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NMED Hazardous
Waste Bureau

National Nuclear Security Administration
Los Alamos Site Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
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Date: April 30, 2008
Refer To: EP2008-0219

James P. Bearzi, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: 15-Day Sampling Notification for Material Disposal Areas G, H, and L at Technical Area 54

Dear Mr. Bearzi:

Beginning May 14, 2008, the Los Alamos National Laboratory (the Laboratory) Environmental Program Directorate (EP) Corrective Action Projects (CAP) is planning to collect vapor samples from 21 boreholes at Technical Area (TA) 54, Material Disposal Area (MDA) G; 3 boreholes at MDA H; and 25 boreholes at MDA L. In addition, the Laboratory will continue to evaluate the sampling equipment at MDA H, as described in New Mexico Environment Department (NMED) correspondence dated December 21, 2007.

EP-CAP will verbally confirm and/or notify NMED Hazardous Waste Bureau staff of any changes to the schedule. The sampling results will be presented in separate periodic monitoring reports for each MDA: an annual report for MDA G and quarterly reports for MDAs L and H. The sampling is summarized in the following tables, which indicate the minimum number of samples to be collected.

TA-54, MDA G Document	Sampling Locations	Number of Samples	Sample Type	Analyses
Notice of Approval Corrective Measures Evaluation Plan for Material Disposal Area G at Technical Area 54, Revision 2 Los Alamos National Laboratory, EPA ID #NM0890010515, HWB-LANL-07-022	54-01107	2	Subsurface pore gas	VOCs H_3
	54-01110	2	Subsurface pore gas	VOCs H_3
	54-01111	2	Subsurface pore gas	VOCs H_3
	54-01115	2	Subsurface pore gas	VOCs H_3
	54-01116	1	Subsurface pore gas	VOCs H_3

TA-54, MDA G Document	Sampling Locations	Number of Samples	Sample Type	Analyses
	54-01117	2	Subsurface pore gas	VOCs H_3
	54-01121	2	Subsurface pore gas	VOCs H_3
	54-01126	2	Subsurface pore gas	VOCs H_3
	54-01128	2	Subsurface pore gas	VOCs H_3
	54-02009	2	Subsurface pore gas	VOCs H_3
	54-02010	2	Subsurface pore gas	VOCs H_3
	54-02032	2	Subsurface pore gas	VOCs H_3
	54-02033	2	Subsurface pore gas	VOCs H_3
	54-22116	2	Subsurface pore gas	VOCs H_3
	54-24270	2	Subsurface pore gas	VOCs H_3
	54-24386	2	Subsurface pore gas	VOCs H_3
	54-24394	2	Subsurface pore gas	VOCs H_3
	54-24397	2	Subsurface pore gas	VOCs H_3
	54-25105	2	Subsurface pore gas	VOCs H_3
	54-27436	2	Subsurface pore gas	VOCs H_3
	G-5	1	Subsurface pore gas	VOCs H_3

The table below identifies port depths to be sampled based on section D-4.0 of the corrective measures evaluation plan, revision 2, statement that "vapor samples will be collected annually using SUMMA canisters for VOCs and silica gel columns for tritium from the port nearest the lowest base elevation for the adjacent disposal unit, and at the total depth of the locations listed in Table D-1."

MDA G Pore-Gas Monitoring Locations

Well ID	Depths of Ports(ft)
54-01107	20, 44.5, **56.5**, 74, 91, **100**
54-01110	20, 48, 60, **70**, 85, **90**
54-01111	20, 39.5, 50, **70**, 78, 100, **139**
54-01115	7, 26, 40, 53, **63**, **68**
54-01116	None, blank FLUTe membrane
54-01117	20, 31.5, 55, **73**, 82, **85**
54-01121	20, 26, 61.5, **70**, 76, 98, **121**
54-01126	7, 17, 28, 35, **42**, **49**
54-01128	7.5, 15, 20, **30**, **39**
54-02009	37, **62**, 79, **92**
54-02010	30, **53**, **95**,
54-02032	20, **60**, 100, 130, **156**
54-02033	20, **60**, 100, 200, 220,260, **277**
54-22116*	28, 46, 64, 82, 100, 118 136, 154, **172**, **190**, 208, 226, 244, 262, 280
54-24370	40, **72**, 120, 174, 200, **243**
54-24386	40, **83**,117, 135, **195**
54-24394	**50**, 100, 150, 192, 245, **300**
54-25397	**50**, 90, 130, 165, 188, **239**
54-25105	Open borehole
54-27436	45, **70**, 115, 163, **185**
G-5	None, blank FLUTe membrane

SUMMA and tritium sampling is to be performed on borehole port depths in bold.

*SUMMA and tritium samples to be collected from the two ports with highest 1,1,1-trichloroethane field-screening results at the time of monitoring. Historically, this has occurred in the ports bolded.

TA-54, MDA H Document	Sampling Locations	Number of Samples	Sample Type	Analyses
Denial of Request for Reduction in Frequency of Vapor Phase Sampling at MDA H, SWMU 54-004, at TA-54, Los Alamos National Laboratory EPA ID No: NM0890010515 HWB-LANL-03-007	54-01023	6	Subsurface pore gas	VOCs H_3
	54-15462	6	Subsurface pore gas	VOCs H_3
	54-15461	3	Subsurface pore gas	VOCs H_3

TA-54, MDA L Document	Sampling Locations	Number of Samples	Sample Type	Analyses
Approval with Modifications for the Interim Subsurface Vapor-Monitoring Plan for Material Disposal Area (MDA) L, Solid Waste Management Unit 54-006, At Technical Area 54, Revision 1, Los Alamos National Laboratory, EPA ID #NM0890010515, HWB-LANL-07-012	54-02001	4	Subsurface pore gas	VOCs H_3
	54-02002	4	Subsurface pore gas	VOCs H_3
	54-02016	2	Subsurface pore gas	VOCs H_3
	54-02021	4	Subsurface pore gas	VOCs H_3
	54-02022	4	Subsurface pore gas	VOCs H_3
	54-02023	4	Subsurface pore gas	VOCs H_3
	54-02024	4	Subsurface pore gas	VOCs H_3
	54-02025	3	Subsurface pore gas	VOCs H_3
	54-02026	3	Subsurface pore gas	VOCs H_3
	54-02027	3	Subsurface pore gas	VOCs H_3
	54-02028	3	Subsurface pore gas	VOCs H_3
	54-02031	4	Subsurface pore gas	VOCs H_3
	54-02034	4	Subsurface pore gas	VOCs H_3
	54-02089	2	Subsurface pore gas	VOCs H_3
	54-24238	1	Subsurface pore gas	VOCs H_3
	54-24239	2	Subsurface pore gas	VOCs H_3
	54-24240	4	Subsurface pore gas	VOCs H_3
	54-24241	3	Subsurface pore gas	VOCs H_3
	54-24242	2	Subsurface pore gas	VOCs H_3
	54-24243	3	Subsurface pore gas	VOCs H_3
	54-24244	3	Subsurface pore gas	VOCs H_3

TA-54, MDA L Document	Sampling Locations	Number of Samples	Sample Type	Analyses
	54-24399	1	Subsurface pore gas	VOCs H_3
	54-27641	6	Subsurface pore gas	VOCs H_3
	54-27642	6	Subsurface pore gas	VOCs H_3
	54-27643	6	Subsurface pore gas	VOCs H_3

The table below identifies port depths to be sampled based on NMED comments in the September 25, 2007, correspondence and identifies one location, 54-24244, that is damaged and cannot be sampled.

MDA L Pore-Gas Monitoring and Sampling Locations

Well ID	Depths of Ports (ft)
54-27641	*32, 82, 112,* 182, *232, 271, 332.5*
54-27642	*30, 75, 116,* 175, *235, 275, 338 (Tritium sampled in all ports)*
54-27643	*30, 74, 117,* 167, *235, 275, 354*
54-24238	44, 64, *84*
54-24239	*25,* 50, 75, *99.5*
54-24240	*28,* 53, 78, *103, 128, 153*
54-24241	73, *93, 113,* 133, 153, 173, *193*
54-24242	*25,* 50, 75, 100, *110.5*
54-24243	*25,* 50, 75, *100, 125*
54-24244	~~*25, 50, 75, 100, 118.5*~~ *(FLUTe damaged - unable to sample any port)*
54-24399	*A straddle-packer system will be used to collect a total-hole sample (below the well casing) from the Cerros del Rio basalt.*
54-02001	20, *40,* 60, 80, *100,120,*140, 160, 180, *200*
54-02002	20, *40,* 60, 80, *100, 120,* 140, 157, 180, *200*
54-02016	18, *31, 82*
54-02021	20, *40,* 60, 80, *100, 120,* 140, 160, 180, *200*
54-02022	20, *40,* 60, 80, *100, 120,* 140, 160, 180, *200*
54-02023	20, *40,* 60, 80, *100, 120,* 140, 159, 180, *200*
54-02024	20, *40,* 60, 80, *100, 120,* 140, 160, 180, *200*
54-02025	*20,* 60, *100,* 160, *180*
54-02026	*20,* 60, *100,* 160, 200, *215*
54-02027	*20,* 60, *100,* 160, 200, *220*
54-02028	*20,* 60, *100,* 160, 200, 220, *250*
54-02031	*20,* 60, *100,* 160, 200, *220, 260*
54-02034	*20,* 40, 60, 80, *100,* 160, 200, *220, 260*

Well ID	Depths of Ports (ft)
54-02089	13, ***31***, 46, ***86***

Note: VOC samples to be collected quarterly are identified in bold italics.

Please contact Steve Paris at (505) 606-0915 (smparis@lanl.gov) if you have any questions.

Sincerely,

Dave McInroy, Acting Project Director
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