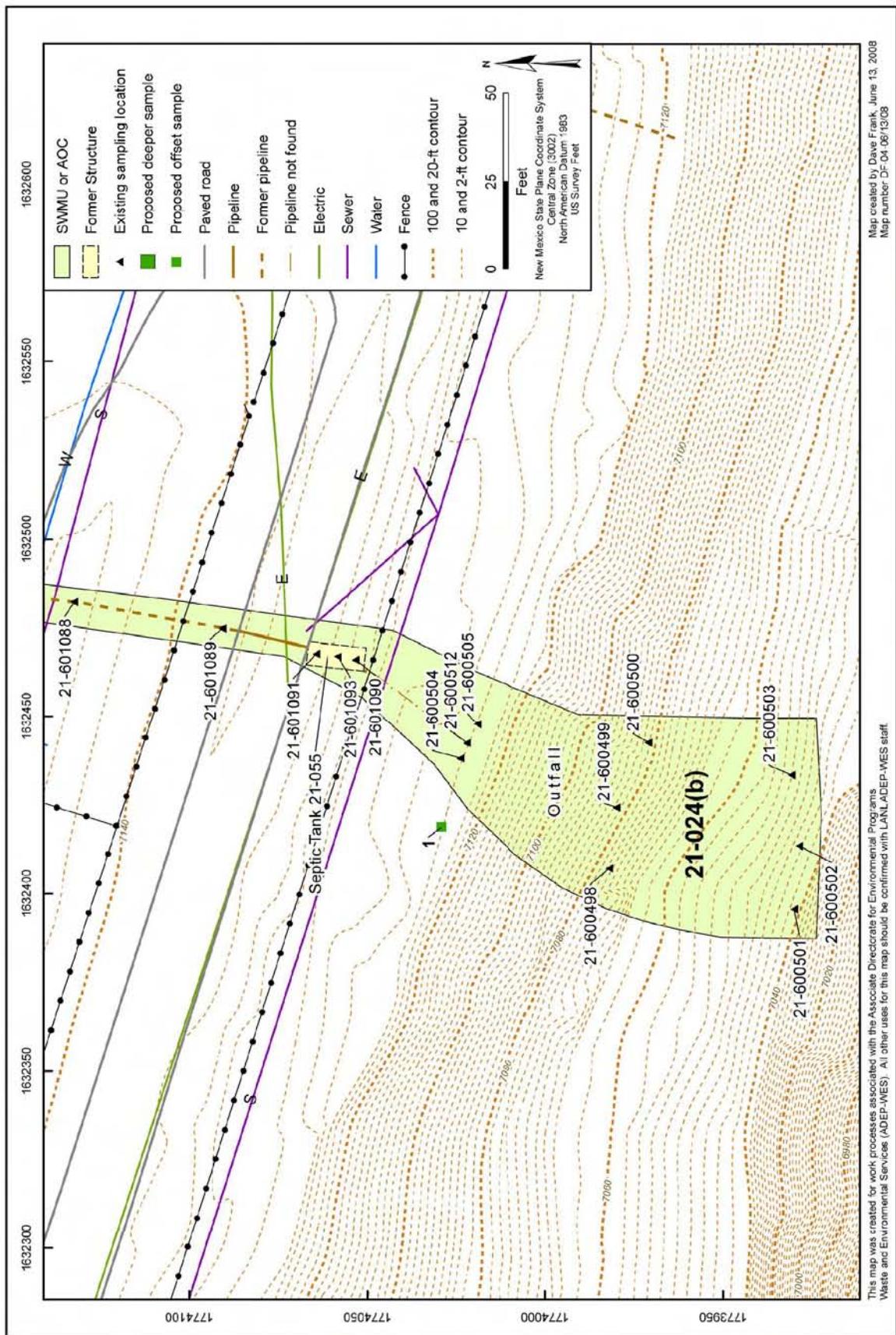
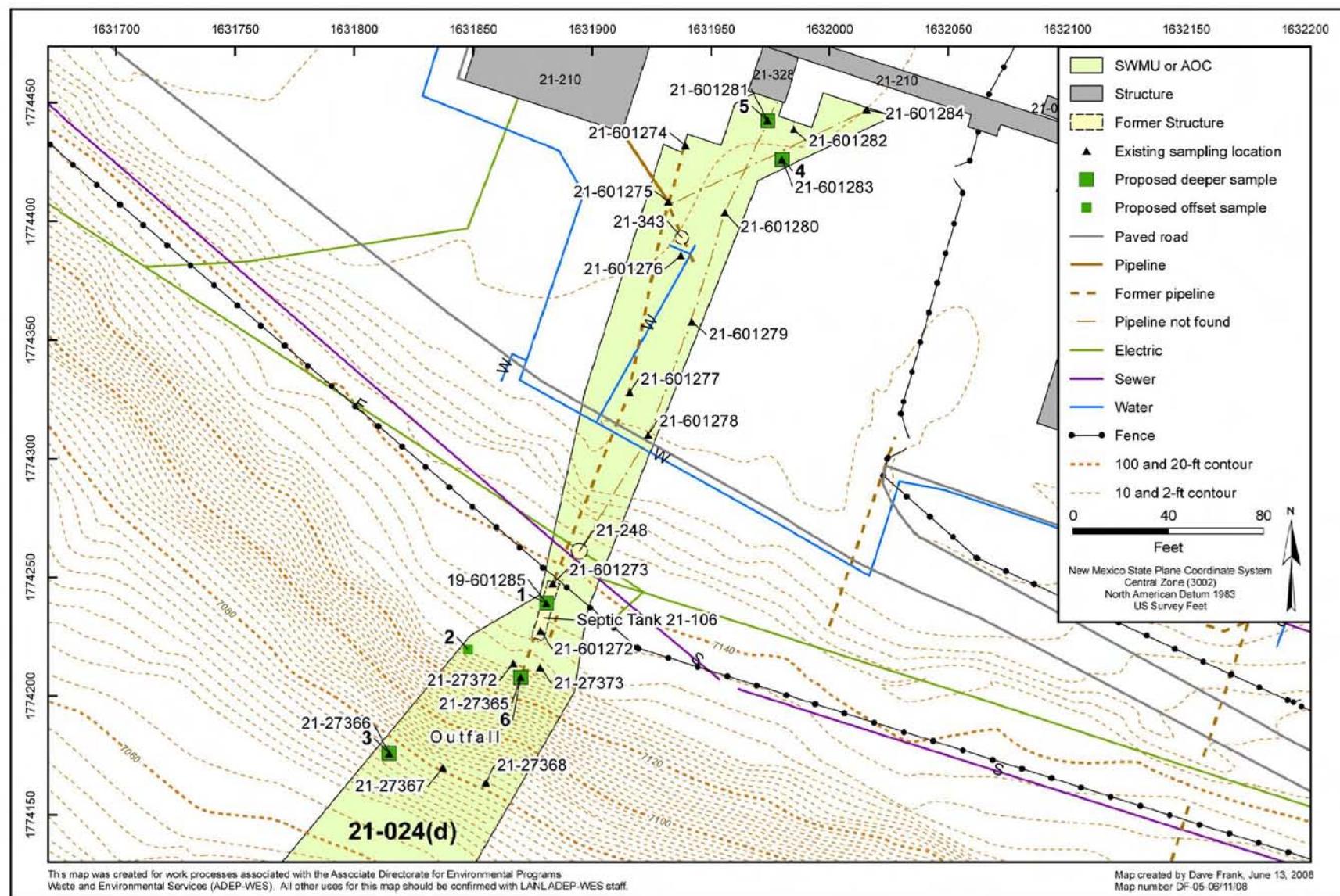


Figure 19 Proposed sampling at SWMU 21-024(d)



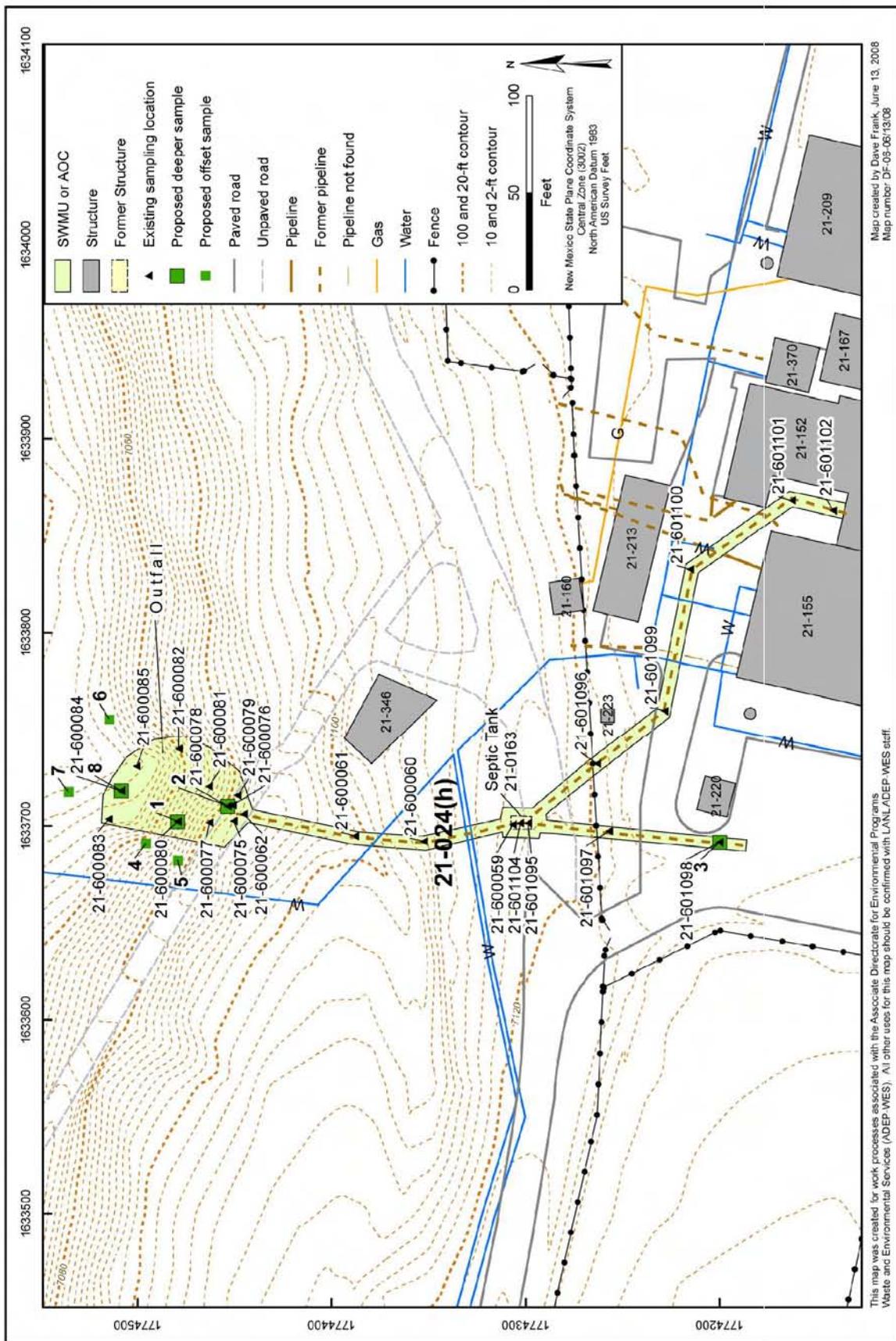


Figure 20 Proposed sampling at SWMU 21-024(h)

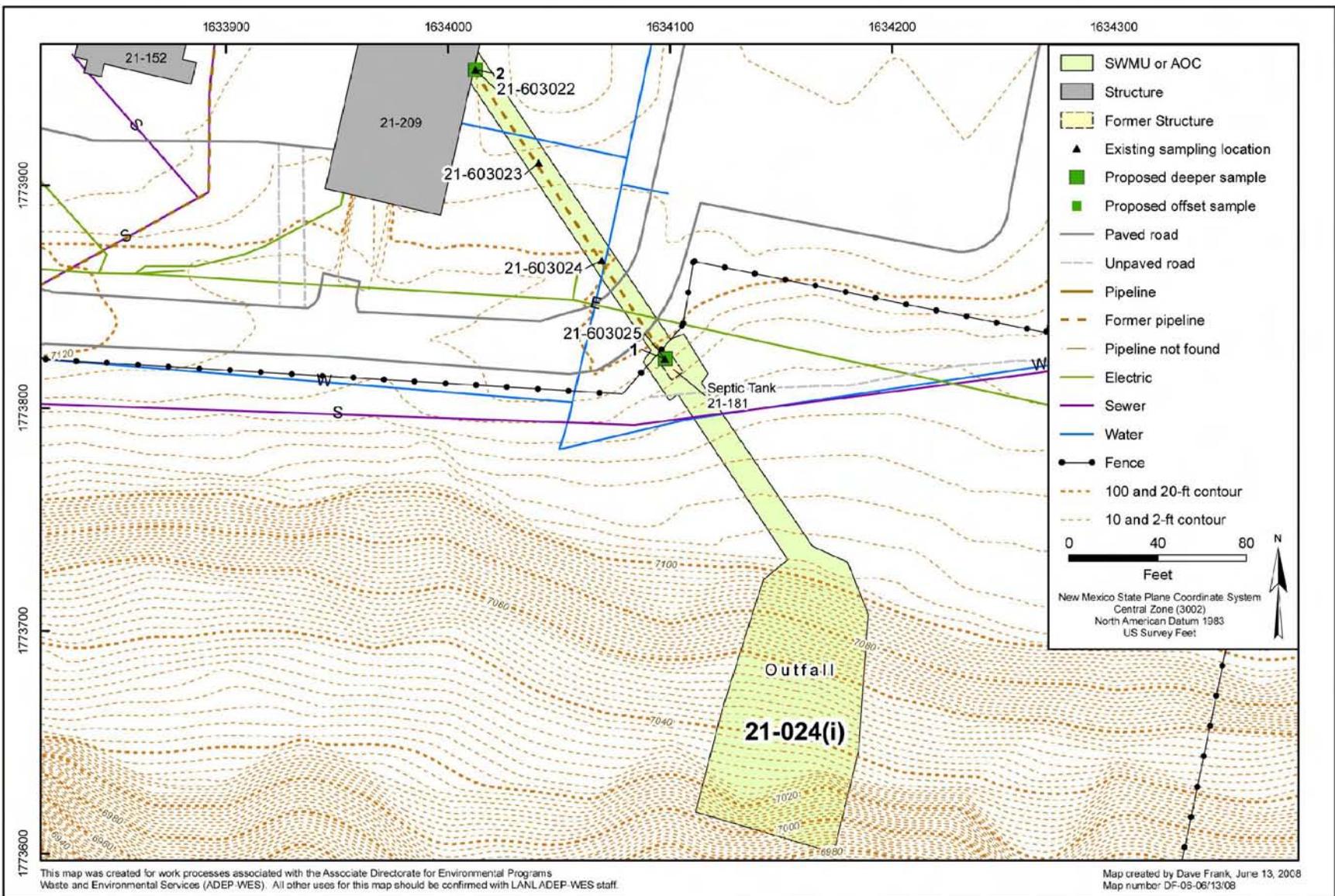


Figure 21 Proposed sampling at SWMU 21-024(i)

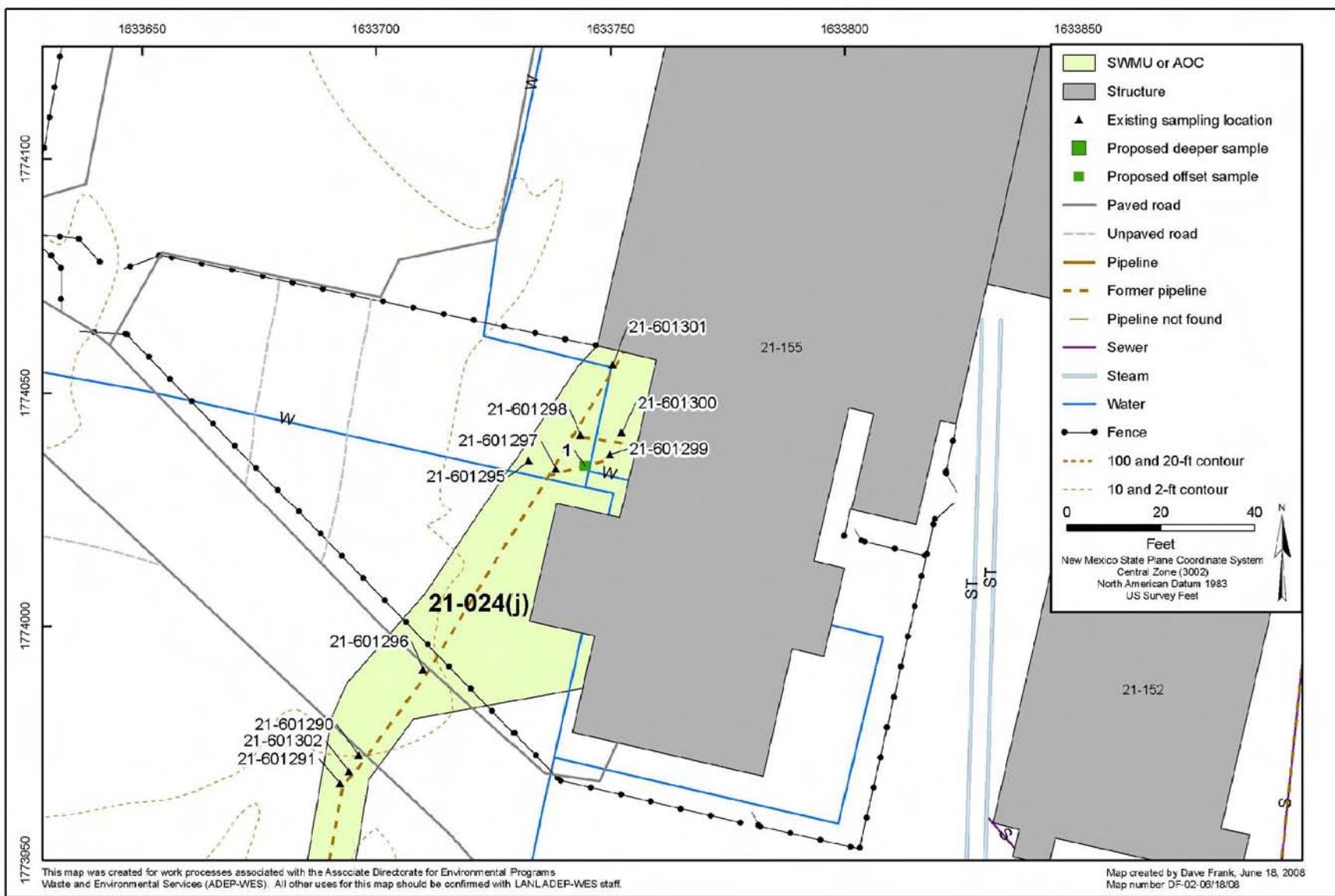


Figure 22 Proposed sampling at SWMU 21-024(j)

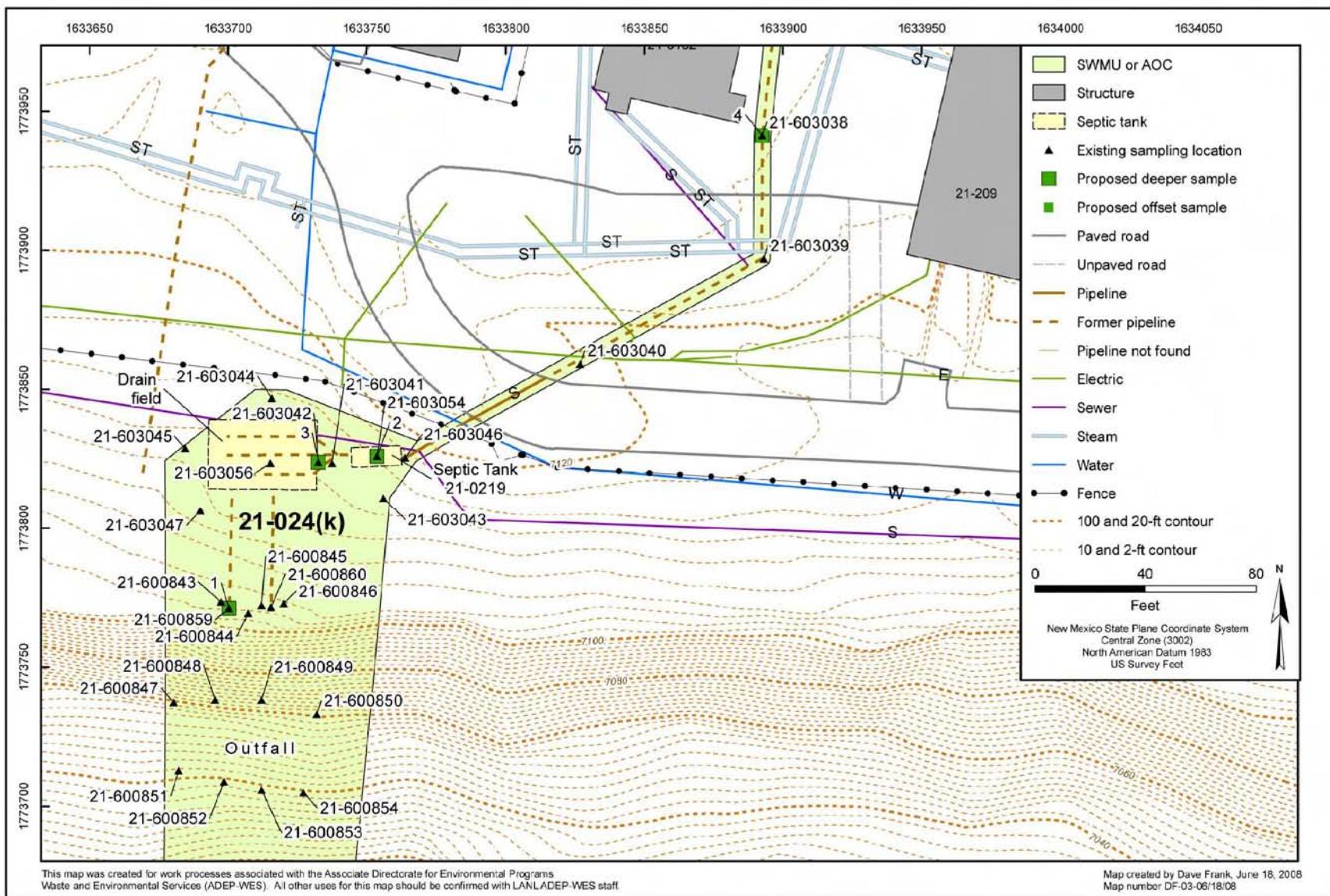


Figure 23 Proposed sampling at SWMU 21-024(k)

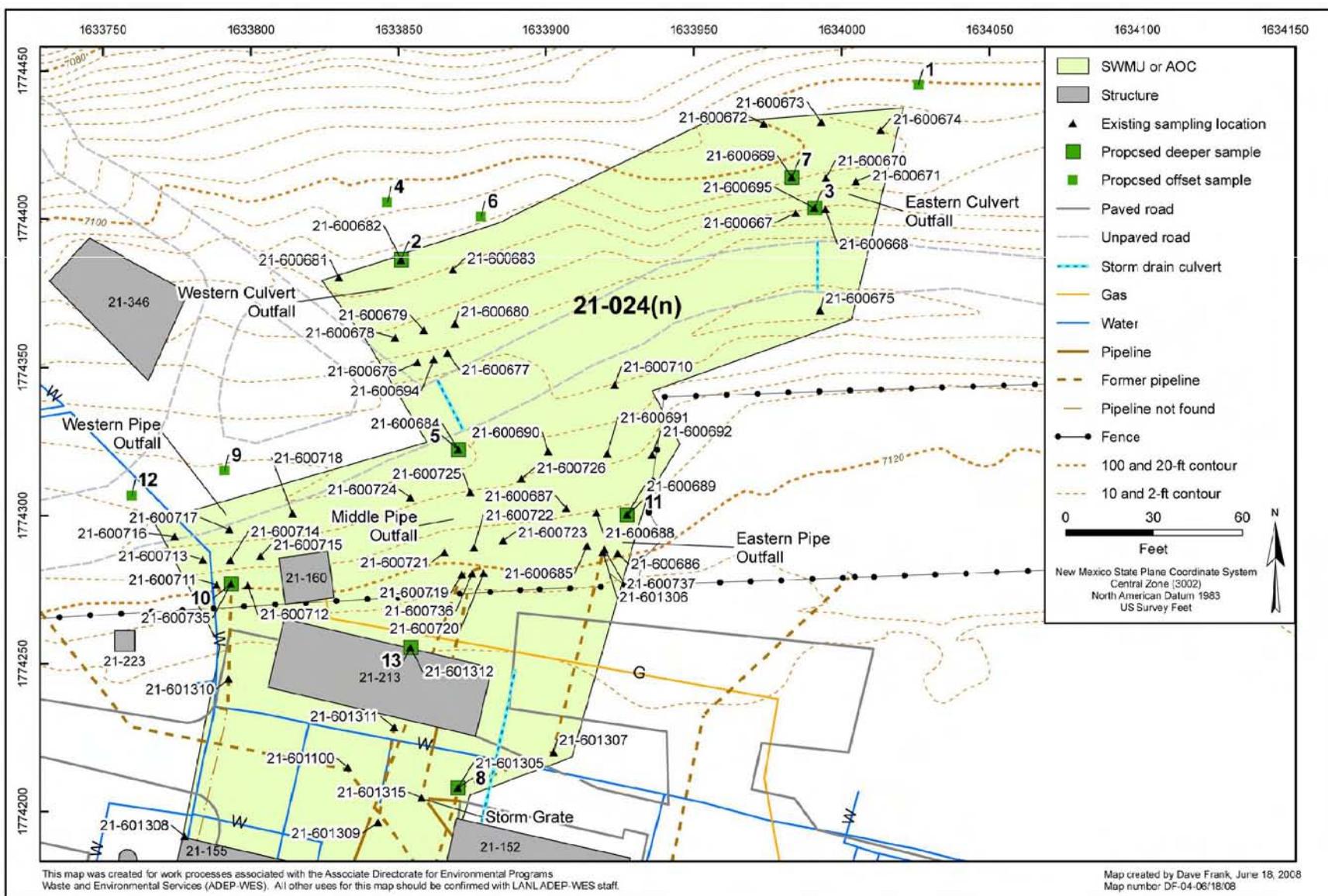


Figure 24 **Proposed sampling at SWMU 21-024(n)**

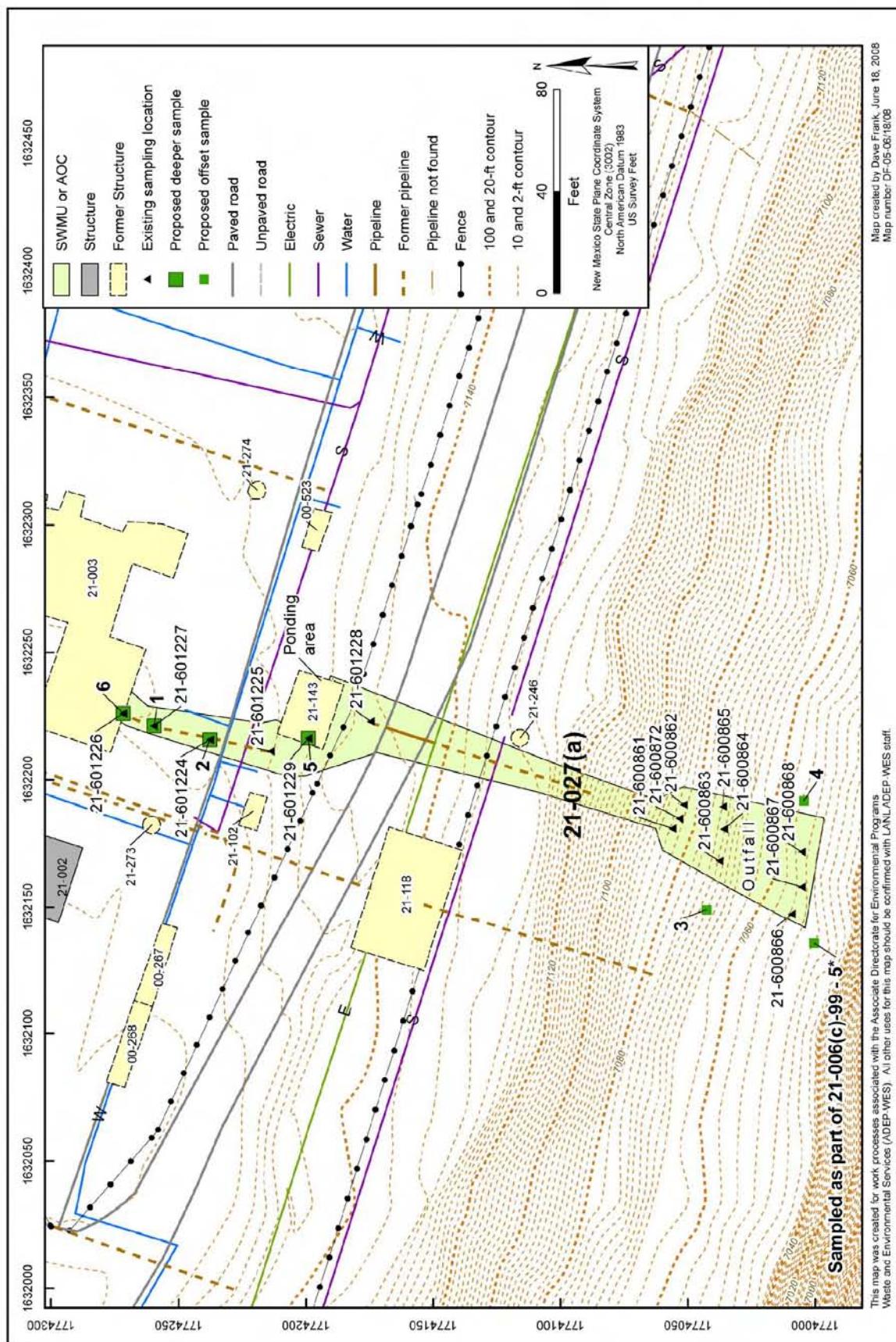


Figure 25 Proposed sampling at SWMU 21-027(a)

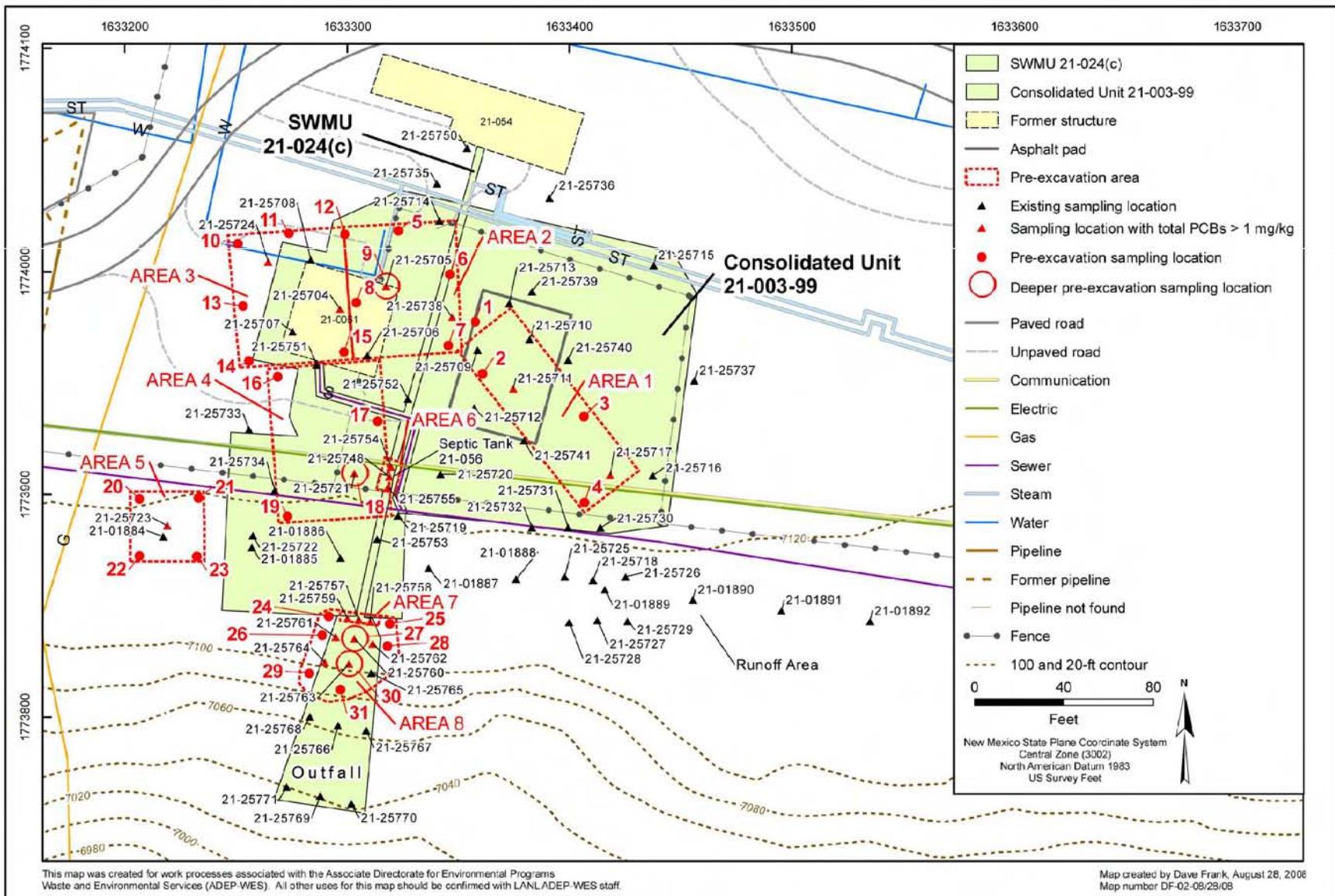


Figure 26 Proposed pre-excavation PCB sampling at Consolidated Unit 21-003-99 and SWMU 21-024(c)

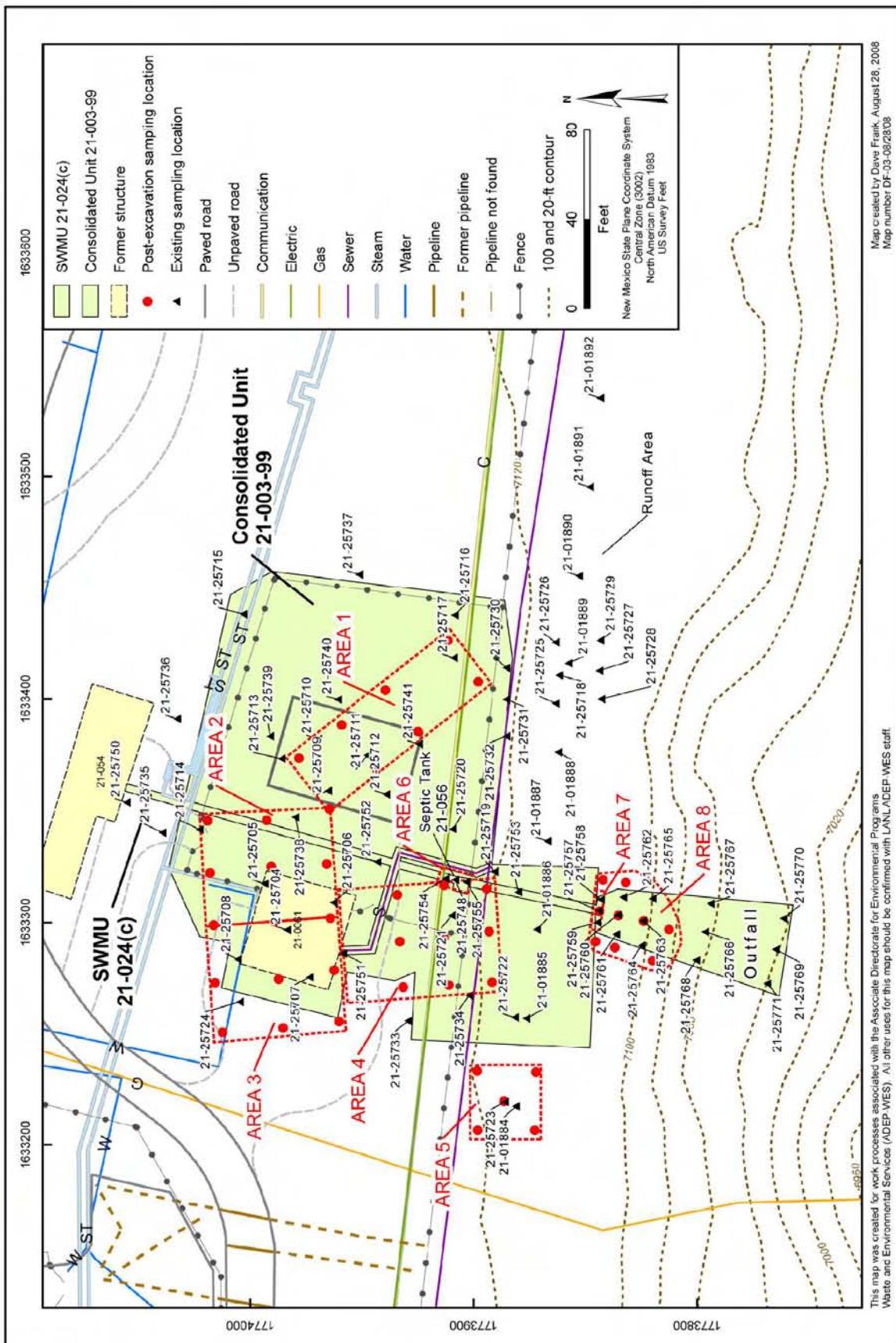


Figure 27 Proposed postexcavation PCB sampling at Consolidated Unit 21-003-99 and SWMU 21-024(c)

Table 1
SWMUs and AOCs Addressed in This Plan

Consolidated Unit	SWMU/AOC Number	Site Description
	AOC 21-002(b)	Container storage area
21-003-99	SWMU 21-003	Container storage area
	AOC 21-013(f)	Surface disposal site
21-006(c)-99	SWMU 21-006(a)	Seepage pits
	SWMU 21-006(b)	Seepage pits
	SWMU 21-006(c)	Seepage pits
	SWMU 21-006(d)	Seepage pits
	AOC 21-009	Waste treatment laboratory
	SWMU 21-012(b)	Dry well and system
	SWMU 21-013(c)	Surface disposal area
21-017(a)-99	SWMU 21-022(f)	Sump and pipe
21-022(h)-99	SWMU 21-022(h)	Sump, pipe, and outfall
	SWMU 21-022(i)	Sump pump
	SWMU 21-022(j)	Sump pump
21-023(a)-99	SWMU 21-023(a)	Septic system, building 21-3
	SWMU 21-023(b)	Septic system, building 21-3
	SWMU 21-023(d)	Septic system, building 21-3
	SWMU 21-024(a)	Septic system
	SWMU 21-024(b)	Septic system
	SWMU 21-024(c)	Septic system
	SWMU 21-024(d)	Septic system
	SWMU 21-024(e)	Septic system
	SWMU 21-024(g)	Septic system
	SWMU 21-024(h)	Septic system
	SWMU 21-024(i)	Septic system (inlet line only)
	SWMU 21-024(j)	Septic system
	SWMU 21-024(k)	Septic system
21-024(l)-99	AOC 21-004(a)	Aboveground storage tank
	SWMU 21-022(a)	Waste line and sump
	SWMU 21-024(l)	Outfall
	SWMU 21-024(n)	Drainline
	SWMU 21-024(o)	Drainline
21-026(a)-99	SWMU 21-013(a)	Surface disposal area
	SWMU 21-026(a)	Sewage treatment plant
	SWMU 21-026(b)	Sludge drying/sand filter beds
	AOC 21-026(c)	Dosing siphon chamber
	AOC 21-026(d)	Outfall

Table 1 (continued)

Consolidated Unit	SWMU/AOC Number	Site Description
	SWMU 21-027(a)	Surface drainage and outfalls
	SWMU 21-027(c)	Pipe and outfall
PCB-contamination area	Near SWMU 21-024(m)	Outfall

Note: Shading denotes SWMUs/AOCs that are not consolidated.

Table 2
Proposed Sampling at AOC 21-002(b)

Objective Addressed	Location Number	Location	Sample Depth (ft)	SVOCs	TAL Metals	Americium-241	Isotopic Plutonium
Lateral extent for americium-241, plutonium-239, and SVOCs	1	East of AOC, 10 ft east of 21-25693	0.0–0.5	X ^a	— ^b	X	X
Vertical extent for barium and selenium	2	East of AOC, deeper halfway between 21-25682 and 21-25690	7.0–8.0	—	X	—	—
Vertical extent for barium and selenium	3	Within AOC, deeper at 21-25696	7.0–8.0	—	X	—	—
Lateral extent for lead and zinc	4	Southwest of AOC, 10 ft south of 21-25687	0.0–0.5	—	X	—	—
Lateral extent for lead and zinc	5	West of AOC, 10 ft west of 21-25687	0.0–0.5	—	X	—	—
Lateral extent for plutonium-238	6	North of AOC, 10 ft north of 21-25685	0.0–0.5	—	—	—	X
Vertical extent for SVOCs	7	North perimeter of AOC, deeper at 21-25679	7.0–8.0	X	—	—	—
Lateral extent for plutonium-239 and selenium	8	North of AOC, 10 ft northeast of 21-25692	0.0–0.5	—	X	—	X
Lateral extent for selenium	9	Southeast of AOC, 10 ft east of 21-25689	0.0–0.5	—	X	—	—

^a X = Sampled.

^b — = Not sampled.

Table 3
Proposed Sampling at Consolidated Unit 21-003-99 and SWMU 21-024(c)

Objective Addressed	Location Number	Location	Sample Depth (ft)	SVOCs	VOCs	TAL Metals	Total Uranium	Nitrate	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Barium	Tritium
Vertical extent for aluminum, barium, and nickel	1	Outlet pipe, deeper at 21-25719	Dependent upon excavation depth	— ^a	—	X ^b	—	—	—	—	—	—	—
Vertical extent for americium-241, chromium, copper, lead, mercury, plutonium-239, and SVOCs	2	Septic tank, deeper at 21-25748	19.0–20.0	X	—	X	—	—	X	—	X	—	—
Vertical extent for arsenic, chromium, copper, lead, silver, uranium, and zinc	3	Outfall, deeper at 21-25763	Dependent upon excavation depth	—	—	X	X	—	—	—	—	—	—
Lateral extent for barium	4	Runoff area, 20 ft west of 21-25728	0.0–0.5	—	—	X	—	—	—	—	—	—	—
Lateral extent for cesium-137 and tritium	5	Outfall, 20 ft west of 21-25764	0.0–0.5	—	—	—	—	—	—	X	—	—	X
Lateral and vertical extent for cobalt	6	East of consolidated unit, 20 ft east of 21-25716	1.5–2.0 6.5–7.5	—	—	X X	—	—	—	—	—	—	—
Vertical extent for cobalt	7	East side of consolidated unit, deeper at 21-25716	6.5–7.5	—	—	X	—	—	—	—	—	—	—
Lateral extent for mercury, zinc, uranium, and isotopic uranium	8	Former structure 21-059, 20 ft north of 21-25708	0.0–0.5	— ^a	—	X ^b	X	—	—	—	—	X	—
Lateral extent for nitrate	9	Outfall, 20 ft west of 21-25761	0.0–0.5	—	—	—	—	X	—	—	—	—	—
Lateral extent for nitrate	10	Runoff area, 20 ft east of 21-25726	0.0–0.5	—	—	—	—	X	—	—	—	—	—

Table 3 (continued)

Objective Addressed	Location Number	Location	Sample Depth (ft)	TOTAL Metals	Nitrate	Total Uranium	American-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Uranium	Trinium
Vertical for trichloroethene	11	Under pipe, deeper at 21-25750	9.0–10.0	—	—	—	—	—	—	—	—
Lateral extent for zinc	12	North side of consolidated unit, 20 ft northeast of 21-25715	0.0–0.5	X	—	—	—	—	—	—	—

^a — = Not sampled.^b X = Sampled.

Table 4
Proposed Sampling at SWMU 21-009

Objective Addressed	Location Number	Location	Sample Depth (ft)	Nitrate	Americium-241	Isotopic Plutonium
Vertical extent for americium-241	1	Southeast perimeter of SWMU, deeper at 21-25643	7.0–8.0	— ^a	X ^b	—
Lateral extent for americium-241	2	East of SWMU, 10 ft southeast of 21-25641	0.0–0.5	—	X	—
Vertical extent for nitrate	3	Within SWMU, deeper at 21-25640	7.0–8.0	X	—	—
Lateral extent for plutonium-239 and nitrate	4	South of SWMU, 10 ft south of 21-25640	0.0–0.5 7.0–8.0	X X	— —	X —
Lateral extent for plutonium-239 and vertical extent nitrate	5	East of SWMU, 10 ft east of 21-25640	0.0–0.5 7.0–8.0	X X	— —	X —
Vertical extent for americium-241 and plutonium-239	6	Within SWMU, deeper at 21-25636	7.0–8.0	—	X	X

^a — = Not sampled.

^b X = Sampled.

Table 5
Proposed Sampling at SWMU 21-012(b)

Objective Addressed	Location Number	Location	Sample Depth (ft)	VOCs	Nitrate	Srtronium	TAL Metals	Isotopic Plutonium
Vertical extent for chromium	1	Under western outfall pipe, deeper at 21-25800	10.0–11.0	— ^a	—	—	X ^b	—
Lateral extent for chromium	2	Eastern blowdown pit 21-267, 10 ft east of 21-25816	4.0–5.0	—	—	—	X	—
Lateral extent for copper and zinc	3	West of blowdown pit 21-266, 10 ft west of 21-25808	4.5–5.5	—	—	—	X	—
Lateral extent for copper, lead, strontium, toluene, and zinc	4	Outfall, 20 ft downslope and halfway between 21-25786 and 21-25793	0.0–0.5 2.0–3.0 4.0–5.0	— X X	— — —	X — —	X — —	—
Vertical extent for copper, lead and plutonium-239	5	West side of the outfall, deeper at 21-25783	7.0–8.0	—	—	—	X	X
Vertical extent for nitrate	6	South of drywell, deeper at 21-25817	9.5–10.5	—	X	—	—	—
Vertical extent for plutonium-238 and strontium	7	Eastern outfall, deeper at 21-25797	10.0–11.0	—	—	X	—	X
Vertical extent for plutonium-238	8	Under eastern outfall pipe, deeper at 21-25804	9.0–10.0	—	—	—	—	X
Vertical extent for strontium	9	Outfall, deeper at 21-25810	10.0–11.0	—	—	X	—	—
Lateral extent for zinc	10	Outfall, 20 ft east of 21-25788	0.0–0.5	—	—	—	X	—

^a — = Not sampled.

^b X = Sampled.

Table 6
Proposed Sampling at SWMU 21-013(c)

Objective Addressed	Location Number	Location	Sample Depth (ft)	TAL Metals	Perchlorate	SVOCS	Americium-241	Isotopic Plutonium
Vertical extent for americium-241 and plutonium-239	1	Within SWMU, deeper at 21-25653	8.0–9.0	— ^a	—	—	X ^b	X
Lateral extent for americium-241 and SVOCS	2	Northwest corner of SWMU, northwest of 21-25666	0.0–0.5	—	—	X	X	—
Lateral extent for americium-241 and lateral and vertical extent for perchlorate	3	West of SWMU, southwest of 21-25664	0.0–0.5 8.0–9.0	— —	X X	— —	X —	—
Lateral extent for americium-241	4	North side of SWMU, 10 ft north and halfway between 21-25667 and 21-25668	0.0–0.5	—	—	—	X	—
Lateral extent for americium-241 and vertical extent for barium	5	Southwest corner of SWMU, southwest of 21-25663	0.0–0.5 8.0–9.0	— X	— —	— —	X —	—
Lateral extent for americium-241	6	East perimeter of SWMU, east of 21-25669	0.0–0.5	—	—	—	X	—
Lateral extent for plutonium-239 and SVOCS	7	West perimeter of SWMU, west of 21-25647	0.0–0.5	—	—	X	—	X
Vertical extent for selenium	8	Within SWMU, deeper at 21-25651	8.0–9.0	X	—	—	—	—
Vertical extent for perchlorate	9	West perimeter of SWMU, deeper at 21-25664	8.0–9.0	—	X	—	—	—
Lateral extent for selenium	10	West perimeter of SWMU, west of 21-25657 at fence line	0.0–0.5	X	—	—	—	—
Lateral extent for selenium	11	South perimeter of SWMU, southeast of 21-25661	0.0–0.5	X	—	—	—	—

^a — = Not sampled.

^b X = Sampled.

Table 7
Proposed Sampling at SWMU 21-024(a)

Objective Addressed	Location Number	Location	Sample Depth (ft)	VOCs	TAL Metals	Gamma Spectroscopy	Isotopic Plutonium
Vertical extent for aluminum, barium and chromium	1	Outfall, deeper at 21-27325	4.0–5.0	— ^a	X ^b	—	—
Vertical extent for chromium	2	Outfall, deeper at 21-27330	4.0–5.0	—	X	—	—
Vertical extent for cesium-137, copper, and plutonium-239	3	Outfall, deeper at 21-27322	4.0–5.0	—	X	X	X
Vertical extent for toluene and trichloroethene	4	Outfall, deeper at 21-27329	4.0–5.0	X	—	—	—

^a — = Not sampled.

^b X = Sampled.

Table 8
Proposed Sampling at SWMU 21-024(e)

Objective Addressed	Location Number	Location	Sample Depth (ft)	VOCs	TAL Metals	Gamma Spectroscopy
Vertical extent for lead	1	Under inlet pipe, deeper at 21-27265	11.25–12.25	— ^a	X ^b	—
Lateral extent for toluene	2	Outfall, 20 ft southeast of 21-27255	2.0–3.0 4.0–5.0	X X	— —	— —
Vertical extent for cesium-137	3	Outfall, deeper at 21-27250	4.0–5.0	—	—	X

^a — = Not sampled.

^b X = Sampled.

Table 9
Proposed Sampling at SWMU 21-024(g)

Objective Addressed	Location Number	Location	Sample Depth (ft)	SVOCs	TAL Metals	Americium-241	Plutonium-239	Gamma Spectroscopy
Lateral extent for americium-241, plutonium-239, and SVOCs	1	Downslope of the septic tank outfall, 20 ft north of 21-27598	0.0–0.5	X ^a	— ^b	X	X	—
Vertical extent for chromium	2	Storm drain, deeper at 21-27610	15.0–16.0	—	X	—	—	—
Vertical extent for chromium	3	Septic tank outfall, deeper at 21-27599	4.0–5.0	—	X	—	—	—
Vertical extent for chromium	4	Septic tank outfall; northeast corner, 20 ft northeast of 21-27599	2.0–2.5 4.0–5.0	— —	X X	— —	— —	— —
Lateral extent for chromium	5	Splash block, 20 ft downslope of 21-27618	0.0–0.5	—	X	—	—	—
Vertical extent for cesium-137 and lead	6	Under inlet pipe near building 21-31, deeper at 21-27614	9.0–10.0	—	X	—	—	X
Lateral extent for several SVOCs	7	North of 21-27606, across the road	5.0–6.0	X	—	—	—	—
Lateral extent for several SVOCs	8	East of storm drain outfall across road, 20 ft east of 21-27613	0.0–0.5	X	—	—	—	—
Vertical extent for plutonium-239	9	South of road, deeper at 21-27606	15.0–16.0	—	—	—	X	—
Lateral extent for plutonium-239 and americium-241	10	Storm drain outfall, 10 ft east of 21-27601	0.0–0.5	—	—	X	X	—

^a X = Sampled.

^b — = Not sampled.

Table 10
Proposed Sampling at Consolidated Unit 21-024(I)-99

Objective Addressed	Location Number	Location	Sample Depth (ft)	SVOCs	TAL Metals	Americium-241	Gamma Spectroscopy	Isotopic Plutonium
Vertical extent for americium-241, plutonium-239, and several SVOCs	1	Sump, deeper at 21-27514	25.0–26.0	X ^a	— ^b	X	—	X
Lateral extent for americium-241, cesium-137, and plutonium-239	2	Eastern outfall, 20 ft downslope of 21-27540	0.0–0.5 7.0–8.0	— —	— —	X —	— X	X —
Lateral and vertical extent for americium-241, cesium-137, isotopic plutonium, lead, mercury, and zinc	3	Western outfall, 20 ft north of 21-27517	0.0–0.5 7.0–8.0	— —	X X	X X	X X	X X
Vertical extent for americium-241, cesium-137, isotopic plutonium, lead, mercury, and zinc	4	Western outfall, deeper at 21-27517	7.0–8.0	—	X	X	X	X
Lateral extent for americium-241, isotopic plutonium, and selenium	5	Downslope of aboveground storage tank (AST) 21-335, 10 ft north of 21-27533	0.0–0.5	—	X	X	—	X
Lateral extent for americium-241, isotopic plutonium, and selenium	6	East of AST 21-335, 10 ft east of 21-27533	0.0–0.5	—	X	X	—	X
Vertical extent for cesium-137	7	East side of consolidated unit, deeper at 21-27540	7.0–8.0	—	—	—	X	—
Vertical extent for lead	8	Under pipe near former structure, deeper at 21-27522	12.0–13.0	—	X	—	—	—
Vertical extent for lead and zinc	9	Eastern outfall, deeper at 21-27539	10.0–11.0	—	X	—	—	—
Lateral extent for plutonium-238	10	Eastern outfall, 10 ft northeast of 21-27537	0.00–0.5	—	—	—	—	X
Vertical extent for zinc	11	Under AST pipe, deeper at 21-27521	9.5–10.5	—	X	—	—	—
Lateral extent for zinc	12	Near sump, 10 ft east of 21-27525	5.0–6.0 7.0–8.0	— —	X X	— —	— —	— —
Vertical extent for several SVOCs	13	Under pipe, deeper at 21-27530	10.0–11.0	X	—	—	—	—
Vertical extent for several SVOCs	14	Under pipe, deeper at 21-27547	7.5–8.5	X	—	—	—	—
Lateral extent for several SVOCs	15	East of former structure 21-021, 20 ft east of 21-27534	0.0–0.5 10.0–11.0	X X	— —	— —	— —	— —

Table 11
Proposed Sampling at SWMU 21-024(o)

Objective Addressed	Location Number	Location	Sample Depth (ft)	TAL Metals	Americium-241	Gamma Spectroscopy	Isotopic Plutonium
Lateral extent for americium-241	1	Outfall area, 10 ft east of 21-27350	0.0–0.5	—	X	—	—
Lateral extent for plutonium-239 and zinc	2	Outfall, 10 ft west of 21-27348	0.0–0.5	X	—	—	X

^a X = Sampled.

^b — = Not sampled.

Table 12
Proposed Sampling at Consolidated Unit 21-026(a)-99

Objective Addressed	Location Number	Location	Sample Depth (ft)	SVOCs	TAL Metals	Cyanide	Total Uranium	Americium-241	Isotopic Plutonium	Gamma Spectroscopy	Isotopic Uranium
Vertical extent for americium-241, isotopic plutonium, and silver	1	Outfall, deeper at 21-27575	4.0–5.0	— ^a	X ^b	—	—	X	—	X	—
Vertical extent for plutonium-239	2	Surface disposal area, deeper at 21-27560	7.0–8.0	—	—	—	—	—	—	X	—
Vertical extent cesium-137	3	Surface disposal area, deeper at 21-27561	7.0–8.0	—	—	—	—	—	X	—	—
Vertical extent for calcium	4	Sludge drying beds, deeper at 21-27553	10.0–11.0	—	X	—	—	—	—	—	—
Lateral extent for calcium	5	North of the sludge drying beds, 20 ft north of 21-27553	5.0–6.0 10.0–11.0	— —	X X	—	—	—	—	—	—
Lateral extent for cesium-137	6	Surface disposal area, 10 ft east of 21-27561	2.0–3.0 7.0–8.0	— —	—	—	—	—	X X	—	—
Lateral extent for cyanide, silver, uranium, isotopic uranium, and several SVOCs	7	Outfall, 20 ft north of 21-27579	0.0–0.5	X	X	X	X	—	—	—	X
Vertical extent for lead	8	Sludge drying beds, deeper at 21-27571	10.5–11.5	—	X	—	—	—	—	—	—
Vertical extent for several SVOCs	9	Within sludge drying beds, deeper at 21-27550	14.3–15.3	X	—	—	—	—	—	—	—

^a — = Not sampled.

^b X = Sampled.

Table 13
Proposed Sampling at SWMU 21-027(c)

Objective Addressed	Location Number	Location	Sample Depth (ft)	SVOCs	TAL Metals	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Strontium-90
Lateral extent for americium-241 and isotopic plutonium	1	Outfall, 20 ft southeast of 21-27409	0.0–0.5	— ^a	—	X ^b	—	X	—
Vertical extent for americium-241, cesium-137 and isotopic plutonium	2	Outfall, deeper in between 21-27402 and 21-27403	4.0–5.0	—	—	X	X	X	—
Lateral extent for lead	3	Outfall, 20 ft southeast of 21-27412 at edge	0.0–0.5	—	X	—	—	—	—
Vertical extent for lead	4	Outfall, deeper at location 21-27412	4.0–5.0	—	X	—	—	—	—
Lateral extent for strontium-90	5	Outfall, 20 ft southwest of 21-27410	0.0–0.5	—	—	—	—	—	X
Vertical extent for several SVOCs	6	Outfall, deeper at 21-27401	4.0–5.0	X	—	—	—	—	—

^a — = Not sampled.

^b X = Sampled.

Table 14
Proposed Sampling at Consolidated Unit 21-006(c)-99

Objective Addressed	Location Number	Location	Sample Depth (ft)	Tritium	Strontium-90	Isotopic Uranium	Isotopic Plutonium	Gamma Spectroscopy	Americium-241	VOCs	Nitrate	TAL Metals
Vertical extent for americium-241	1	Under pipe, deeper at 21-601211	8.0–9.0	— ^a	—	—	—	—	X	—	—	—
Vertical extent for americium-241, isotopic plutonium, and tritium	2	Under inlet pipe, deeper at 21-601213	18.0–19.0 23.0–24.0	—	—	—	—	X X	—	X X	—	—
Lateral extent for nitrate and cesium-137	3	Outfall, 20 ft west of 21-600388	0.0–0.5	X	—	—	—	—	X	—	—	—
Lateral extent for nitrate	4	Outfall, 20 ft southwest of 21-600390	0.0–0.5	X	—	—	—	—	—	—	—	—
Lateral extent for isotopic plutonium and uranium-238 (for SWMU 21-027a)	5	Outfall, 20 ft southeast of 21-600392	0.0–0.5	—	—	—	—	—	X	X	—	—
Lateral extent for americium-241, cesium-137, isotopic plutonium, strontium-90, tritium, and isotopic uranium	6	Seepage pit 21-006(a), 10 ft south of 21-601199	3.0–4.0 8.0–9.0	—	—	—	X X	X X	X X	X X	X X	X X
Lateral extent for copper, isotopic plutonium, tritium, and isotopic uranium	7	Seepage pit 21-006(c), 10 ft south of 21-601200	3.0–4.0 8.0–9.0	—	X X	—	—	—	X X	X X	—	X X
Lateral extent for isotopic plutonium and isotopic uranium	8	Seepage pit 21-006(d), 10 ft north of 21-601201	3.0–4.0 8.0–9.0	—	—	—	—	—	X X	X X	—	—
Vertical extent for VOCs	9	Outfall, deeper at 21-600391	2.0–3.0	—	—	X	—	—	—	—	—	—

^a — = Not sampled.

^b X = Sampled.

Table 15
Proposed Sampling at SWMU 21-022(f)

Objective Addressed	Location Number	Location	Sample Depth (ft)	TAL Metals	Isotopic Uranium	Tritium
Vertical extent for lead, selenium, and tritium	1	Under pipe, deeper at 21-603145	13.5–14.5	X ^a	— ^b	X
Vertical extent for uranium-235	2	North of manhole 21-221, deeper at 21-603142	15.5–16.5	—	X	—

^a X = Sampled.^b — = Not sampled.

Table 16
Proposed Sampling at Consolidated Unit 21-022(h)-99

Objective Addressed	Location Number	Location	Sample Depth (ft)	Tritium	Sr-90	Isotope Plutonium	Gamma Spectroscopy
Vertical extent for barium	1	Outfall, deeper at location 21-600240	4.0–5.0	X ^a	—	—	—
Lateral and vertical extent for barium and lateral extent for molybdenum	2	Outfall, 20 ft west of 21-600238 and 21-600240	0.0–0.5 2.0–3.0 4.0–5.0	— X X	X — —	— — —	— — —
Lateral extent for molybdenum, nitrate, and perchlorate	3	Outfall, 20 ft west of 21-600232	0.0–0.5	—	X	X	—
Inorganic and radionuclide lateral extent at SWMU 21-022(j)	4	Former sump location, 10 ft south of 21-601063	14.0–15.0 19.0–20.0	X X	— —	— —	X X

^a X = Sampled.

^b — = Not sampled.

Table 17
Proposed Sampling at Consolidated Unit 21-023(a)-99

Objective Addressed	Location Number	Location	Sample Depth (ft)	SVOCs	Americium-241	Isotopic Plutonium
Vertical extent for americium-241	1	Under pipe, deeper at 21-603015	10.5–11.5	— ^a	X ^b	—
Vertical extent for americium-241, plutonium-238, and plutonium-239	2	Near septic tank 21-225, deeper in between 21-601116 and 21-601129	21.0–22.0	—	X	X
Vertical extent for plutonium-239	3	Under septic tank 21-142, deeper at 21-601130	19.0–20.0	—	—	X
Vertical extent for plutonium-239	4	Under pipe connected to septic tank 21-225, deeper at 21-601120	9.0–10.0	—	—	X
Vertical extent for several SVOCs and plutonium-239	5	Under pipe connected to septic tank 21-187, deeper at 21-601114	9.0–10.0	X	—	X

^a — = Not sampled.

^b X = Sampled.

Table 18
Proposed Sampling at SWMU 21-024(b)

Objective Addressed	Location Number	Location	Sample Depth (ft)	Nitrate	Strontium
Lateral extent for nitrate	1	Outfall, 20 ft west of 21-600504	0.0–0.5	X*	X

*X = Sampled.

Table 19
Proposed Sampling at SWMU 21-024(d)

Objective Addressed	Location Number	Location	Sample Depth (ft)	—	VOCs	SVOCs	PCBs	TAL Metals	Cyanide	Nitrate	Total Uranium	Isotopic Plutonium	Isotopic Uranium	Strontium-90	Tritium
Vertical extent for americium-241, copper, lead, selenium, several SVOCs, and tritium	1	Center of septic tank 21-106, deeper at 19-601285	25.0–26.0	—	X ^a	—	—	X	X	X	X	—	X	—	X
Lateral extent for americium-241, isotopic plutonium, isotopic uranium, tritium cadmium, chromium, copper, cyanide, lead, mercury, nitrate, silver, uranium, zinc, toluene, and trichloroethene	2	Outfall, 20 ft west of 21-27372	0.0–0.5 2.0–2.5 4.0–5.0	— X X	— — —	— — —	—	X	X	X	X	X	X	—	X
Vertical extent for lead and strontium-90	3	Outfall, deeper at location 21-27366	4.0–5.0	—	—	—	X	—	—	—	—	—	—	X	—
Vertical extent for plutonium-239	4	Under inlet pipe, deeper at location 21-601283	9.0–10.0	—	—	—	—	—	—	—	—	—	X	—	—
Vertical extent for several SVOCs	5	Under inlet pipe, deeper at 21-601281	9.0–10.0	—	X	—	—	—	—	—	—	—	—	—	—
Vertical extent for PCBs	6	Outfall, deeper at 21-27365	4.0–5.0	—	—	X	—	—	—	—	—	—	—	—	—

^a — = Not sampled.

^b X = Sampled.

Table 20
Proposed Sampling at SWMU 21-024(h)

Objective Addressed	Location Number	Location	Sample Depth (ft)	SVOCs	TAL Metals	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Tritium
Vertical extent for americium-241, plutonium-239, several SVOCs, and tritium	1	Outfall, deeper at 21-600080	4.0–5.0	X ^a	— ^b	X	—	X	X
Vertical extent for americium-241, cesium-137 (at location 21-600079), and lead	2	Outfall, deeper at 21-600078	4.0–5.0	—	X	X	X	—	—
Vertical extent for mercury and selenium	3	Under western inlet pipe, deeper at 21-601098	10.0–11.0	—	X	—	—	—	—
Lateral extent for americium-241, plutonium-239, several SVOCs, and vertical extent for tritium	4	Outfall, 20 ft northwest of 21-600080	2.0–3.0 4.0–5.0	X —	—	X —	—	X —	X X
Lateral extent for plutonium-239	5	Outfall, 20 ft west of 21-600080	0.0–0.5	—	—	—	—	X	—
Lateral extent for plutonium-239	6	Outfall, 20 ft northeast of 21-600085	0.0–0.5	—	—	—	—	X	—
Lateral and vertical extent for plutonium-239	7	Outfall, 20 ft north of 21-600084	0.0–0.5 4.0–5.0	— —	— —	— —	— —	X X	—
Vertical extent for plutonium-239	8	Outfall, deeper at 21-600084	4.0–5.0	—	—	—	—	X	—

^a X = Sampled.^b — = Not sampled.

Table 21
Proposed Sampling at SWMU 21-024(i)

Objective Addressed	Location Number	Location	Sample Depth (ft)	TAL Metals	Tritium
Vertical extent for calcium, selenium, and tritium	1	Under pipe, deeper at 21-603025	14.5–15.5	X ^a	X
Vertical extent for tritium	2	Under pipe, deeper at 21-603022	19.0–20.0	— ^b	X

^a X = Sampled.^b — = Not sampled.

Table 22
Proposed Sampling at SWMU 21-024(j)

Objective Addressed	Location Number	Location	Sample Depth (ft)	TAL Metals
Vertical extent for lead and zinc	1	Under inlet pipe, deeper between 21-601297 and 21-601299	10.0–11.0	X*

*X = Sampled.

Table 23
Proposed Sampling at SWMU 21-024(k)

Objective Addressed	Location Number	Location	Sample Depth (ft)	SVOCs	TAL Metals	Strontium
Vertical extent for barium, nickel, and strontium	1	Western outfall, deeper at 21-600859	10.0–11.0	— ^a	X ^b	X
Vertical extent for several SVOCs	2	Center of septic tank 21-219, deeper at 21-603054	25.0–26.0	X	—	—
Vertical extent for several SVOCs	3	Connection of septic tank 21-219 to drain field, deeper at 21-603042	12.5–13.5	X	—	—
Vertical extent for several SVOCs	4	Under pipe, deeper at 21-603038	13.5–14.5	X	—	—

^a — = Not sampled.^b X = Sampled.

Table 24
Proposed Sampling at SWMU 21-024(n)

Objective Addressed	Location Number	Location	Sample Depth (ft)	VOCs	SVOCS	TAL Metals	Americium-241	Isotopic Plutonium	Isotopic Uranium
Lateral extent for americium-241 and plutonium-239	1	Eastern culvert outfall, 20 ft northeast (downslope) of 21-600674	0.0–0.5	— ^a	—	—	X ^b	X	—
Vertical extent for chromium	2	Western culvert outfall, deeper at 21-600682	7.0–8.0	—	—	X	—	—	—
Vertical extent for chromium, uranium-234 and uranium-235	3	Eastern culvert outfall, deeper at 21-600695	7.0–8.0	—	—	X	—	—	X
Lateral extent for americium-241, chromium, copper, lead, zinc, uranium-234 and uranium-235	4	Western culvert outfall, 20 ft north (downslope) of 21-600682	0.0–0.5 4.0–5.0	— —	— —	X X	X X	— —	X X
Vertical extent for copper, lead, and several SVOCS	5	Entrance to western culvert outfall, deeper at location 21-600684	7.0–8.0	—	X	X	—	—	—
Lateral extent for plutonium-239	6	Western culvert outfall, 20 ft northeast (downslope) of 21-600683	0.0–0.05	—	—	—	—	X	—
Vertical extent for plutonium-239 and toluene	7	Eastern culvert outfall, deeper at 21-600669	7.0–8.0	X	—	—	—	X	—
Vertical extent for zinc	8	Eastern pipe, deeper at 21-601305	10.0–11.0	—	—	X	—	—	—
Lateral extent for zinc	9	Western pipe outfall, 20 ft downslope of 21-600717	0.0–0.5	—	—	X	—	—	—
Vertical extent for several SVOCS	10	Western pipe outfall, deeper at 21-600735	7.0–8.0	—	X	—	—	—	—
Vertical extent for several SVOCS	11	Eastern pipe outfall, deeper at 21-600689	7.0–8.0	—	X	—	—	—	—
Lateral extent for several SVOCS	12	Western outfall, 20 ft northwest of 21-600716	7.0–8.0	—	X	—	—	—	—
Vertical extent for lead	13	Under middle pipe, deeper at 21-601312	11.0–12.0	—	—	X	—	—	—

^a — = Not sampled.

^b X = Sampled.

Table 25
Proposed Sampling at SWMU 21-027(a)

Objective Addressed	Location Number	Location	Sample Depth (ft)	VOCs	Dioxin/Furans	TAL Metals	Americium-241	Isotopic Plutonium	Isotopic Uranium	Tritium
Vertical extent for americium-241, isotopic plutonium, tetrachloroethene, and zinc	1	Under inlet pipe, deeper at 21-601227	8.5–9.5	X ^a	—	—	X	—	—	—
Vertical extent for americium-241 and plutonium-239	2	Under inlet pipe, deeper at 21-601224	8.0–9.0	—	—	—	X	X	—	—
Lateral extent for chromium, copper, lead, mercury, and zinc, SVOCs, americium-241, isotopic plutonium, uranium-234 and uranium-235	3	Outfall, 20 ft west of 21-600863	0.0–0.5	—	X	—	X	X	X	—
Lateral extent for chromium	4	Outfall, 20 ft east of 21-600868	0.0–0.5	—	—	—	X	—	—	—
Vertical extent for dioxin/furans	5	Pipe discharge into the ponding area, deeper at 21-601229	11.0–12.0	—	—	X	—	—	—	—
Lateral extent for uranium-238 [sampled as part of Consolidated Unit 21-006(c)-99]	5 ^c	Outfall, 20 ft southwest of 21-600866	18.0–19.0	—	—	—	—	—	X	—
Vertical extent for tritium	6	Under pipe, deeper at 21-601226	9.5–10.5	—	—	—	—	—	—	X

^a X = Sampled.^b — = Not sampled.^c Sampled as part of Consolidated Unit 21-006(c)-99.

Table 26
PCB Remediation at Consolidated Unit 21-003-99 and SWMU 21-024(c)

Actions	Work Description
1. Lateral and vertical extent samples will be collected for PCB analyses to define the areas to be excavated.	<p>Figure 26 and Table 27 present the proposed PCB sampling locations to define the areas to be excavated. Samples will be collected following the processes and procedures described in the "Investigation Work Plan for Delta Prime Site Aggregate Area at Technical Area 21," approved by NMED (with modifications) on April 11, 2005.</p> <p>After review of pre-excavation sampling PCB results, additional sampling may be necessary to define the excavation areas. If necessary, step-out samples will be collected laterally at 10-ft intervals and vertically at 1-ft intervals.</p>
2. Environmental media containing total PCBs at concentrations greater than the 1-mg/kg cleanup level will be excavated.	<p>Figure 26 presents the areas to be excavated at Consolidated Unit 21-003-99 and SWMU 21-024(c) based on existing characterization data.</p> <ul style="list-style-type: none"> • Areas 1 and 7 will be excavated to a depth of 1.5 ft; • Areas 2 and 4 will be excavated to a minimum depth of 2.0 ft (deeper samples at locations 9 and 18 will be collected to determine if the total excavation depth needs to be deeper in these areas); • Areas 3 and 5 will be excavated to a depth of 0.5 ft; • Area 6 will be excavated to a depth 10 ft (6 ft below base of former septic tank 21-056); and • Area 8 will be excavated to a minimum depth of 5.5 ft (deeper samples at locations 27 and 30 will be collected to determine if the total excavation depth needs to be deeper in this area). <p>These excavation areas may change depending on the PCB results from the extent sampling (Table 27).</p>
3. Confirmatory samples will be collected to verify that total PCBs concentrations greater than the 1-ppm cleanup level have been removed.	<p>Quick-turn analysis will be utilized to guide excavations in the field. PCB data will be compared to the cleanup level of 1 mg/kg to determine if the cleanup goal was met. Confirmation samples will be collected on a 25-ft grid pattern 0 to 0.5 ft below the base of the excavation (Figure 27). Sidewall samples will be collected every 25 ft along each of the excavation area perimeter walls.</p>

Table 27
Proposed Pre-excavation PCB Sampling at
Consolidated Unit 21-003-99 and SWMU 21-024(c)

Objective Addressed	Location Number	Sample Depth (ft)
Lateral and vertical extent of PCBs between Area 1 and Area 2	1	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 1	2	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 1	3	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 1	4	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 2	5	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 2	6	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 2	7	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 2	8	0.0–0.5 0.5–1.0 1.5–2.0
Vertical extent of PCBs at Area 2	9	3.0–3.5
Lateral and vertical extent of PCBs at Area 3	10	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 3	11	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 3	12	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 3	13	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 3	14	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 3	15	0.0–0.5 0.5–1.0 1.5–2.0

Table 27 (continued)

Objective Addressed	Location Number	Sample Depth (ft)
Lateral and vertical extent of PCBs at Area 4	16	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 4	17	0.0–0.5 0.5–1.0 1.5–2.0
Vertical extent of PCBs at Area 4	18	3.0–3.5
Lateral and vertical extent of PCBs at Area 4	19	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 5	20	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 5	21	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 5	22	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 5	23	0.0–0.5 0.5–1.0 1.5–2.0
Lateral and vertical extent of PCBs at Area 7	24	0.0–0.5 1.5–2.0
Lateral and vertical extent of PCBs at Area 7	25	0.0–0.5 1.5–2.0
Lateral and vertical extent of PCBs at Area 8	26	0.0–0.5 1.5–2.0
Vertical extent of PCBs at Area 8	27	6.5–7.0
Lateral and vertical extent of PCBs at Area 8	28	0.0–0.5 1.5–2.0
Lateral and vertical extent of PCBs at Area 8	29	0.0–0.5 1.5–2.0
Vertical extent of PCBs at Area 8	30	3.0–3.5
Lateral and vertical extent of PCBs at Area 8	31	0.0–0.5 1.5–2.0 3.0–3.5

Appendix A

Crosswalk Table and COPC Figures

Crosswalk Table

EarthVision Figure	Data Figure in Investigation Report
Americium-241 at AOC 21-002(b)	Figure 6.3-3
Barium at AOC 21-002(b)	Figure 6.3-1
Lead at AOC 21-002(b)	Figure 6.3-1
Plutonium-238 at AOC 21-002(b)	Figure 6.3-3
Plutonium-239 at AOC 21-002(b)	Figure 6.3-3
Selenium at AOC 21-002(b)	Figure 6.3-1
Zinc at AOC 21-002(b)	Figure 6.3-1
Aluminum at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Americium-241 at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 3 and Figure 6.3-15
Arsenic at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Barium at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Cesium-137 at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 3 and Figure 6.3-15
Chromium at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Cobalt at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Copper at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Lead at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Mercury at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Nickel at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Nitrate at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Plutonium-239 at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 3 and Figure 6.3-15
Silver at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Trichloroethene at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 2 and Figure 6.3-14
Tritium at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 3 and Figure 6.3-15
Uranium-234 at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 3 and Figure 6.3-15
Uranium-235 at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 3 and Figure 6.3-15
Uranium-238 at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 3 and Figure 6.3-15
Uranium at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Zinc at Consolidated Unit 21-003-99 and SWMU 21-024(c)	Plate 1 and Figure 6.3-13
Americium-241 at Consolidated Unit 21-006(c)-99	Figure 6.5-3
Cesium-137 at Consolidated Unit 21-006(c)-99	Figure 6.5-3
Copper at Consolidated Unit 21-006(c)-99	Figure 6.5-1
Nitrate at Consolidated Unit 21-006(c)-99	Figure 6.5-1
Plutonium-238 at Consolidated Unit 21-006(c)-99	Figure 6.5-3
Plutonium-239 at Consolidated Unit 21-006(c)-99	Figure 6.5-3
Strontium-90 at Consolidated Unit 21-006(c)-99	Figure 6.5-3
Tritium at SWMU 21- Consolidated Unit 21 (c)-99	Figure 6.5-3
Americium-241 at SWMU 21-009	Figure 6.3-6
Nitrate at SWMU 21-009	Figure 6.3-4
Plutonium-241 at SWMU 21-009	Figure 6.3-6

EarthVision Figure	Data Figure in Investigation Report
Chromium at SWMU 21-012(b)	Plates 4 and 5
Copper at SWMU 21-012(b)	Plates 4 and 5
Lead at SWMU 21-012(b)	Plates 4 and 5
Nitrate at SWMU 21-012(b)	Plates 4 and 5
Plutonium-238 at SWMU 21-012(b)	Figure 6.4-2
Plutonium-239 at SWMU 21-012(b)	Figure 6.4-2
Strontium at SWMU 21-012(b)	Plates 4 and 5
Toluene at SWMU 21-012(b)	Figure 6.4-1
Zinc at SWMU 21-012(b)	Plates 4 and 5
Americium-241 at SWMU 21-013(c)	Figures 6.3-11 and 12
Barium at SWMU 21-013(c)	Figures 6.3-7 and 8
Perchlorate at SWMU 21-013(c)	Figures 6.3-7 and 8
Plutonium-239 at SWMU 21-013(c)	Figures 6.3-11 and 12
Selenium at SWMU 21-013(c)	Figures 6.3-7 and 8
Lead at SWMU 21-022(f)	Figure 6.5-4
Selenium at SWMU 21-022(f)	Figure 6.5-4
Tritium at SWMU 21-022(f)	Figure 6.5-6
Uranium-235 at SWMU 21-022(f)	Figure 6.5-6
Barium at Consolidated Unit 21-022(h)-99	Figure 6.5-7
Molybdenum at Consolidated Unit 21-022(h)-99	Figure 6.5-7
Nitrate at Consolidated Unit 21-022(h)-99	Figure 6.5-7
Perchlorate at Consolidated Unit 21-022(h)-99	Figure 6.5-7
Americium-241 at Consolidated Unit 21-023(a)-99	Figure 6.5-12
Plutonium-238 at Consolidated Unit 21-023(a)-99	Figure 6.5-12
Plutonium-239 at Consolidated Unit 21-023(a)-99	Figure 6.5-12
Aluminum at SWMU 21-024(a)	Figure 6.4-3
Barium at SWMU 21-024(a)	Figure 6.4-3
Cesium-137 at SWMU 21-024(a)	Figure 6.4-5
Copper at SWMU 21-024(a)	Figure 6.4-3
Chromium at SWMU 21-024(a)	Figure 6.4-3
Plutonium-239 at SWMU 21-024(a)	Figure 6.4-5
Toluene at SWMU 21-024(a)	Figure 6.4-4
Trichloroethene at SWMU 21-024(a)	Figure 6.4-4
Nitrate at SWMU 21-024(b)	Figure 6.5-13
Americium-241 at SWMU 21-024(d)	Figure 6.5-18
Cadmium at SWMU 21-024(d)	Figure 6.5-16
Copper at SWMU 21-024(d)	Figure 6.5-16
Chromium at SWMU 21-024(d)	Figure 6.5-16
Cyanide at SWMU 21-024(d)	Figure 6.5-16
Lead at SWMU 21-024(d)	Figure 6.5-16

EarthVision Figure	Data Figure in Investigation Report
Mercury at SWMU 21-024(d)	Figure 6.5-16
Nitrate at SWMU 21-024(d)	Figure 6.5-16
Plutonium-238 at SWMU 21-024(d)	Figure 6.5-18
Plutonium-239 at SWMU 21-024(d)	Figure 6.5-18
Selenium at SWMU 21-024(d)	Figure 6.5-16
Silver at SWMU 21-024(d)	Figure 6.5-16
Strontium-90 at SWMU 21-024(d)	Figure 6.5-18
Toluene at SWMU 21-024(d)	Figure 6.5-17
Trichloroethene at SWMU 21-024(d)	Figure 6.5-17
Tritium at SWMU 21-024(d)	Figure 6.5-18
Uranium-234 at SWMU 21-024(d)	Figure 6.5-18
Uranium-235 at SWMU 21-024(d)	Figure 6.5-18
Uranium-238 at SWMU 21-024(d)	Figure 6.5-18
Uranium at SWMU 21-024(d)	Figure 6.5-16
Zinc at SWMU 21-024(d)	Figure 6.5-16
Cesium-137 at SWMU 21-024(e)	Figure 6.4.8
Lead at SWMU 21-024(e)	Figure 6.4-6
Toluene at SWMU 21-024(e)	Figure 6.4-7
Americium-241 at SWMU 21-024(g)	Figure 6.4-11
Cesium-137 at SWMU 21-024(g)	Figure 6.4-11
Chromium at SWMU 21-024(g)	Figure 6.4-9
Lead at SWMU 21-024(g)	Figure 6.4-9
Plutonium-239 at SWMU 21-024(g)	Figure 6.4-11
Americium-241 at SWMU 21-024(h)	Figure 6.5-21
Cesium-137 at SWMU 21-024(h)	Figure 6.5-21
Lead at SWMU 21-024(h)	Figure 6.5-19
Mercury at SWMU 21-024(h)	Figure 6.5-19
Plutonium-239 at SWMU 21-024(h)	Figure 6.5-21
Selenium at SWMU 21-024(h)	Figure 6.5-19
Tritium at SWMU 21-024(h)	Figure 6.5-21
Calcium at SWMU 21-024(i)	Figure 6.5-22
Selenium at SWMU 21-024(i)	Figure 6.5-22
Tritium at SWMU 21-024(i)	Figure 6.5-22
Lead at SWMU 21-024(j)	Figure 6.5-23
Zinc at SWMU 21-024(j)	Figure 6.5-23
Barium at SWMU 21-024(k)	Plate 7
Nickel at SWMU 21-024(k)	Plate 7
Strontium at SWMU 21-024(k)	Plate 7
Americium-241 at Consolidated Unit 21-024(l)-99	Figure 6.4-13
Cesium-137 at Consolidated Unit 21-024(l)-99	Figure 6.4-13

EarthVision Figure	Data Figure in Investigation Report
Lead at Consolidated Unit 21-024(l)-99	Figure 6.4-12
Mercury at Consolidated Unit 21-024(l)-99	Figure 6.4-12
Plutonium-238 at Consolidated Unit 21-024(l)-99	Figure 6.4-13
Plutonium-239 at Consolidated Unit 21-024(l)-99	Figure 6.4-13
Selenium at Consolidated Unit 21-024(l)-99	Figure 6.4-12
Zinc at Consolidated Unit 21-024(l)-99	Figure 6.4-12
Americium-241 at SWMU 21-024(n)	Plate 12
Chromium at SWMU 21-024(n)	Plate 10
Copper at SWMU 21-024(n)	Plate 10
Lead at SWMU 21-024(n)	Plate 10
Plutonium-239 at SWMU 21-024(n)	Plate 12
Toluene at SWMU 21-024(n)	Plate 11
Uranium-234 at SWMU 21-024(n)	Plate 12
Uranium-235 at SWMU 21-024(n)	Plate 12
Zinc at SWMU 21-024(n)	Plate 10
Americium-241 at SWMU 21-024(o)	Figure 6.4-16
Plutonium-239 at SWMU 21-024(o)	Figure 6.4-16
Zinc at SWMU 21-024(o)	Figure 6.4-14
Americium-241 at Consolidated Unit 21-026(a)-99	Figure 6.4-19
Calcium at Consolidated Unit 21-026(a)-99	Figure 6.4-17
Cesium-137 at Consolidated Unit 21-026(a)-99	Figure 6.4-19
Cyanide at Consolidated Unit 21-026(a)-99	Figure 6.4-17
Lead at Consolidated Unit 21-026(a)-99	Figure 6.4-17
Plutonium-238 at Consolidated Unit 21-026(a)-99	Figure 6.4-19
Plutonium-239 at Consolidated Unit 21-026(a)-99	Figure 6.4-19
Silver at Consolidated Unit 21-026(a)-99	Figure 6.4-17
Uranium-234 at Consolidated Unit 21-026(a)-99	Figure 6.4-19
Uranium-235 at Consolidated Unit 21-026(a)-99	Figure 6.4-19
Uranium-238 at Consolidated Unit 21-026(a)-99	Figure 6.4-19
Total uranium at Consolidated Unit 21-026(a)-99	Figure 6.4-17
Americium-241 at SWMU 21-027(a)	Figure 6.5-28
Chromium at SWMU 21-027(a)	Figure 6.5-26
Copper at SWMU 21-027(a)	Figure 6.5-26
Lead at SWMU 21-027(a)	Figure 6.5-26
Mercury at SWMU 21-027(a)	Figure 6.5-26
Plutonium-238 at SWMU 21-027(a)	Figure 6.5-28
Plutonium-239 at SWMU 21-027(a)	Figure 6.5-28
Tetrachloroethene at SWMU 21-027(a)	Figure 6.5-27
Tritium at SWMU 21-027(a)	Figure 6.5-28
Uranium-234 at SWMU 21-027(a)	Figure 6.5-28

EarthVision Figure	Data Figure in Investigation Report
Uranium-235 at SWMU 21-027(a)	Figure 6.5-28
Uranium-238 at SWMU 21-027(a)	Figure 6.5-28
Zinc at SWMU 21-027(a)	Figure 6.5-26
Americium-241 at SWMU 21-027(c)	Figure 6.4-22
Cesium-137 at SWMU 21-027(c)	Figure 6.4-22
Lead at SWMU 21-027(c)	Figure 6.4-20
Plutonium-238 at SWMU 21-027(c)	Figure 6.4-22
Plutonium-239 at SWMU 21-027(c)	Figure 6.4-22
Strontium-90 at SWMU 21-027(c)	Figure 6.4-22

AOC 21-002(b) Americium-241

■ > 0.1
 ■ 0.05 (FV Tuff)
 ■ 0.013 (FV Soil)
 ■ 0 - 0.013

■ AOC, Consolidated Unit, or SWMU boundary
 ■ Structure

All units are pCi/g

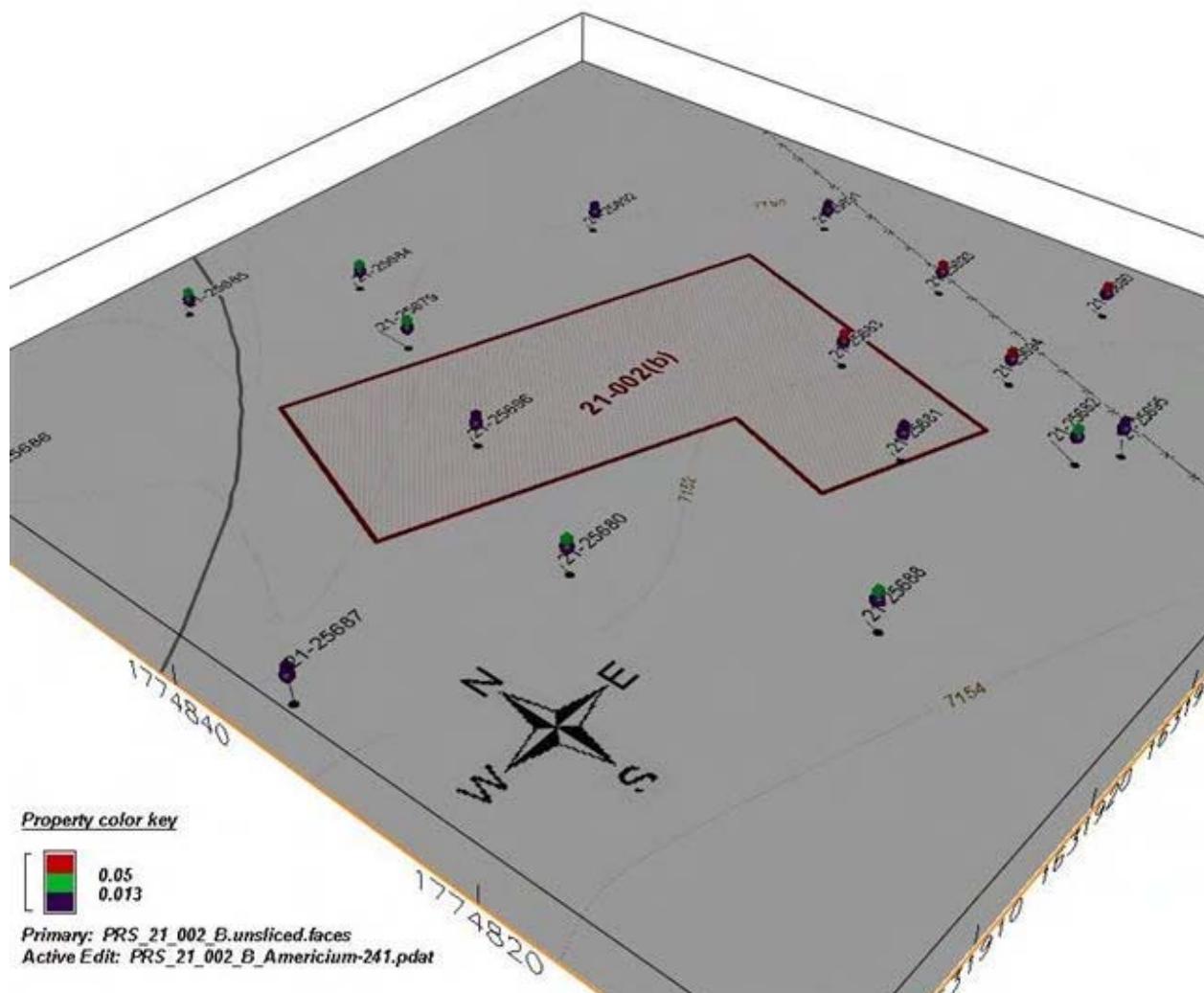
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (GBT3) sampling point

● 21-25783 Sampling location with designation label.

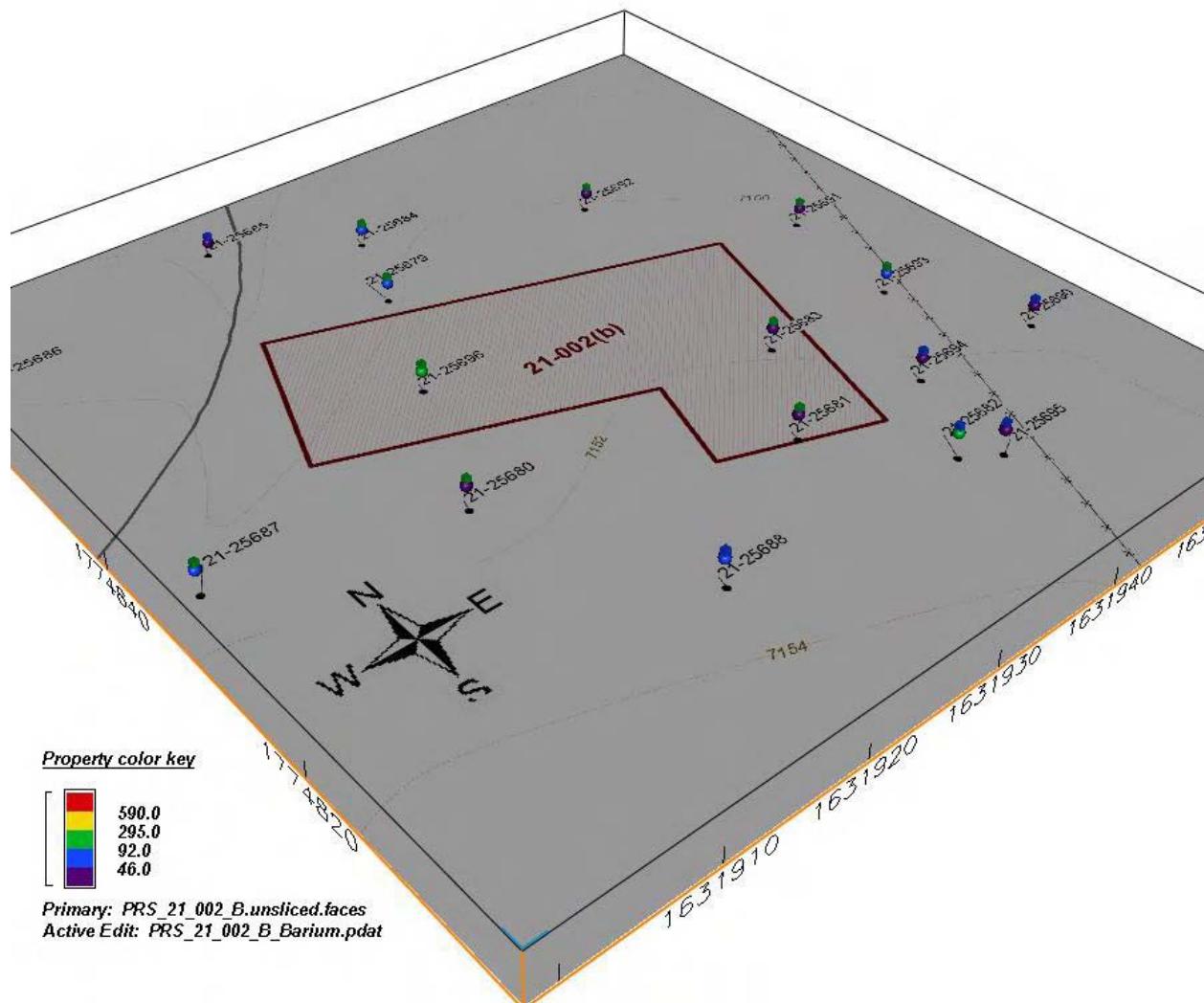
Cartography: Dave Frank

Date: 7 July 2008

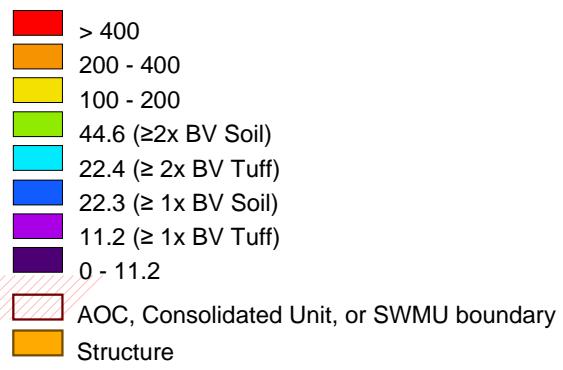


AOC 21-002(b) Barium

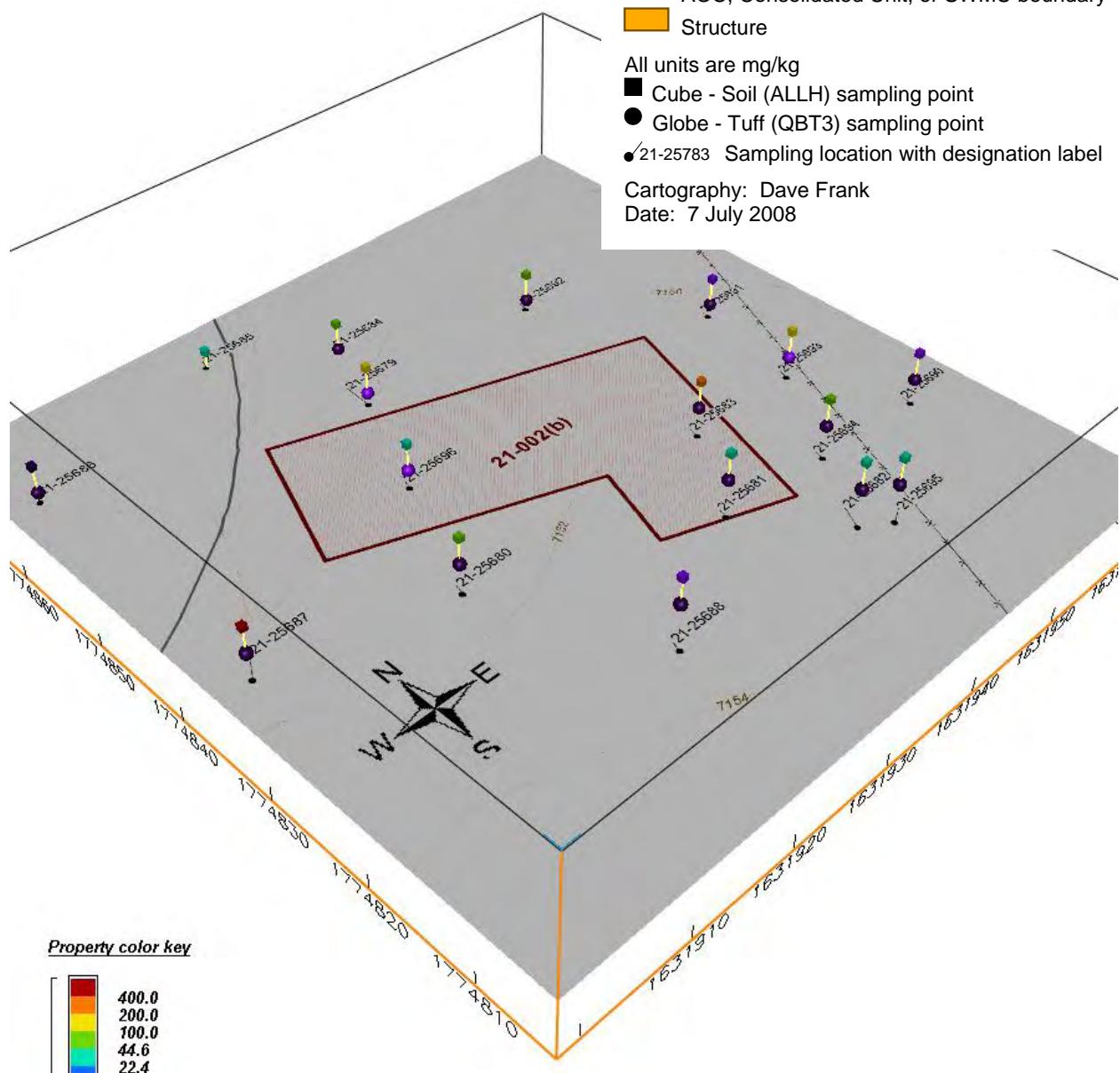
■ 590 ($\geq 2x$ BV Soil)
 ■ 295 ($\geq 1x$ BV Soil)
 ■ 92 ($\geq 2x$ BV Tuff)
 ■ 46 ($\geq 1x$ BV Tuff)
 ■ 0 - 46
 ■ AOC, Consolidated Unit, or SWMU boundary
 ■ Structure
 All units are mg/kg
 ■ Cube - Soil (ALLH) sampling point
 ● Globe - Tuff (QBT3) sampling point
 ● 21-25783 Sampling location with designation label.
 Cartography: Dave Frank
 Date: 7 July 2008



AOC 21-002(b) Lead



All units are mg/kg
 ■ Cube - Soil (ALLH) sampling point
 ● Globe - Tuff (QBT3) sampling point
 • 21-25683 Sampling location with designation label
 Cartography: Dave Frank
 Date: 7 July 2008

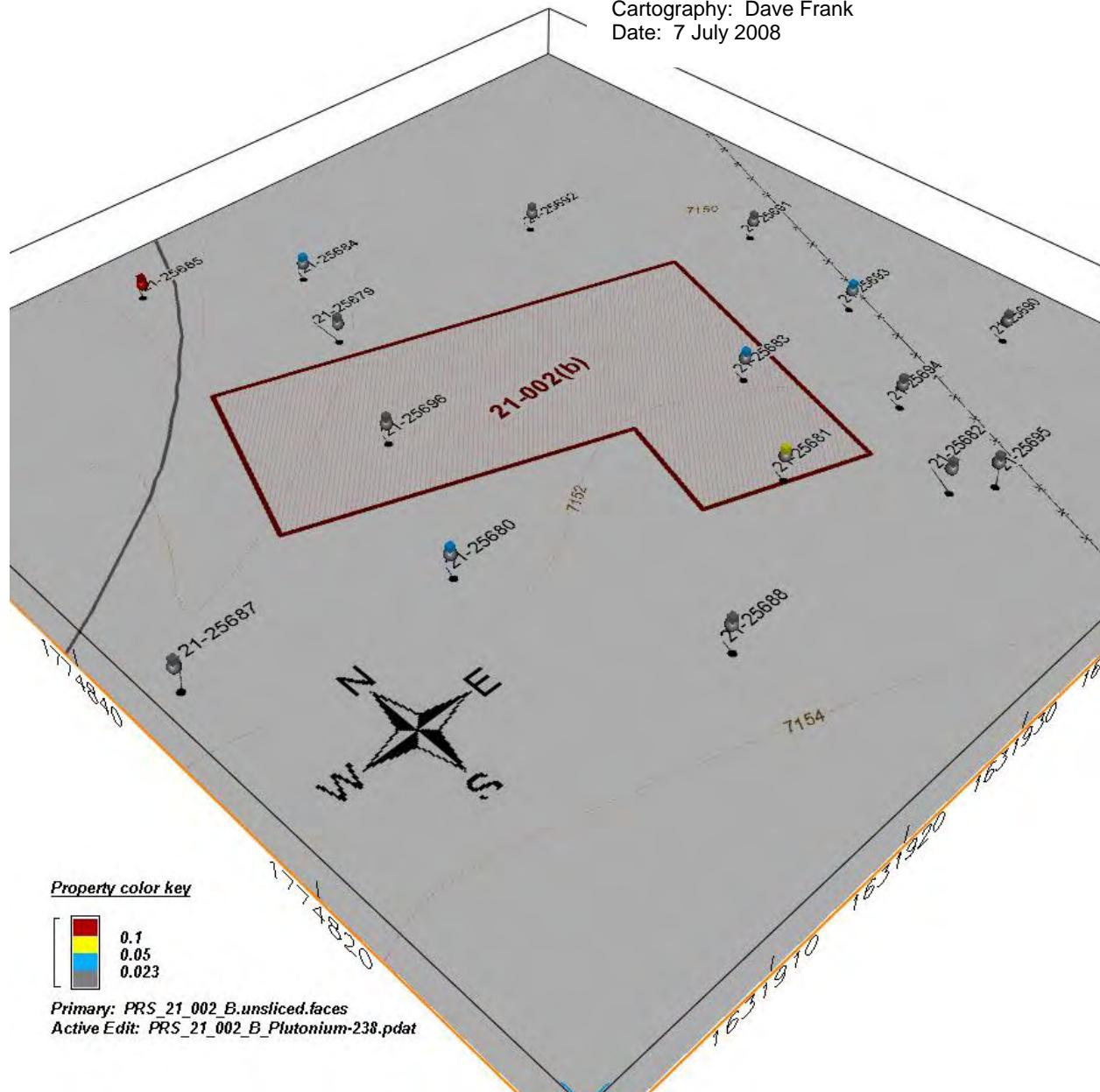


Primary: PRS_21_002_B.unsliced.faces
 Active Edit: PRS_21_002_B_Lead.pdat

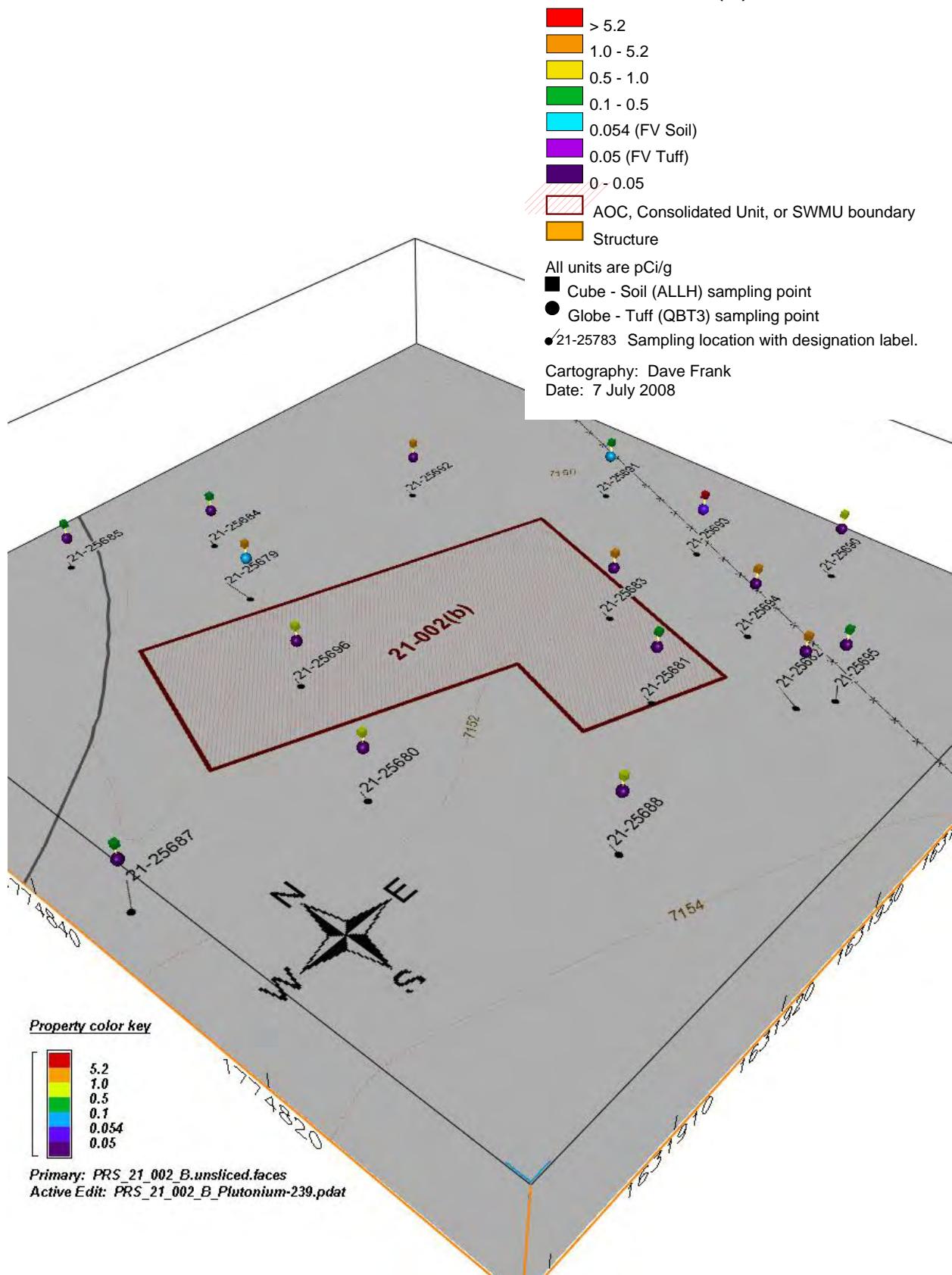
AOC 21-002(b) Plutonium-238

- █ > 0.1
- █ 0.05 (FV Tuff)
- █ 0.023 (FV Soil)
- █ 0 - 0.023
- AOC, Consolidated Unit, or SWMU boundary
- Structure
- All units are pCi/g
- Cube - Soil (ALLH) sampling point
- Globe - Tuff (QBT3) sampling point
- 21-25783 Sampling location with designation label.

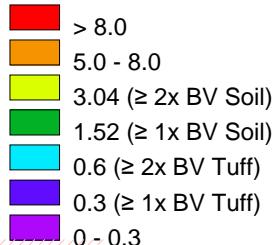
Cartography: Dave Frank
Date: 7 July 2008



AOC 21-002(b) Plutonium-239



AOC 21-002(b) Selenium



■ AOC, Consolidated Unit, or SWMU boundary
 ■ Structure

All units are mg/kg

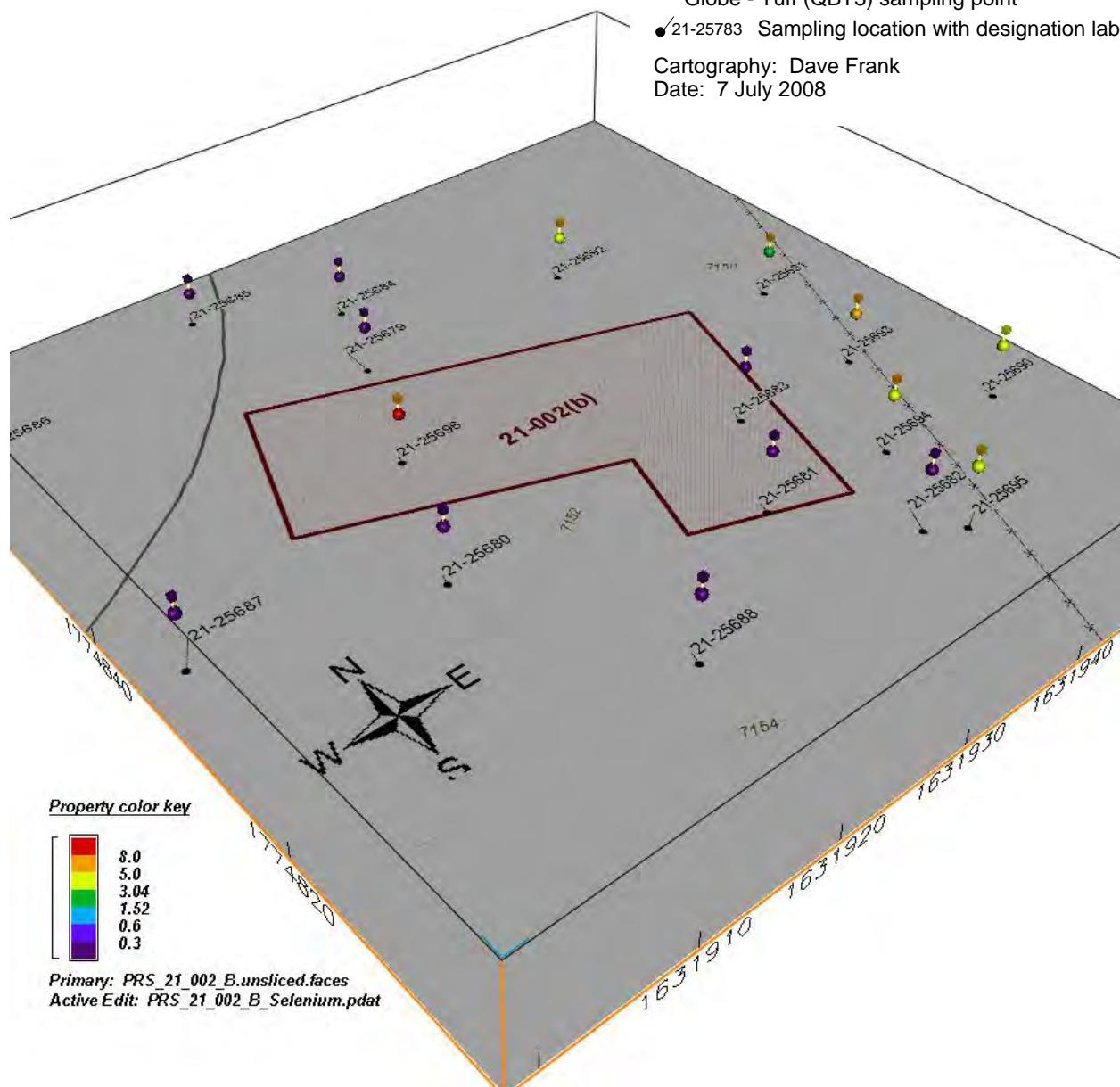
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

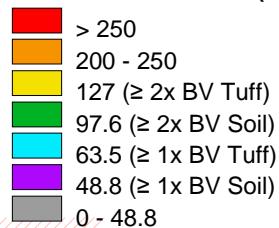
• 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



AOC 21-002(b) Zinc



Red hatched area: AOC, Consolidated Unit, or SWMU boundary
 Orange line: Structure

All units are mg/kg

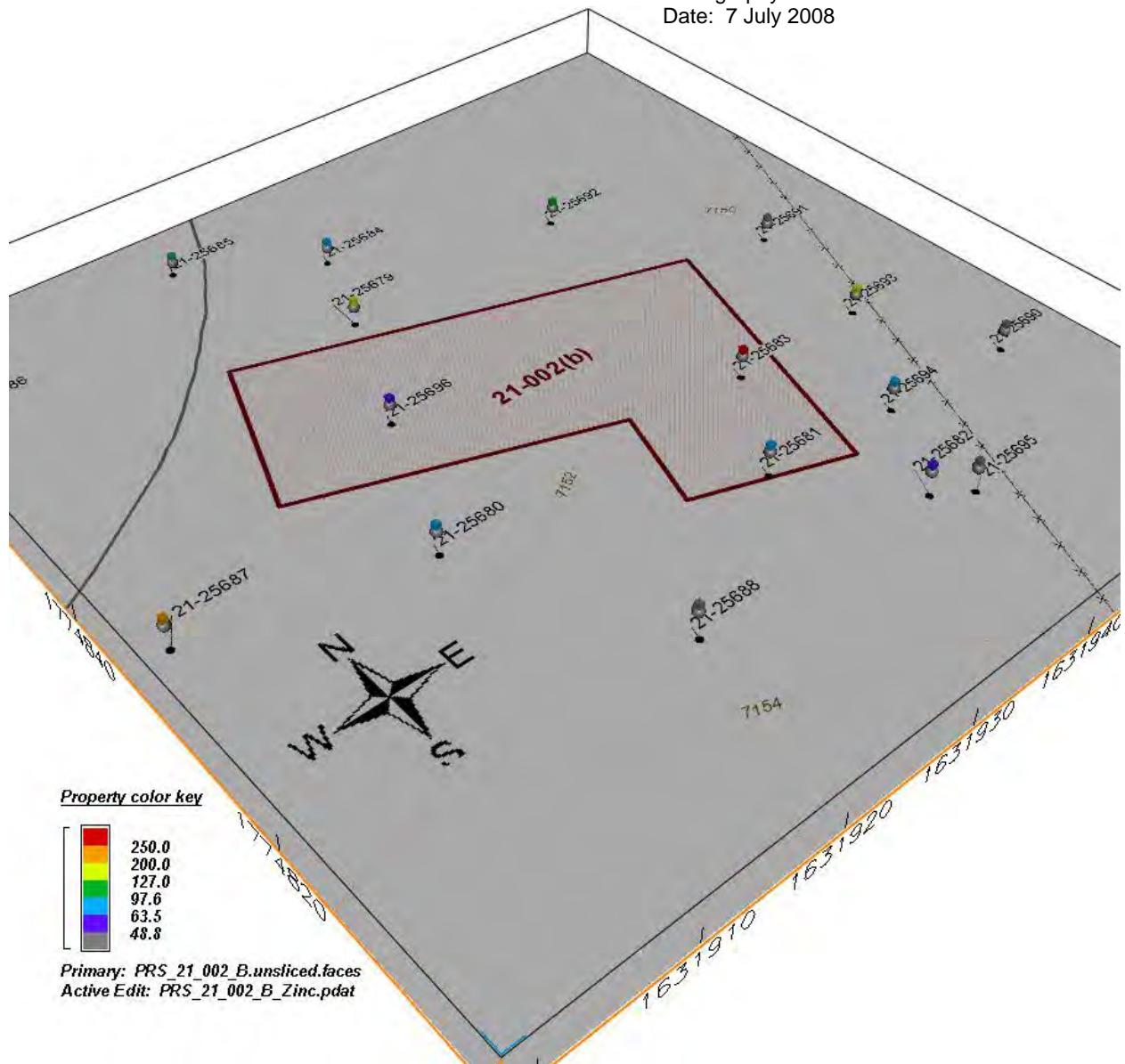
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

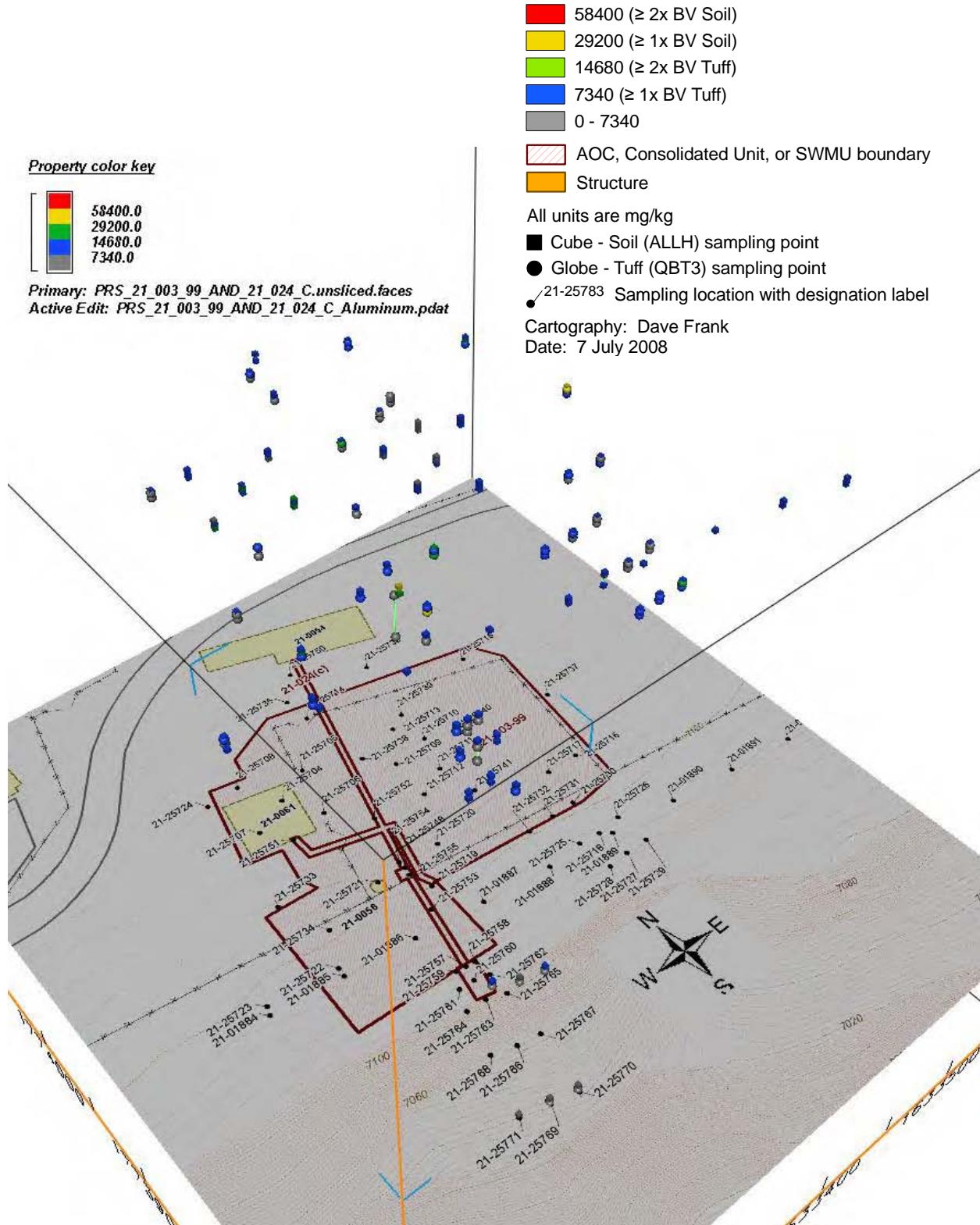
● 21-25783 Sampling location with designation label

Cartography: Dave Frank

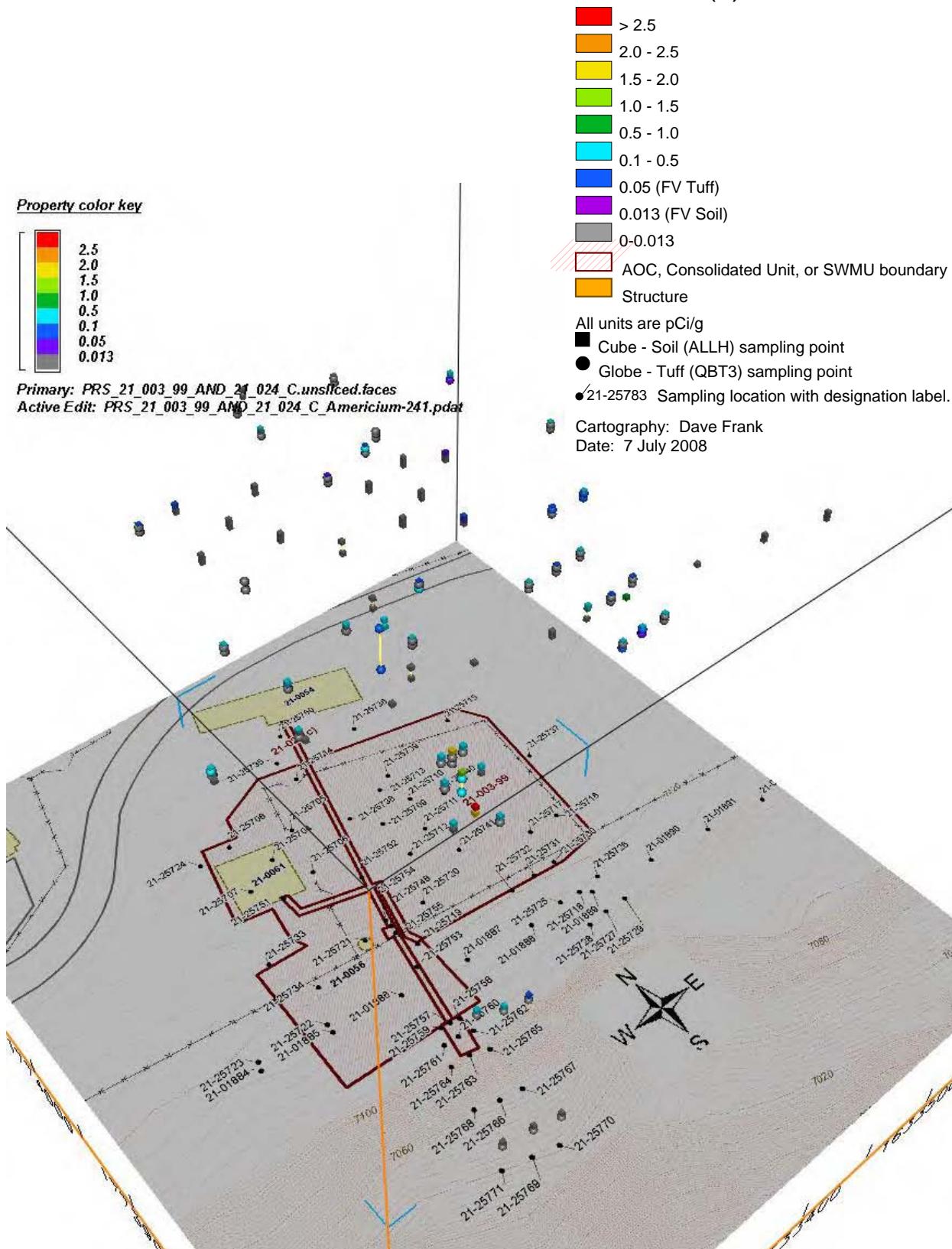
Date: 7 July 2008



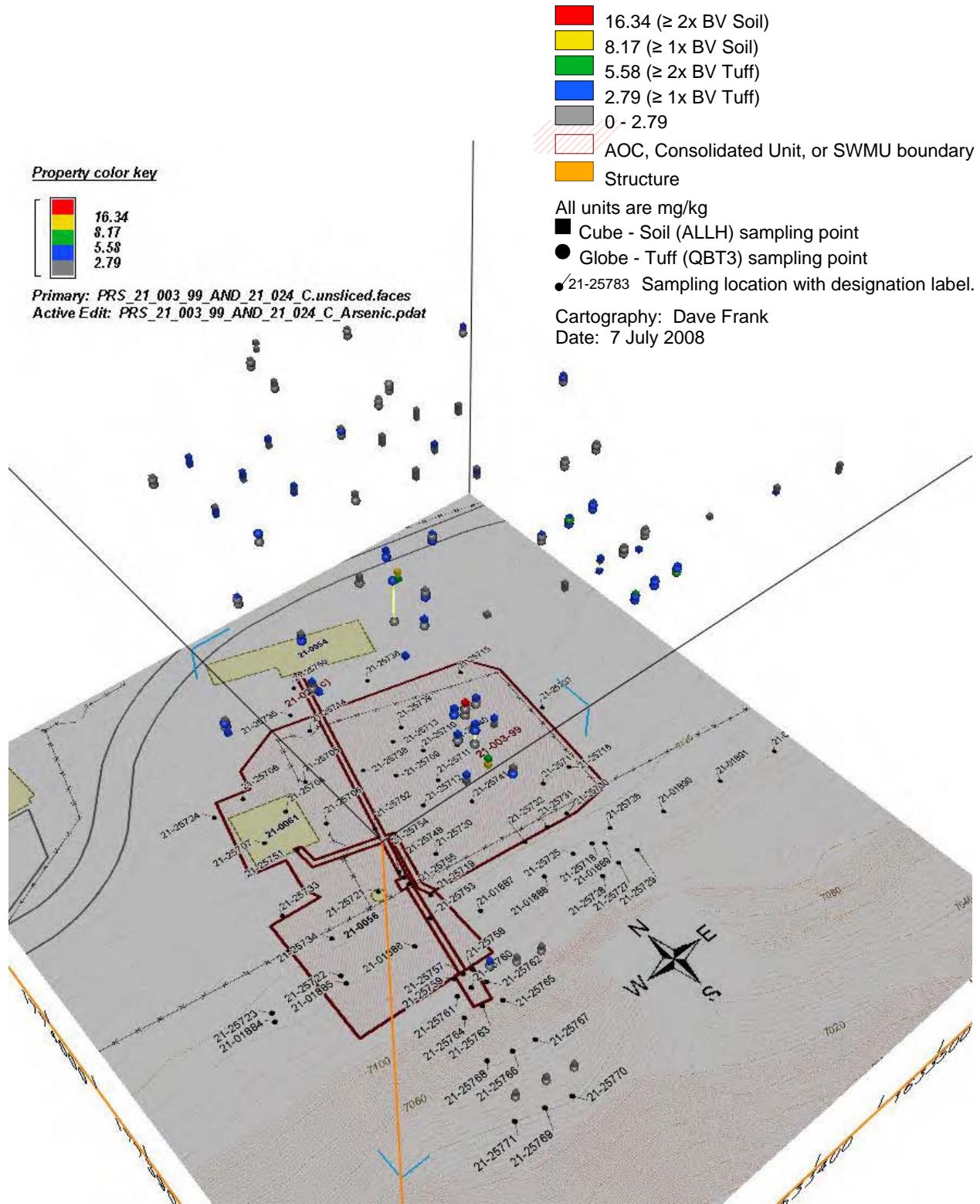
Consolidated Unit 21-003-99 and SWMU 21-024(c) Aluminum



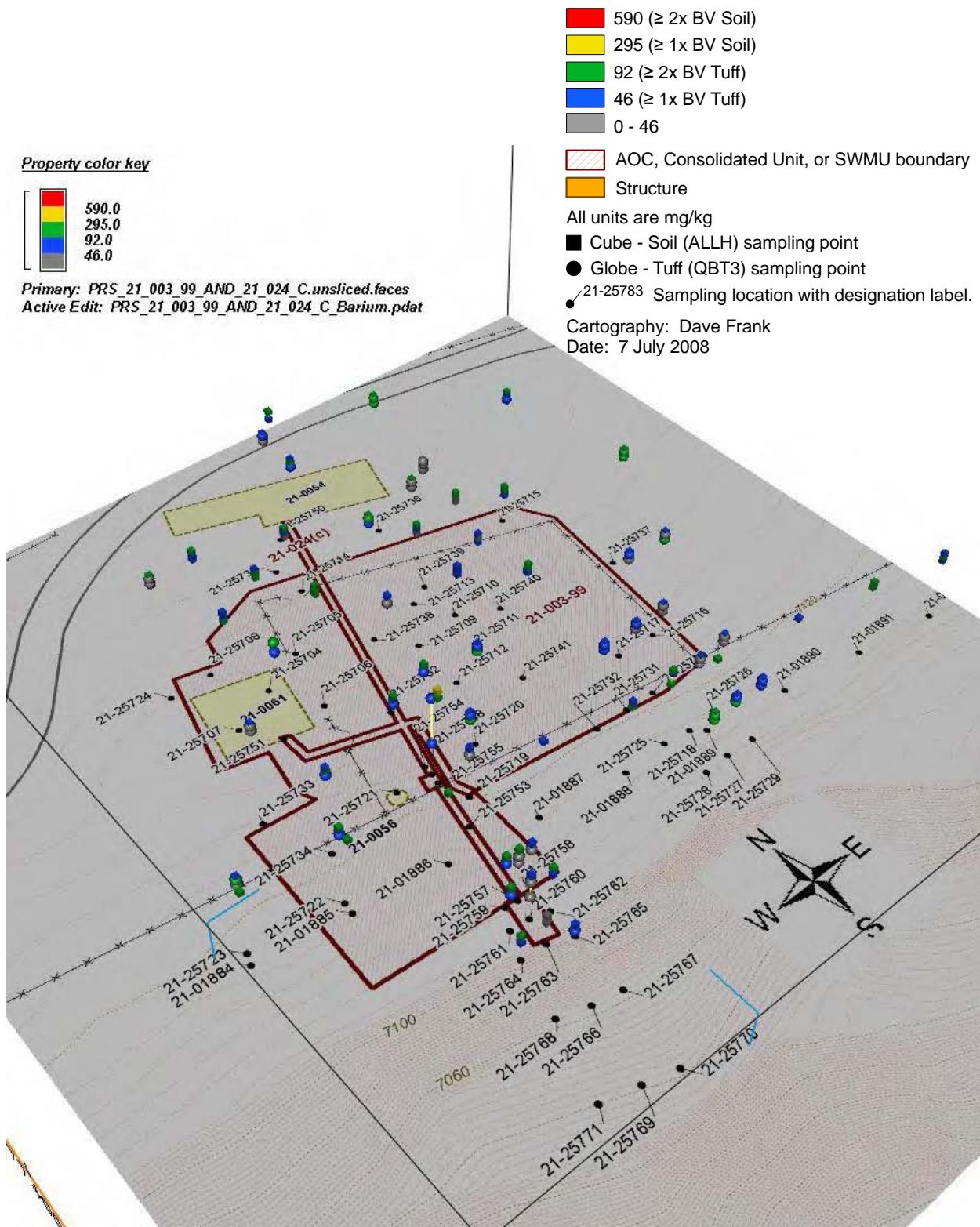
Consolidated Unit 21-003-99 and SWMU 21-024(c) Americium-241



Consolidated Unit 21-003-99 and SWMU 21-024(c) Arsenic



Consolidated Unit 21-003-99 and SWMU 21-024(c) Barium



Consolidated Unit 21-003-99 and SWMU 21-024(c) Cesium-137

- █ 1.65 (FV Soil)
- █ 0.1 (FV Tuff)
- █ 0 - 0.1
- AOC, Consolidated Unit, or SWMU boundary
- █ Structure

Property color key



Primary: PRS_21_003_99_AND_21_024_C.unsliced.faces
Active Edit: PRS_21_003_99_AND_21_024_C_Cesium-137.pdat

All units are pCi/g

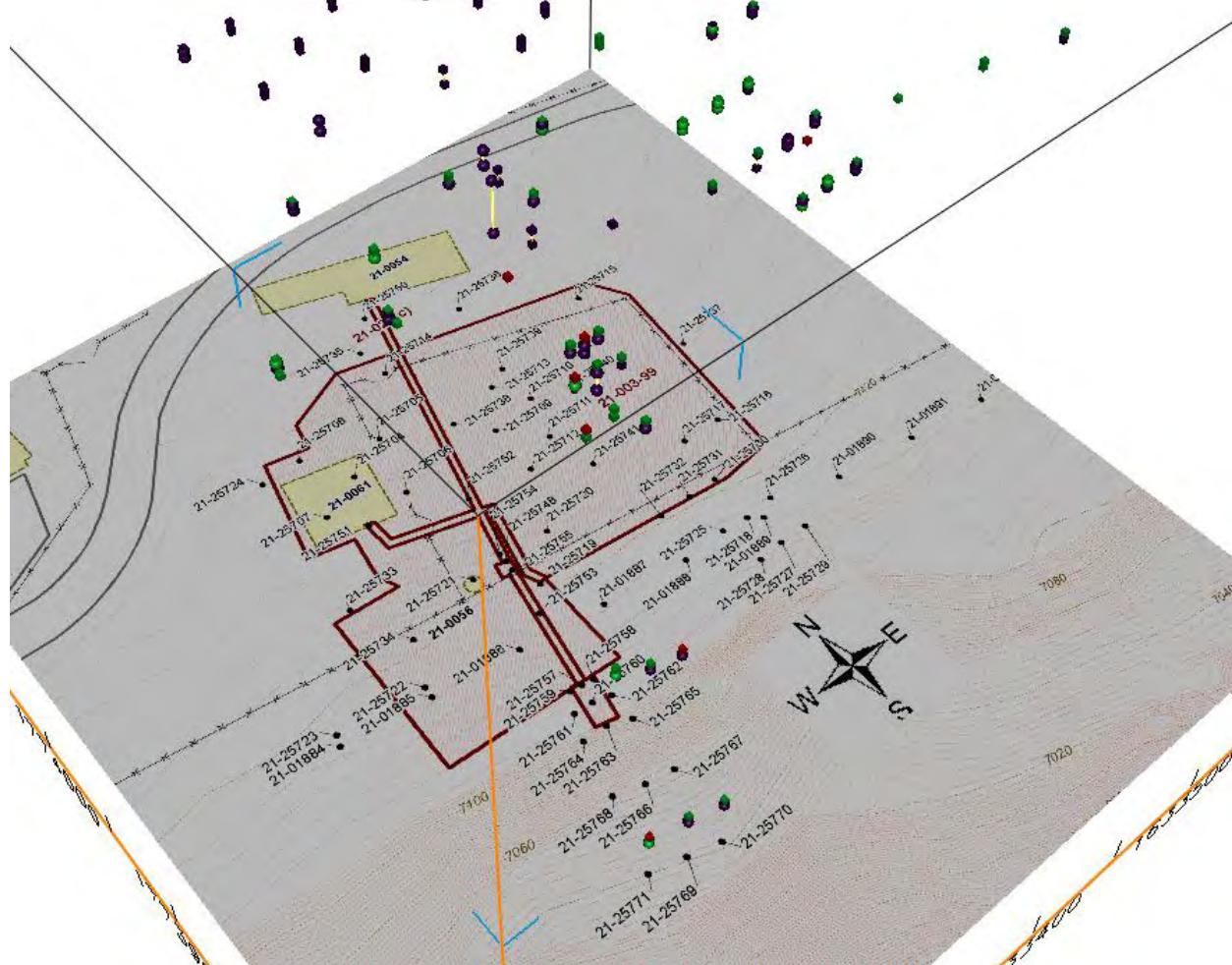
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

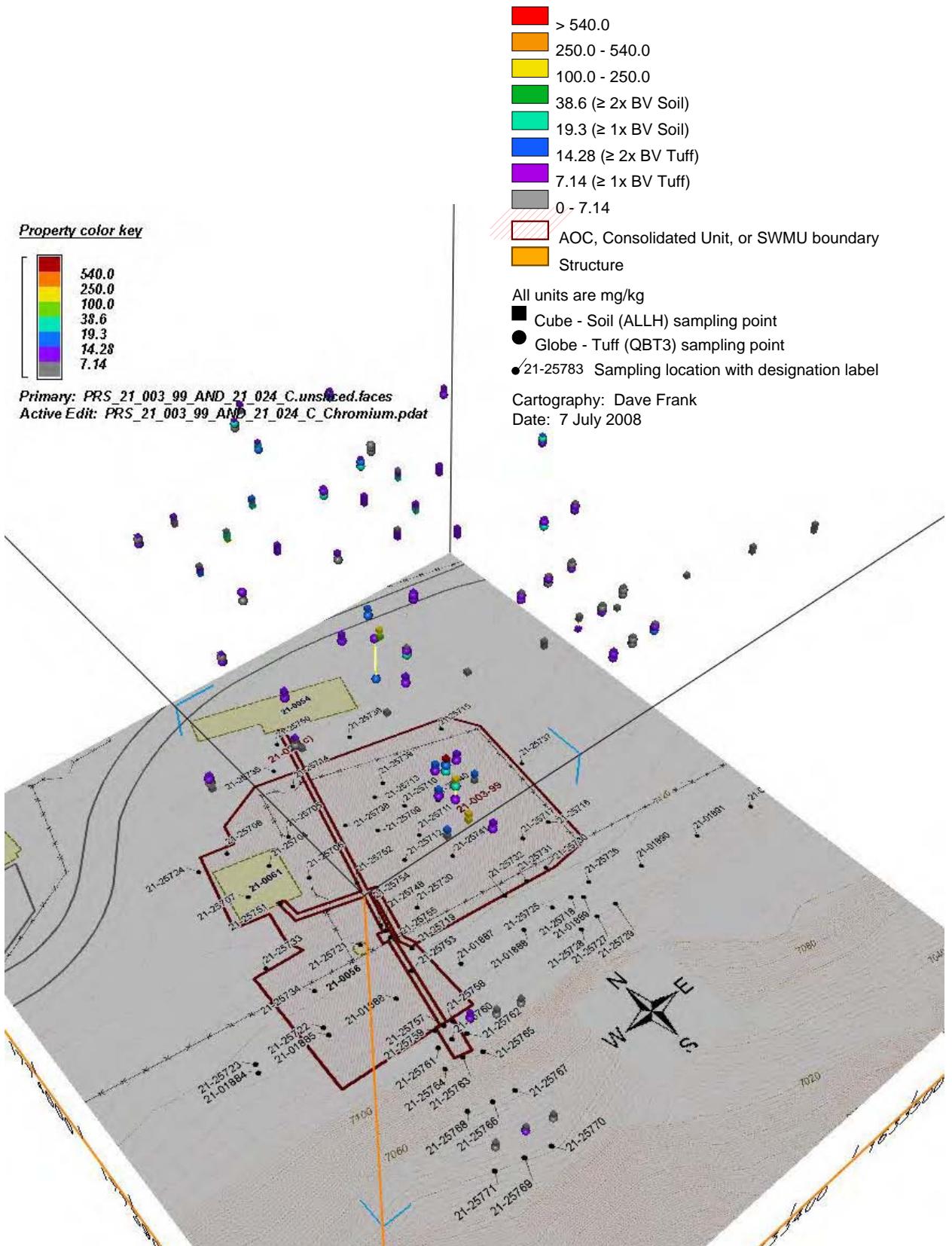
• 21-25783 Sampling location with designation label.

Cartography: Dave Frank

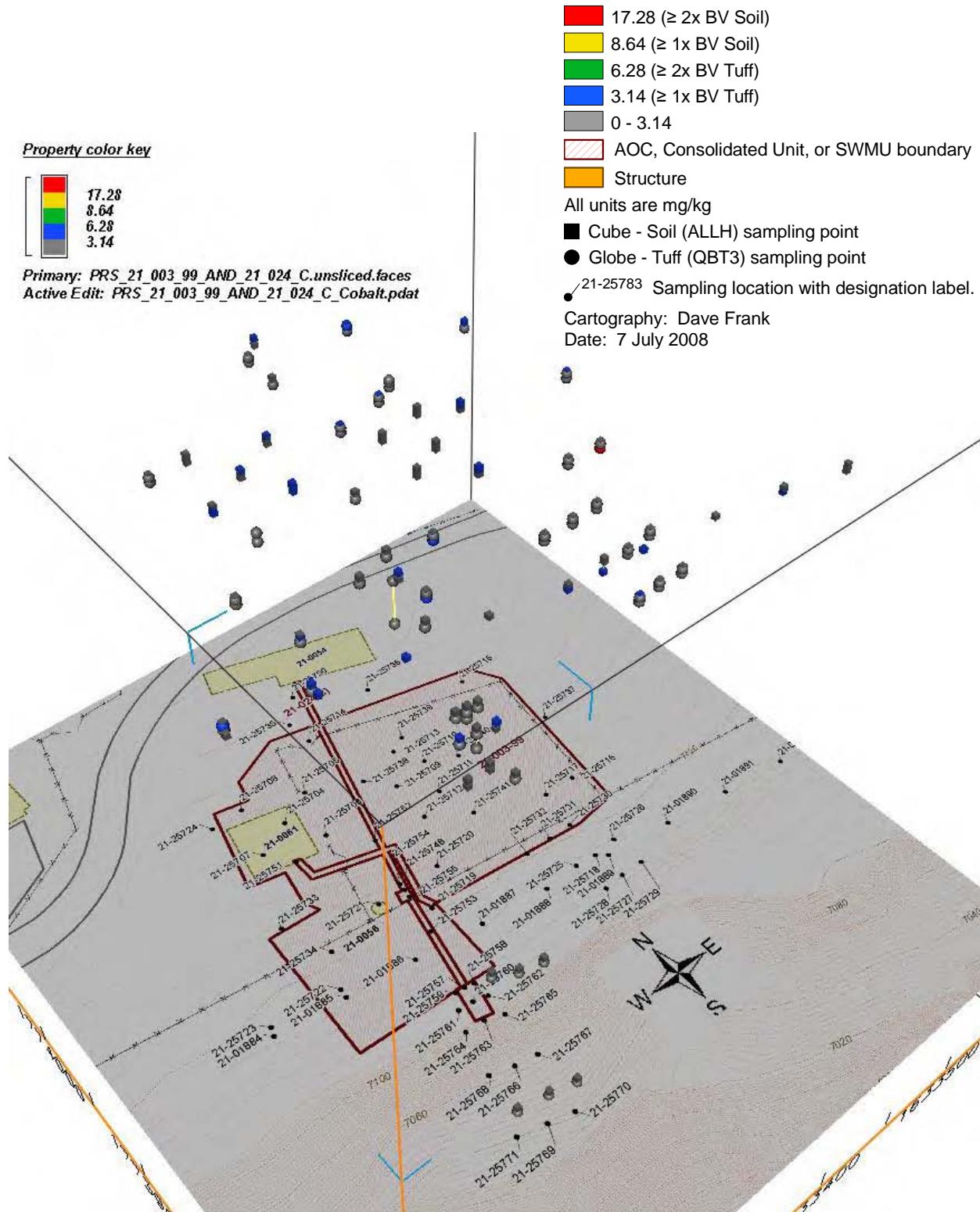
Date: 7 July 2008



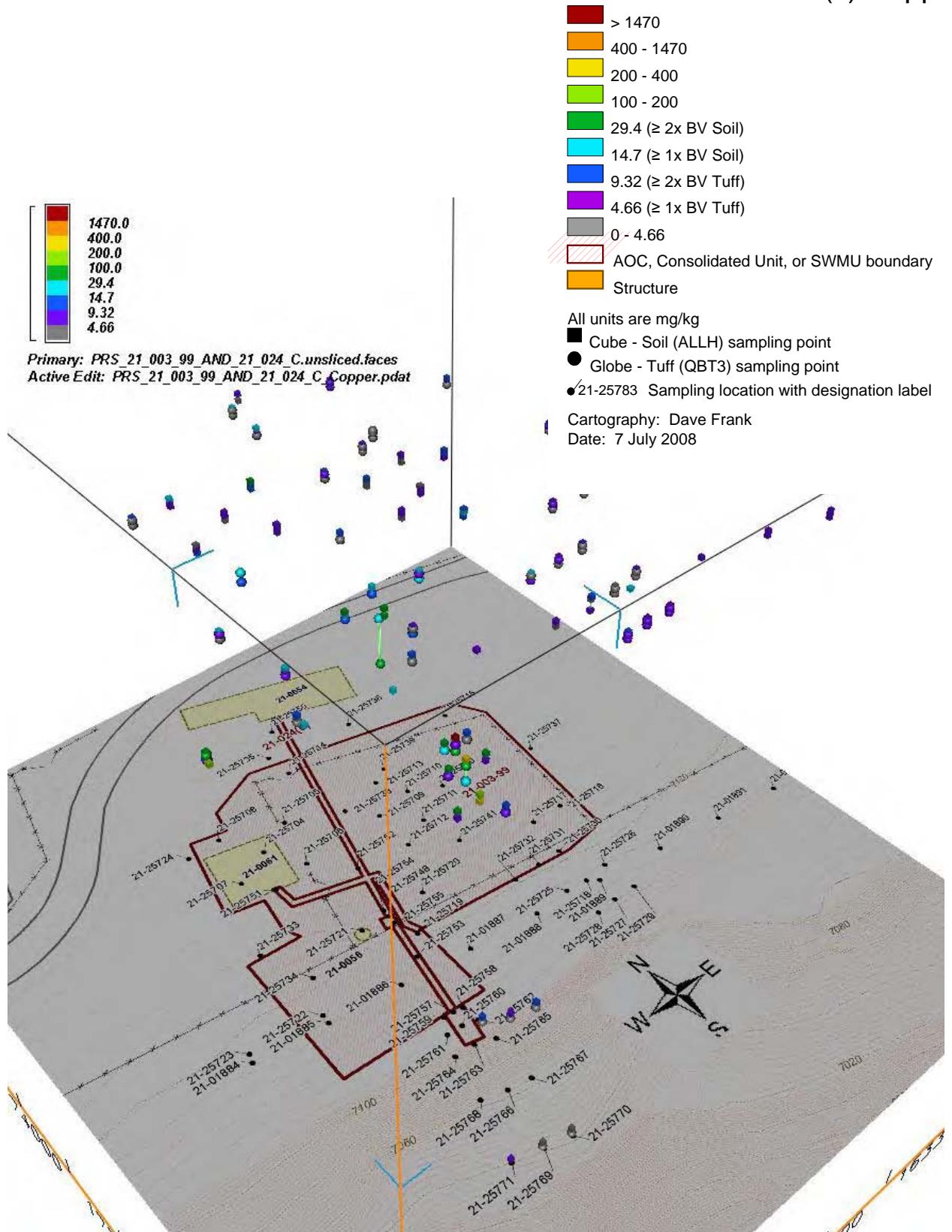
Consolidated Unit 21-003-99 and SWMU 21-024(c) Chromium



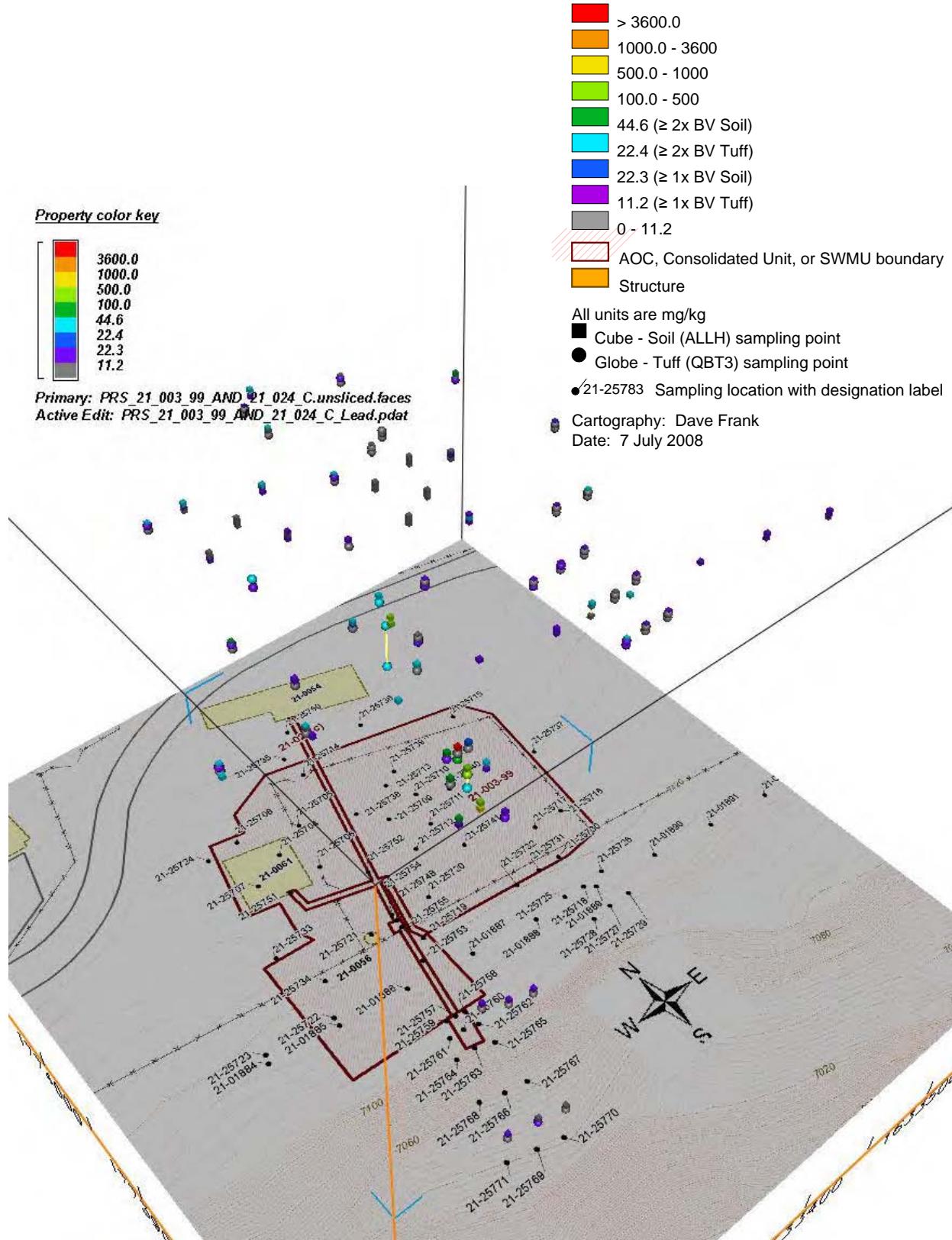
Consolidated Unit 21-003-99 and SWMU 21-024(c) Cobalt



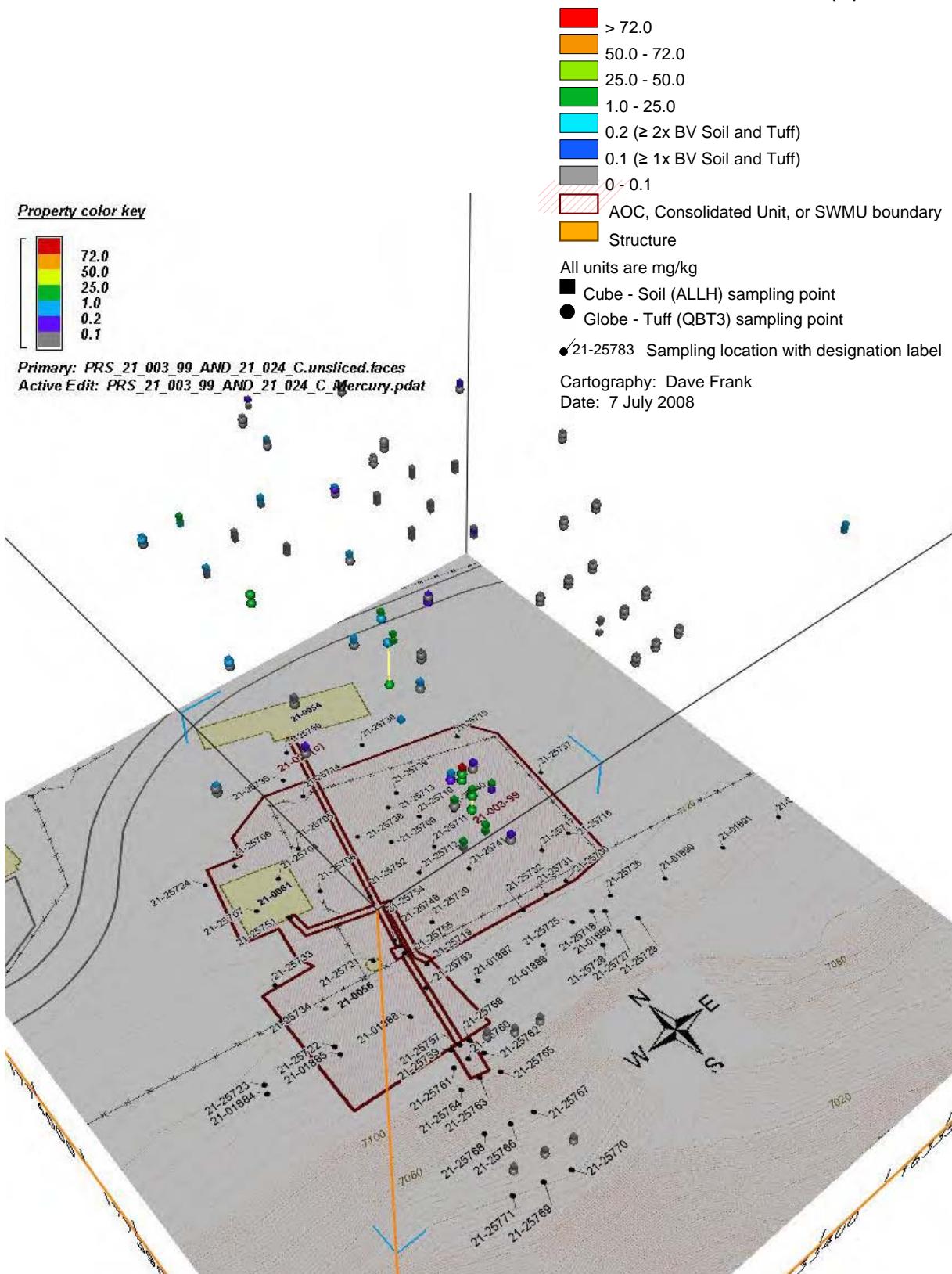
Consolidated Unit 21-003-99 and SWMU 21-024(c) Copper



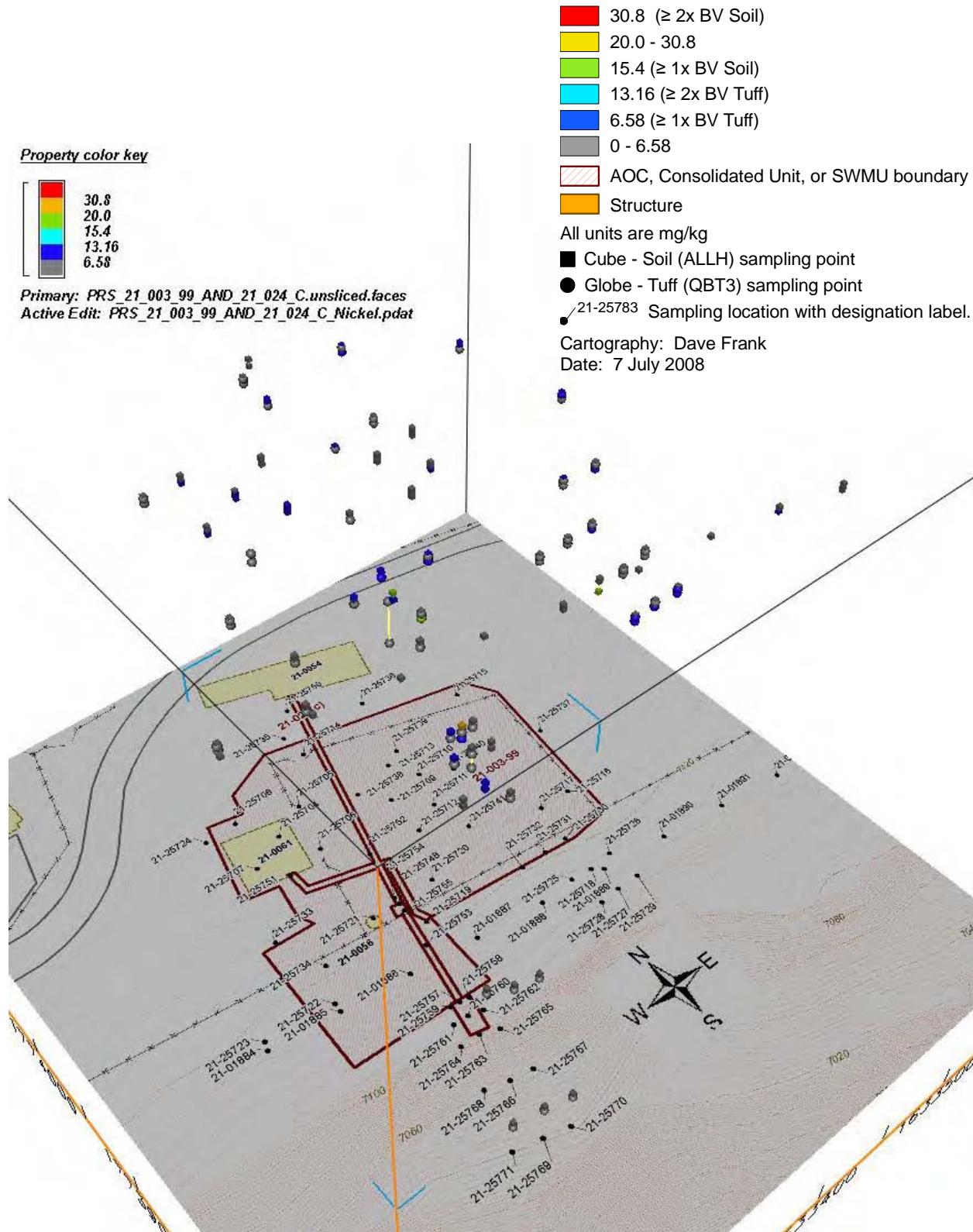
Consolidated Unit 21-003-99 and SWMU 21-024(c) Lead



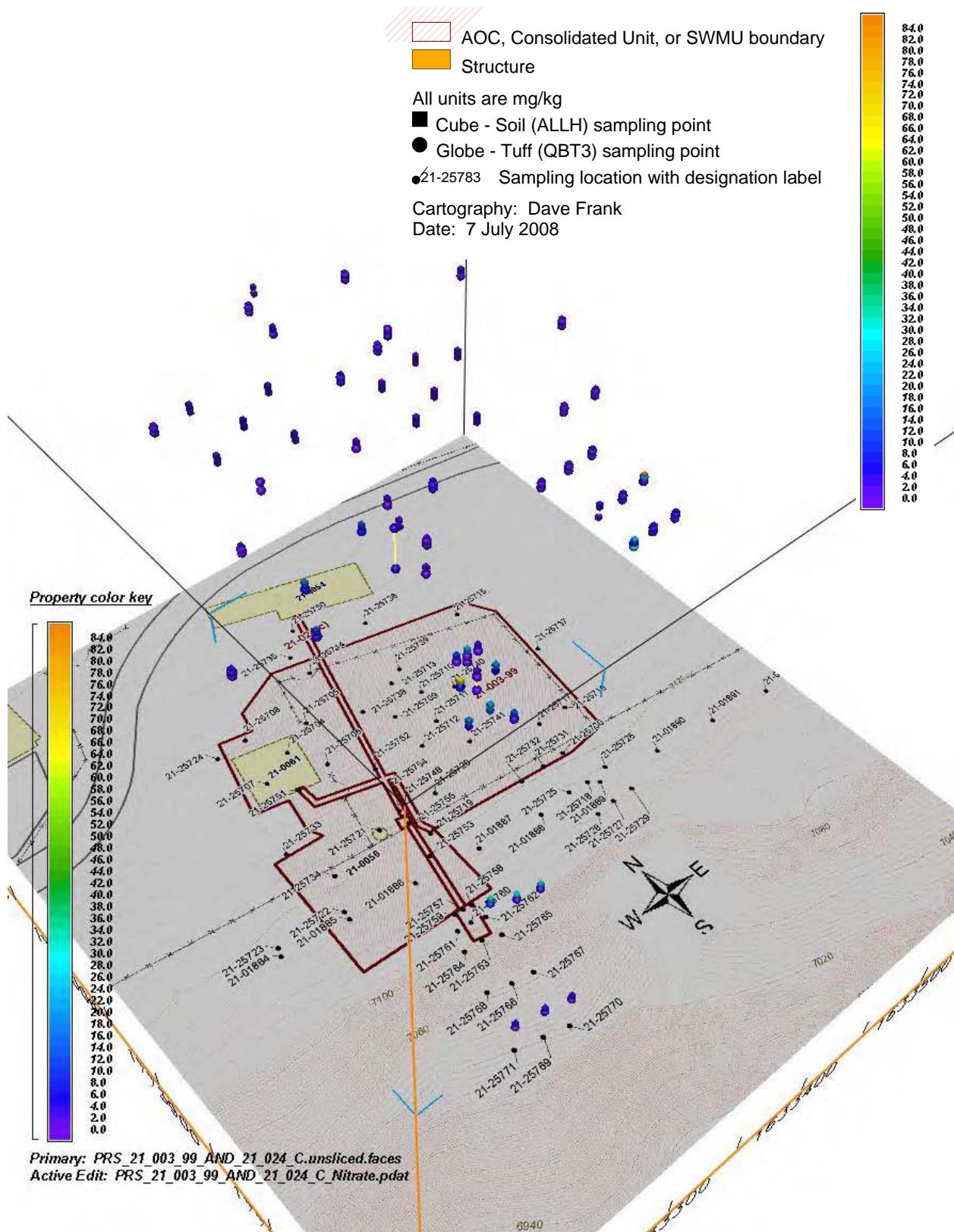
Consolidated Unit 21-003-99 and SWMU 21-024(c) Mercury



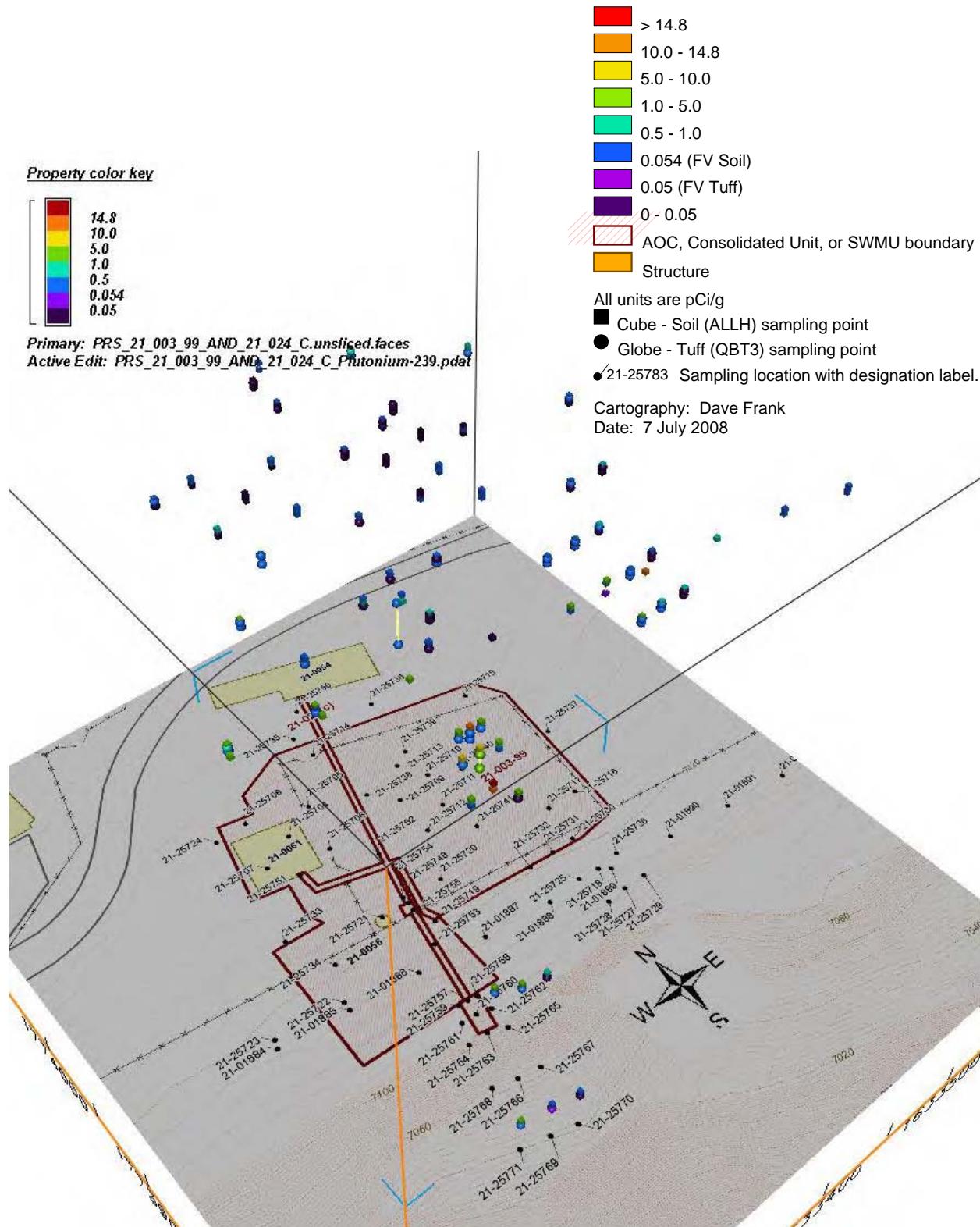
Consolidated Unit 21-003-99 and SWMU 21-024(c) Nickel



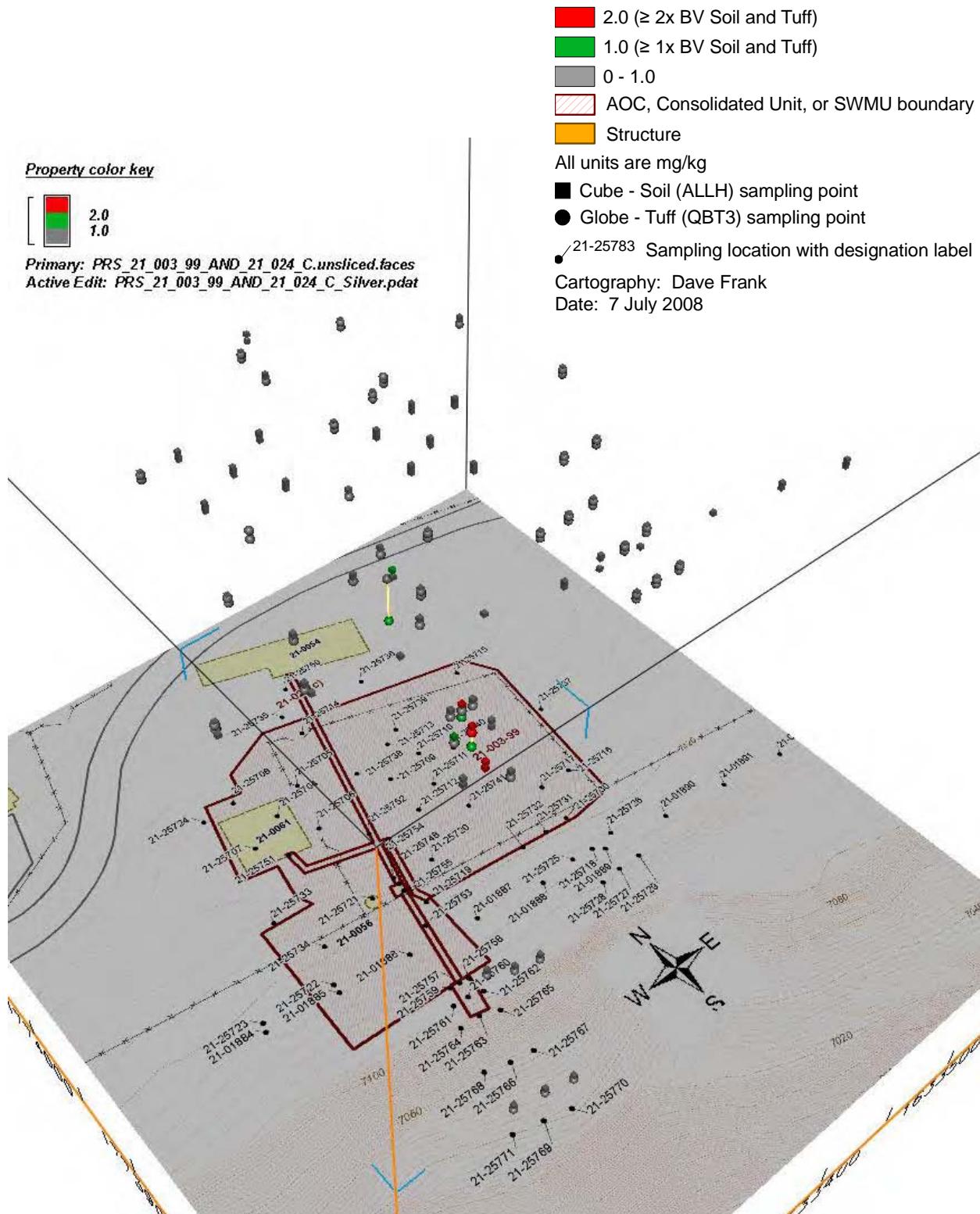
Consolidated Unit 21-003-99 and SWMU 21-024(c) Nitrate



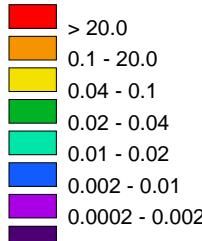
Consolidated Unit 21-003-99 and SWMU 21-024(c) Plutonium-239



Consolidated Unit 21-003-99 and SWMU 21-024(c) Silver



Consolidated Unit 21-003-99 and SWMU 21-024(c) Trichloroethene



AOC, Consolidated Unit, or SWMU boundary

Structure

All units are mg/kg

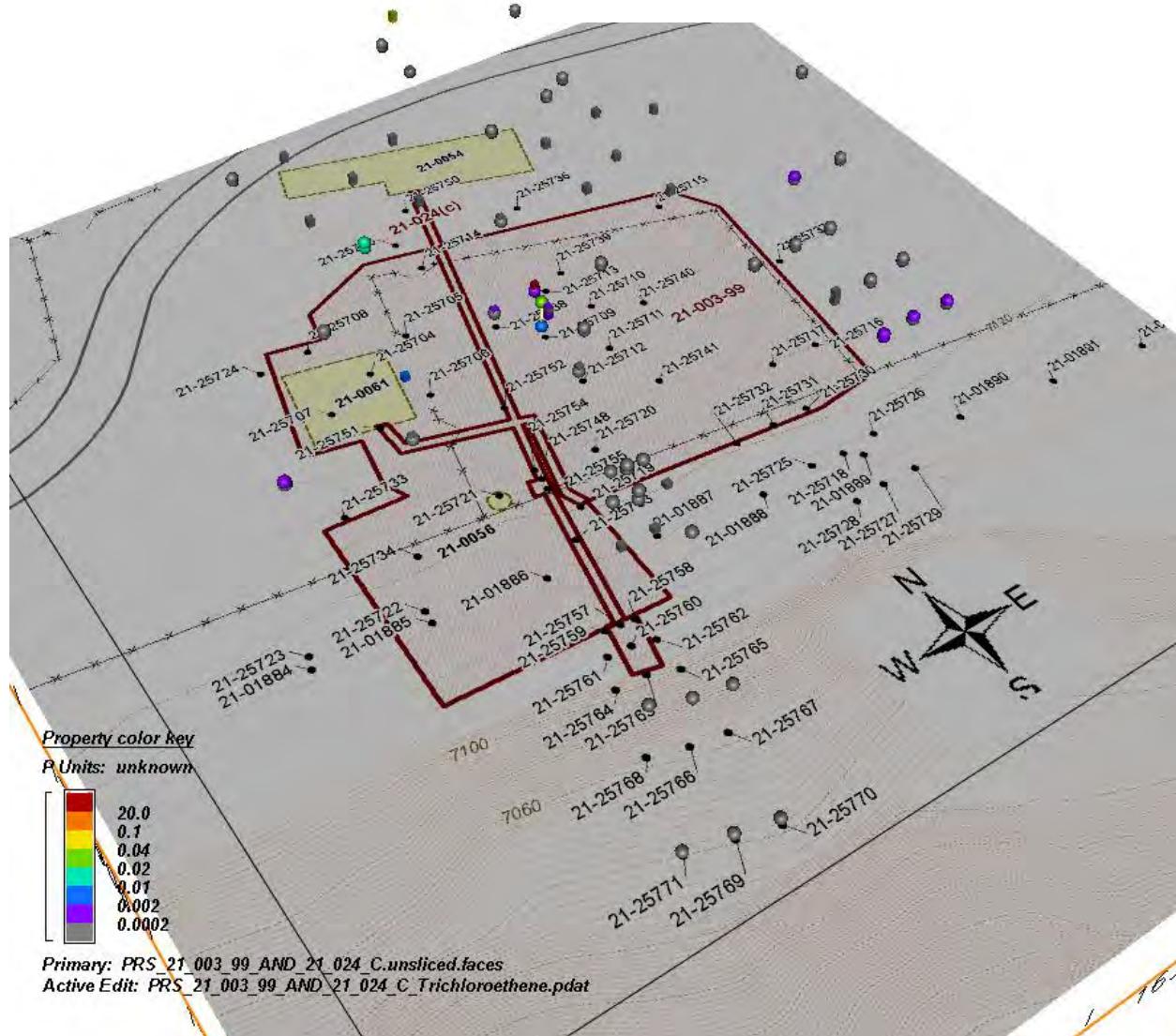
Cube - Soil (ALLH) sampling point

Globe - Tuff (GBT3) sampling point

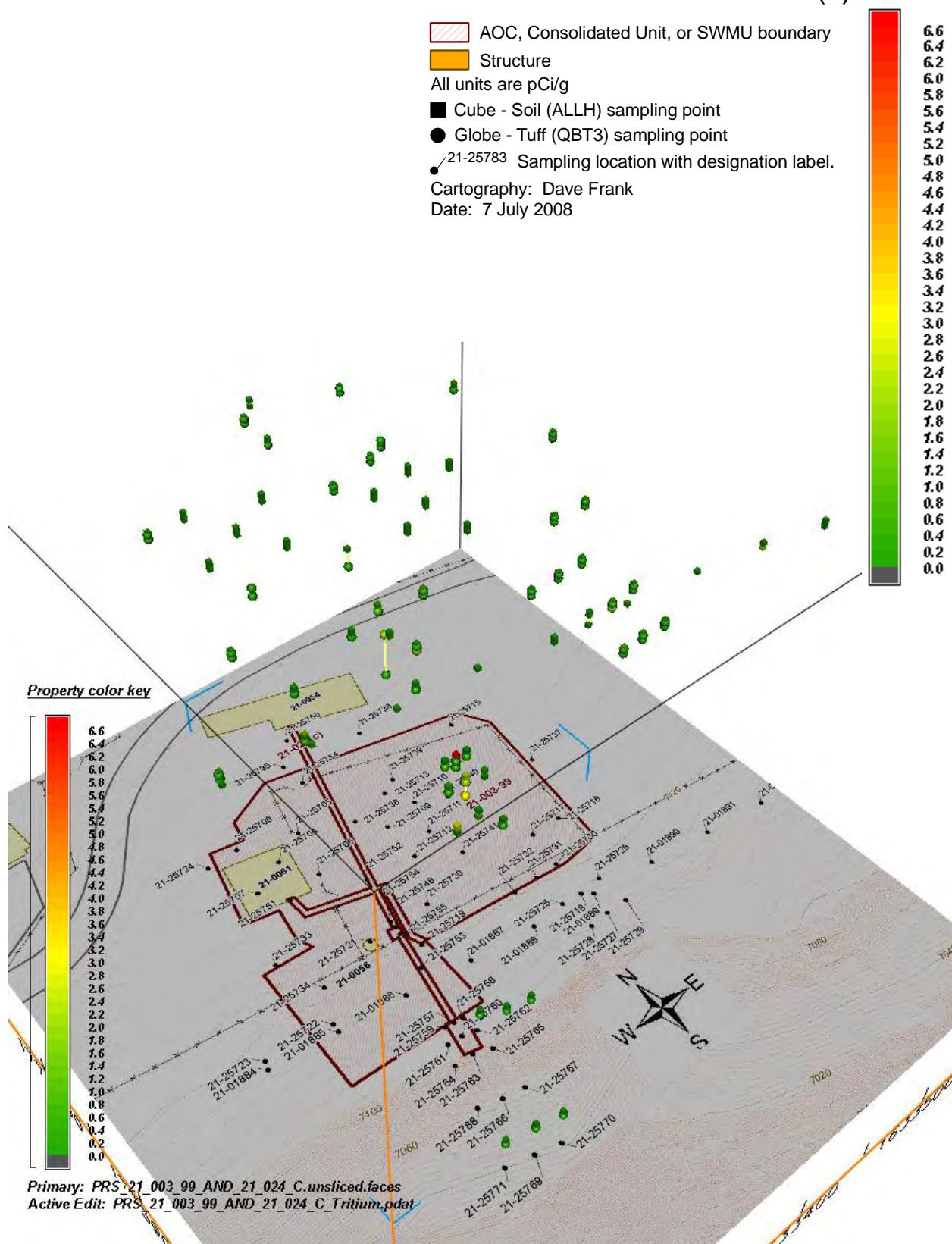
Sampling location with designation label

Cartography: Dave Frank

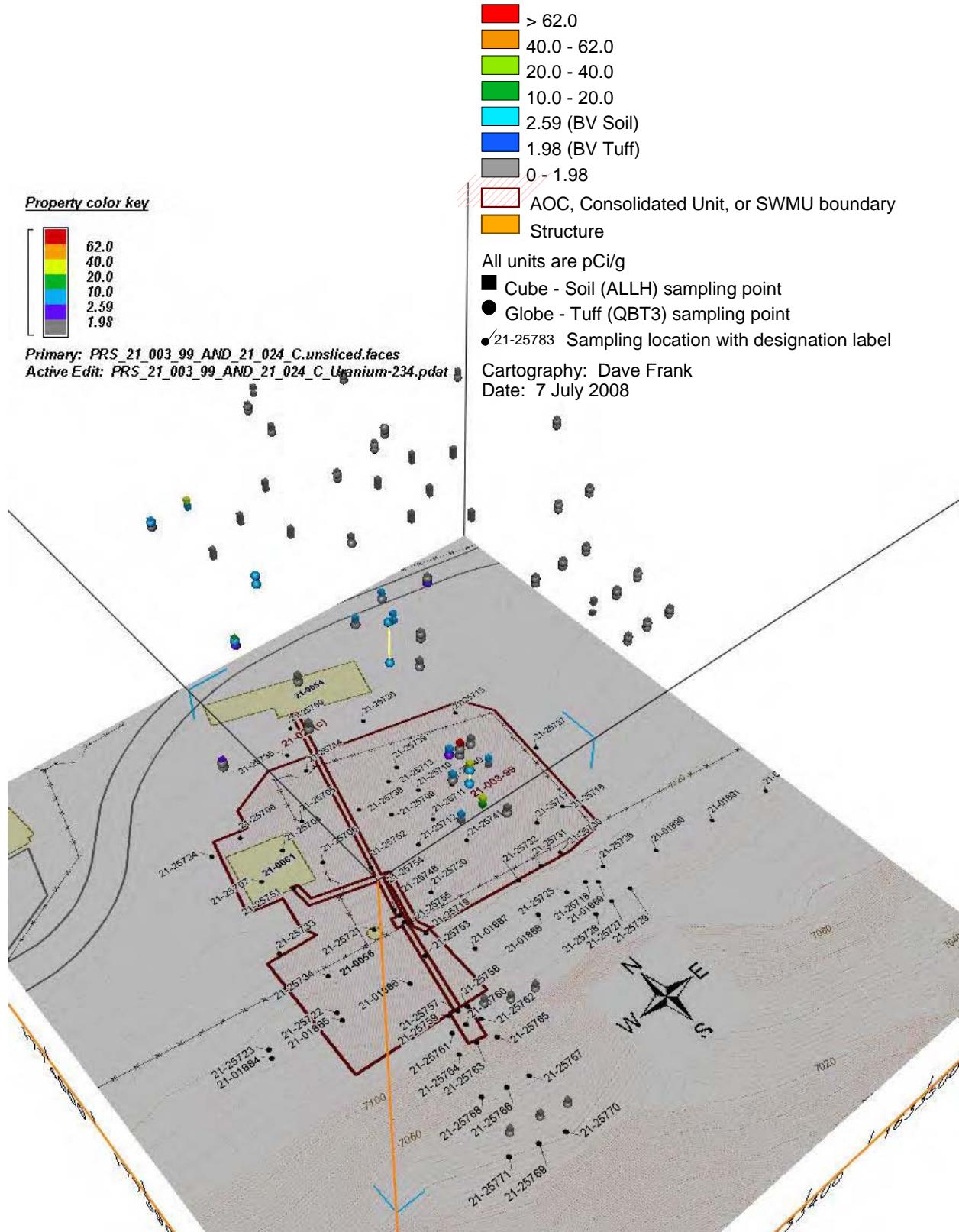
Date: 7 July 2008



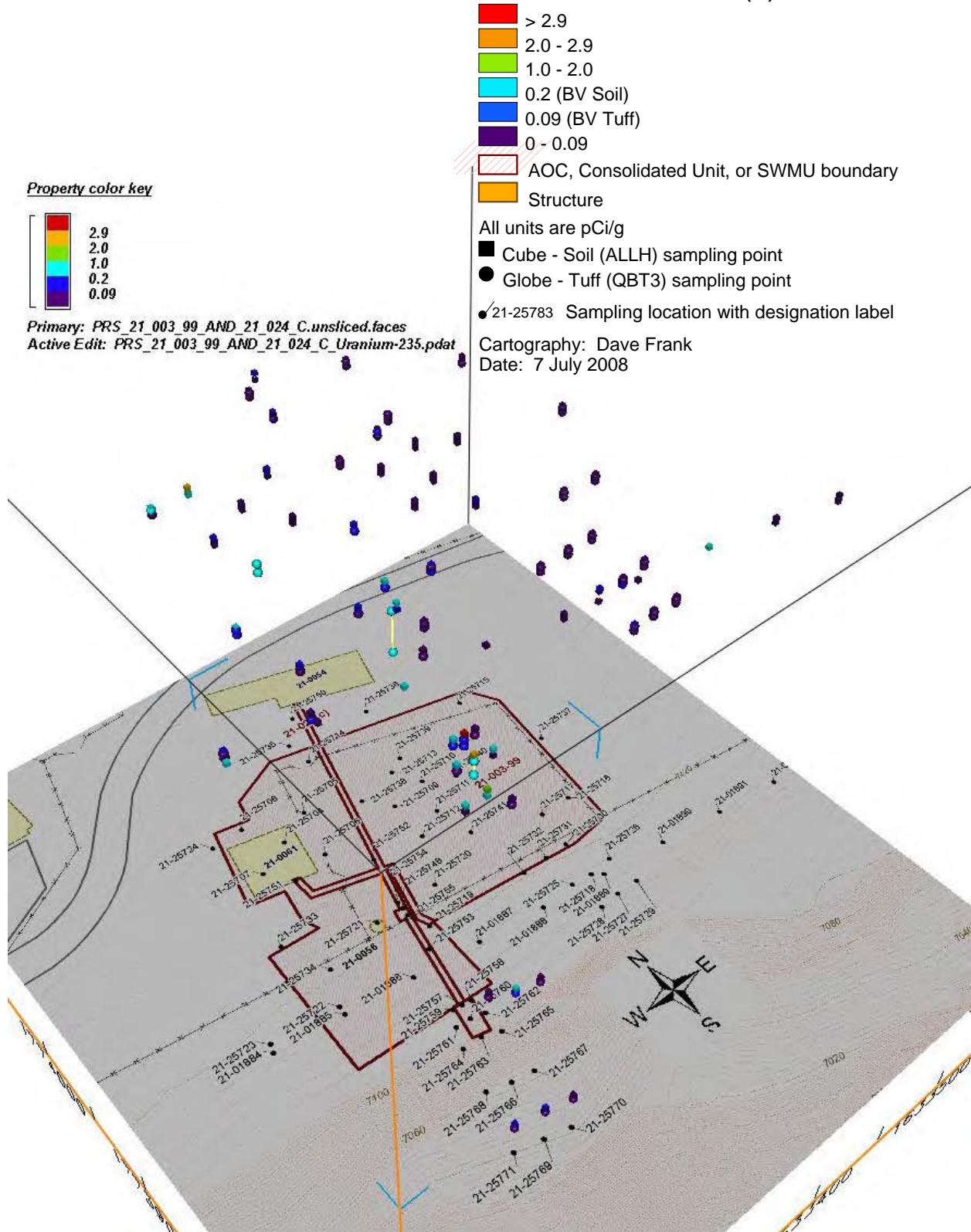
Consolidated Unit 21-003-99 and SWMU 21-024(c) Tritium



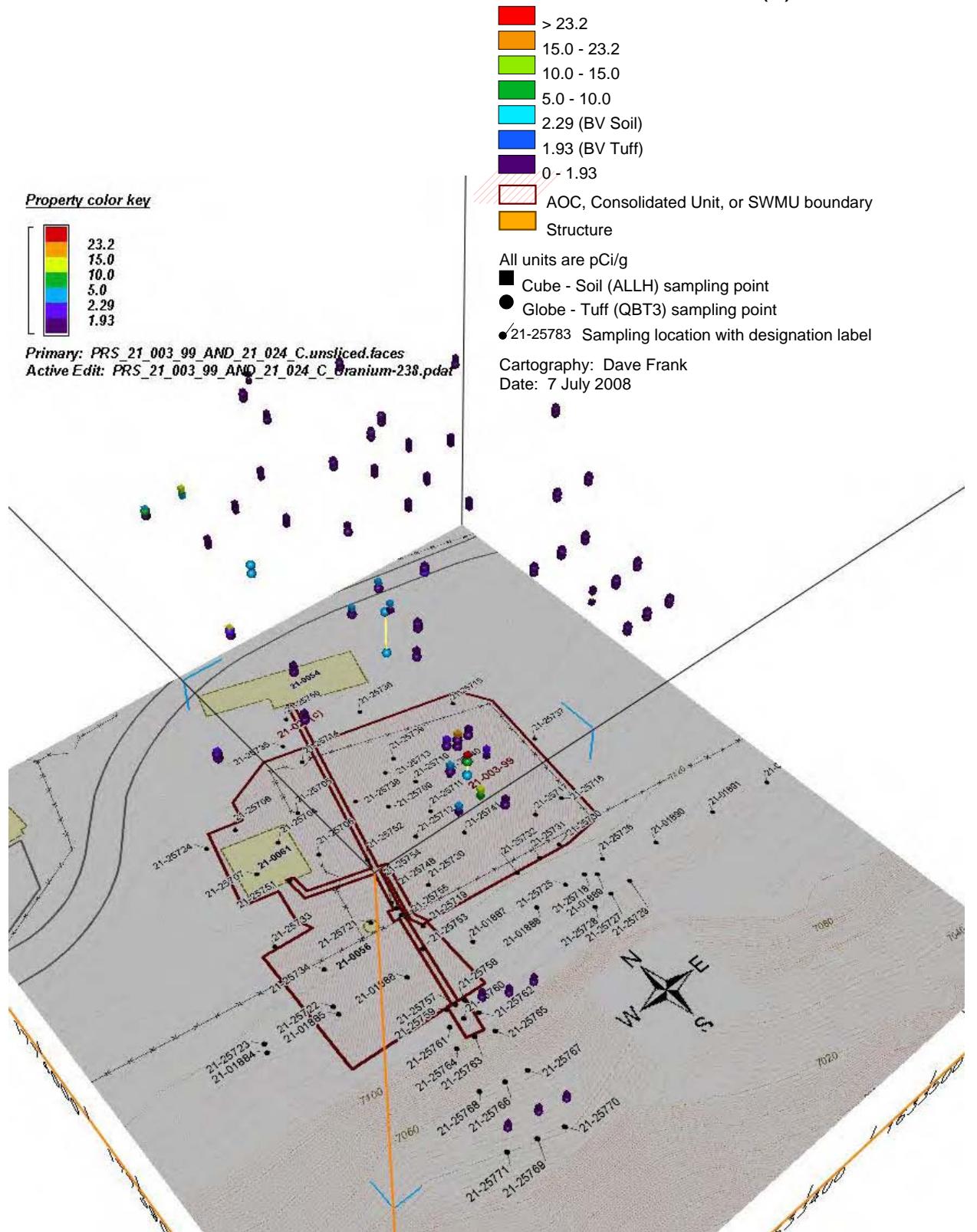
Consolidated Unit 21-003-99 and SWMU 21-024(c) Uranium-234



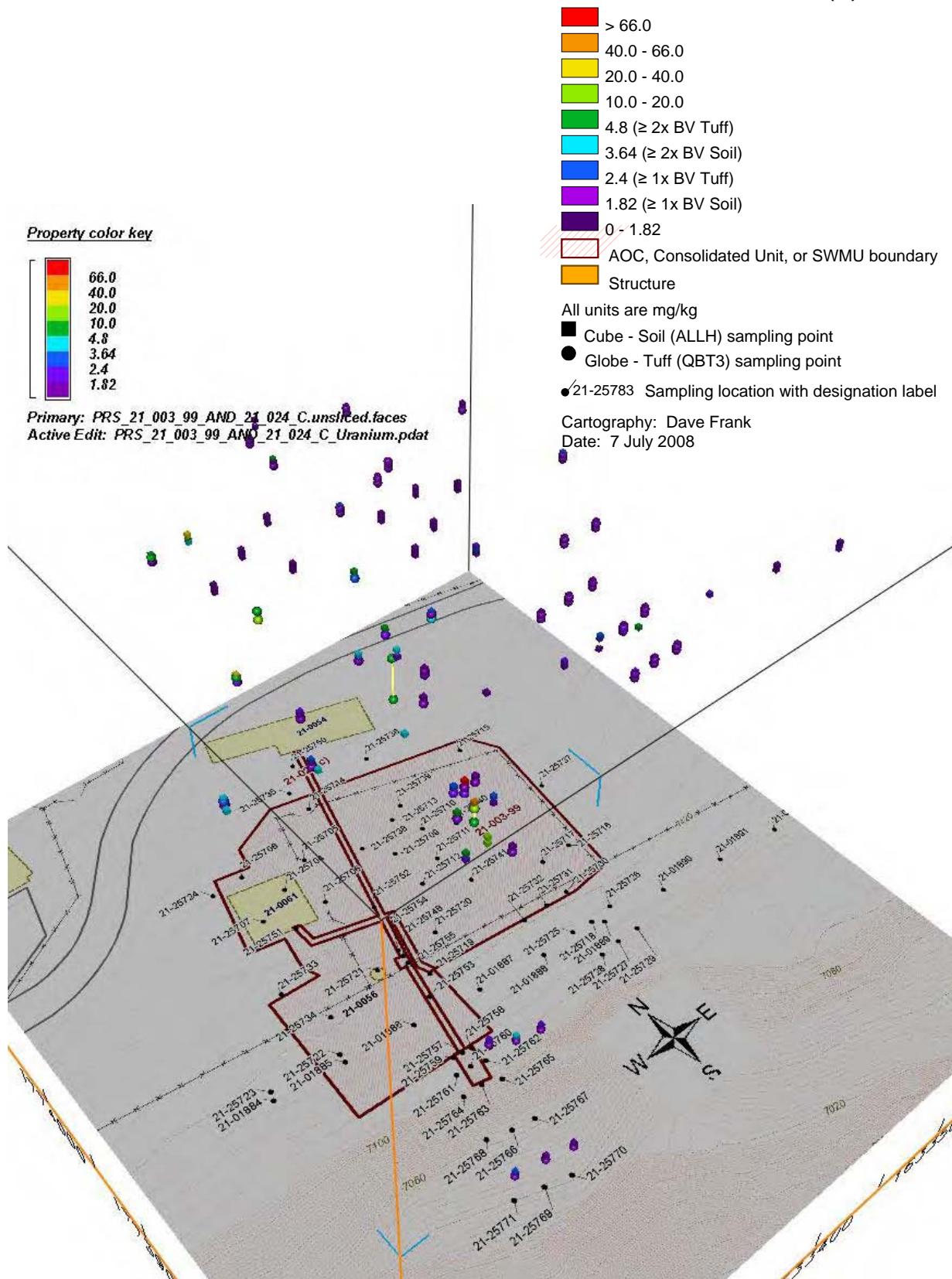
Consolidated Unit 21-003-99 and SWMU 21-024(c) Uranium-235



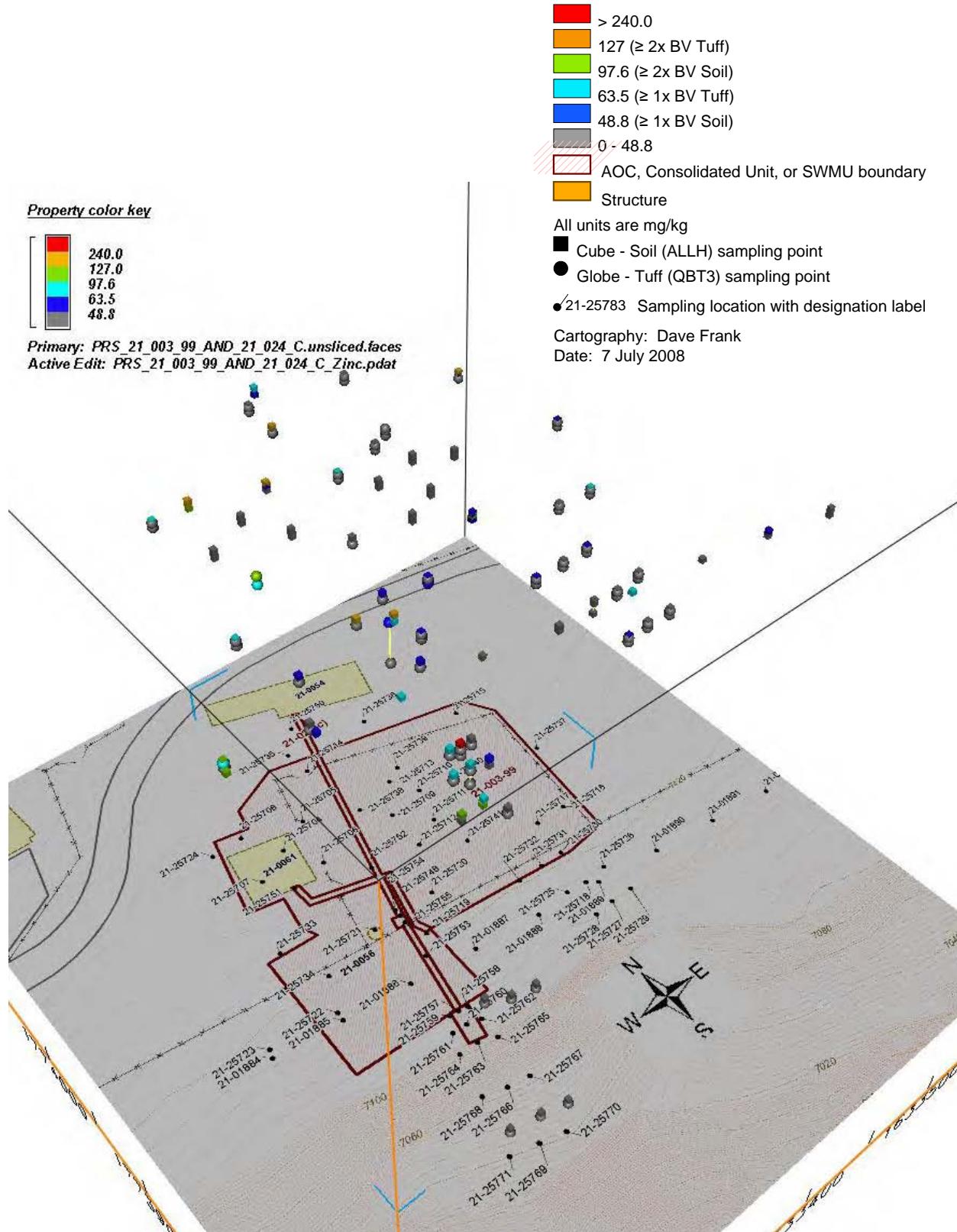
Consolidated Unit 21-003-99 and SWMU 21-024(c) Uranium-238



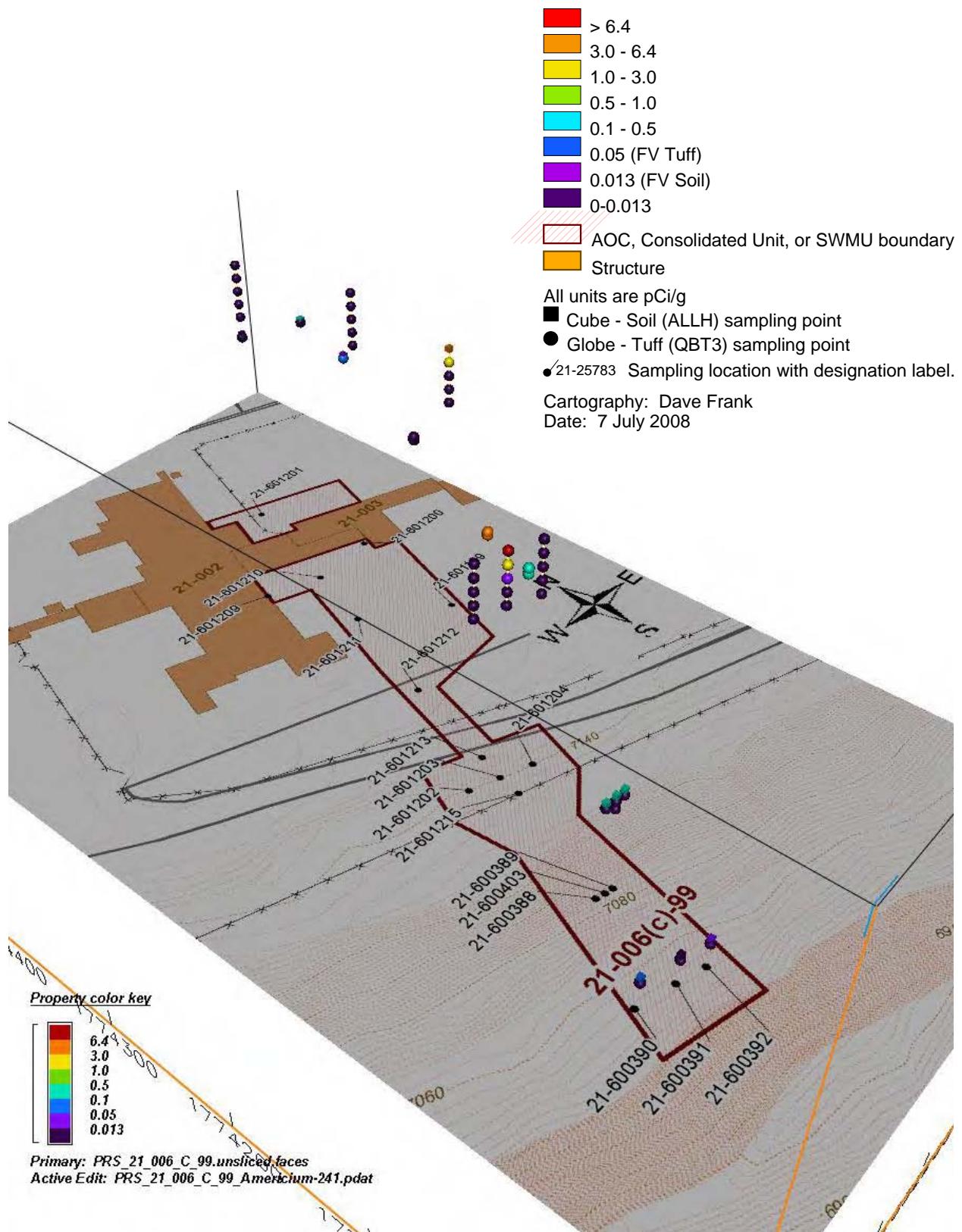
Consolidated Unit 21-003-99 and SWMU 21-024(c) Uranium



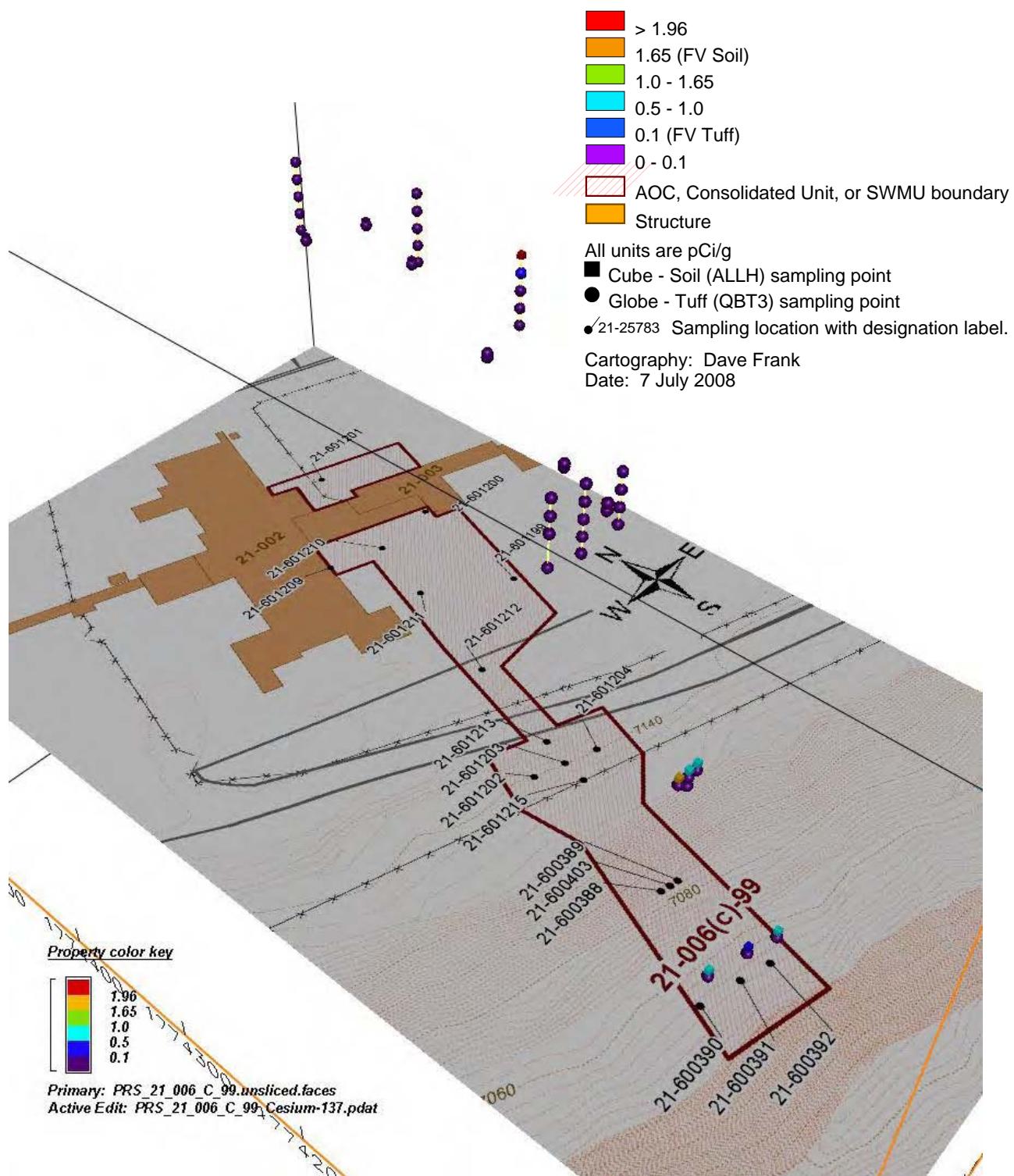
Consolidated Unit 21-003-99 and SWMU 21-024(c) Zinc



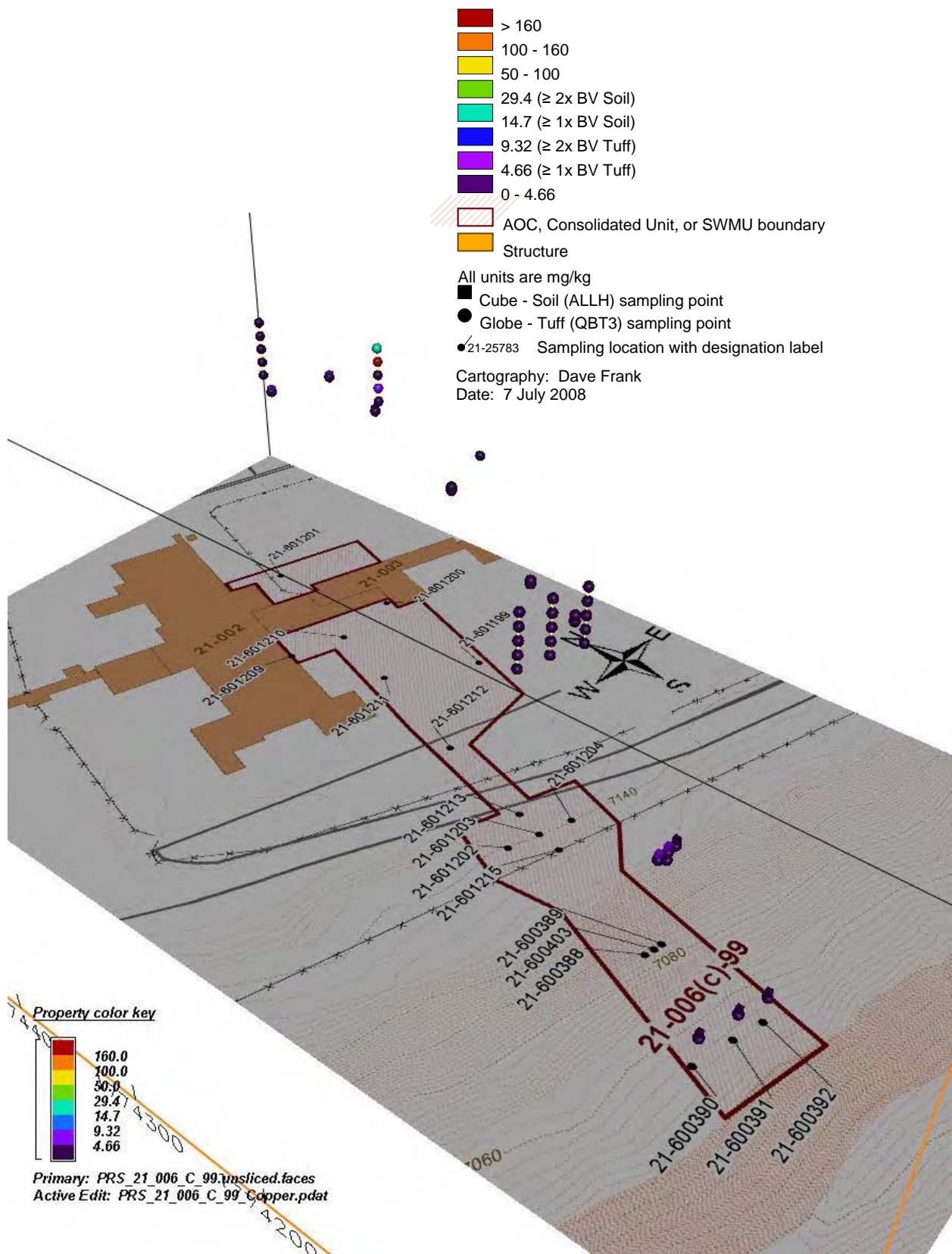
Consolidated Unit 21-006(c)-99 Americium-241



Consolidated Unit 21-006(c)-99 Cesium-137



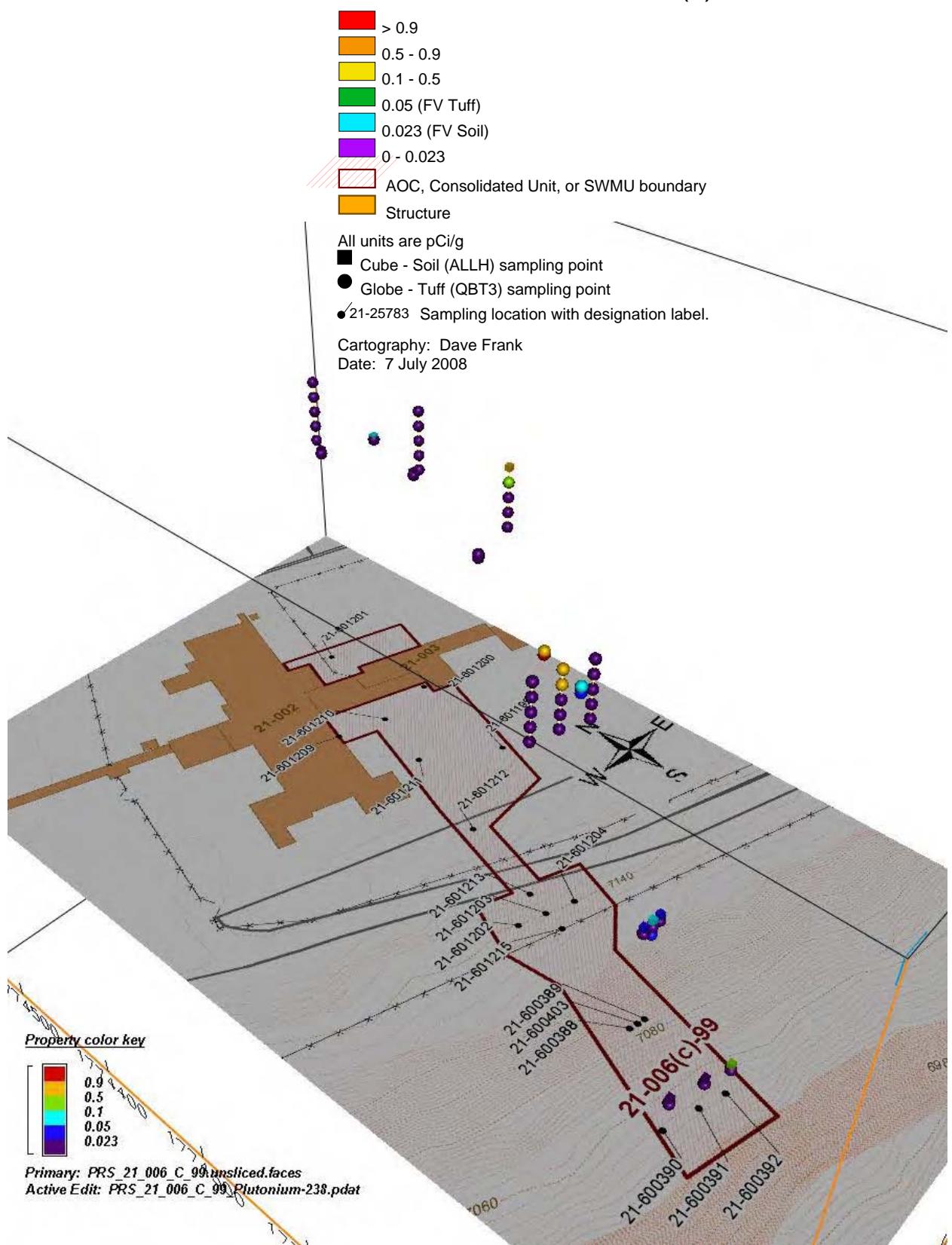
Consolidated Unit 21-006(c)-99 Copper



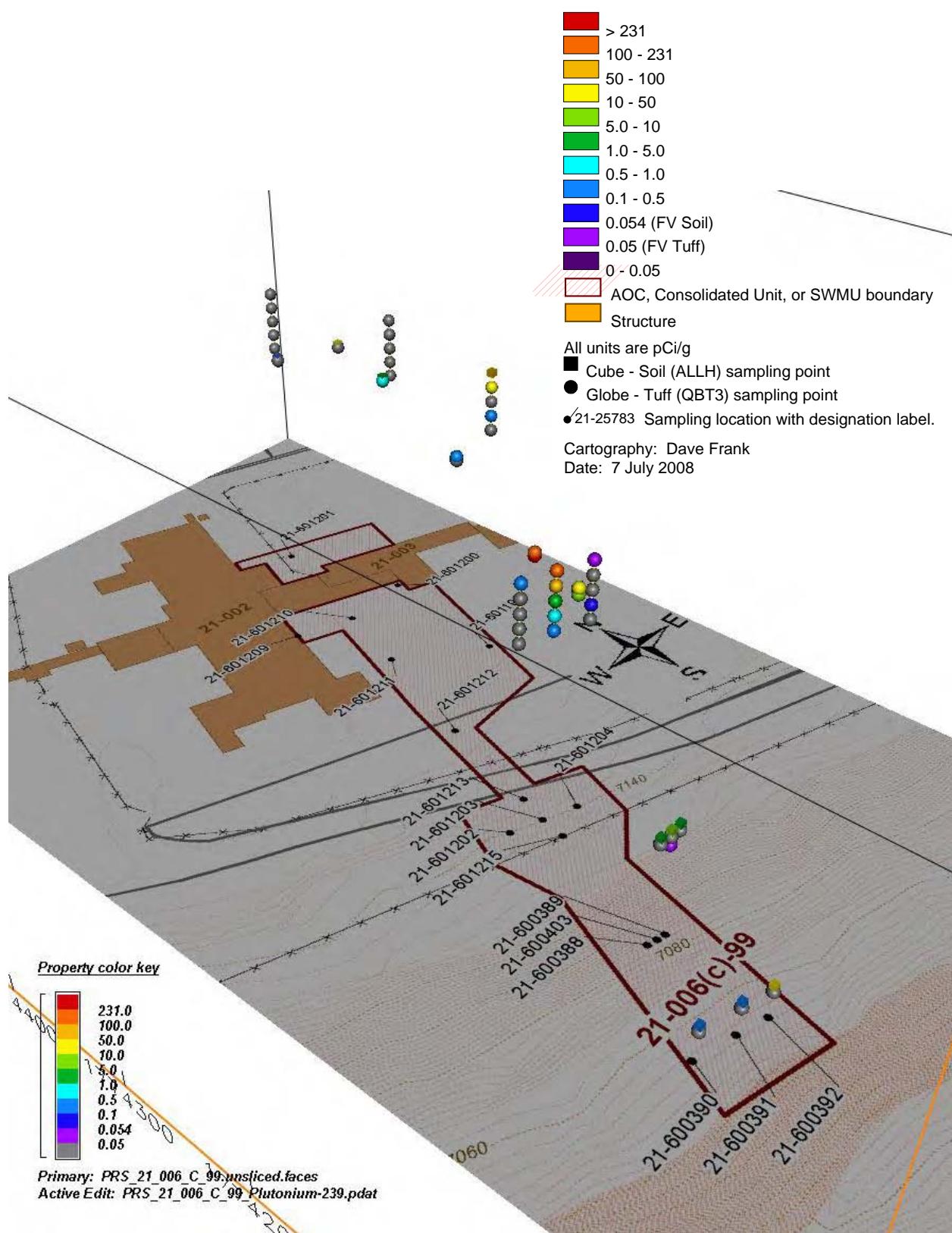
Consolidated Unit 21-006(c)-99 Nitrate



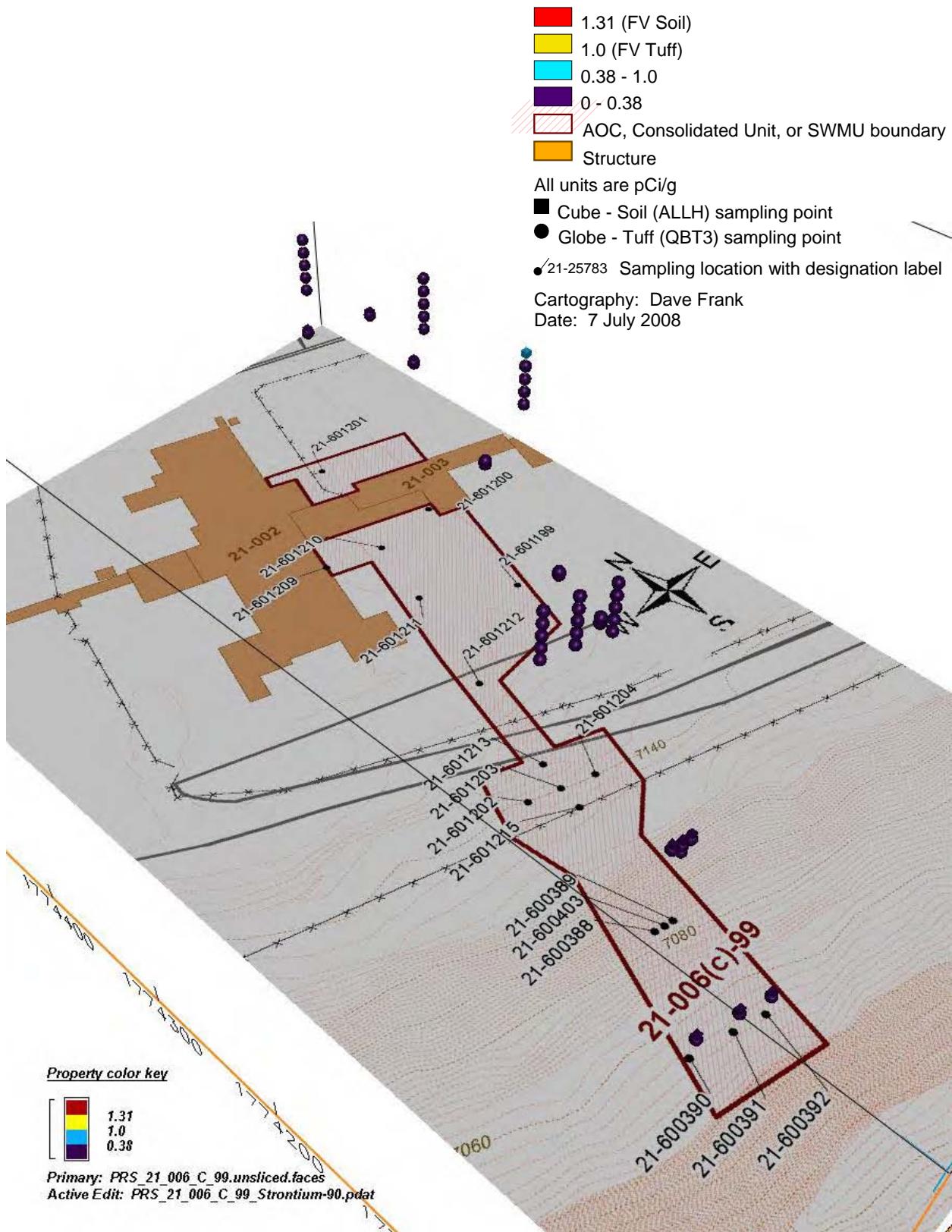
Consolidated Unit 21-006(c)-99 Plutonium-238



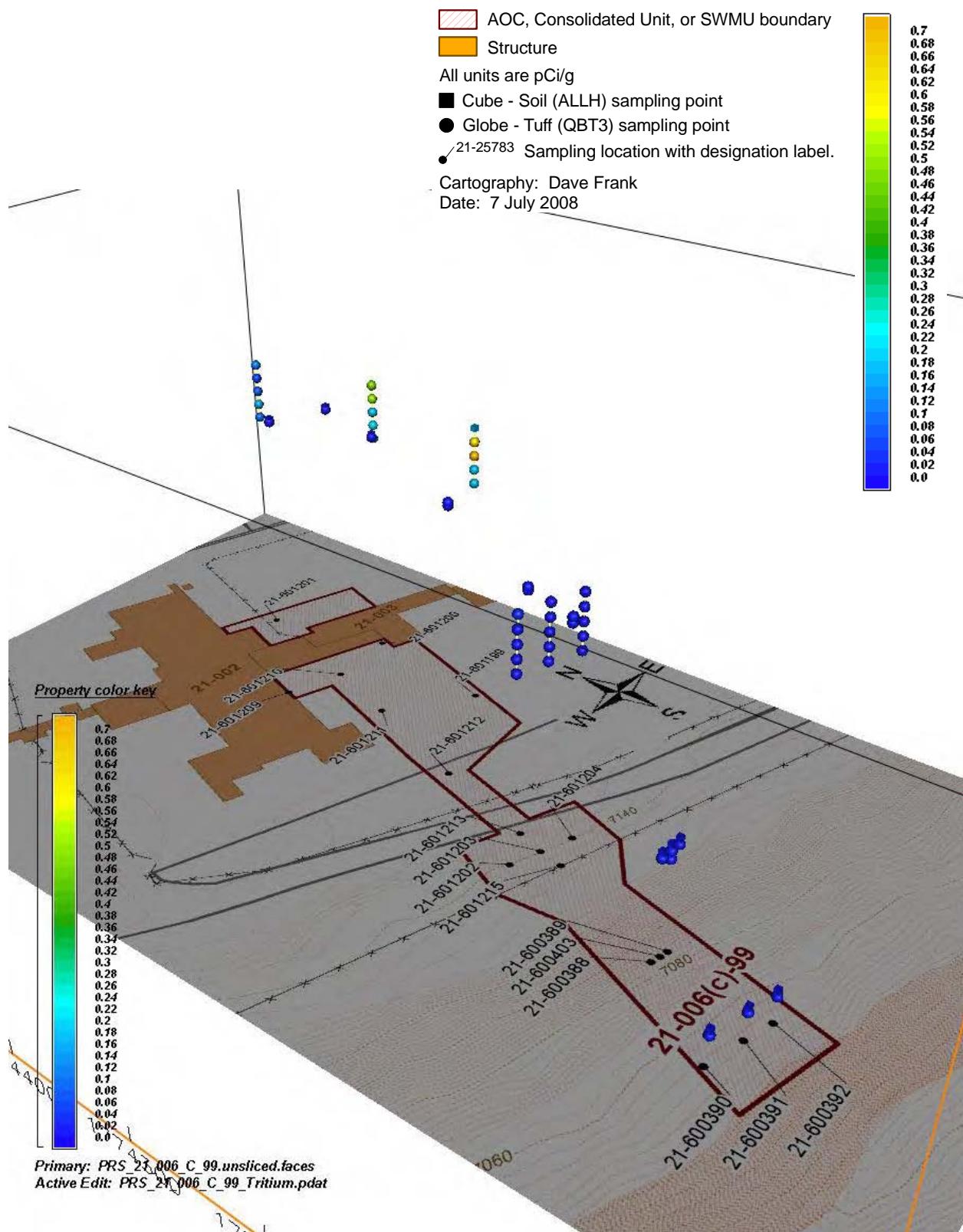
Consolidated Unit 21-006(c)-99 Plutonium-239



Consolidated Unit 21-006(c)-99 Strontium-90



Consolidated Unit 21-006(c)-99 Tritium



SWMU 21-009 Americium-241

- > 0.31
- 0.1 - 0.31
- 0.05 (FV Tuff)
- 0.013 (FV Soil)
- 0-0.013

■ AOC, Consolidated Unit, or SWMU boundary
■ Structure

All units are pCi/g

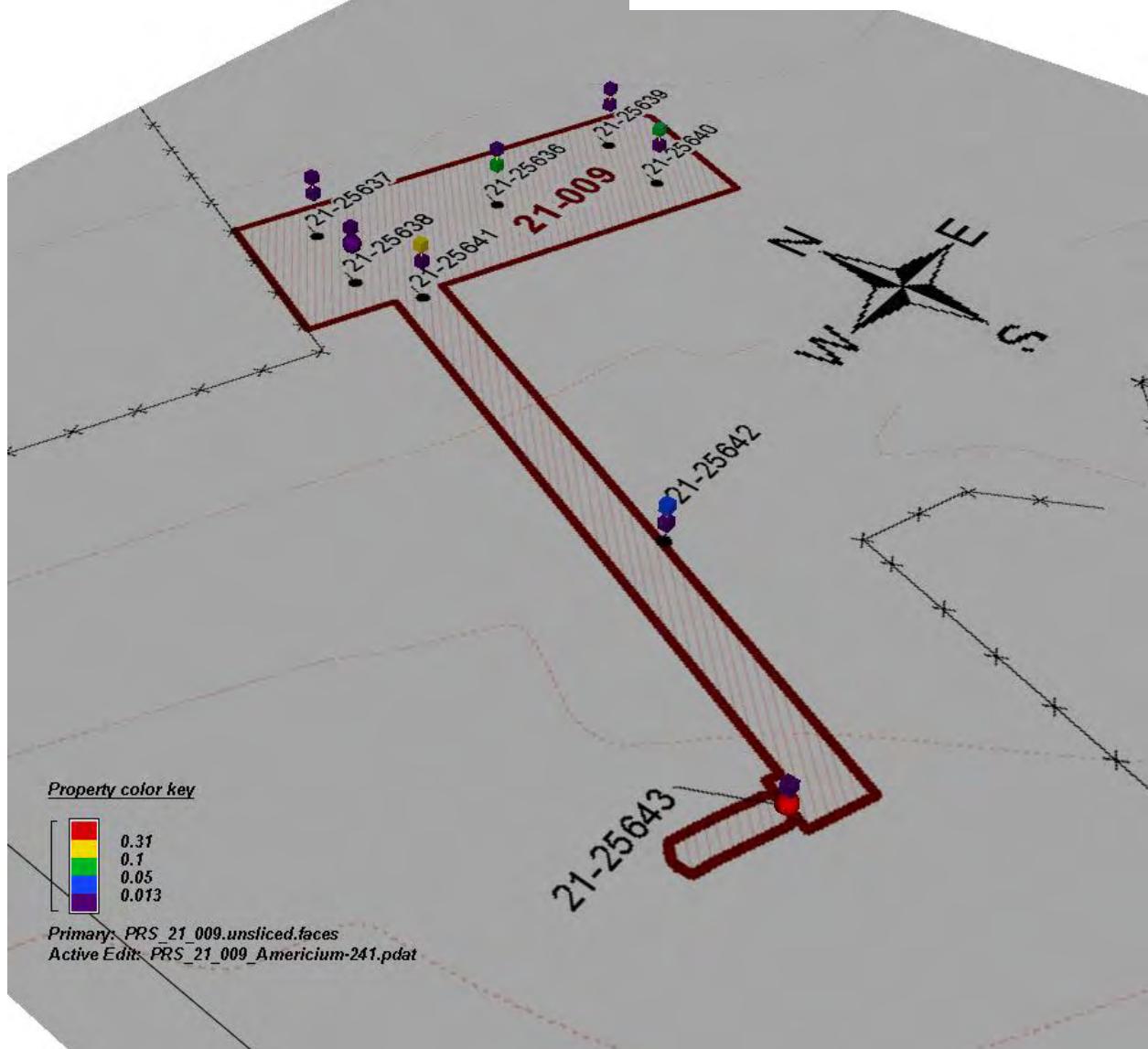
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

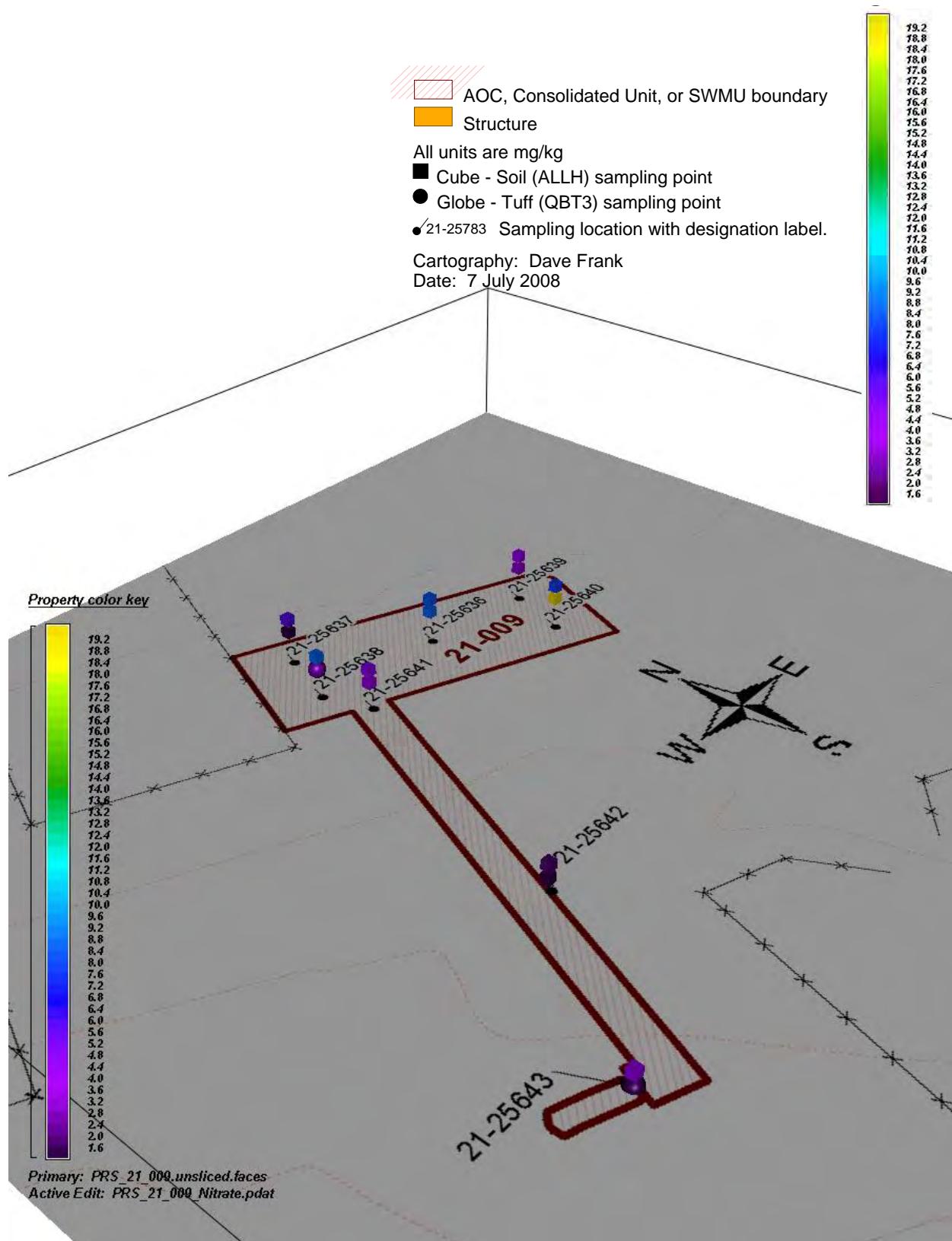
● 21-25783 Sampling location with designation label.

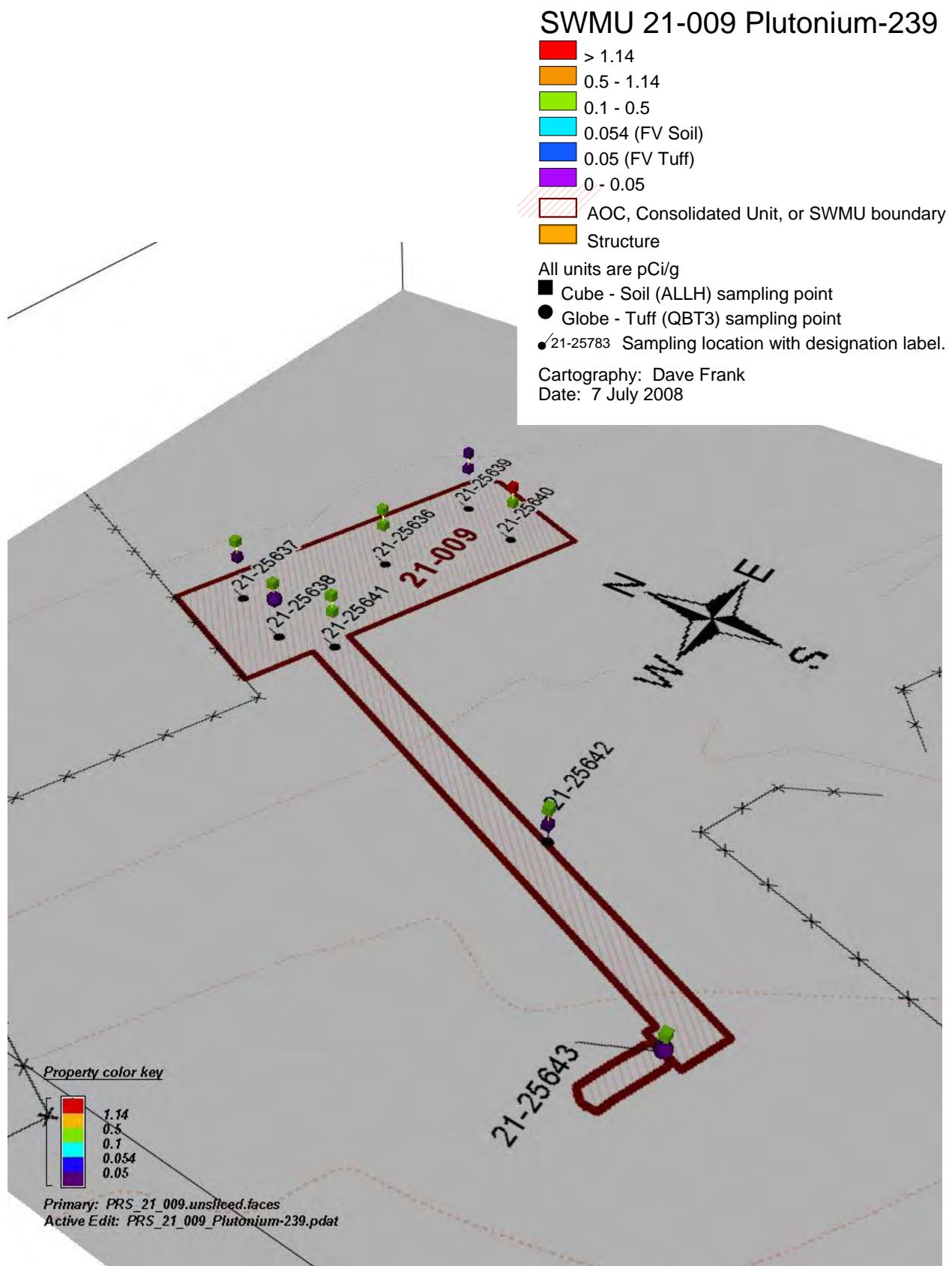
Cartography: Dave Frank

Date: 7 July 2008

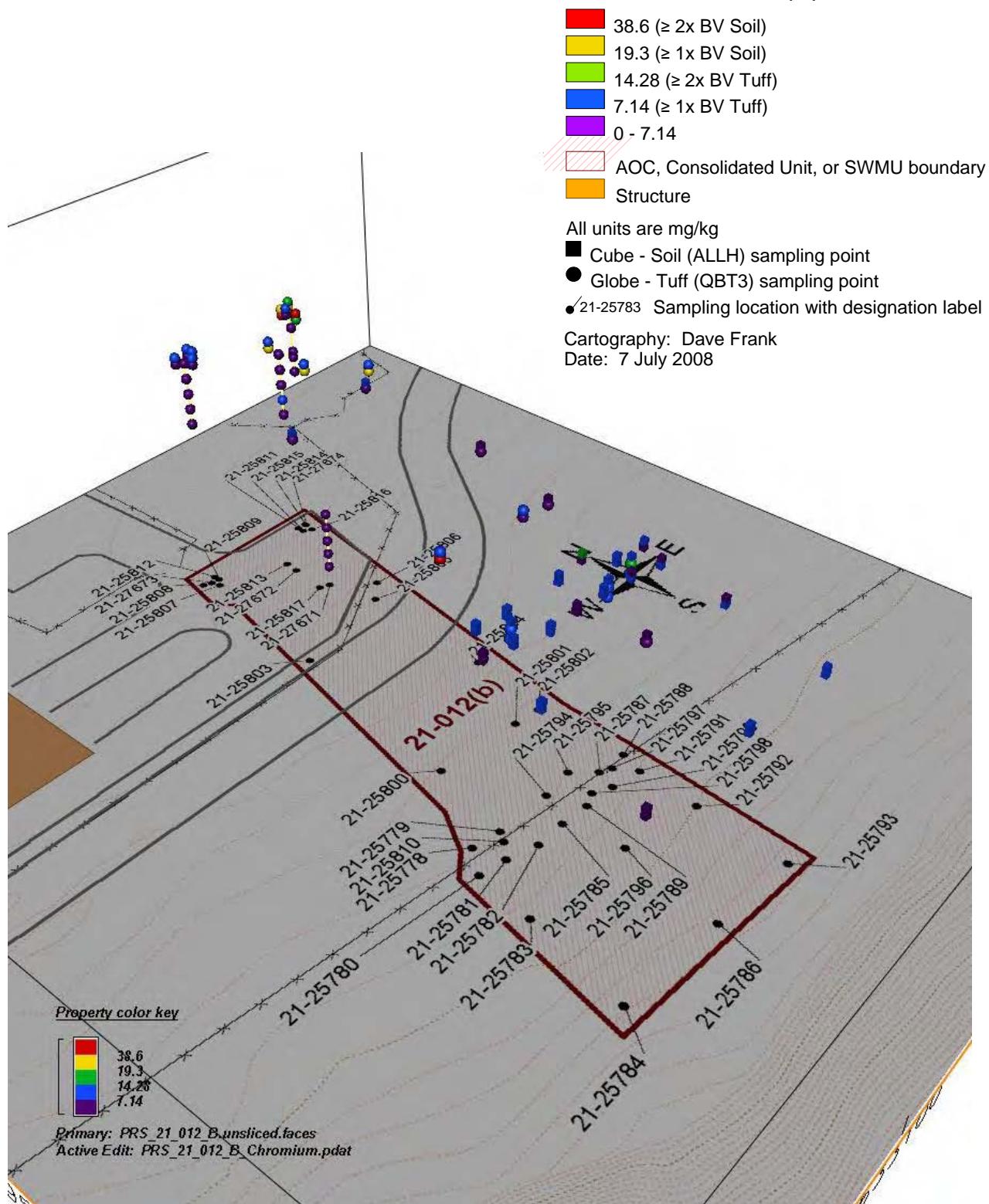


SWMU 21-009 Nitrate

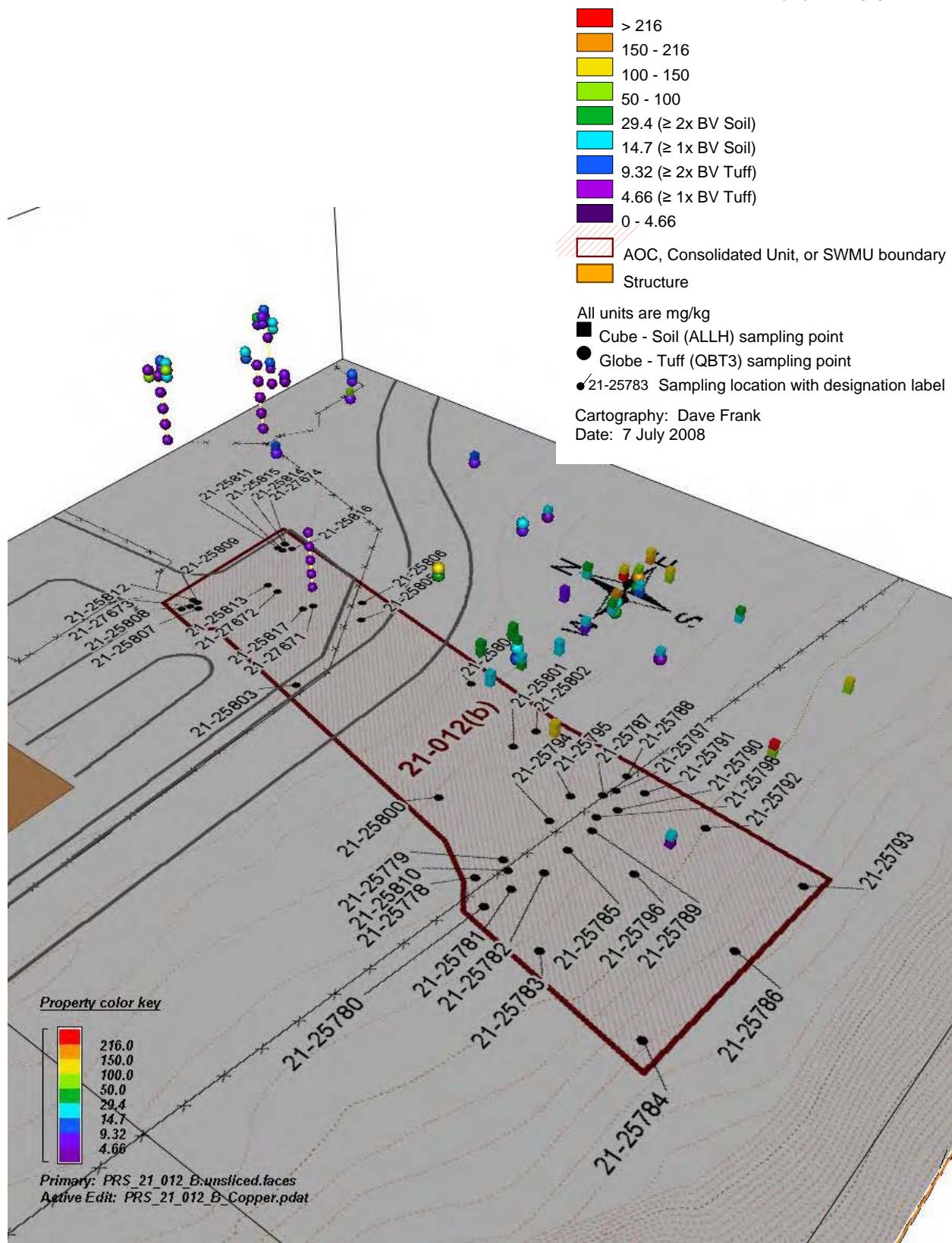




SWMU 21-012(b) Chromium



SWMU 21-012(b) Copper



SWMU 21-012(b) Lead

44.6 ($\geq 2x$ BV Soil)22.4 ($\geq 2x$ BV Tuff)22.3 ($\geq 1x$ BV Soil)11.2 ($\geq 1x$ BV Tuff)

0 - 11.2

AOC, Consolidated Unit, or SWMU boundary

Structure

All units are mg/kg

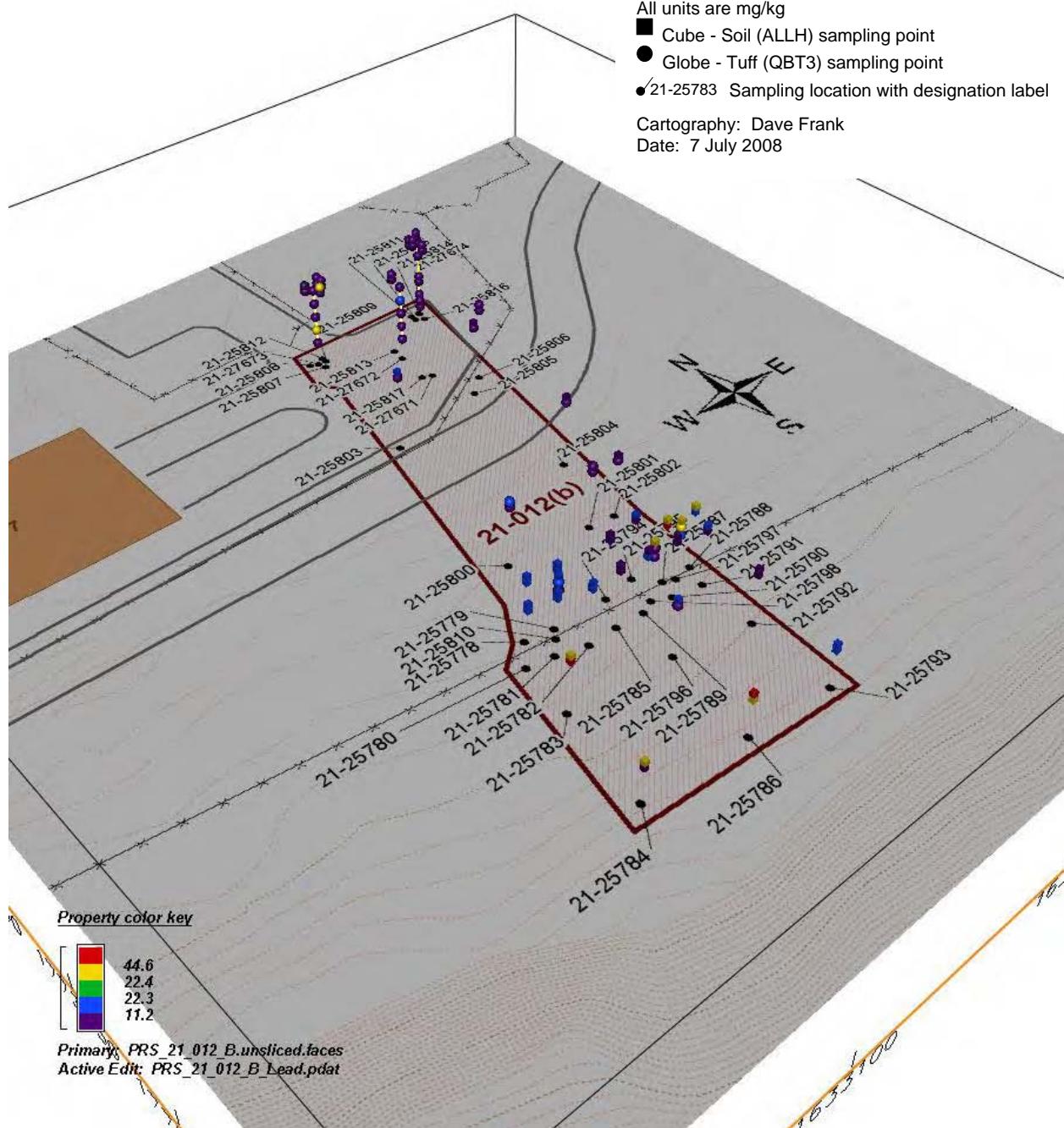
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

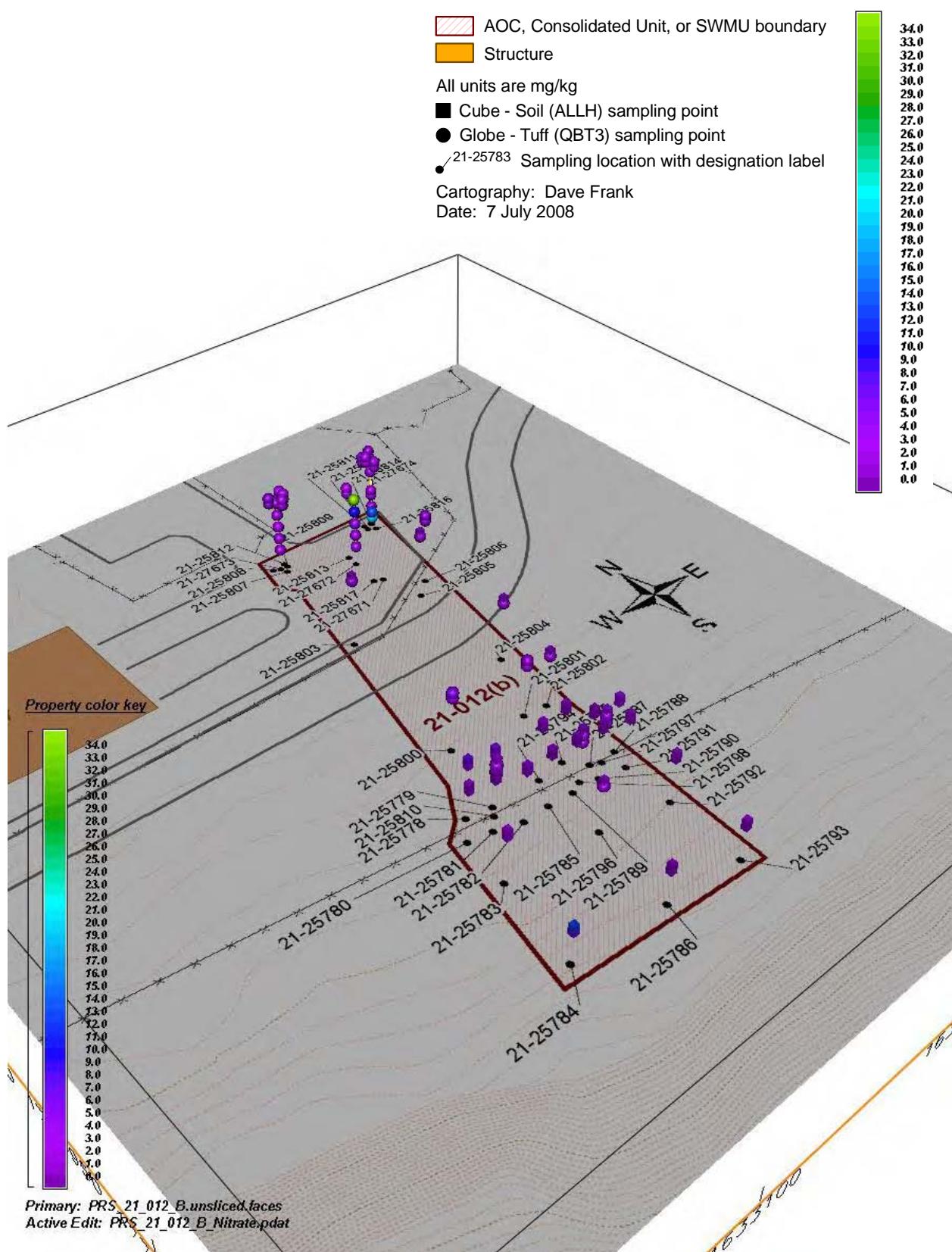
● 21-25783 Sampling location with designation label

Cartography: Dave Frank

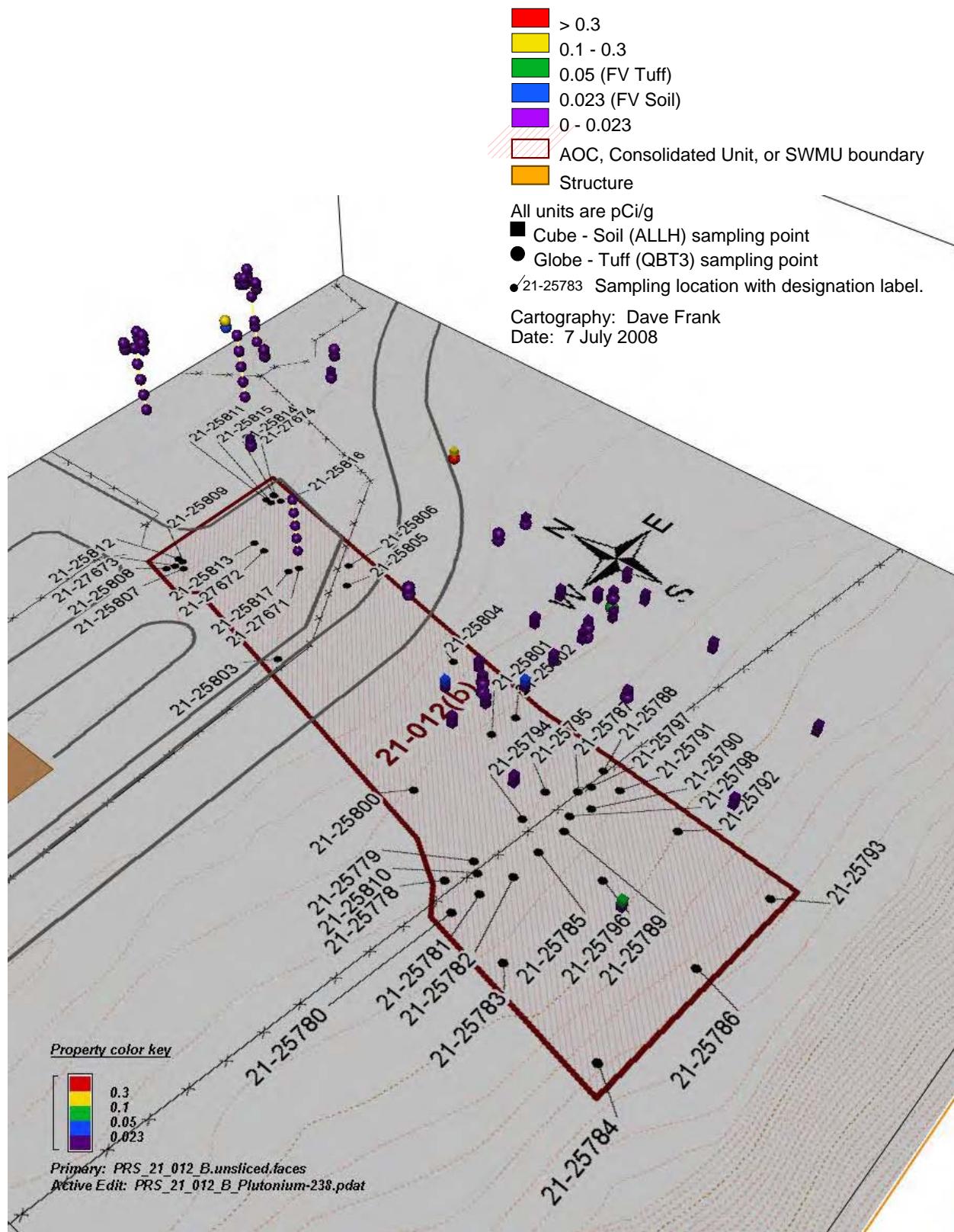
Date: 7 July 2008



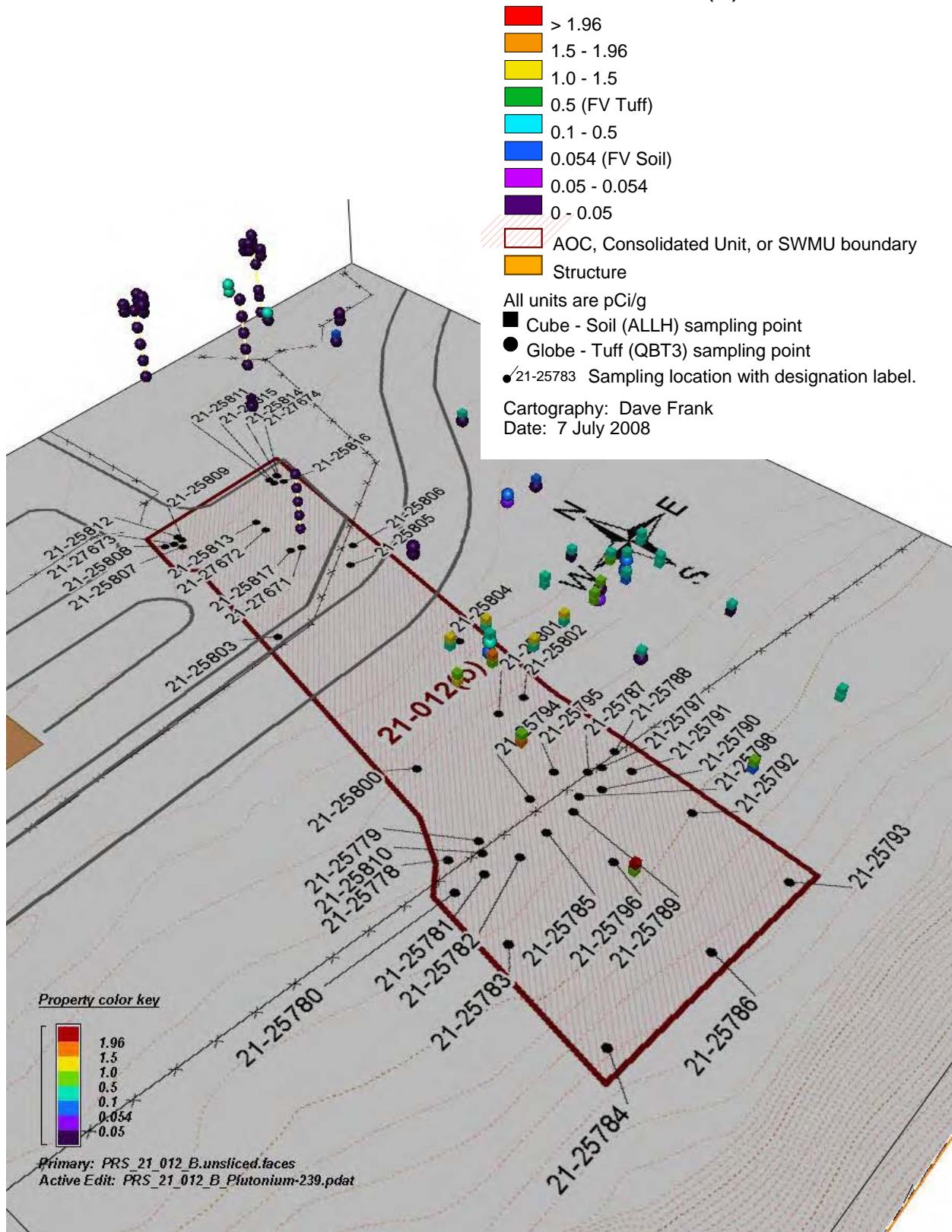
SWMU 21-012(b) Nitrate

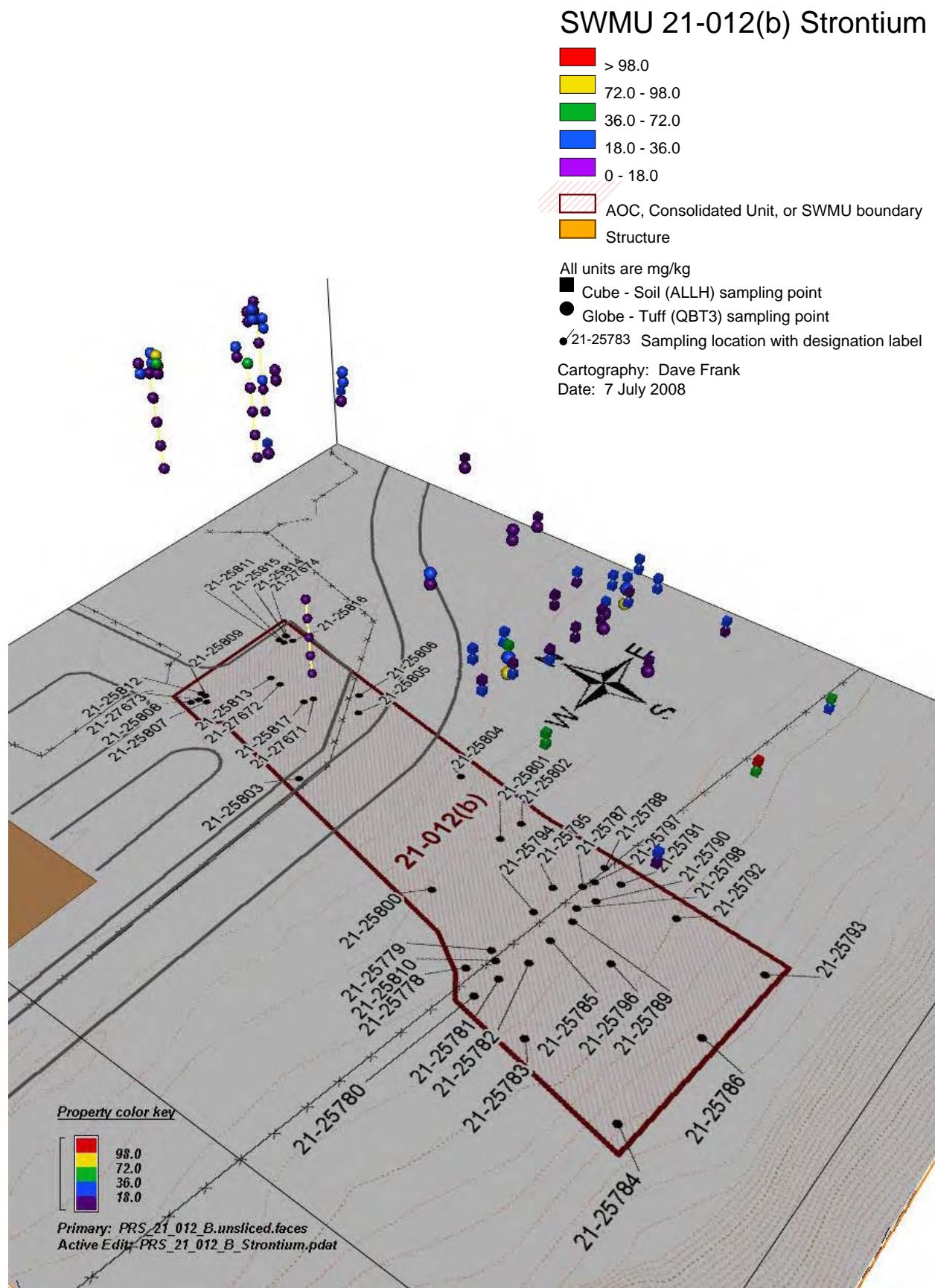


SWMU 21-012(b) Plutonium-238

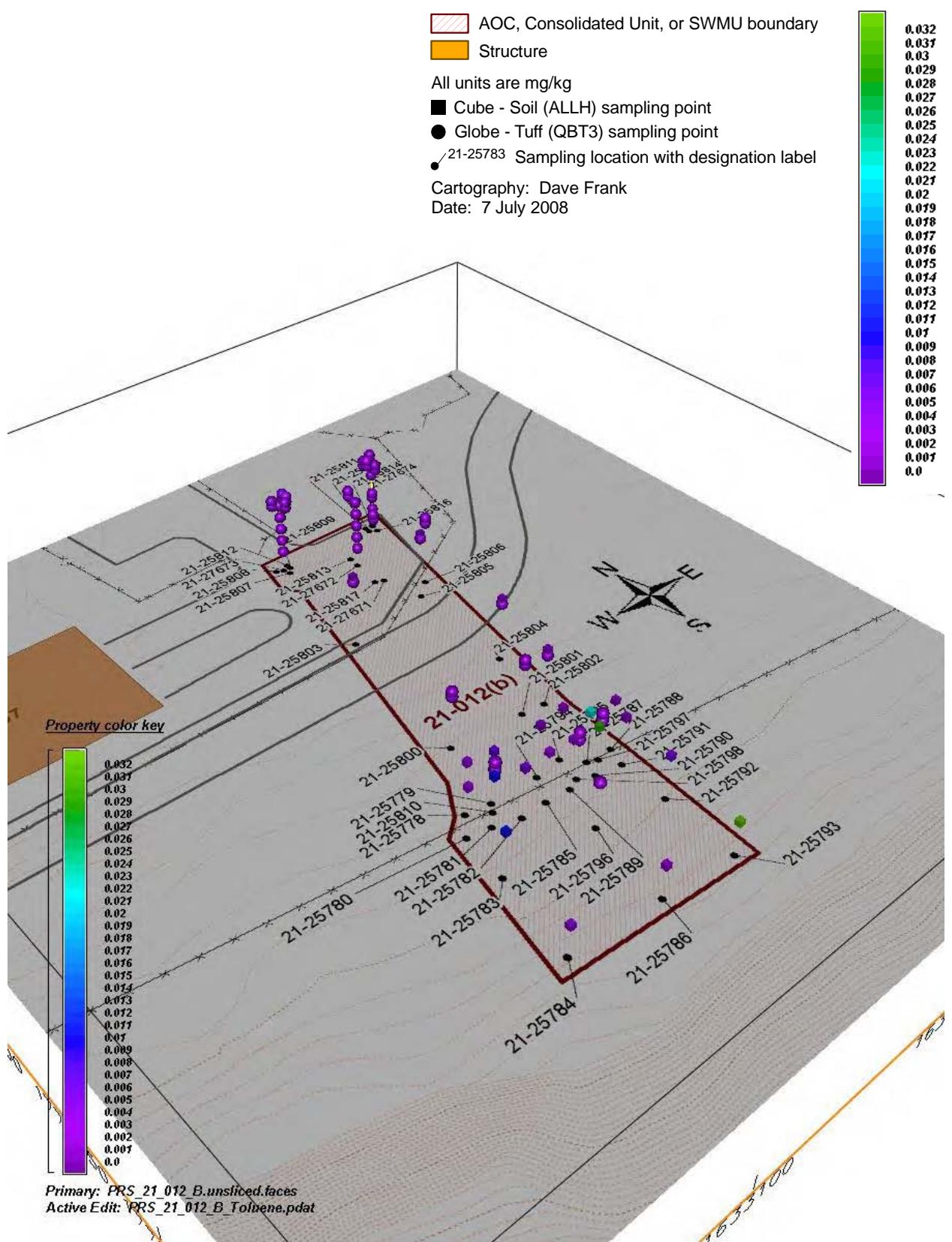


SWMU 21-012(b) Plutonium-239





SWMU 21-012(b) Toluene



SWMU 21-012(b) Zinc

127 ($\geq 2x$ BV Tuff)97.6 ($\geq 2x$ BV Soil)63.5 ($\geq 1x$ BV Tuff)48.8 ($\geq 1x$ BV Soil)

0 - 48.8

AOC, Consolidated Unit, or SWMU boundary

Structure

All units are mg/kg

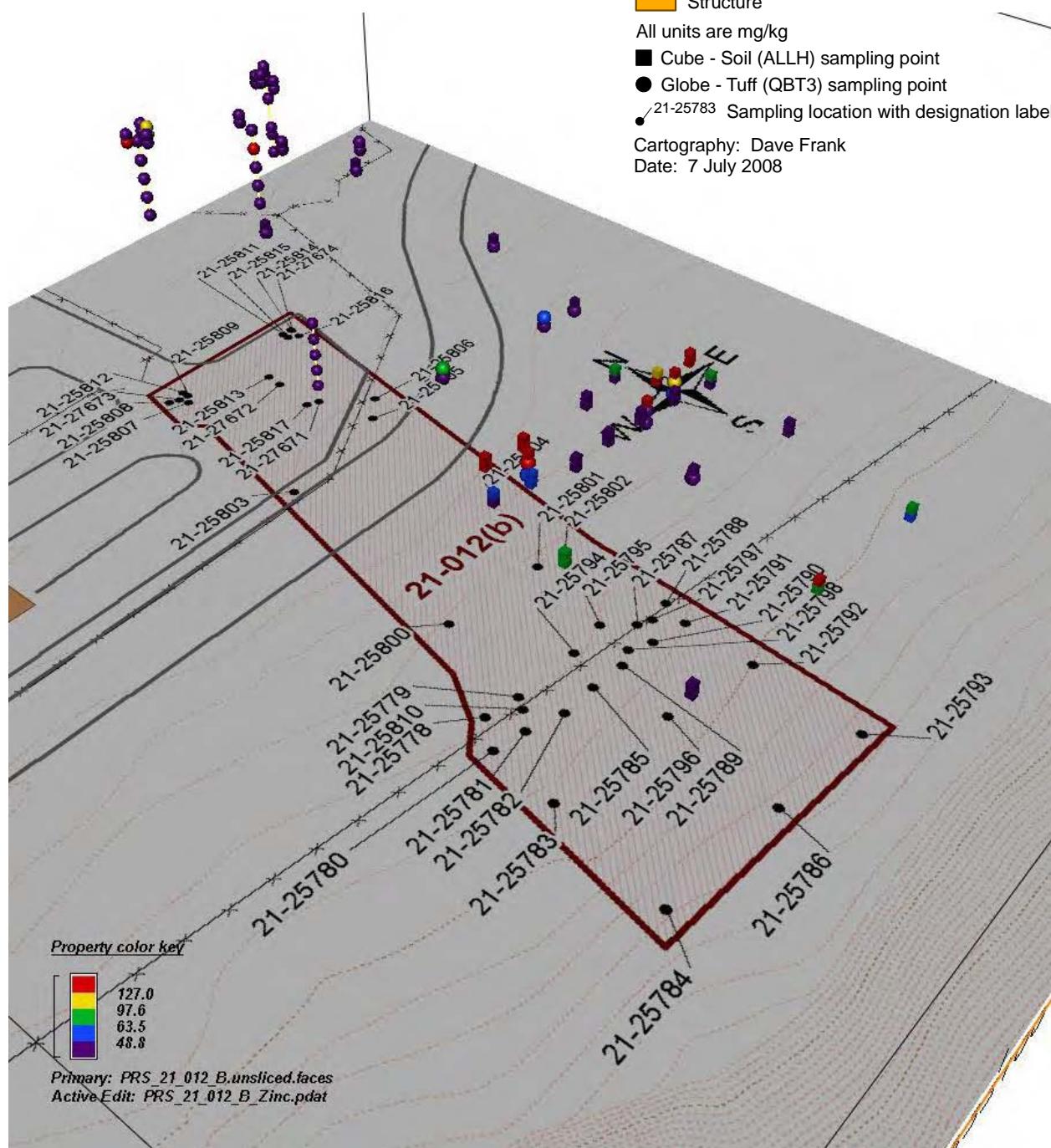
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (GBT3) sampling point

21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-013(c) Americium-241

 0.05 (FV Tuff)

 0.013 (FV Soil)

0-0.013

 AOC, Consolidated Unit, or SWMU boundary

Structure

All units are pCi/g

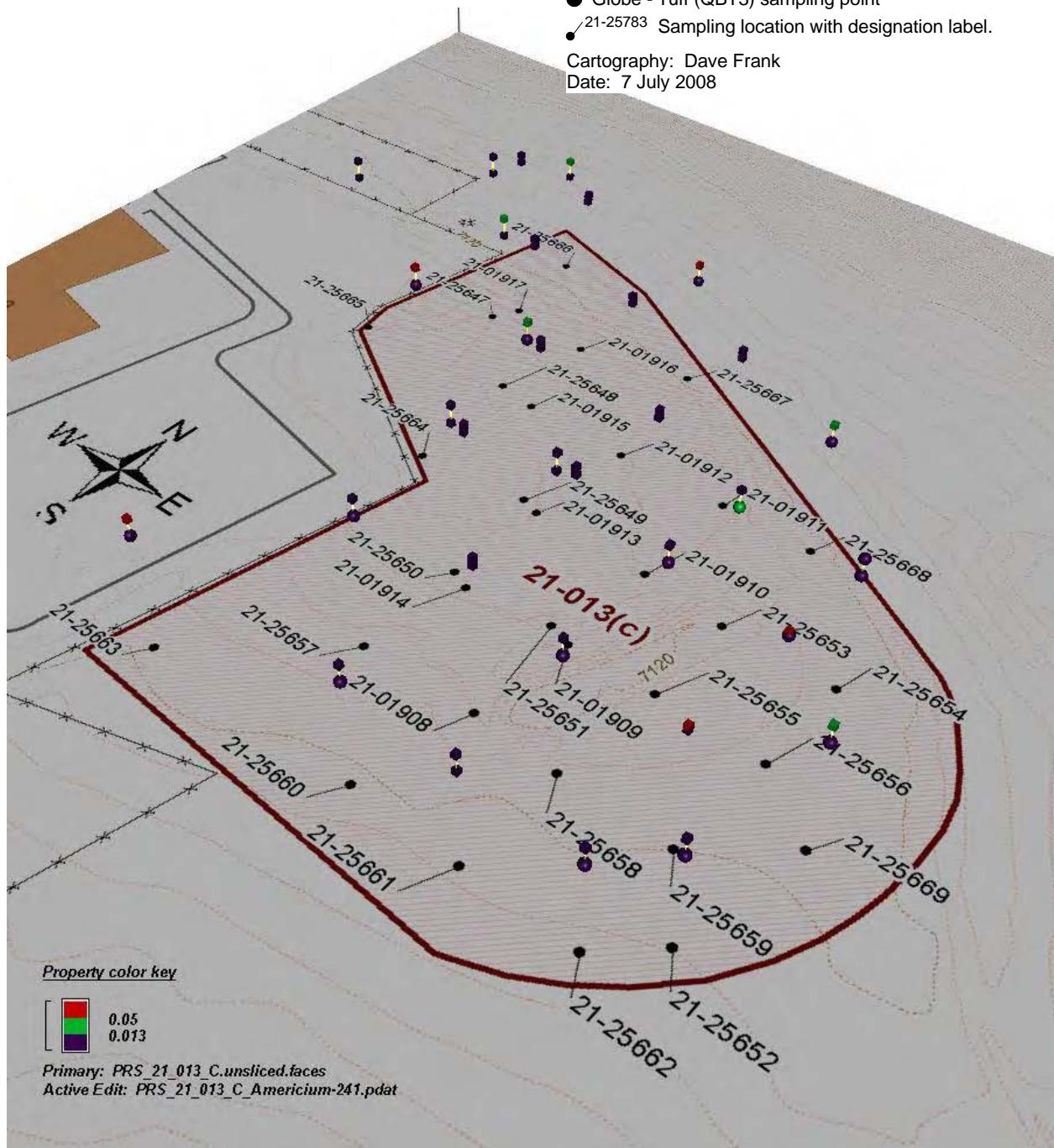
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

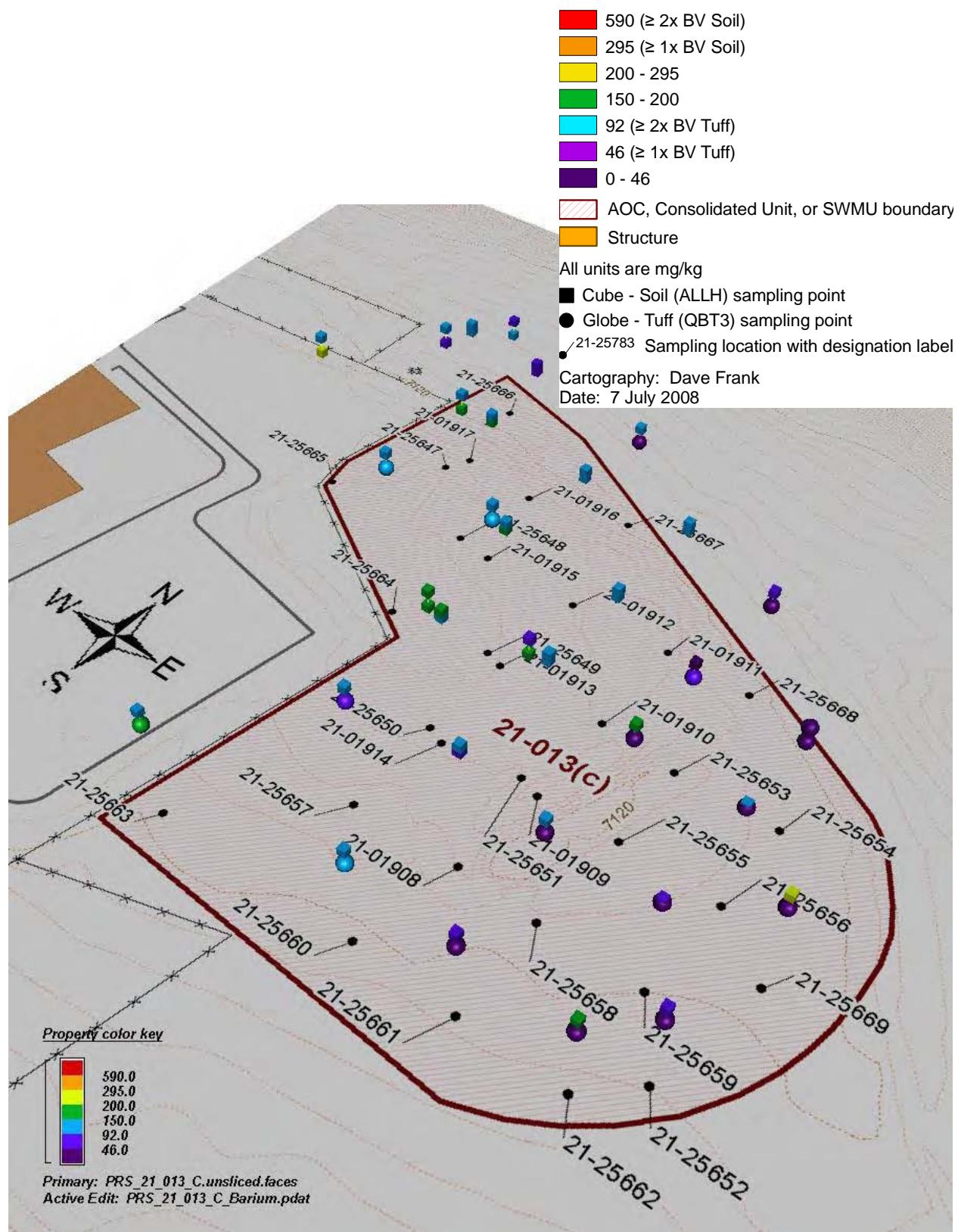
✓ 21-25783 Sampling location with designation label.

Cartography: Dave Frank

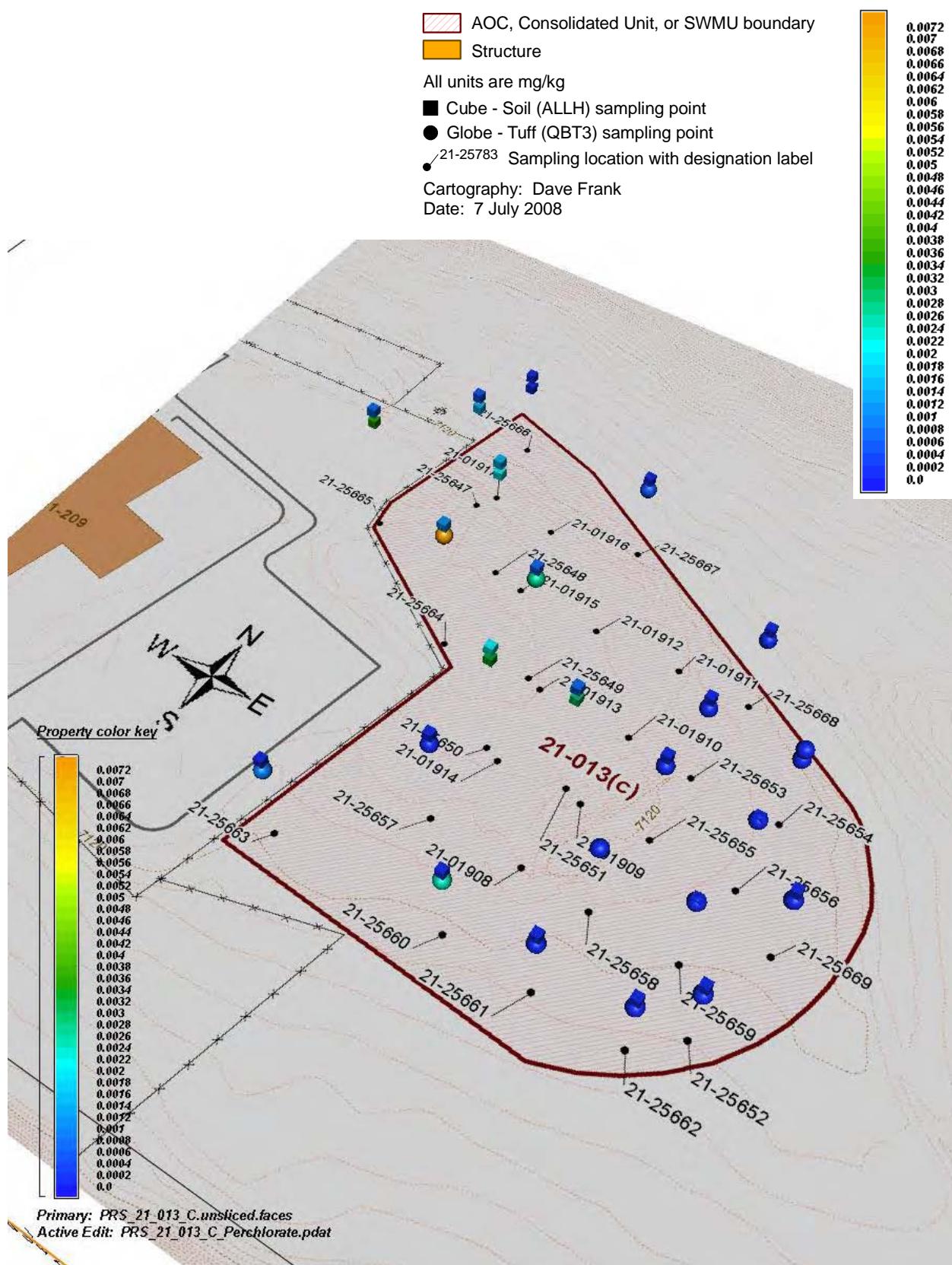
Cartography. Dav
Date: 7 July 2008



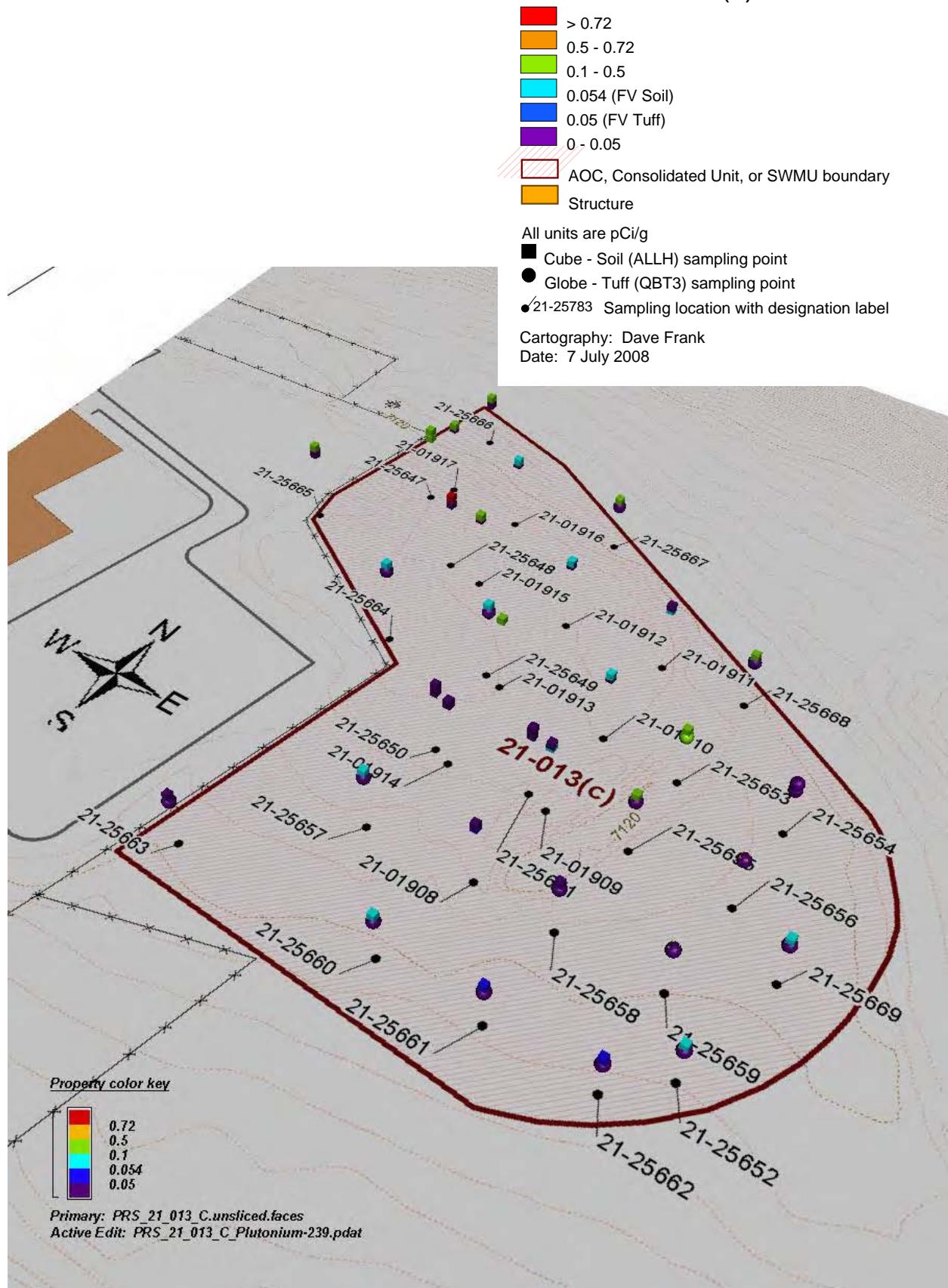
SWMU 21-013(c) Barium



SWMU 21-013(c) Perchlorate



SWMU 21-013(c) Plutonium-239



SWMU 21-013(c) Selenium

3.04 ($\geq 2x$ BV Soil)1.52 ($\geq 1x$ BV Soil)0.6 ($\geq 2x$ BV Tuff)0.3 ($\geq 1x$ BV Tuff)

0 - 0.3

AOC, Consolidated Unit, or SWMU boundary

Structure

All units are mg/kg

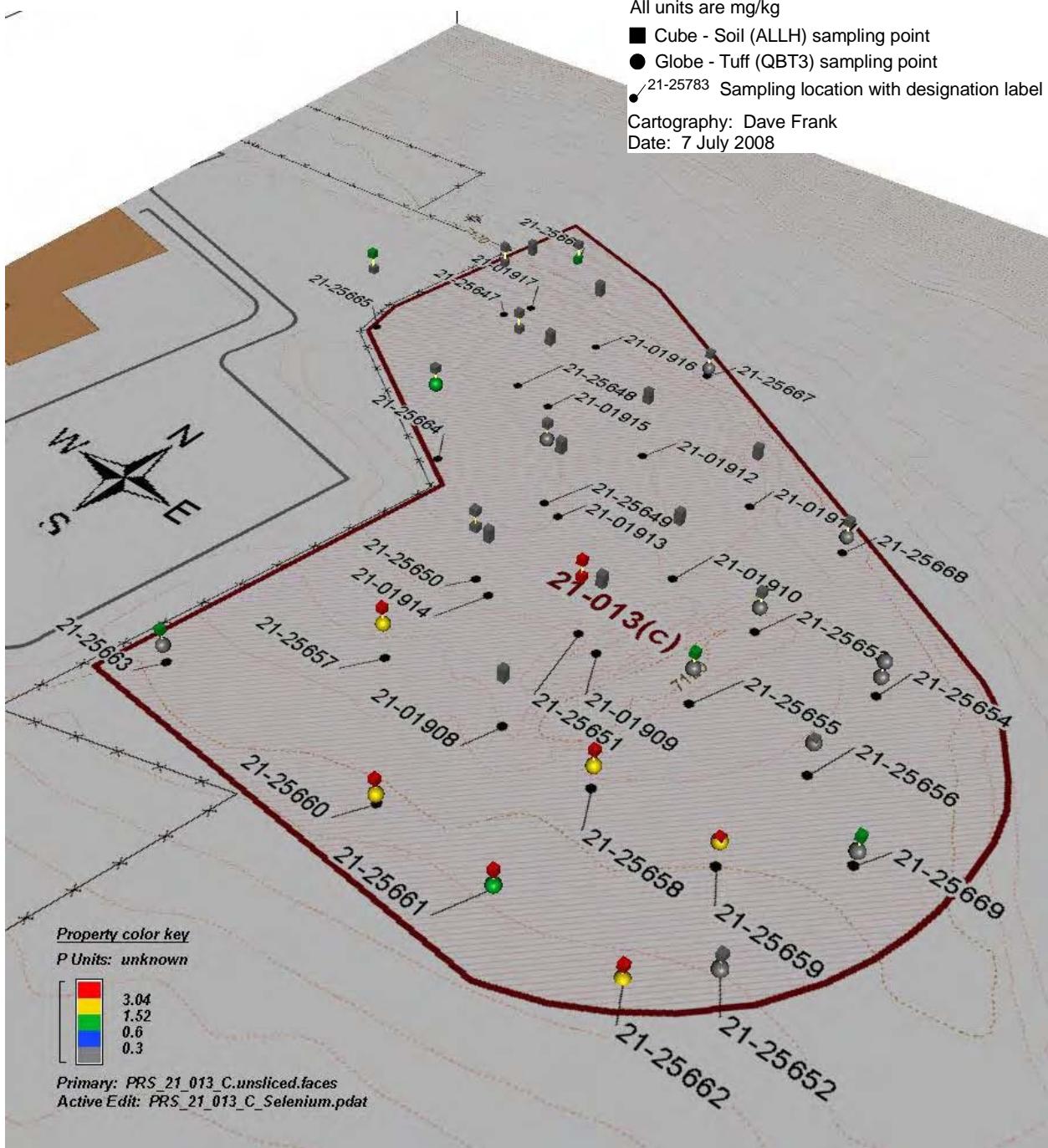
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

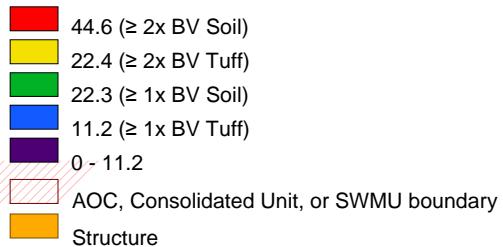
21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-022(f) Lead



All units are mg/kg

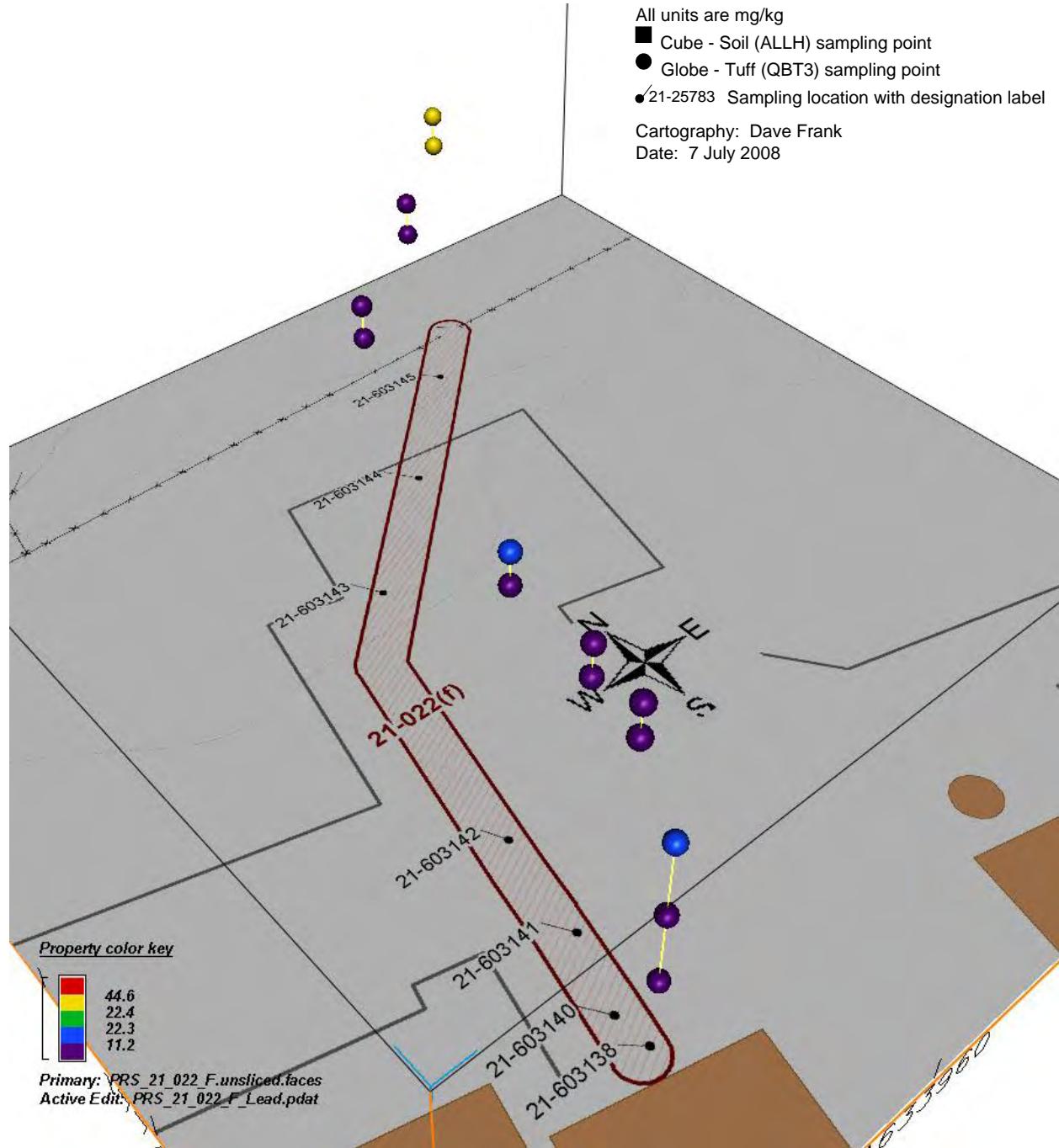
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

● 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-022(f) Selenium

3.04 ($\geq 2x$ BV Soil)1.52 ($\geq 1x$ BV Soil)0.6 ($\geq 2x$ BV Tuff)0.3 ($\geq 1x$ BV Tuff)

0 - 0.3

AOC, Consolidated Unit, or SWMU boundary

Structure

All units are mg/kg

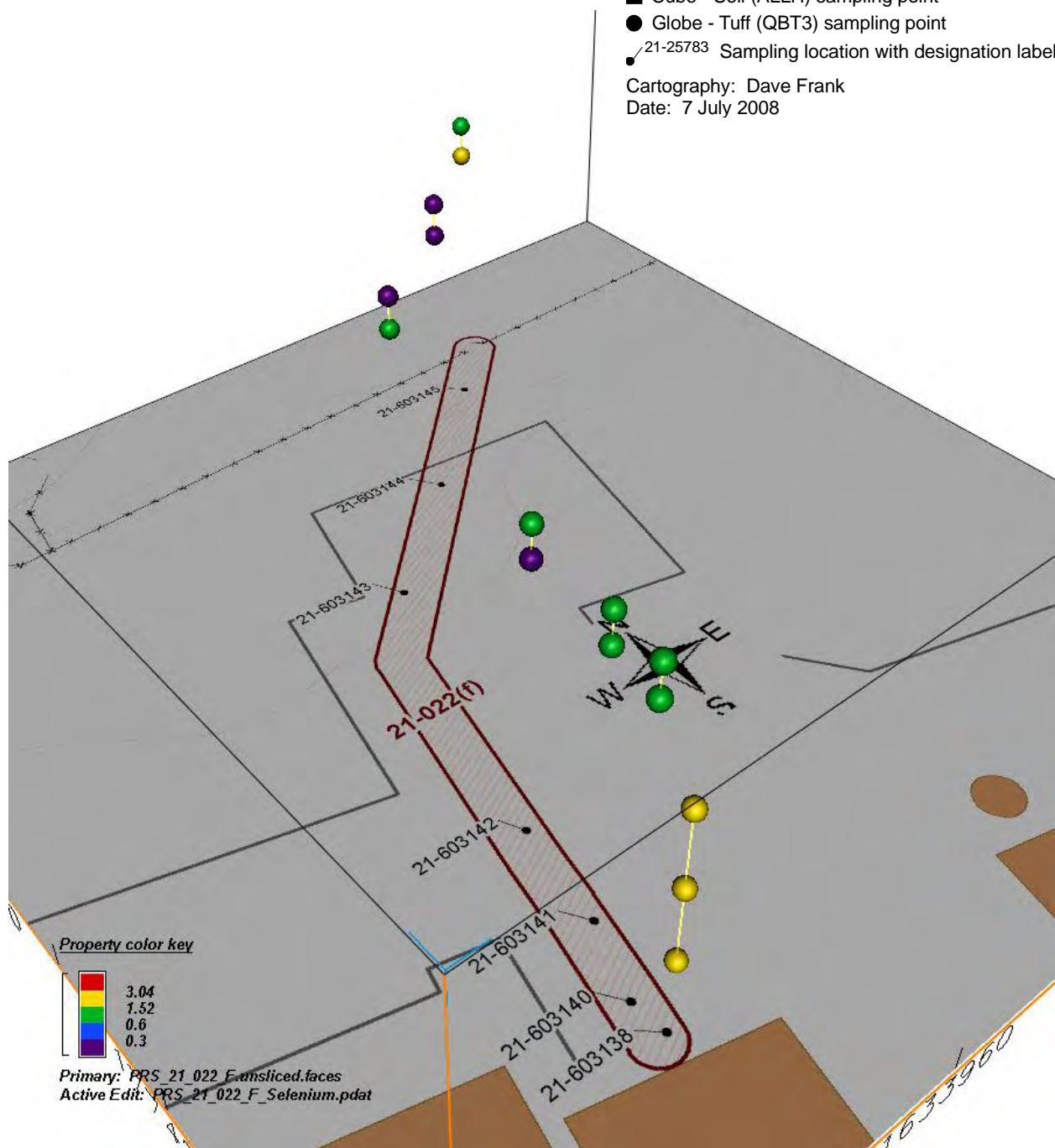
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

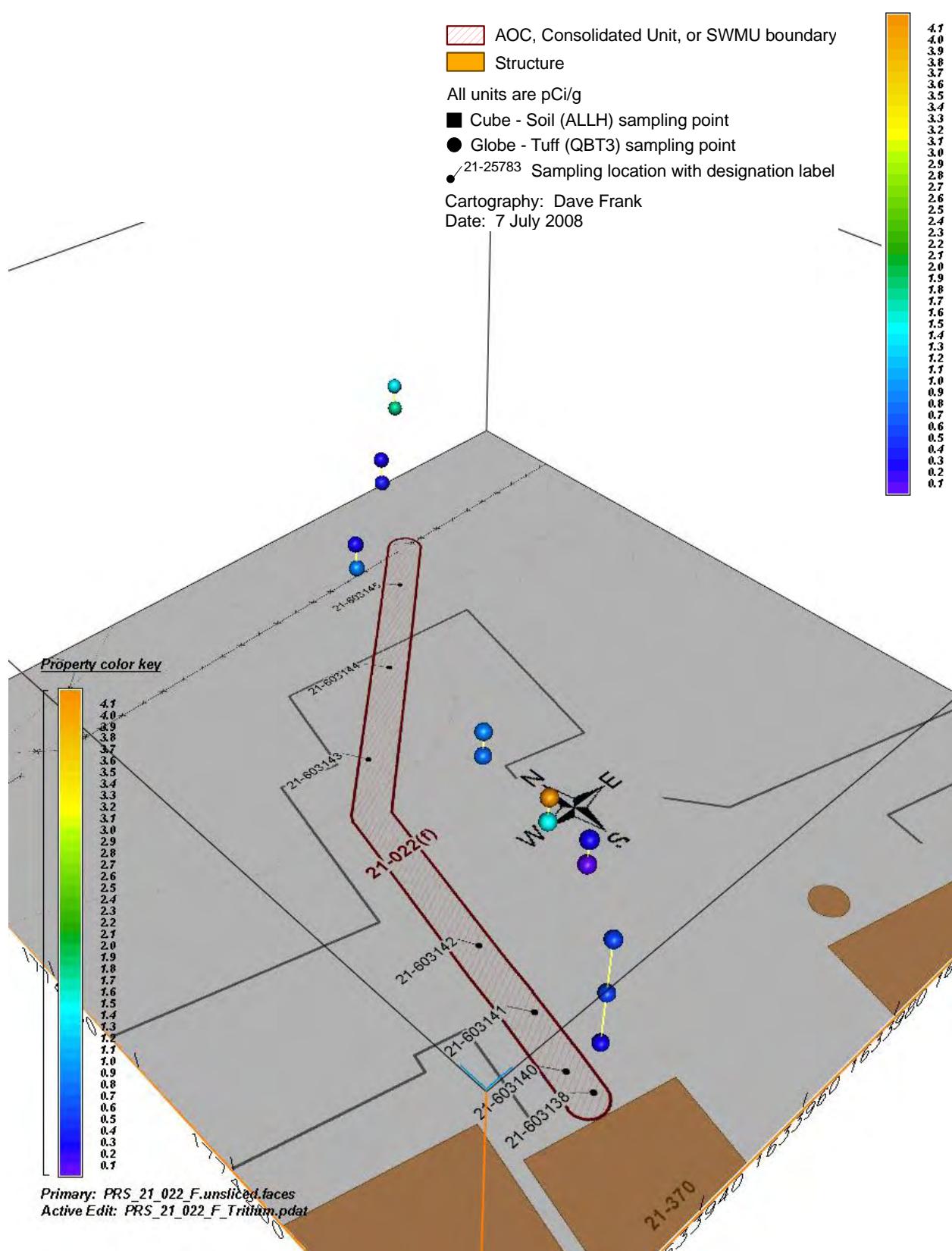
• 21-2578³ Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-022(f) Tritium



SWMU 21-022(f) Uranium-235

0.2 (FV Soil)

0.15 - 0.2

0.09 (FV Tuff)

0 - 0.09

AOC, Consolidated Unit, or SWMU boundary

Structure

All units are pCi/g

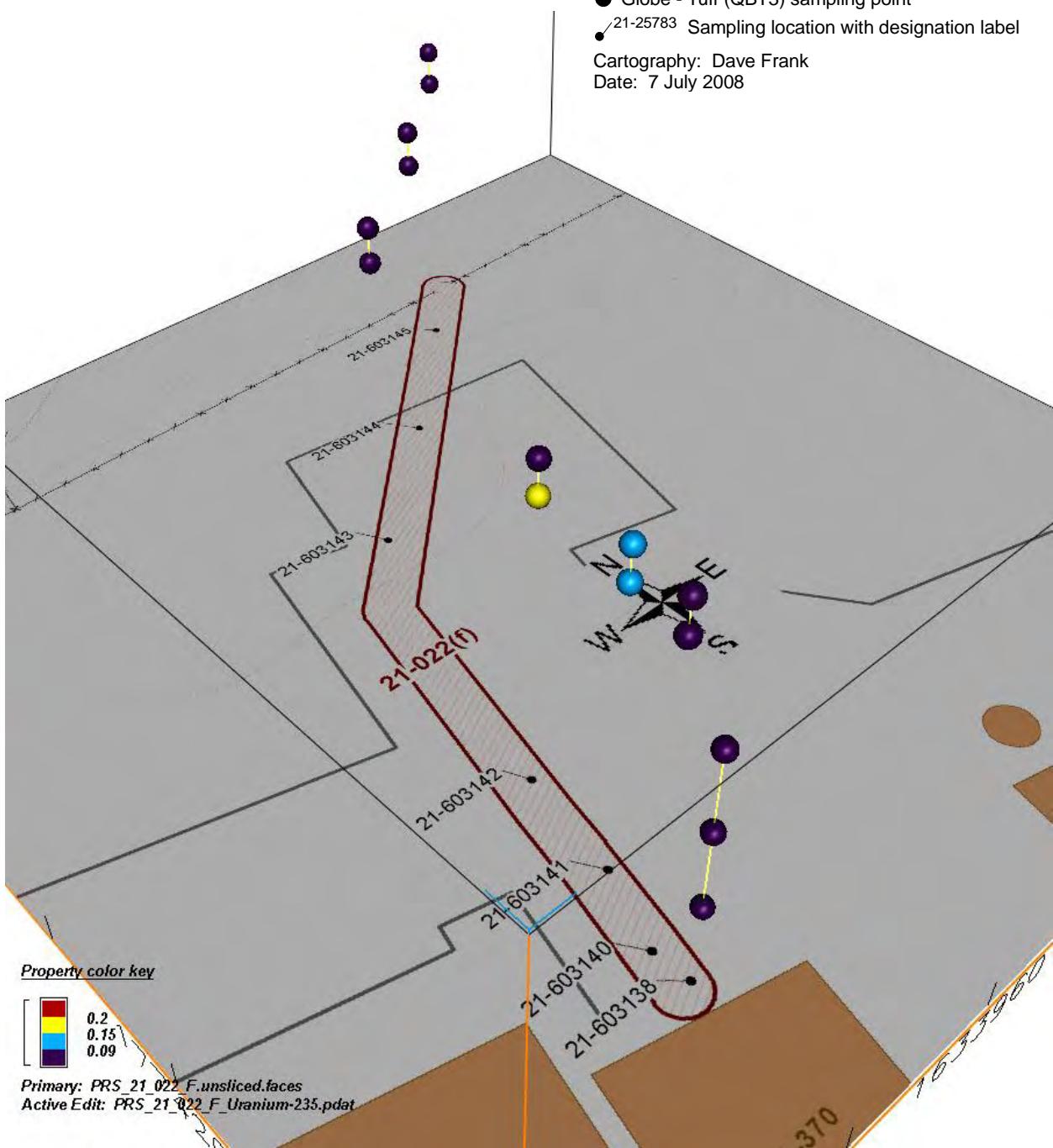
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

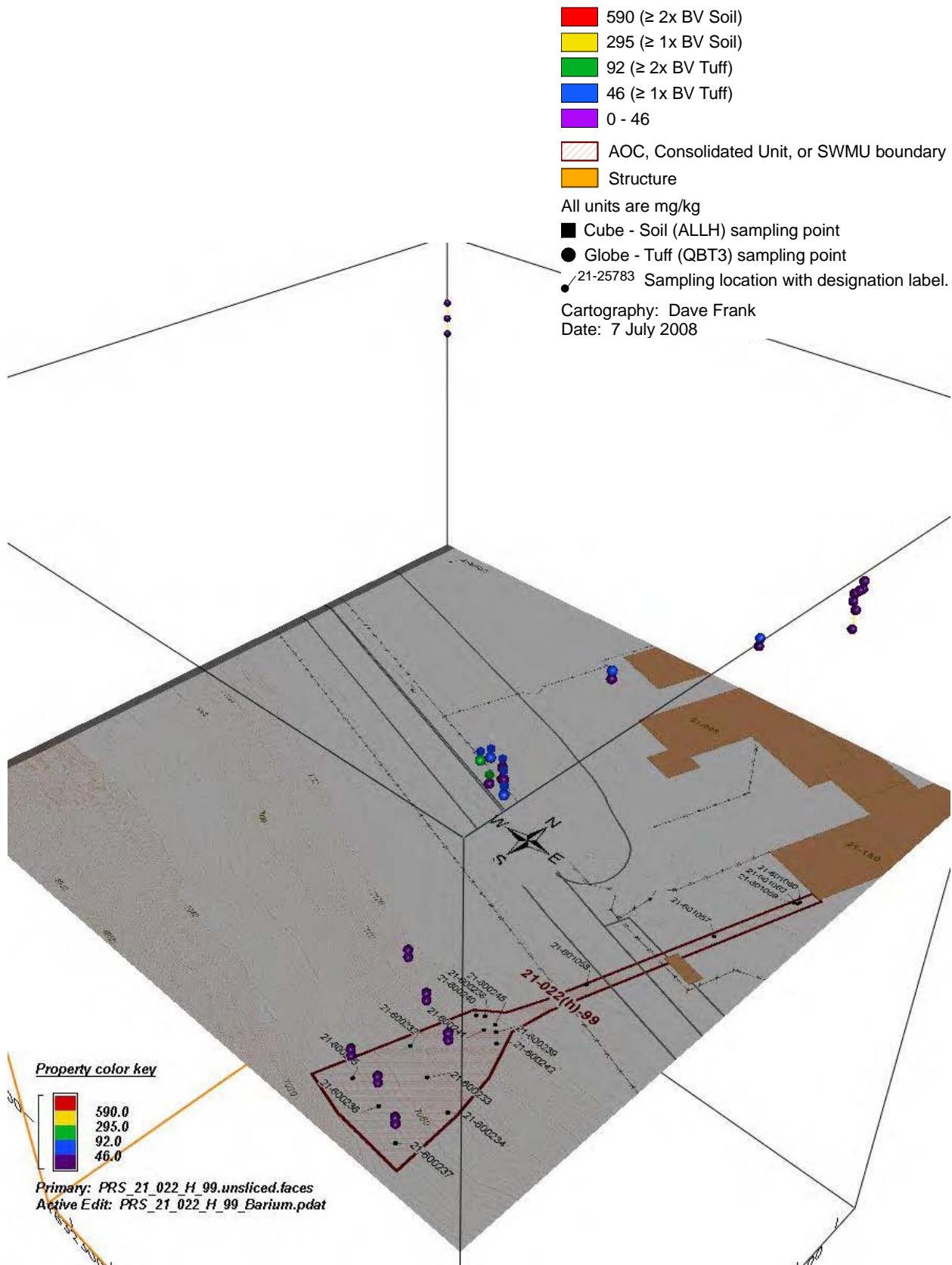
● 21-25783 Sampling location with designation label

Cartography: Dave Frank

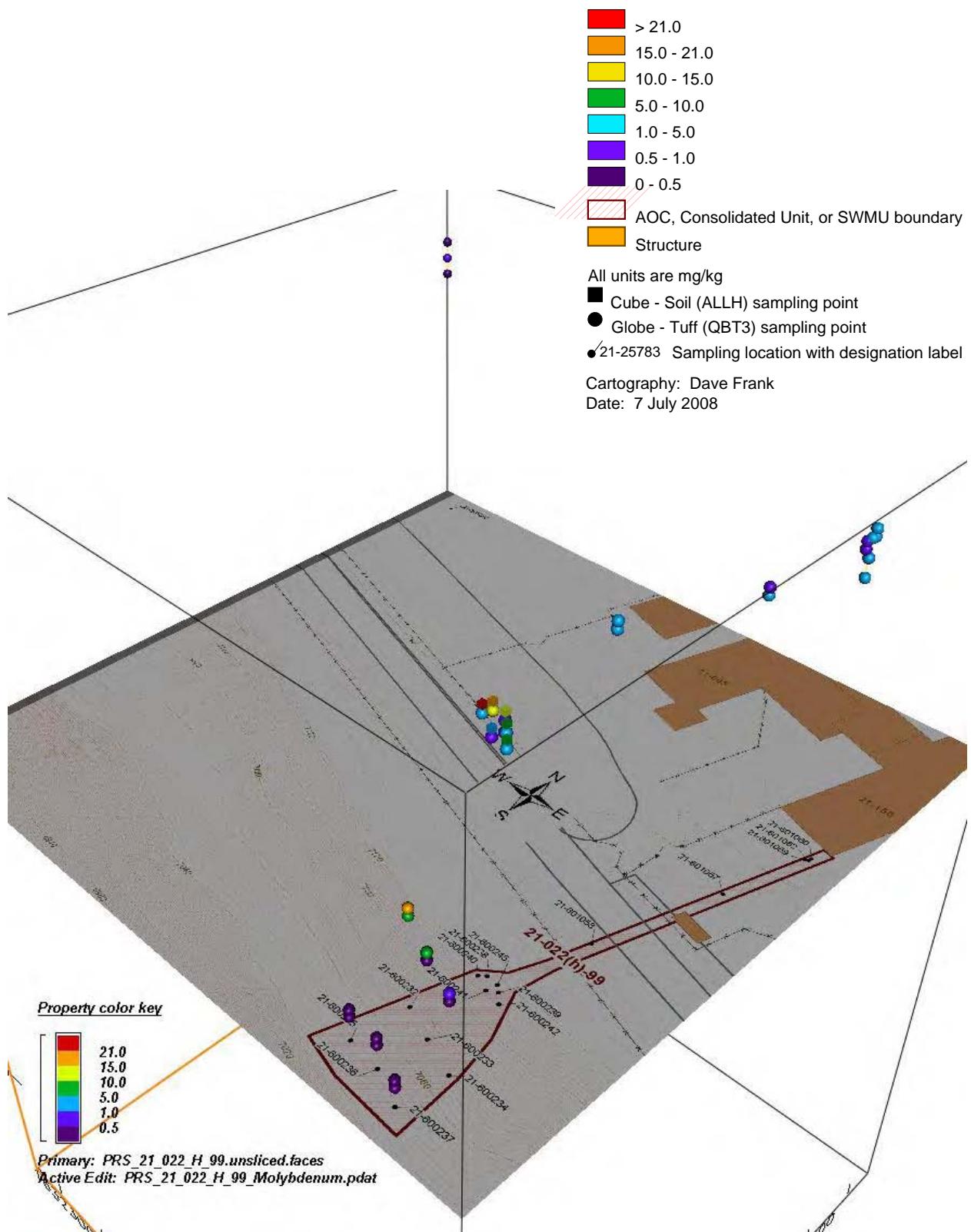
Date: 7 July 2008



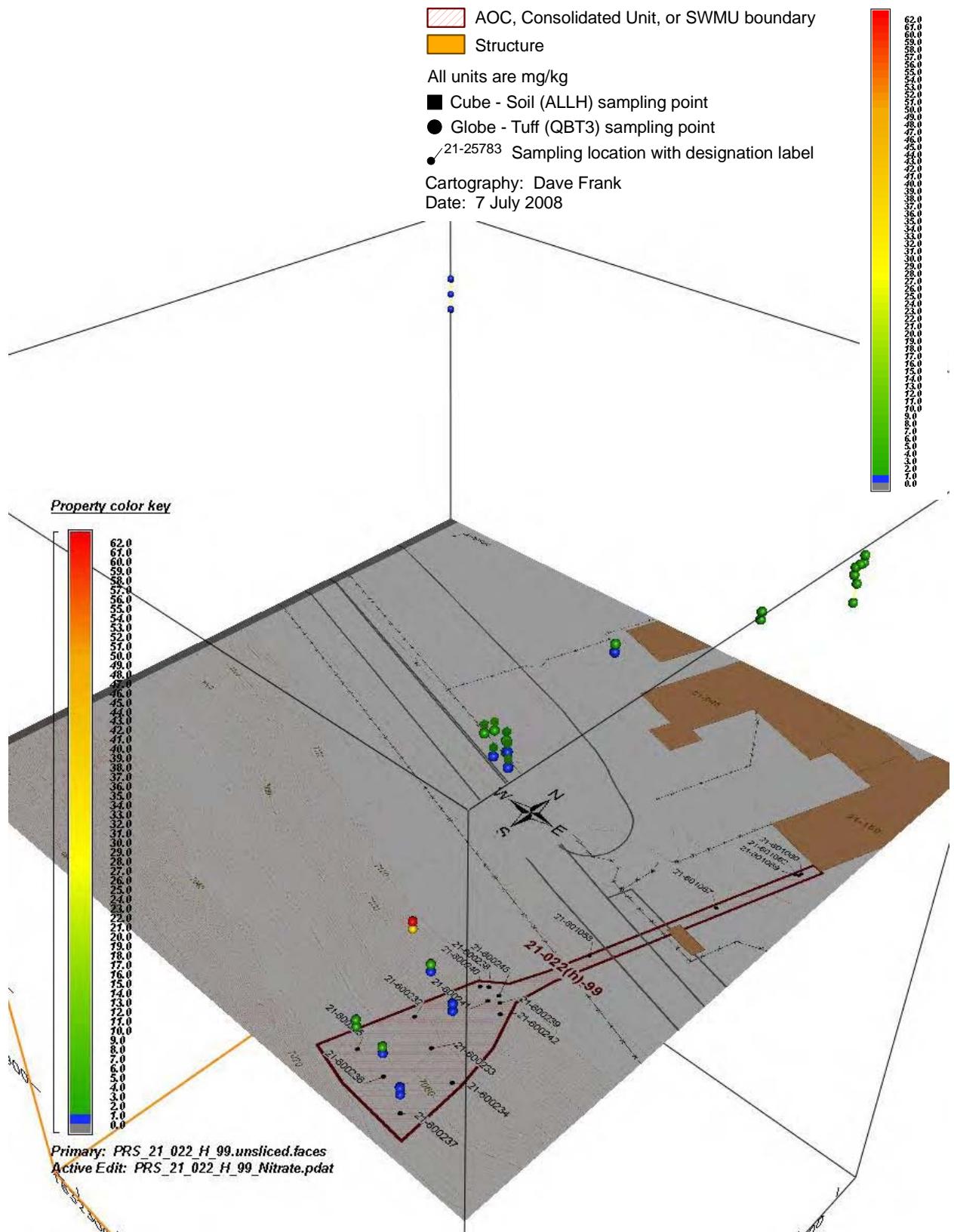
Consolidated Unit 21-022(h)-99 Barium



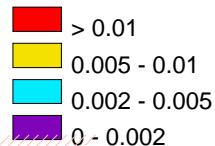
Consolidated Unit 21-022(h)-99 Molybdenum



Consolidated Unit 21-022(h)-99 Nitrate



Consolidated Unit 21-022(h)-99 Perchlorate



AOC, Consolidated Unit, or SWMU boundary

Structure

All units are mg/kg

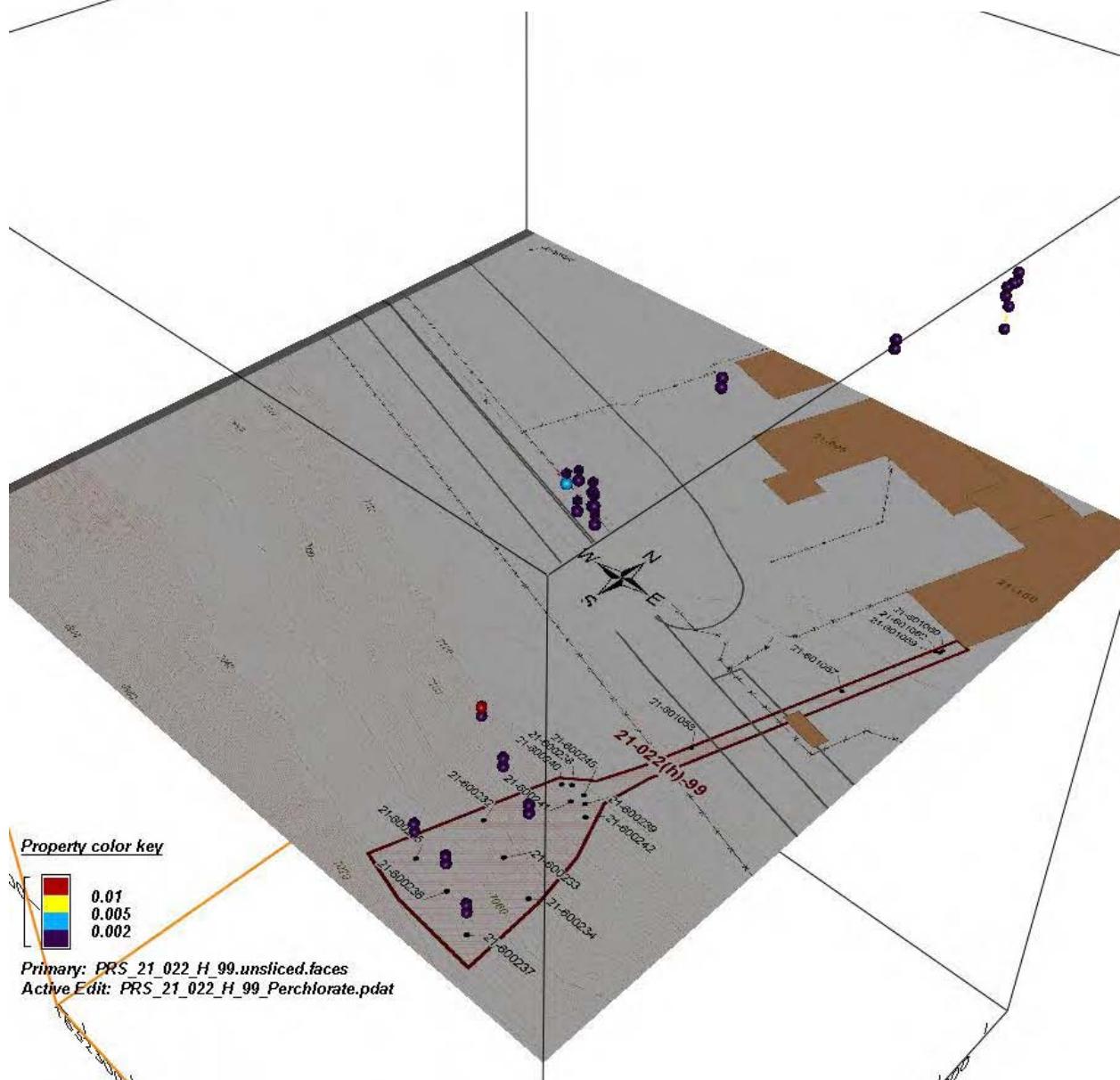
Cube - Soil (ALLH) sampling point

Globe - Tuff (QBT3) sampling point

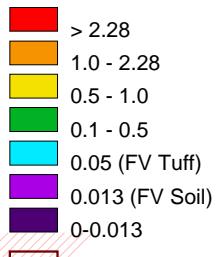
21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-023(a)-99 Americium-241



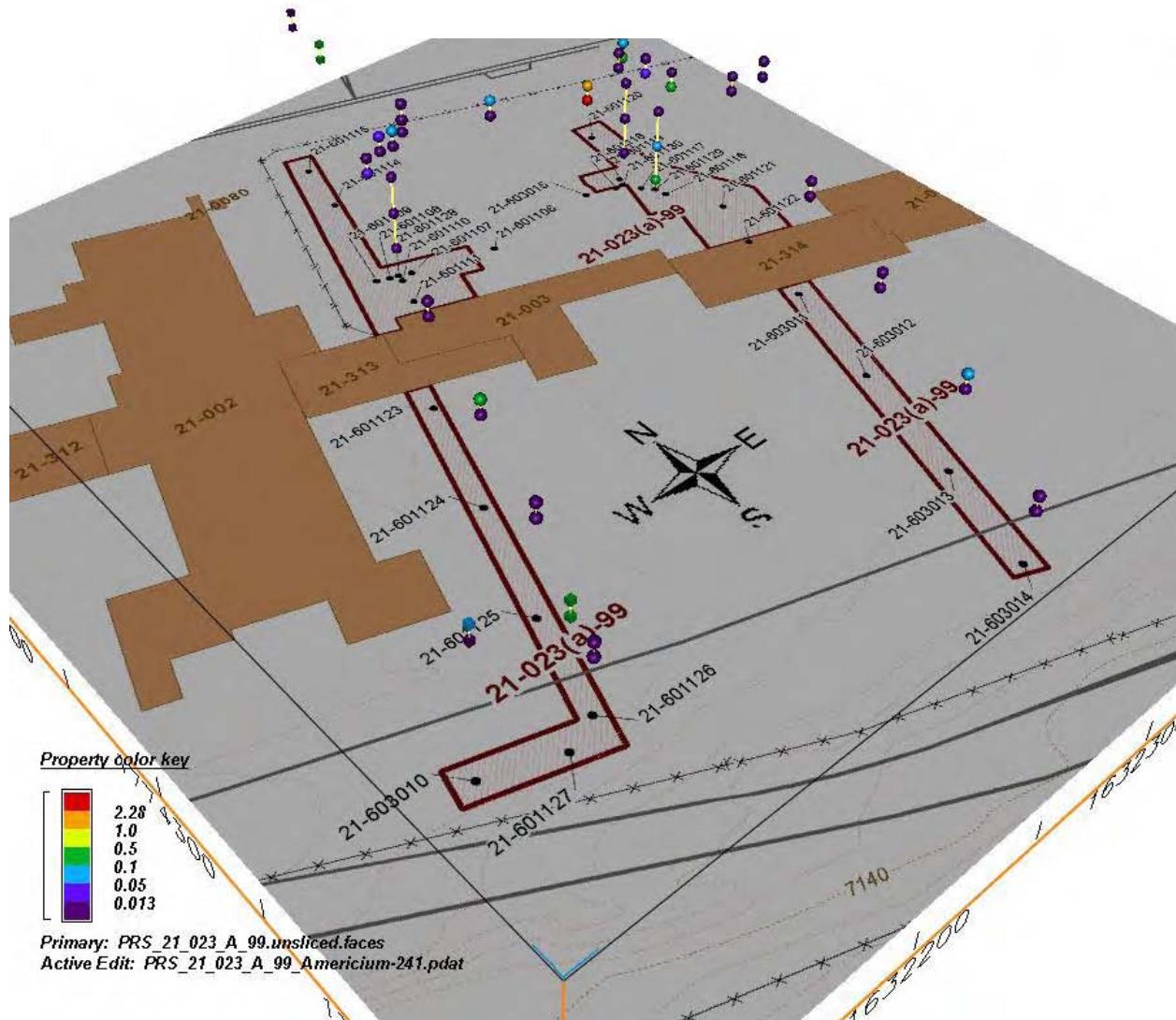
AOC, Consolidated Unit, or SWMU boundary
 Structure

All units are pCi/g

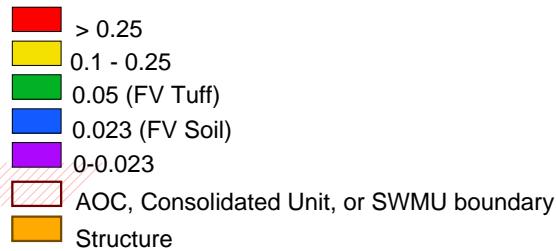
- Cube - Soil (ALLH) sampling point
- Globe - Tuff (QBT3) sampling point
- 21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-023(a)-99 Plutonium-238



All units are pCi/g

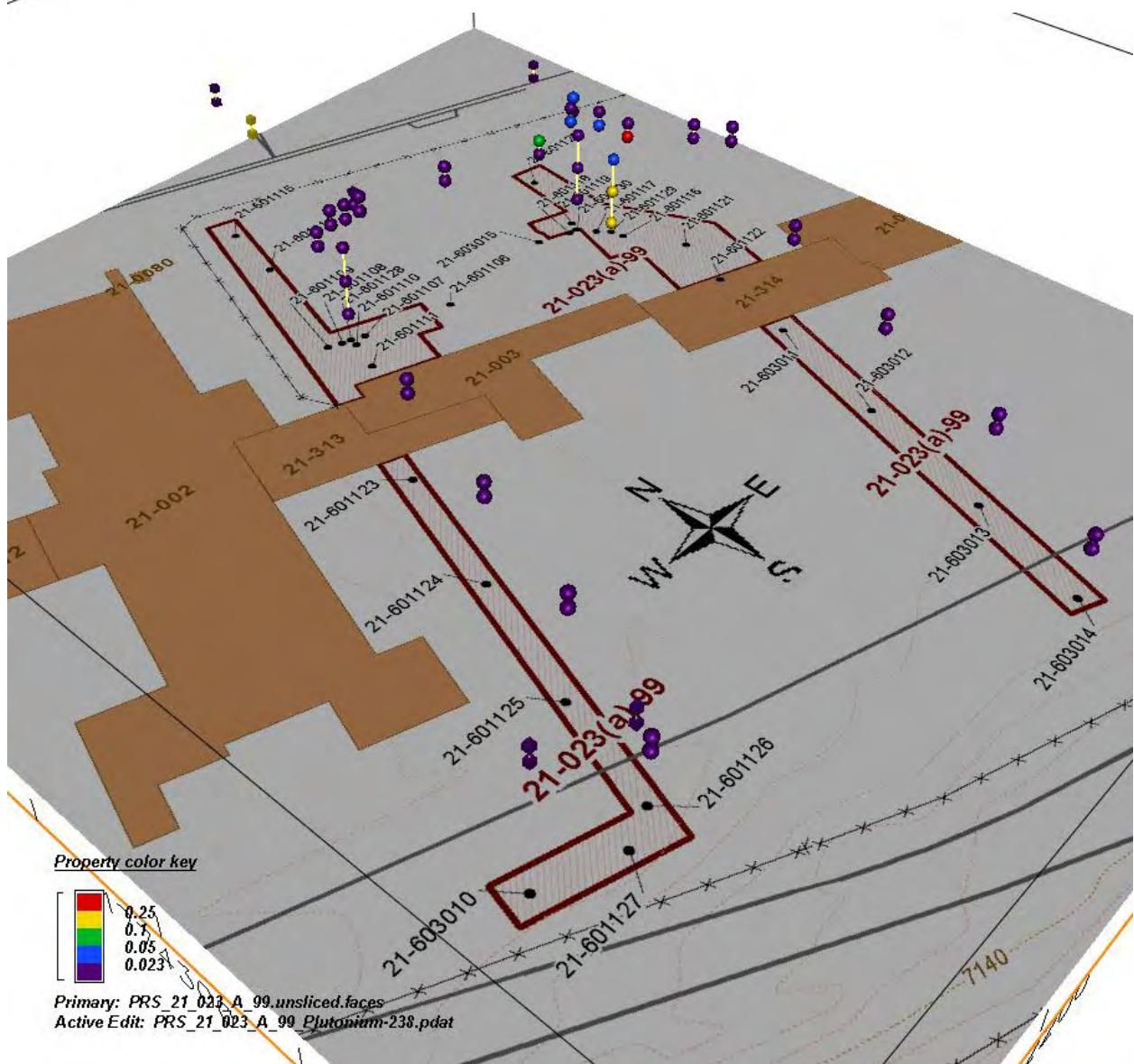
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

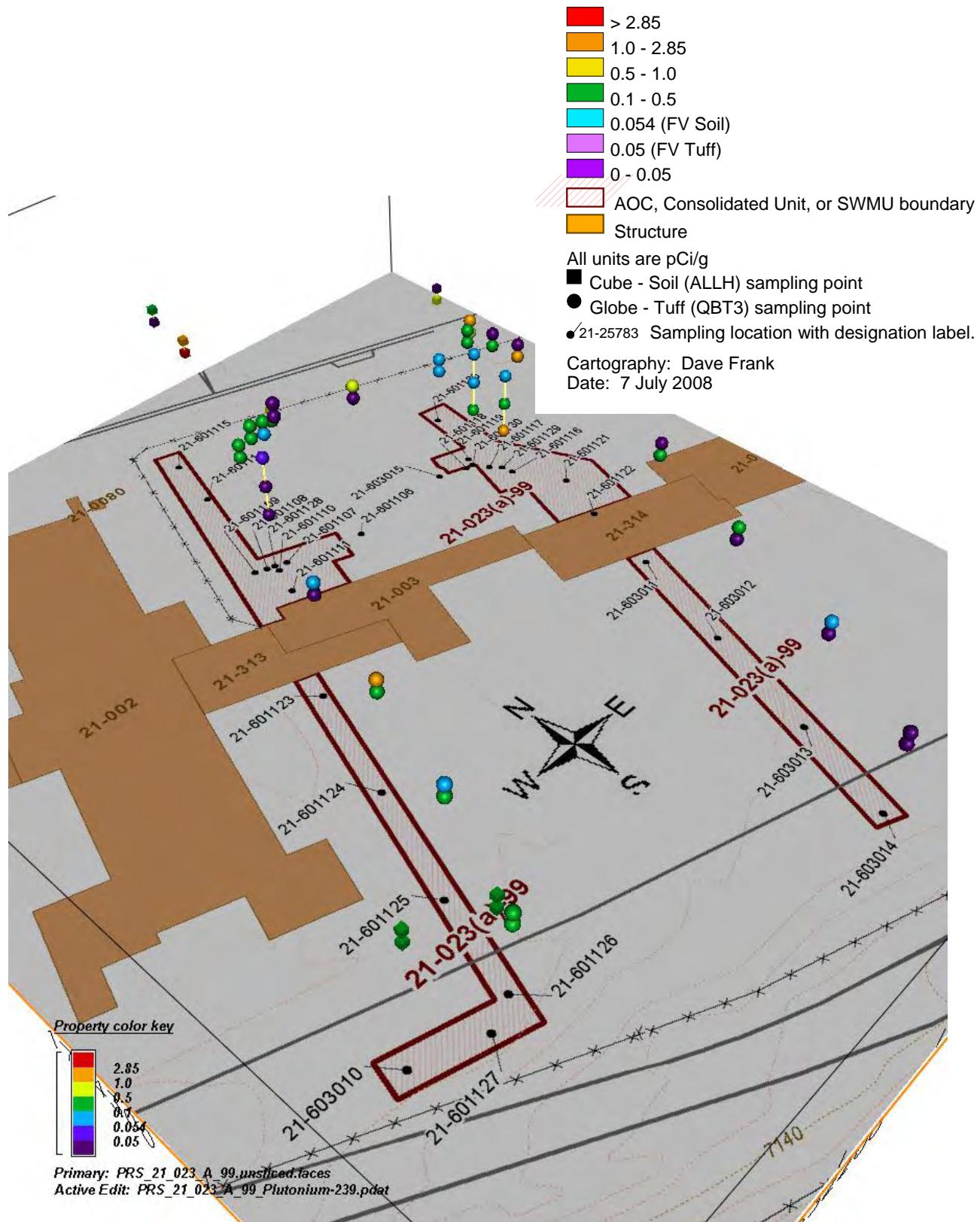
● 21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-023(a)-99 Plutonium-239



SWMU 21-024(a) Aluminum

█ 58400 ($\geq 2x$ BV Soil)
█ 29200 ($\geq 1x$ BV Soil)
█ 14680 ($\geq 2x$ BV Tuff)
█ 7340 ($\geq 1x$ BV Tuff)
█ 0 - 7340

▨ AOC, Consolidated Unit, or SWMU boundary
▨ Structure

All units are mg/kg

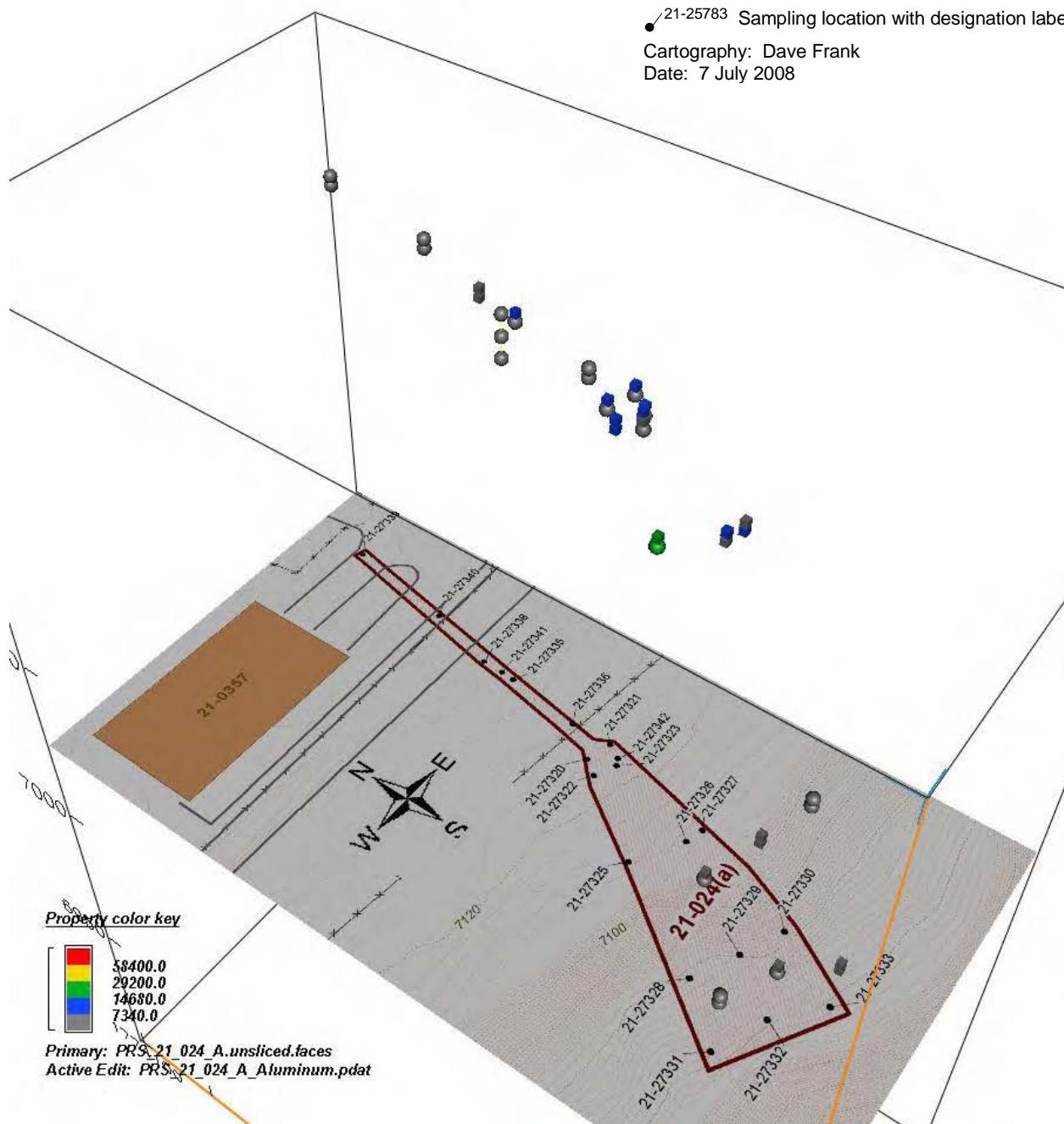
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

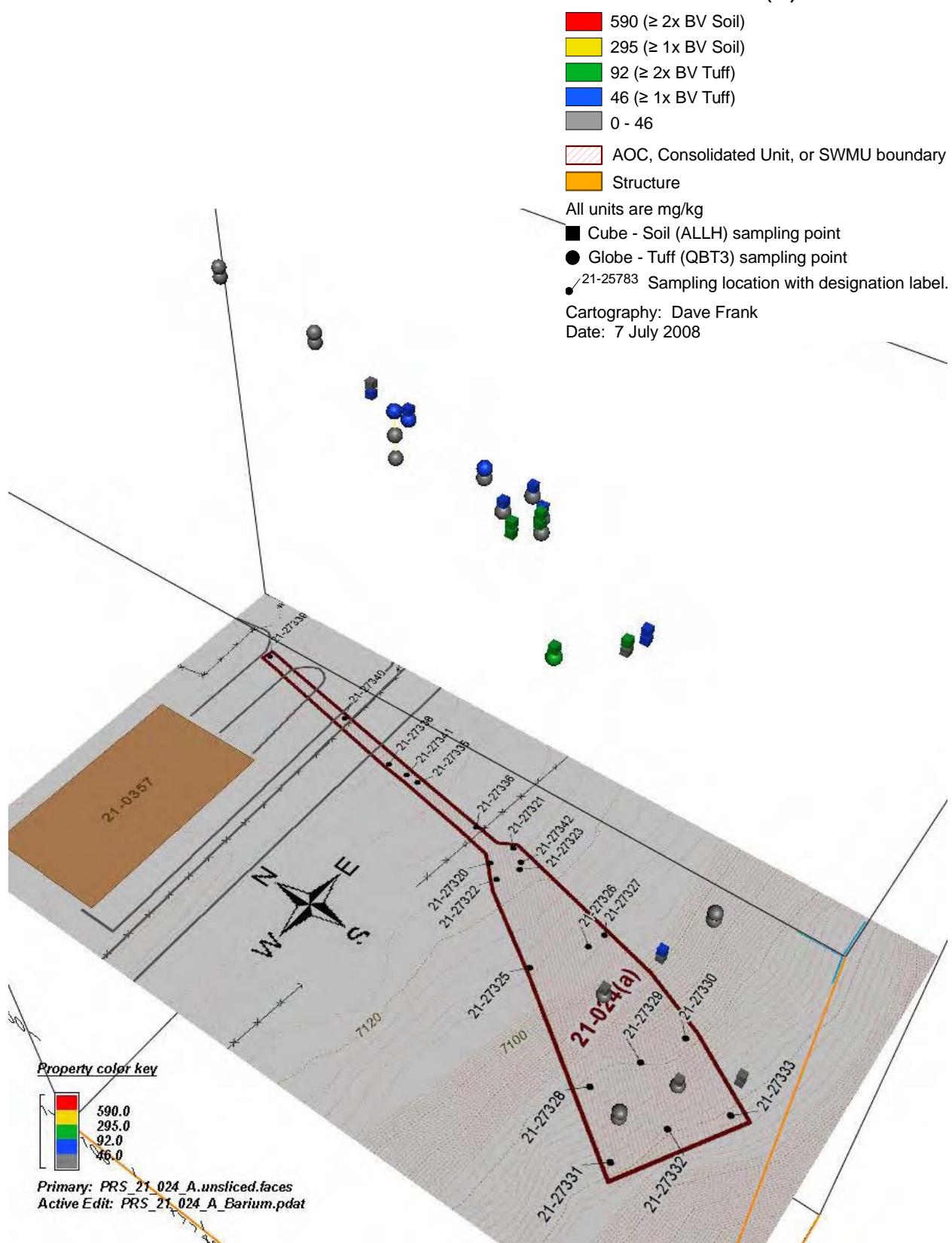
● 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(a) Barium



SWMU 21-024(a) Cesium-137

1.65 (FV Soil)

0.3 - 1.65

0.1 (FV Tuff)

0 - 0.1

AOC, Consolidated Unit, or SWMU boundary

Structure

All units are pCi/g

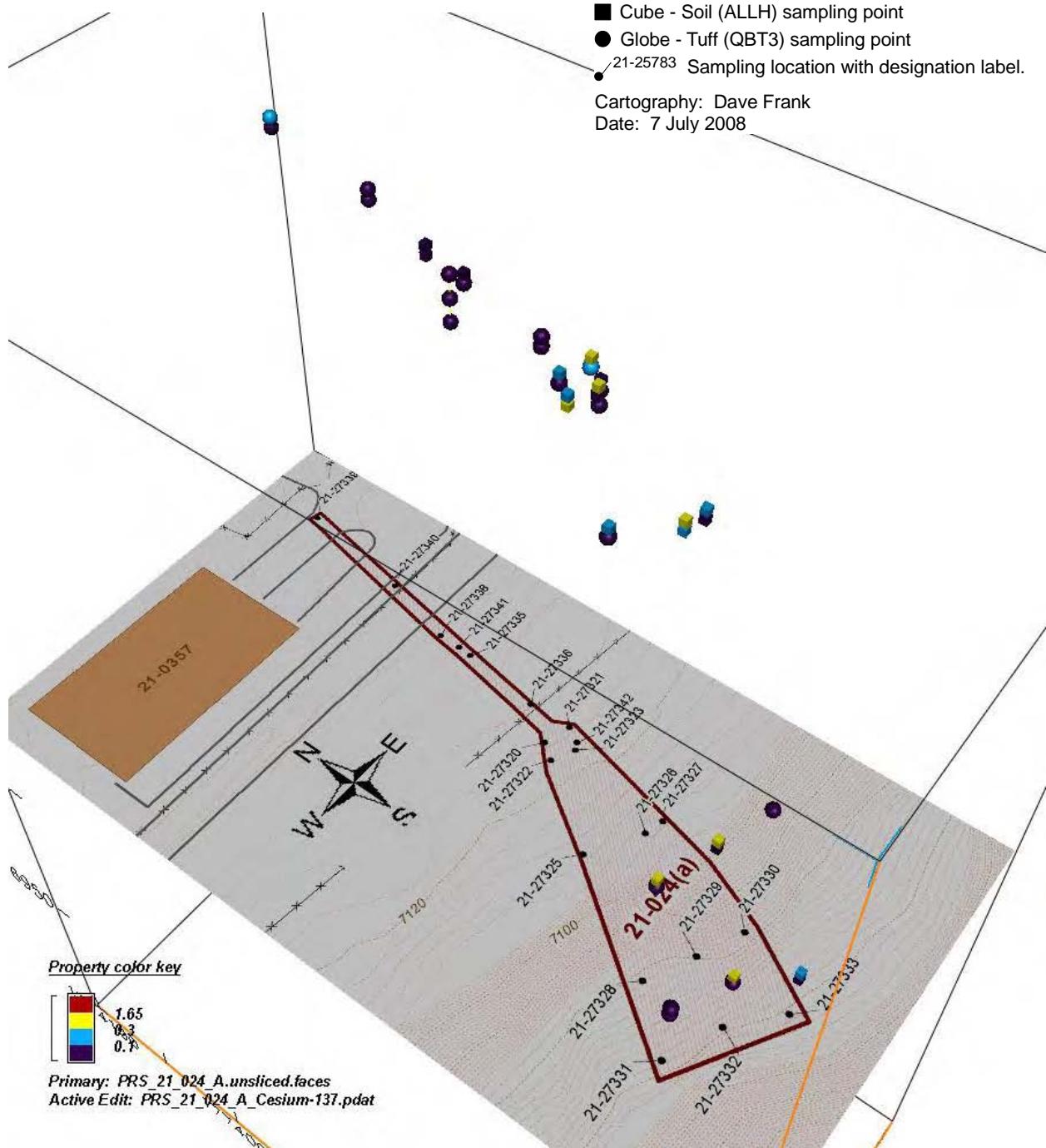
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

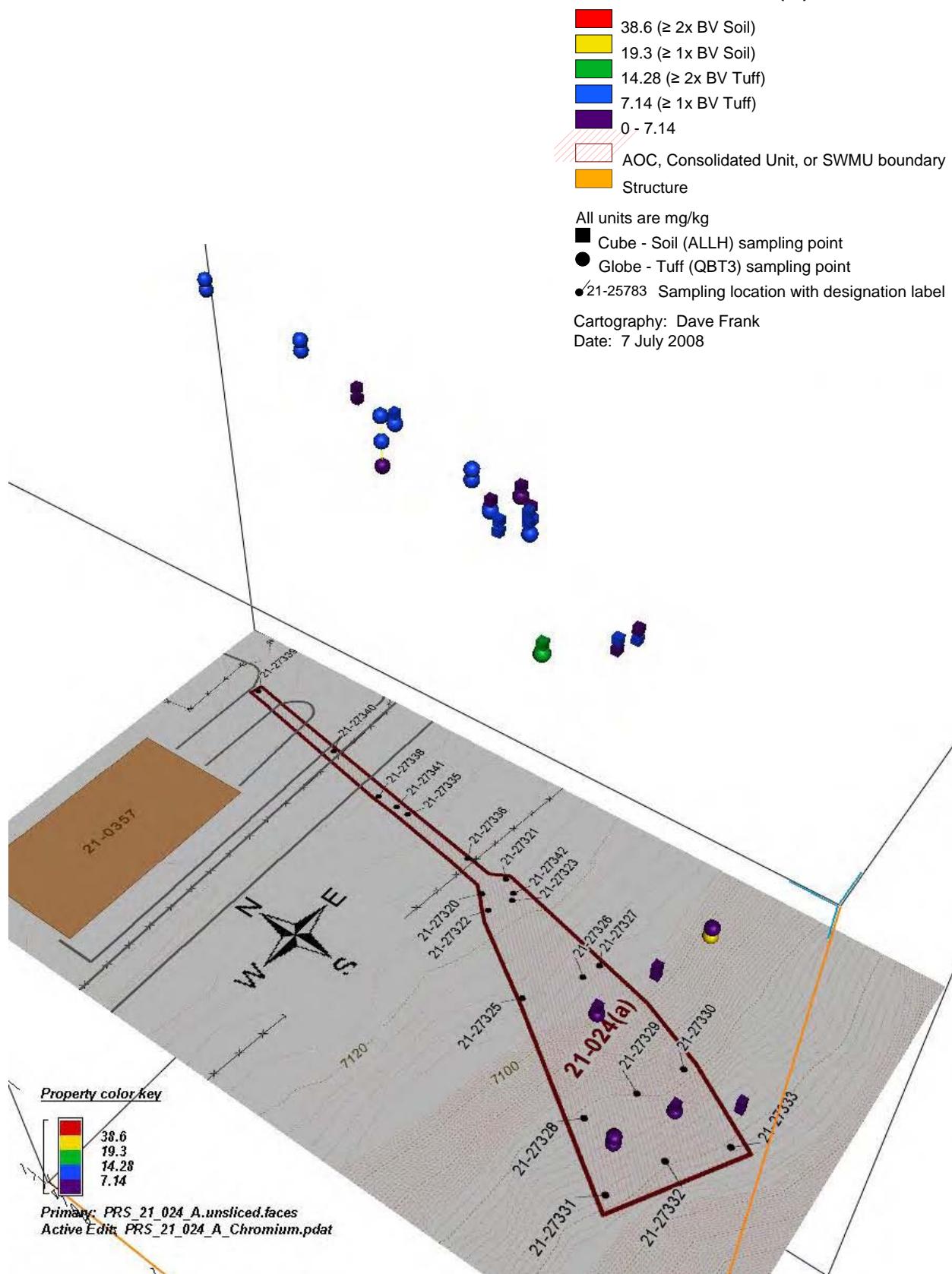
21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(a) Chromium



SWMU 21-024(a) Copper

■ 29.4 ($\geq 2x$ BV Soil)
 ■ 14.7 ($\geq 1x$ BV Soil)
 ■ 9.32 ($\geq 2x$ BV Tuff)
 ■ 4.66 ($\geq 1x$ BV Tuff)
 ■ 0 - 4.66

■ AOC, Consolidated Unit, or SWMU boundary
 ■ Structure

All units are mg/kg

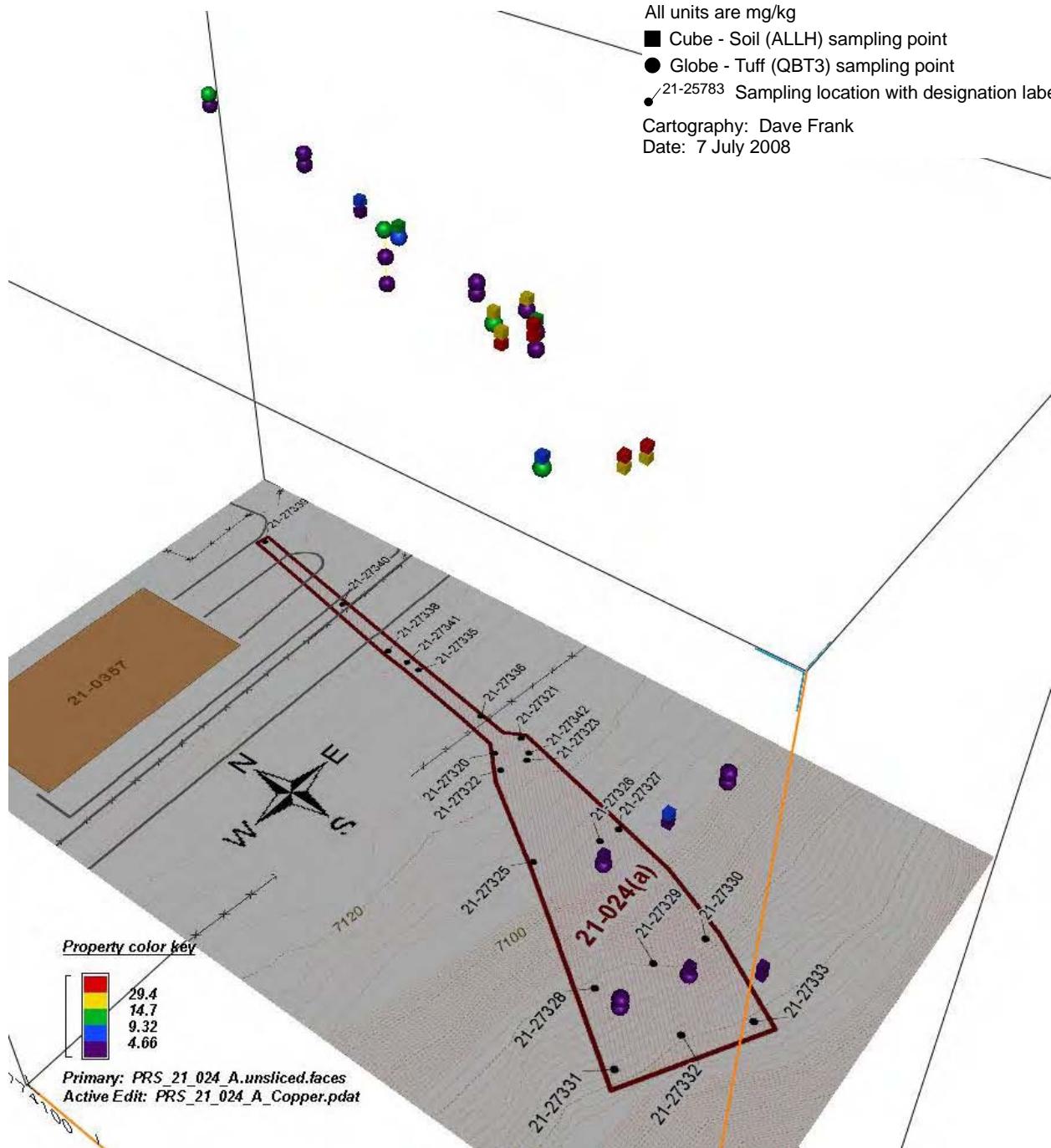
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

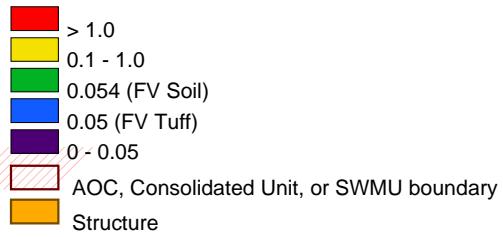
● 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(a) Plutonium-239



All units are pCi/g

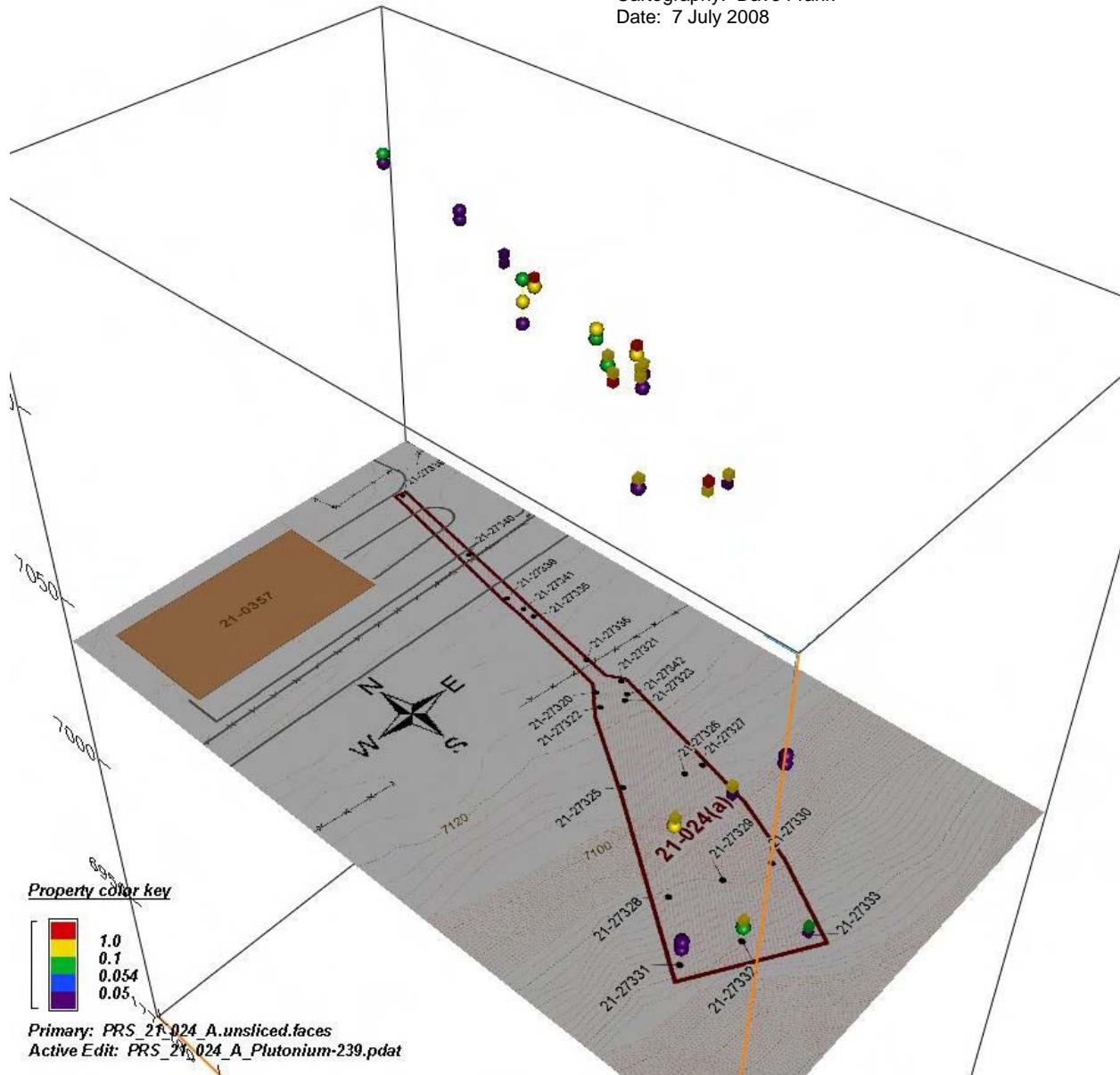
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

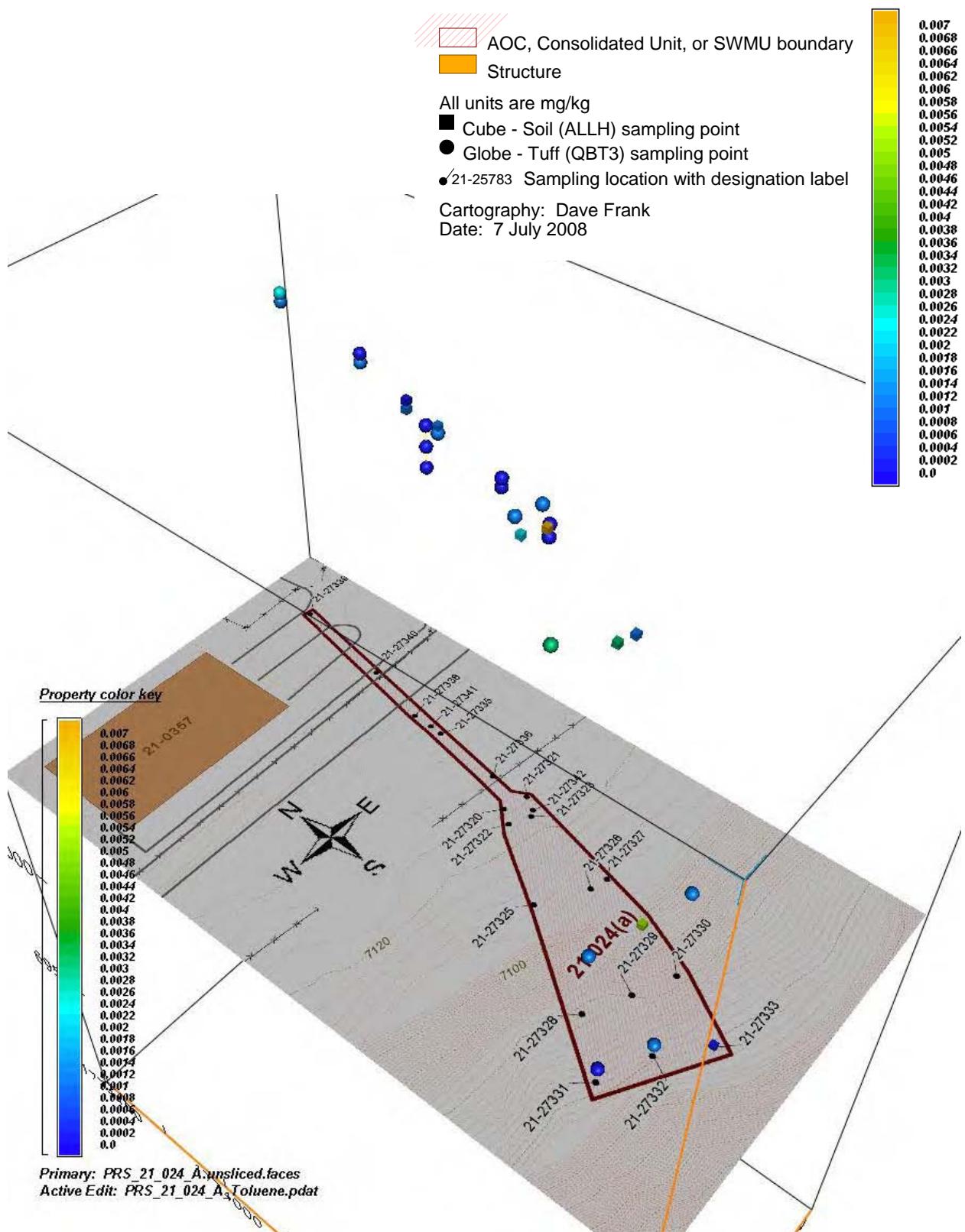
✓ 21-25783 Sampling location with designation label

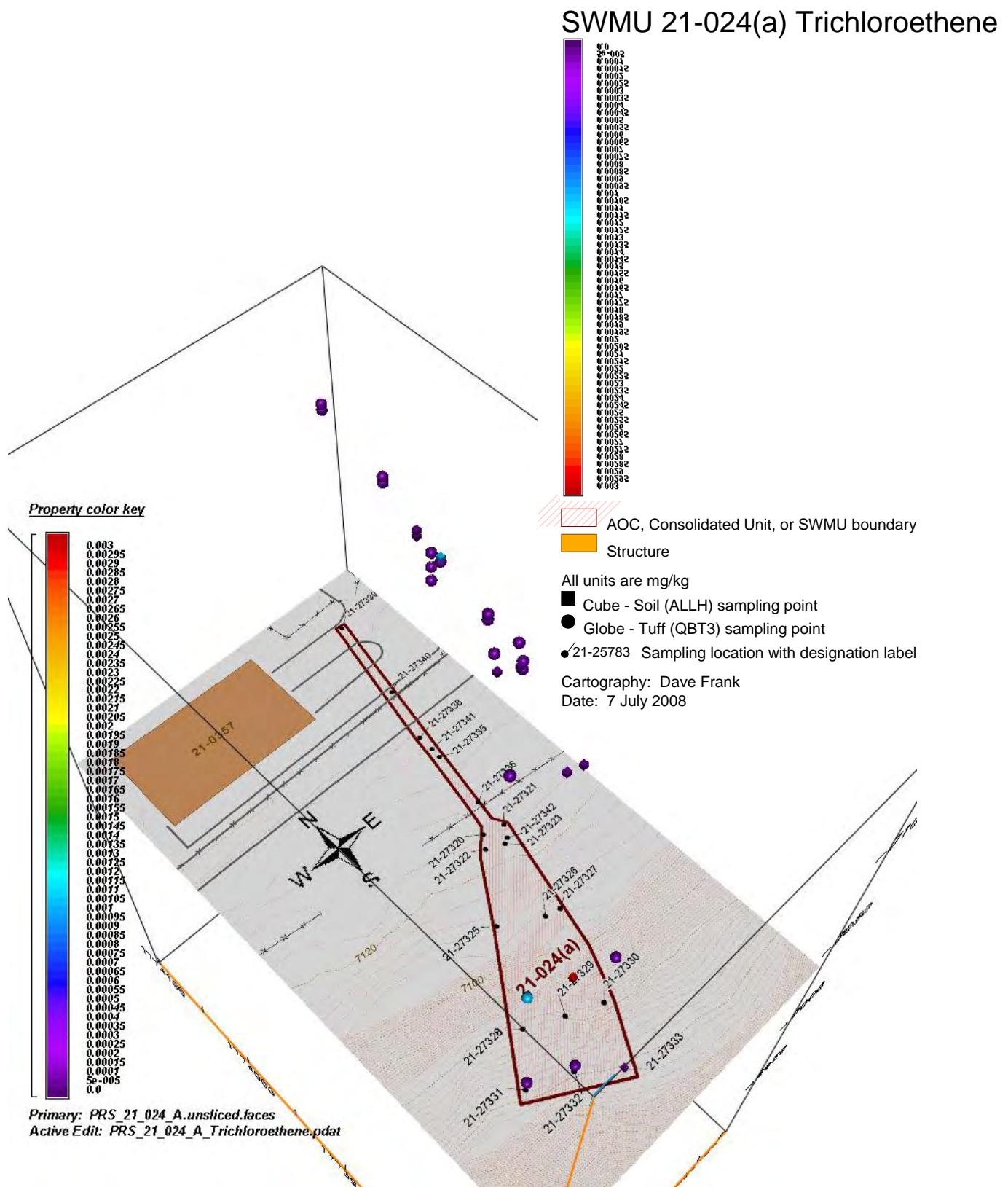
Cartography: Dave Frank

Date: 7 July 2008

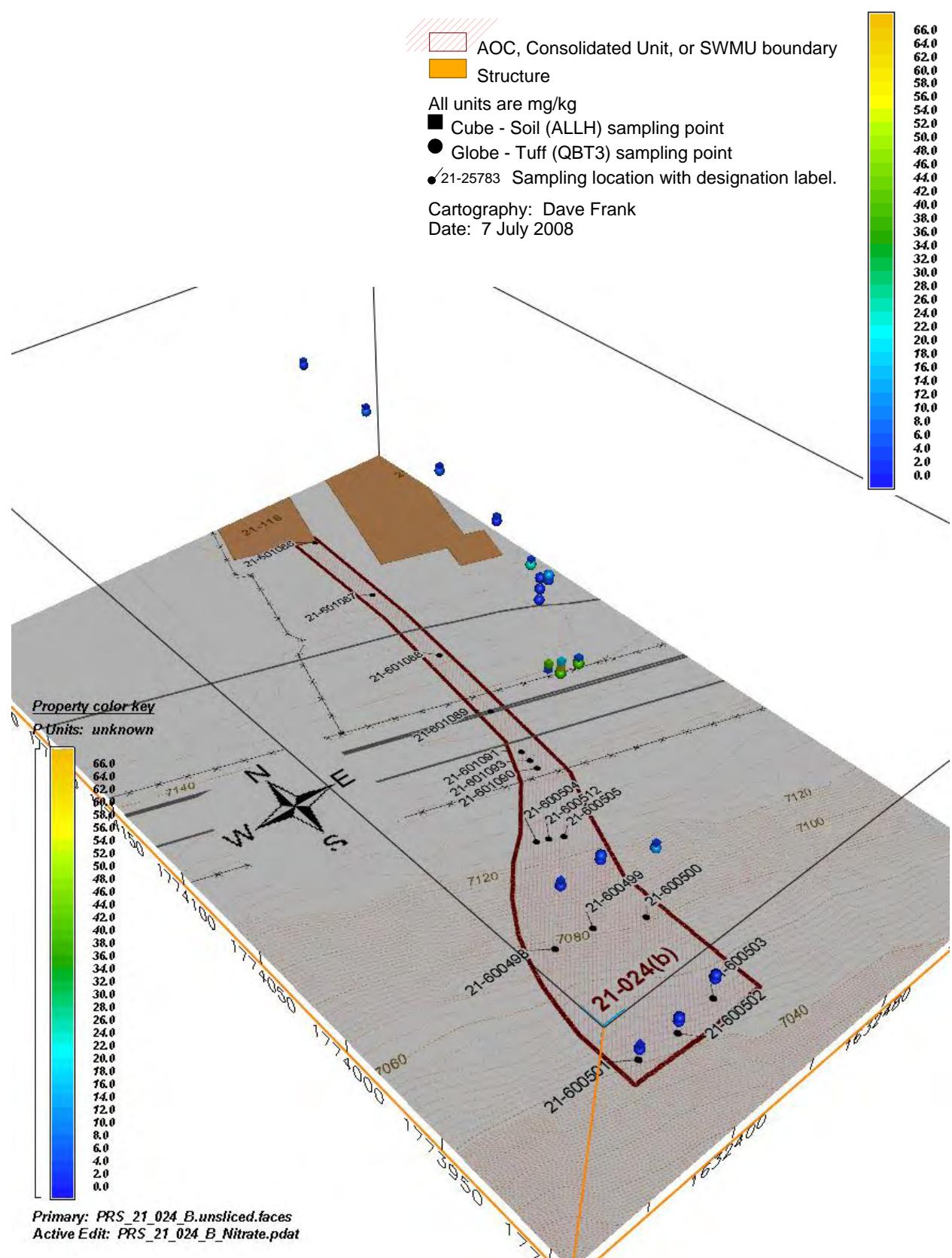


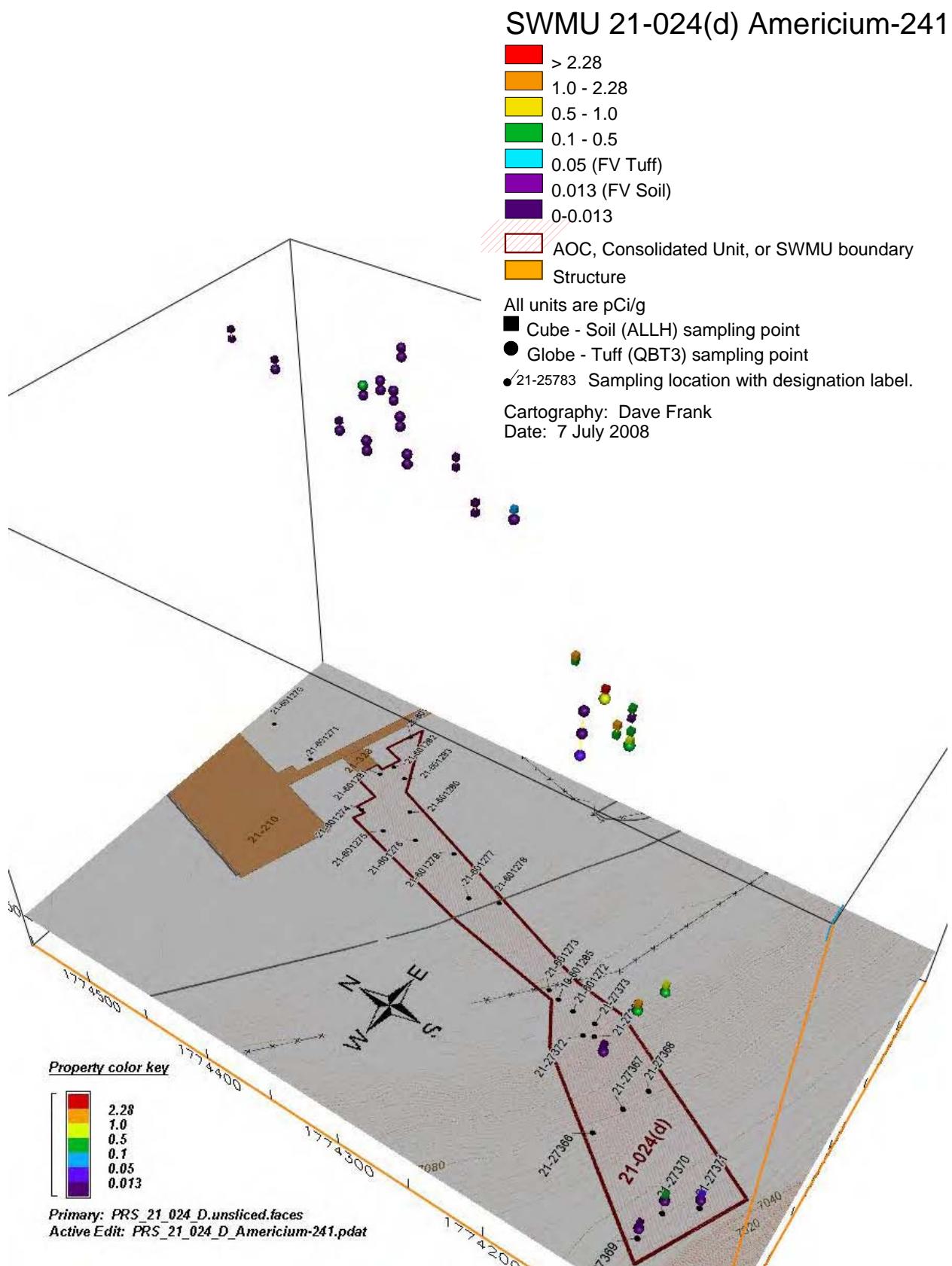
SWMU 21-024(a) Toluene



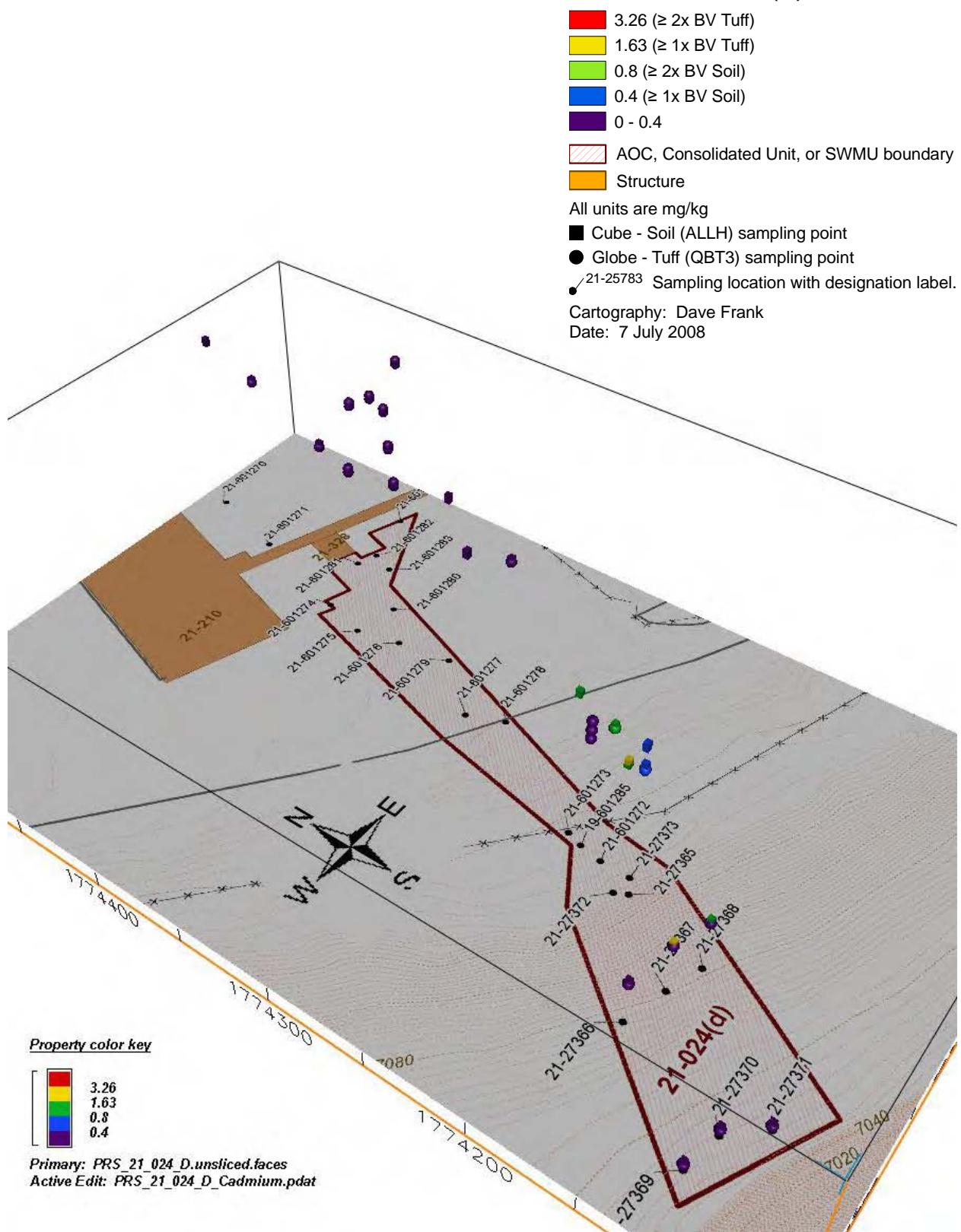


SWMU 21-024(b) Nitrate

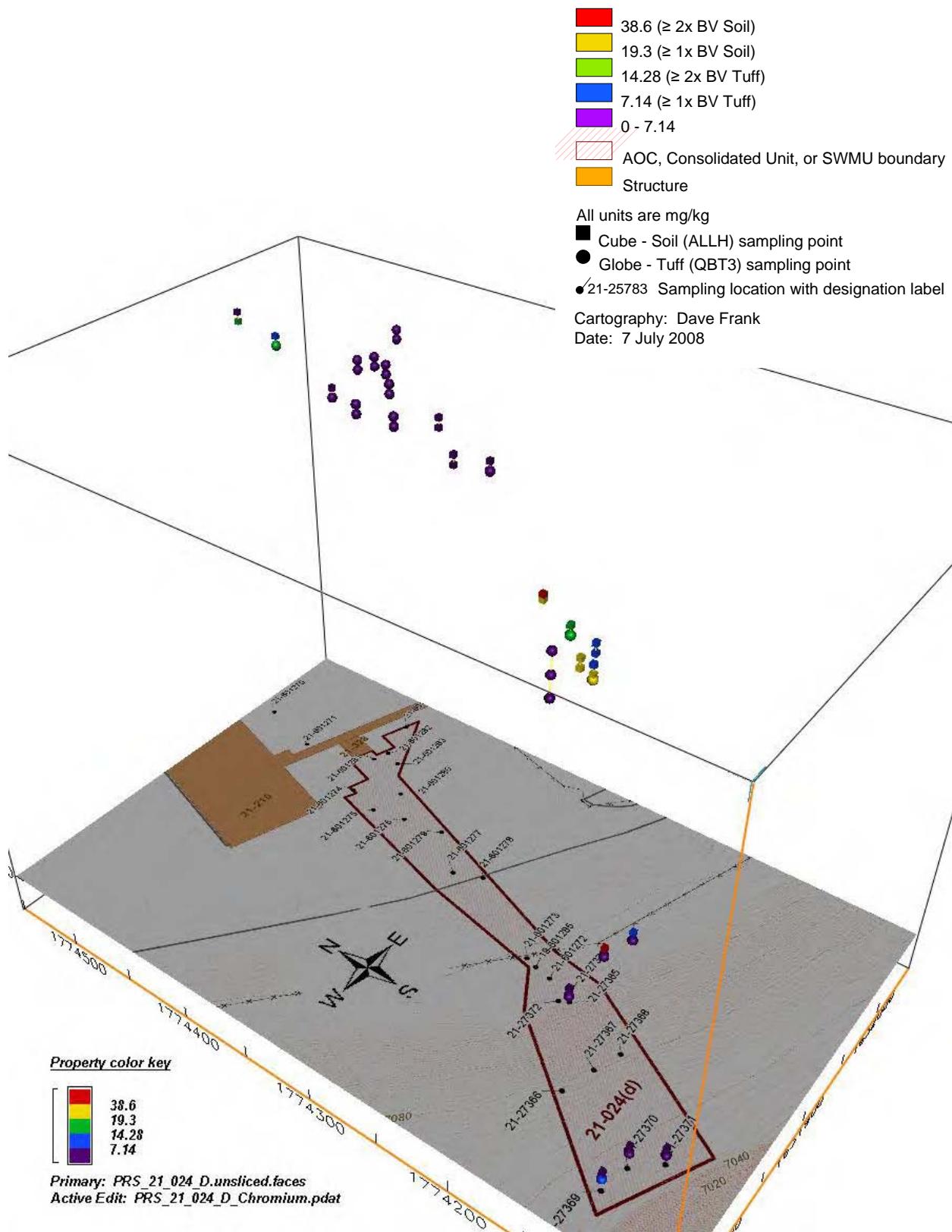


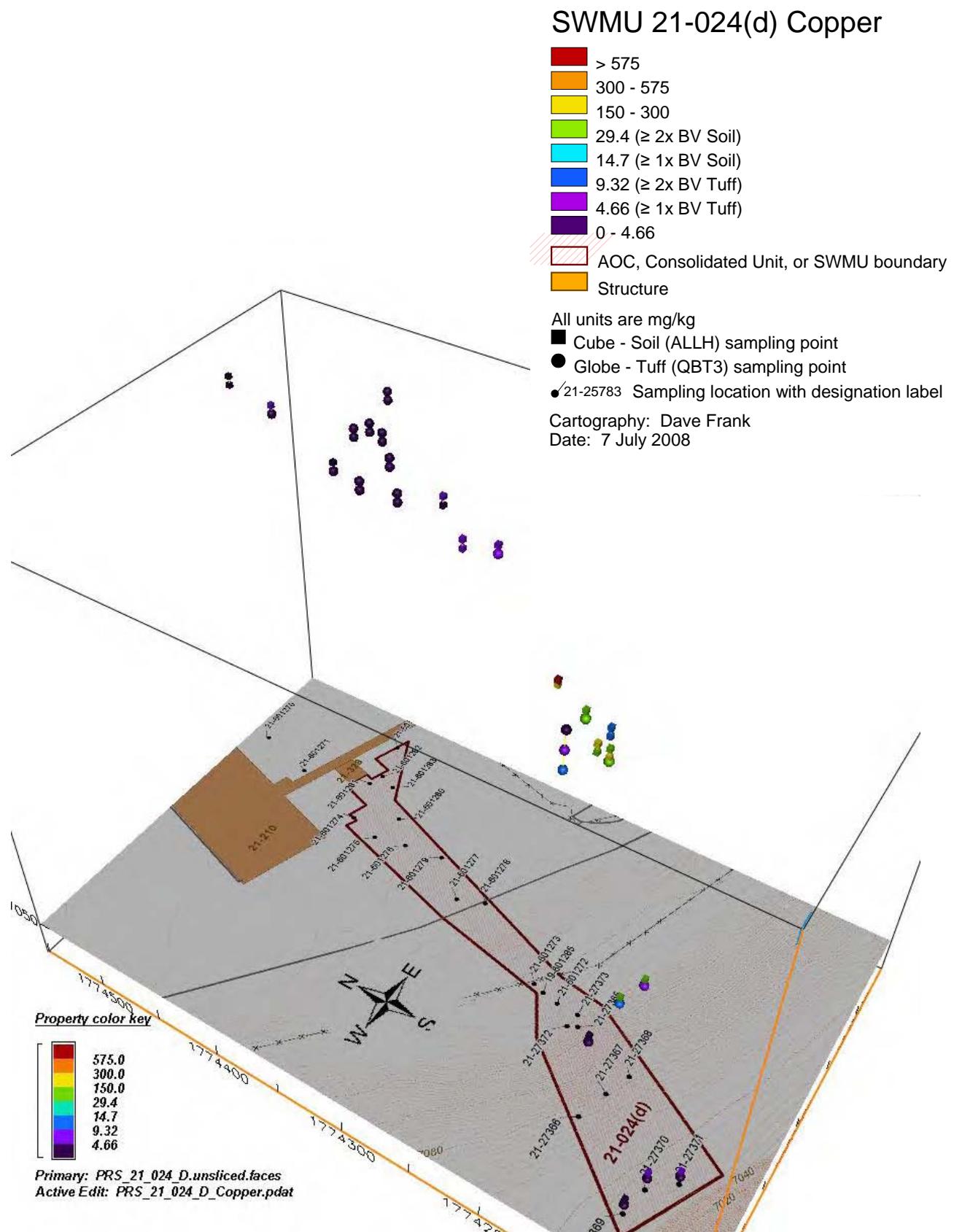


SWMU 21-024(d) Cadmium



SWMU 21-024(d) Chromium





SWMU 21-024(d) Cyanide

1.0 ($\geq 2x$ BV Soil and Tuff)0.5 ($\geq 1x$ BV Soil and Tuff)

0 - 0.5

AOC, Consolidated Unit, or SWMU boundary

Structure

All units are mg/kg

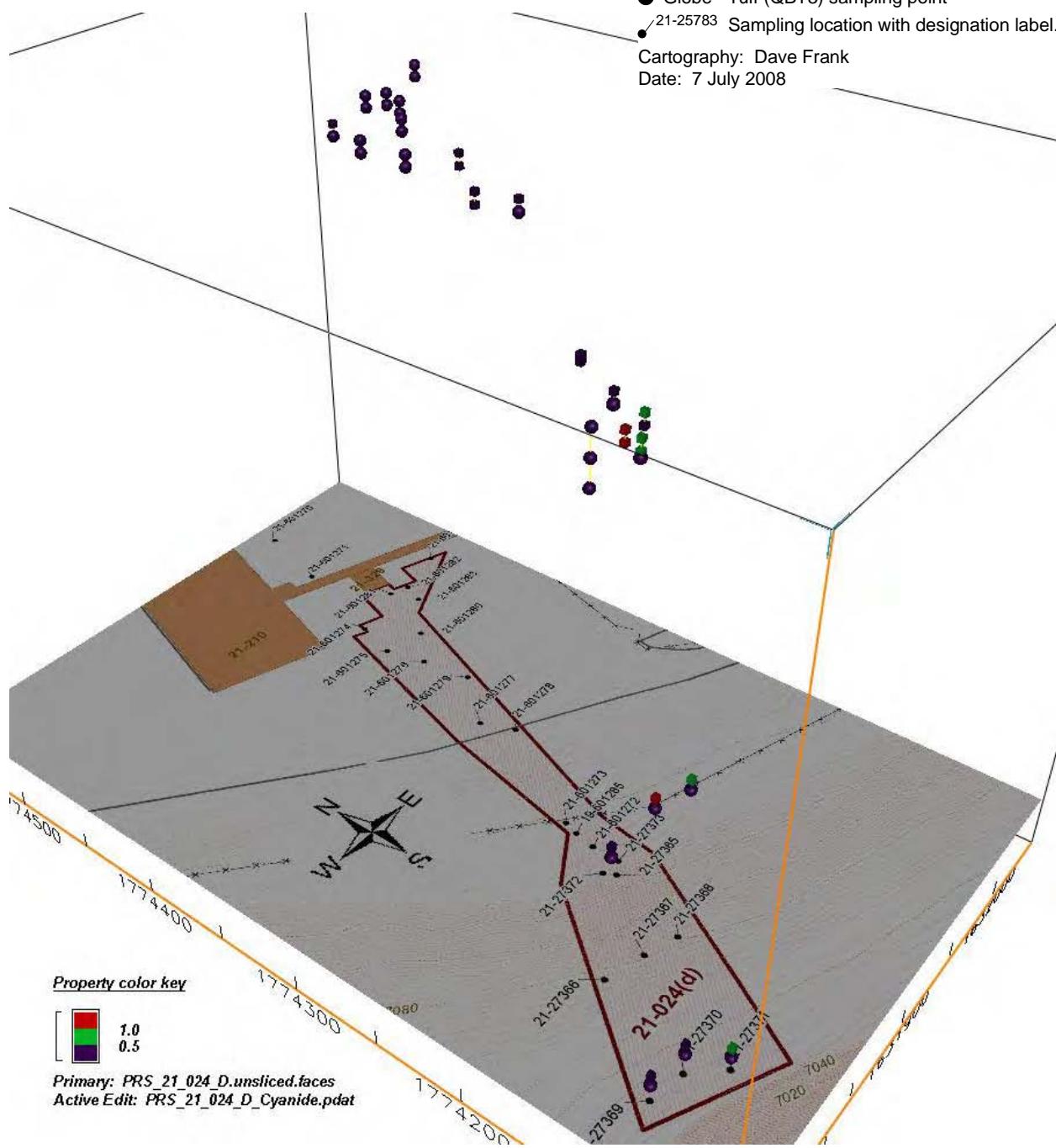
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

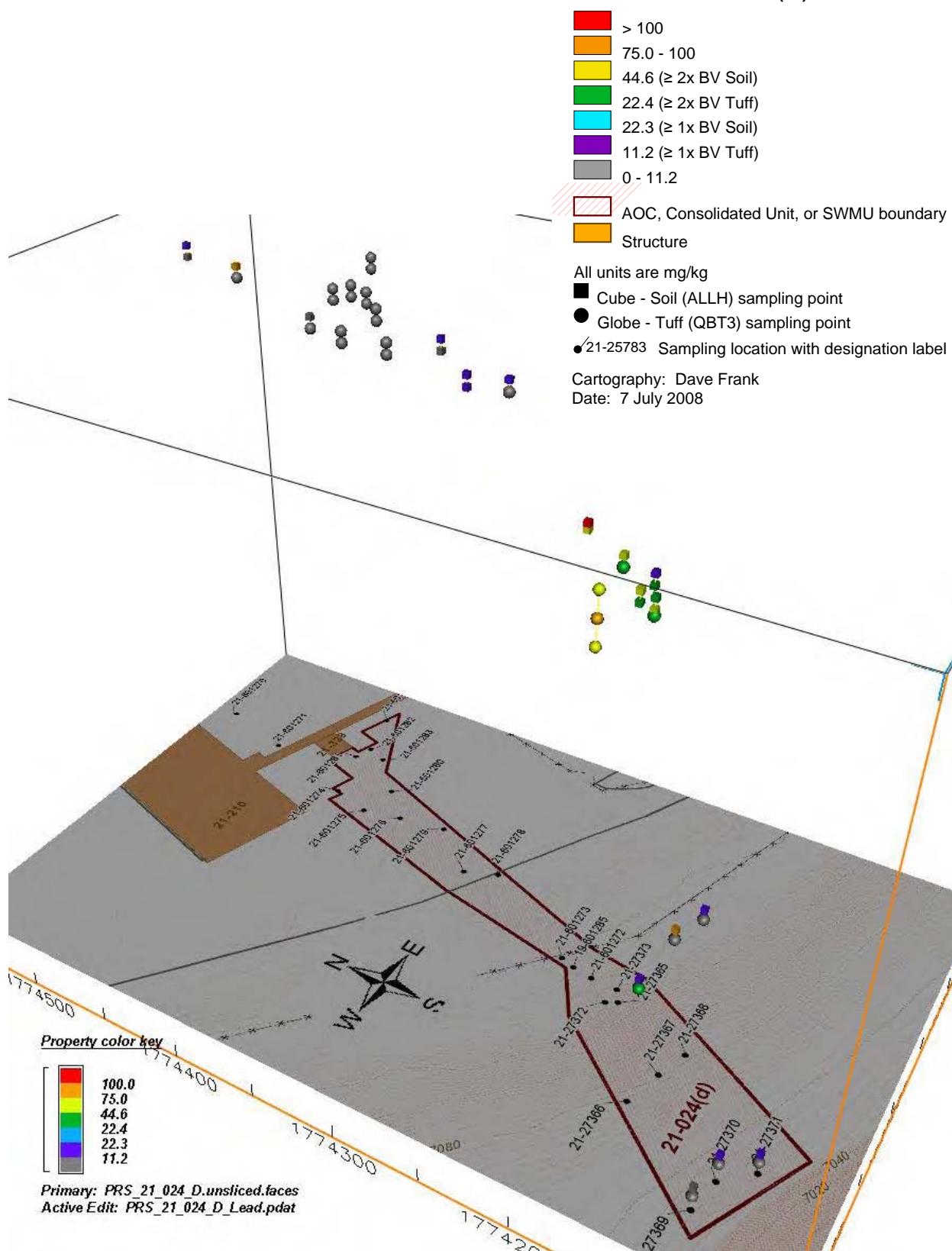
●²¹⁻²⁵⁷⁸³ Sampling location with designation label.

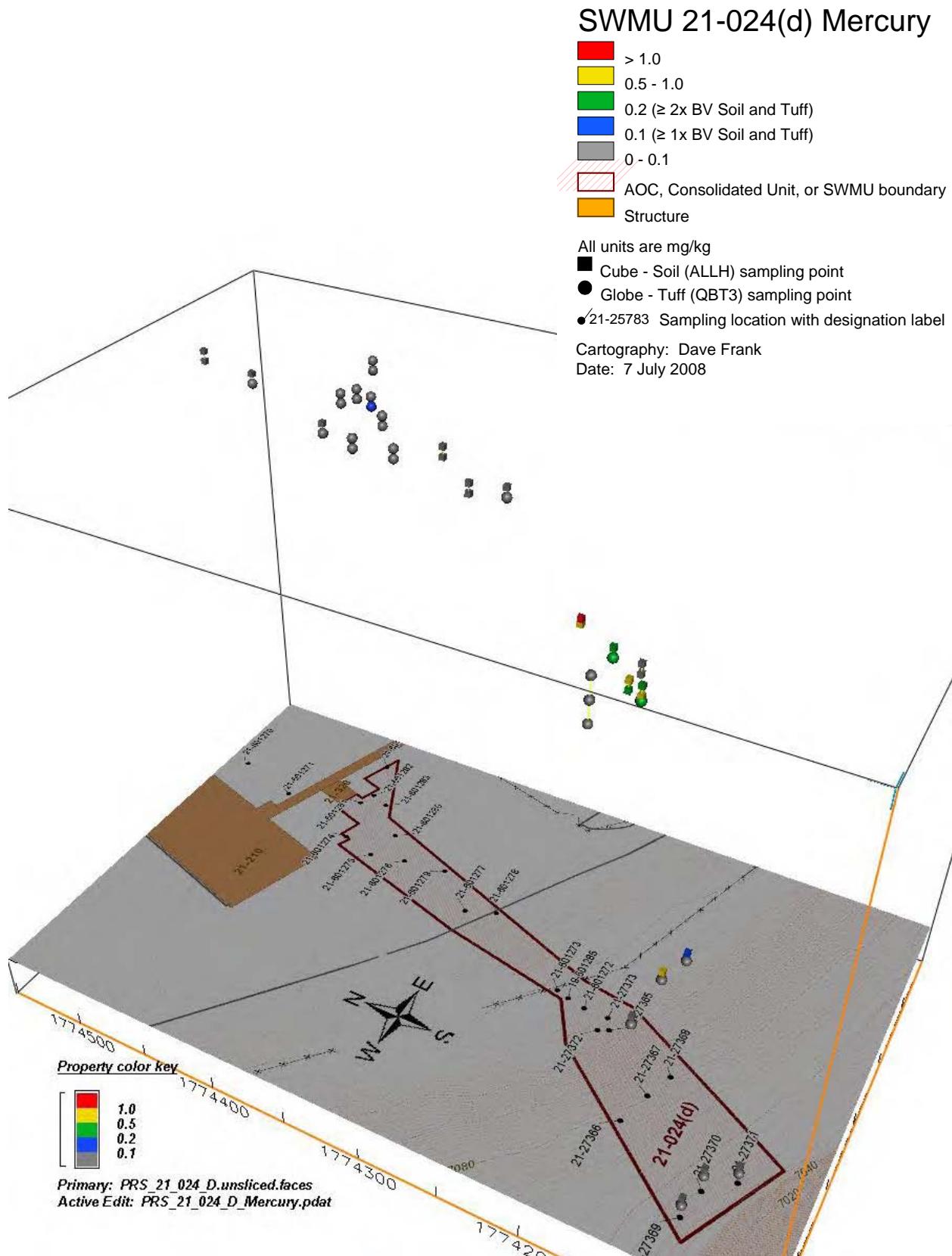
Cartography: Dave Frank

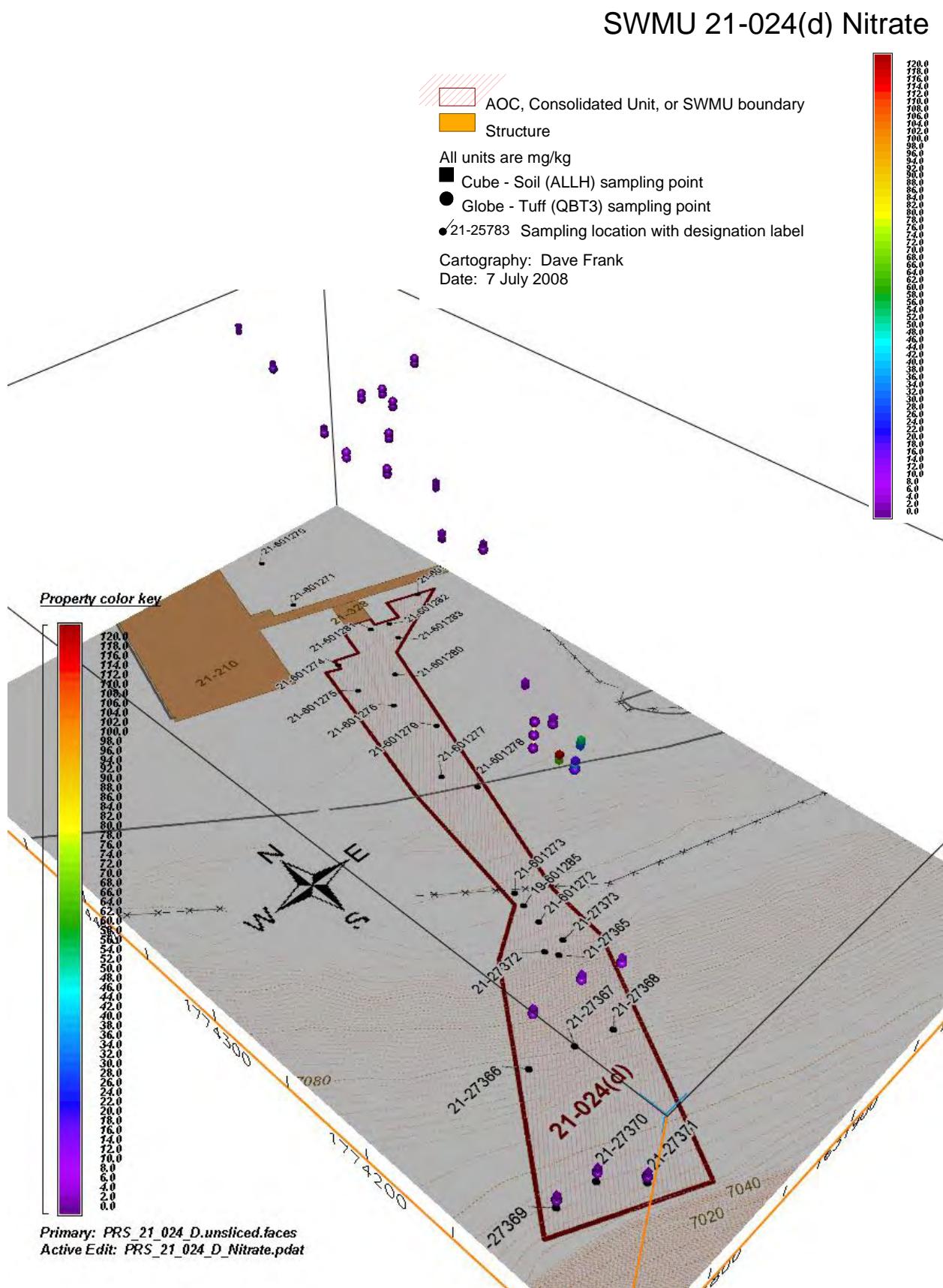
Date: 7 July 2008

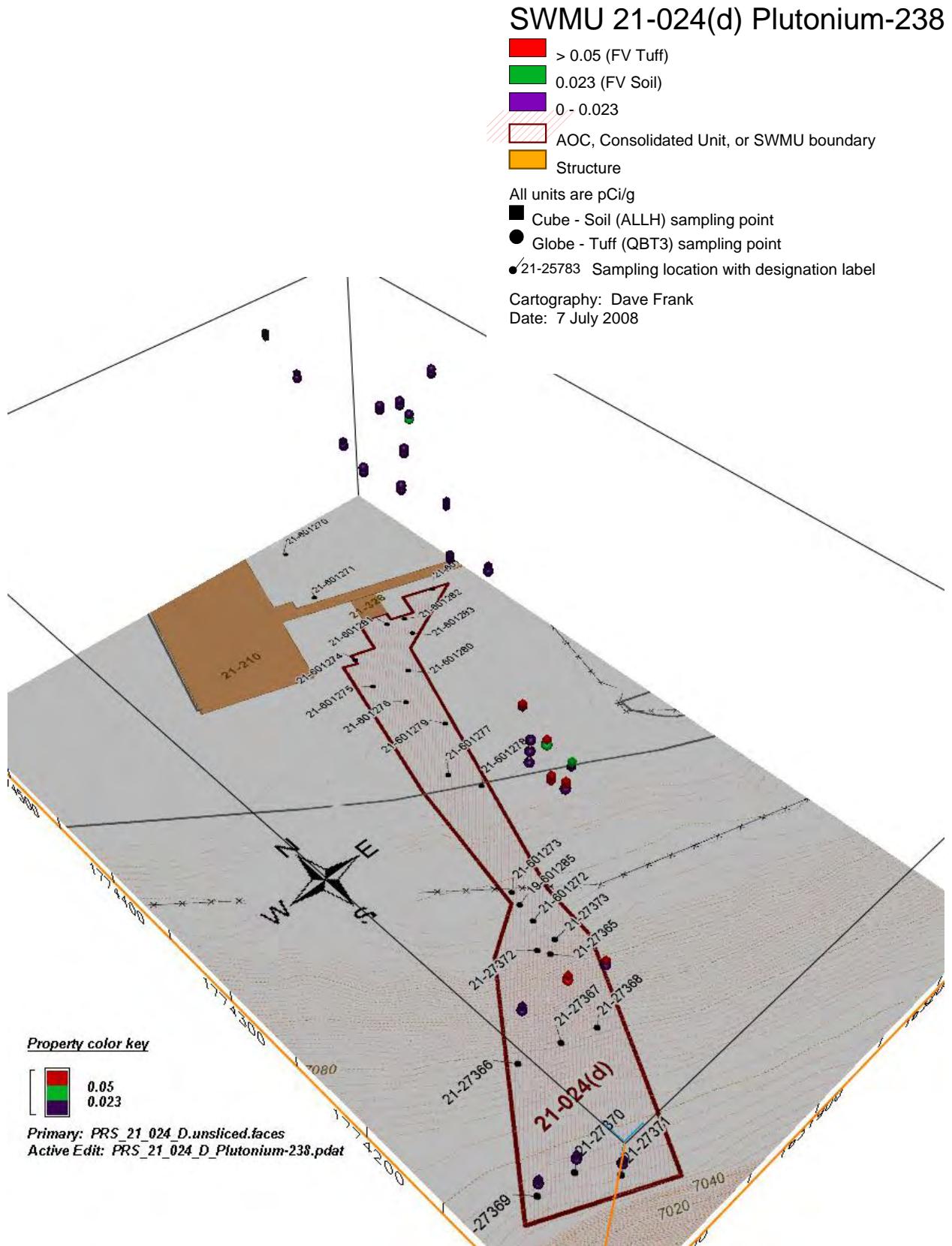


SWMU 21-024(d) Lead

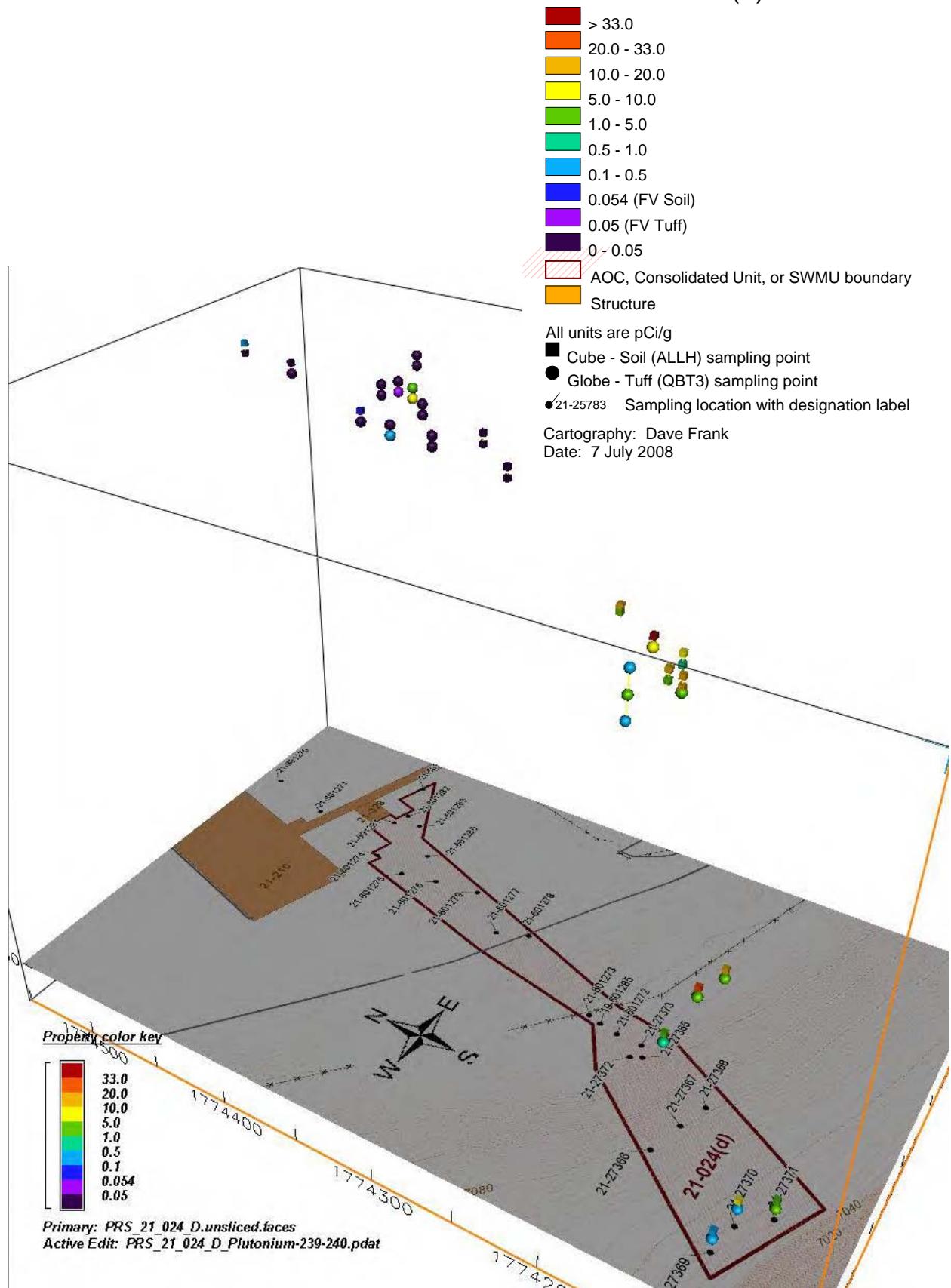




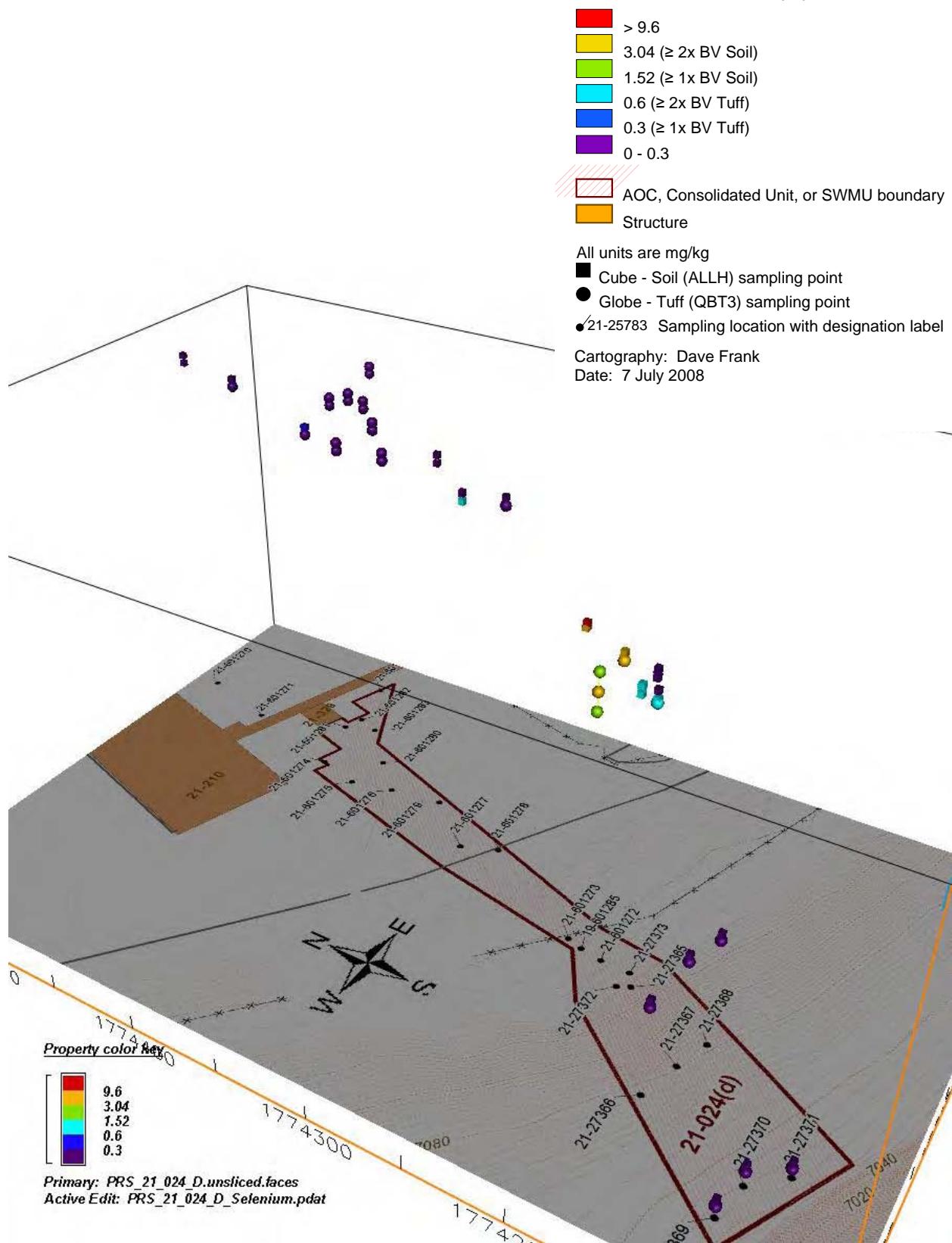


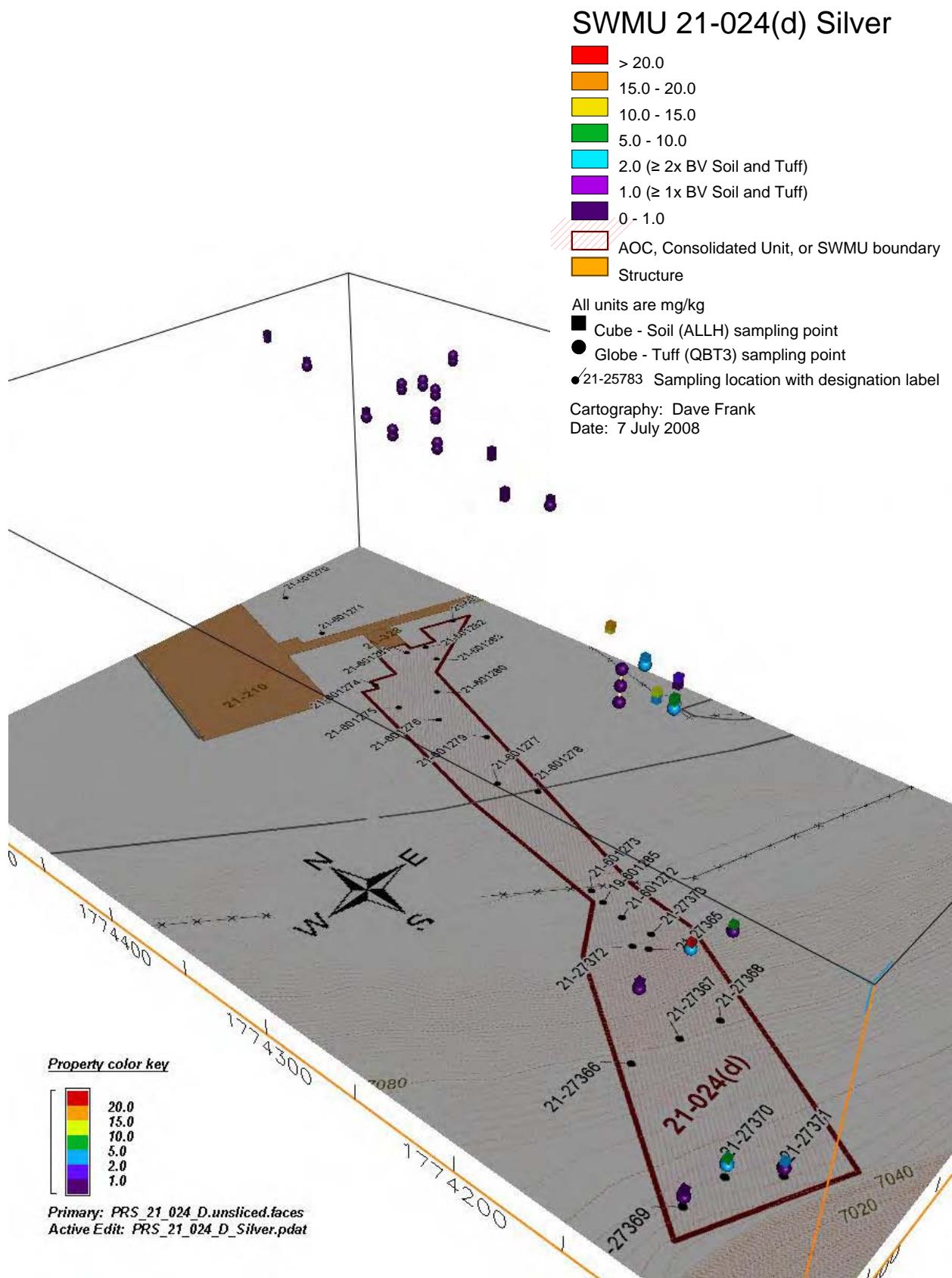


SWMU 21-024(d) Plutonium-239



SWMU 21-024(d) Selenium





SWMU 21-024(d) Strontium-90

1.31 (FV Soil)

1.0 (FV Tuff)

0.84 - 1.0

0.3 - 0.84

0 - 0.3

AOC, Consolidated Unit, or SWMU boundary

Structure

All units are pCi/g

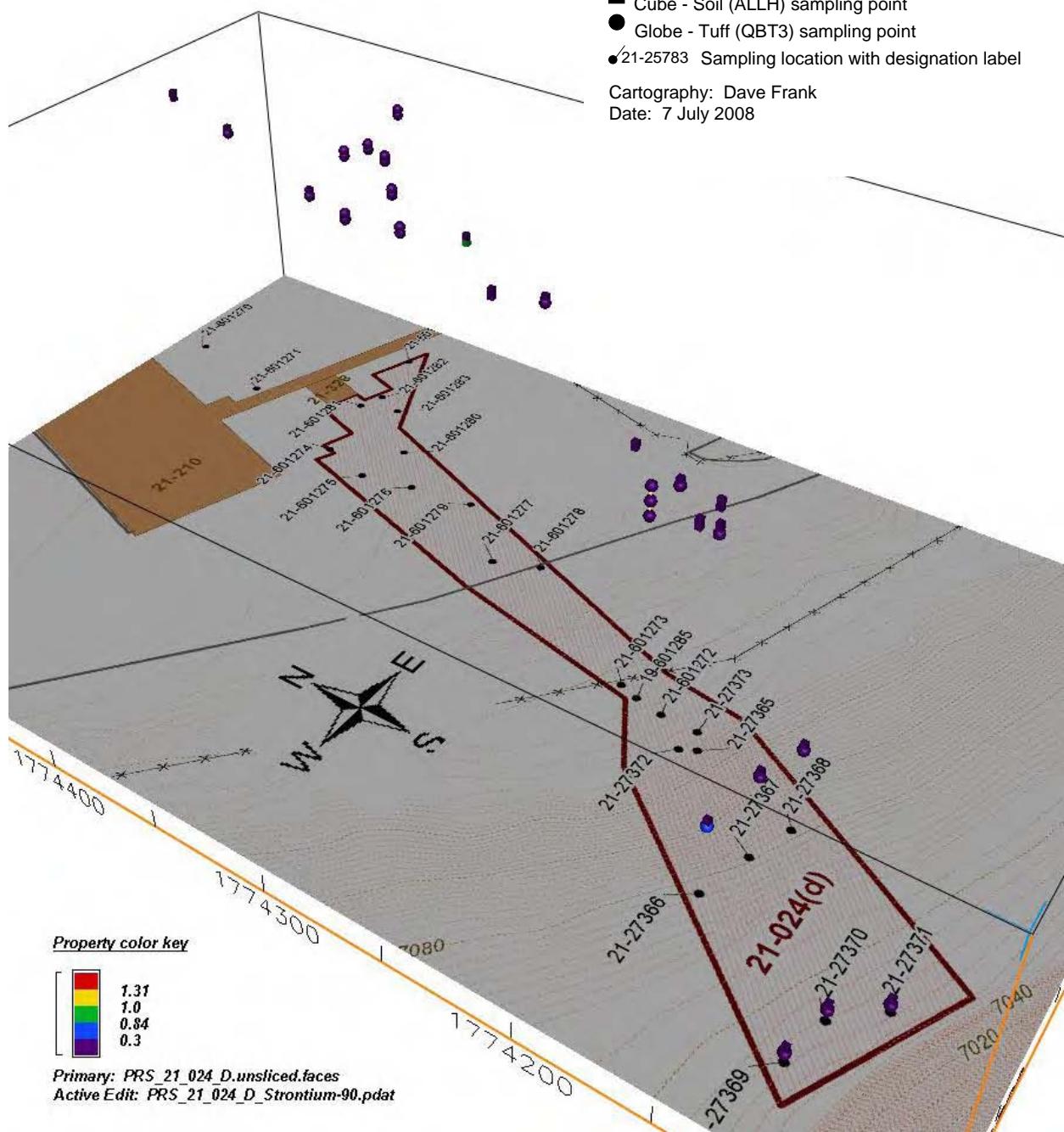
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

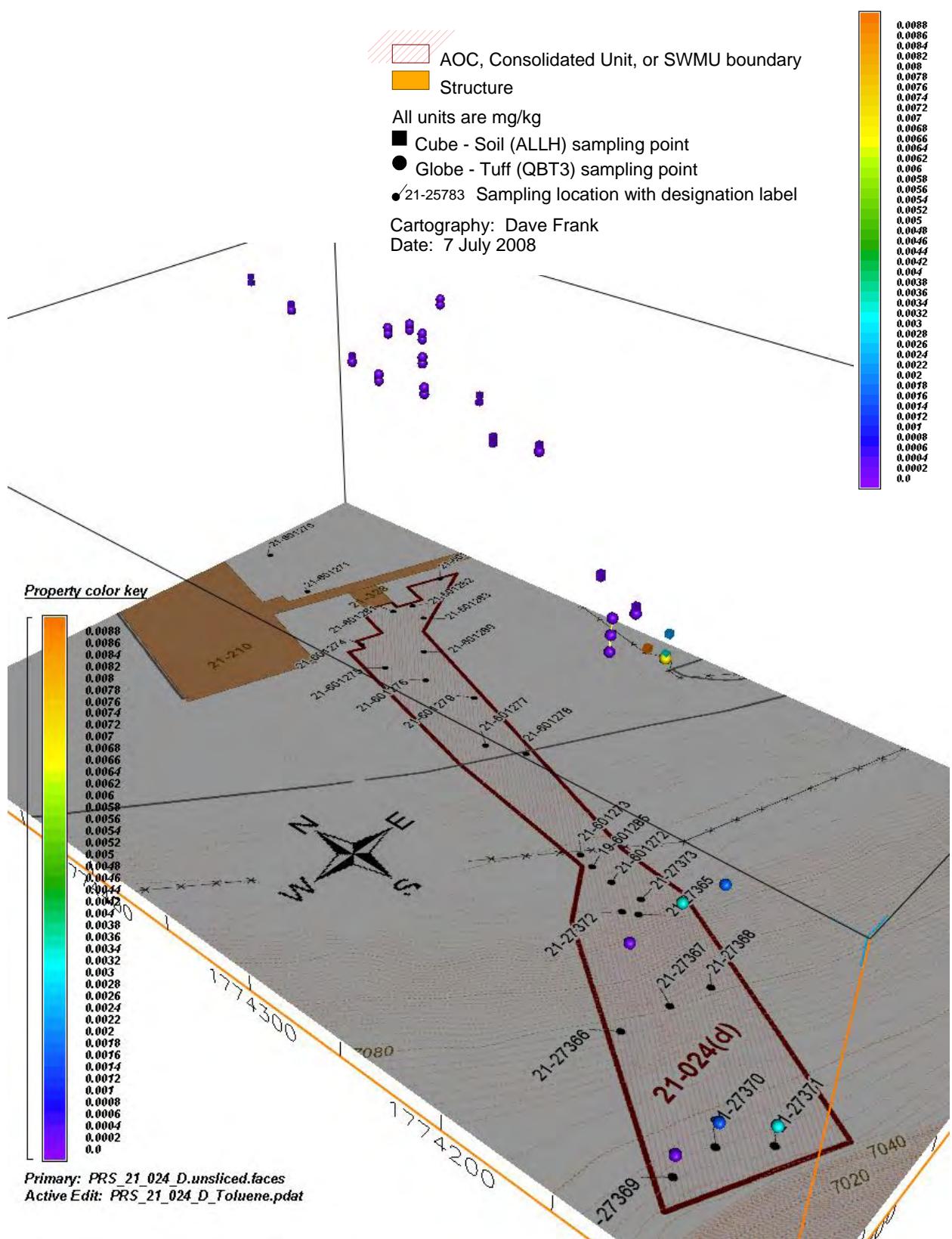
● 21-25783 Sampling location with designation label

Cartography: Dave Frank

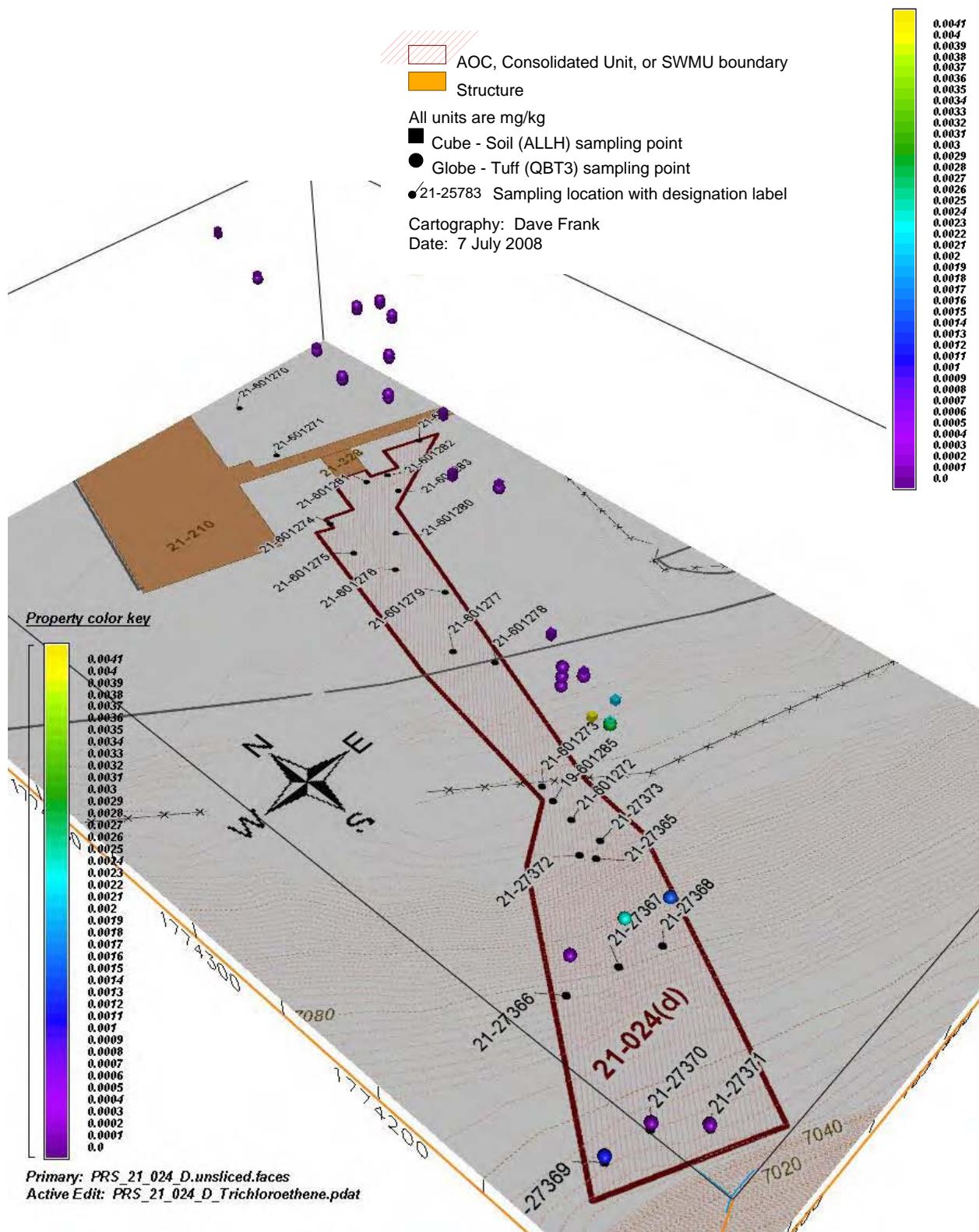
Date: 7 July 2008

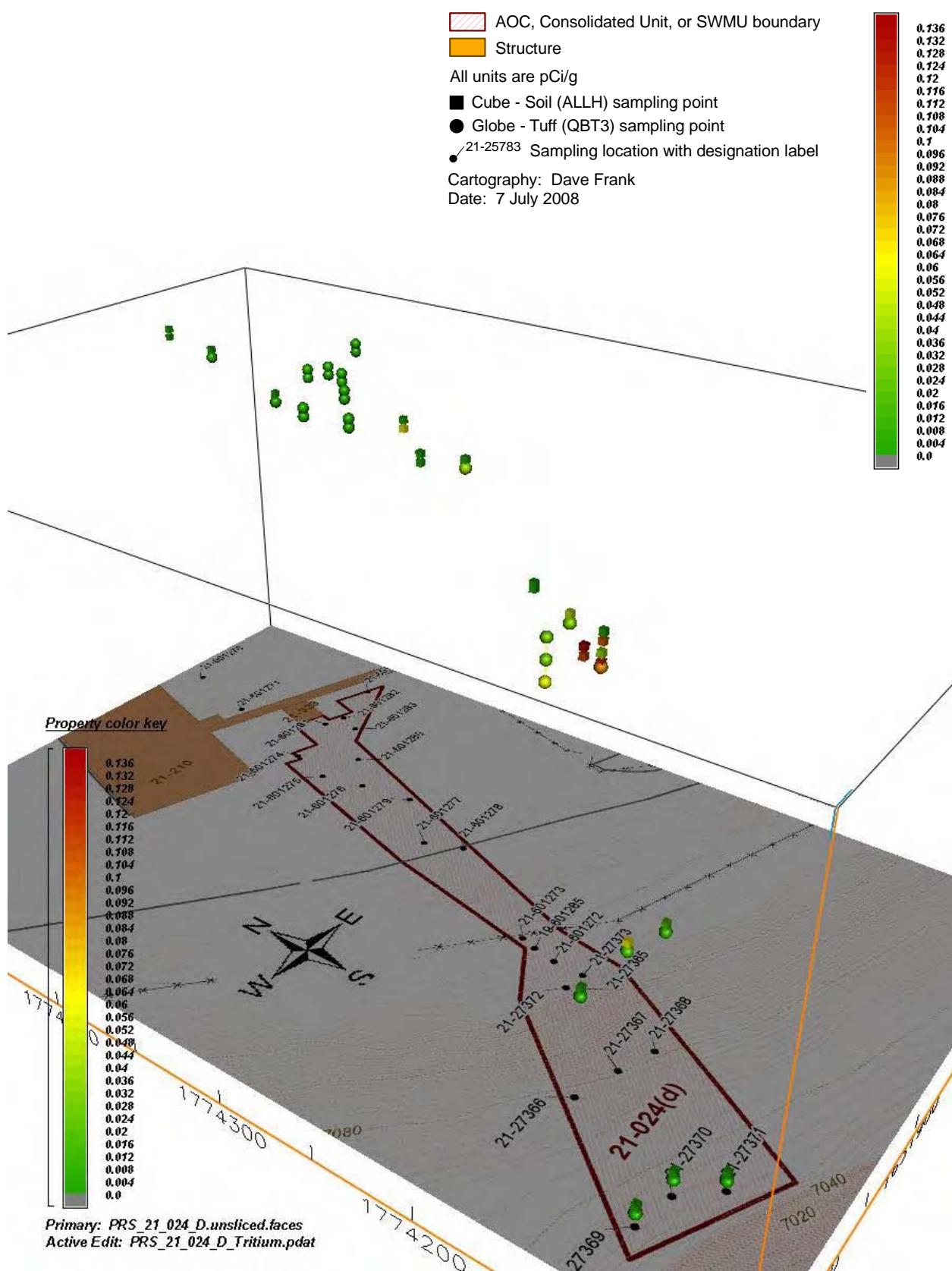


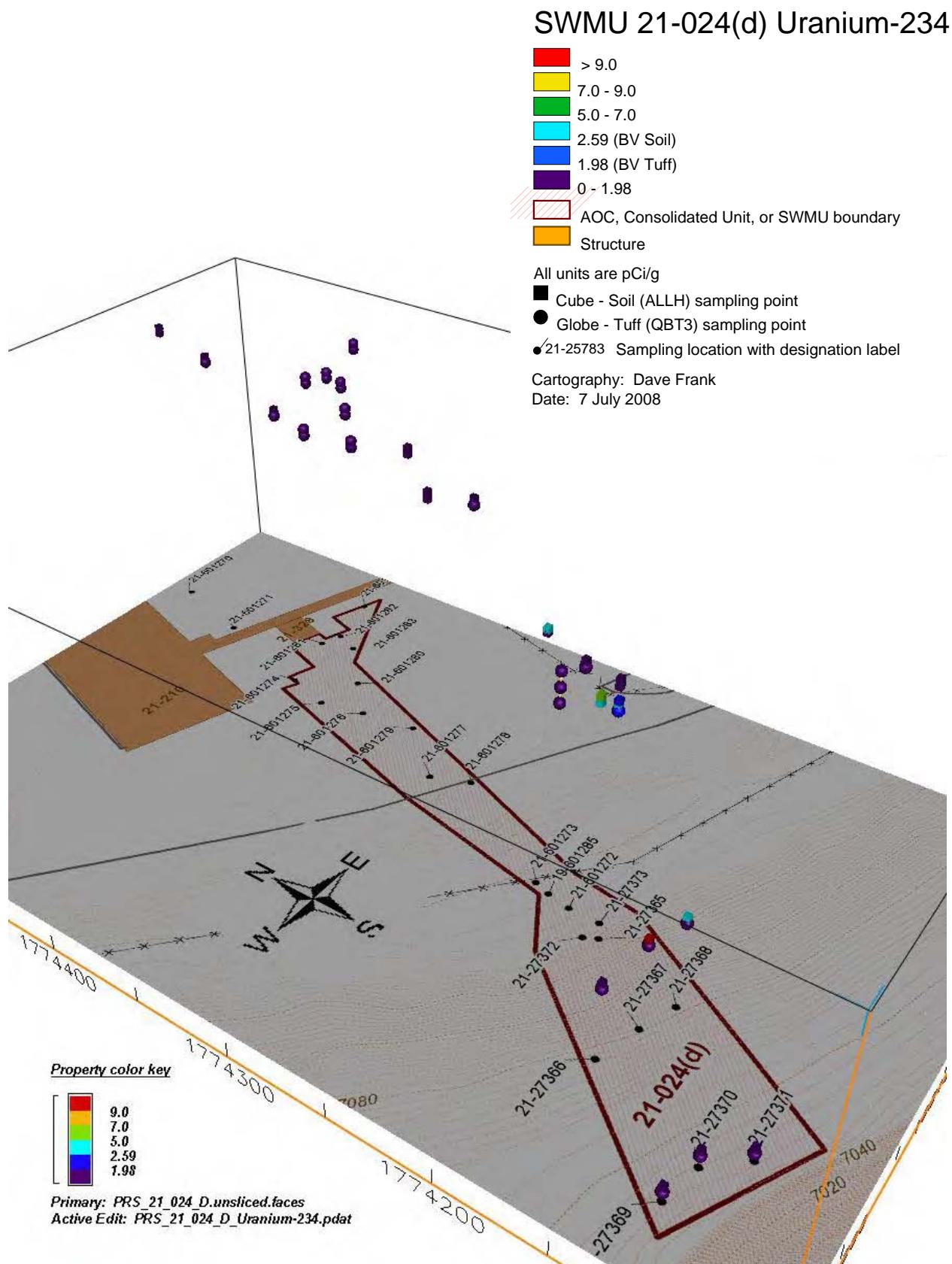
SWMU 21-024(d) Toluene



SWMU 21-024(d) Trichloroethylene



SWMU 21-024(d) Tritium



SWMU 21-024(d) Uranium-235

0.02 (BV Soil)

0.09 (BV Tuff)

0 - 0.09

AOC, Consolidated Unit, or SWMU boundary

Structure

All units are pCi/g

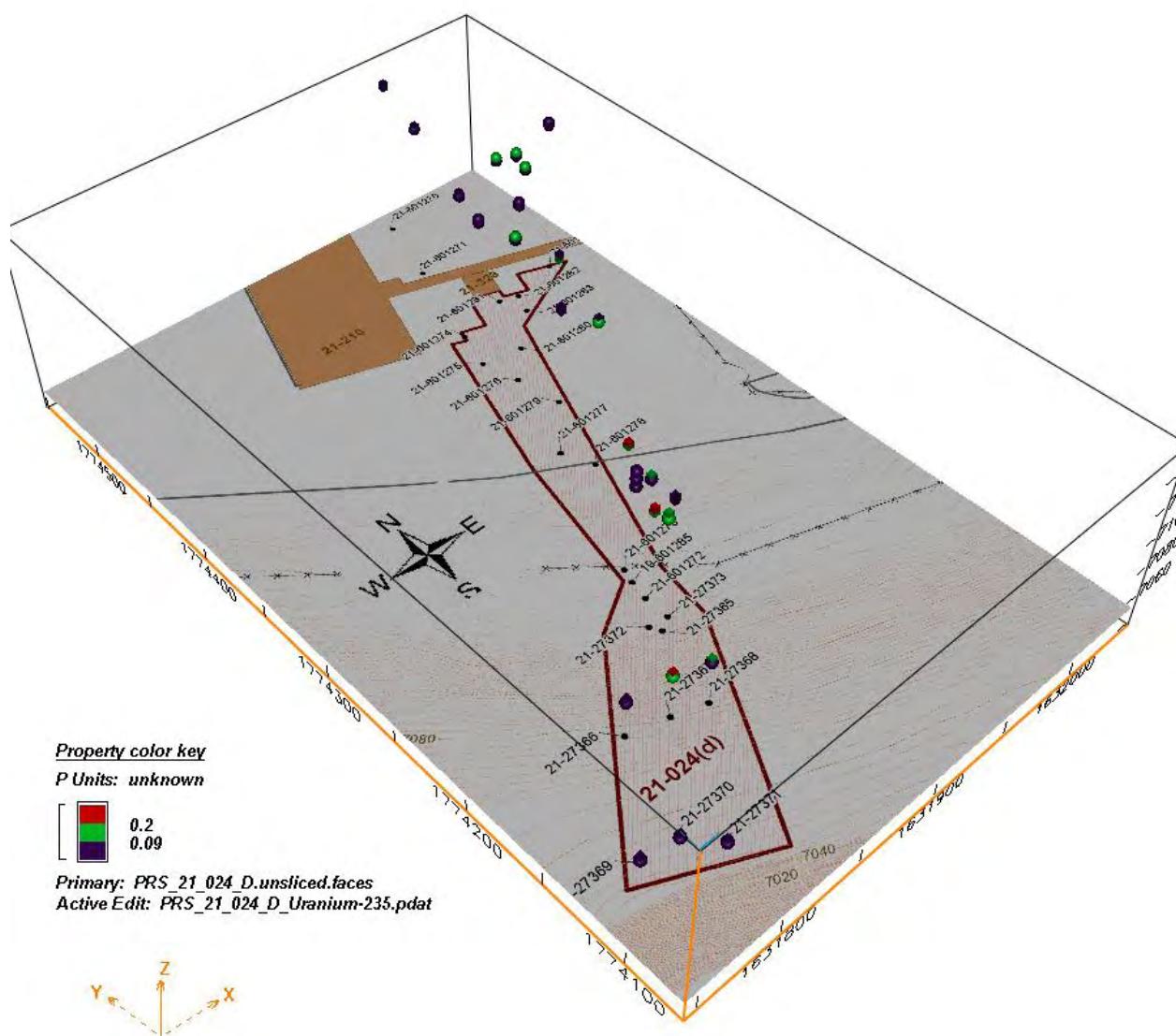
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

◆ 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(d) Uranium-238

■ 2.29 (BV Soil)

■ 1.93 (BV Tuff)

■ 0 - 1.93

■ AOC, Consolidated Unit, or SWMU boundary

■ Structure

All units are pCi/g

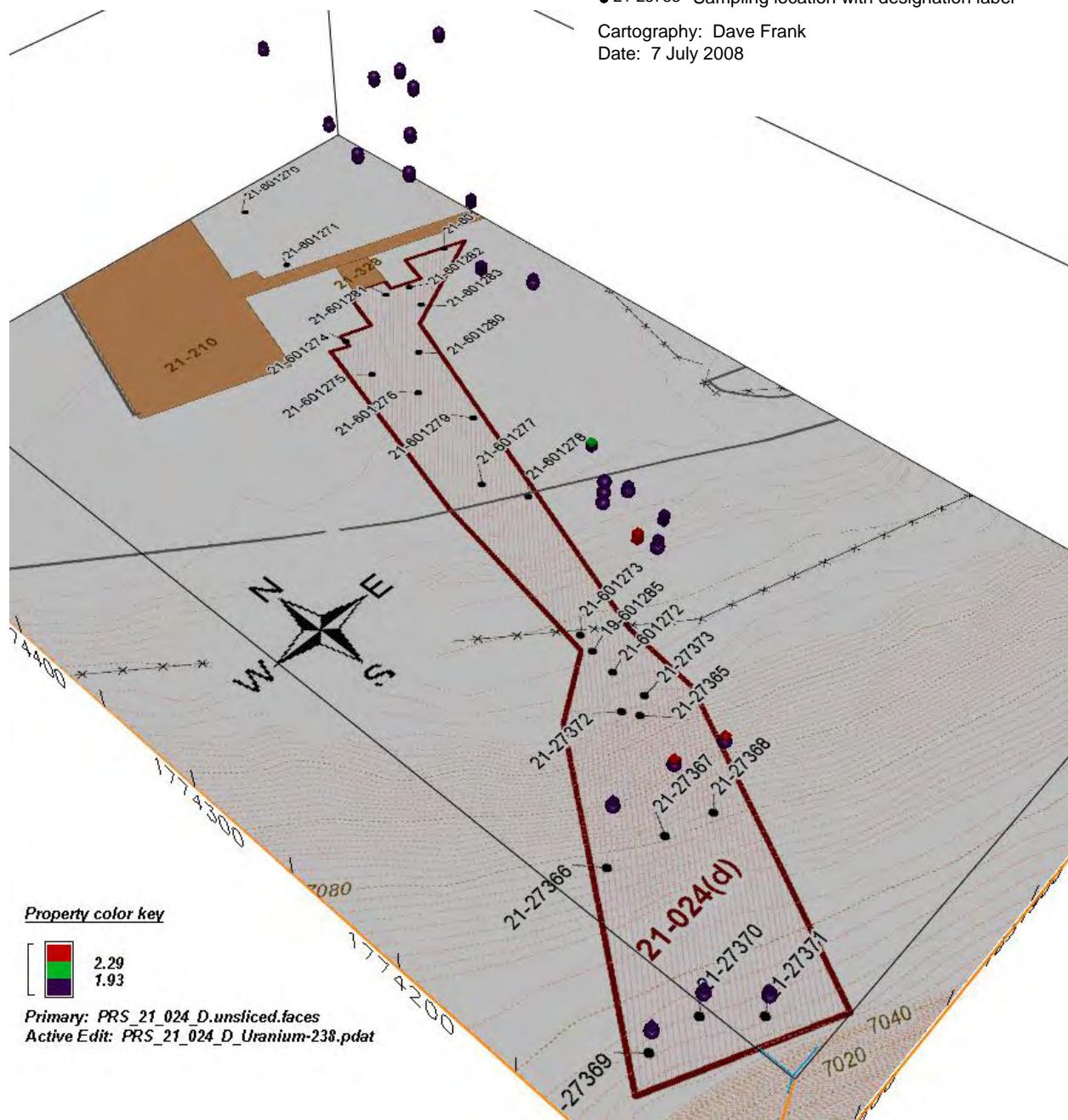
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

● 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(d) Uranium

	4.8 ($\geq 2x$ BV Tuff)
	3.64 ($\geq 2x$ BV Soil)
	2.4 ($\geq 1x$ BV Tuff)
	1.82 ($\geq 1x$ BV Soil)
	0 - 1.82
	AOC, Consolidated Unit, or SWMU boundary
	Structure

All units are mg/kg

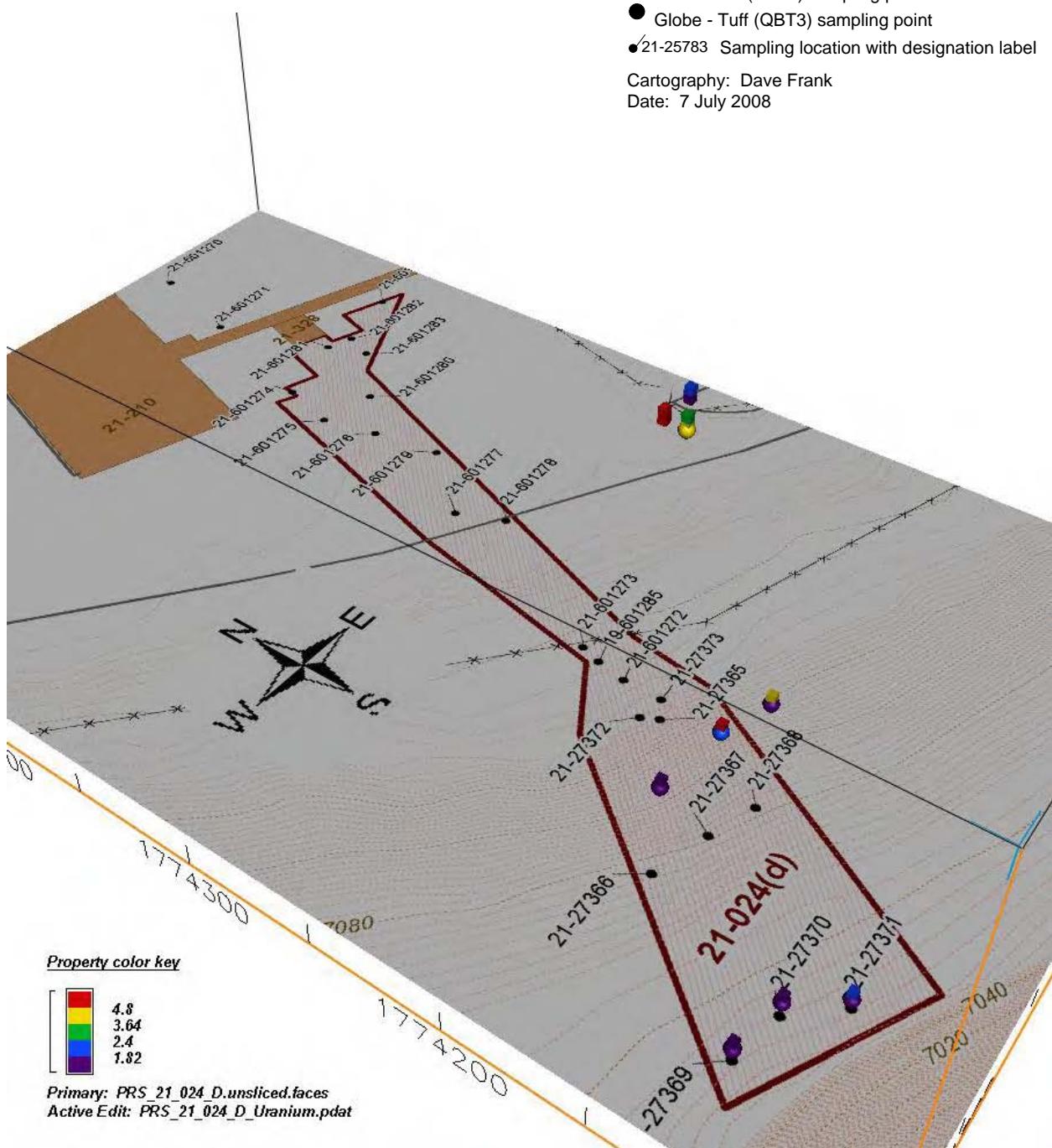
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (GBT3) sampling point

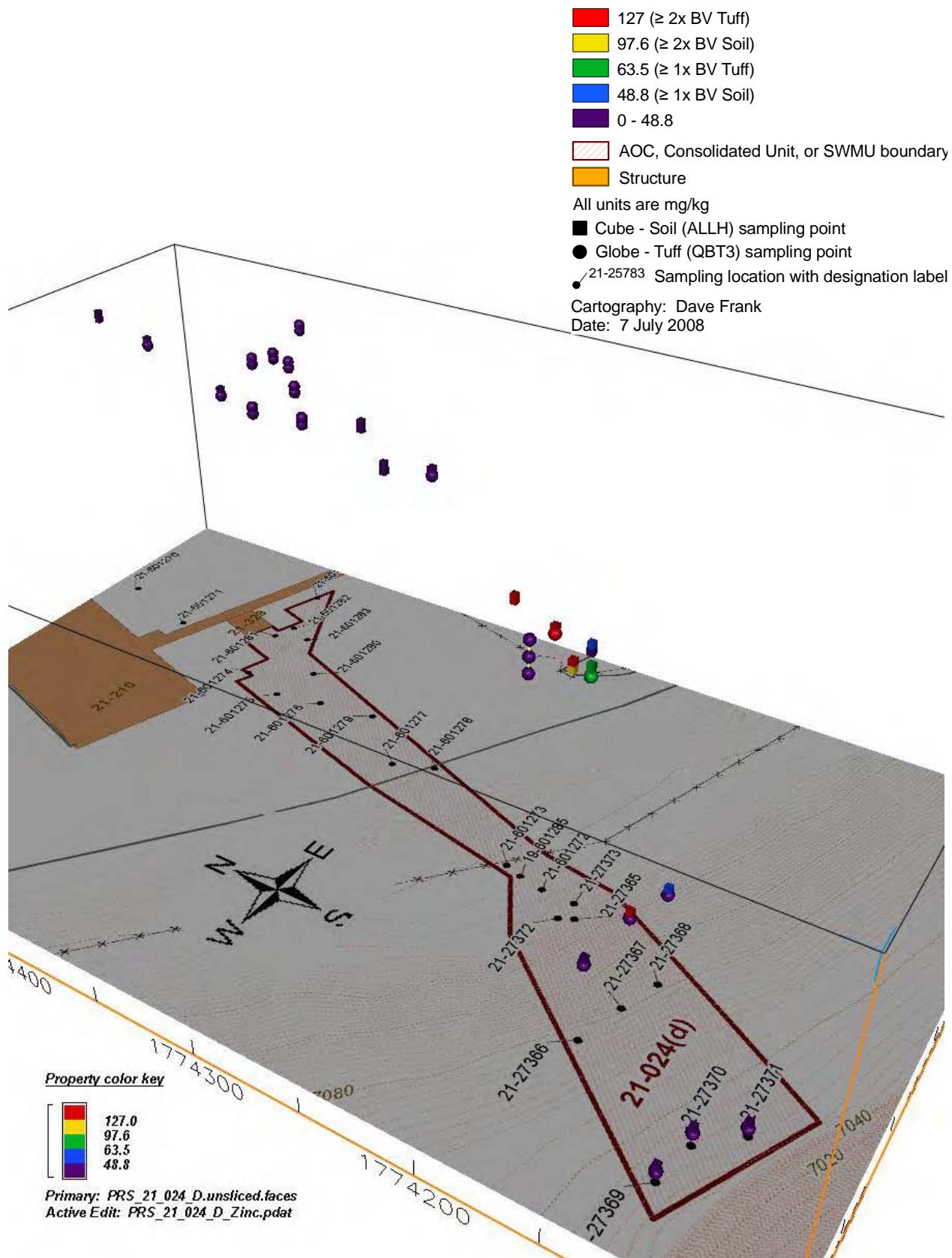
✓21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(d) Zinc



SWMU 21-024(e) Cesium-137

■ 1.65 (FV Soil)

■ 1.0 - 1.65

■ 0.5 - 1.0

■ 0.1 (FV Tuff)

■ 0 - 0.1

■ AOC, Consolidated Unit, or SWMU boundary

■ Structure

All units are pCi/g

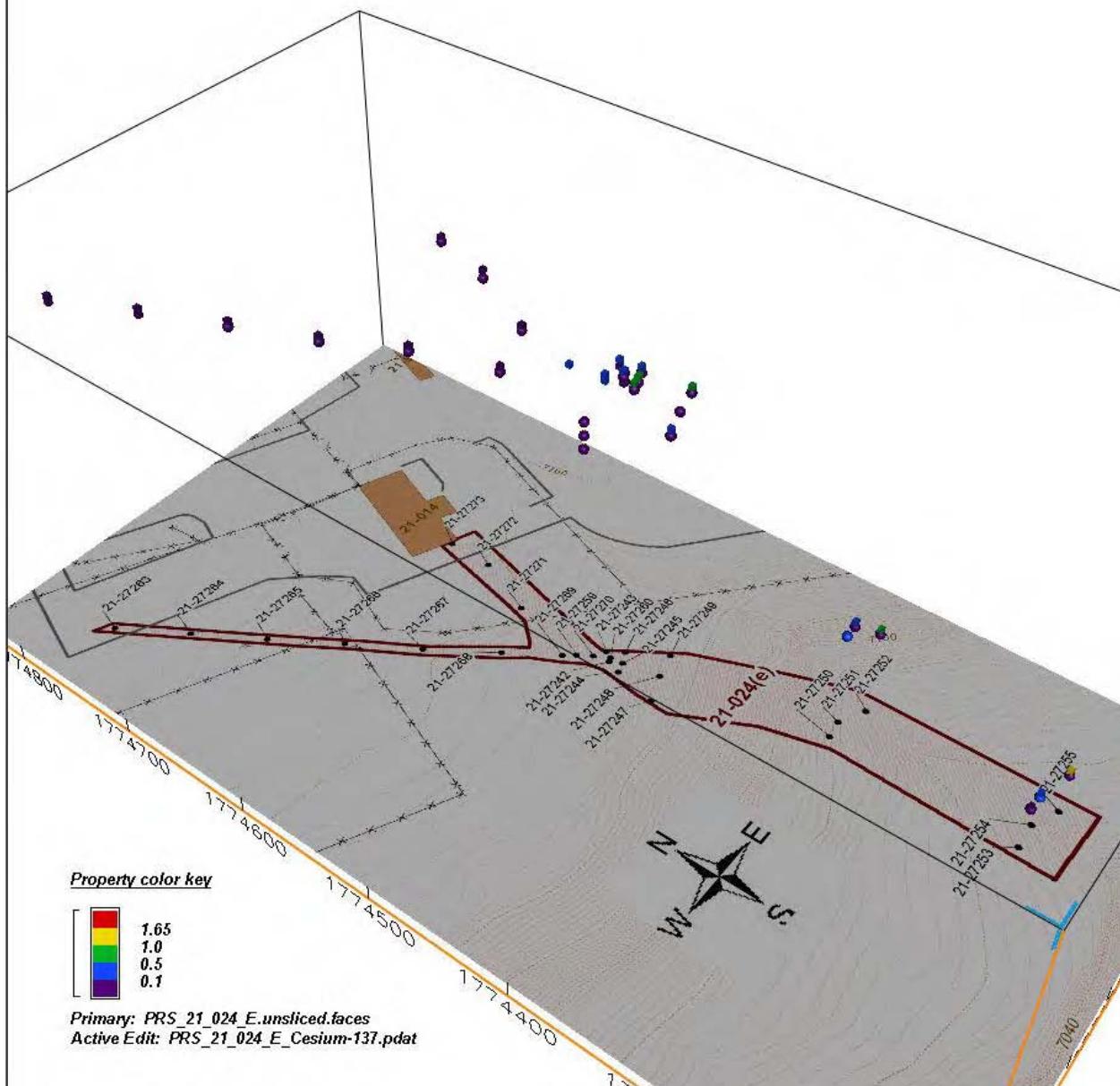
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

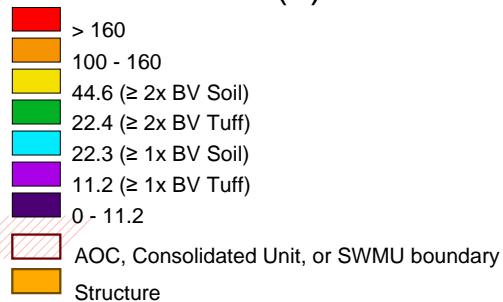
● 21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(e) Lead



All units are mg/kg

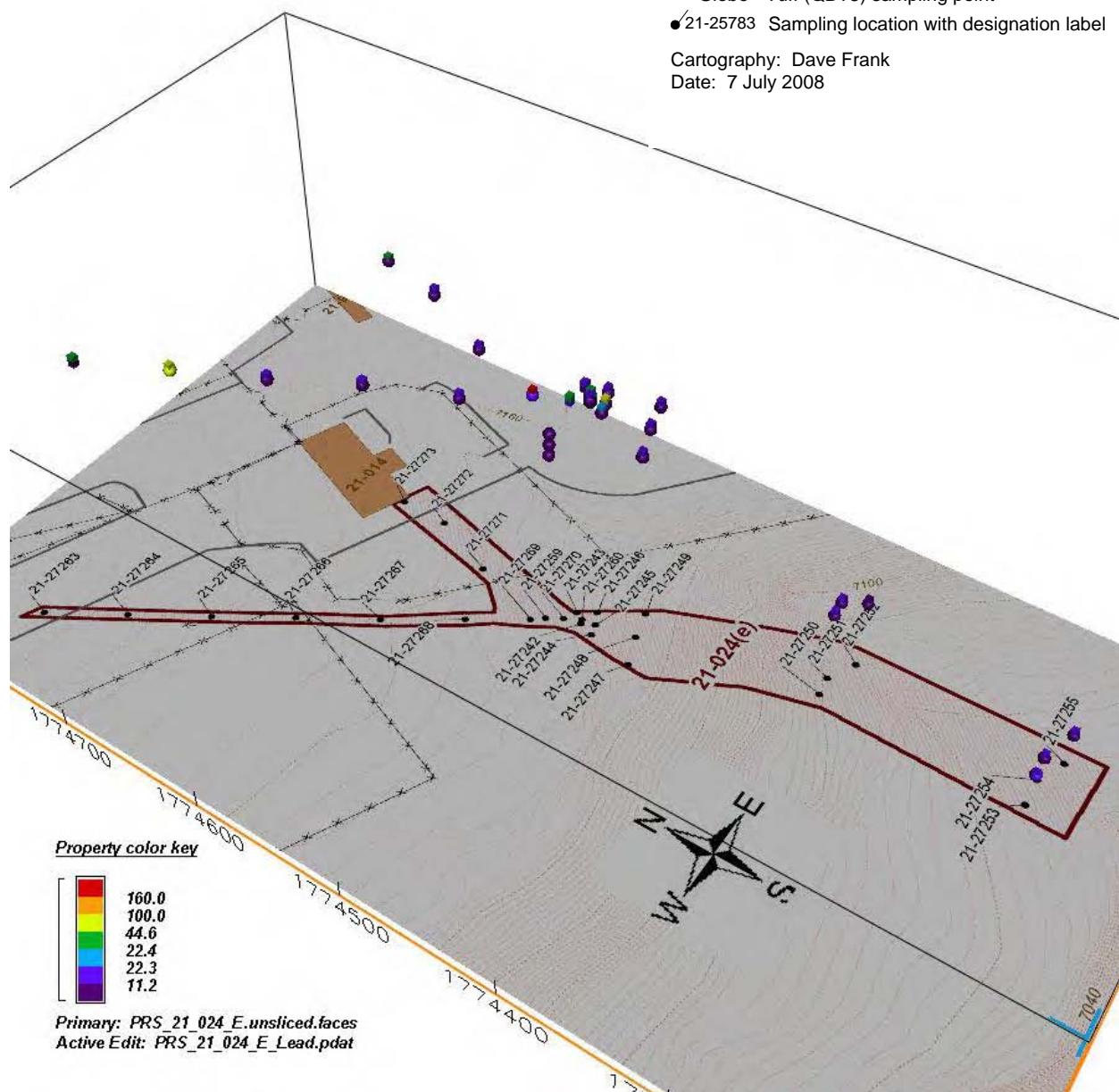
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

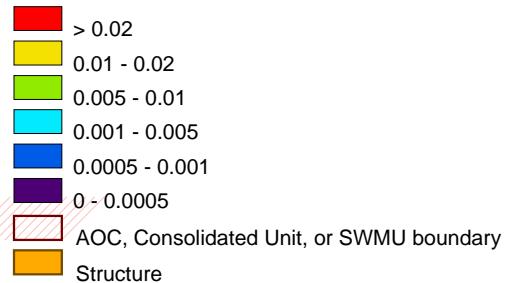
• 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(e) Toluene



All units are mg/kg

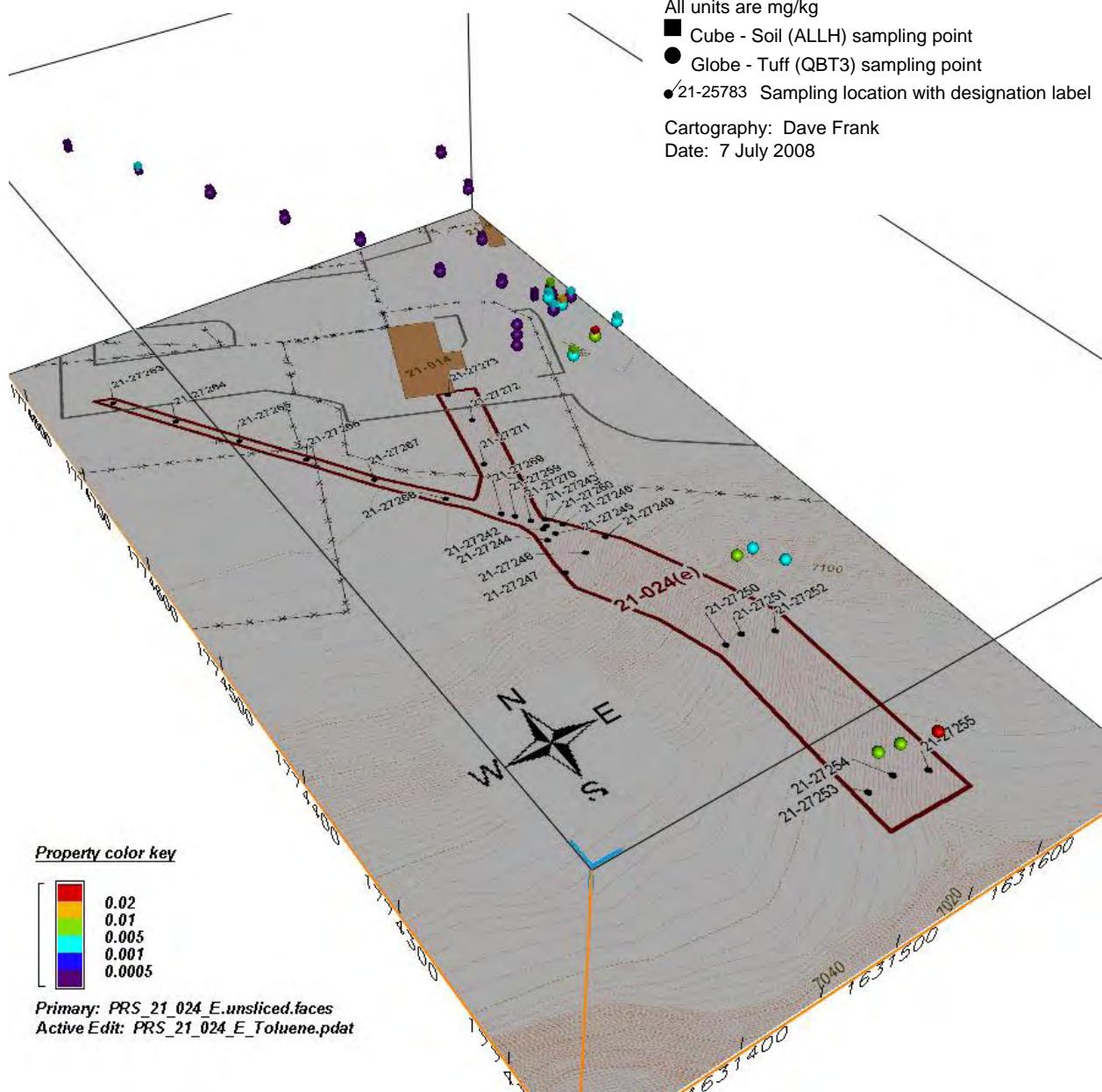
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

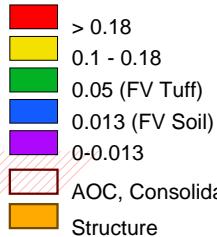
• 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(g) Americium-241



Red hatched area: AOC, Consolidated Unit, or SWMU boundary
 Orange: Structure

All units are pCi/g

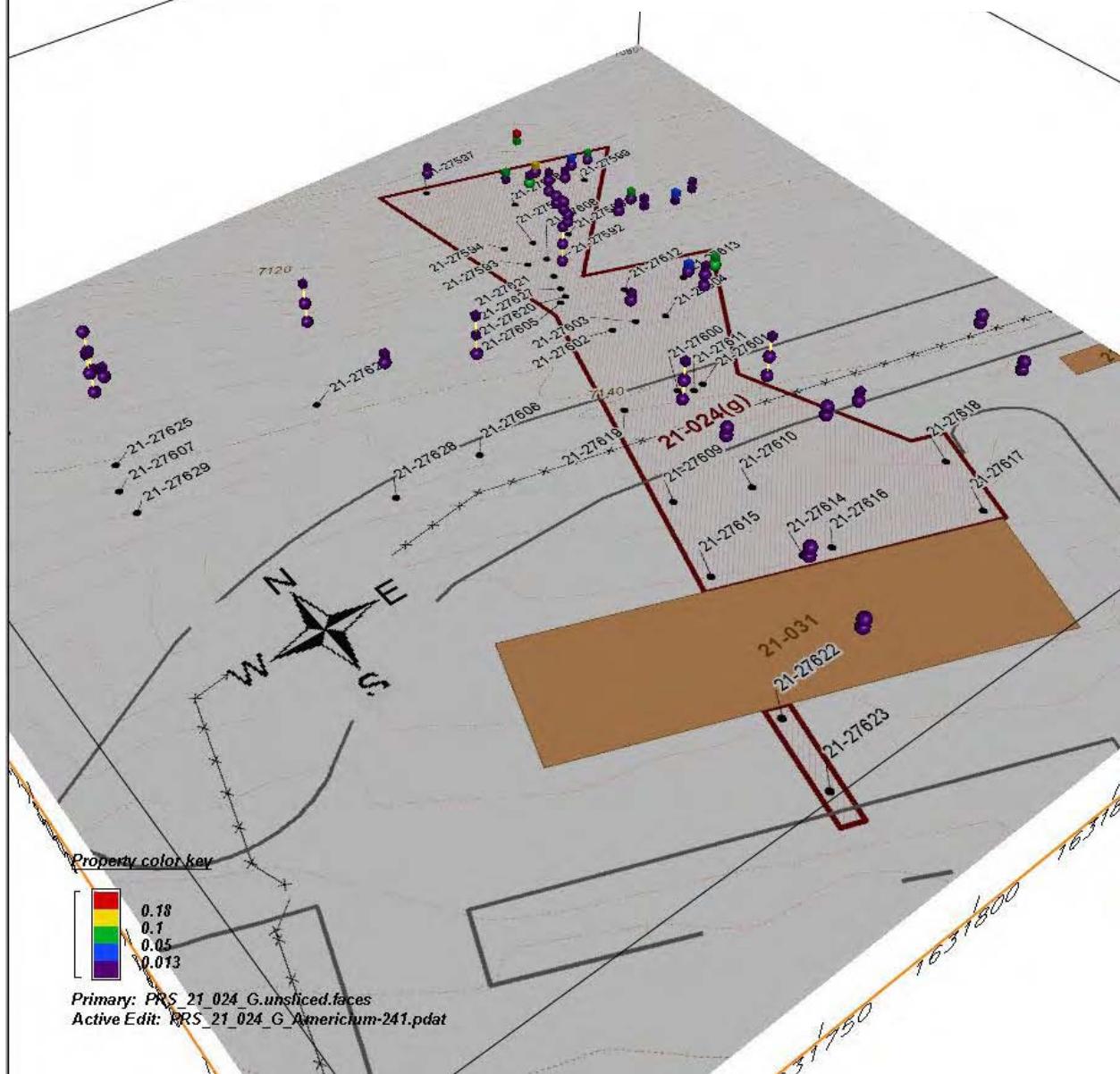
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (GBT3) sampling point

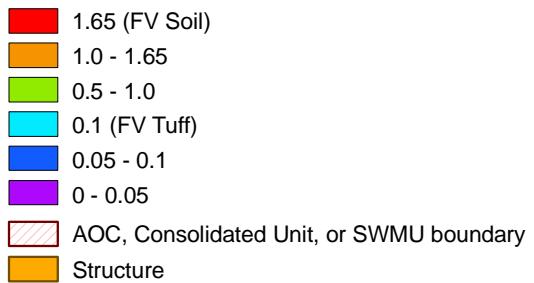
✓ 21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(g) Cesium-137



All units are pCi/g

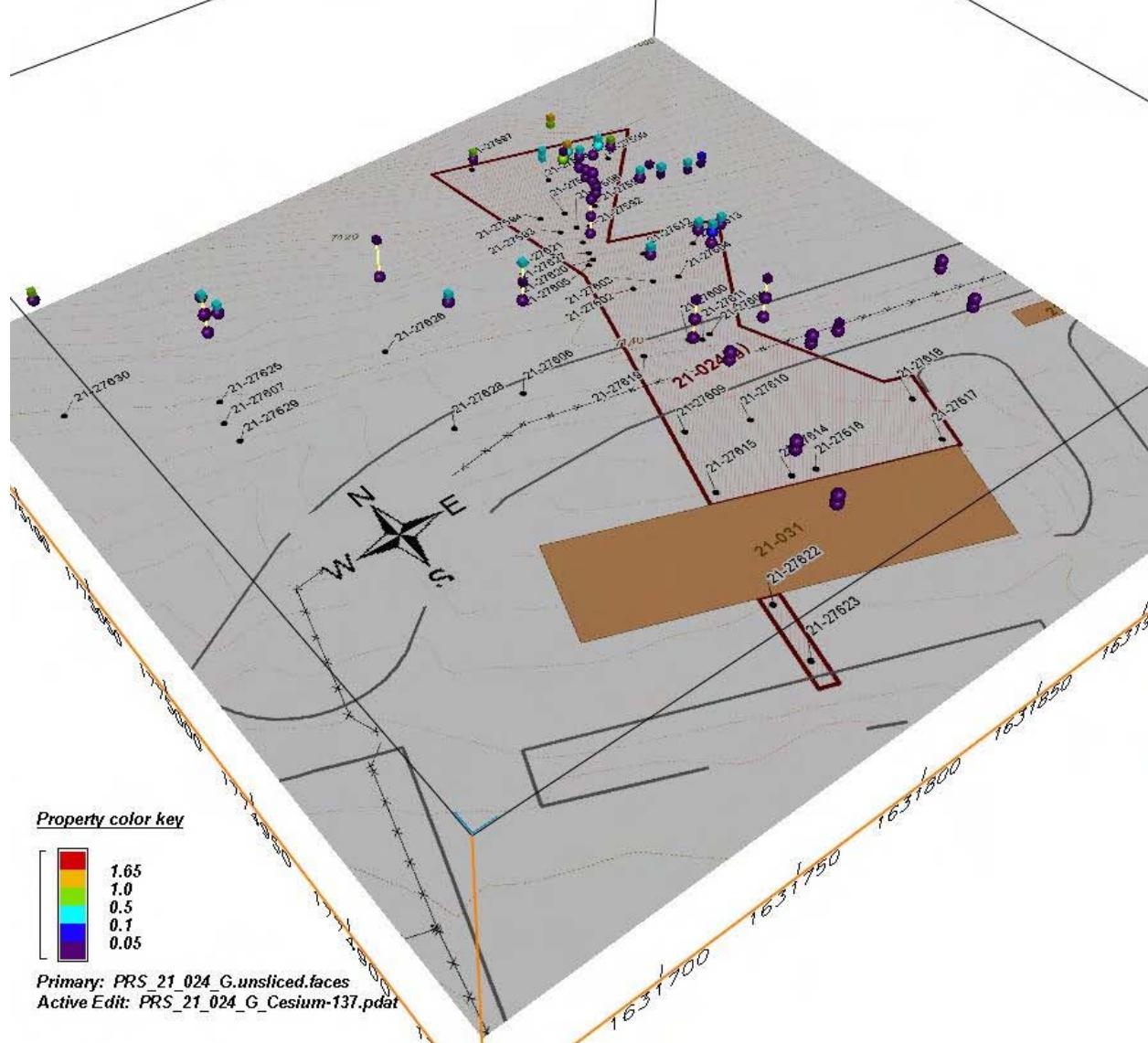
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

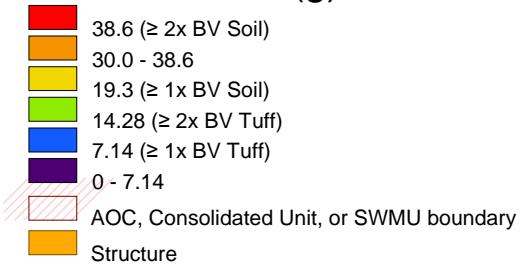
● 21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(g) Chromium



All units are mg/kg

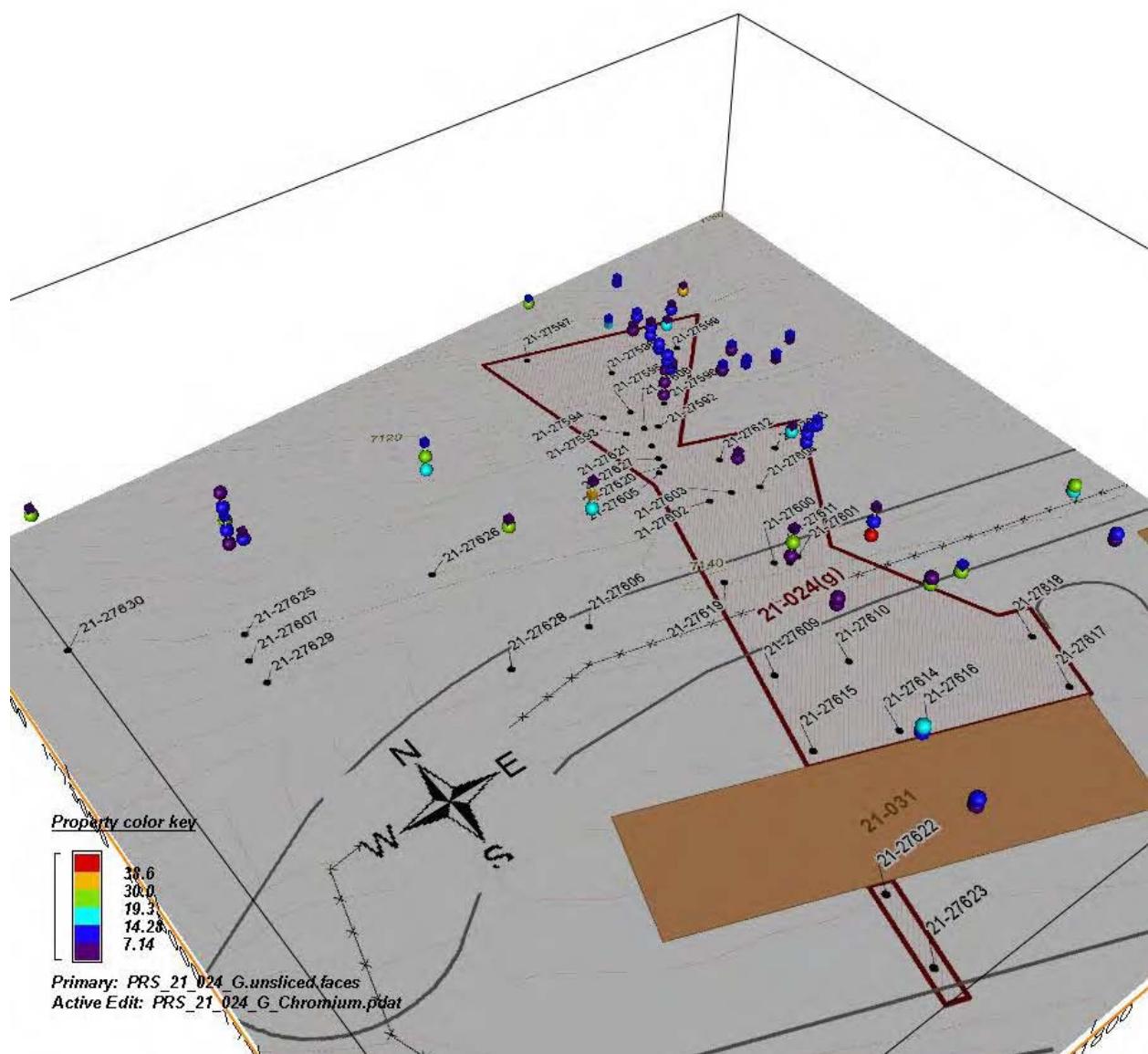
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (GBT3) sampling point

✓ 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(g) Lead

	> 108
	44.6 ($\geq 2x$ BV Soil)
	22.4 ($\geq 2x$ BV Tuff)
	22.3 ($\geq 1x$ BV Soil)
	11.2 ($\geq 1x$ BV Tuff)
	0 - 11.2
Diagonal Hatching	AOC, Consolidated Unit, or SWMU boundary
Orange	Structure

All units are mg/kg

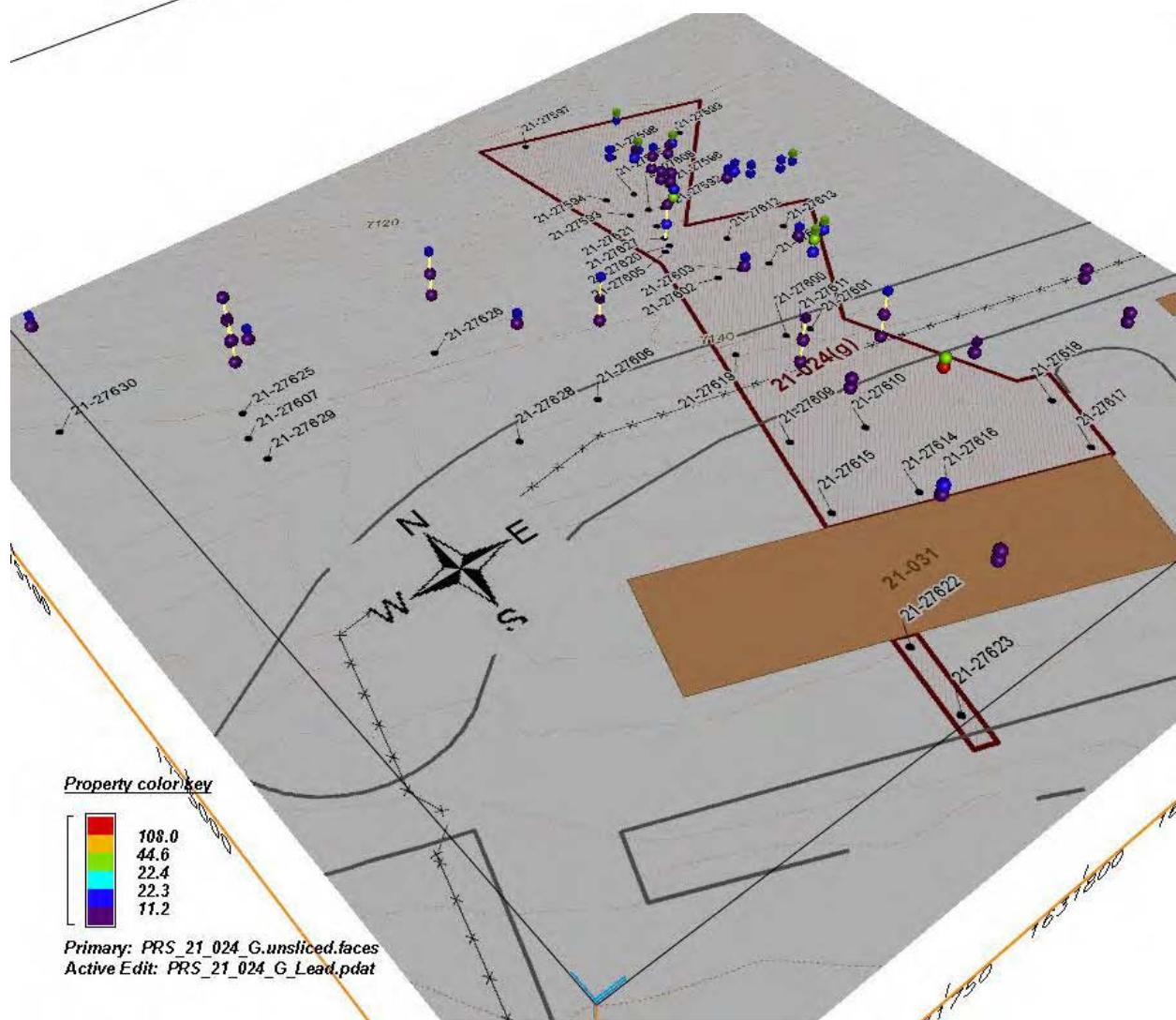
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

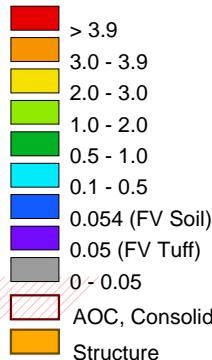
• 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(g) Plutonium-239



Red hatched area: AOC, Consolidated Unit, or SWMU boundary

Orange: Structure

All units are pCi/g

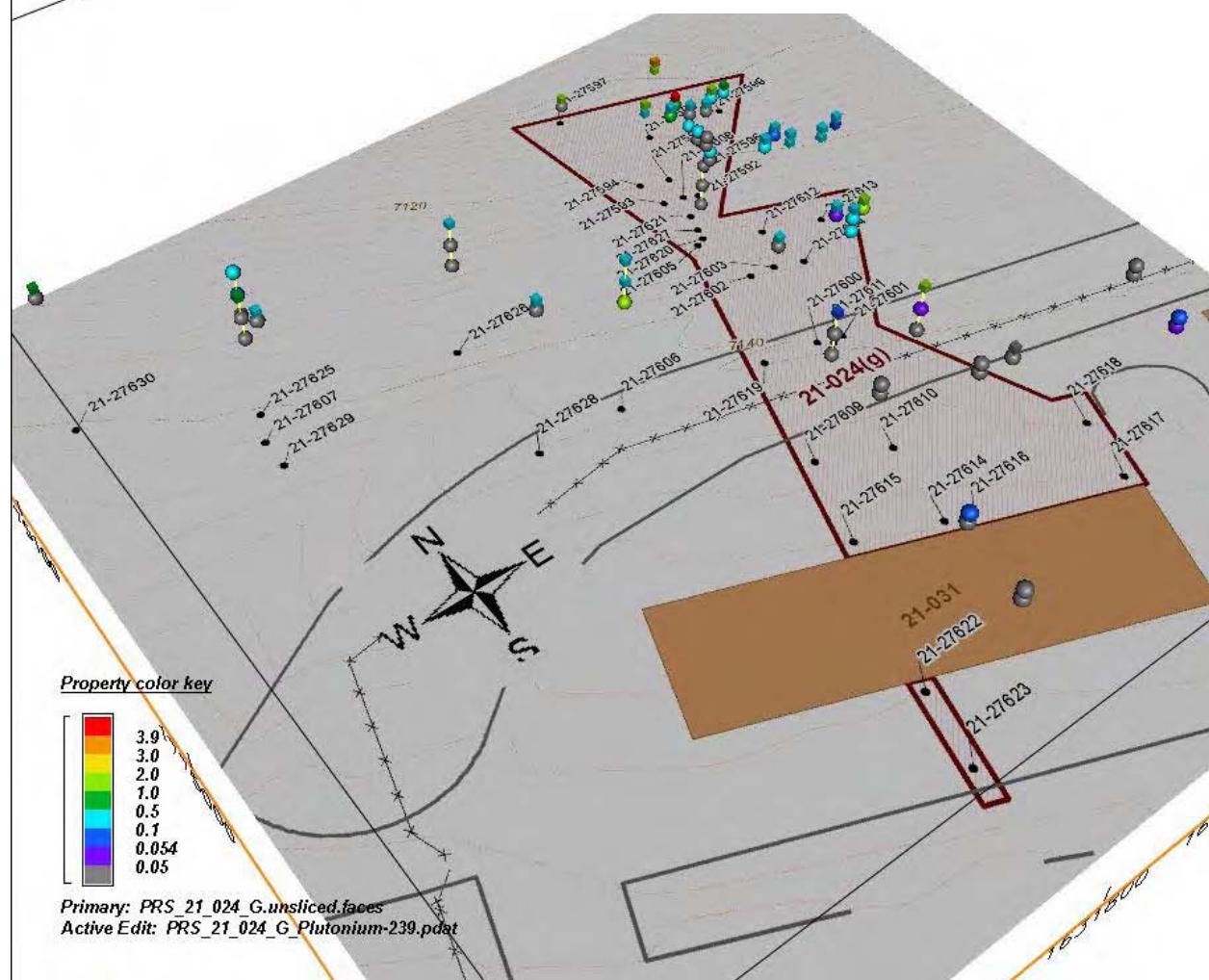
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

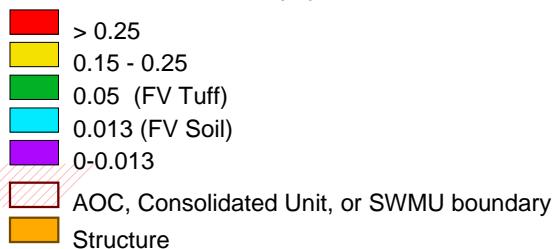
✓ Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(h) Americium-241



All units are pCi/g

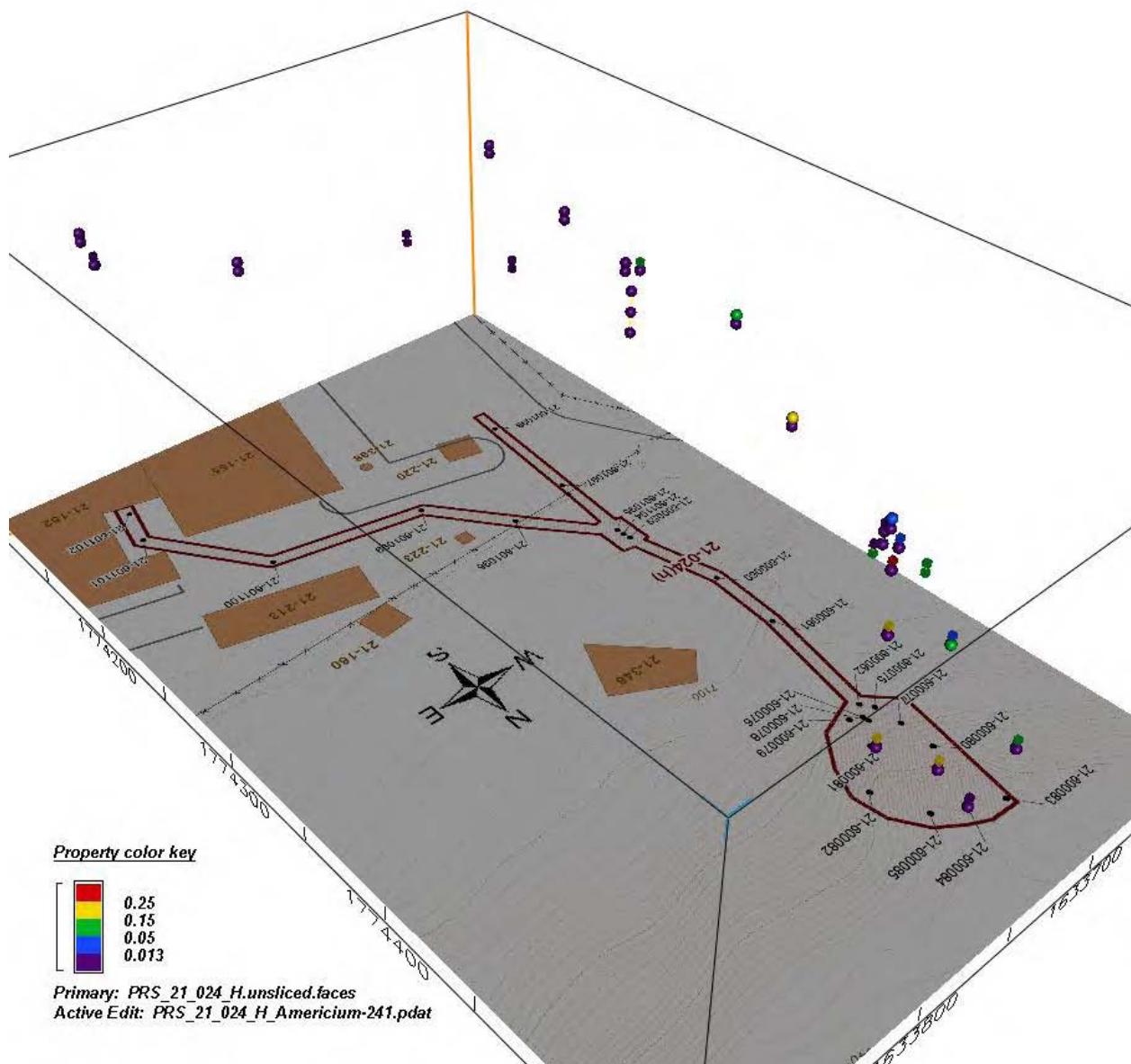
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

● 21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(h) Cesium-137

■ 1.65 (FV Soil)

■ 1.0 - 1.65

■ 0.1 (FV Tuff)

■ 0 - 0.1

■ AOC, Consolidated Unit, or SWMU boundary

■ Structure

All units are pCi/g

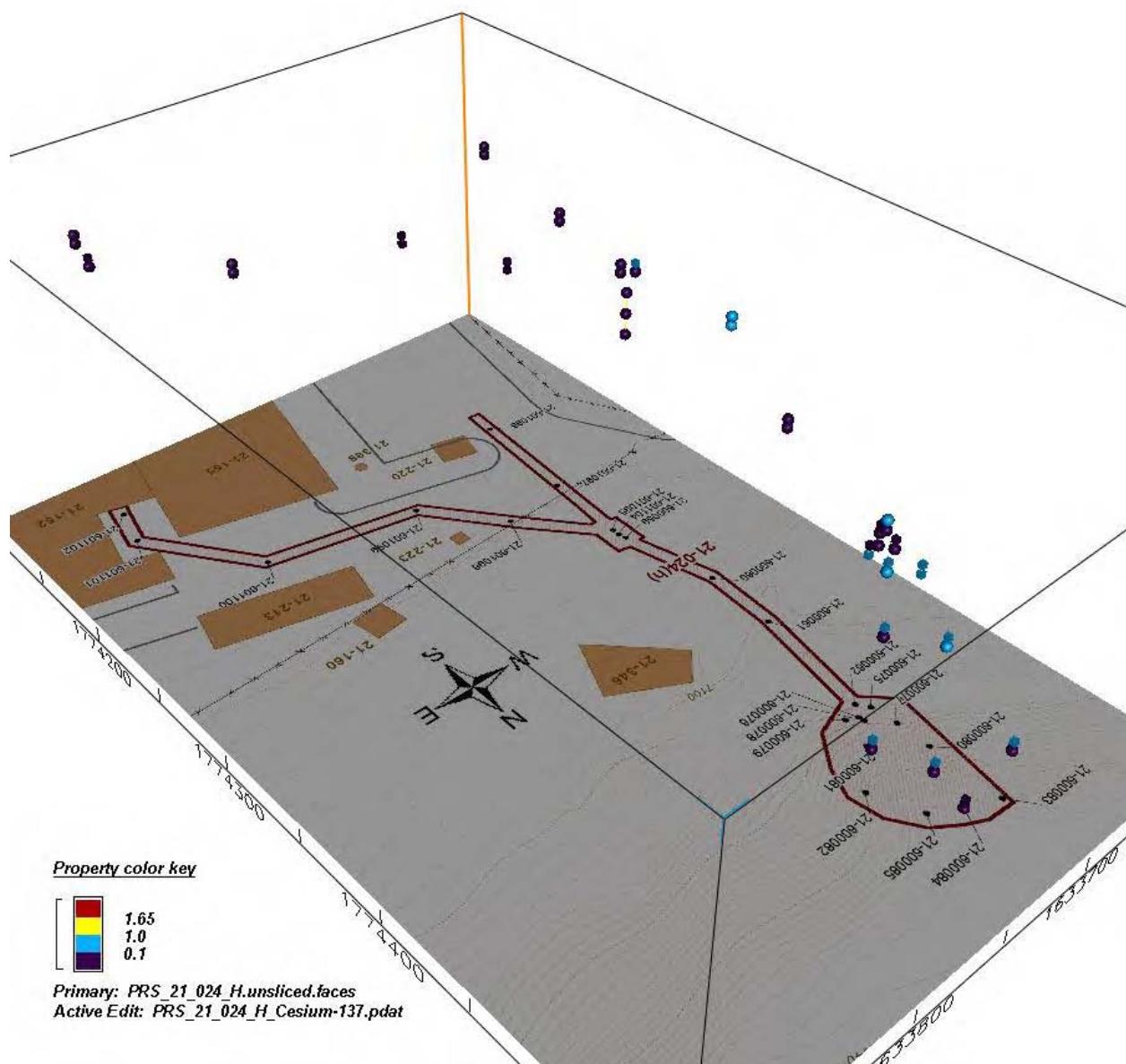
■ Cube - Soil (ALLH) sampling point

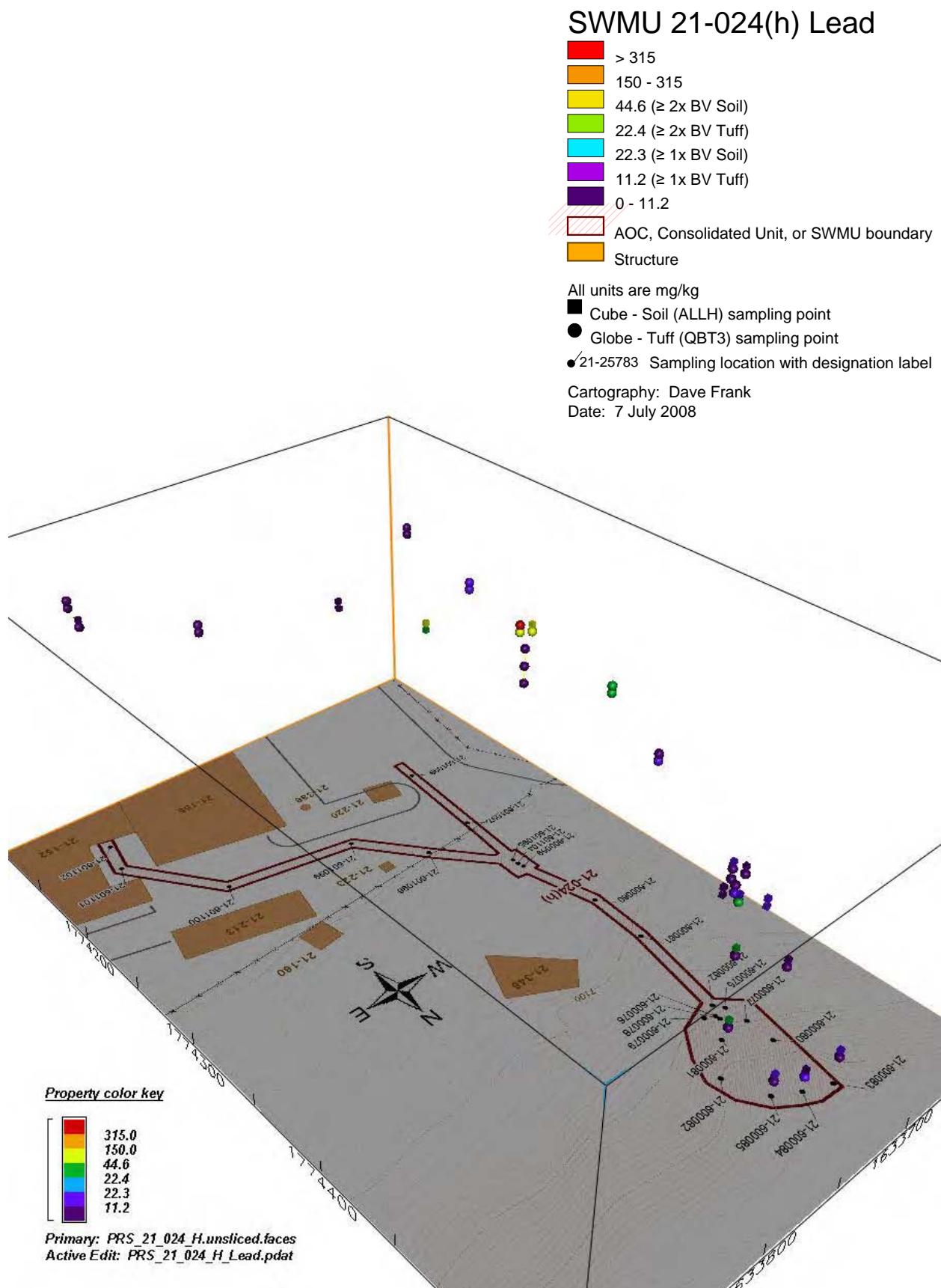
● Globe - Tuff (QBT3) sampling point

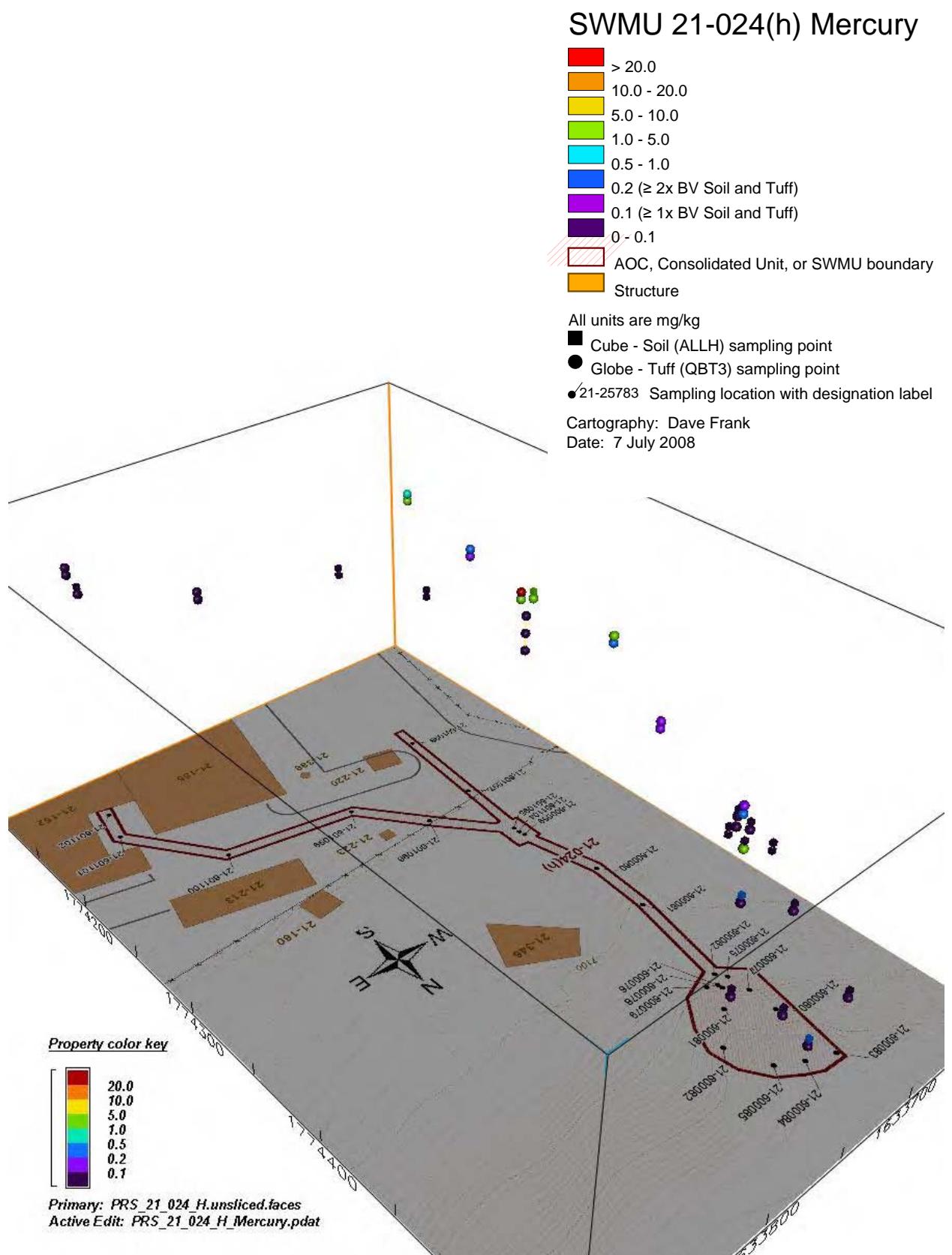
● 21-25783 Sampling location with designation label.

Cartography: Dave Frank

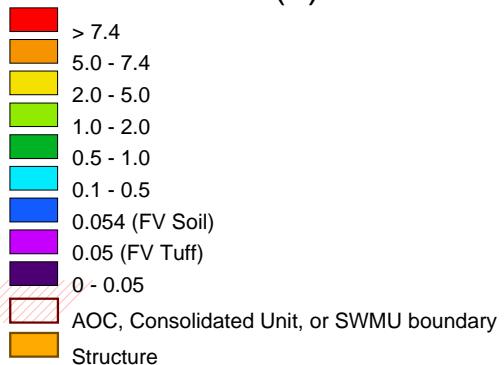
Date: 7 July 2008







SWMU 21-024(h) Plutonium-239



All units are pCi/g

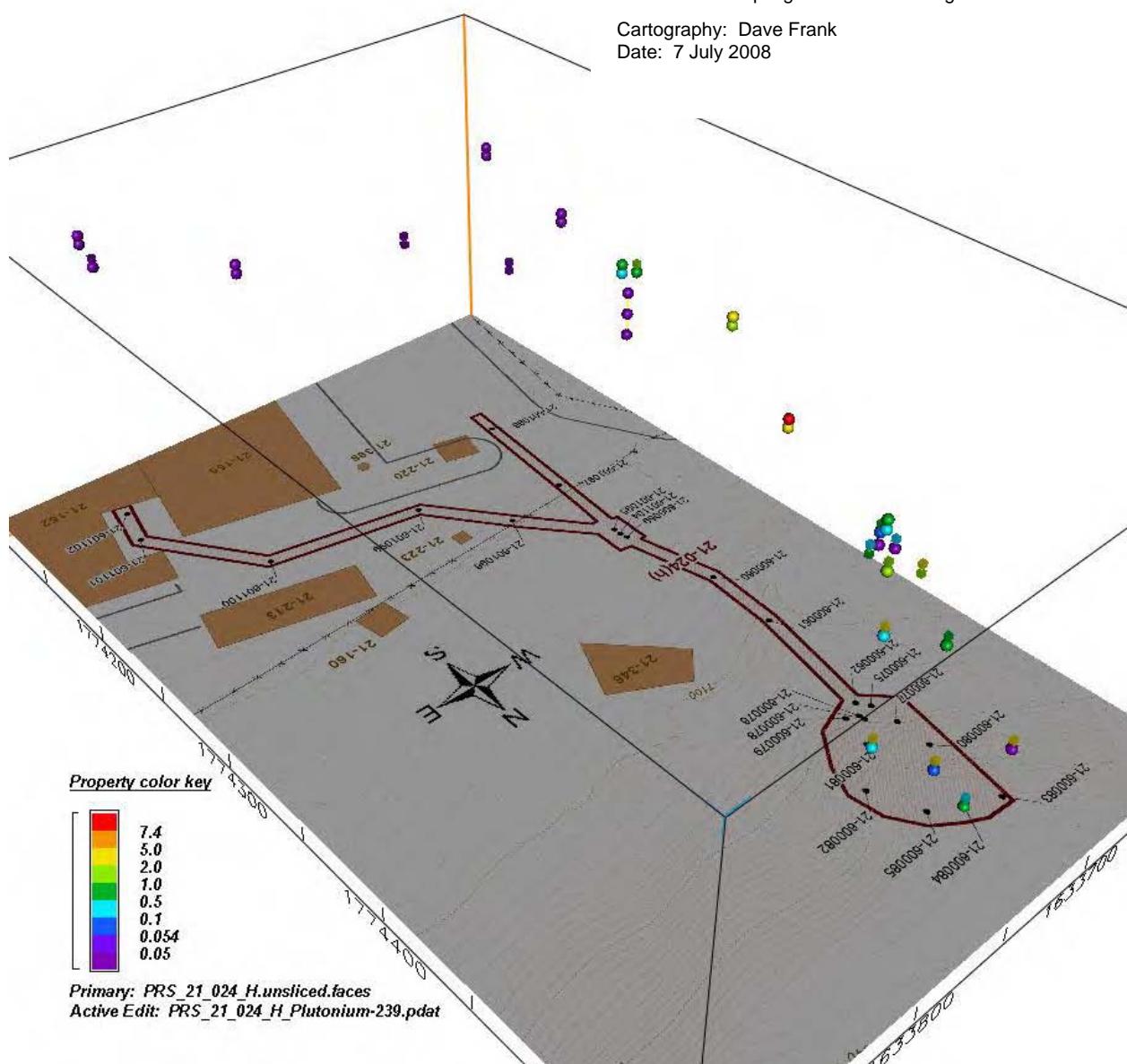
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

• 21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(h) Selenium

3.04 ($\geq 2x$ BV Soil)

1.52 ($\geq 1x$ BV Soil)

0.6 ($\geq 2x$ BV Tuff)

0.3 ($\geq 1x$ BV Tuff)

0 - 0.3

AOC, Consolidated Unit, or SWMU boundary

Structure

All units are mg/kg

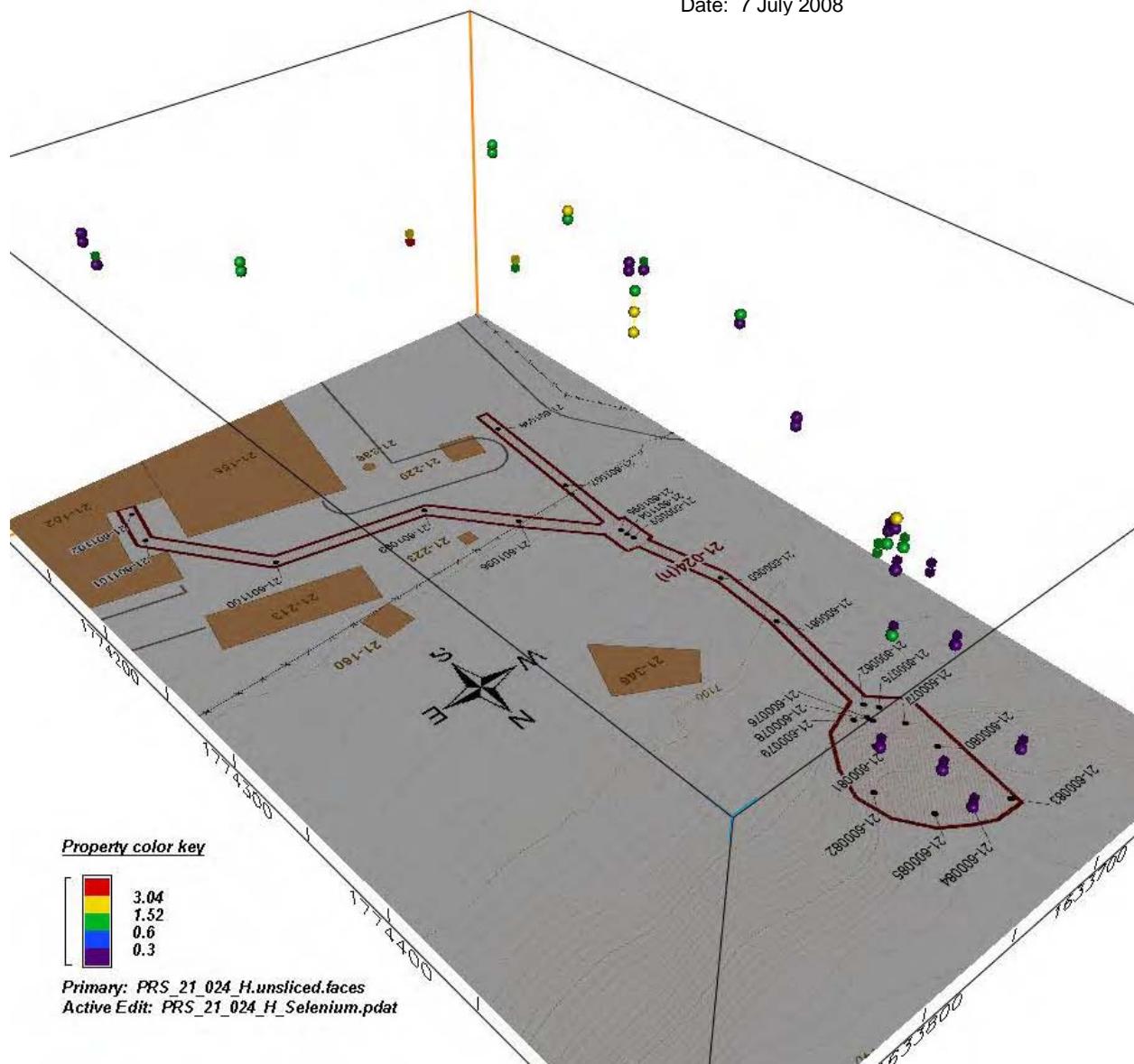
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

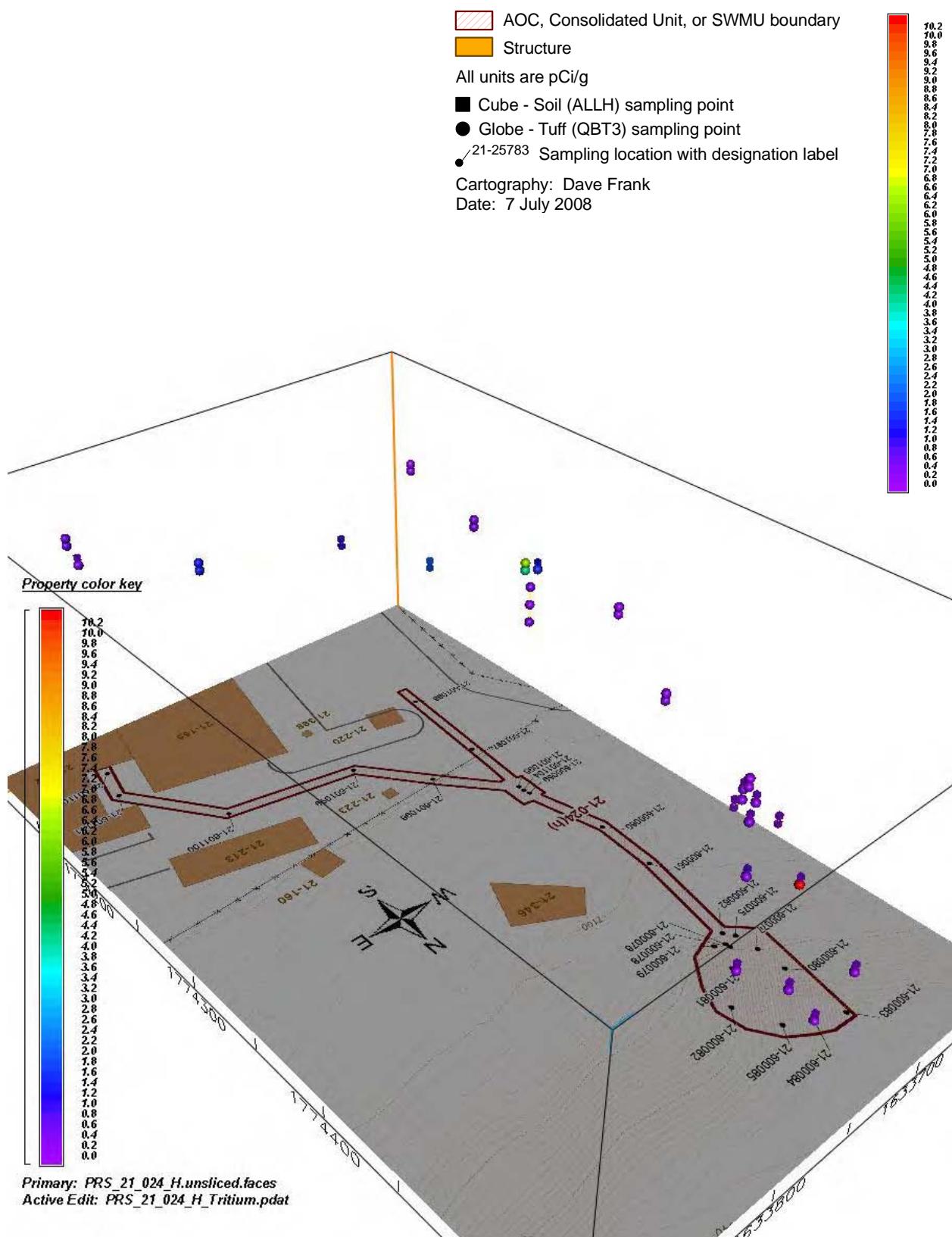
Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(h) Tritium



SWMU 21-024(i) Calcium

■ 12240 ($\geq 2x$ BV Soil)

■ 6120 ($\geq 1x$ BV Soil)

■ 4400 ($\geq 2x$ BV Tuff)

■ 2200 ($\geq 1x$ BV Tuff)

■ 0 - 2200

■ AOC, Consolidated Unit, or SWMU boundary

■ Structure

All units are mg/kg

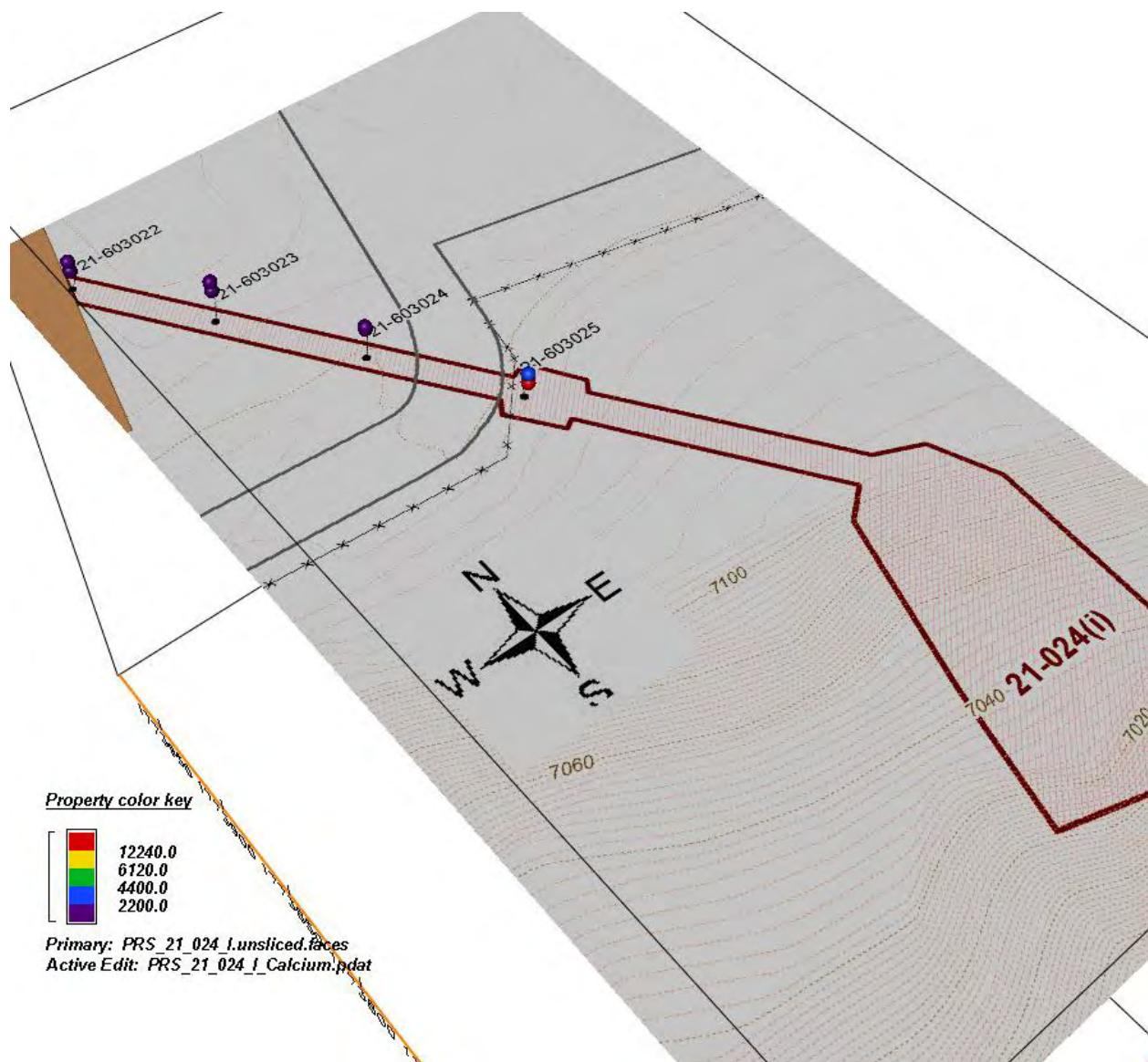
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

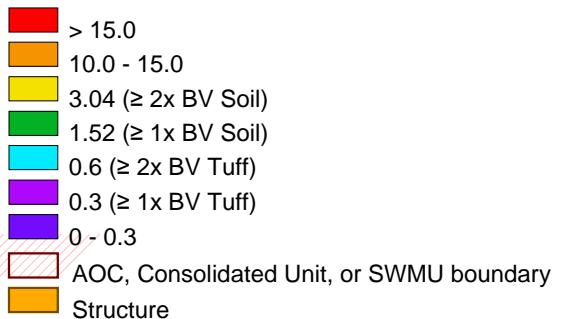
● ²¹⁻²⁵⁷⁸³ Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(i) Selenium

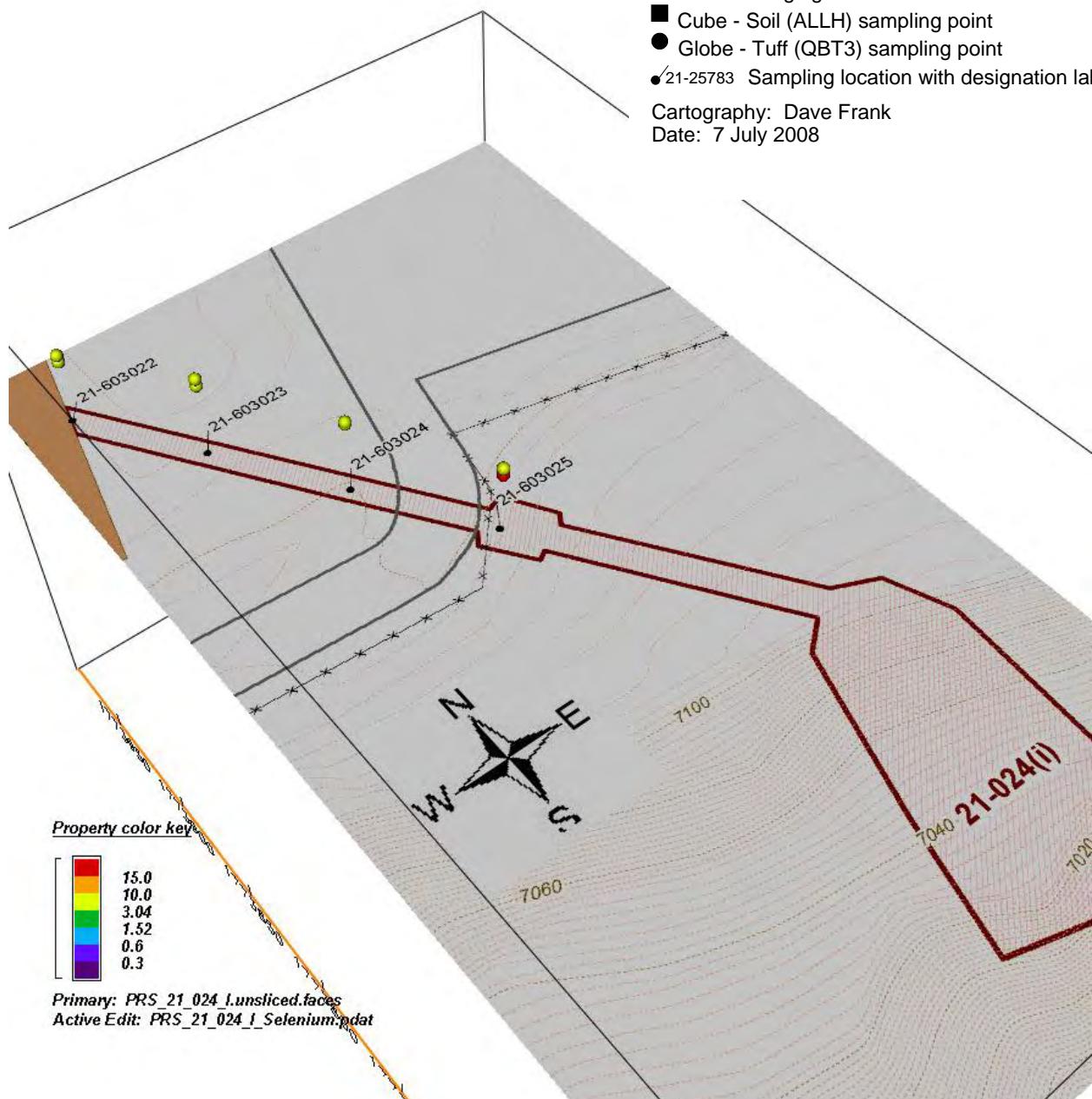


All units are mg/kg

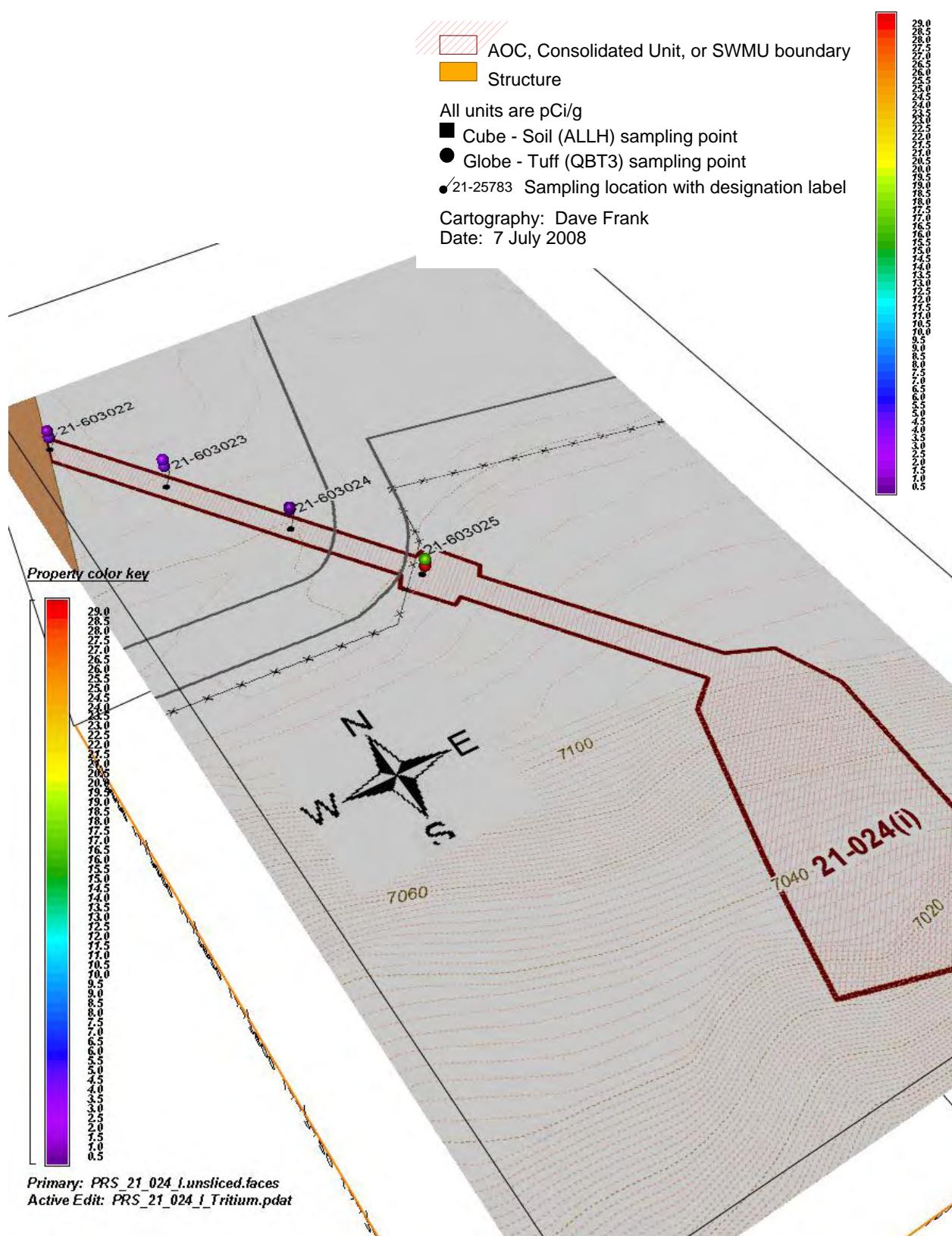
■ Cube - Soil (ALLH) sampling point

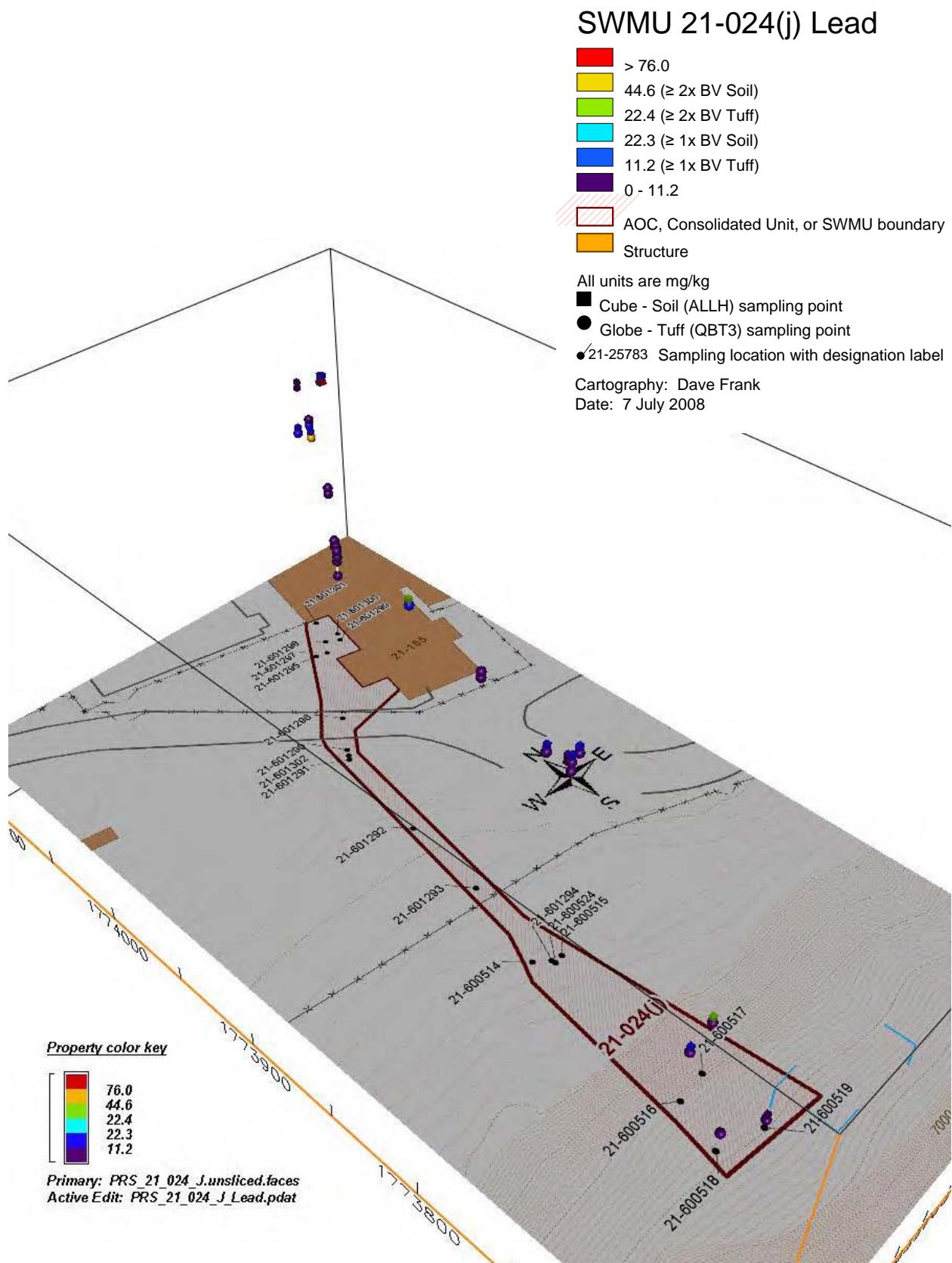
● Globe - Tuff (QBT3) sampling point

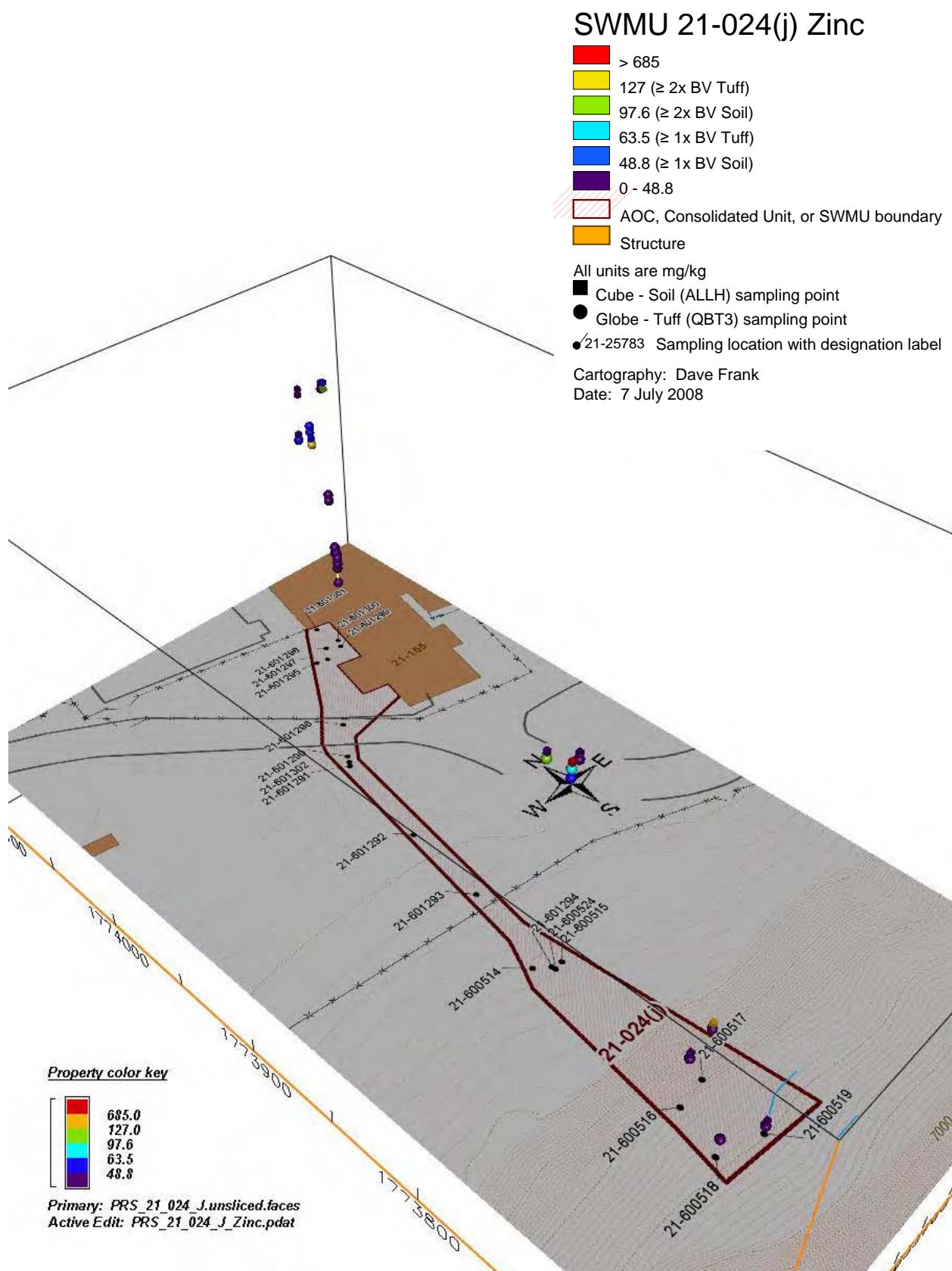
• 21-25783 Sampling location with designation label

Cartography: Dave Frank
Date: 7 July 2008

SWMU 21-024(i) Tritium







SWMU 21-024(k) Barium

█ 590 ($\geq 2x$ BV Soil)

█ 295 ($\geq 1x$ BV Soil)

█ 160 - 295

█ 92 ($\geq 2x$ BV Tuff)

█ 46 ($\geq 1x$ BV Tuff)

█ 0 - 46

▨ AOC, Consolidated Unit, or SWMU boundary

▨ Structure

All units are mg/kg

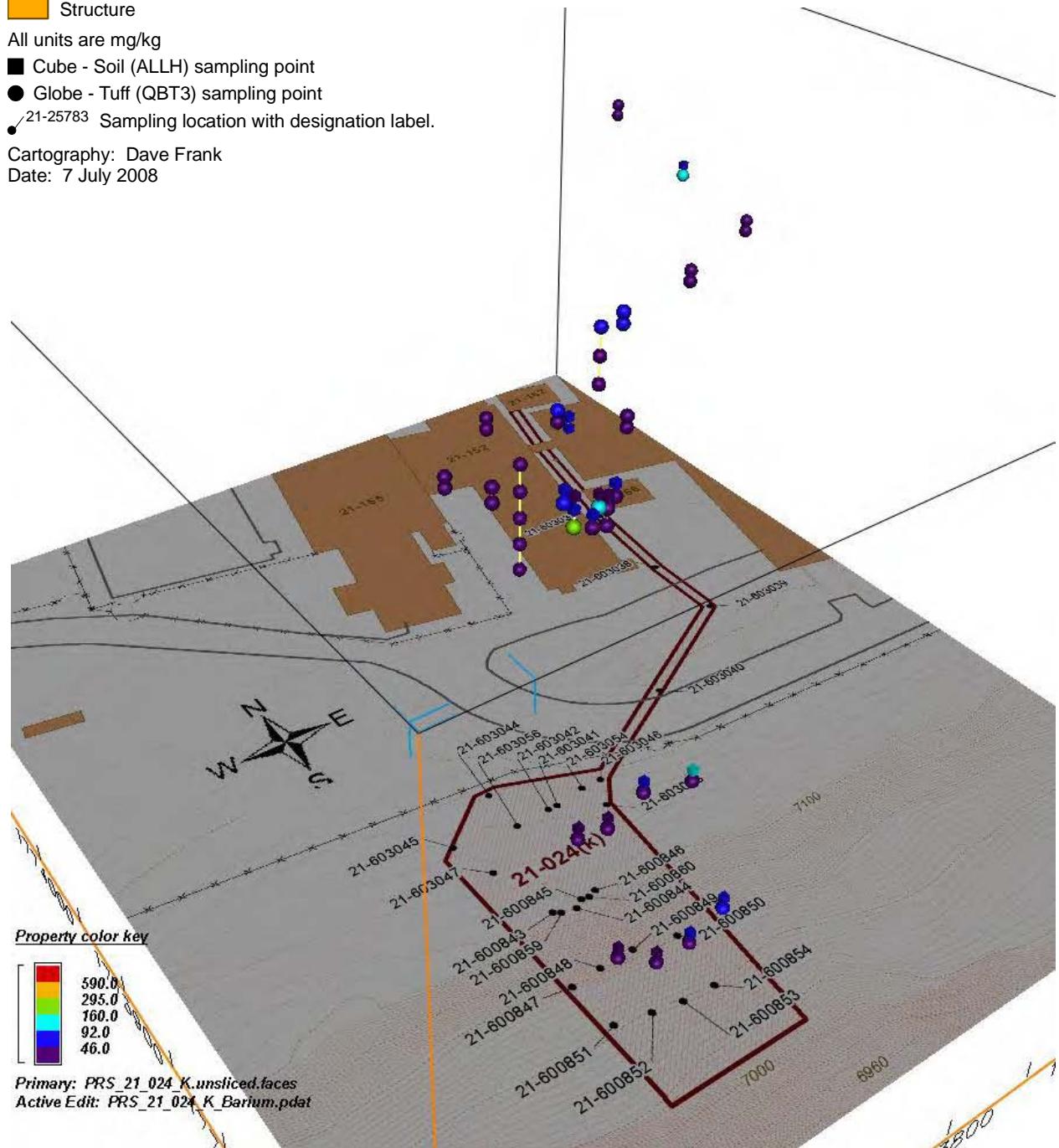
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

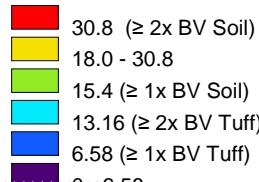
●²¹⁻²⁵⁷⁸³ Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(k) Nickel



AOC, Consolidated Unit, or SWMU boundary

Structure

All units are mg/kg

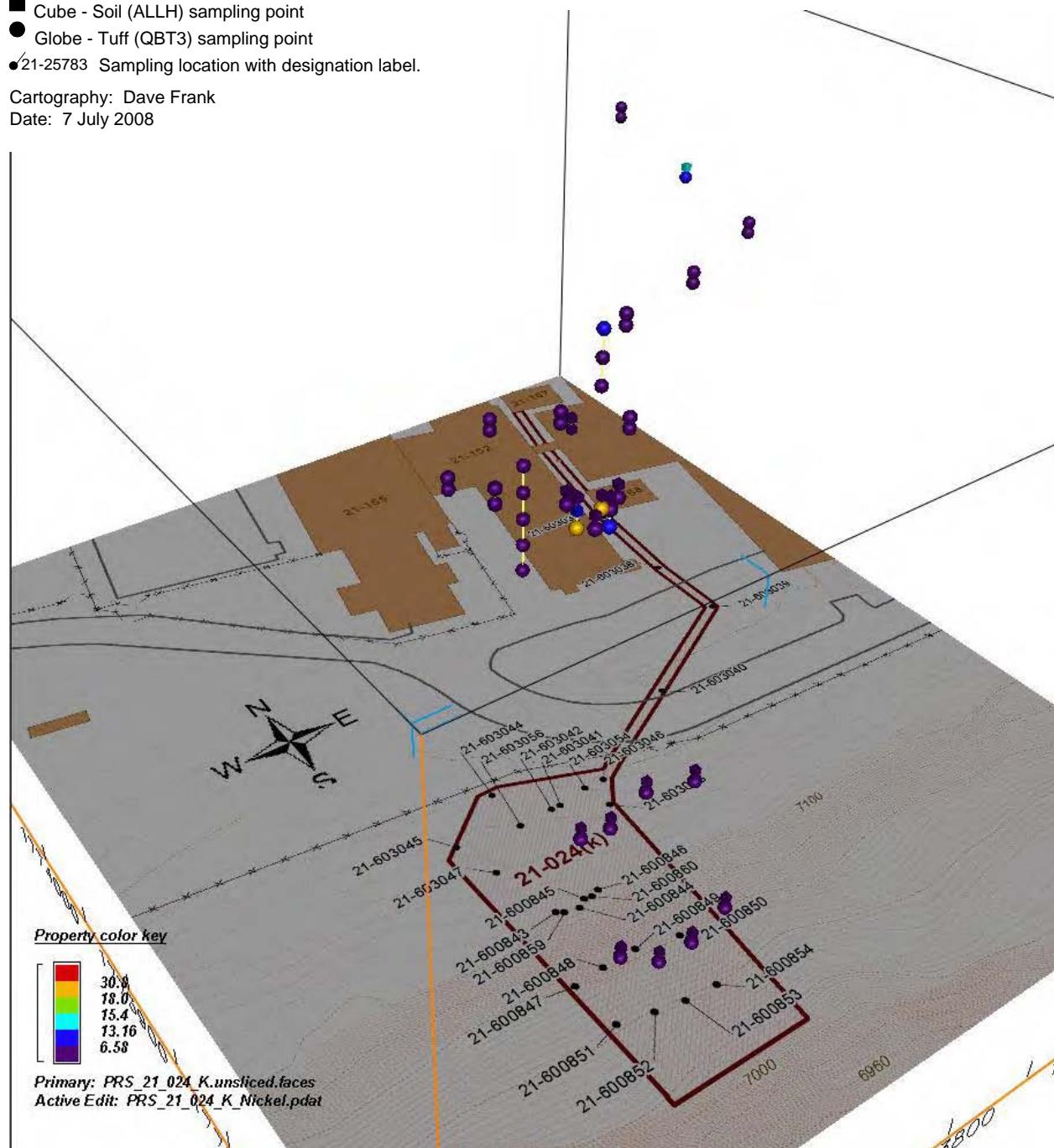
Cube - Soil (ALLH) sampling point

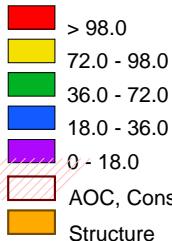
Globe - Tuff (QBT3) sampling point

21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(k) Strontium

AOC, Consolidated Unit, or SWMU boundary

Structure

All units are mg/kg

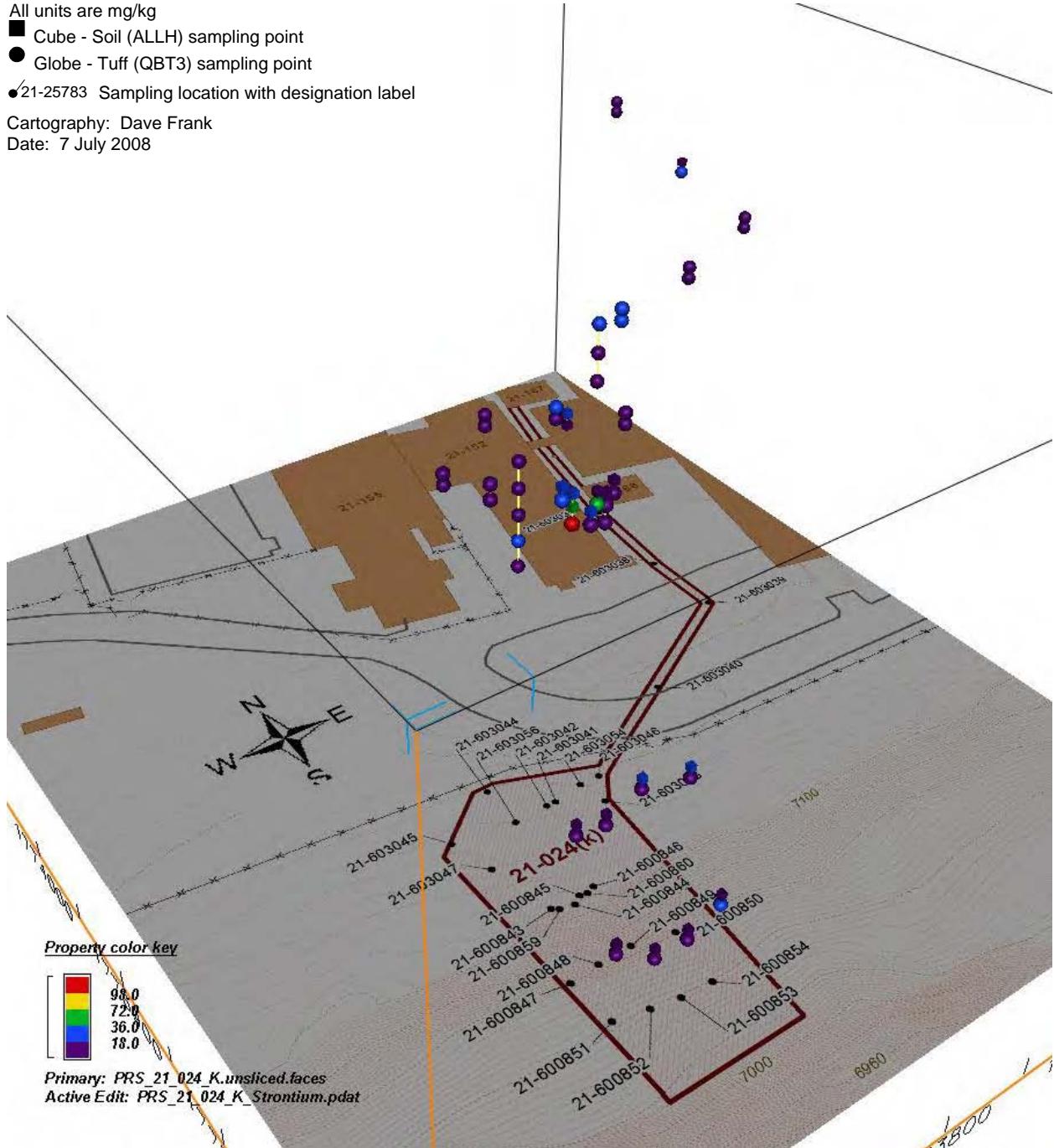
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (GBT3) sampling point

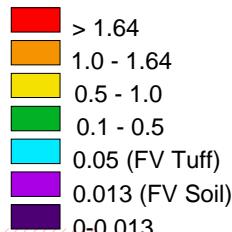
◆ 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-024(l)-99 Americium-241



Red hatched area: AOC, Consolidated Unit, or SWMU boundary

Orange line: Structure

All units are pCi/g

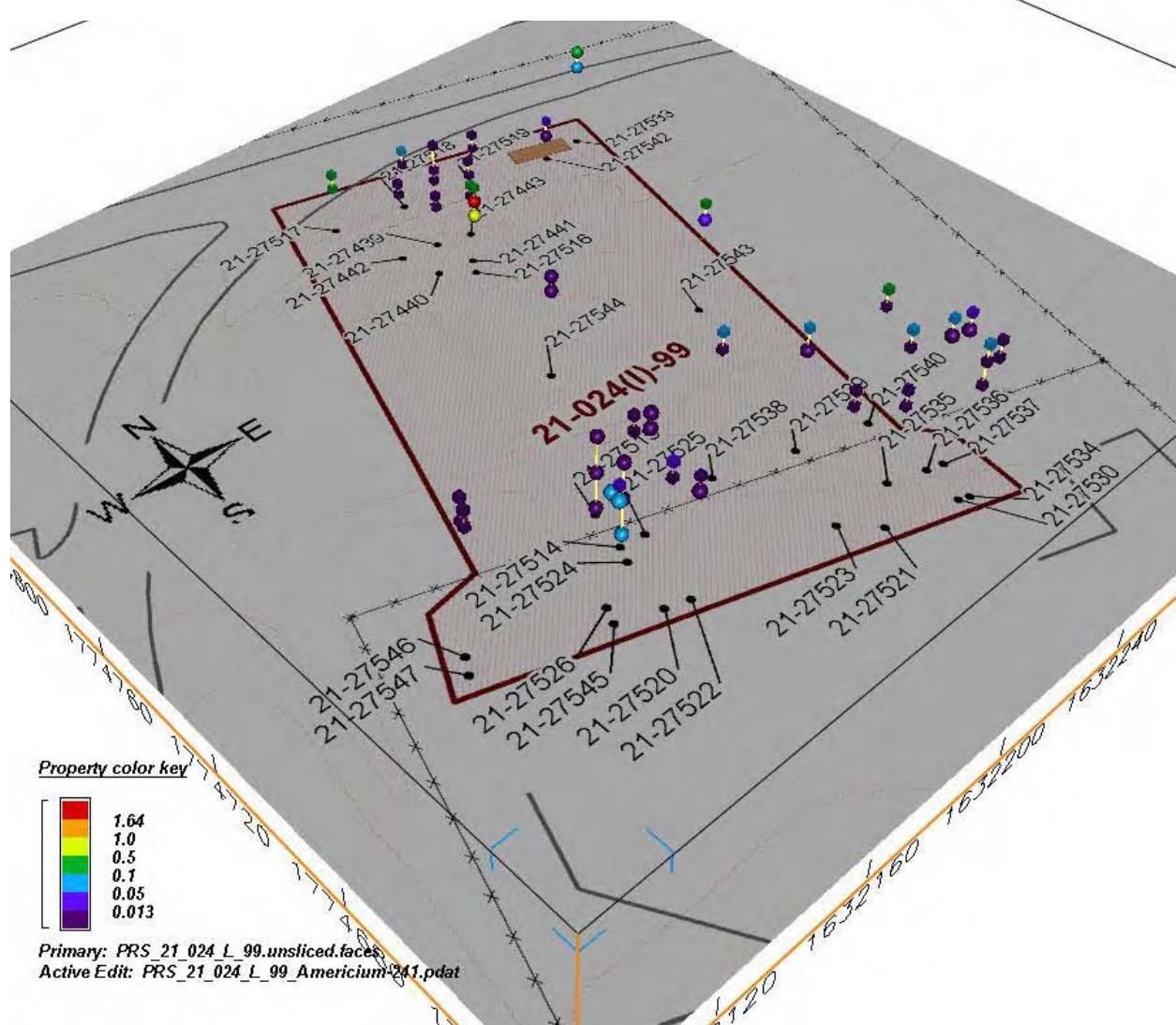
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

• 21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-024(I)-99 Cesium-137

█ 1.65 (FV Soil)

█ 0.5 - 1.65

█ 0.1 (FV Tuff)

█ 0 - 0.1

AOC, Consolidated Unit, or SWMU boundary

█ Structure

All units are pCi/g

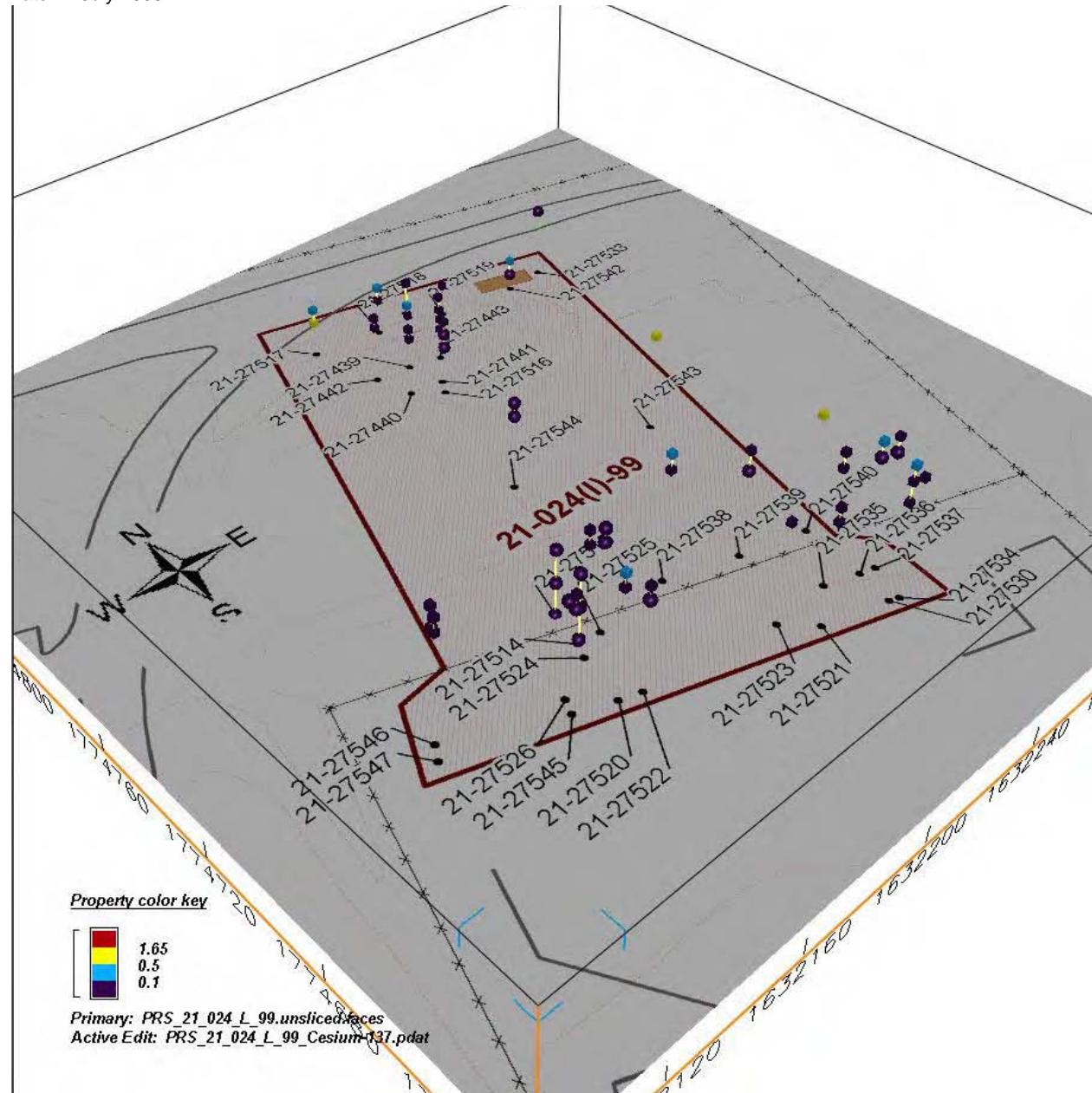
█ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

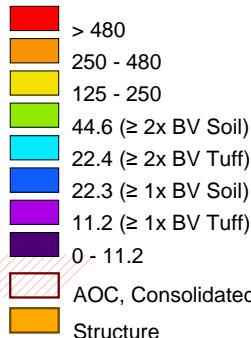
● ²¹⁻²⁵⁷⁸³ Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-024(l)-99 Lead



All units are mg/kg

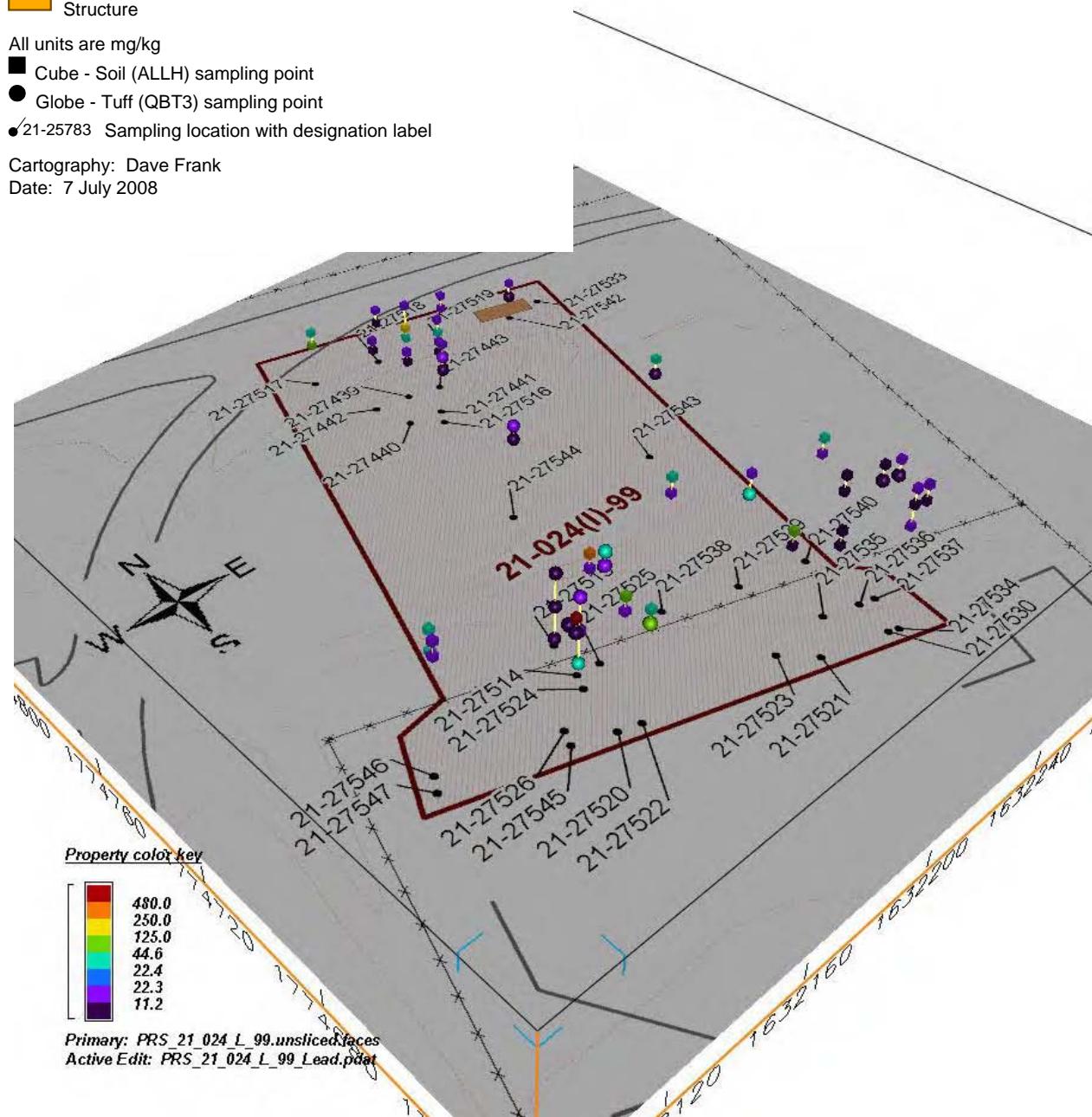
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

✓ 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-024(I)-99 Mercury

■ 0.2 ($\geq 2x$ BV Soil and Tuff)

■ 0.1 ($\geq 1x$ BV Soil and Tuff)

■ 0 - 0.1

■ AOC, Consolidated Unit, or SWMU boundary

■ Structure

All units are mg/kg

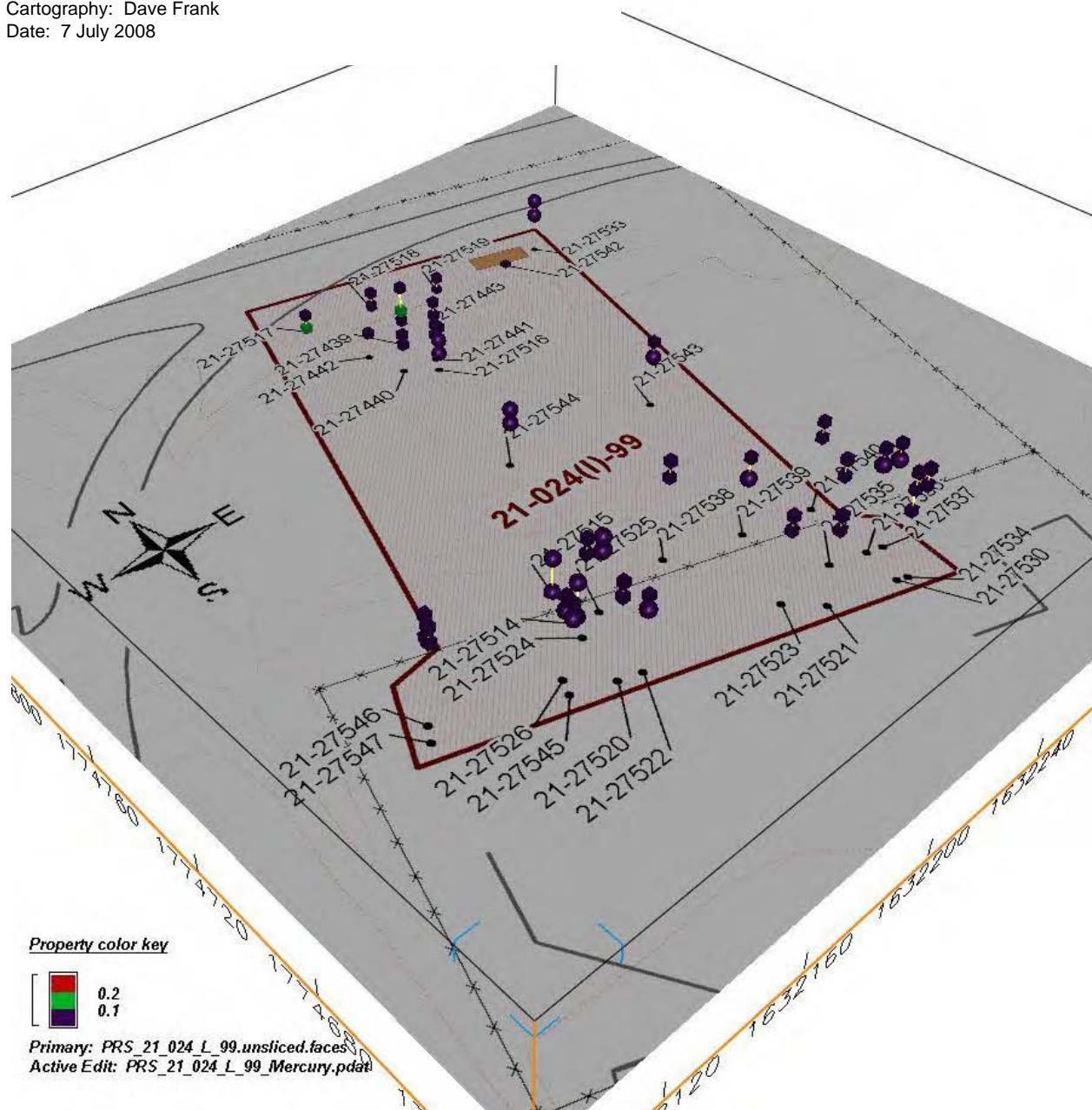
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

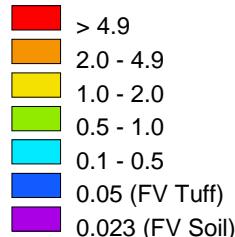
● 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-024(I)-99 Plutonium-238



AOC, Consolidated Unit, or SWMU boundary

Structure

All units are pCi/g

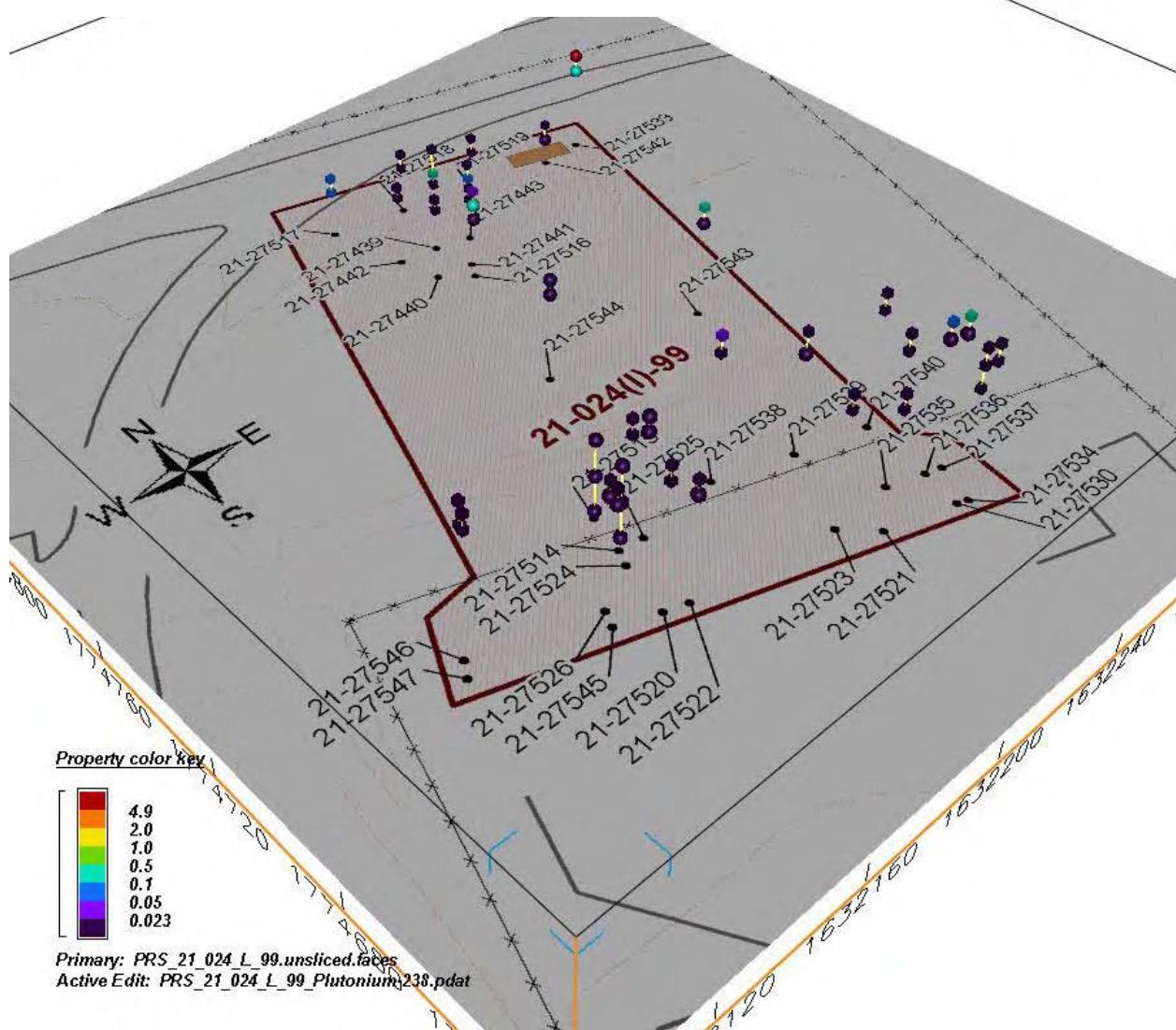
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

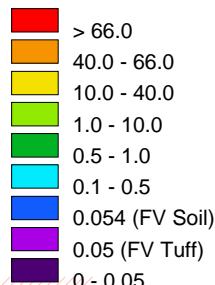
• 21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-024(I)-99 Plutonium-239



AOC, Consolidated Unit, or SWMU boundary
 Structure

All units are pCi/g

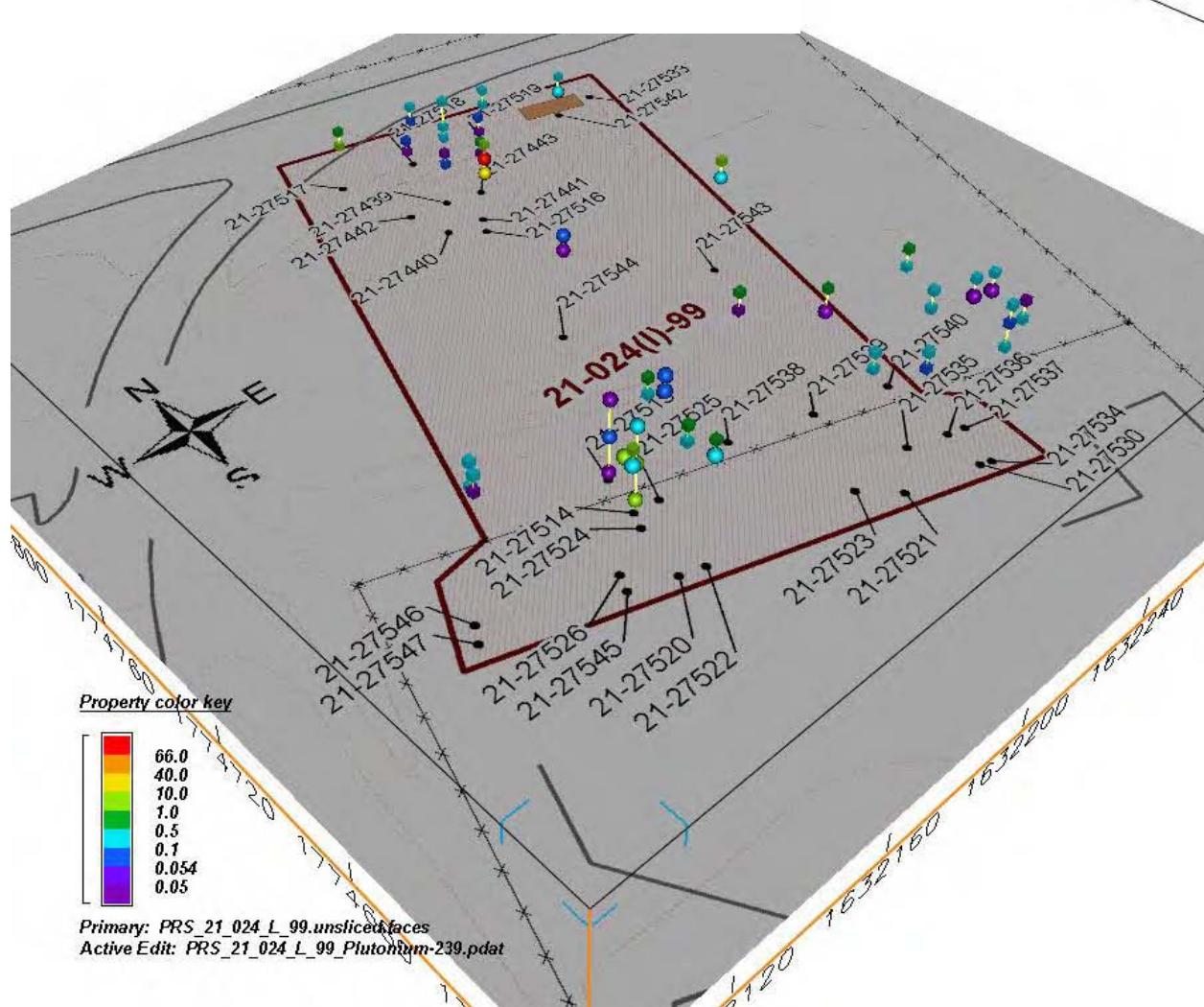
Cube - Soil (ALLH) sampling point

Globe - Tuff (QBT3) sampling point

21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-024(l)-99 Selenium

█ 3.04 ($\geq 2x$ BV Soil)

█ 1.52 ($\geq 1x$ BV Soil)

█ 0.6 ($\geq 2x$ BV Tuff)

█ 0.3 ($\geq 1x$ BV Tuff)

█ 0 - 0.3

■ AOC, Consolidated Unit, or SWMU boundary

■ Structure

All units are mg/kg

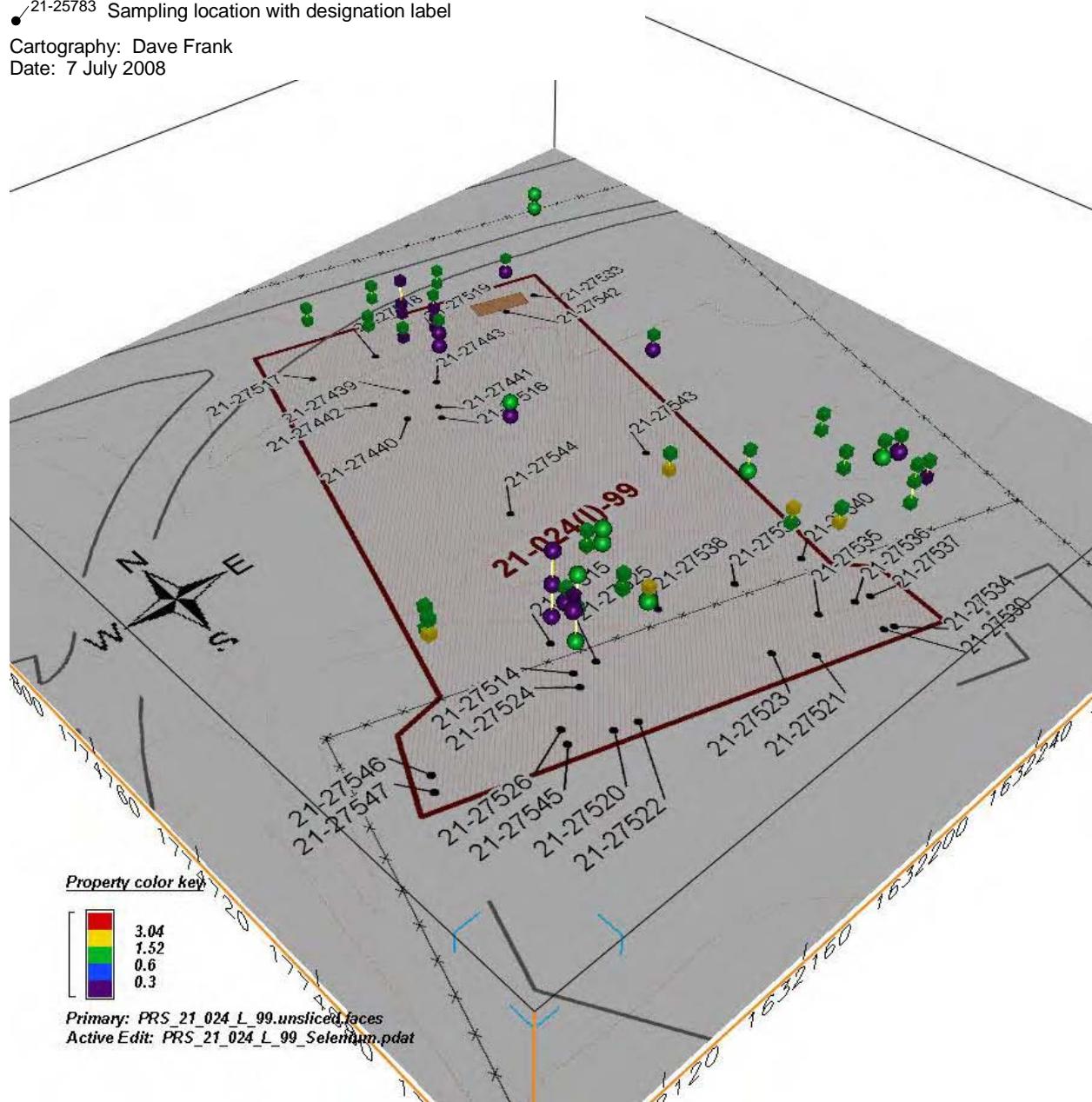
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

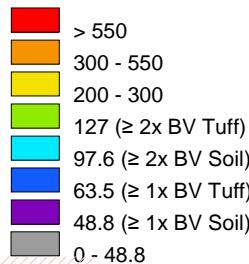
●²¹⁻²⁵⁷⁸³ Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-024(I)-99 Zinc



AOC, Consolidated Unit, or SWMU boundary
 Structure

All units are mg/kg

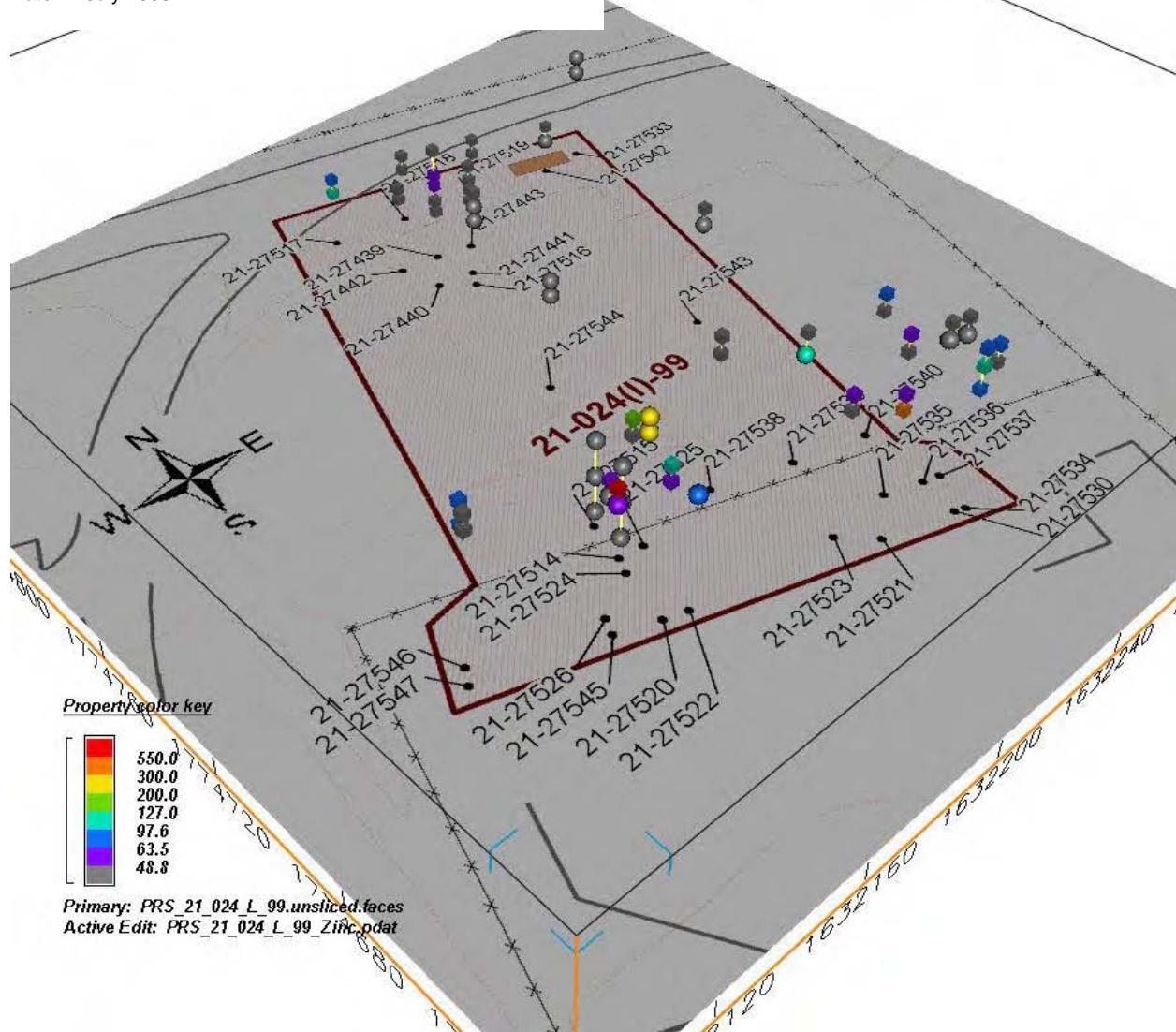
Cube - Soil (ALLH) sampling point

Globe - Tuff (QBT3) sampling point

21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(n) Americium-241

	> 0.265
	0.2 - 0.265
	0.1 - 0.2
	0.05 (FV Tuff)
	0.013 (FV Soil)
	0-0.013

 AOC, Consolidated Unit, or SWMU boundary

 Structure

All units are pCi/g

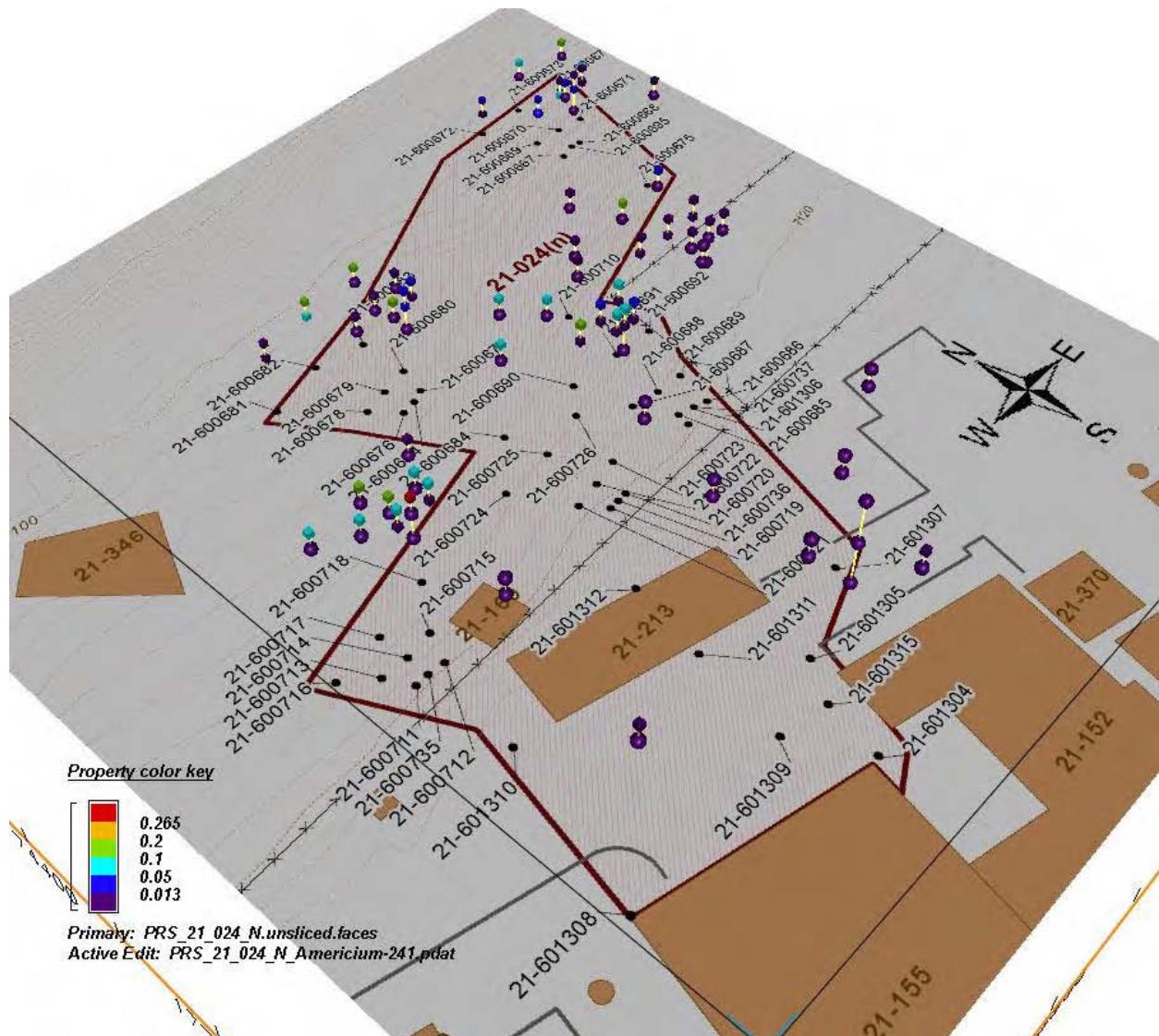
 Cube - Soil (ALLH) sampling point

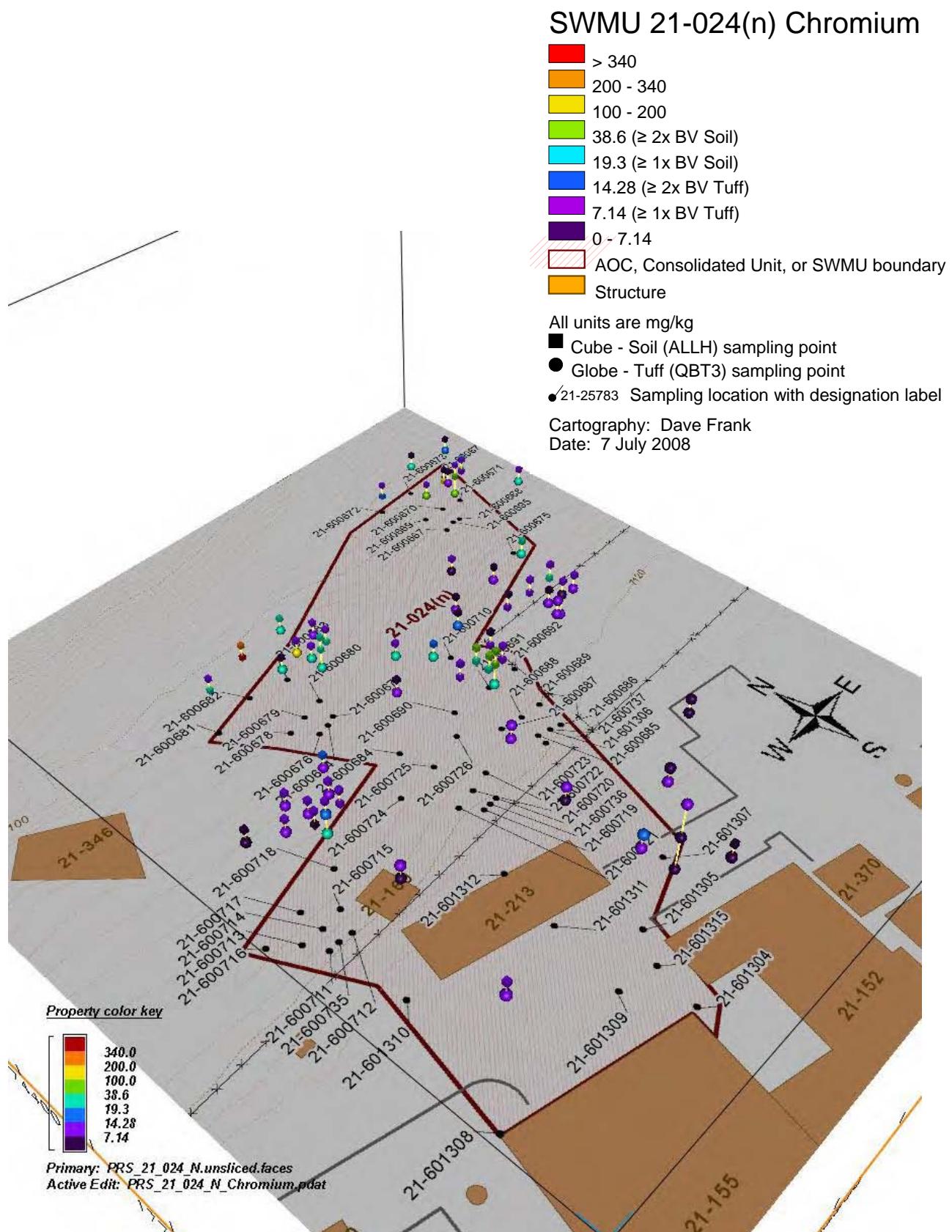
 Globe - Tuff (QBT3) sampling point

 21-25783 Sampling location with designation label.

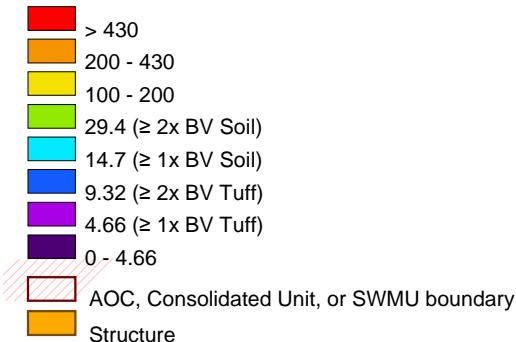
Cartography: Dave Frank

Date: 7 July 2008





SWMU 21-024(n) Copper



All units are mg/kg

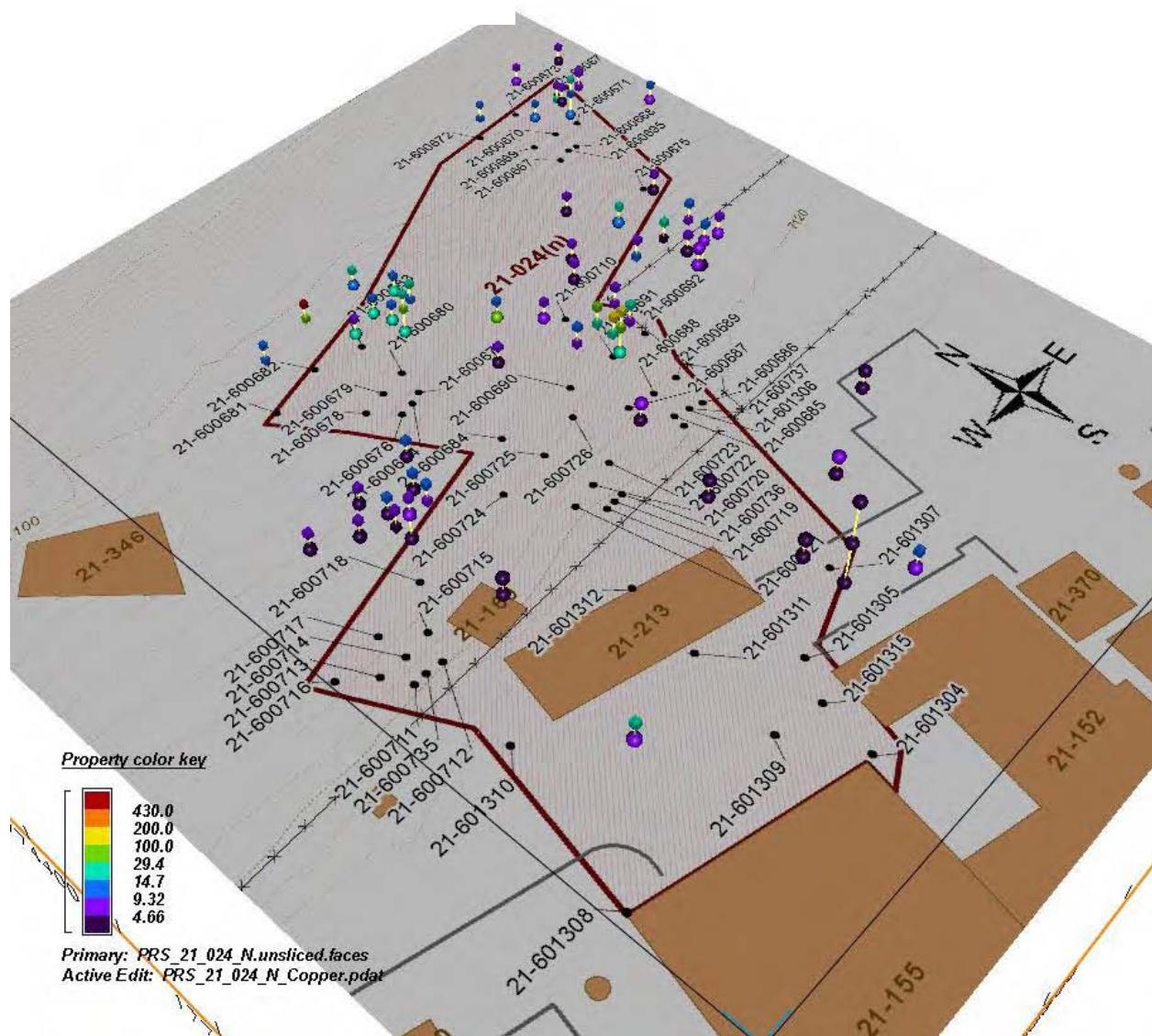
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

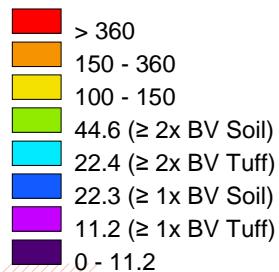
↗ 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(n) Lead



■ AOC, Consolidated Unit, or SWMU boundary
■ Structure

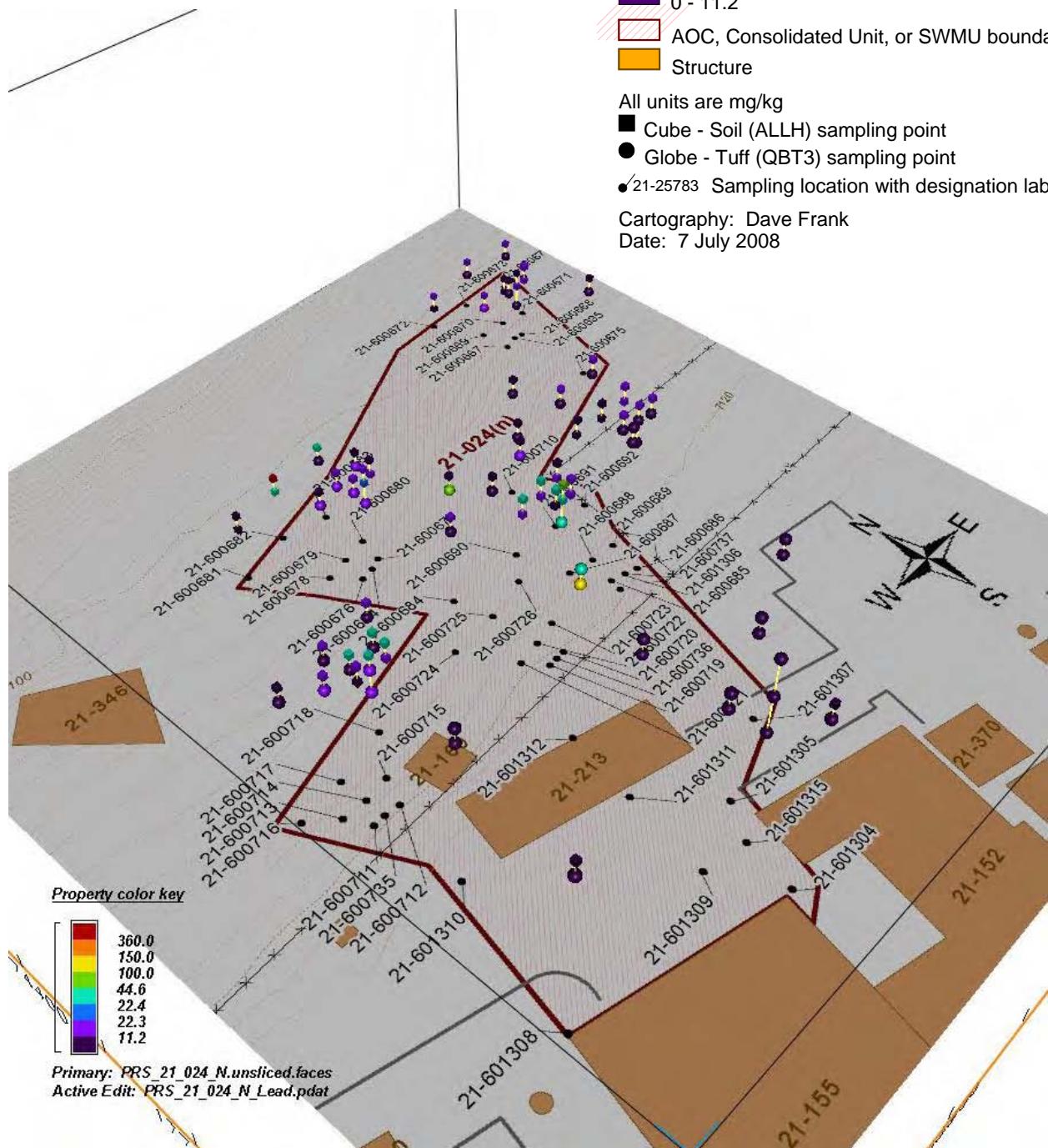
All units are mg/kg

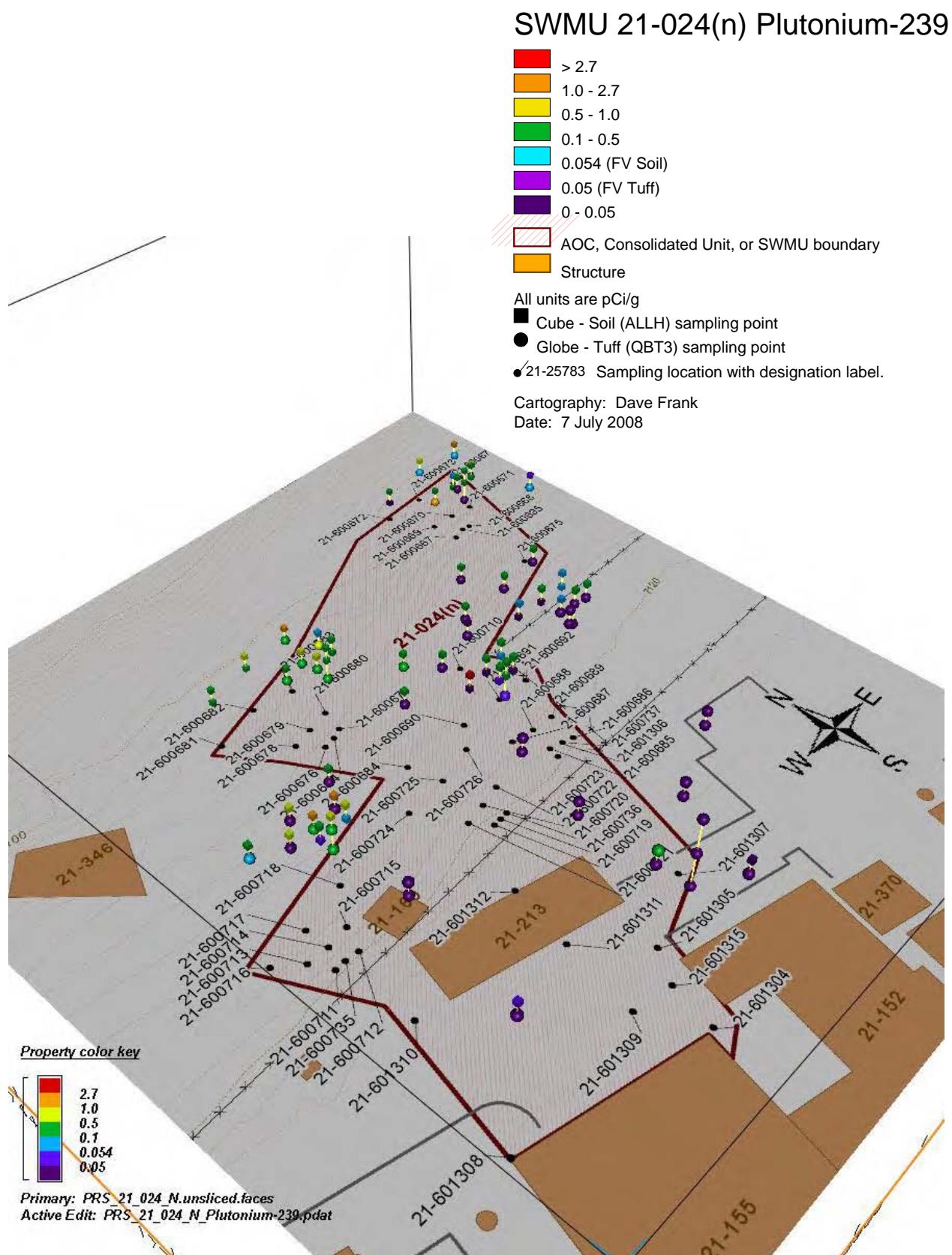
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

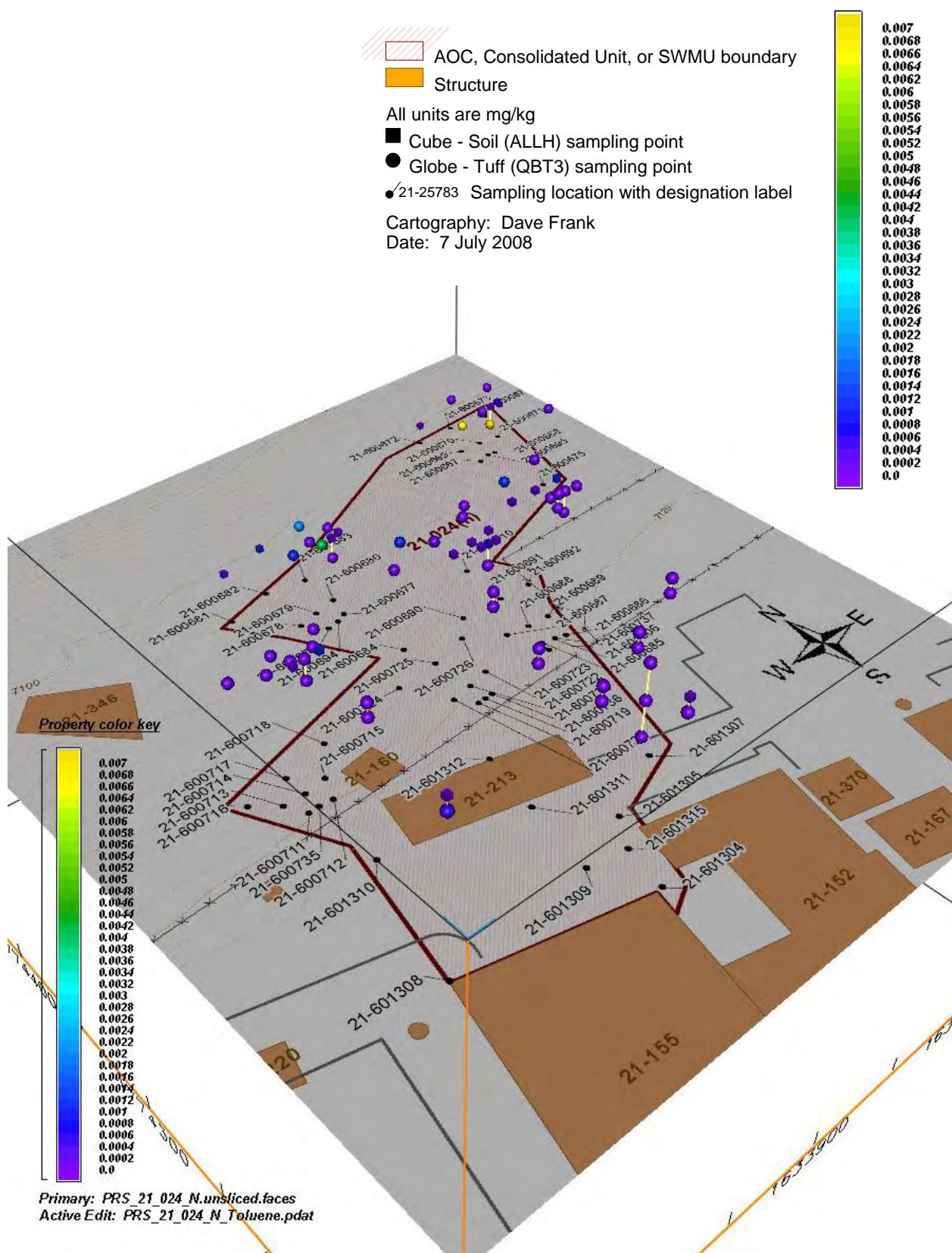
✓ 21-25783 Sampling location with designation label

Cartography: Dave Frank
Date: 7 July 2008

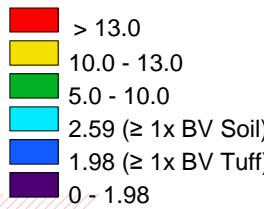




SWMU 21-024(n) Toluene



SWMU 21-024(n) Uranium-234



AOC, Consolidated Unit, or SWMU boundary
 Structure

All units are pCi/g

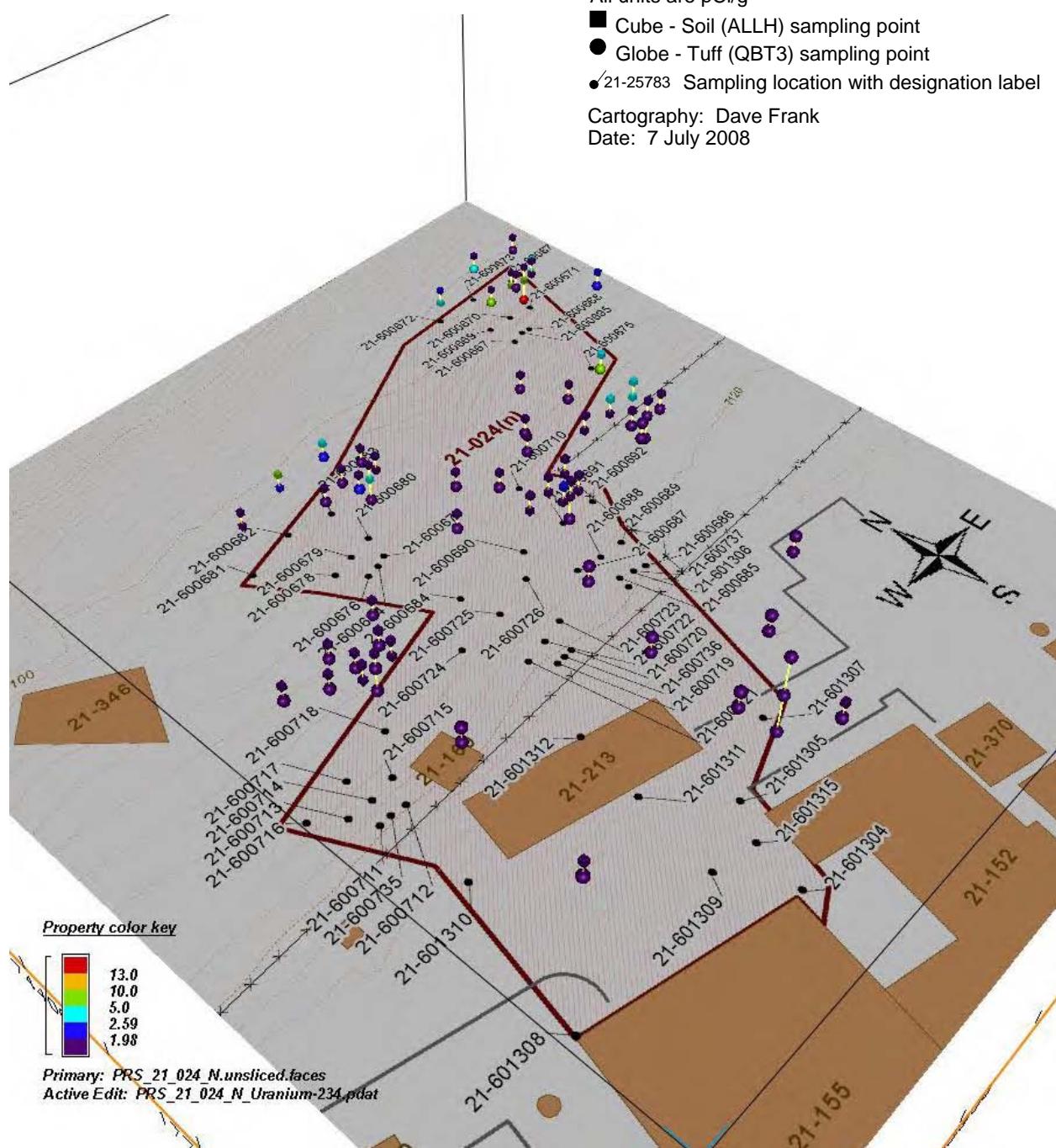
Cube - Soil (ALLH) sampling point

Globe - Tuff (QBT3) sampling point

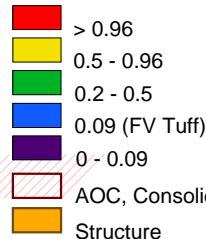
21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(n) Uranium-235



All units are pCi/g

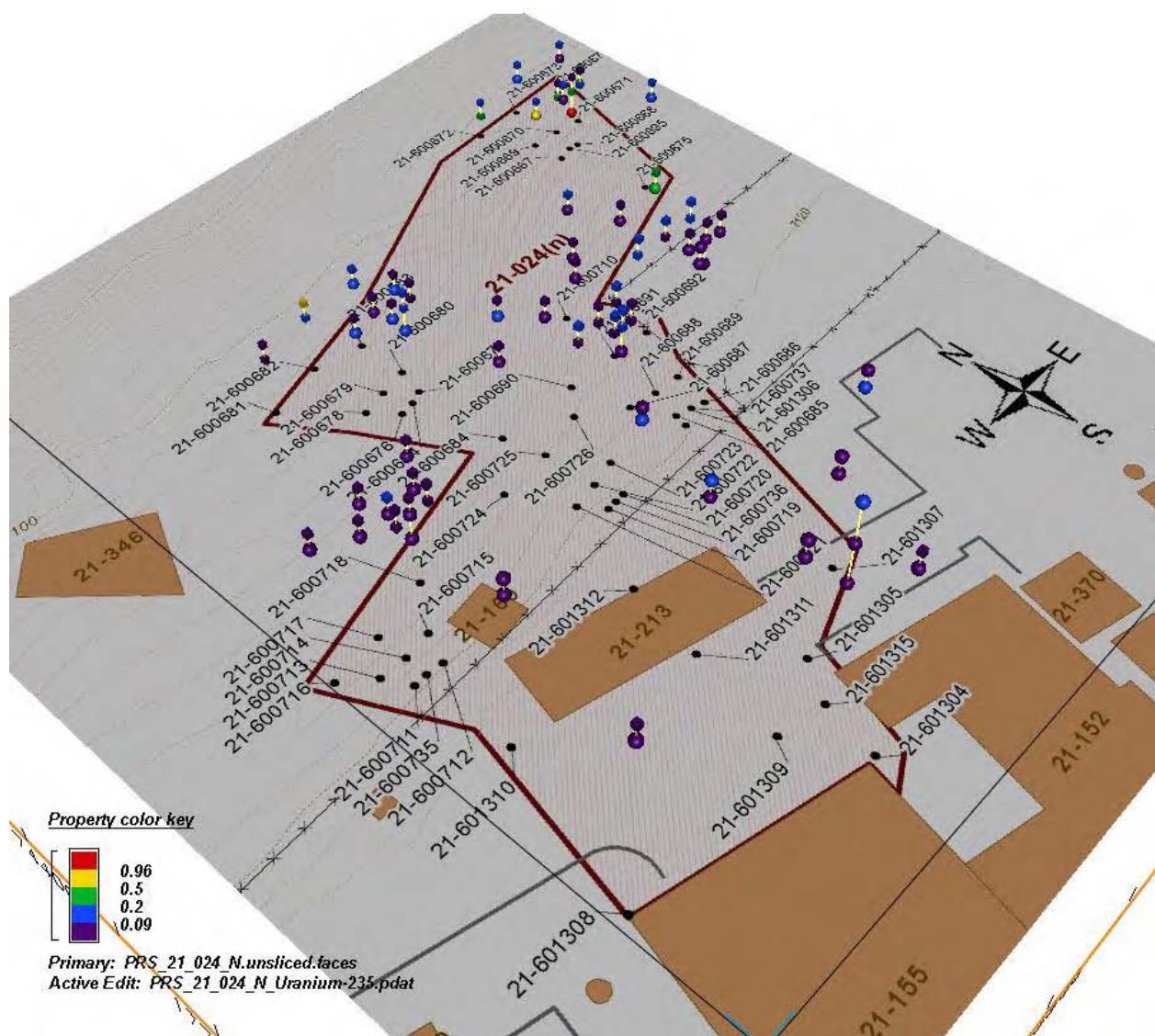
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

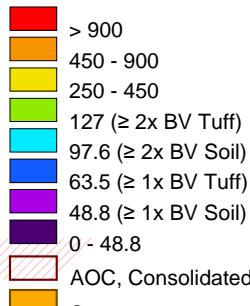
21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(n) Zinc



All units are mg/kg

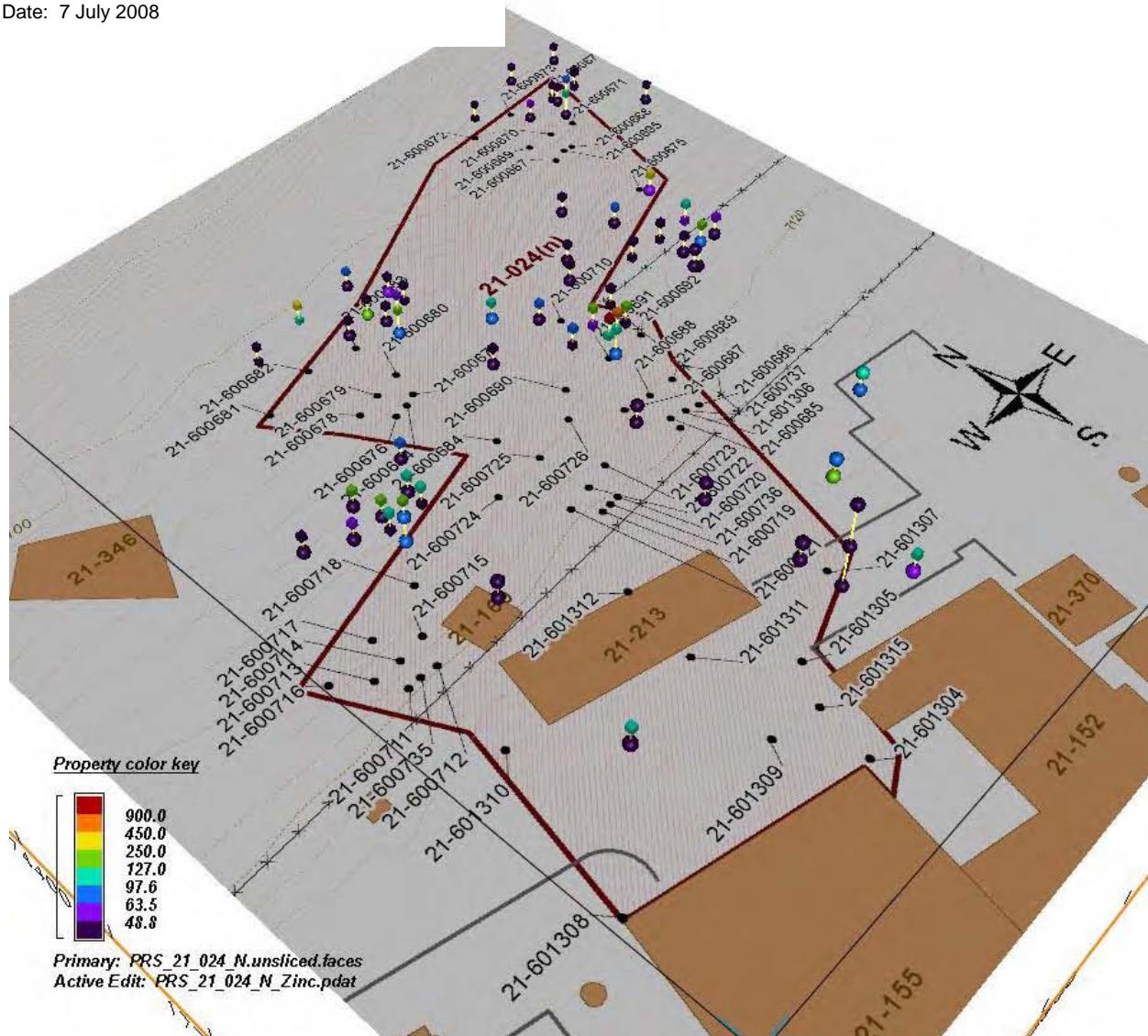
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

● 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



SWMU 21-024(o) Americium-241

 > 0.092
 0.05 (FV Tuff)
 0.013 (FV Soil)
 0-0.013

 AOC, Consolidated Unit, or SWMU boundary
 Structure

All units are pCi/g

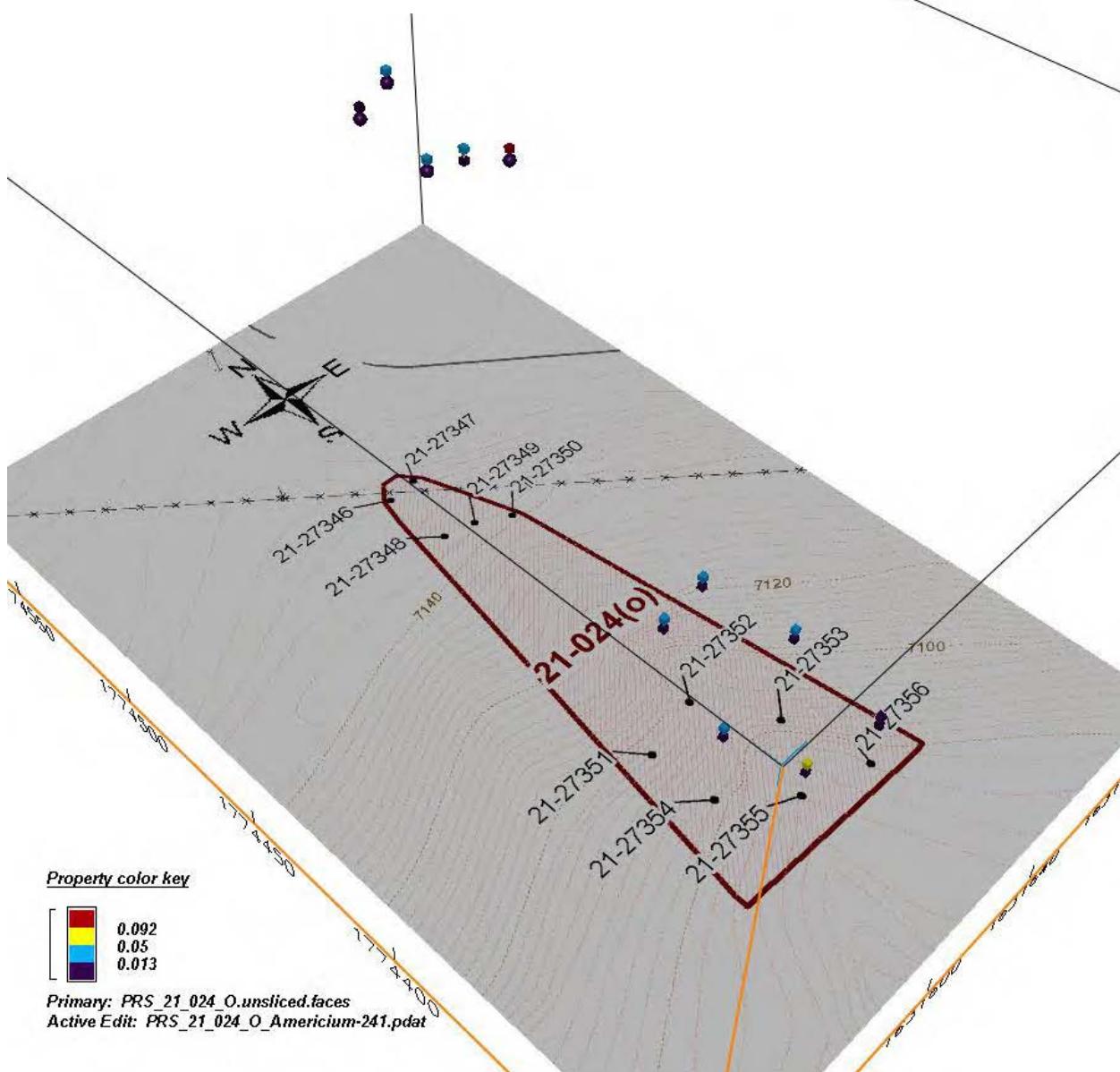
 Cube - Soil (ALLH) sampling point

 Globe - Tuff (QBT3) sampling point

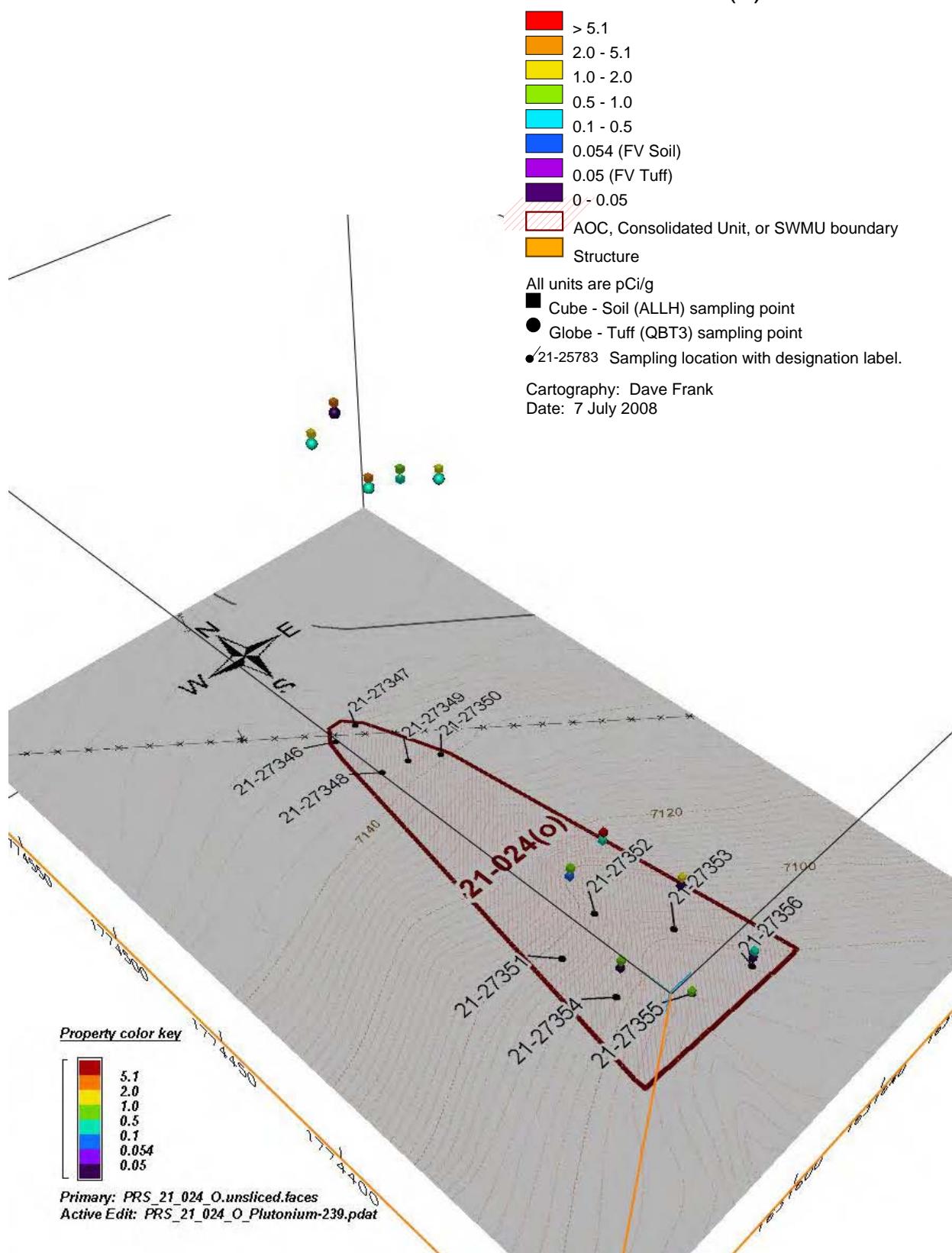
 21-25783 Sampling location with designation label.

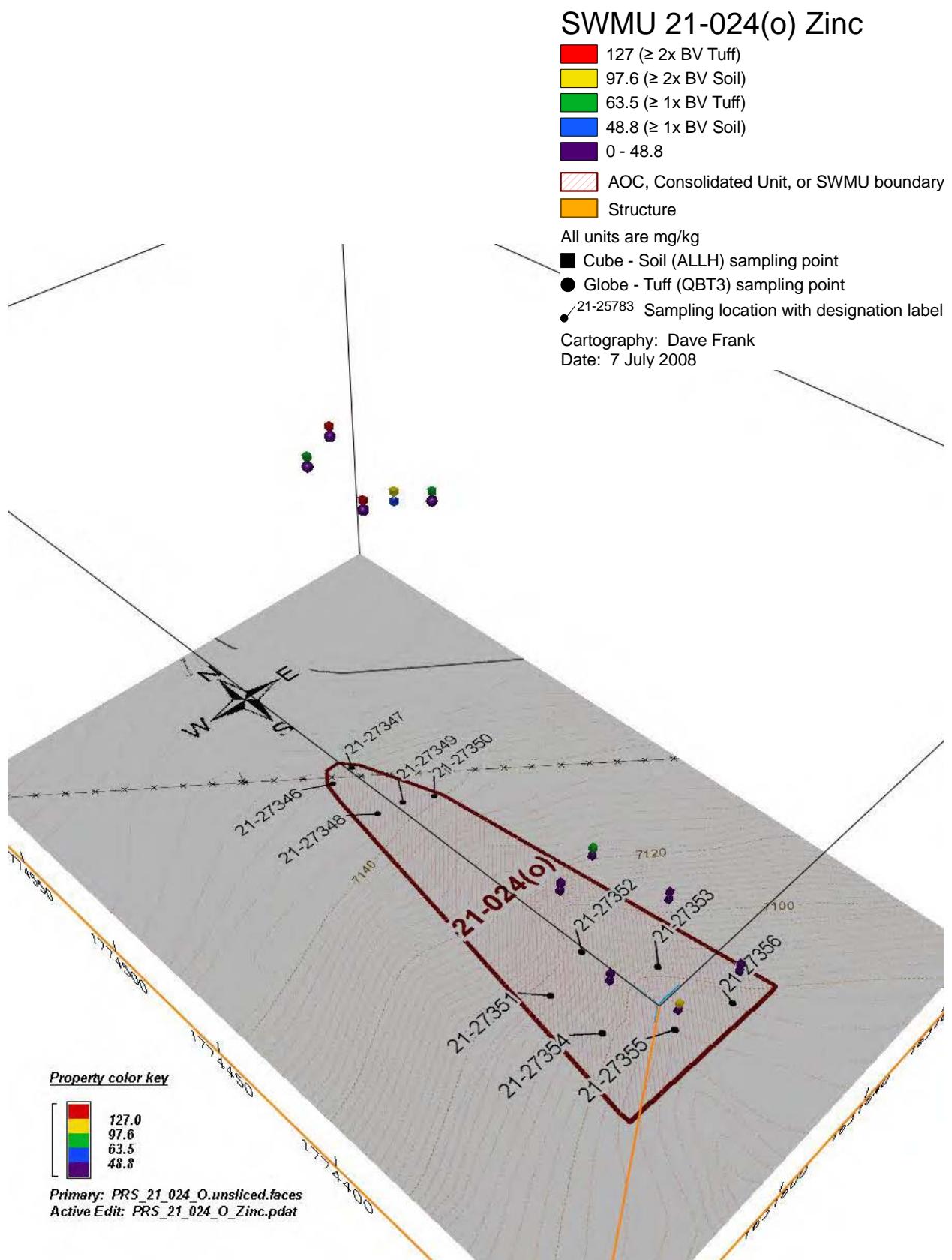
Cartography: Dave Frank

Date: 7 July 2008

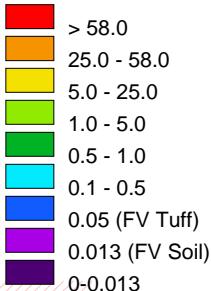


SWMU 21-024(o) Plutonium-239





Consolidated Unit 21-026(a)-99 Americium-241



AOC, Consolidated Unit, or SWMU boundary

Structure

All units are pCi/g

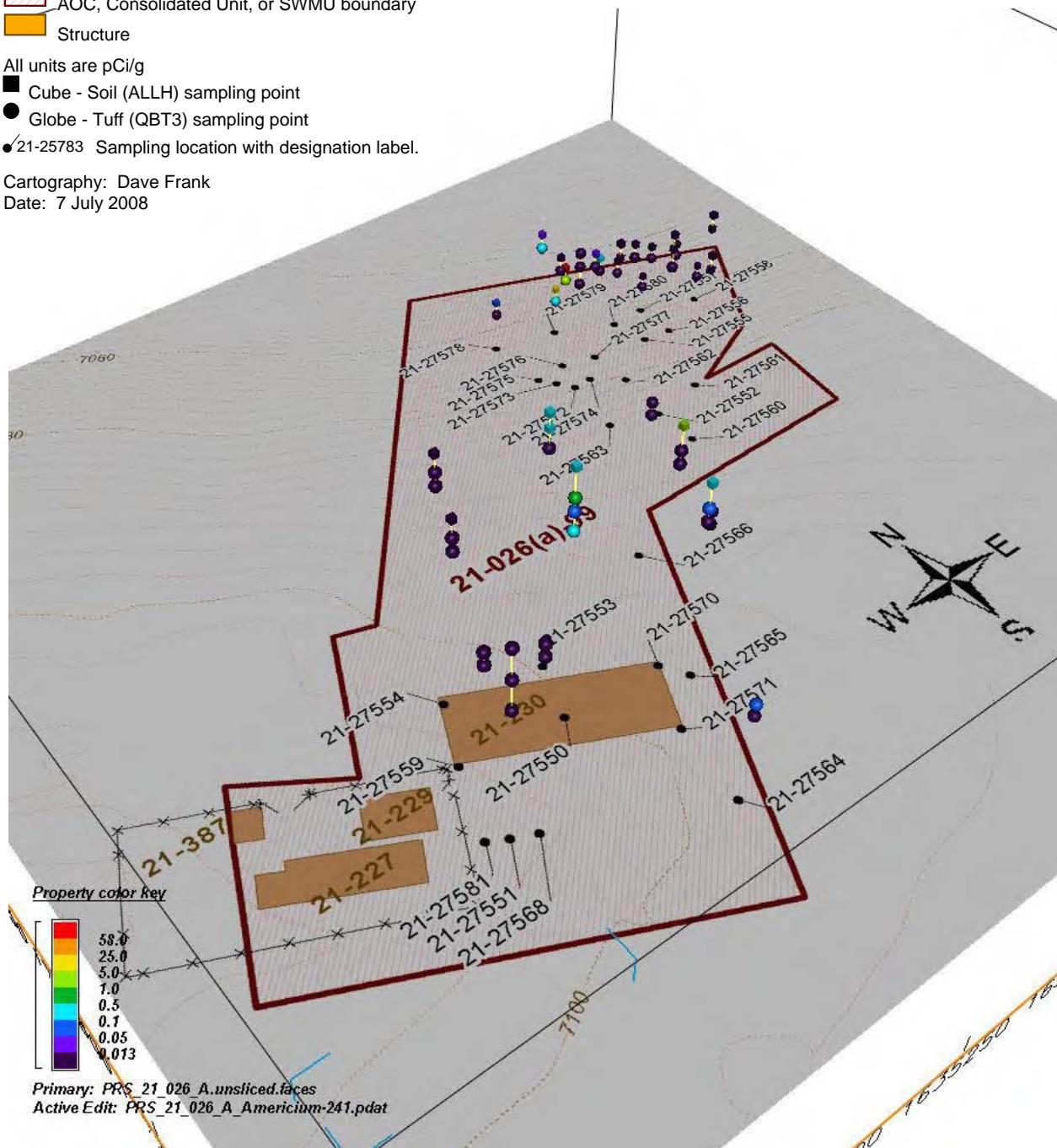
Cube - Soil (ALLH) sampling point

Globe - Tuff (QBT3) sampling point

21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-026(a)-99 Calcium

█ > 42000
█ 25000 - 42000
█ 12240 ($\geq 2x$ BV Soil)
█ 6120 ($\geq 1x$ BV Soil)
█ 4400 ($\geq 2x$ BV Tuff)
█ 2200 ($\geq 1x$ BV Tuff)
█ 0 - 2200

█ AOC, Consolidated Unit, or SWMU boundary

█ Structure

All units are mg/kg

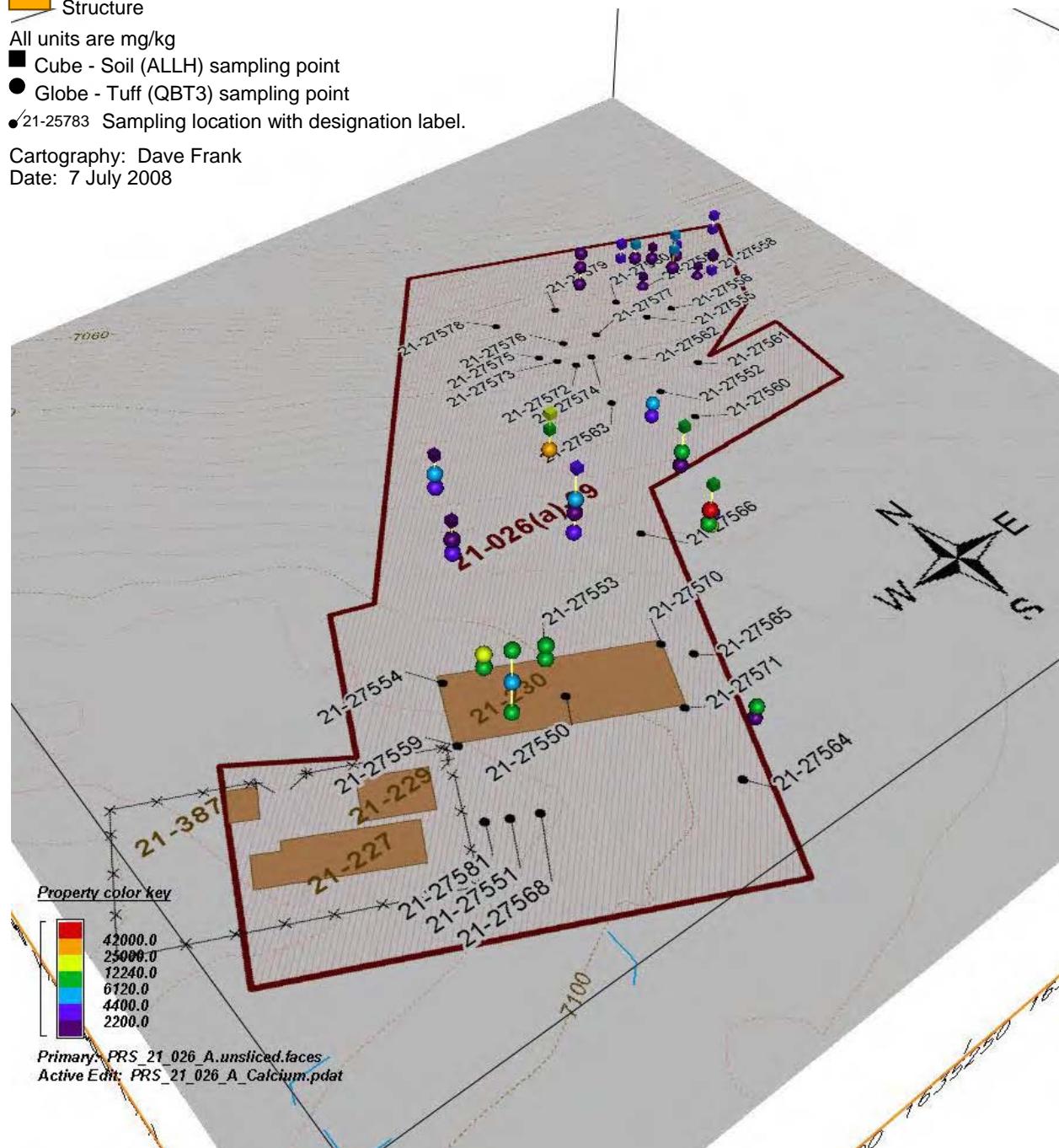
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

✓ Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-026(a)-99 Cesium-137

1.65 (FV Soil)

1.0 - 1.65

0.5 - 1.0

0.1 (FV Tuff)

0 - 0.1

AOC, Consolidated Unit, or SWMU boundary

Structure

All units are pCi/g

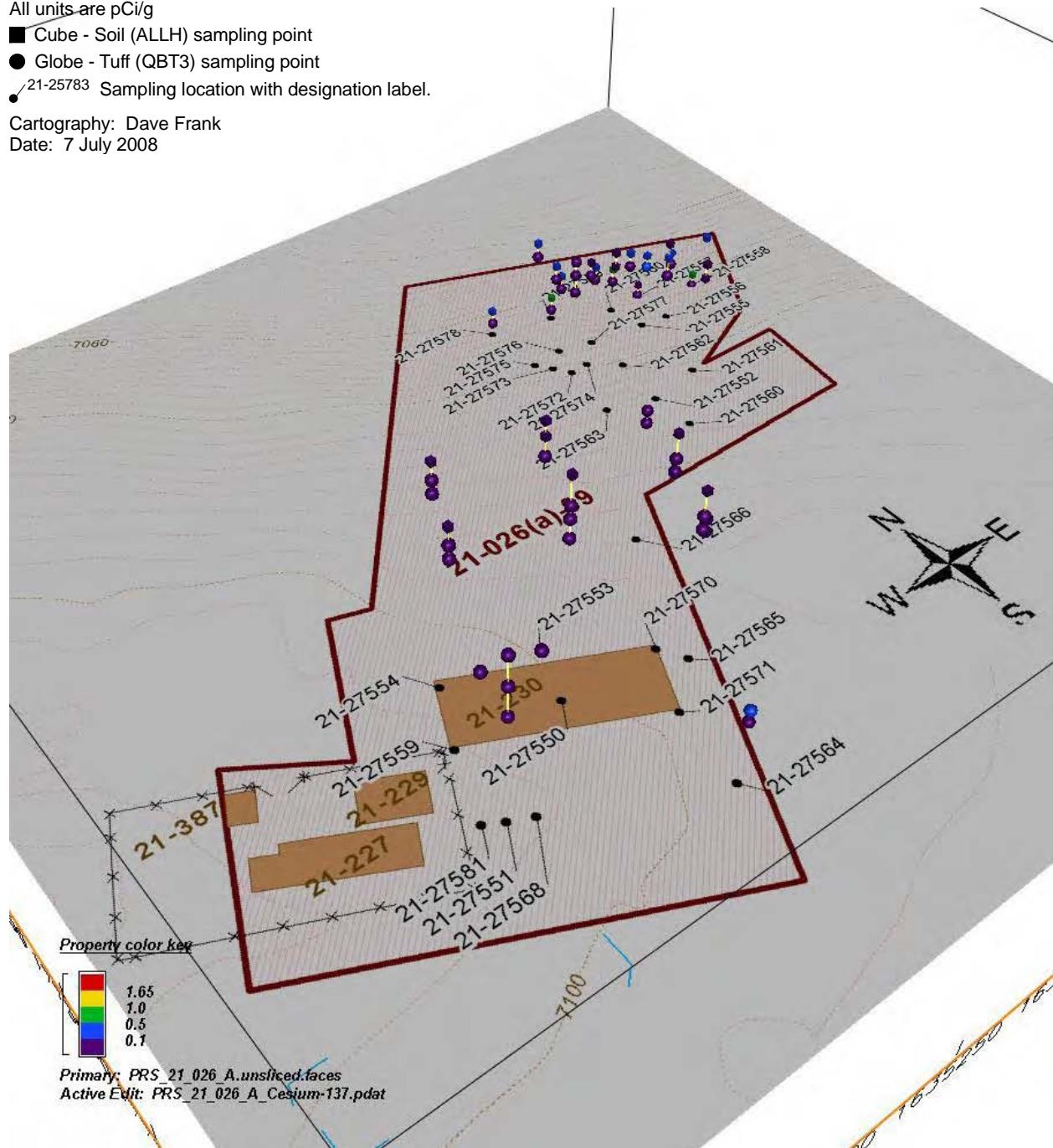
Cube - Soil (ALLH) sampling point

Globe - Tuff (QBT3) sampling point

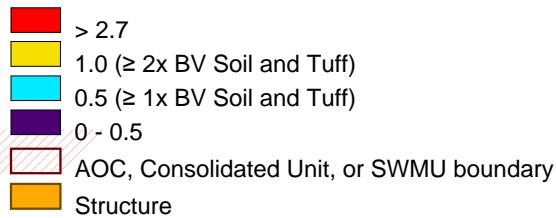
Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-026(a)-99 Cyanide



All units are mg/kg

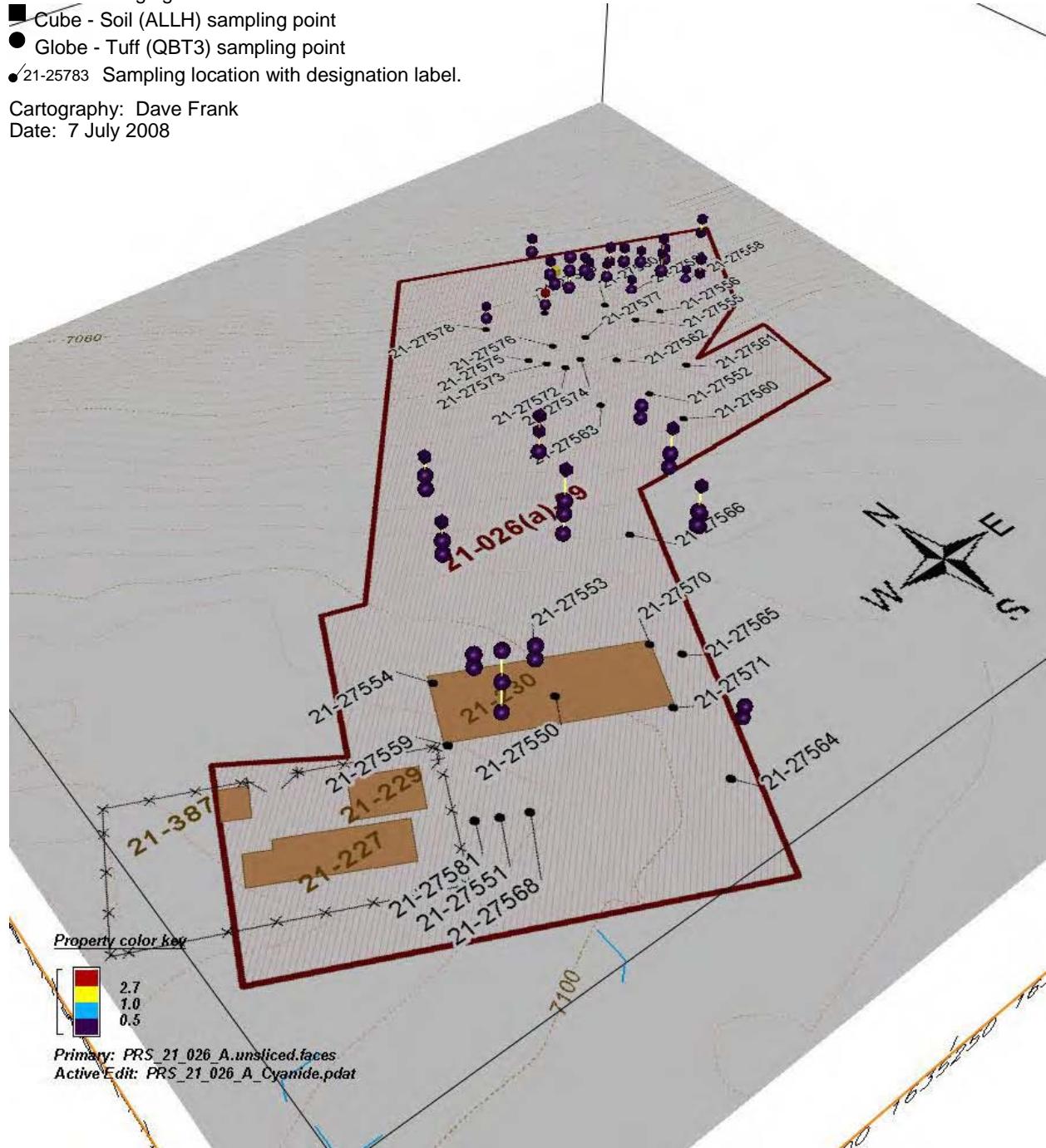
Cube - Soil (ALLH) sampling point

Globe - Tuff (QBT3) sampling point

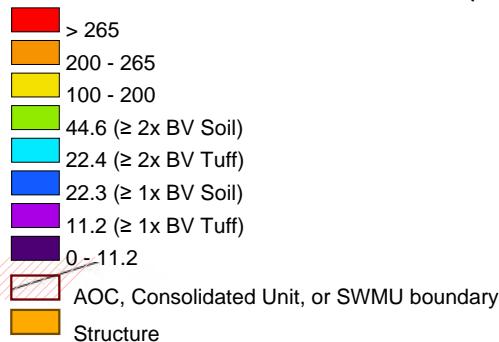
21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-026(a)-99 Lead

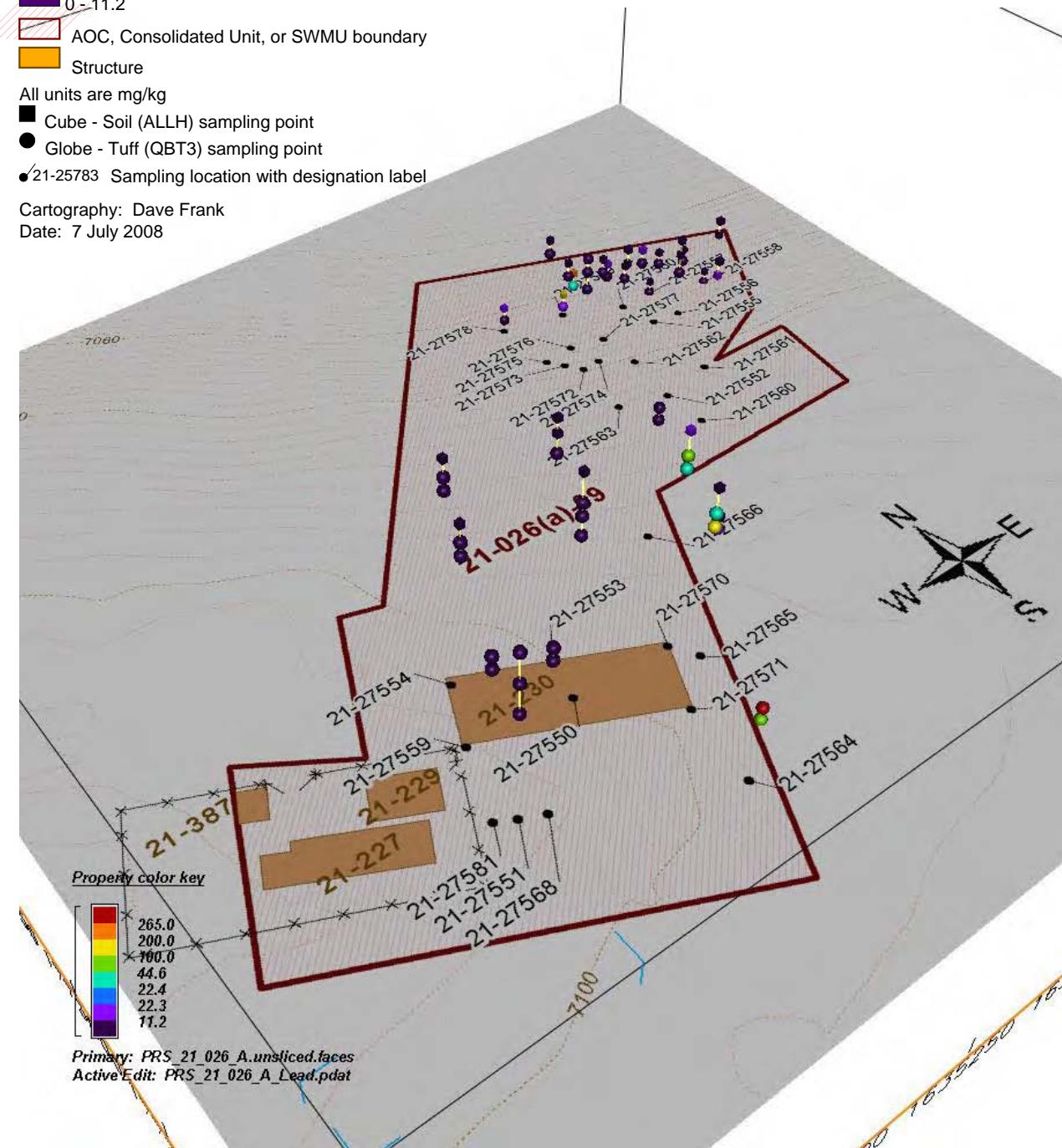


All units are mg/kg

- Cube - Soil (ALLH) sampling point
- Globe - Tuff (QBT3) sampling point
- ✓ 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-026(a)-99 Plutonium-238

- █ > 0.05
- █ 0.05 (FV Tuff)
- █ 0-0.023 (FV Soil)
- █ AOC, Consolidated Unit, or SWMU boundary
- █ Structure

All units are pCi/g

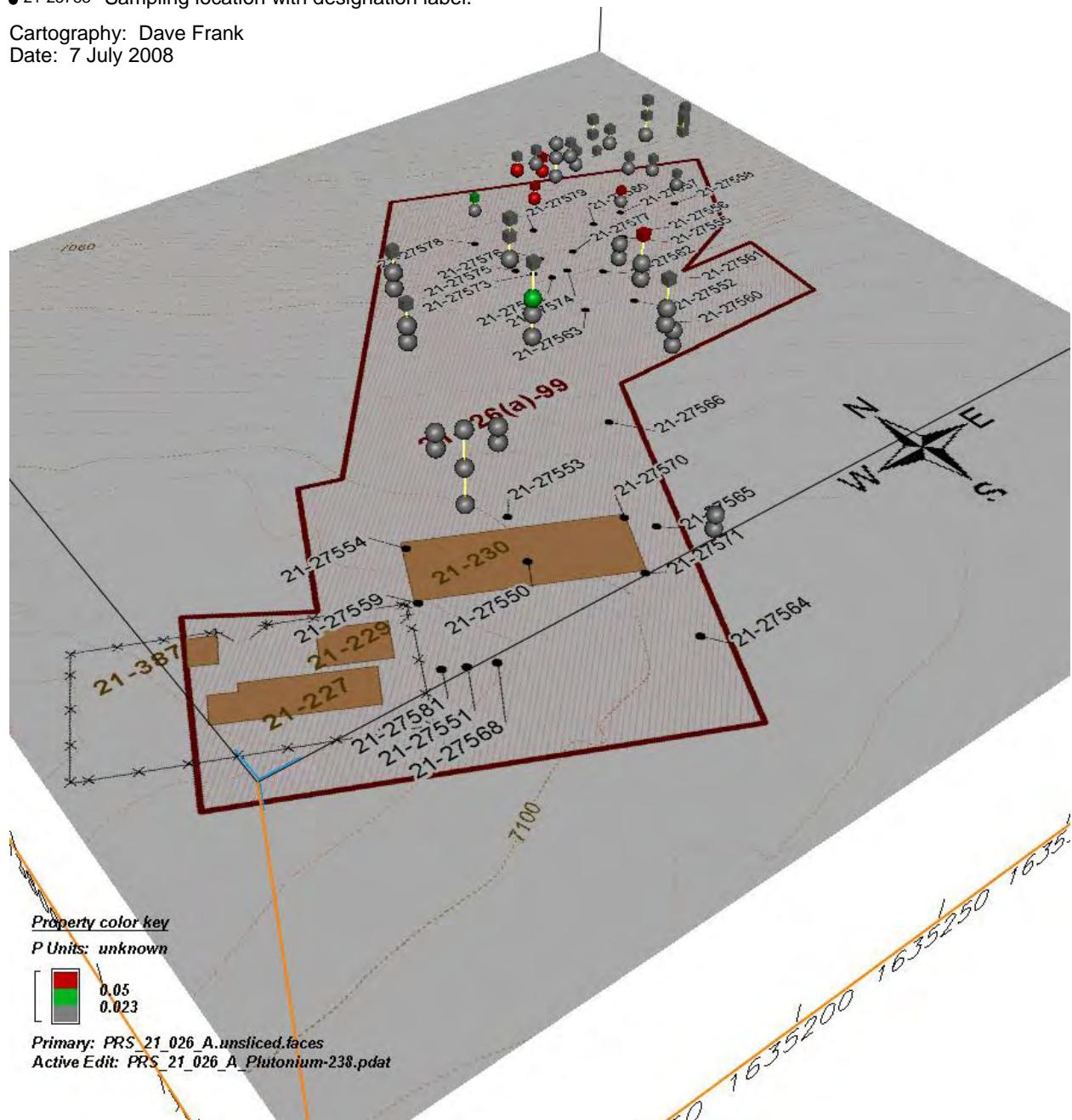
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

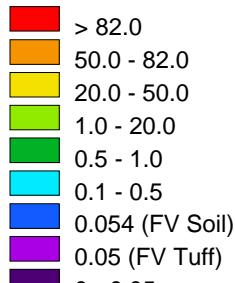
✓ 21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-026(a)-99 Plutonium-239



Red hatched area: AOC, Consolidated Unit, or SWMU boundary
 Orange box: Structure

All units are pCi/g

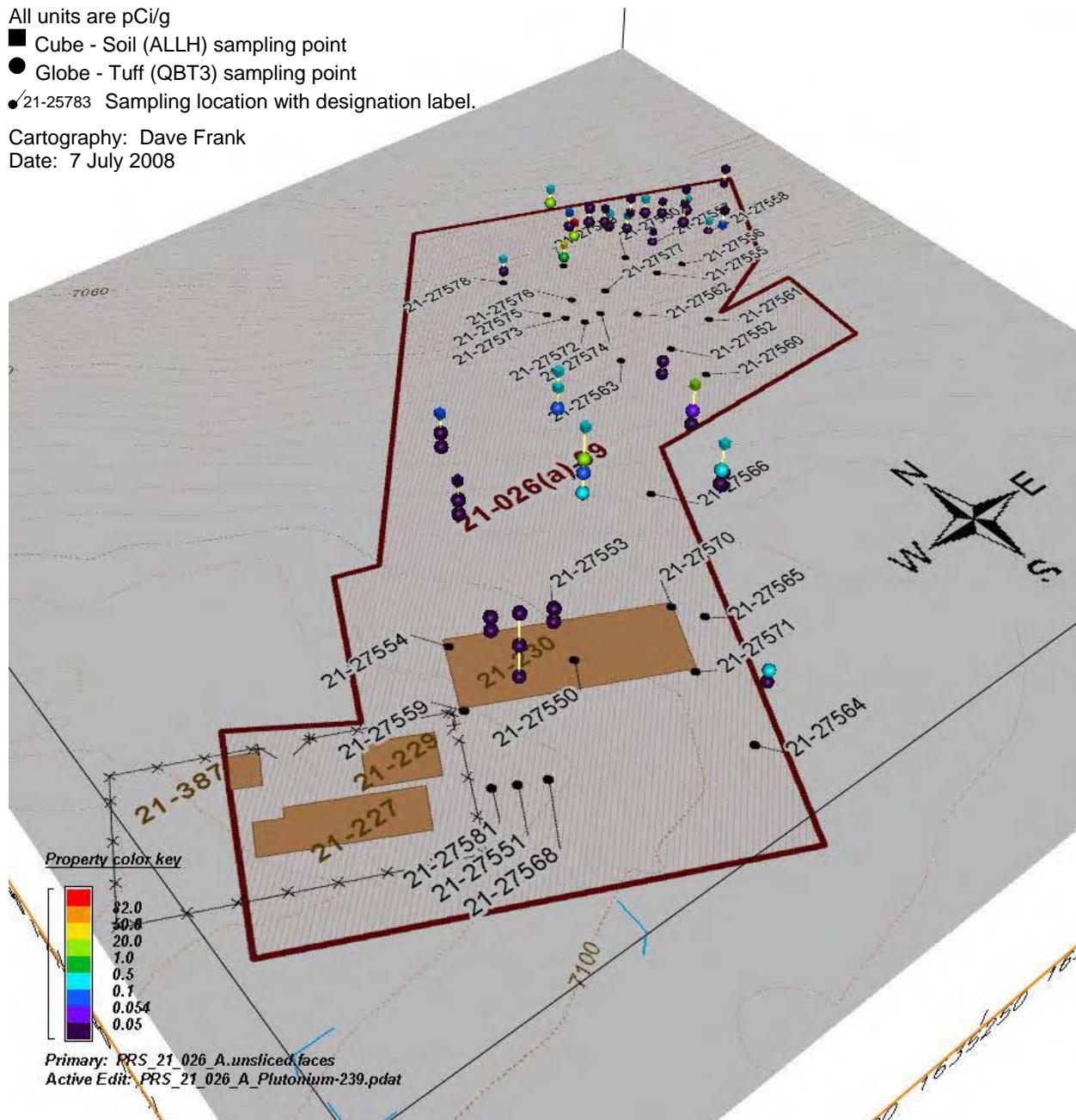
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

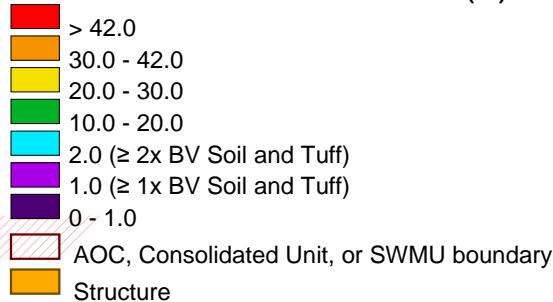
✓ Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-026(a)-99 Silver



All units are mg/kg

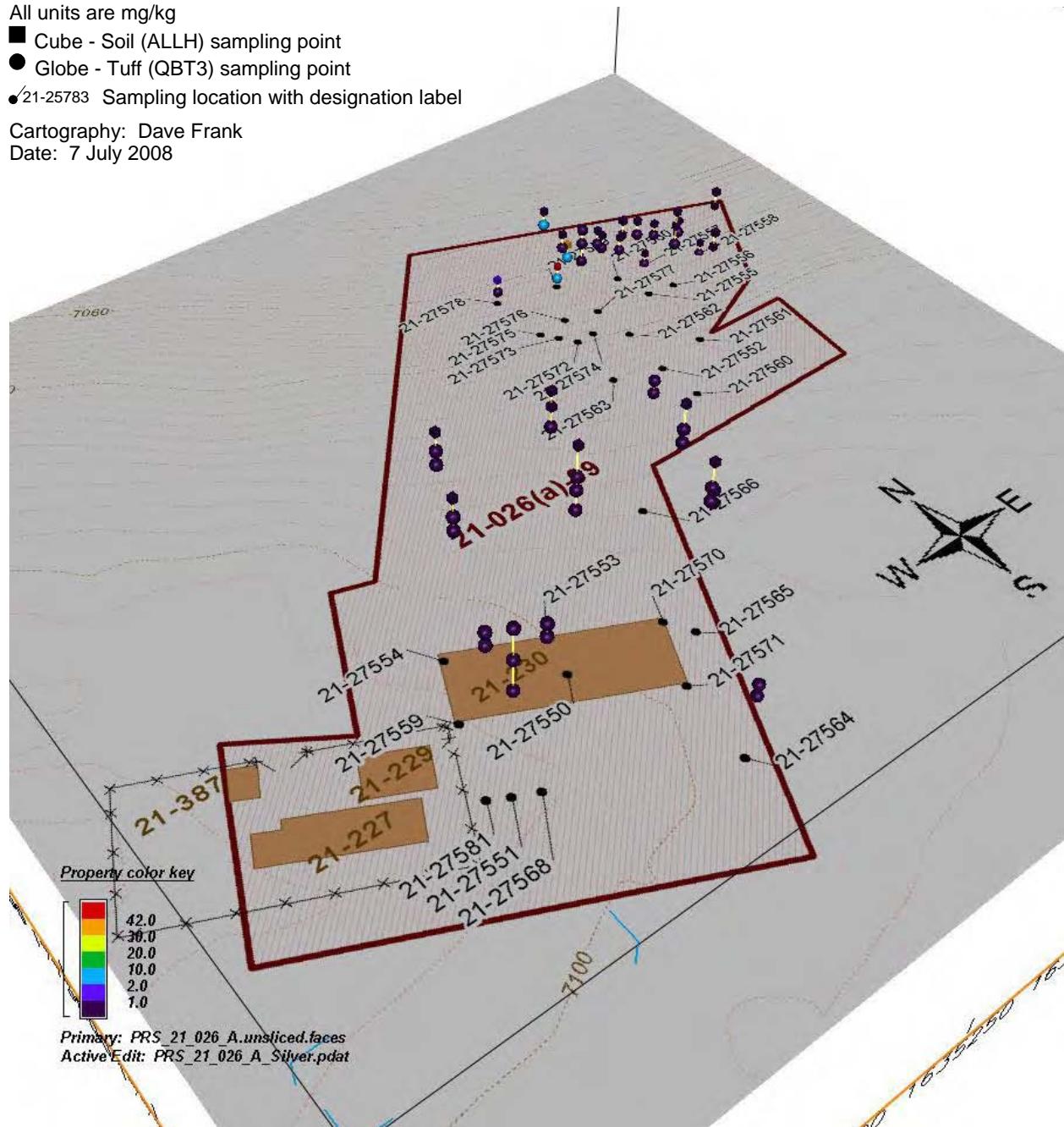
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

✓ 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-026(a)-99 Uranium-234

█ > 43.0
█ 20.0 - 43.0
█ 5.0 - 20.0
█ 2.59 (BV Soil)
█ 1.98 (BV Tuff)
█ 0 - 1.98

hatched AOC, Consolidated Unit, or SWMU boundary

█ Structure

All units are pCi/g

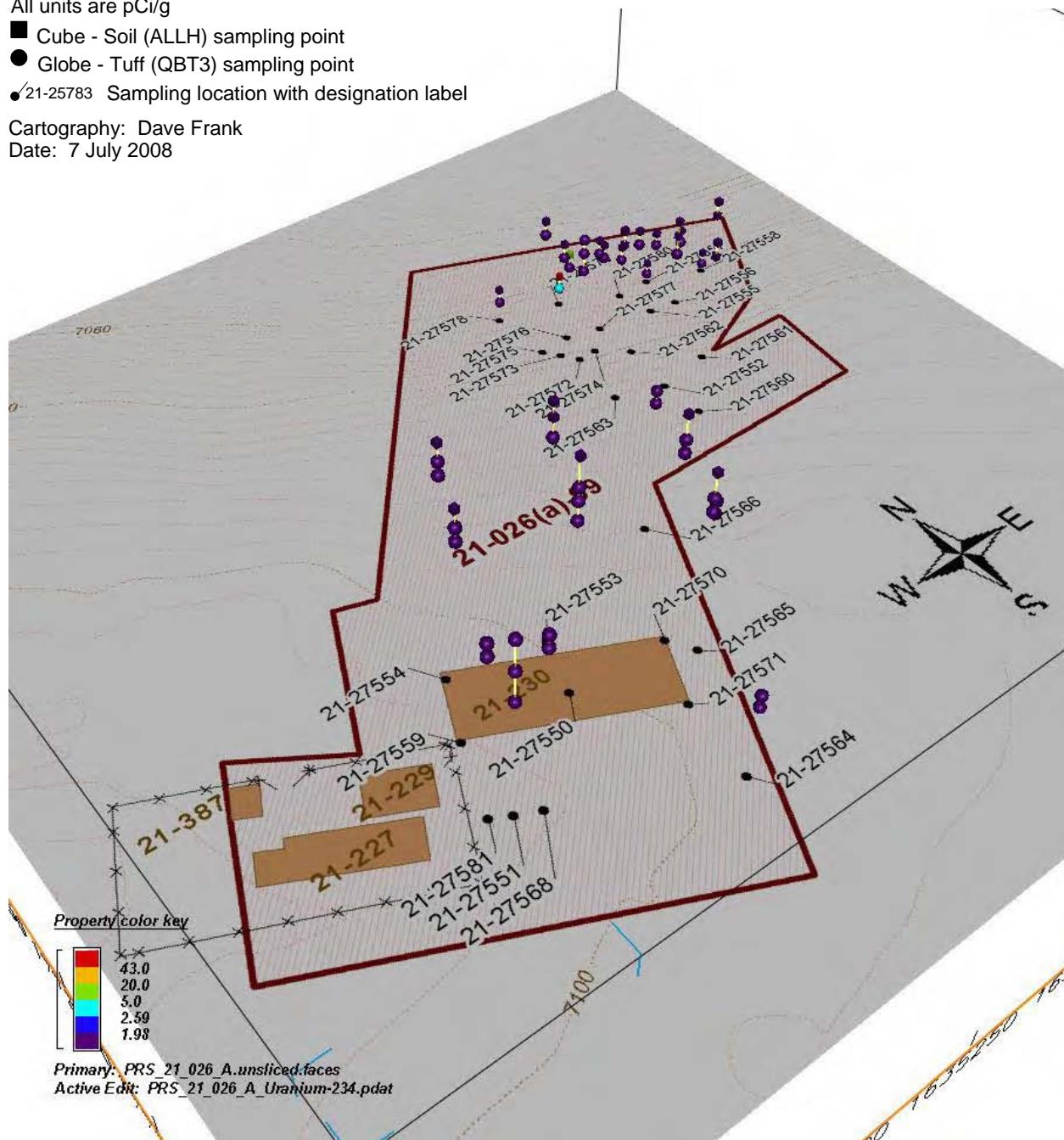
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

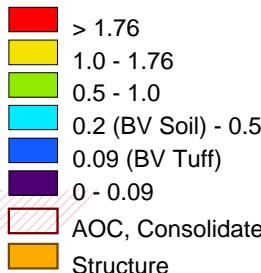
↗ 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-026(a)-99 Uranium-235



All units are pCi/g

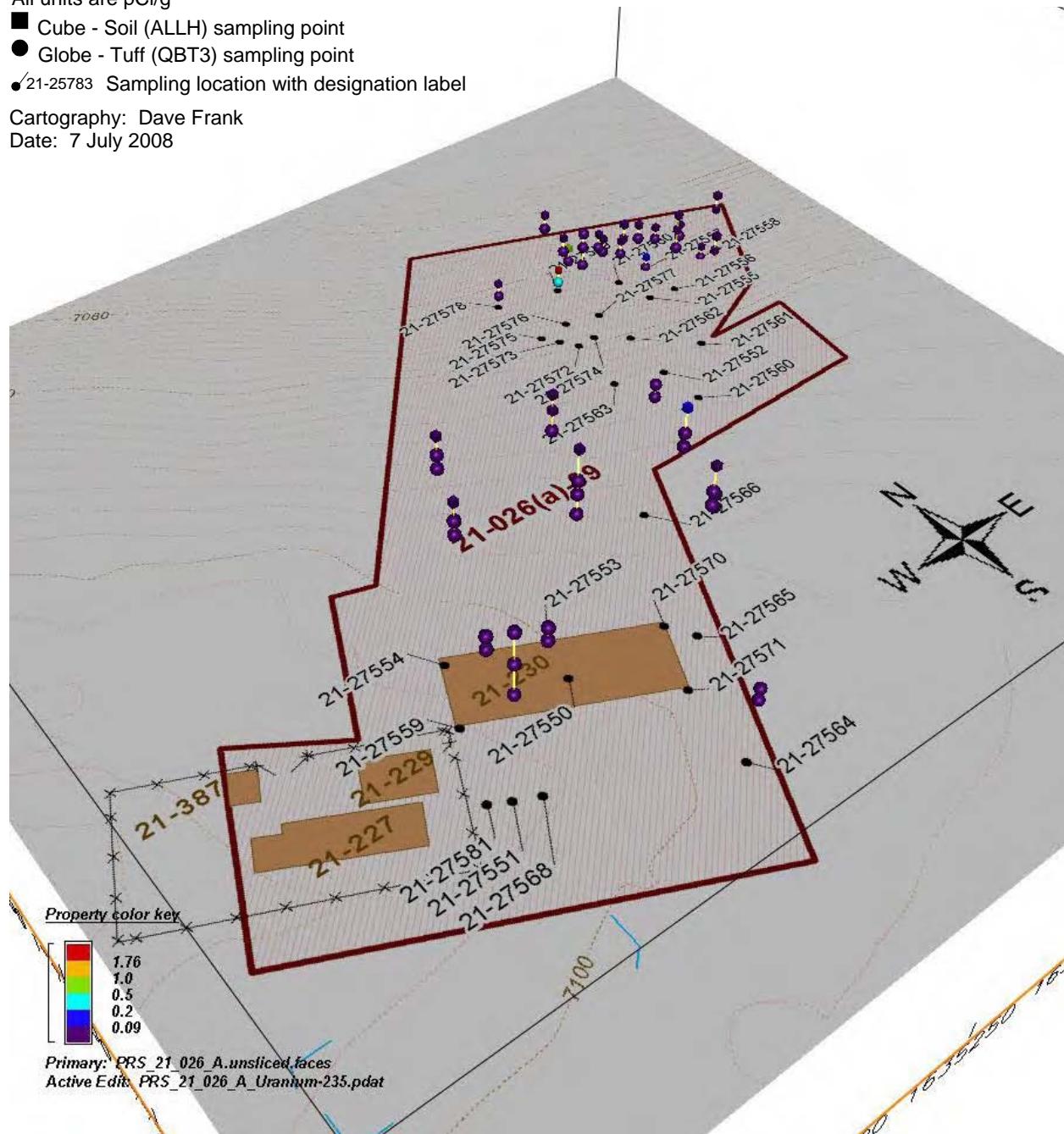
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

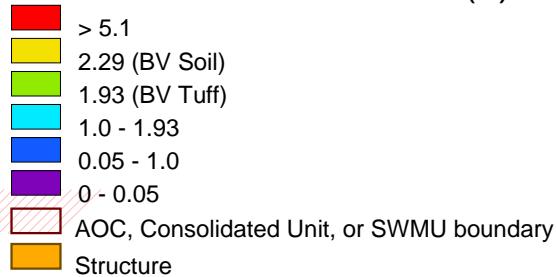
↙ 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-026(a)-99 Uranium-238



All units are pCi/g

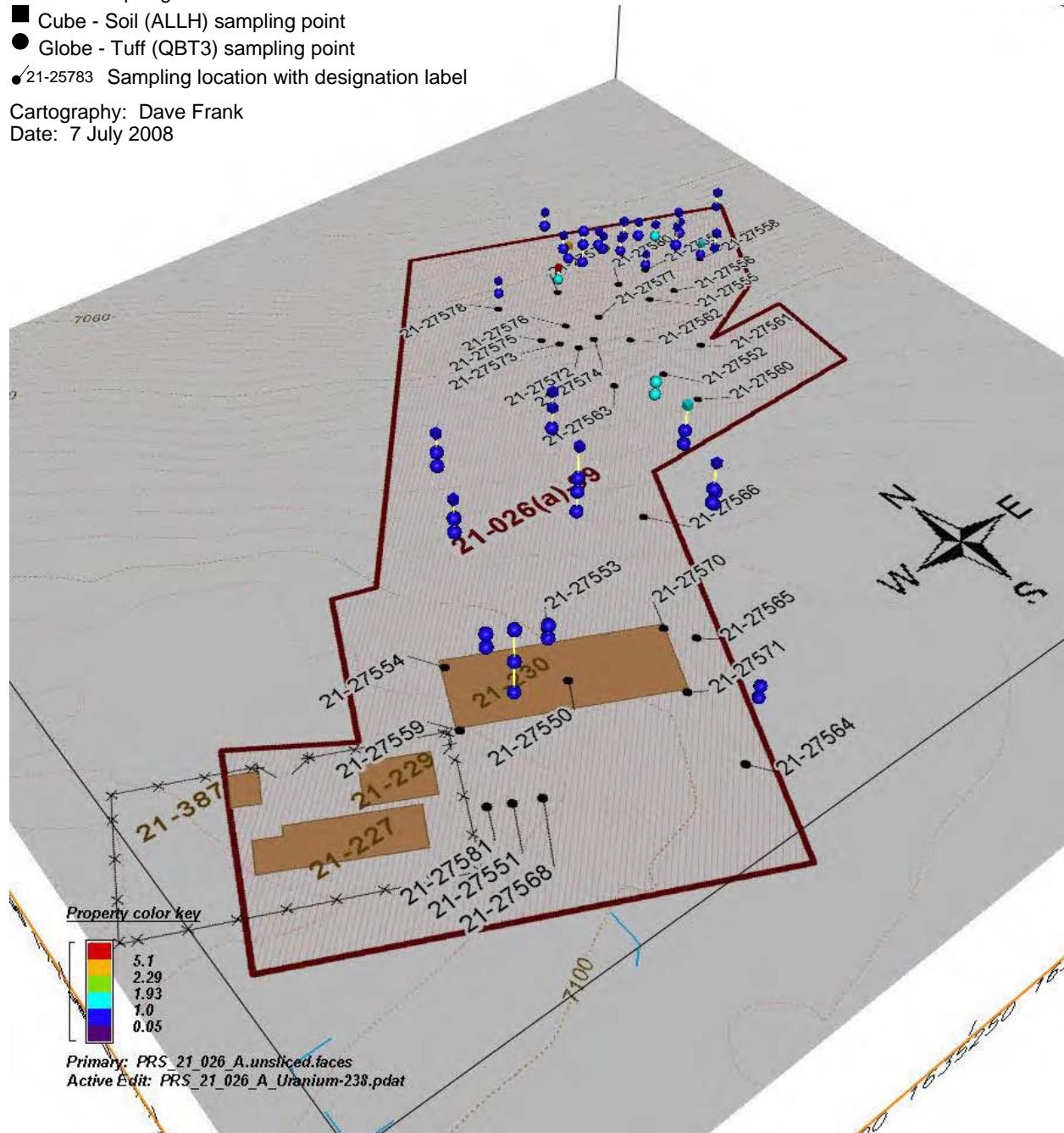
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

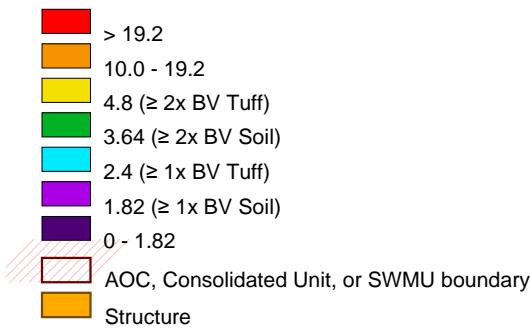
● 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008



Consolidated Unit 21-026(a)-99 Uranium



All units are mg/kg

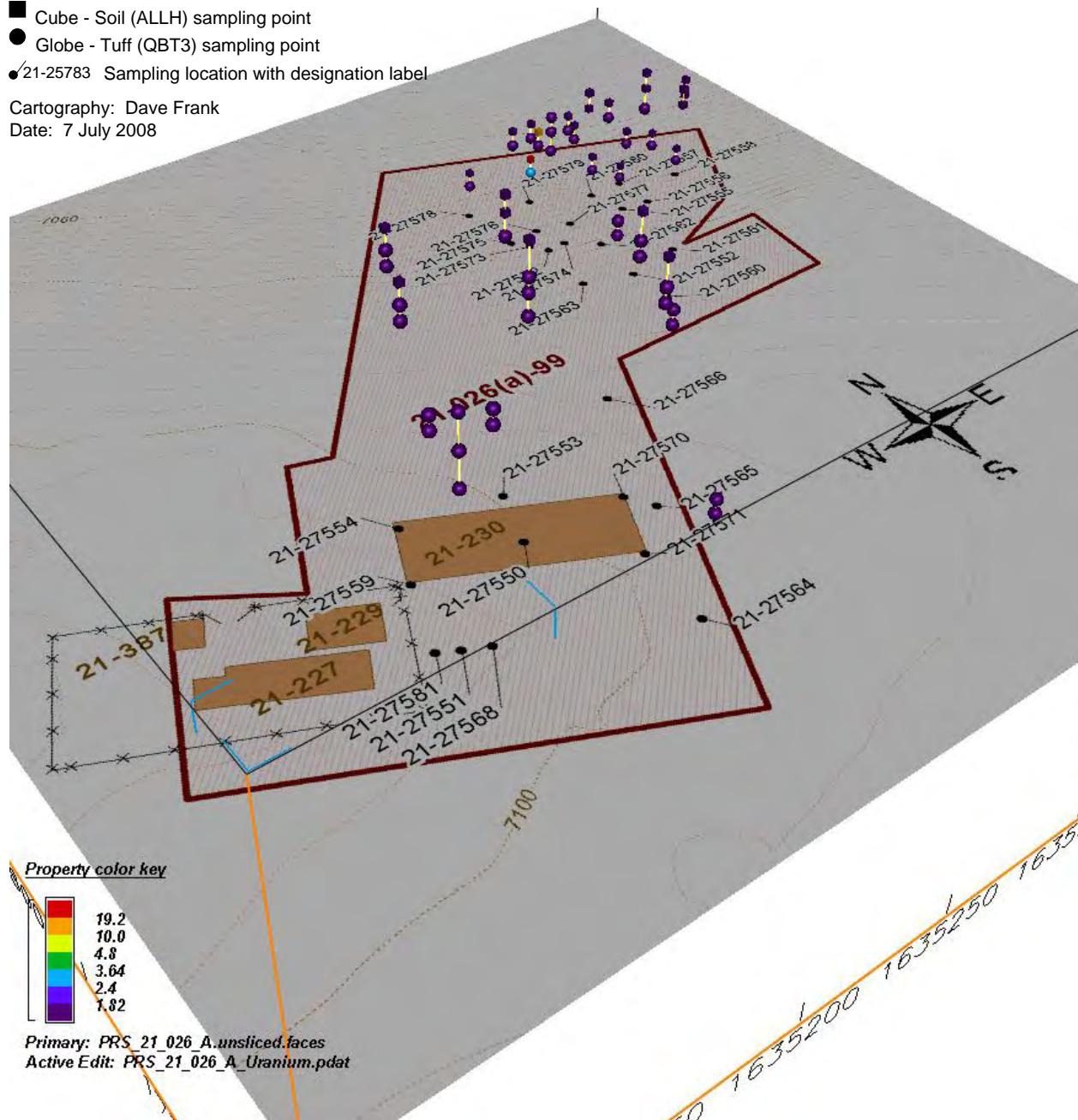
■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

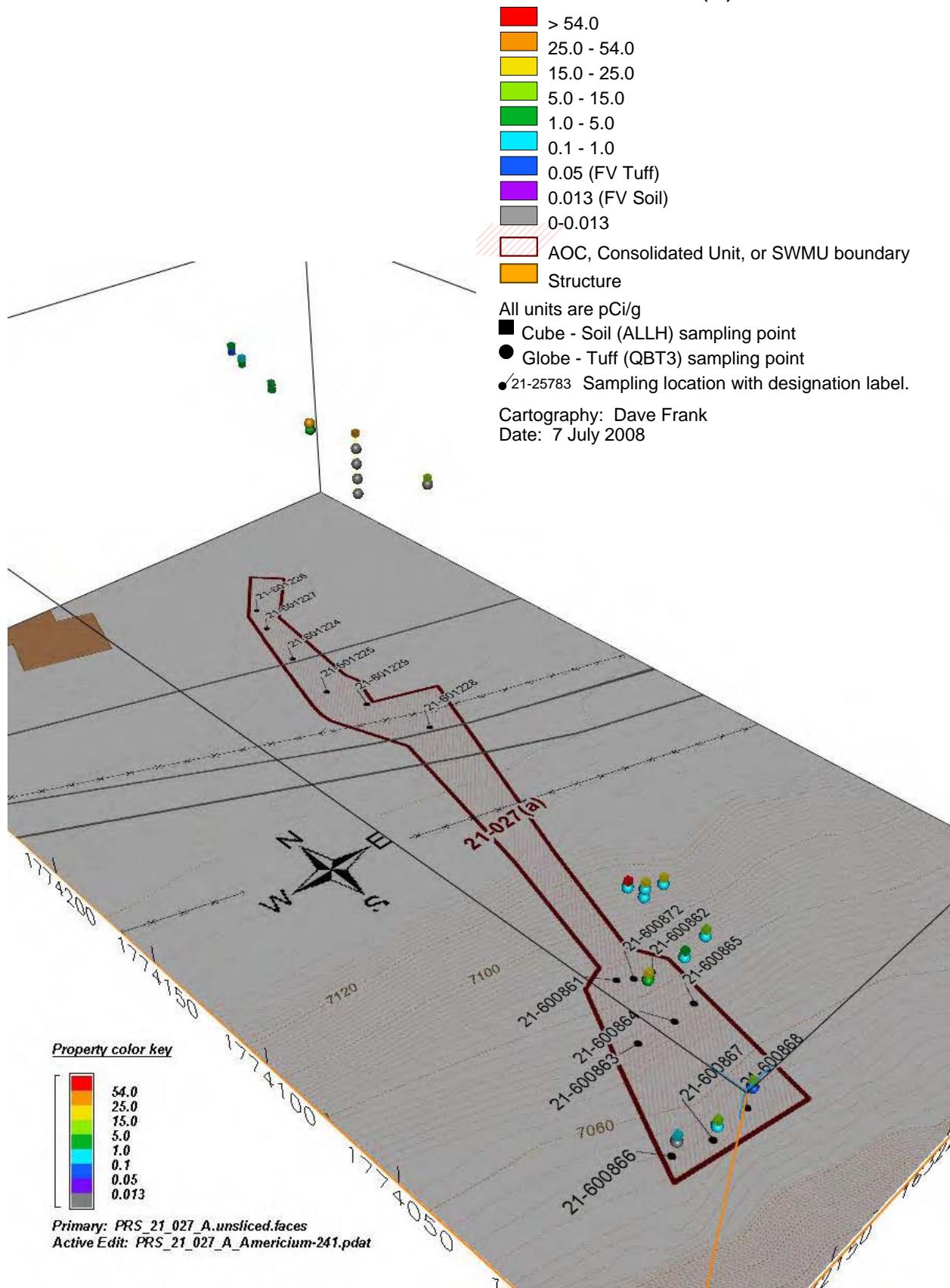
✓ Sampling location with designation label

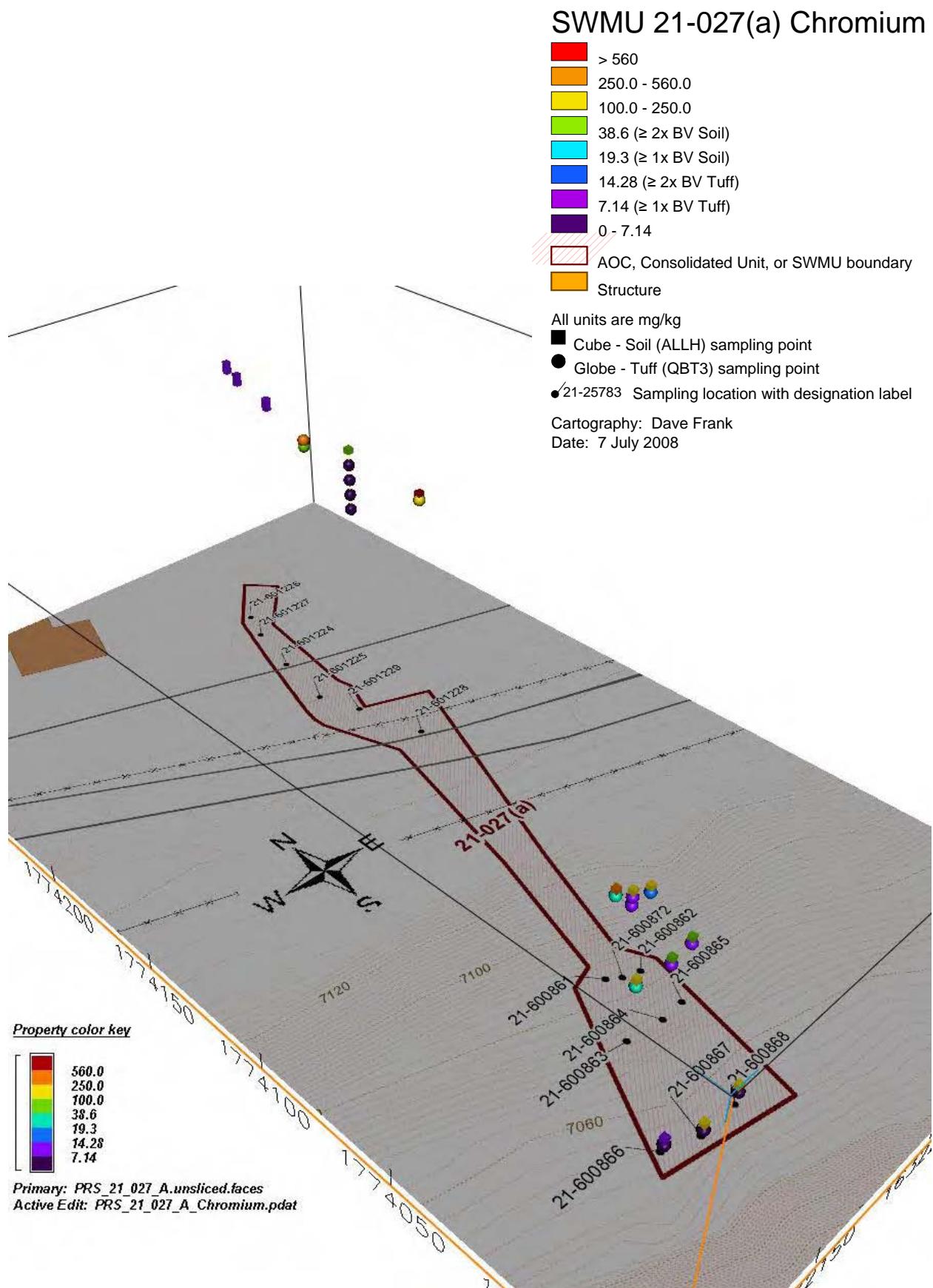
Cartography: Dave Frank

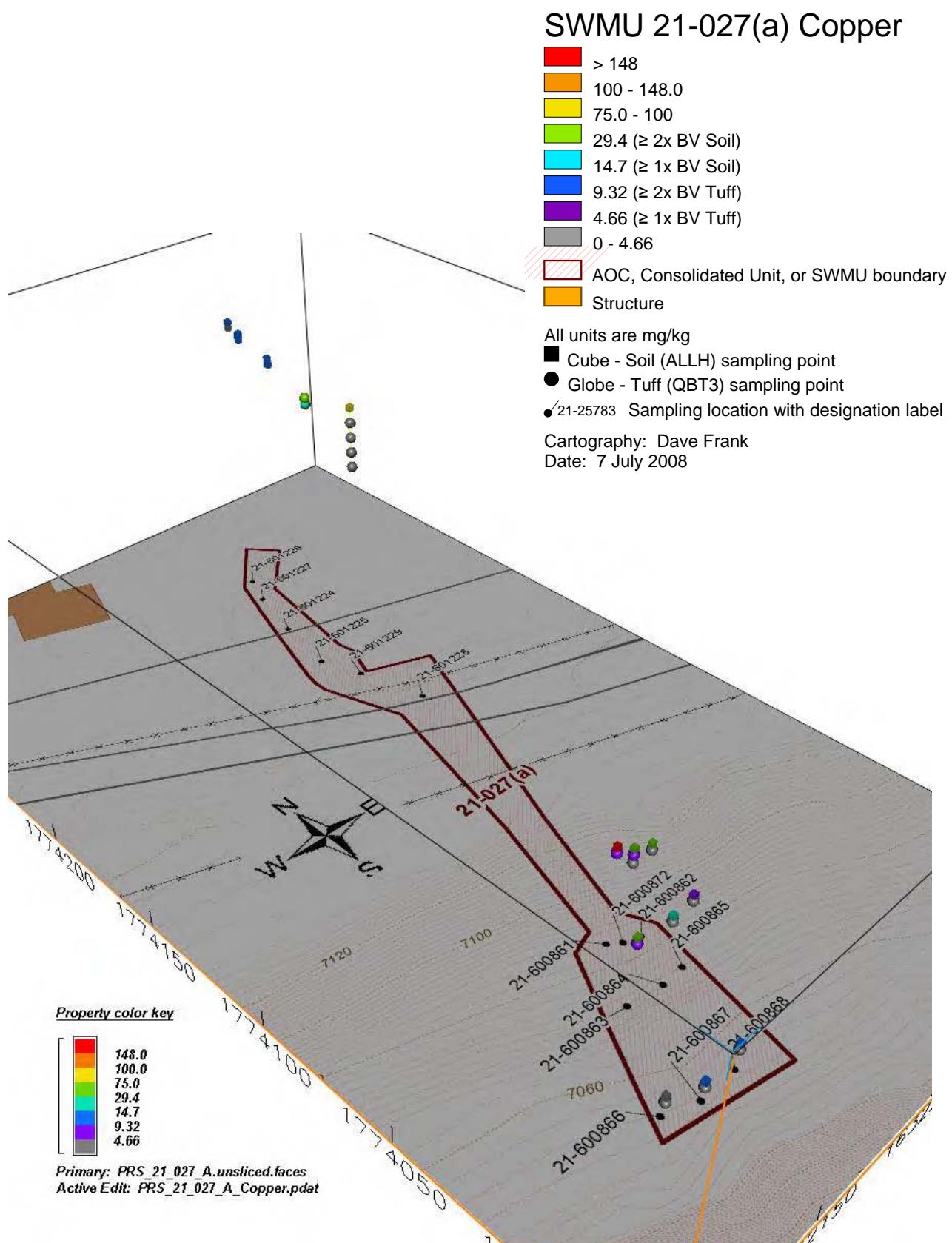
Date: 7 July 2008

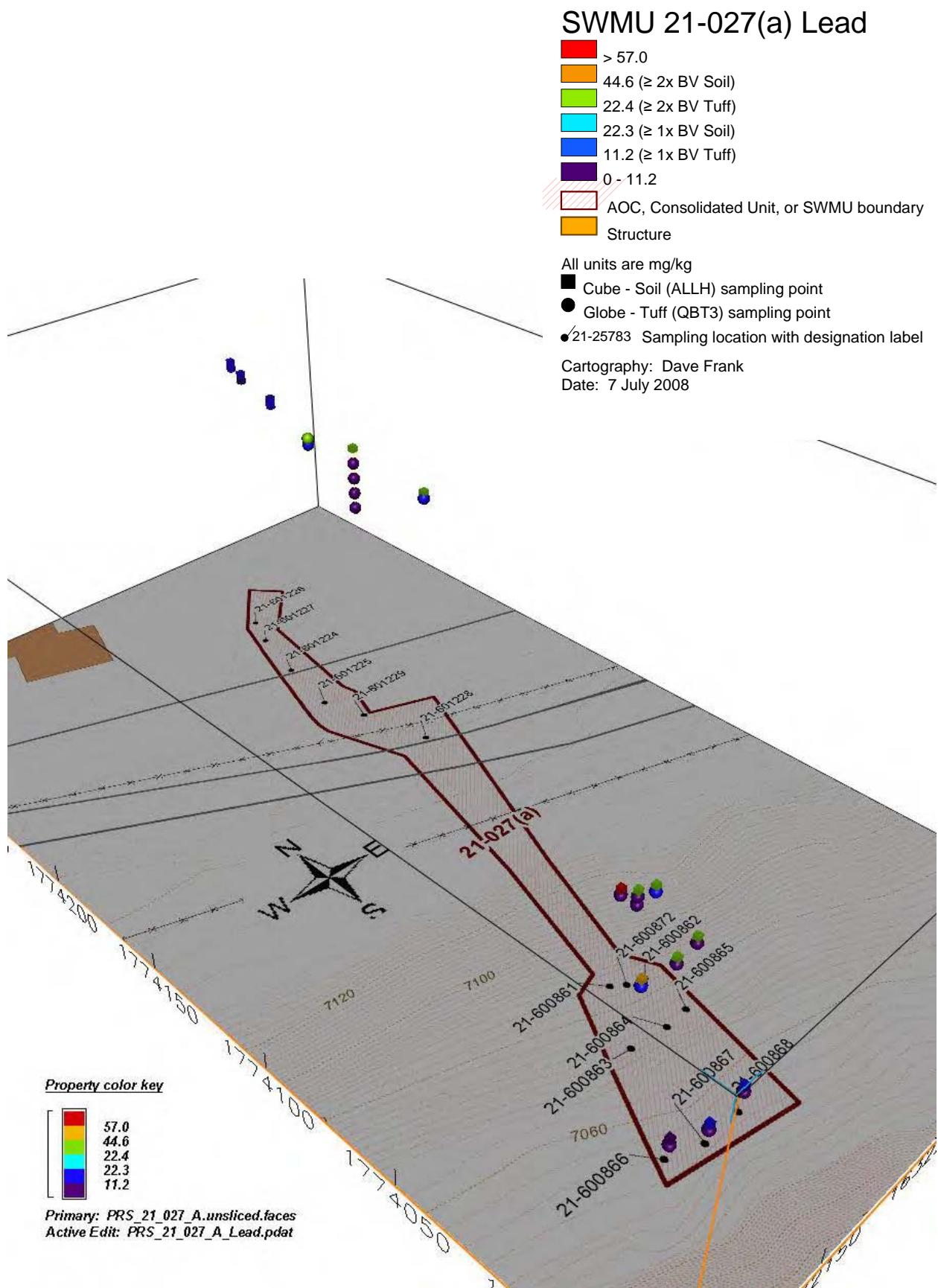


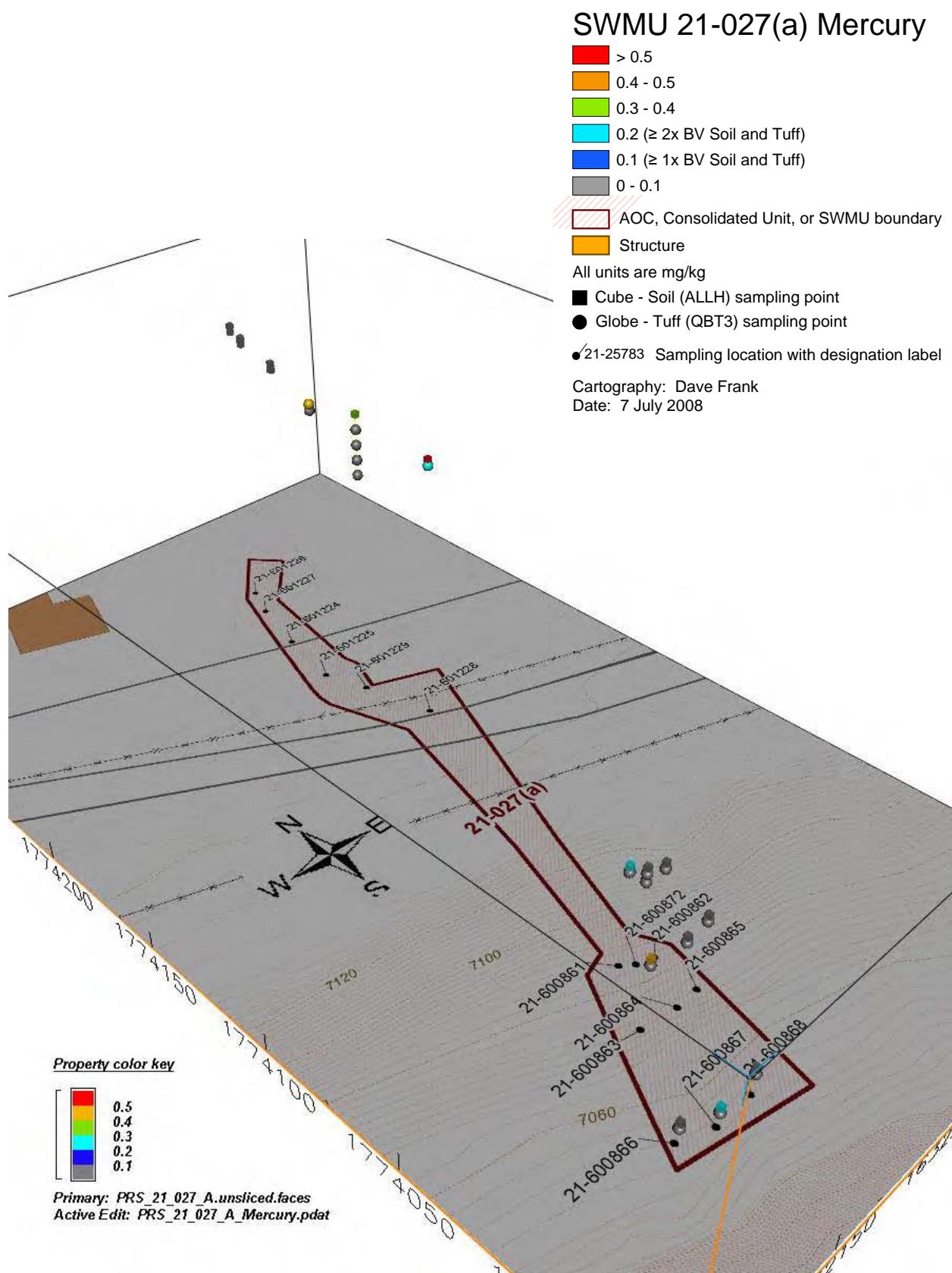
SWMU 21-027(a) Americium-241



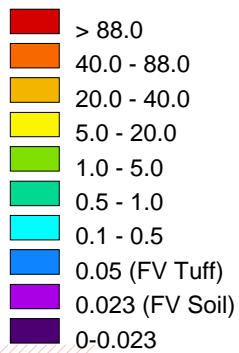








SWMU 21-027(a) Plutonium-238



■ AOC, Consolidated Unit, or SWMU boundary
■ Structure

All units are pCi/g

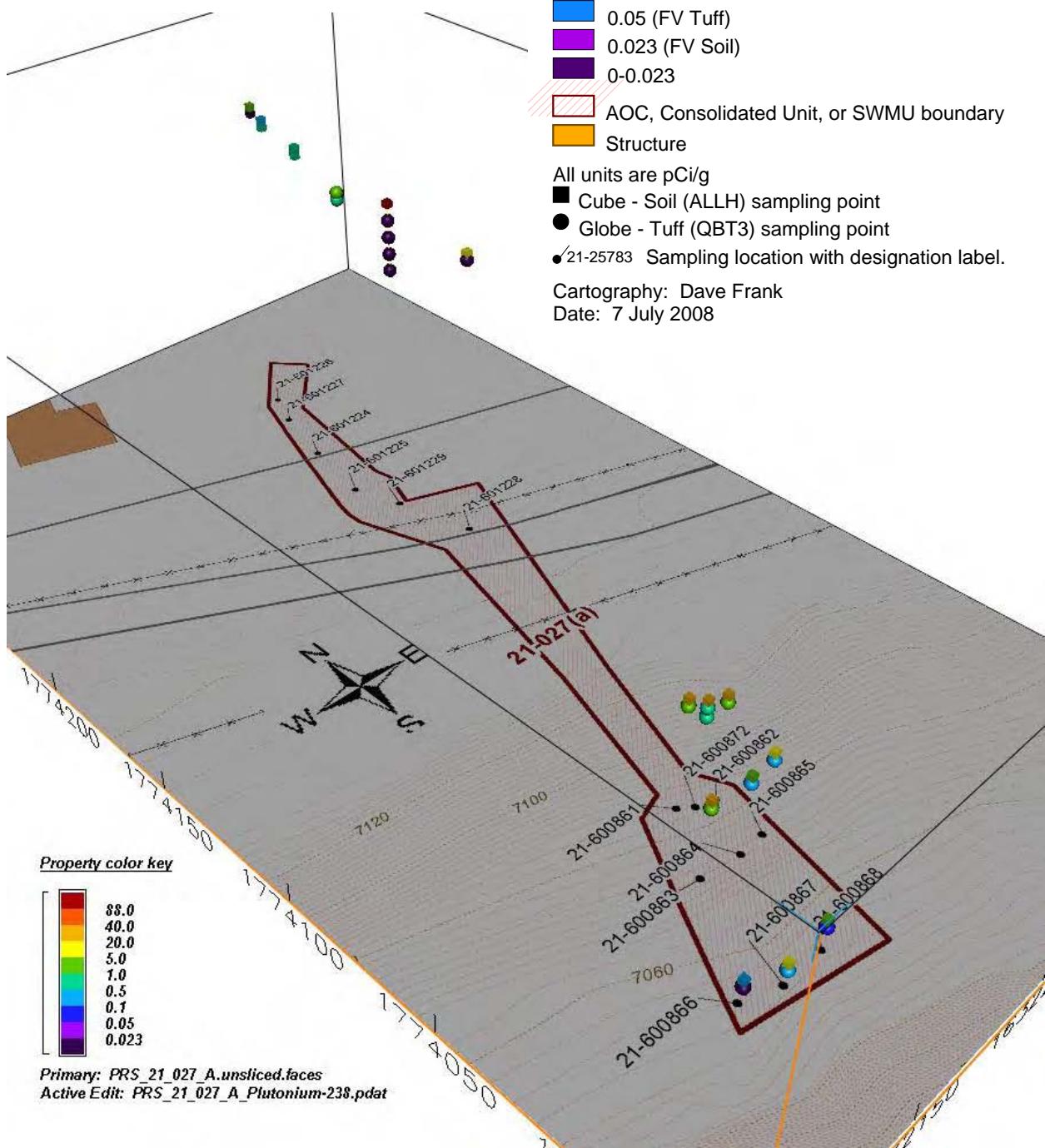
■ Cube - Soil (ALLH) sampling point

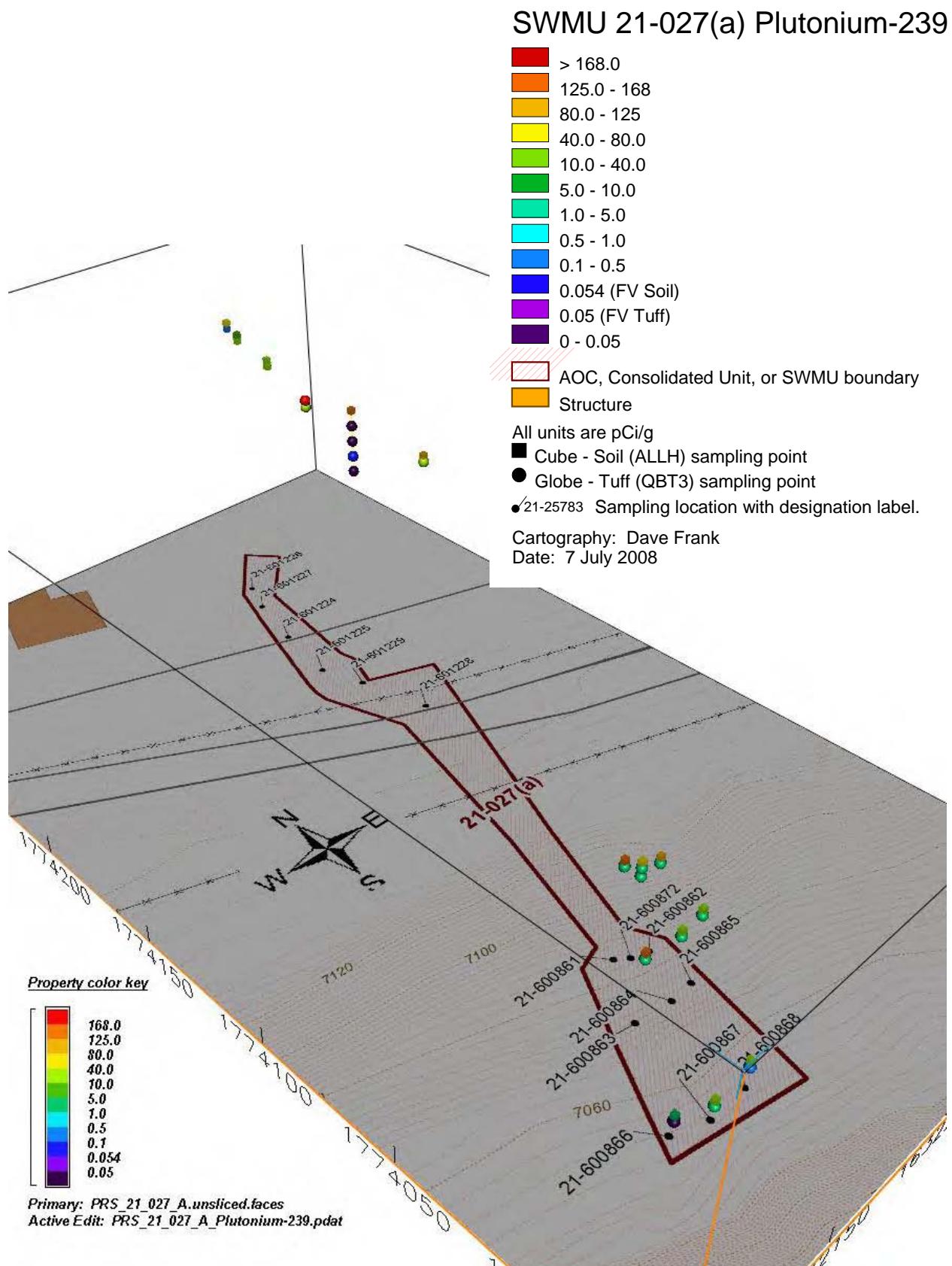
● Globe - Tuff (QBT3) sampling point

● 21-25783 Sampling location with designation label.

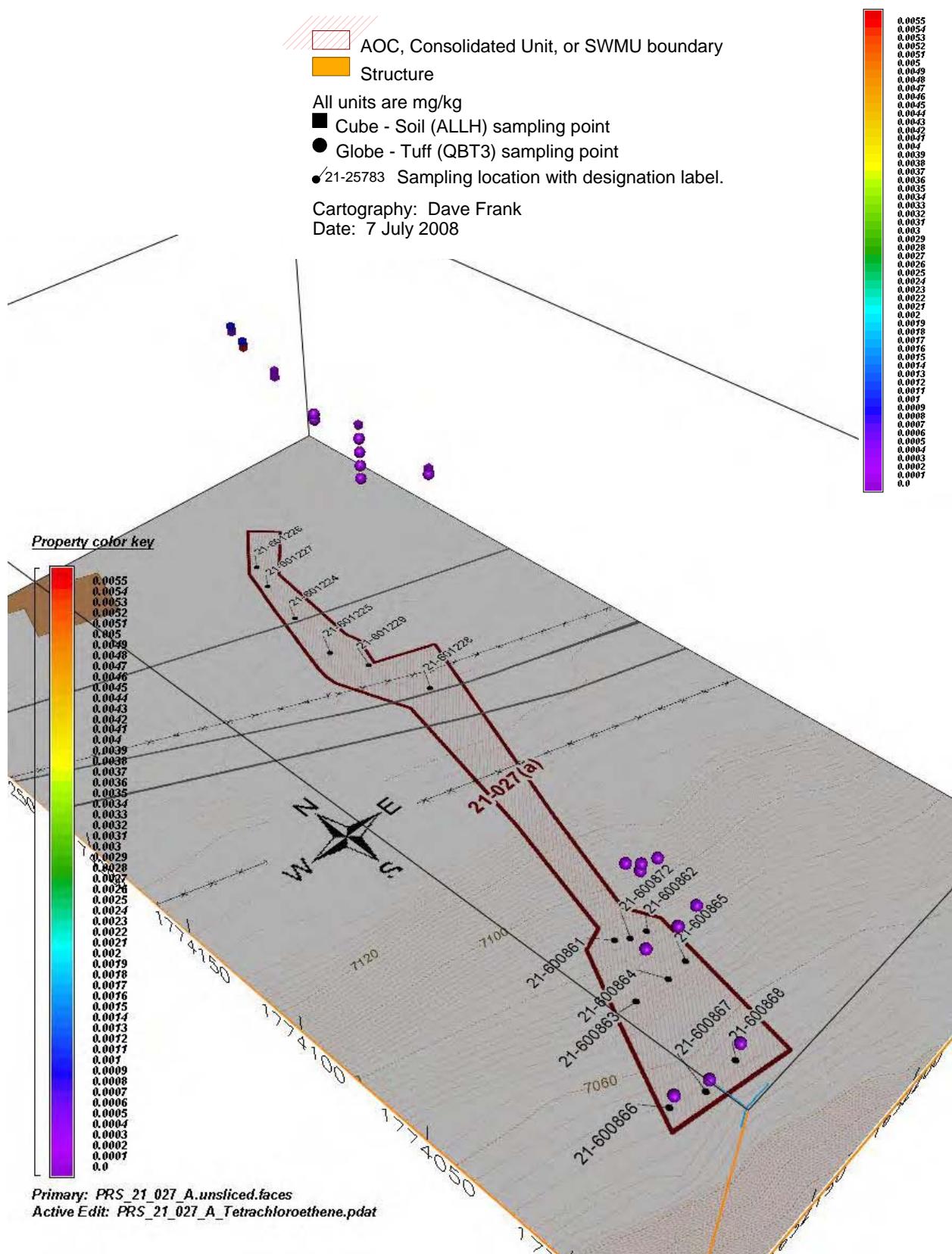
Cartography: Dave Frank

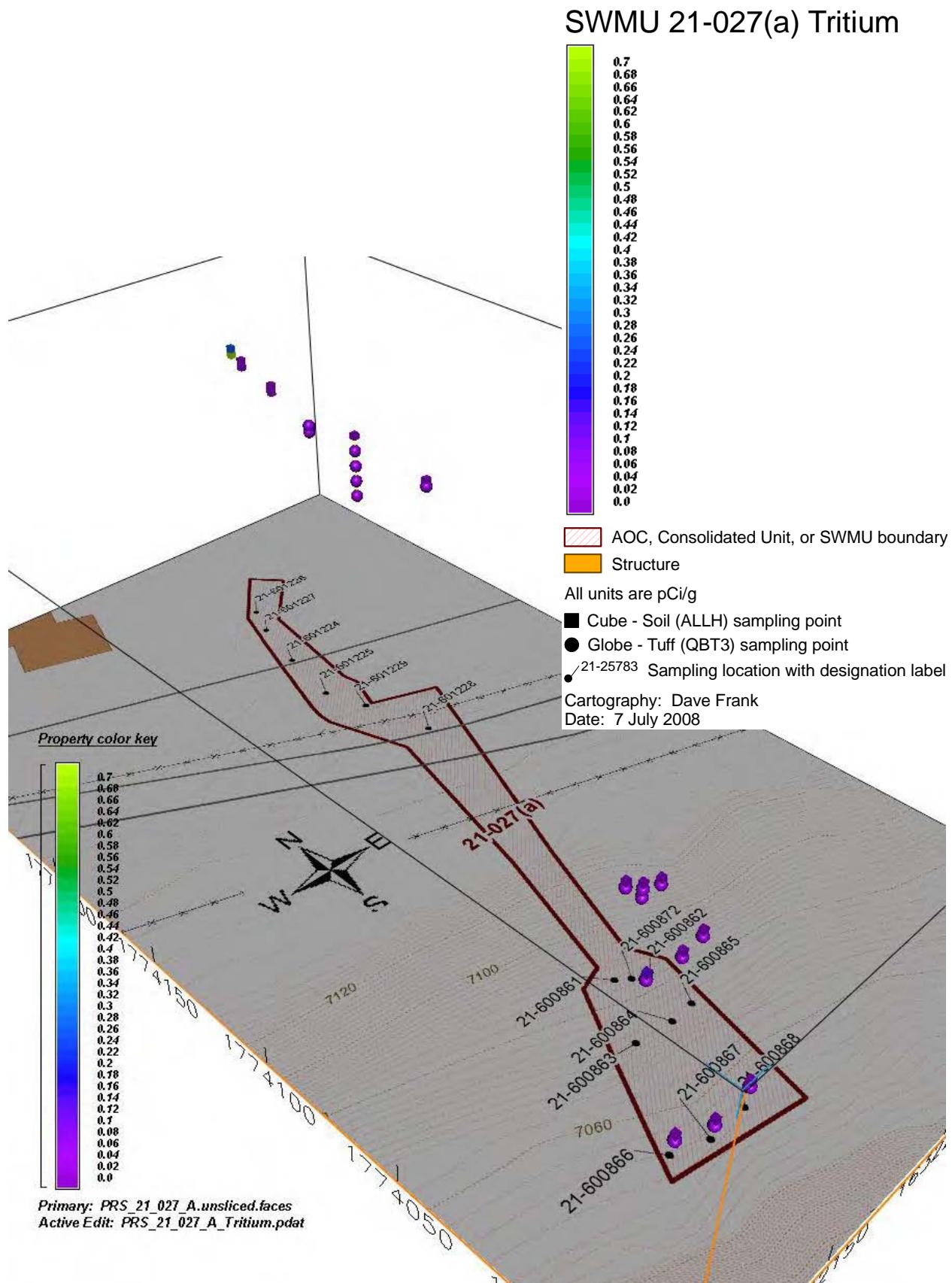
Date: 7 July 2008

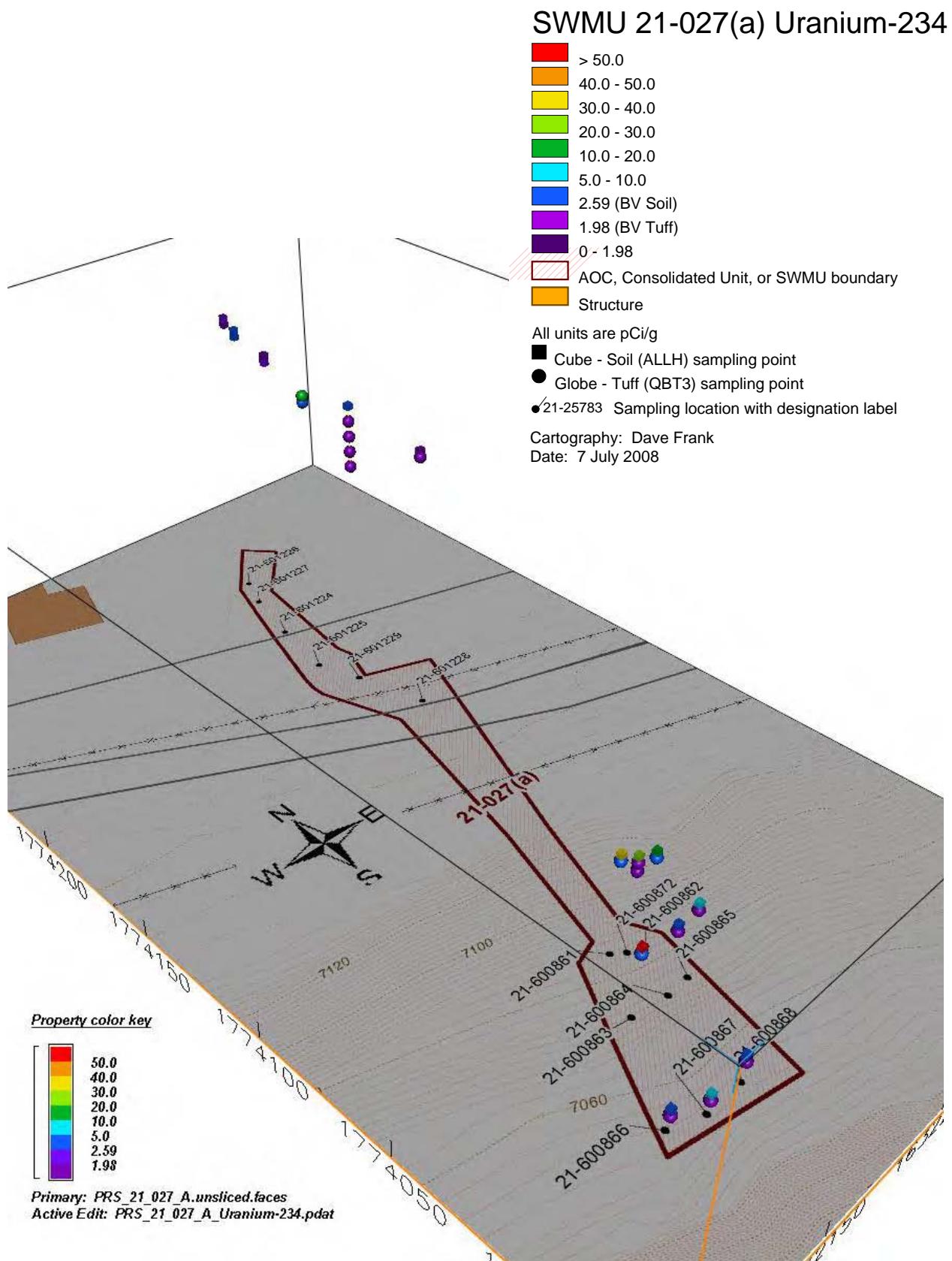


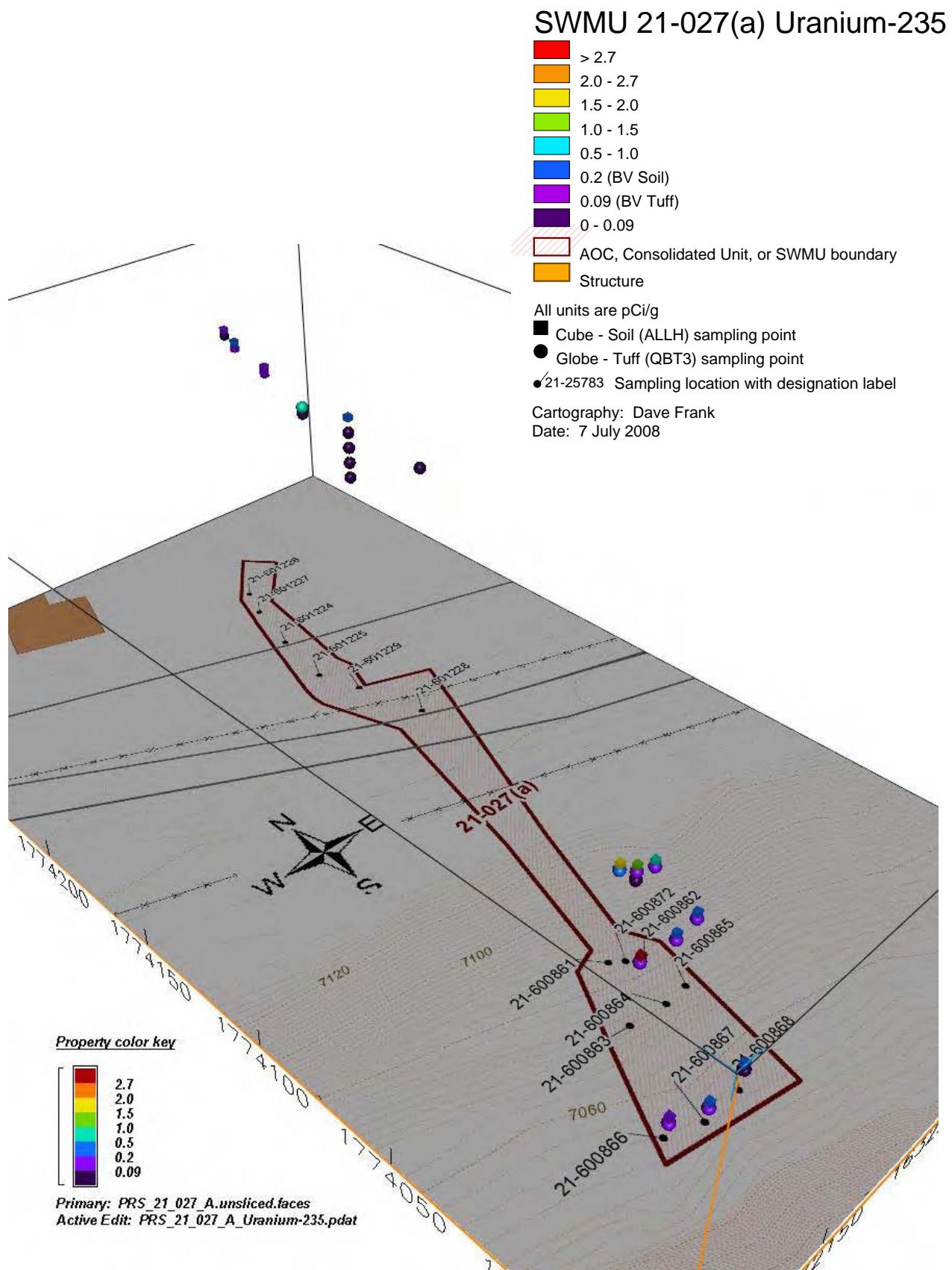


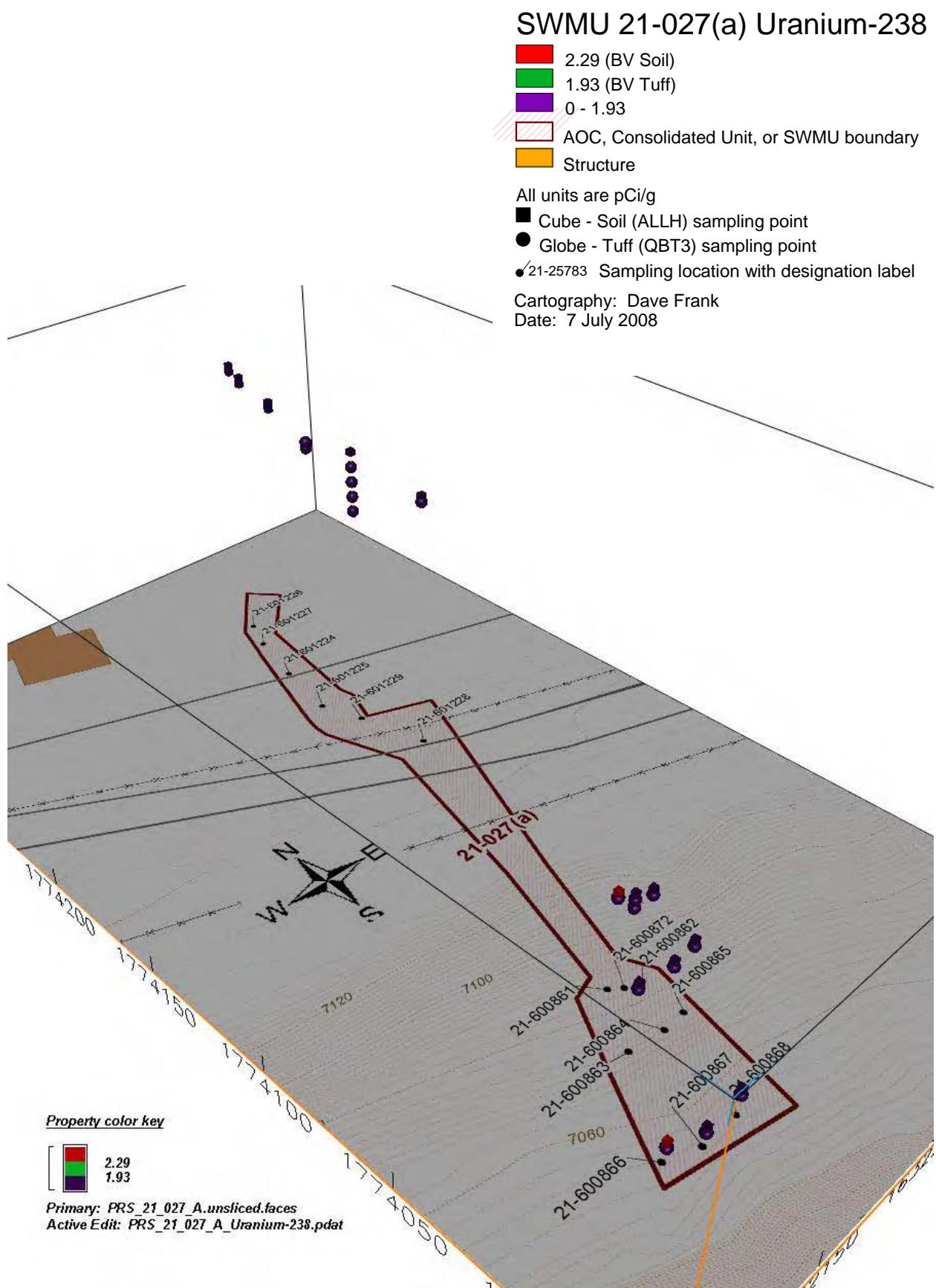
SWMU 21-027(a) Tetrachloroethene

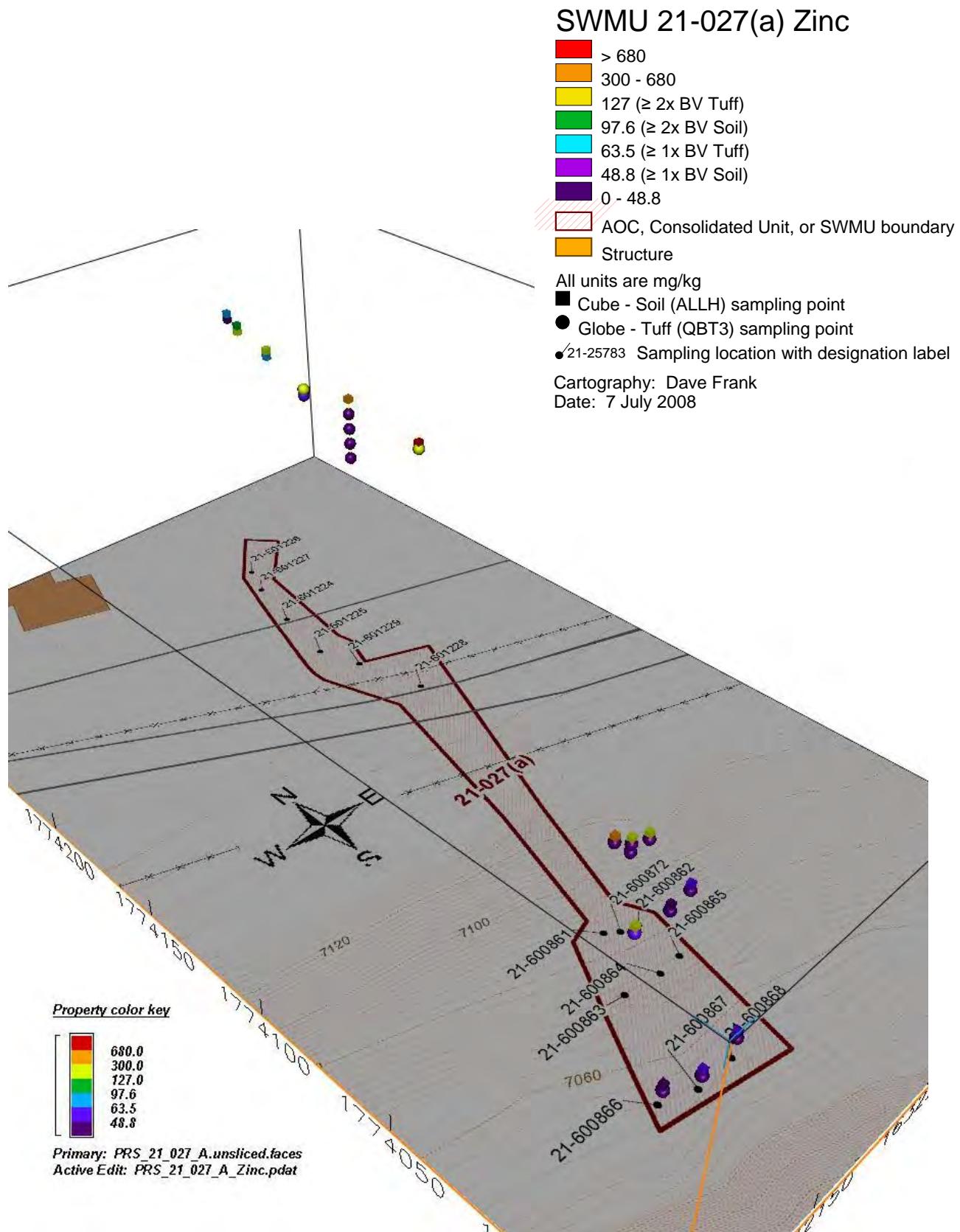




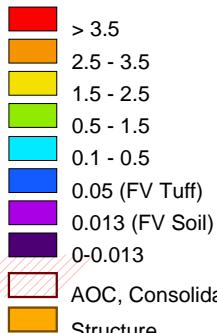








SWMU 21-027(c) Americium-241



All units are pCi/g

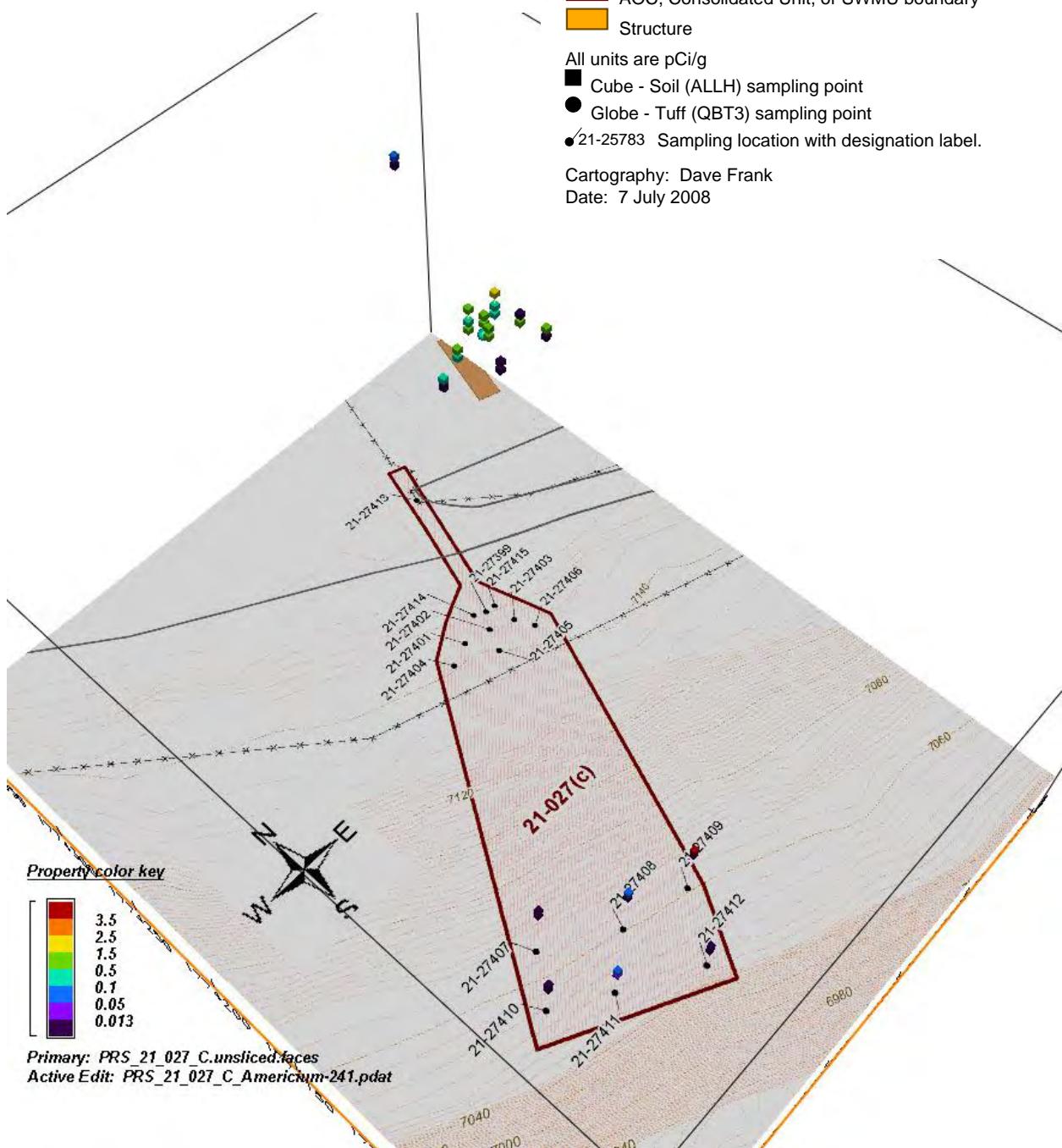
■ Cube - Soil (ALLH) sampling point

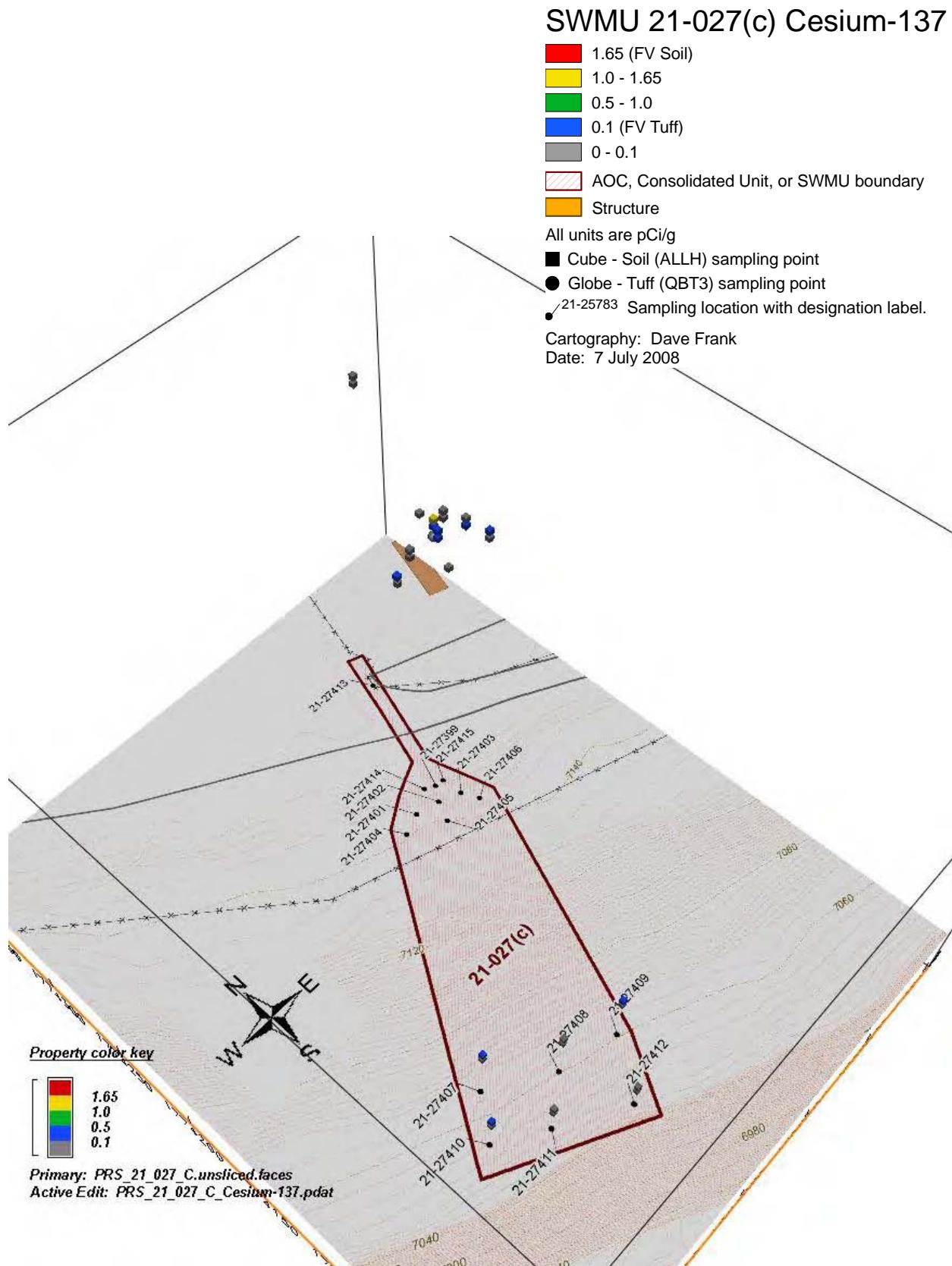
● Globe - Tuff (QBT3) sampling point

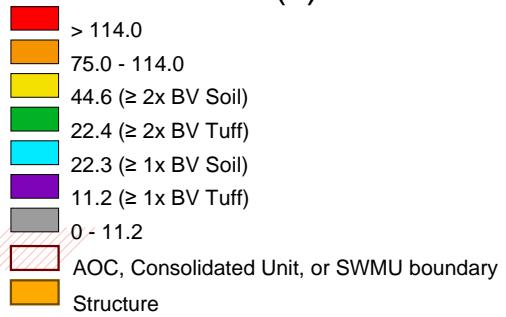
✓ 21-25783 Sampling location with designation label.

Cartography: Dave Frank

Date: 7 July 2008





SWMU 21-027(c) Lead

All units are mg/kg

■ Cube - Soil (ALLH) sampling point

● Globe - Tuff (QBT3) sampling point

● 21-25783 Sampling location with designation label

Cartography: Dave Frank

Date: 7 July 2008

