Response to the Review of Periodic Monitoring Reports for Mortandad and Sandia Watersheds, August 3–August 19, 2009, and November 2–November 20, 2009, Los Alamos National Laboratory EPA ID #NM0890010515 HWB-LANL-10-054 AND HWB-LANL-10-067, Dated September 10, 2010

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 or the Laboratory's) responses follow each NMED comment.

COMMENTS FOR MORTANDAD AND SANDIA WATERSHEDS, AUGUST 3–AUGUST 19, 2009:

NMED Comment

1. *The second sentence of the first paragraph in Section 4.2 on page 4 states, "The screening levels with which the results are compared are presented in Table 4.2-1." Table 4.2-1 lists the sources of the screening levels, but not the actual screening level values. For clarification, in future reports the statement cited above must be revised to state that the Table lists the source of screening levels.*

LANL Response

1. Beginning with the November 2010 periodic monitoring report submittal, this sentence will read "The sources of screening levels with which the results are compared are listed in Table 4.2-1."

NMED Comment

2. *The first sentence of the third paragraph in Section 4.2.3 on page 6 indicates that perchlorate concentrations exceeded the screening level in samples obtained from four alluvial wells. However, Tables C-3 and D-9 indicate that perchlorate concentrations exceeded the screening level in five alluvial wells. MCO-7.5 was omitted from the discussion. The error was continued in Section 5.2.3 on page 8 where the Permittees stated that twenty-nine detections in groundwater samples collected during the periodic monitoring event (PME) for Mortandad Canyon exceeded screening levels. The total number of groundwater detections that were above screening levels was thirty. The Permittees must ensure that the discussions accurately reflect tabulated data in future reports.*

LANL Response

2. The perchlorate concentration exceeded the screening level in five alluvial wells as noted by NMED. As stated in the periodic monitoring report, twenty-nine results in groundwater samples collected during the periodic monitoring event (PME) exceeded screening levels. Another value from a prior monitoring event also exceeded screening levels as was noted in section 5.2.3: "Bis(2-ethylhexyl)phthalate was detected above the EPA MCL screening level in R-46 at a concentration of 38.2 µg/L from a previously unreported sample collected in June 2009." LANL will ensure that the discussions accurately reflect tabulated data in future reports.

NMED Comment

3. *Locations of R-12 MP1A and MP2A are listed in Table 2.0-2 under the heading "Regional Aquifer". These R-12 ports are listed as "Intermediate Source Aquifer" locations in the 2009 Interim Facility-Wide Groundwater Monitoring Plan (IFGMP). The Permittees must refer to the correct corresponding aquifers in future reports.*

LANL Response

3. R-12 screen 1 at 459 ft. and screen 2 at 504.5 ft. sample intermediate groundwater. LANL will refer to the correct groundwater zones in future reports.

NMED Comment

4. *Footnote "c" below Table 2.0-2 should state, "See Table 3.4-2 for explanation." The Permittees must ensure accurate footnote references in future reports.*

LANL Response

4. LANL will ensure accurate footnote references in future reports.

NMED Comment

5. *Sandia Watershed location SCA-1 was listed as dry in Table 2.0-2. However, field data for SCA-1 are presented on pages A-47 and A-48 and results of general inorganics analyses for SCA-1 are presented on pages C-264 and C-265. The Permittees must ensure that tabulated information is accurate in future reports.*

LANL Response

5. Field notes indicated that an abbreviated suite was collected from SCA-1. LANL will ensure that tabulated information is accurate in future reports.

COMMENTS FOR NOVEMBER 2–NOVEMBER 20, 2009

NMED Comment

1. *The second sentence of the first paragraph in Section 4.2 on page 4 states, "The screening levels with which the results are compared are presented in Table 4.2-1." Table 4.2-1 lists the sources of the screening levels, but not the actual screening level values. For clarification, in future reports the statement cited above must be revised to state that the Table lists the source of screening levels.*

LANL Response

1. Beginning with the November 2010 periodic monitoring report submittal, this sentence will read "The sources of screening levels with which the results are compared are listed in Table 4.2-1."

NMED Comment

2. *Tabulated information in Table 2.0-1 indicates that groundwater levels in Intermediate and Regional locations in both the Mortandad and Sandia watersheds were measured manually. However, data from transducer readings are presented in Table B-1 for Intermediate and Regional locations. The Permittees must ensure agreement between data tables and summary tables in future reports.*

LANL Response

2. The groundwater levels for intermediate and regional wells reported in Table 2.0-1 are calculated by field personnel after recording the pressure reading of the transducer at the time of sampling, and therefore documented as a manual measurement. Groundwater levels presented in Appendix B and Plate 1 are calculated from transducer pressures recorded on the data logger.

NMED Comment

3. *Information presented in Table 2.0-2 indicates that location R-10 Port P1A and R-10 Port P2A were sampled on November 10, 2009. However, the laboratory analytical reports indicate that these locations were sampled more than seven weeks earlier on September 23. The Permittees must ensure agreement between data tables and summary tables in future reports.*

LANL Response

3. R-10 was sampled on September 23 and November 10 in 2009. According to an agreement with San Ildefonso Pueblo regarding release of data, results from the September 2009 sampling event were reported in the periodic monitoring report for the November 2009 PME. Data from the November 2009 sampling event were reported in a later periodic monitoring report.

NMED Comment

4. *Results are presented in Table C-3 for Mortandad location R-16 screen 2 Port ID 8861 for general inorganics, perchlorate and tritium (as scheduled) and for unscheduled target analyte list (TAL) metals, volatile organic analysis (VOAs) and radionuclides. TAL metals, VOAs and radionuclides are scheduled for quarterly sampling and analyses in R-16 screen 3 Port ID 591. R-16 screen 3 was reported as being rehabilitated in the previous Periodic Monitoring Report. However, there is no mention of R-16 screen 3 in the current Report. It appears that the Permittees elected to sample R-16 Screen 2 in place of R-16 Screen 3 for the TAL metals, VOAs and radionuclides. The Permittees must explain the deviation and explain the omission of R-16 screen 3 Port ID 591 from the Report. The Permittees' explanations must be submitted with the next Periodic Monitoring Report submittal and reference this Report and all applicable page and table numbers.*

LANL Response

4. During 2009, R-16 was converted from a three-screen to a dual-screen well with a Baski sampling system, which allows active purging before sampling. The top screen (screen 2) and the bottom screen (screen 4) were retained and the middle screen (screen 3) was isolated with packers and therefore is no longer available to be monitored. A report was submitted to NMED on September 15, 2009 (LANL 2009, 106945) describing R-16's current configuration.

REFERENCE

LANL (Los Alamos National Laboratory), September 2009. "Rehabilitation and Conversion Summary Report for Well R-16," Los Alamos National Laboratory document LA-UR-09-5372, Los Alamos, New Mexico. (LANL 2009, 106945)