Los Alamos
NATIONAL LABORATORY
EST.1943

Environmental Programs
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RECEIVED
SEP 2010
NMED Hazardous Waste Bureau

National Nuclear Security Administration
Los Alamos Site Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
(505) 667-4255/FAX (505) 606-2132

Date: SEP 17 2010
Refer To: EP2010-0423

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

Subject: Request for R-3 Purge Volume Variance

Dear Mr. Bearzi:

During the drilling and construction of regional groundwater monitoring well R-3, 130,000 gal. of potable water from the Los Alamos County water supply was introduced into the regional aquifer. To date, Los Alamos National Laboratory (the Laboratory) has recovered 60,000 gal.

The Permittees requests a variance from the Compliance Order on Consent requirement to remove an equivalent volume of water to that introduced. As the attached plots of various elements and compounds during the pumping interval indicate, the water pumped is similar to that produced from the nearby Los Alamos County water supply well Otowi-1. This indicates that local groundwater is being pumped from R-3 rather than the municipal supply water that was introduced during drilling and well construction.

As agreed to in phone conversations between Laboratory and New Mexico Environment Department staff, once the dedicated pump is installed in R-3, the Laboratory will purge at least six casing volumes of groundwater from R-3 and collect samples for characterization analysis at each casing volume purged during the initial characterization round. Analyses will include major ions and trace elements. Field parameters will also be collected in accordance with Laboratory's standard operating procedures for well purging and sample collection during this purging event.

As with other development and purge waters from this project, this water will be containerized pending analysis and, following the process in the decision tree document, either land applied or disposed of as the analytical results dictate.

At the end of the six casing volume purge the Laboratory will collect the initial full suite characterization sample. NMED will be notified 15 d before this purging and sampling activity are conducted.

If you have any questions, please contact Ted Ball at (505) 665-3996 (tedball@lanl.gov) or Tom Whitacre at (505) 665-5042 (twhitacre@doeal.gov).

Sincerely,

Bruce Schappell, Executive Director
Environmental Programs – Recovery Act Projects
Los Alamos National Laboratory

Sincerely,

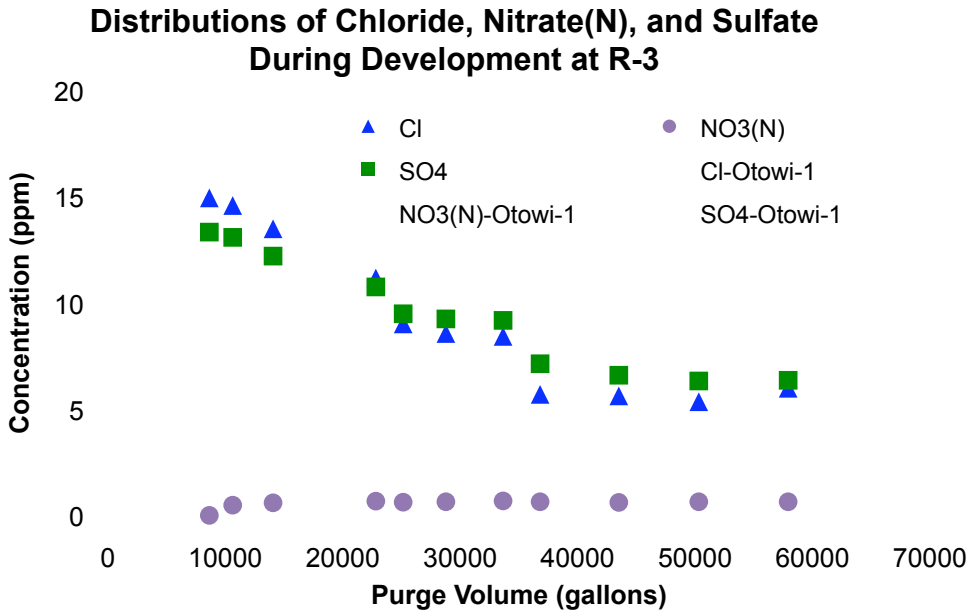
Everett Trollinger, Federal Project Director
Environmental Projects – ARRA
Los Alamos Site Office

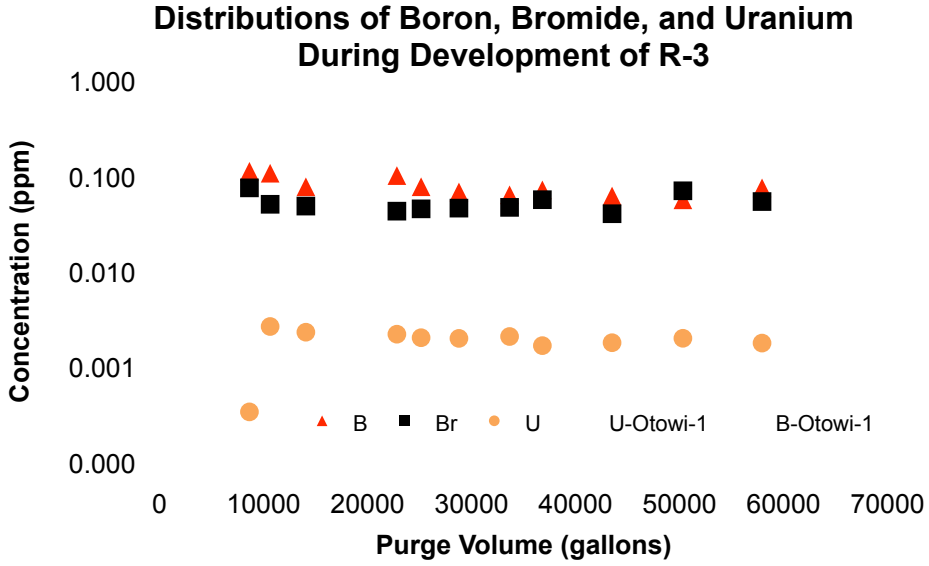
BS/ET/TB/ME:sm

Cy: (w/enc.)
Neil Weber, San Ildefonso Pueblo
Tom Whitacre, DOE-LASO, MS A316
Mark Everett, EP-ET-DO, MS M992
RPF, MS M707 (with two CDs)
Public Reading Room, MS M992

Cy: (Letter and CD only)
Laurie King, EPA Region 6, Dallas, TX
Steve Yanicak, NMED-DOE-OB, MS M894
Hai Shen, DOE-LASO, MS A316
Kristine Smeltz, EP-BPS, MS M992

Cy: (w/o enc.)
Tom Skibitski, NMED-OB, Santa Fe, NM
Annette Russell, DOE-LASO (date-stamped letter emailed)
Ted Ball, EP-ARRA Project, MS C348
Michael J. Graham, ADEP, MS M991


Distributions of Chloride, Nitrate(N), and Sulfate
During Development at R-3
Concentration (ppm)
20
15
10
5
0
Cl
SO4
NO3(N)-Otowi-1
NO3(N)
Cl-Otowi-1
SO4-Otowi-1
0
10000
20000
30000
40000
50000
60000
70000
Purge Volume (gallons)


Distributions of Boron, Bromide, and Uranium
During Development of R-3
Concentration (ppm)
1.000
0.100
0.010
0.001
0.000
B
Br
U
U-Otowi-1
B-Otowi-1
0
10000
20000
30000
40000
50000
60000
70000
Purge Volume (gallons)