

**ENTERED**

**Environmental Protection & Compliance Division**  
**Los Alamos National Laboratory**  
PO Box 1663, K491  
Los Alamos, New Mexico 87545  
(505) 667-2211

**National Nuclear Security Administration**  
**Los Alamos Field Office**  
3747 West Jemez Road, A316  
Los Alamos, New Mexico, 87545  
(505) 667-5105/Fax (505) 667-5948

**Date: JAN 29 2018**

**Symbol: EPC-DO: 18-004**

**LA-UR: 17-31429**

**Locates Action No.: NA**

Ms. Michelle Hunter, Chief  
Ground Water Quality Bureau  
New Mexico Environment Department  
Harold Runnels Building, Room N2261  
1190 St. Francis Drive  
P.O. Box 26110  
Santa Fe, NM 87502

**Subject: Discharge Plan DP-1132 Quarterly Report, Fourth Quarter 2017, TA-50 Radioactive Liquid Waste Treatment Facility**

Dear Ms. Hunter:

This letter from the U.S. Department of Energy and Los Alamos National Security, LLC (DOE/LANS) is the fourth quarter 2017 Discharge Plan DP-1132 report for the Technical Area (TA)-50 Radioactive Liquid Waste Treatment Facility (RLWTF). Since the first quarter of 1999, DOE/LANS have provided the New Mexico Environment Department (NMED) with voluntary quarterly reports containing analytical results from effluent and groundwater monitoring.

During the fourth quarter of 2017, no effluent was discharged to either National Pollutant Discharge Elimination System (NPDES) Outfall 051 or to the solar evaporative tank system (SET) at TA-52; all effluent was evaporated on-site at the mechanical evaporator system (MES).

Quarterly Monitoring Results, Mortandad Canyon Alluvial Groundwater Wells

Table 1.0 presents the analytical results from sampling conducted at Mortandad Canyon alluvial wells MCO-4B, MCO-6, and MCO-7 during the fourth quarter of 2017. No sample was collected from alluvial well MCO-3 because the well was damaged beyond repair during a flood event in September 2013. Samples were submitted to GEL Laboratories LLC for analysis. Analytical results from the sampling of intermediate and regional aquifer wells in Mortandad Canyon can be accessed online at the Intellus New Mexico environmental monitoring data web site (<http://www.intellusnmdata.com>).




TA-50 RLWTF Effluent Monitoring Results

No final weekly composite (FWC) samples were collected during the fourth quarter of 2017 because no effluent was discharged to Mortandad Canyon.

No final monthly composite (FMC) samples were collected during the fourth quarter of 2017 because no effluent was discharged to Mortandad Canyon.

Please contact Karen E. Armijo by telephone at (505) 665-7314 or by email at [Karen.Armijo@nnsa.doe.gov](mailto:Karen.Armijo@nnsa.doe.gov), or Robert S. Beers by telephone at (505) 667-7969 or by email at [bbeers@lanl.gov](mailto:bbeers@lanl.gov) if you have questions regarding this report.

Sincerely,



Taunia S. Van Valkenburg  
Group Leader

Sincerely,



Karen E. Armijo  
Permitting and Compliance Program Manager

ARG/KEA/MTS/RSB: am

Copy: Shelly Lemon, NMED/SWQB, Santa Fe, NM, (E-File)  
John E. Kieling, NMED/HWB, Santa Fe, NM, (E-File)  
Stephen M. Yanicak, NMED/DOE/OB, (E-File)  
Jody M. Pugh, NA-LA, (E-File)  
Karen E. Armijo, NA-LA, (E-File)  
Craig S. Leasure, PADOPS, (E-File)  
William R. Mairson, PADOPS, (E-File)  
Michael T. Brandt, ADESH, (E-File)  
Benjamine B. Roberts, EPC-DO, (E-File)  
Randal S. Johnson, DESHF-TA55, (E-File)  
Alvin M. Aragon, TA-55-RLW, (E-File)  
John C. Del Signore, TA-55-RLW, (E-File)  
Michael T. Saladen, EPC-CP, (E-File)  
Robert S. Beers, EPC-CP, (E-File)  
Ellena I. Martinez, EPC-CP, (E-File)  
[lasomailbox@nnsa.doe.gov](mailto:lasomailbox@nnsa.doe.gov), (E-File)  
[locatsteam@lanl.gov](mailto:locatsteam@lanl.gov), (E-File)  
[epec-correspondence@lanl.gov](mailto:epec-correspondence@lanl.gov), (E-File)

# COPY



**Environmental Protection & Compliance Division**  
**Los Alamos National Laboratory**  
PO Box 1663, K491  
Los Alamos, New Mexico 87545  
(505) 667-2211

**National Nuclear Security Administration**  
**Los Alamos Field Office**  
3747 West Jemez Road, A316  
Los Alamos, New Mexico, 87545  
(505) 667-5105/Fax (505) 667-5948

Date: **JAN 29 2018**

Symbol: EPC-DO: 18-004

LA-UR: 17-31429

Locates Action No.: NA

Ms. Michelle Hunter, Chief  
Ground Water Quality Bureau  
New Mexico Environment Department  
Harold Runnels Building, Room N2261  
1190 St. Francis Drive  
P.O. Box 26110  
Santa Fe, NM 87502

GROUND WATER

JAN 29 2018

BUREAU

**Subject: Discharge Plan DP-1132 Quarterly Report, Fourth Quarter 2017, TA-50 Radioactive Liquid Waste Treatment Facility**

Dear Ms. Hunter:

This letter from the U.S. Department of Energy and Los Alamos National Security, LLC (DOE/LANS) is the fourth quarter 2017 Discharge Plan DP-1132 report for the Technical Area (TA)-50 Radioactive Liquid Waste Treatment Facility (RLWTF). Since the first quarter of 1999, DOE/LANS have provided the New Mexico Environment Department (NMED) with voluntary quarterly reports containing analytical results from effluent and groundwater monitoring.

During the fourth quarter of 2017, no effluent was discharged to either National Pollutant Discharge Elimination System (NPDES) Outfall 051 or to the solar evaporative tank system (SET) at TA-52; all effluent was evaporated on-site at the mechanical evaporator system (MES).

Quarterly Monitoring Results, Mortandad Canyon Alluvial Groundwater Wells

Table 1.0 presents the analytical results from sampling conducted at Mortandad Canyon alluvial wells MCO-4B, MCO-6, and MCO-7 during the fourth quarter of 2017. No sample was collected from alluvial well MCO-3 because the well was damaged beyond repair during a flood event in September 2013. Samples were submitted to GEL Laboratories LLC for analysis. Analytical results from the sampling of intermediate and regional aquifer wells in Mortandad Canyon can be accessed online at the Intellus New Mexico environmental monitoring data web site (<http://www.intellusnmdata.com>).

**Discharge Plan DP-1132 Quarterly Report  
4th Quarter, 2017**

**Table 1.0. Mortandad Canyon Alluvial Well Sampling, 4th Quarter 2017.**

Sampling Location	Sample Field Prep (F/UF) <sup>1</sup>	Sample Date	Perchlorate (µg/L)	NO <sub>3</sub> +NO <sub>2</sub> -N (mg/L)	TKN (mg/L)	NH <sub>3</sub> -N (mg/L)	TDS (mg/L)	F (mg/L)
MCO-3		Damaged <sup>4</sup>	Damaged <sup>4</sup>	Damaged <sup>4</sup>	Damaged <sup>4</sup>	Damaged <sup>4</sup>	Damaged <sup>4</sup>	Damaged <sup>4</sup>
MCO-4B	F	11/13/2017	6.1	0.14	0.26	0.10	341	0.74
MCO-6	F	11/13/2017	4.6	0.37	0.033U	0.05	366	0.68
MCO-7	F	11/14/2017	6.9	0.76	0.0913J	0.10	326	0.92
<b>NM WQCC 3103 Groundwater Standards</b>			<b>NA<sup>2</sup></b>	<b>10 mg/L<sup>3</sup></b>	<b>NA<sup>2</sup></b>	<b>NA<sup>2</sup></b>	<b>1000 mg/L</b>	<b>1.6 mg/L</b>

**Notes:**

<sup>1</sup>F means the sample was filtered. UF means the sample was not filtered.

<sup>2</sup>NA means that there is no NM WQCC 3103 standard for this analyte.

<sup>3</sup>The NM WQCC 3103 Groundwater Standard is for NO<sub>3</sub>-N.

<sup>4</sup>Damaged means that the well was damaged beyond repair during a flood event in Mortandad Canyon in September 2013.

J flag indicates an estimated value.

U flag means the result was less than the analytical laboratory's Method Detection Limit (MDL).