



December 8, 2021

Arturo Duran, Designated Agency Manager  
Environmental Management, U.S. Department of Energy  
Los Alamos Field Office  
1200 Trinity Drive, Suite #400  
Los Alamos, New Mexico 87544

**RE: APPROVAL WITH MODIFICATIONS**

**DRILLING WORK PLAN FOR CHROMIUM GROUNDWATER PROJECT REGIONAL AQUIFER MONITORING  
WELL R-73  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID#NM0890010515  
HWB-LANL-21-066**

Dear Arturo Duran,

The New Mexico Environment Department (NMED) received the United States Department of Energy's (DOE) *Drilling Work Plan for Chromium Groundwater Project Regional Aquifer Monitoring Well R-73* (Workplan) on November 30, 2021 to fulfil Fiscal Year 2022 Milestone No. 6, Appendix B of the 2016 Order on Consent. The Workplan is dated November 30, 2021 and referenced as EM2021-0764. In the June 2021 *Assessment Report for the Evaluation of Conditions in the Regional Aquifer Around Well R-70*, DOE recommended installation of regional aquifer monitoring well R-73 to characterize the vertical extent of chromium contamination near monitoring well R-70. Monitoring well R-70 was completed in May 2019 at the northeast portion of the chromium plume.

NMED approves the Workplan with the following modifications:

1. DOE must adhere to the purpose, design, and construction criteria for regional aquifer monitoring wells as set forth in NMED's November 3, 2020 amended approval letters<sup>1,2</sup> for regional aquifer monitoring wells and the June 11, 2021 Final Decision letter<sup>3</sup>.
2. DOE must provide NMED with daily reports each morning, including weekends and holidays, as was provided during the drilling operations for installing regional aquifer monitoring wells R-71 and R-72.
3. DOE must hold weekly meetings with NMED to provide updates and planned activities on the drilling

<sup>1</sup> Letter from K. Pierard to A. Duran, November 3, 2020, "*Amended Approval Letter Drilling Work Plan for Regional Well R-72.*"

<sup>2</sup> Letter from K. Pierard to A. Duran, November 3, 2020, "*Amended Approval Letter Drilling Work Plan for Chromium Groundwater Project Regional Aquifer Monitoring Well R-71.*"

<sup>3</sup> Letter from K. Pierard to A. Duran, June 11, 2021, "*Final Decision, Response to Amended Approval Letter for Drilling Work Plan for Chromium Groundwater Project Regional Aquifer Monitoring Well R-71 and Amended Approval Letter for Drilling Work Plan for Chromium Groundwater Project Regional Aquifer Monitoring Well R-72.*"

status from initiation of drilling operations to collection of first samples.

4. DOE must allow for field groundwater sampling at the end of each drilling run, estimated to be about every 20 feet, during the drilling operation conducted within all groundwater-bearing units, specifically the regional aquifer. NMED will collect groundwater samples after each run during the drilling operation, or the samples may be collected by DOE under NMED's chain-of-custody protocol as done during drilling of regional aquifer monitoring well R-71. In accordance with Section XXVII of the 2016 Order on Consent, DOE shall allow any authorized NMED representative to enter the Facility to obtain environmental samples.
5. The target depth for Screen 2 must be in the Chamita Formation. DOE must plan to install a 10-foot long screen in the Chamita Formation and account for drilling through flowing sands to set Screen 2.
6. NMED must review DOE's recommendations within five business days, excluding weekends and state holidays.
7. Hydraulic testing must be removed from the Workplan. Appendix C, E Section II and F Section I.B.6.c of the 2016 Order on Consent defines the appropriate standards and reports where hydraulic testing are to be conducted and presented. DOE must submit an appropriate standard operating procedure for NMED's review and comment before submitting workplans to conduct NMED-approved hydraulic testing<sup>4</sup>. NMED will not accept any report that contains the hydraulic testing methodology, rationale and analyses used at monitoring well R-70<sup>4</sup>.
8. DOE must provide NMED access and 15-day written notice per Section XXVII.B. to collect first samples.
9. DOE must include the driller's Well Record and Log in the well completion report.
10. DOE must share all groundwater chemistry results for regional aquifer well R-73 with NMED as soon as results are received from analytical laboratories.

---

<sup>4</sup> Letter from K. Pierard to A. Duran, May 25, 2021, *Notice of Disapproval – Completion Report for Regional Aquifer Well R-70, Revision 1, and the Response to the New Mexico Environment Department's Draft Comments on the Completion Report for the Regional Aquifer Well R-70.*

Should you have any questions regarding this correspondence, please contact Christopher Krambis (505) 231-5423.

Sincerely,

**Rick  
Shean**

Digitally signed by  
Rick Shean  
Date: 2021.12.08  
13:14:36 -07'00'

Rick Shean  
Chief  
Hazardous Waste Bureau

cc:

N. Dhawan, NMED HWB  
C. Krambis, NMED HWB  
M. Petersen, NMED HWB  
C. Catechis, NMED RPD  
P. Longmire, NMED GWQB  
S. Yanicak, NMED-DOE-OB  
K. Boyko, NMED-DOE-OB  
R. Martinez, San Ildefonso Pueblo, NM  
D. Chavarria, Santa Clara Pueblo, NM  
L. Bishop, EM-LA  
C. Rodriguez, EM-LA  
C. Maupin, N3B  
E. Day, N3B  
W. Alexander, N3B  
P. Maestas, N3B  
[emla.docs@em.doe.gov](mailto:emla.docs@em.doe.gov)  
RegDocs@EM-LA.DOE.GOV

File: 2021 LANL, Drilling Work Plan for Regional Aquifer Monitoring Well R-73  
HWB LANL-21-066