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Los Alamos
NATIONAL LABORATORY
EST. 1943

*Environmental Stewardship (ENV)*
Environmental Remediation and Surveillance (ERS), MS M992
Los Alamos, New Mexico 87545
(505) 667-0469/FAX (505) 665-4747

*Date:* October 11, 2005
*Refer To:* ER2005-0758

Mr. James Bearzi
NMED – Hazardous Waste Bureau
2905 Rodeo Park Drive East
Building 1
Santa Fe, NM 87505-6303

**SUBJECT: 15-DAY SAMPLING NOTIFICATION**

Dear Mr. Bearzi:

The Los Alamos National Laboratory (LANL) Environmental Stewardship – Environmental Remediation and Surveillance Program is planning to conduct sampling in accordance with the Investigation Work Plan for Solid Waste Management Unit (SWMU) 21-016(a)-99 (LA-UR-04-0559). The sampling is scheduled to begin on or about October 27, 2005.

The Investigation Work Plan will be used to guide the sampling of areas potentially contaminated by former Laboratory operations at the site, as summarized in the attached table.

If you have any questions regarding this sampling, or to arrange a site visit, please contact Mark Thacker at (505) 699-1963.

Sincerely,

for Bill Criswell, Program Manager
Environmental Remediation and Surveillance Program
Los Alamos National Laboratory

BC/PV/MT/eim



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Attachment: Sampling Table

Cy (w/attachment):
A. Dorries, ENV-ECR, MS M992
D. McInroy, ENV-ERS, MS M992
P. Reneau, ENV-ECR, MS M992
M. Thacker, ENV-ECR, MS M992
P. Valerio, ENV-ECR, MS M992
D. Gregory, LASO, MS A316
J. Young, NMED-HWB
M. Leavitt, NMED-SWQB
D. Pepe, NMED-DOE OB
S. Yanicak, NMED-DOE OB, MS J993
T. Grieggs, ENV-SWRC, MS K490
ENV-ECR File, MS M992
RPF, MS M707
IM-9, MS A150

| SWMU (Site/Data Need Addressed) | Estimated Minimum No. of Samples for Fixed-Lab Analysis | Sampling Method | Analytical Methods | Suite |
|---|---|---|---|---|
| SWMU 21-016(a)-99<br>Absorption beds, shafts and RWSA / Vertical and lateral extent of contamination, preferential pathways, and perched water | 229 total | ER SOP 6.26 | 8260B<br>TO-14<br>8270C<br>8280A/8290<br>150.1/9040B/9045C<br>6020<br>Gross a,b,g (Screening)<br>6010B/6020<br>7470A/7471A<br>300.1/9056<br>314<br>Gamma Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Gas Proportional Counting<br>Liquid Scintillation | VOCs<br>VOCs (Vapor)<br>SVOCs<br>Dioxin/Furan<br>pH<br>Total Uranium<br>DOT Screening<br>TAL Metals<br>TAL Metals (Hg)<br>Nitrates<br>Perchlorates<br>Gamma Spectroscopy<br>Am-241<br>Isotopic Pu<br>Isotopic U<br>Sr-90<br>Tritium |
| SWMU 21-016(a)-99<br>Bldg. 21-257 area for nature and extent of contamination (including tanks 21-110, 21-111, 21-112 and 21-113) | 37 total | ER SOP 6.26 | 8260B<br>8270C<br>8280A/8290<br>150.1/9040B/9045C<br>6020<br>Gross a,b,g (Screening)<br>6010B/6020<br>7470A/7471A<br>300.1/9056<br>314<br>Gamma Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Gas Proportional Counting<br>Liquid Scintillation | VOCs<br>SVOCs<br>Dioxin/Furan<br>pH<br>Total Uranium<br>DOT Screening<br>TAL Metals<br>TAL Metals (Hg)<br>Nitrates<br>Perchlorates<br>Gamma Spectroscopy<br>Am-241<br>Isotopic Pu<br>Isotopic U<br>Sr-90<br>Tritium |
| SWMU 21-016(a)-99<br>Bldg. 21-035, septic system, and citric acid tank / nature and extent of contamination | 32 total | ER SOP 6.26 | 8260B<br>8270C<br>8280A/8290<br>150.1/9040B/9045C<br>6020<br>Gross a,b,g (Screening)<br>6010B/6020<br>7470A/7471A<br>300.1/9056<br>314<br>Gamma Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Gas Proportional Counting<br>Liquid Scintillation | VOCs<br>SVOCs<br>Dioxin/Furan<br>pH<br>Total Uranium<br>DOT Screening<br>TAL Metals<br>TAL Metals (Hg)<br>Nitrates<br>Perchlorates<br>Gamma Spectroscopy<br>Am-241<br>Isotopic Pu<br>Isotopic U<br>Sr-90<br>Tritium |

| SWMU (Site/Data Need Addressed) | Estimated Minimum No. of Samples for Fixed-Lab Analysis | Sampling Method | Analytical Methods | Suite |
|---|---|---|---|---|
| | | | | |
| SWMU 21-016(a)-99<br>Paleochannel / subsurface mapping of paleochannel and nature and extent of contamination | 8 total | ER SOP 6.26 | 8260B<br>8270C<br>8280A/8290<br>150.1/9040B/9045C<br>6020<br>Gross a,b,g (Screening)<br>6010B/6020<br>7470A/7471A<br>300.1/9056<br>314<br>Gamma Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Gas Proportional Counting<br>Liquid Scintillation | VOCs<br>SVOCs<br>Dioxin/Furan<br>pH<br>Total Uranium<br>DOT Screening<br>TAL Metals<br>TAL Metals (Hg)<br>Nitrates<br>Perchlorates<br>Gamma Spectroscopy<br>Am-241<br>Isotopic Pu<br>Isotopic U<br>Sr-90<br>Tritium |
| SWMU 21-016(a)-99<br>Surface drainage west of the RWSA / investigate potential water infiltration | 15 total | ER SOP 6.26 | 8260B<br>8270C<br>8280A/8290<br>150.1/9040B/9045C<br>6020<br>Gross a,b,g (Screening)<br>6010B/6020<br>7470A/7471A<br>300.1/9056<br>314<br>Gamma Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Gas Proportional Counting<br>Liquid Scintillation | VOCs<br>SVOCs<br>Dioxin/Furan<br>pH<br>Total Uranium<br>DOT Screening<br>TAL Metals<br>TAL Metals (Hg)<br>Nitrates<br>Perchlorates<br>Gamma Spectroscopy<br>Am-241<br>Isotopic Pu<br>Isotopic U<br>Sr-90<br>Tritium |

| Shallow Soil Sampling by Spade & Scoop or Hand Auger Methods | | | | | |
|---|---|---|---|---|---|
| Sample Location ID | Site/Data need Addressed | Estimated Minimum No. of Samples for Fixed-Lab Analysis | Sampling Method | Analytical Methods | Core Intervals |
| 40, 41 | SWMU 21-016(a)-99<br>Previous spills from Absorption bed 4 along top of DP Canyon slope / vertical and lateral extent of contamination (locations based on previous site data) | 4 total | ER SOP 6.09 Spade and Scoop or ER SOP 6.10 Hand Auger | 8260B<br>8270C<br>8280A/8290<br>150.1/9040B/9045C<br>6020<br>Gross a,b,g (Screening)<br>6010B/6020<br>7470A/7471A<br>300.1/9056<br>314<br>Gamma Spectroscopy<br>Alpha Spectroscopy | VOCs<br>SVOCs<br>Dioxin/Furan<br>pH<br>Total Uranium<br>DOT Screening<br>TAL Metals<br>TAL Metals (Hg)<br>Nitrates<br>Perchlorates<br>Gamma Spectroscopy<br>Am-241 |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Alpha Spectroscopy<br>Alpha Spectroscopy<br>Gas Proportional Counting<br>Liquid Scintillation | Isotopic Pu<br>Isotopic U<br>Sr-90<br>Tritium |
| 42 - 45 | SWMU 21-016(a)-99<br>DP Canyon slope and drainage down to channel / vertical and lateral extent of contamination (some locations based on previous site data) | 8 total | ER SOP 6.09 Spade and Scoop or ER SOP 6.10 Hand Auger | 8260B<br>8270C<br>8280A/8290<br>150.1/9040B/9045C<br>6020<br>Gross a,b,g (Screening)<br>6010B/6020<br>7470A/7471A<br>300.1/9056<br>314<br>Gamma Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Gas Proportional Counting<br>Liquid Scintillation | VOCs<br>SVOCs<br>Dioxin/Furan<br>pH<br>Total Uranium<br>DOT Screening<br>TAL Metals<br>TAL Metals (Hg)<br>Nitrates<br>Perchlorates<br>Gamma Spectroscopy<br>Am-241<br>Isotopic Pu<br>Isotopic U<br>Sr-90<br>Tritium |
| 46-49 | SWMU 21-016(a)-99<br>Locations distributed across the beds, shafts, and RWSA / dioxin and furan characterization of the buried operational surface | 4 total | ER SOP 6.26 Core Barrel Sampling | 8260B<br>8270C<br>8280A/8290<br>150.1/9040B/9045C<br>6020<br>Gross a,b,g (Screening)<br>6010B/6020<br>7470A/7471A<br>300.1/9056<br>314<br>Gamma Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Alpha Spectroscopy<br>Gas Proportional Counting<br>Liquid Scintillation | VOCs<br>SVOCs<br>Dioxin/Furan<br>pH<br>Total Uranium<br>DOT Screening<br>TAL Metals<br>TAL Metals (Hg)<br>Nitrates<br>Perchlorates<br>Gamma Spectroscopy<br>Am-241<br>Isotopic Pu<br>Isotopic U<br>Sr-90<br>Tritium |