NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6313
Phone (505) 476-6000 Fax (505) 476-6030
www.env.nm.gov

Michelle Lujan Grisham
Governor

Howie C. Morales
Lt. Governor

James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

July 1, 2020

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Arturo Q. Duran
Designated Agency Manager
DOE-Environmental Management
Los Alamos Field Office
P. O. Box 1663 MS-M984
Los Alamos, NM 87545

RE: APPROVAL
WESTBAY WELLS RECONFIGURATION COMPLETION REPORT FOR R-5, R-7, R-8, R-9I, AND R-19, REVISION 1
LOS ALAMOS NATIONAL LABORATORY
EPA ID #NM0890010515
LANL-20-005

Dear Mr. Duran

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) Office of Environmental Management's (EM-LA) Los Alamos Field Office, *Westbay Well Reconfiguration Report for R-5, R-7, R-8, R-9i, and R-19, Revision 1* (Report), dated February 2020 and referenced by EM2020-0040. The report was received on February 12, 2020.

On July 18, 2011, DOE submitted the *Work Plan for the Technical Area 21 Monitoring Well Network Reconfiguration* (Work Plan) for reconfiguration of Westbay monitoring wells R-5, R-7, R-8, R-9i and R-19 that was approved with modifications by NMED on August 26, 2011. NMED approved the proposed rehabilitation and abandonment of portions of these monitoring wells.

DOE has completed the reconfiguration of monitoring wells R-5, R-7, R-8, R-9i, and R-19 and the results are presented in the Report. NMED has reviewed and hereby approves the Report.

Well R-5 was completed in May 2001 to a total depth of 902 feet below ground surface (ft bgs)

and contained four (4) screened intervals. Screen 1 was installed within a portion of the upper intermediate zone that did not bear water upon completion. Screen 1 was left as a wire-wrapped screen between a depth of 326.4 to 331.5 ft bgs. Screen 2 is a wire-wrapped interval between 372.8 and 388.8 ft bgs within the lower intermediate zone and was rehabilitated. During conversion activities conducted from May-September 2019, a pump was installed at a depth of 416 ft bgs within screen 2 to monitor general water quality. Screens 3 and 4 were plugged and abandoned using cement and sand.

Well R-7 was installed in January 2001 to a depth of 1097 ft bgs with three (3) screened intervals located between 363.2-379.2 ft bgs, 730.4-746.4 ft bgs, and 895.5-937.4 ft bgs.. None of the R-7 screens were plugged or abandoned. Screen 3, installed within the top of the regional aquifer, was the only screen installed within in a water-bearing zone. Screen 3, 895.5-937.4 ft bgs was used to measure water levels and water quality for that zone. During conversion activities conducted from May-September 2019, a packer was inflated above screen 3 with a transducer to monitor future potential of perched ground water.

Well R-8 was installed in January 2002 with two (2) screened intervals, neither of which were abandoned. The screened intervals are located within the upper portion of the regional aquifer between 705.3 and 755.7 ft bgs and 821.3 and 828.0 ft bgs. After the well was rehabilitated, a single pump Baski sampling system was installed to sample both screens independently for water quality.

Well R-9i was completed in March 2000 to a depth of 322 ft bgs and consisted of two (2) screens installed within the upper intermediate zone. Screen 2 was abandoned in June 2019 and screen 1 will be used to monitor the intermediate aquifer with a dedicated submersible pump.

R-19 was constructed to a depth of 1902.5 ft bgs in March 2000 with seven (7) screens in both the intermediate aquifer and the regional aquifer. Screens 4 through 7, installed within deeper portions of the regional aquifer, were plugged and abandoned in August 2019 using cement, sand and a K-packer system. Well R-19 was fitted with a Baski sampling system in August 2019 to monitor intermediate groundwater from screen 2 with a Bennet pump and regional aquifer groundwater from screen 3 using a submersible pump. The two screens are separated by a packer inflated at 925 ft bgs, and will be used to monitor water-levels, general water quality parameters and high-explosive contaminants.

If you have any questions regarding this correspondence, please contact Neelam Dhawan at (505) 476-6042.

Sincerely

Kevin Pierard

Digitally signed by Kevin Pierard
Date: 2020.07.01 08:14:01 -06'00'

Kevin M. Pierard, Chief
Hazardous Waste Bureau
New Mexico Environment Department

Cc (letter emailed)
N. Dhawan, NMED HWB
C. Krambis, NMED HWB
S. Yanicak, NMED-DOE-OB
S. Pullen, NMED GWQB
L. King, EPA Region 6, Dallas, TX
C. Rodriguez, EM-LA
H. Shen, EM-LA
R. Martinez, San Ildefonso Pueblo, NM
D. Chavarria, Santa Clara Pueblo, NM
E. Day, N3B
P. Maestas, N3B
W. Alexander, N3B
emla.docs@em.doe.gov

File: 2020 LANL and Reading, Approval of Westbay Wells Reconfiguration Completion Report for R-5, R-7, R-8, R-9i and R-19
LANL-20-005