

**Response to the "Approval with Modifications Phase III Work Plan for
Material Disposal Area T, Consolidated Unit 21-016(a)-99,
Los Alamos National Laboratory EPA ID #NM0890010515, HWB-LANL-09-012,"
Dated May 4, 2009**

INTRODUCTION

To facilitate review of this response, the New Mexico Environment Department's (NMED's) comments are included verbatim. Los Alamos National Laboratory's (LANL's) responses follow each NMED comment.

COMMENTS

NMED Comment

1. *In order to collect comparable vapor sample data, the vapor monitoring well at location 21-25262 must have ports in approximately the same intervals as well 21-603059 (i.e., ports at the following depths (feet below ground surface): 77.5-82.5, 187.5-192.5, 229.5-234.5, 292.5-297.5, 372.5-377.5). The ports in 21-25262 should generally correspond to the same depth intervals.*

The vapor monitoring ports in the proposed North Perimeter Road borehole must correspond as closely as possible to the port depths in locations 21-603058 and 21-25264. The same methodology must be utilized to install the vapor monitoring near Building 21-257 when corrective actions are complete, the piping is removed and confirmation samples are collected and analyzed. The Permittees must revise the depths listed in Table 2 to reflect this approach, ensure the drillers are aware of the change and submit a revised table to NMED.

LANL Response

1. The depths of ports in Table 2 has been revised accordingly; revised Table 2 is included with this document. The drillers have been made aware of the changes.

NMED Comment

2. *The Permittees state in the "Rationale for Vapor-Monitoring Well Locations" section that, "[s]ampling of the newly installed wells will begin 14 d[ays] following installation although the previous sampling data appear to indicate that the well will not have reached equilibrium conditions when the first quarter sampling will be conducted." The Permittees must purge the vapor monitoring wells appropriately within 14 days of installation so the subsurface air samples collected are representative of natural conditions. Proper well purging should ensure that formation air is being sampled.*

LANL Response

2. LANL will purge the vapor-monitoring wells appropriately within 14 d of installation so the subsurface air samples collected are representative of natural conditions.

NMED Comment

- 3. In the "Drilling Approach" section, the Permittees state (regarding the Building 21-257 borehole), "[t]he specific location of this well will be determined after corrective actions are completed, the subsurface piping is removed, and confirmation samples are collected and analyzed." Based on discussions with the Permittees during a meeting on March 23, 2009 it was decided that dividing the proposed investigation activities at MDA T will be conducted under DP Aggregate Area. NMED believes installation of a borehole near building 21-257 should be proposed following the DP Aggregate filed activities rather than in the MDA T Phase III Work Plan. The Permittees must submit a work plan for the vapor monitoring well at Building 21-257 in conjunction with a work plan for DP Aggregate.*

LANL Response

3. LANL agrees that installation of a borehole near building 21-257 should be proposed following the Delta Prime (DP) Aggregate field activities rather than in the Material Disposal Area T Phase III Work Plan. LANL will submit a work plan for the vapor-monitoring well at building 21-257 in conjunction with a work plan for the DP Aggregate.

Table 2
Summary of Existing and Planned Borehole Locations and Port Elevations and Depths

Formation Name or Symbol	Existing Location 21-603059		Location 21-25262 ^a		Existing Location 21-603058		Existing Location 21-25264		North Perimeter Road Location		Bldg. 257 Location ^b	
	Elevation	Depth (bgs) ^c	Elevation	Depth (bgs)	Elevation	Depth (bgs)	Elevation	Depth (bgs)	Estimated Elevation	Planned Depth (bgs)	Elevation	Depth (bgs)
Qbt 3	7061	80	7061	82	7065	70	7056	70	7056	74	TBD ^d	82
Qbt 2	7026	115	7026	117	— ^e	—	—	—	—	—	TBD	117
Qbt 2	6951	190	—	—	6972	163	6973	153	6973	157	—	—
Qbt 1v	6909	232	6909	234	—	—	—	—	6954	176	TBD	234
Qbt 1g	6846	295	6846	297	6915.5	219.5	6901	225	6901	229	TBD	297
Tsankawi Pumice Bed	—	—	6811.5	331.5	—	—	6800	326	6800	330	TBD	331.5
Qct	6766	375	6766	377	6793	342	—	—	—	—	TBD	377
Qct ^f	—	—	—	—	—	—	6774	352	6774	356	—	—
Qbof	—	—	6668	475	—	—	—	—	6668	462	TBD	475
Qbof	—	—	6568	575	—	—	—	—	6568	562	TBD	575
Guaje Pumice Bed	—	—	6468	675	—	—	—	—	6468	662	TBD	675
Puye	—	—	—	—	—	—	—	—	6330	800	—	—
Puye	—	—	—	—	—	—	—	—	6180	950	—	—

^a The final elevations/depths of sample ports may vary depending on the stratigraphy encountered. Assumed surface elevation is 7130 ft.

^b The number and depth of sampling ports are tentative, pending results of DP Aggregate Phase II sampling and data analysis.

^c bgs = Below ground surface.

^d TBD = To be determined.

^e — = No port installed/proposed at this formation.

^f An additional port was installed in the bottom of the borehole at elevation 6766 ft, as required by the Compliance Order on Consent.