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**Symbol:** EPC-DO: 23-226

**Date:** July 31, 2023

**LA-UR:** 23-27491

**Locates Action No.:** U2200542

Justin Ball, Chief  
 Ground Water Quality Bureau  
 New Mexico Environment Department  
 Harold Runnels Building, Room N2261  
 Santa Fe, NM 87502

**Subject: DP-1132, Monitoring Report, Radioactive Liquid Waste Treatment Facility, Second Quarter 2023**

Dear Mr. Ball:

On May 5, 2022, the New Mexico Environment Department (NMED) issued Discharge Permit DP-1132 to the U.S. Department of Energy, National Nuclear Security Administration (NNSA) and Triad National Security, LLC (Triad) for discharges of treated effluent from the Technical Area 50 Radioactive Liquid Waste Treatment Facility (RLWTF). Pursuant to Permit Condition Number (No.) 24, NNSA and Triad are required to submit a quarterly monitoring report by August 1, 2023. The following permit conditions are addressed in Attachment 1 through 6 of this report.

- Condition No.13: Maintenance and Repair
- Condition Nos. 25 and 26: RLWTF Influent Volumes
- Condition No. 27: Discharge Volumes
- Condition No. 29: Effluent Sampling
- Condition No. 30: Soil Moisture Monitoring System for the Solar Evaporation Tank System
- Condition No. 36: Groundwater Monitoring
- Condition No. 41: Stabilization of Specific Units and Systems that have Ceased.

Please contact Robert A. Gallegos at (505) 901-3824 or [robert.gallegos@nnsa.doe.gov](mailto:robert.gallegos@nnsa.doe.gov) or contact Brian M. Iacona at (505) 500-6038 or [biacona@lanl.gov](mailto:biacona@lanl.gov) if you have questions regarding this quarterly monitoring report.

Sincerely,  
**STEVEN  
STORY  
(Affiliate)**  
Steve Story  
Group Leader  
Environmental Compliance Programs  
Triad National Security, LLC

Digitally signed by  
STEVEN STORY  
(Affiliate)  
Date: 2023.07.20  
13:28:00 -06'00'

Sincerely,  
**Robert A.  
Gallegos**  
Robert A. Gallegos  
Permitting and Compliance Program Manager  
National Nuclear Security Administration  
U.S. Department of Energy

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Robert A. Gallegos  
Date: 2023.07.28  
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Attachments: Attachment 1 RLWTF Monitoring Report – Second Quarter 2023  
Attachment 2 Quarterly Summary of Maintenance and Repair Activities Conducted at the RLWTF  
Attachment 3 RLWTF Daily Influent and Effluent Volumes  
Attachment 4 Treated Effluent Sampling Results  
Attachment 5 Groundwater Monitoring Report – Second Quarter 2023  
Attachment 6 Monitoring Well Location Map

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# **Attachment 1**

## **RLWTF Monitoring Report – Second Quarter 2023**

EPC-DO: 23-226

LA-UR: 23-27491

Date: July 31, 2023

**Condition No. 24: Monitoring Reports**

Pursuant to Permit Condition Number (No.) 24, the U.S. Department of Energy, National Nuclear Security Administration (NNSA) and Triad National Security, LLC (Triad) are required to submit a quarterly monitoring report by August 1, 2023, for the monitoring period of April 1, 2023, through June 30, 2023 (second quarter). The following permit conditions are addressed in Attachments 1 through 6 of this report.

- Quarterly Monitoring Report
  - Condition No.13: Maintenance and Repair
  - Condition Nos. 25 and 26: RLWTF Influent Volumes
  - Condition No. 27: Discharge Volumes
  - Condition No. 29: Effluent Sampling
  - Condition No. 30: Soil Moisture Monitoring System for the Solar Evaporation Tank System
  - Condition No. 36: Groundwater Monitoring
  - Condition No. 41: Stabilization of Specific Units and Systems that have Ceased

**Condition No. 13: Maintenance and Repair**

*The Permittees shall submit to NMED a summary and description of the maintenance and repair activities performed on the Facility as part of the quarterly monitoring reports.*

- **Attachment 2** provides a summary of the maintenance and repair activities conducted at the Radioactive Liquid Waste Treatment Facility (RLWTF) during the second quarter 2023 monitoring period.

**Condition No. 25: Influent Volumes: Low-Level Radioactive Waste Water**

*The total daily and monthly volumes of RLW influent conveyed to the Facility shall be submitted to NMED in the quarterly monitoring reports.*

- **Attachment 3** provides the total daily and monthly volumes of low-level radioactive wastewater (RLW) received by the RLWTF during the second quarter 2023 monitoring period.

**Condition No. 26: Influent Volumes: Transuranic Waste Water**

*The total daily and monthly volumes of TRU influent received by the Facility shall be submitted to NMED in the quarterly monitoring reports.*

- **Attachment 3** provides the total daily and monthly volumes of transuranic (TRU) influent wastewater received by the RLWTF during the second quarter 2023 monitoring period.

**Condition No. 27: Discharge Volumes**

*The Permittees shall measure and record the volume of treated wastewater discharged to the SET, MES, and Outfall 051 on a daily basis.*

- **Attachment 3** provides the daily volume of treated effluent discharged to National Pollutant Discharge Elimination System (NPDES) Outfall 051 and the Mechanical Evaporator System (MES) during the second quarter 2023 monitoring period.
  - No treated effluent was discharged to the Solar Evaporative Tank System (SET) during the second quarter 2023 monitoring period.
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**Condition No. 29: Effluent Sampling**

*The Permittees shall sample and analyze effluent waste streams discharged to Outfall 051, the SET, and the MES.*

- **NPDES Outfall 051 Sampling.** Treated effluent from the RLWTF was discharged to NPDES Outfall 051 this quarter on April 5<sup>th</sup>.

Monthly sampling for all water contaminants listed in 20.6.2.3103 NMAC and all toxic pollutants as defined in 20.6.2.7.T(2) NMAC was completed on April 5<sup>th</sup>, 2023. These analytical results are provided in **Attachment 4, Table 1**. All sample results from NPDES Outfall 051 this quarter were either not detected or less than 20.6.2.3103 NMAC standards and tap water screening levels for 20.6.2.7.T(2) NMAC analytes.

- **MES Sampling.** Treated effluent from the RLWTF was discharged to the MES this quarter during the months of April, May, and June. Quarterly sampling for all water contaminants listed in 20.6.2.3103 NMAC, all toxic pollutants as defined in 20.6.2.7.T(2) NMAC, and total kjeldahl nitrogen (TKN) was completed on April 13<sup>th</sup>, 2023. These analytical results are provided in **Attachment 4, Table 2**.

Monthly sampling for TKN, nitrate (NO<sub>3</sub>-N), total dissolved solids (TDS), chloride (Cl), fluoride (F), and perchlorate (ClO<sub>4</sub>) was completed on May 4<sup>th</sup> and June 8<sup>th</sup>, 2023. Analytical results from these discharges are provided in **Attachment 4, Tables 3 and 4**.

All sample results from the MES this quarter were either not detected or less than 20.6.2.3103 NMAC standards and tap water screening levels for 20.6.2.7.T(2) NMAC analytes.

- **SET Sampling.** No treated effluent was discharged to the SET during the reporting period. Therefore, no effluent sampling from the SET was completed during the second quarter 2023 monitoring period.
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**Condition No. 30: Soil Moisture Monitoring System for the SET**

*The permittees shall perform quarterly soil moisture monitoring in the moisture monitoring boreholes and shall provide this information in the quarterly reports.*

- No treated effluent was discharged to the SET during second quarter 2023 monitoring period.
  - In accordance with Permit Condition No. 30, the SET-Soil Moisture Monitoring System Completion Report (EPC-DO: 22-132) was submitted to NMED on June 29, 2022, for review. NMED approved the report on May 18, 2023.
  - Baseline monitoring of all SET moisture monitoring boreholes continued in the second quarter with quarterly monitoring completed in April and May 2023.
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**Condition No. 36: Ground Water Monitoring**

*The Permittees shall collect ground water samples from the following ground water monitoring wells: MCA-RLW-1, MCA-RLW-2, and MCOI-6 on a quarterly basis and analyze the samples for TKN, NO<sub>3</sub>-N, TDS, Cl, F, and perchlorate.*

- **Attachment 5** provides the complete ground water monitoring report from the quarterly sampling of perched/intermediate ground water monitoring well MCOI-6 on May 3, 2023.

Sample results from MCOI-6 for TKN, NO<sub>3</sub>+NO<sub>2</sub>-N, TDS, Cl, F, and ClO<sub>4</sub> are provided in **Attachment 5, Table 1**. These samples were submitted to GEL Laboratories, LLC for analysis. All results from the May 3, 2023, sampling event at MCOI-6 were below 20.6.2.3103 NMAC standards and 20.6.2.7.T NMAC guidance, with the exception of the following:

- NO<sub>3</sub>+NO<sub>2</sub>-N was detected at a concentration of 14 mg/L. The 20.6.2.3103 NMAC standard for NO<sub>3</sub>-N is 10 mg/L. The average NO<sub>3</sub>+NO<sub>2</sub>-N concentration at MCOI-6 during the 5-yr period from 2017 through 2022 was 12.37 mg/L with multiple exceedances of the 10 mg/L standard. Detections of NO<sub>3</sub>+NO<sub>2</sub>-N at MCOI-6 at concentrations greater than the ground water standard were previously identified and reported to NMED. Monitoring well MCOI-6 will continue to be routinely sampled for NO<sub>3</sub>+NO<sub>2</sub>-N in accordance with DP-1132 and pursuant to the Compliance Order on Consent, June 2016 (Consent Order).
- ClO<sub>4</sub> was detected at a concentration of 108 µg/L. The 20.6.2.7.T NMAC guidance for ClO<sub>4</sub> is 13.8 µg/L. The average ClO<sub>4</sub> concentration at MCOI-6 during the 5-yr period from 2017 through 2022 was 93.4 µg/L. Detections of ClO<sub>4</sub> at MCOI-6 at concentrations greater than the 20.6.2.7.T NMAC guidance screening levels were previously identified and reported to NMED. Monitoring well MCOI-6 will continue to be routinely sampled for ClO<sub>4</sub> in accordance with DP-1132 and pursuant to the Consent Order.

A quarterly sample was not collected from alluvial monitoring wells MCA-RLW-1 or MCA-RLW-2 during this period due to insufficient water in the wells. **Attachment 5** provides the complete ground water monitoring report for these alluvial wells collected on April 13, 2023.

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A map showing the location of ground water monitoring wells MCA-RLW-1, MCA-RLW-2, MCOI-6, R-1, R-14, R-46 and R-60 is provided in **Attachment 6**.

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**Condition No. 41: Stabilization of Specific Units and Systems That Have Ceased**

*The Permittees shall provide NMED quarterly progress reports describing stabilization activities for each quarter in accordance with the time periods and submittal dates required for monitoring reports in Condition 24.*

The current status of each unit and system listed in Permit Condition No. 41 is listed below.

**Clarifier #1**

- Stabilization activities for Clarifier #1 are being completed under the Stabilization Plan for the Low-Level Clarifier #1 submitted to NMED on December 4, 2018 (EPC-DO: 18-428). This workplan was approved by NMED on December 27, 2018.
- Removal of excess chemicals and process solids was completed in 2019.
- The chemical feed system was dismantled in May 2021.
- A Request for an Extension of Time to complete stabilization activities at Clarifier #1 was submitted to NMED on May 22, 2023 (EPC-DO: 23-167).
- No additional stabilization milestones were due during the reporting period for this unit.

**Clarifier #2**

- Stabilization activities for Clarifier #2 are being completed under the Stabilization Plan for Low-Level Clarifier #2 Tank submitted to NMED on January 25, 2019 (EPC-DO: 19-007). This workplan was approved by NMED on April 25, 2019.
- Removal of excess chemicals was completed in 2019.
- The chemical feed system was dismantled in May 2021.
- No additional stabilization milestones were due during the reporting period for this unit.

**75K Tank**

- Stabilization activities for the 75K Tank are being completed under the Stabilization Plan for 75K Tank submitted to NMED on January 25, 2019 (EPC-DO: 19-007). This workplan was approved by NMED on April 25, 2019.
- The 75K Tank was operationally emptied during the fourth quarter 2019 reporting period.
- The 75K Tank will remain available for use as emergency storage.
- A Request for an Extension of Time to complete stabilization activities was submitted to NMED on September 28, 2020 (EPC-DO: 20-255). Details related to the extension request were provided in that submittal. NMED approved the request for extension on November 13, 2020.
- No additional stabilization milestones were due during the reporting period for this unit.

**100K Tank**

- Stabilization activities for the 100K Tank are being completed under the Stabilization Plan for the 100K Tank submitted to NMED on December 4, 2018 (EPC-DO: 18-428). This workplan was approved by NMED on December 27, 2018. Requests for Extensions of Time to complete mobilization for 100K Tank Stabilization (EPC-DO: 19-372 and EPC-DO: 19-470) were previously submitted to and approved by NMED as previously reported.
- The 100K Tank was emptied of all process liquids during the fourth quarter 2019 reporting period.
- A Request for an Extension of Time to complete stabilization activities was submitted to NMED on September 28, 2020 (EPC-DO: 20-255). Details related to the extension request were provided in that submittal. NMED approved the request for extension on November 13, 2020.
- No additional stabilization milestones were due during the reporting period for this unit.

**Gravity Filter**

- Stabilization activities for the Gravity Filter are being completed under the Stabilization Plan for Gravity Filter Tank submitted to NMED on January 25, 2019 (EPC-DO: 19-007). This workplan was approved by NMED on April 25, 2019.

- A Request for an Extension of Time to complete stabilization activities was submitted to NMED on September 28, 2020 (EPC-DO: 20-255). NMED approved the request for extension on November 13, 2020.
- Stabilization of the Gravity Filter has been initiated with the removal of unused chemicals and the chemical feed system.
- No additional stabilization milestones were due during the reporting period for this unit.

**WM2-North/South Tanks**

- Stabilization activities for the WM2-North/South Tanks are being completed under the Stabilization Plan for the Low-Level WM2-North/South Tanks submitted to NMED on January 25, 2019 (EPC-DO: 19-007). This workplan was approved by NMED on April 25, 2019.
  - A Request for an Extension of Time to complete stabilization activities was submitted to NMED on September 28, 2020 (EPC-DO: 20-255). Details related to the extension request were provided in that submittal. NMED approved the request for extension on November 13, 2020.
  - Stabilization activities were initiated for the WM2-North/South Tanks on October 12, 2020.
  - No additional stabilization milestones were due during the reporting period for this unit.
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## **Attachment 2**

### **Quarterly Summary of Maintenance and Repair Activities Conducted at the RLWTF**

EPC-DO: 23-226

LA-UR: 23-27491

Date: July 31, 2023

## DP-1132 Report: Second Quarter 2023 RIWTF Maintenance

Structures	Description	Built	Task Type				Total
			PM	CO	MD	SR	
Building 1	Original treatment bldg.	1963	45	3	0	0	0
Building 2	Original influent storage bldg.	1963	0	0	0	0	0
Building 66	TRU influent storage	1982	3	0	0	0	3
Building 90	100K Influent Storage tank	1982	0	0	0	0	0
Building 248	Low-level bottoms storage	1996	3	0	0	0	3
Building 250	Low-level influent storage	2009	15	1	0	0	16
Building 257	Mechanical Evaporator System	2010	1	0	0	0	1
TA52	Solar Evaporation Tank	2011	11	0	0	0	11
<b>Totals</b>		78	4	0	0	0	82

Task Types: PM - preventive maintenance  
 CO - corrective maintenance  
 MD - modification  
 SR - service request  
 UP= Unplanned

## DP-1132 Report: Second Quarter 2023 RLWTF Maintenance

TA-50-0001 Work Completion Report (04-01-2023 to 06-30-2023)

Unit	Work Order	WO	WO Type	Task Title
500001	00734197	01	CO	500001 REPAIR OR REPLACE VALVE 34B-POL-V/214
500001	00744541	01	CO	500001 TROUBLESHOOT & REPAIR MCC-2 CKT-A2
500001	00724051	01	CO	500001 REPAIR SMALL LEAK ON THE SOUTH FRAC TANK
500001	751317	1	PM	50-0001 RLW FUME HOOD TEST (A)
500001	750661	1	PM	500001 PERFORM WEEKLY EYEWASH/ SAFETY SHOWER TESTING
500001	751314	1	PM	500001 & 500248 WINDSOCK 1YR PM (INSPECTION)
500001	00747346	01	PM	50-1 PH ANALYZER 3MO VERIFICATION 2 EA
500001	00741053	01	PM	500001-60 VP 2YR PM, PRESSURE VESSEL (VISUAL/EXTERNAL)
500001	00747440	01	PM	50-1 FEXT (1M) PM
500001	00747384	01	PM	50-1 EMERGENCY LIGHTS (M) PM
500001	00747382	01	PM	50-1 TRITIUM EXIT LIGHTS (M) PM
500001	00747357	01	PM	50-0001 BHW 1MO PM (2 EA)
500001	00746629	01	PM	500001 TCA 6MO PM, AUTO DUMP
500001	00746627	01	PM	50-1 (A) DAD PM
500001	00741061	01	PM	500001 FAR 3MO PM (9 EA)
500001	00747444	01	PM	500001 PERFORM WEEKLY EYEWASH/ SAFETY SHOWER TESTING
500001	00747336	01	PM	500001 DAD 6MO PM
500001	00747349	01	PM	500001 MICROFILTER 3 MONTH PUMP MAINTENANCE
500001	00746610	01	PM	500001 ANNUAL CRANE TRUCK PM
500001	00747322	01	PM	500001 FE'S 1YR PM, (MECHANICAL)(11 EA)
500001	00748929	01	PM	500001 DRE 1YR PM, (MECHANICAL) 6 EA
500001	00748224	01	PM	50-1 EMERGENCY LIGHTS (M) PM
500001	00748222	01	PM	50-1 TRITIUM EXIT LIGHTS (M) PM
500001	00748206	01	PM	50-1 FEXT (1M) PM
500001	00748158	01	PM	50-0001 BHW 1MO PM (2 EA)
500001	00748122	01	PM	500001 CA-4 (3 MONTH) AIR COMPRESSOR PM
500001	00748931	01	PM	500001 (A) CA MECHANICAL PM
500001	00748124	01	PM	500001 ASE 3MO PM, EXHAUST STACK PUMP (3 EA)
500001	00747813	01	PM	500001 (6M) DEIONIZED WATER BOTTLE CHANGE OUT
500001	00747325	01	PM	50-1 REPLACE ANNUAL PRE-FILTERS HV-011, HV-12 AND FE-27
500001	00745442	01	PM	50-1 DRUM TUMBLER (A) PM
500001	00745395	01	PM	50-1 DRUM TUMBLER (3M) PM
500001	00748677	01	PM	50-1 RUA (A) MAINTENANCE (TRANE)
500001	00748676	01	PM	500001 EH (1YR) PM, ELEVATOR 3RD PARTY INSP
500001	00748672	01	PM	500001 (2 YR) CHEMICAL SKID ASSY, PRV AND PUMP PM (5 EA)

## DP-1132 Report: Second Quarter 2023 RLWTF Maintenance

TA-50-0001 Work Completion Report (04-01-2023 to 06-30-2023)

Unit	Work Order	WO	WO Type	Task Title
500001	00751330	01	PM	50-1 SPW/SPH (Q) FIRE SUPPRESSION SYSTEMS PM
500001	00750635	01	PM	50-1 FEXT (1M) PM
500001	00748163	01	PM	500001 PERFORM WEEKLY EYEWASH/SAFETY SHOWER TESTING
500001	00751325	01	PM	500001 GFCI (6M) SERVICE INSPECTIONS
500001	00750599	01	PM	50-1 EMERGENCY LIGHTS (M) PM
500001	00751326	01	PM	500001 LUBE 6MO PM, OPS EQUIPMENT LUBRICATION
500001	00750597	01	PM	50-1 TRITIUM EXIT LIGHTS (M) PM
500001	00751217	01	PM	500001 SRO PUMPS RM 24
500001	00753537	01	PM	500001 BFPS 1YR PM, 2 EA (NON-POSTED AREAS)
500001	00751331	01	PM	500001 PV 3MO PM, (MECHANICAL)
500001	00751316	01	PM	500001 BHW 1YR PM, SUMMER LAY-UP (SHUTDOWN)
500001	00750658	01	PM	50-0001 BHW 1MO PM (2 EA)
500001	00753536	01	PM	500001 BFPS 1YR PM, 13 EA (POSTED AREAS)

## DP-1132 Report: Second Quarter 2023 RLWTF Maintenance

**TA-50-0250 Work Completion Report (04-01-2023 to 06-30-2023)**

Unit	Work Order	WO Task	WO Type	Task Title
500250	00649073	01	CO	500250 TROUBLESHOOT AND REPAIR HEAT TRACE AND CONTROLLER
500250	750605	1	PM	500250 LTE (M) PM, EMERGENCY WALL MOUNTED LIGHTING UNITS
500250	00747790	01	PM	500250 LPT 3YR PM, ELECTRICAL INSPECTION
500250	00747416	01	PM	500250 LTNT (M) PM, NON-TRITIUM EMERGENCY EXIT LIGHT
500250	00747392	01	PM	500250 LTET (M) PM, TRITIUM EMERGENCY EXIT LIGHT
500250	00747338	01	PM	500250 SHS 3MO PM, SAFETY SHOWER
500250	00747330	01	PM	50-250 FEXT (A) PM, PORTABLE FIRE EXTINGUISHERS
500250	00747328	01	PM	50-250 LTE (A) PM, EMERGENCY WALL MOUNTED LIGHTING UNITS
500250	00747435	01	PM	500250 FEXT (M), FIRE EXTINGUISHERS PM
500250	00747394	01	PM	500250 LTE (M) PM, EMERGENCY WALL MOUNTED LIGHTING UNITS
500250	00747329	01	PM	500250 LPT (A) VISUAL INSPECTION
500250	00748233	01	PM	500250 LTE (M) PM, EMERGENCY WALL MOUNTED LIGHTING UNITS
500250	00748231	01	PM	500250 LTET (M) PM, TRITIUM EMERGENCY EXIT LIGHT
500250	00748201	01	PM	500250 FEXT (M), FIRE EXTINGUISHERS PM
500250	00748184	01	PM	500250 LTNT (M) PM, NON-TRITIUM EMERGENCY EXIT LIGHT
500250	00751329	01	PM	50-250 SPW (3M) PM

## DP-1132 Report: Second Quarter 2023 RLWTF Maintenance

**TA-52-0181 Work Completion Report (04-01-2023 to 06-30-2023)**

Unit	Work Order	WO	WO Type	Task Title
				*** NO DATA TO REPORT FOR LISTED PERIOD.

**TA-52-0182 Work Completion Report (04-01-2023 to 06-30-2023)**

Unit	Work Order	WO	WO Type	Task Title
520182	750655	1	PM	520182 (M) NON TRITIUM LIGHTS PM
520182	750660	1	PM	520182 (M) EMERGENCY LIGHTS PM
520182	00747443	01	PM	520182 (M) FEXT FM
520182	00747372	01	PM	520182 (M) NON TRITIUM LIGHTS PM
520182	00747370	01	PM	520182 (M) EMERGENCY LIGHTS PM
520182	00748154	01	PM	520182 (M) FEXT FM
520182	00748162	01	PM	520182 (M) EMERGENCY LIGHTS PM
520182	00748155	01	PM	520182 (M) NON TRITIUM LIGHTS PM
520182	00748132	01	PM	520182 (3M) SIGNAGE VERIFICATION FOR FENCE LINE
520182	00748131	01	PM	520182 (3M) FENCE LINE VERIFICATION
520182	00750654	01	PM	520182 (M) FEXT FM

**TA-52-0183 Work Completion Report (04-01-2023 to 06-30-2023)**

Unit	Work Order	WO	WO Type	Task Title
				*** NO DATA TO REPORT FOR LISTED PERIOD.

## DP-1132 Report: Second Quarter 2023 RLWTF Maintenance

**TA-50-0002 Work Completion Report (04-01-2023 to 06-30-2023)**

Unit	Work Order	WO	WO Type	Task Title
500002	758203	1	PM	500002 (A) WATER TIGHTNESS MORTANDAD CANYON

**TA-50-0090 Work Completion Report (04-01-2023 to 06-30-2023)**

Unit	Work Order	WO	WO Type	Task Title
				*** NO DATA TO REPORT FOR LISTED PERIOD.

**TA-50-0066 Work Completion Report (04-01-2023 to 06-30-2023)**

Unit	Work Order	WO	WO Type	Task Title
500066	751214	1	PM	500066 (A) VERIFY & ENSURE ACCURACY TANK LEVEL INDICATOR 4EA
500066	00741060	01	PM	500066 (A) MIXER PANEL LAMP PM
500066	00751213	01	PM	50-66 PDI (A) CAL VERIFICATION

**TA-50-0201 Work Completion Report (04-01-2023 to 06-30-2023)**

Unit	Work Order	WO	WO Type	Task Title
				*** NO DATA TO REPORT FOR LISTED PERIOD.

**TA-50-0248 Work Completion Report (04-01-2023 to 06-30-2023)**

Unit	Work Order	WO	WO Type	Task Title
500248	00616661	01	PM	50-248 HUE (A) PM
500248	00643326	01	PM	50-248 ULTRASONIC TANK: 3-YR INSPECTION (TK-3 & TK-17)
500248	00748117	01	PM	500248 PUMPS 3M0 PM

**TA-50-0257 Work Completion Report (04-01-2023 to 06-30-2023)**

Unit	Work Order	WO	WO Type	Task Title
500257	00744249	01	PM	50-257 6M0 EVAP FAN MECHANICAL PM

**DP-1132 Report: Second Quarter 2023 RLWTF Maintenance**

Acronyms used by LANL Maintenance:

ASE	air sampler, exhaust	LPT	lightning protection
BHW	boiler, hot water	LTE	lights, emergency
CA	compressed air	LTET	lights, emergency, tritium
DAD	desiccant air dryer	LTNT	lights, non-tritium
EB	exhaust bank	PRV	pressure reducing valve
EH	exhaust heater	PV	pump, vacuum
FAR	filter, air replaceable	RCA	radiological control area
FE	fan, exhaust	SHS	shower, safety
FEXT	fire extinguisher	SPH	sprinkler pipe, dry
HEPA	high-efficiency particulate air	SPW	sprinkler pipe, wet
HUE	heater unit, electric	TCA	tank, compressed air

# **Attachment 3**

## RLWTF Daily Influent and Effluent Volumes

EPC-DO: 23-226

LA-UR: 23-27491

Date: July 31, 2023

**DP-1132 Report: Second Quarter 2023**  
**RLWTF Daily Influent and Effluent**

Date	Low-level Influent	Effluent MES	Effluent Outfall 051	Effluent SET	Transuranic Influent
Totals, 2023-Q2	265,158	264,943	60,223	0	117
Sub-total, April	81,945	85,867	60,223	0	0
Sub-total, May	87,926	92,888	0	0	0
Sub-total, June	95,287	86,189	0	0	117

All flows are in Liters.

1-Apr	3,331	0	0	0	0
2-Apr	2,422	0	0	0	0
3-Apr	5,299	0	0	0	0
4-Apr	3,558	0	0	0	0
5-Apr	4,315	0	60,223	0	0
6-Apr	3,936	0	0	0	0
7-Apr	3,255	0	0	0	0
8-Apr	2,385	0	0	0	0
9-Apr	2,233	0	0	0	0
10-Apr	3,861	0	0	0	0
11-Apr	6,359	0	0	0	0
12-Apr	3,899	4,005	0	0	0
13-Apr	3,520	15,783	0	0	0
14-Apr	1,590	6,476	0	0	0
15-Apr	946	0	0	0	0
16-Apr	719	0	0	0	0
17-Apr	2,120	0	0	0	0
18-Apr	3,785	0	0	0	0
19-Apr	3,974	13,259	0	0	0
20-Apr	3,861	21,408	0	0	0
21-Apr	1,325	15,337	0	0	0
22-Apr	1,060	0	0	0	0
23-Apr	1,060	0	0	0	0
24-Apr	1,893	9,599	0	0	0
25-Apr	3,936	0	0	0	0
26-Apr	1,968	0	0	0	0
27-Apr	2,309	0	0	0	0
28-Apr	1,741	0	0	0	0
29-Apr	643	0	0	0	0
30-Apr	643	0	0	0	0

**DP-1132 Report: Second Quarter 2023**  
**RLWTF Daily Influent and Effluent**

Date	Low-level Influent	Effluent MES	Effluent Outfall 051	Effluent SET	Transuranic Influent
1-May	1,741	0	0	0	0
2-May	3,066	0	0	0	0
3-May	5,072	8,372	0	0	0
4-May	2,574	9,550	0	0	0
5-May	2,309	0	0	0	0
6-May	3,936	0	0	0	0
7-May	1,438	0	0	0	0
8-May	2,195	8,017	0	0	0
9-May	3,104	5,178	0	0	0
10-May	1,741	0	0	0	0
11-May	1,817	0	0	0	0
12-May	1,400	0	0	0	0
13-May	1,476	0	0	0	0
14-May	3,407	0	0	0	0
15-May	3,936	0	0	0	0
16-May	5,905	0	0	0	0
17-May	2,650	0	0	0	0
18-May	2,422	0	0	0	0
19-May	2,725	0	0	0	0
20-May	1,628	0	0	0	0
21-May	1,363	0	0	0	0
22-May	2,725	6,938	0	0	0
23-May	2,157	18,876	0	0	0
24-May	2,422	20,015	0	0	0
25-May	2,271	15,942	0	0	0
26-May	2,914	0	0	0	0
27-May	1,855	0	0	0	0
28-May	795	0	0	0	0
29-May	795	0	0	0	0
30-May	7,721	0	0	0	0
31-May	8,365	0	0	0	0

**DP-1132 Report: Second Quarter 2023**  
**RLWTF Daily Influent and Effluent**

Date	Low-level Influent	Effluent MES	Effluent Outfall 051	Effluent SET	Transuranic Influent
1-Jun	7,494	0	0	0	0
2-Jun	3,255	0	0	0	0
3-Jun	6,453	0	0	0	0
4-Jun	1,060	0	0	0	0
5-Jun	1,741	0	0	0	0
6-Jun	4,883	0	0	0	0
7-Jun	3,936	0	0	0	117
8-Jun	3,936	10,030	0	0	0
9-Jun	2,120	16,276	0	0	0
10-Jun	7,532	0	0	0	0
11-Jun	833	0	0	0	0
12-Jun	4,618	0	0	0	0
13-Jun	2,725	5,840	0	0	0
14-Jun	2,120	17,786	0	0	0
15-Jun	2,460	18,547	0	0	0
16-Jun	3,255	14,777	0	0	0
17-Jun	1,287	2,933	0	0	0
18-Jun	1,703	0	0	0	0
19-Jun	2,650	0	0	0	0
20-Jun	2,385	0	0	0	0
21-Jun	4,693	0	0	0	0
22-Jun	3,974	0	0	0	0
23-Jun	4,958	0	0	0	0
24-Jun	681	0	0	0	0
25-Jun	643	0	0	0	0
26-Jun	3,974	0	0	0	0
27-Jun	3,407	0	0	0	0
28-Jun	2,347	0	0	0	0
29-Jun	2,157	0	0	0	0
30-Jun	2,006	0	0	0	0

# **Attachment 4**

## Treated Effluent Sampling Results

EPC-DO: 23-226

LA-UR: 23-27491

Date: July 31, 2023

Attachment 4

Table 1. Analytical Results from the Monthly Sampling of RLWTF Treated Effluent Discharged to NPDES Outfall 051 on April 5, 2023. Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units <sup>1</sup>	Validation Qualifier <sup>2</sup>	Detected <sup>3</sup>	Field Preparation Code <sup>4</sup>	COC #	Sample Purpose <sup>5</sup>	Lab Method	Report Method Detection Limit <sup>6</sup>	Groundwater Limit <sup>7</sup>
NP051-23-260480	NPDES Outfall 051	04/05/2023	107-02-8	Acrolein	1.67	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	1.67	0.042
NP051-23-260480	NPDES Outfall 051	04/05/2023	107-13-1	Acrylonitrile	1.67	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	1.67	0.523
NP051-23-260480	NPDES Outfall 051	04/05/2023	309-00-2	Aldrin	0.00665	ug/L	J	N	UF	2023-549	REG	SW-846:8081B	0.00665	0.00198
NP051-23-260506	NPDES Outfall 051	04/05/2023	AI	Aluminum	19.3	ug/L	U	N	F	2023-549	REG	EPA:2008	19.3	5,000
NP051-23-260480	NPDES Outfall 051	04/05/2023	120-12-7	Anthracene	0.3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	0.3	1,711.28
NP051-23-260506	NPDES Outfall 051	04/05/2023	Sb	Antimony	1	ug/L	U	N	F	2023-549	REG	EPA:2008	1	6
NP051-23-260480	NPDES Outfall 051	04/05/2023	12674-11-2	Acroclor-1016	0.0333	ug/L	U	N	UF	2023-549	REG	SW-846:8082A	0.0333	0.5
NP051-23-260480	NPDES Outfall 051	04/05/2023	11104-28-2	Acroclor-1221	0.0333	ug/L	U	N	UF	2023-549	REG	SW-846:8082A	0.0333	0.5
NP051-23-260480	NPDES Outfall 051	04/05/2023	11141-16-5	Acroclor-1232	0.0333	ug/L	U	N	UF	2023-549	REG	SW-846:8082A	0.0333	0.5
NP051-23-260480	NPDES Outfall 051	04/05/2023	53469-21-9	Acroclor-1242	0.0333	ug/L	U	N	UF	2023-549	REG	SW-846:8082A	0.0333	0.5
NP051-23-260480	NPDES Outfall 051	04/05/2023	12672-29-6	Acroclor-1248	0.0333	ug/L	U	N	UF	2023-549	REG	SW-846:8082A	0.0333	0.5
NP051-23-260480	NPDES Outfall 051	04/05/2023	11097-69-1	Acroclor-1254	0.0333	ug/L	U	N	UF	2023-549	REG	SW-846:8082A	0.0333	0.5
NP051-23-260480	NPDES Outfall 051	04/05/2023	11096-82-5	Acroclor-1260	0.0333	ug/L	U	N	UF	2023-549	REG	SW-846:8082A	0.0333	0.5
NP051-23-260506	NPDES Outfall 051	04/05/2023	As	Arsenic	2	ug/L	U	N	F	2023-549	REG	EPA:2008	2	10
NP051-23-260480	NPDES Outfall 051	04/05/2023	1912-24-9	Atrazine	3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	3	3
NP051-23-260480	NPDES Outfall 051	04/05/2023	103-33-3	Azobenzene	3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	3	1
NP051-23-260506	NPDES Outfall 051	04/05/2023	Ba	Barium	0.67	ug/L	U	N	F	2023-549	REG	EPA:2008	0.67	2,000
NP051-23-260480	NPDES Outfall 051	04/05/2023	71-43-2	Benzene	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	5
NP051-23-260480	NPDES Outfall 051	04/05/2023	92-87-5	Benzidine	3.9	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	3.9	0.001
NP051-23-260480	NPDES Outfall 051	04/05/2023	50-32-8	Benzol[al]pyrene	0.3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	0.3	0.2
NP051-23-260480	NPDES Outfall 051	04/05/2023	205-99-2	Benzo[b]fluoranthene	0.3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	0.3	0.343
NP051-23-260480	NPDES Outfall 051	04/05/2023	207-08-9	Benzo[k]fluoranthene	0.3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	0.3	3.43
NP051-23-260506	NPDES Outfall 051	04/05/2023	Be	Beryllium	0.2	ug/L	U	N	F	2023-549	REG	EPA:2008	0.2	4
NP051-23-260480	NPDES Outfall 051	04/05/2023	319-84-6	BHCl[alpha]-	0.00665	ug/L	U	N	UF	2023-549	REG	SW-846:8081B	0.00665	0.0693
NP051-23-260480	NPDES Outfall 051	04/05/2023	319-85-7	BHCl[beta]-	0.00665	ug/L	U	N	UF	2023-549	REG	SW-846:8081B	0.00665	0.243
NP051-23-260480	NPDES Outfall 051	04/05/2023	58-89-9	BHC[gamma]-	0.00665	ug/L	U	N	UF	2023-549	REG	SW-846:8081B	0.00665	0.415
NP051-23-260480	NPDES Outfall 051	04/05/2023	111-44-4	Bis[2-chloroethyl]ether	3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	3	14
NP051-23-260480	NPDES Outfall 051	04/05/2023	117-81-7	Bis[2-(hexyl)phthalate]	0.3	ug/L	U	N	UF	2023-549	REG	EPA:2008	0.3	55.64
NP051-23-260506	NPDES Outfall 051	04/05/2023	B	Boron	81.1	ug/L	NQ	Y	F	2023-549	REG	EPA:2007	15	750
NP051-23-260480	NPDES Outfall 051	04/05/2023	75-27-4	Bromodichloromethane	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	1.34
NP051-23-260480	NPDES Outfall 051	04/05/2023	75-25-2	Bromoform	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	32.85
NP051-23-260480	NPDES Outfall 051	04/05/2023	74-83-9	Bromonaphthalene	0.337	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.337	7.54
NP051-23-260506	NPDES Outfall 051	04/05/2023	Cd	Cadmium	0.3	ug/L	U	N	F	2023-549	REG	SW-846:8260D	0.3	5
NP051-23-260480	NPDES Outfall 051	04/05/2023	56-23-5	Carbon Tetrachloride	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	5
NP051-23-260480	NPDES Outfall 051	04/05/2023	57-74-9	Chlordane[alpha/gamma]	0.0765	ug/L	U	N	UF	2023-549	REG	SW-846:8081B	0.0765	0.45
NP051-23-260506	NPDES Outfall 051	04/05/2023	Cl[-1]	Chloride	57.0	mg/L	NQ	Y	F	2023-549	REG	EPA:2008	0.67	250
NP051-23-260480	NPDES Outfall 051	04/05/2023	108-90-7	Chlorobenzene	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	77.57
NP051-23-260506	NPDES Outfall 051	04/05/2023	67-66-3	Chloroform	0.83	ug/L	J	Y	F	2023-549	REG	SW-846:8260D	0.333	100
NP051-23-260480	NPDES Outfall 051	04/05/2023	74-87-3	Chloromethane	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	20.32
NP051-23-260506	NPDES Outfall 051	04/05/2023	Cr	Chromium	3	ug/L	U	N	F	2023-549	REG	EPA:2008	3	50
NP051-23-260506	NPDES Outfall 051	04/05/2023	Cu	Cobalt	0.3	ug/L	U	N	UF	2023-549	REG	EPA:2008	0.3	1,000
NP051-23-260506	NPDES Outfall 051	04/05/2023	Cyanide [Total]	0.00167	mg/L	U	N	F	2023-549	REG	SW-846:8260D	0.00167	0.2	
NP051-23-260506	NPDES Outfall 051	04/05/2023	DDT[4'-4'-4']	0.01	ug/L	U	N	UF	2023-549	REG	SW-846:8081B	0.01	2.29	
NP051-23-260480	NPDES Outfall 051	04/05/2023	106-93-4	Dibromoethane[1,2-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	0.05
NP051-23-260480	NPDES Outfall 051	04/05/2023	74-94-1	Dichlorobenzene[1,4-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	7.997
NP051-23-260480	NPDES Outfall 051	04/05/2023	75-71-8	Dichlorodifluoromethane	0.355	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.355	197.2
NP051-23-260480	NPDES Outfall 051	04/05/2023	75-34-3	Dichloroethane[1,1-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	25
NP051-23-260480	NPDES Outfall 051	04/05/2023	107-06-2	Dichloroethene[1,2-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	5
NP051-23-260480	NPDES Outfall 051	04/05/2023	75-35-4	Dichloroethene[1,1-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	7
NP051-23-260480	NPDES Outfall 051	04/05/2023	106-46-7	Dichlorobenzene[1,4-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	70
NP051-23-260480	NPDES Outfall 051	04/05/2023	91-94-1	Dichlorobenzidine[3,3-]	3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	3	100
NP051-23-260480	NPDES Outfall 051	04/05/2023	156-60-5	Dichlorophenol[trans-1,2-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	100
NP051-23-260480	NPDES Outfall 051	04/05/2023	156-60-5	Dichlorophenol[1,2-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	3	45.3

Attachment 4

Table 1. Analytical Results from the Monthly Sampling of RLWTF Treated Effluent Discharged to NPDES Outfall 051 on April 5, 2023. Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units <sup>1</sup>	Validation Qualifier <sup>2</sup>	Report Units <sup>1</sup>	Detected <sup>3</sup>	Field Preparation Code <sup>4</sup>	COC #	Sample Purpose <sup>5</sup>	Lab Method	Report Method Detection Limit <sup>6</sup>	Groundwater Limit <sup>7</sup>
NP051-23-260480	NPDES Outfall 051	04/05/2023	78-87-5	Dichloropropane[1,2-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846-8260D	0.333	5	
NP051-23-260480	NPDES Outfall 051	04/05/2023	542-75-6	Dichloropropene[trans-1,3-]	0.5	ug/L	U	N	UF	2023-549	REG	SW-846-8260D	0.5	4.7	
NP051-23-260480	NPDES Outfall 051	04/05/2023	60-57-1	Dielein	0.01	ug/L	J	N	UF	2023-549	REG	SW-846-8081B	0.01	0.0175	
NP051-23-260480	NPDES Outfall 051	04/05/2023	84-66-2	Diethylphthalate	0.3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	0.3	14.80052	
NP051-23-260480	NPDES Outfall 051	04/05/2023	131-11-3	Dimethyl Phthalate	0.3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	0.3	611.56	
NP051-23-260480	NPDES Outfall 051	04/05/2023	84-74-2	Di-n-butylphthalate	0.3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	0.3	884.799	
NP051-23-260480	NPDES Outfall 051	04/05/2023	534-52-1	Dinitro-2-methylphenol[4,6-]	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	1.52	
NP051-23-260480	NPDES Outfall 051	04/05/2023	51-28-5	Dinitrophenol[2-4-]	5	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	5	38.67	
NP051-23-260480	NPDES Outfall 051	04/05/2023	121-14-2	Dinitrotoluene[2,4-]	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	2.37	
NP051-23-260480	NPDES Outfall 051	04/05/2023	606-20-2	Dinitrotoluene[2,6-]	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	0.49	
NP051-23-260480	NPDES Outfall 051	04/05/2023	123-91-1	Dioxane[1,4-]	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	4.59	
NP051-23-260480	NPDES Outfall 051	04/05/2023	122-39-4	Diphenylamine	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	122	
NP051-23-260480	NPDES Outfall 051	04/05/2023	959-98-8	Endosulfan I	0.00665	ug/L	N	N	F	2023-549	REG	SW-846-8081B	0.00665	98.7	
NP051-23-260480	NPDES Outfall 051	04/05/2023	33213-55-9	Endosulfan II	0.01	ug/L	U	N	UF	2023-549	REG	SW-846-8081B	0.01	98.7	
NP051-23-260480	NPDES Outfall 051	04/05/2023	72-20-8	Endrin	0.01	ug/L	U	N	UF	2023-549	REG	SW-846-8081B	0.01	2.23	
NP051-23-260480	NPDES Outfall 051	04/05/2023	100-41-4	Ethylbenzene	0.333	ug/L	U	N	UF	2023-549	REG	SW-846-8260D	0.333	700	
NP051-23-260480	NPDES Outfall 051	04/05/2023	206-44-0	Fluoranthene	0.3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	0.3	802.198	
NP051-23-260480	NPDES Outfall 051	04/05/2023	87-73-7	Fluorene	0.033	mg/L	U	N	F	2023-549	REG	SW-846-8270E	0.033	287.64	
NP051-23-260506	NPDES Outfall 051	04/05/2023	F(-1)	Fluoride	0.00665	ug/L	U	N	UF	2023-549	REG	EPA-300.0	0.033	1.6	
NP051-23-260480	NPDES Outfall 051	04/05/2023	76-44-8	Heptachlor	0.00665	ug/L	U	N	UF	2023-549	REG	SW-846-8081B	0.00665	0.0221	
NP051-23-260480	NPDES Outfall 051	04/05/2023	118-74-1	Hexachlorobenzene	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	0.098	
NP051-23-260480	NPDES Outfall 051	04/05/2023	87-68-3	Hexachlorobutadiene	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	1.39	
NP051-23-260480	NPDES Outfall 051	04/05/2023	77-47-4	Hexachlorocyclohexadiene	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	0.41	
NP051-23-260480	NPDES Outfall 051	04/05/2023	67-72-1	Hexachloroethane	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	3.28	
NP051-23-260480	NPDES Outfall 051	04/05/2023	2691-41-0	HMX	0.0813	ug/L	U	N	UF	2023-549	REG	SW-846-8330B	0.0813	1,001.11	
NP051-23-260731	NPDES Outfall 051	04/05/2023	2691-41-0	HMX	0.0796	ug/L	U	N	UF	2023-549	FD	SW-846-8330B	0.0796	2	
NP051-23-260506	NPDES Outfall 051	04/05/2023	Fe	Iron	30	ug/L	U	N	F	2023-549	REG	EPA-2007	30	1,000	
NP051-23-260480	NPDES Outfall 051	04/05/2023	78-59-1	Isophorone	3.5	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3.5	780.63	
NP051-23-260506	NPDES Outfall 051	04/05/2023	Pb	Lead	0.5	ug/L	U	N	F	2023-549	REG	EPA-200.8	0.5	15	
NP051-23-260506	NPDES Outfall 051	04/05/2023	Mn	Manganese	2	ug/L	U	N	F	2023-549	REG	EPA-200.7	2	200	
NP051-23-260480	NPDES Outfall 051	04/05/2023	Hg	Mercury	0.067	ug/L	U	N	UF	2023-549	REG	EPA-245.2	0.067	2	
NP051-23-260506	NPDES Outfall 051	04/05/2023	Hg	Mercury	0.067	ug/L	U	N	F	2023-549	REG	EPA-245.2	0.067	1,000	
NP051-23-260480	NPDES Outfall 051	04/05/2023	1634-04-4	Methyl tert-Butyl Ether	0.333	ug/L	U	N	UF	2023-549	REG	SW-846-8260D	0.333	100	
NP051-23-260480	NPDES Outfall 051	04/05/2023	75-09-2	Methylene Chloride	0.38	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	0.5	5	
NP051-23-260506	NPDES Outfall 051	04/05/2023	Ni	Nickel	0.6	ug/L	U	N	F	2023-549	REG	EPA-200.8	0.6	200	
NP051-23-260480	NPDES Outfall 051	04/05/2023	NO3+N02-N	Nitrate-Nitrite as Nitrogen	0.926	mg/L	J	Y	F	2023-549	REG	EPA-333.2	0.017	10	
NP051-23-260480	NPDES Outfall 051	04/05/2023	91-57-6	Methylnaphthalene[-1]	0.3	ug/L	U	N	UF	2023-549	REG	EPA-300.0	0.033	35.11	
NP051-23-260506	NPDES Outfall 051	04/05/2023	Mo	Molybdenum	0.2	ug/L	U	N	F	2023-549	REG	SW-846-8270E	0.2	1,000	
NP051-23-260480	NPDES Outfall 051	04/05/2023	91-20-3	Naphthalene	0.3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	0.3	30	
NP051-23-260506	NPDES Outfall 051	04/05/2023	Ni	Nickel	0.6	ug/L	U	N	F	2023-549	REG	EPA-200.8	0.6	200	
NP051-23-260506	NPDES Outfall 051	04/05/2023	91-57-6	Nitrite-Nitrite as Nitrogen	0.033	mg/L	J	Y	F	2023-549	REG	EPA-333.2	0.017	10	
NP051-23-260480	NPDES Outfall 051	04/05/2023	98-95-3	Nitrobenzene	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	1.4	
NP051-23-260480	NPDES Outfall 051	04/05/2023	55-18-5	Nitrosodiethylamine[N-]	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	0.0017	
NP051-23-260480	NPDES Outfall 051	04/05/2023	62-75-9	Nitrosodimethylamine[N-]	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	0.0049	
NP051-23-260480	NPDES Outfall 051	04/05/2023	924-16-3	Nitroso-pyridine[N-]	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	0.0273	
NP051-23-260480	NPDES Outfall 051	04/05/2023	930-55-2	Nitroso-pyridine[-1]	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	0.37	
NP051-23-260480	NPDES Outfall 051	04/05/2023	108-60-1	Oxybis(1-chloropropane)[2;2-]	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	9.81	
NP051-23-260480	NPDES Outfall 051	04/05/2023	608-93-5	Pentachlorobenzene	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	3.07	
NP051-23-260480	NPDES Outfall 051	04/05/2023	87-86-5	Pentachlorophenol	0.05	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	1	
NP051-23-260480	NPDES Outfall 051	04/05/2023	CIO4	Perchlorate	0.606	ng/L	U	N	UF	2023-549	REG	SW-846-6830	0.05	13.82	
NP051-23-260480	NPDES Outfall 051	04/05/2023	355-46-4	Perfluorooctanesulfonic acid	0.734	ng/L	U	N	UF	2023-549	REG	EPA-537M	0.606	401	
NP051-23-260480	NPDES Outfall 051	04/05/2023	1763-23-1	Perfluorooctanoic acid	0.734	ng/L	U	N	UF	2023-549	REG	EPA-537M	0.734	60.16	
NP051-23-260480	NPDES Outfall 051	04/05/2023	335-67-1	Perfluorooctanoic acid	0.734	ng/L	U	N	UF	2023-549	REG	EPA-537M	0.734	60.16	
NP051-23-260480	NPDES Outfall 051	04/05/2023	pH	pH	7.2	SU								6.9	
NP051-23-260480	NPDES Outfall 051	04/05/2023	85-01-3	Phenanthrene	0.3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	0.3	170.41	
NP051-23-260480	NPDES Outfall 051	04/05/2023	108-95-2	Phenol	3	ug/L	U	N	UF	2023-549	REG	SW-846-8270E	3	5	

## Attachment 4

**Table 1.** Analytical Results from the Monthly Sampling of RLWTF Treated Effluent Discharged to NPDES Outfall 051 on April 5, 2023. Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units <sup>1</sup>	Validation Qualifier <sup>2</sup>	Report Units <sup>1</sup>	Detected <sup>3</sup>	Field Preparation Code <sup>4</sup>	COC #	Sample Purpose <sup>5</sup>	Lab Method	Report Method Detection Limit <sup>6</sup>	Groundwater Limit <sup>7</sup>
NP051-23-260480	NPDES Outfall 051	04/05/2023	1610-18-0	Prometon	3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	3	249.93	
NP051-23-260480	NPDES Outfall 051	04/05/2023	129-00-0	Pyrene	0.3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	0.3	117.42	
NP051-23-260480	NPDES Outfall 051	04/05/2023	Ra-226+228	Radium-226 and Radium-228	0.575	pCi/L	J	Y	UF	2023-549	REG	Generic:Radium by Calculation	-	5	
NP051-23-260480	NPDES Outfall 051	04/05/2023	121-82-4	RDX	0.0813	ug/L	U	N	UF	2023-549	REG	SW-846:82330B	0.0813	9.66	
NP051-23-260731	NPDES Outfall 051	04/05/2023	121-82-4	RDX	0.0796	ug/L	U	N	UF	2023-549	FD	SW-846:82330B	0.0796	9.66	
NP051-23-260506	NPDES Outfall 051	04/05/2023	Se	Selenium	1.5	ug/L	U	N	F	2023-549	REG	EPA:200.8	1.5	50	
NP051-23-260506	NPDES Outfall 051	04/05/2023	Ag	Silver	0.3	ug/L	U	N	F	2023-549	REG	EPA:200.8	0.3	50	
NP051-23-260480	NPDES Outfall 051	04/05/2023	100-42-5	Styrene	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:82360D	0.333	100	
NP051-23-260506	NPDES Outfall 051	04/05/2023	SO4[2-]	Sulfate	0.713	mg/L	NQ	Y	F	2023-549	REG	EPA:300.0	0.133	600	
NP051-23-260737	NPDES Outfall 051	04/05/2023	SO4[2-]	Sulfate	0.746	mg/L	NQ	Y	F	2023-549	FD	EPA:300.0	0.133	600	
NP051-23-260480	NPDES Outfall 051	04/05/2023	126-33-0	Sulfidane	3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	3	20.03	
NP051-23-260480	NPDES Outfall 051	04/05/2023	95-94-3	Tetrachlorobenzene[2,4,5]	3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	3	1.66	
NP051-23-260480	NPDES Outfall 051	04/05/2023	79-34-5	Tetrachloroethane[1,1,2,2-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:82360D	0.333	10	
NP051-23-260480	NPDES Outfall 051	04/05/2023	127-18-4	Tetrachloroethene	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:82360D	0.333	5	
NP051-23-260506	NPDES Outfall 051	04/05/2023	Tl	Thallium	0.6	ug/L	U	N	F	2023-549	REG	EPA:200.8	0.6	2	
NP051-23-260480	NPDES Outfall 051	04/05/2023	108-88-3	Toluene	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:82360D	0.333	1,000	
NP051-23-260506	NPDES Outfall 051	04/05/2023	TDS	Total Dissolved Solids	135	mg/L	J	Y	F	2023-549	REG	EPA:160.1	2.38	1,000	
NP051-23-260506	NPDES Outfall 051	04/05/2023	TKN	Total kjeldahl Nitrogen	0.059	mg/L	J+	Y	F	2023-549	REG	EPA:351.2	0.033	15	
NP051-23-260480	NPDES Outfall 051	04/05/2023	8001-35-2	Toraphene, [Technical Grade]	0.15	ug/L	N	UF	2023-549	REG	SW-846:8081B	0.15	0.16		
NP051-23-260480	NPDES Outfall 051	04/05/2023	120-82-1	Trichlorobenzene[1,2,4-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	70	
NP051-23-260480	NPDES Outfall 051	04/05/2023	71-55-6	Trichloroethane[1,1,1-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	200	
NP051-23-260480	NPDES Outfall 051	04/05/2023	79-00-5	Trichloroethane[1,1,2-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	5	
NP051-23-260480	NPDES Outfall 051	04/05/2023	79-01-6	Trichloroethylene	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	5	
NP051-23-260480	NPDES Outfall 051	04/05/2023	75-69-4	Trichlorofluoromethane	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	1,137	
NP051-23-260480	NPDES Outfall 051	04/05/2023	95-95-4	Trichlorophenol[2,4,5-]	3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	3	1,166	
NP051-23-260480	NPDES Outfall 051	04/05/2023	88-06-2	Trichlorophenol[2,4,6-]	3	ug/L	U	N	UF	2023-549	REG	SW-846:8270E	3	11.88	
NP051-23-260480	NPDES Outfall 051	04/05/2023	118-96-7	Trinitrotoluene[2,4,6-]	0.0813	ug/L	U	N	UF	2023-549	REG	SW-846:8330B	0.0813	9.8	
NP051-23-260731	NPDES Outfall 051	04/05/2023	118-96-7	Trinitrotoluene[2,4,6-]	0.0796	ug/L	U	N	UF	2023-549	FD	SW-846:8330B	0.0796	9.8	
NP051-23-260506	NPDES Outfall 051	04/05/2023	U	Uranium	0.067	ug/L	U	N	F	2023-549	REG	EPA:200.8	0.067	30	
NP051-23-260480	NPDES Outfall 051	04/05/2023	75-01-4	Vinyl Chloride	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	2	
NP051-23-260480	NPDES Outfall 051	04/05/2023	1330-20-7	Xylene (Total)	1	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	1	620	
NP051-23-260480	NPDES Outfall 051	04/05/2023	95-47-6	Xylenol[1,2-]	0.333	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.333	193	
NP051-23-260480	NPDES Outfall 051	04/05/2023	Xylene[1,3+xylene[1,4-]]	0.5	ug/L	U	N	UF	2023-549	REG	SW-846:8260D	0.5	396		
NP051-23-260506	NPDES Outfall 051	04/05/2023	Zn	Zinc	3.3	ug/L	U	N	F	2023-549	REG	EPA:200.7	3.3	10,000	

Notes:

<sup>1</sup>ug/L - micrograms per liter.

<sup>2</sup>ug/L - milligrams per liter.

<sup>3</sup>ng/L - nanograms per liter.

<sup>4</sup>SU - standard units.

<sup>5</sup>pCi/L - picocuries per liter.

<sup>6</sup>U - The analyte is classified as not detected.

F - In the Field Preparation Code column means the sample was unfiltered.

REG - In the sample purpose column means the sample was a regular sample.

FD - In the sample purpose column means the sample was a field duplicate.

J - The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual with a potential negative bias.

U - The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual with a potential positive bias.

N - In the Detected column means the analyte was not detected.

Y - In the Detected column means the analyte was detected.

<sup>6</sup>UF - In the Field Preparation Code column means the sample was unfiltered.

F - In the Field Preparation Code column means the sample was filtered.

REG - In the sample purpose column means the sample was a regular sample.

FD - In the sample purpose column means the sample was a field duplicate.

J - The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual with a potential negative bias.

U - The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual with a potential positive bias.

N - In the Detected column means the analyte was not detected.

Y - In the Detected column means the analyte was detected.

<sup>7</sup>Groundwater Limit represents standards for groundwater as identified in NWWAC 20.6.2.3103 where available, otherwise the value represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

#### Attachment 4

Table 1. Analytical Results from the Monthly Sampling of RLWTF Treated Effluent Discharged to NPDES Outfall 051 on April 5, 2023. Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units <sup>1</sup>	Validation Qualifier <sup>2</sup>	Field Preparation Code <sup>3</sup>	COC #	Sample Purpose <sup>5</sup>	Lab Method	Report Method Detection Limit <sup>6</sup>	Groundwater Limit <sup>7</sup>
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Groundwater Limit for N-nitrosodiphenylamine reported as diphenylamine, which represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Groundwater Limit for combined Endosulfan I and Endosulfan II is 98.7 ug/L, which represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Total Kjeldahl Nitrogen does not contain either a 20.6.2.3.103 NMAC Standard or NMED Risk Assessment Guidance, Table A-1, Tap Water Limit. DP-1132 Permit Condition No. 16, Table 1, establishes a Total Nitrogen limit of 15 mg/L.

Attachment 4

Table 2. Analytical Results from the Quarterly Sampling of RLWTF Treated Effluent Discharged to Mechanical Evaporator System on April 13, 2023, Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units <sup>1</sup>	Validation Qualifier <sup>2</sup>	Detected <sup>3</sup>	Field Preparation Code <sup>4</sup>	COC #	Sample Purpose <sup>5</sup>	Lab Method	Report Method Detection Limit <sup>6</sup>	Groundwater Limit <sup>7</sup>
RLWTF-23-260630	RLWTF_MES	04/13/2023	107-02-8	Acrolein	1.67	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	1.67	0.0415
RLWTF-23-260630	RLWTF_MES	04/13/2023	107-13-1	Acrylonitrile	1.67	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	1.67	0.53
RLWTF-23-260630	RLWTF_MES	04/13/2023	309-00-2	Aldrin	0.00665	ug/L	UJ	N	UF	2023-566	REG	SW-846-8081B	0.00665	0.00198
RLWTF-23-260595	RLWTF_MES	04/13/2023	Al	Aluminum	19.3	ug/L	U	N	F	2023-566	REG	EPA-200-8	19.3	5,000
RLWTF-23-260630	RLWTF_MES	04/13/2023	120-12-7	Antimony	0.3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	0.3	1,721.28
RLWTF-23-260595	RLWTF_MES	04/13/2023	Sb	Antimony	1	ug/L	U	N	F	2023-566	REG	EPA-200-8	1	6
RLWTF-23-260630	RLWTF_MES	04/13/2023	12674-11-2	Arodor-1016	0.0335	ug/L	U	N	UF	2023-566	REG	SW-846-8082A	0.0335	0.5
RLWTF-23-260630	RLWTF_MES	04/13/2023	11104-28-2	Arodor-1221	0.0335	ug/L	U	N	UF	2023-566	REG	SW-846-8082A	0.0335	0.5
RLWTF-23-260630	RLWTF_MES	04/13/2023	11141-16-5	Arodor-1232	0.0335	ug/L	U	N	UF	2023-566	REG	SW-846-8082A	0.0335	0.5
RLWTF-23-260630	RLWTF_MES	04/13/2023	53469-21-9	Arodor-1242	0.0335	ug/L	U	N	UF	2023-566	REG	SW-846-8082A	0.0335	0.5
RLWTF-23-260630	RLWTF_MES	04/13/2023	12672-29-6	Arodor-1248	0.0338	ug/L	J	Y	UF	2023-566	REG	SW-846-8082A	0.0335	0.5
RLWTF-23-260630	RLWTF_MES	04/13/2023	11097-69-1	Arodor-1254	0.0335	ug/L	U	N	UF	2023-566	REG	SW-846-8082A	0.0335	0.5
RLWTF-23-260630	RLWTF_MES	04/13/2023	11096-82-5	Arodor-1260	0.0335	ug/L	U	N	UF	2023-566	REG	SW-846-8082A	0.0335	0.5
RLWTF-23-260595	RLWTF_MES	04/13/2023	As	Arsenic	2	ug/L	U	N	F	2023-566	REG	EPA-200-8	2	10
RLWTF-23-260630	RLWTF_MES	04/13/2023	1912-24-9	Atrazine	3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	3	3
RLWTF-23-260630	RLWTF_MES	04/13/2023	103-33-3	Azobenzene	3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	3	0.7
RLWTF-23-260595	RLWTF_MES	04/13/2023	Ba	Barium	0.696	ug/L	J	Y	UF	2023-566	REG	EPA-200-8	0.67	2,000
RLWTF-23-260630	RLWTF_MES	04/13/2023	71-43-2	Benzene	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	5
RLWTF-23-260630	RLWTF_MES	04/13/2023	92-87-5	Benzidine	3.9	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	3.9	0.001
RLWTF-23-260630	RLWTF_MES	04/13/2023	50-32-8	Benzol(a)pyrene	0.3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	0.3	0.2
RLWTF-23-260630	RLWTF_MES	04/13/2023	205-99-2	Benzol(b)fluoranthene	0.3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	0.3	0.343
RLWTF-23-260630	RLWTF_MES	04/13/2023	207-08-9	Benzol(k)fluoranthene	0.3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	0.3	0.42
RLWTF-23-260595	RLWTF_MES	04/13/2023	Be	Beryllium	0.2	ug/L	U	N	F	2023-566	REG	EPA-200-8	0.2	4
RLWTF-23-260630	RLWTF_MES	04/13/2023	319-84-6	BHC[alpha]-	0.00665	ug/L	U	N	UF	2023-566	REG	SW-846-8081B	0.00665	0.07
RLWTF-23-260630	RLWTF_MES	04/13/2023	319-85-7	BHC[beta]-	0.00665	ug/L	U	N	UF	2023-566	REG	SW-846-8081B	0.00665	0.24
RLWTF-23-260630	RLWTF_MES	04/13/2023	58-59-9	BHC[gamma]-	0.00665	ug/L	U	N	UF	2023-566	REG	SW-846-8081B	0.00665	0.42
RLWTF-23-260630	RLWTF_MES	04/13/2023	111-44-4	Bis[2-chloroethyl]ether	3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	3	0.14
RLWTF-23-260630	RLWTF_MES	04/13/2023	117-81-7	Bis[2-ethylhexyl]phthalate	0.3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	0.3	55.64
RLWTF-23-260595	RLWTF_MES	04/13/2023	B	Boron	127	ug/L	NQ	Y	F	2023-566	REG	EPA-200-7	15	750
RLWTF-23-260630	RLWTF_MES	04/13/2023	75-27-4	Bromodichloromethane	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	1.34
RLWTF-23-260630	RLWTF_MES	04/13/2023	75-25-2	Bromoform	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	32.85
RLWTF-23-260630	RLWTF_MES	04/13/2023	74-33-9	Bromomethane	0.337	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.337	7.54
RLWTF-23-260595	RLWTF_MES	04/13/2023	Cd	Cadmium	0.3	ug/L	U	N	F	2023-566	REG	EPA-200-8	0.3	5
RLWTF-23-260630	RLWTF_MES	04/13/2023	56-23-5	Carbon tetrachloride	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	5
RLWTF-23-260595	RLWTF_MES	04/13/2023	57-74-9	Chlordane[alpha/gamma]	0.0765	mg/L	U	N	F	2023-566	REG	SW-846-8081B	0.0765	0.45
RLWTF-23-260630	RLWTF_MES	04/13/2023	Cf(-)	Chlorine	2.55	mg/L	NQ	Y	F	2023-566	REG	EPA-300-0	0.067	250
RLWTF-23-260630	RLWTF_MES	04/13/2023	108-90-7	Chlorobenzene	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	77.57
RLWTF-23-260630	RLWTF_MES	04/13/2023	67-66-3	Chloroform	0.47	ug/L	J	Y	UF	2023-566	REG	SW-846-8260D	0.333	100
RLWTF-23-260630	RLWTF_MES	04/13/2023	74-87-3	Chloromethane	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	20.32
RLWTF-23-260595	RLWTF_MES	04/13/2023	Cr	Chromium	3	ug/L	U	N	F	2023-566	REG	EPA-200-8	3	50
RLWTF-23-260595	RLWTF_MES	04/13/2023	Co	Cobalt	0.31	ug/L	J	Y	F	2023-566	REG	EPA-200-8	0.3	50
RLWTF-23-260595	RLWTF_MES	04/13/2023	Cu	Copper	2.98	ug/L	NQ	Y	F	2023-566	REG	EPA-200-8	0.3	1,000
RLWTF-23-260595	RLWTF_MES	04/13/2023	CN(TOTAL)	Cyanide (Total)	0.00167	mg/L	U	N	F	2023-566	REG	EPA-335.4	0.00167	0.2
RLWTF-23-260630	RLWTF_MES	04/13/2023	Dt[4,4'-]	Dibromoethane[1,2-]	0.01	ug/L	U	N	UF	2023-566	REG	SW-846-8081B	0.01	2.29
RLWTF-23-260630	RLWTF_MES	04/13/2023	106-93-4	Dibromomethane	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	0.05
RLWTF-23-260630	RLWTF_MES	04/13/2023	74-95-3	Dichlorobenzene[1,2-]	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	7.997
RLWTF-23-260630	RLWTF_MES	04/13/2023	95-50-1	Dichloroethane[1,2-]	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	600
RLWTF-23-260630	RLWTF_MES	04/13/2023	106-46-7	Dichlorobenzene[1,4-]	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	75
RLWTF-23-260630	RLWTF_MES	04/13/2023	91-94-1	Dichlorobenzidine[3,3-]	3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	3	1.25
RLWTF-23-260630	RLWTF_MES	04/13/2023	75-71-8	Dichlorodifluoromethane	0.355	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.355	197.2
RLWTF-23-260630	RLWTF_MES	04/13/2023	75-34-3	Dichloroethane[1,1-]	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	25
RLWTF-23-260630	RLWTF_MES	04/13/2023	107-06-2	Dichloroethane[1,2-]	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	5
RLWTF-23-260630	RLWTF_MES	04/13/2023	75-55-4	Dichloroethene[1,1-]	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	7

Attachment 4

Table 2. Analytical Results from the Quarterly Sampling of RLWTF Treated Effluent Discharged to Mechanical Evaporator System on April 13, 2023, Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units <sup>1</sup>	Validation Qualifier <sup>2</sup>	Detected <sup>3</sup>	Field Preparation Code <sup>4</sup>	COC #	Sample Purpose <sup>5</sup>	Lab Method	Report Method Detection Limit <sup>6</sup>	Groundwater Limit <sup>7</sup>	
RLWTF-23-260630	RLWTF_MES	04/13/2023	156-59-2	Dichloroethene[cis-1,2-]	0.333	ug/L	U	N	REG	2023-566	REG	SW-846-8260D	0.333	70	
RLWTF-23-260630	RLWTF_MES	04/13/2023	156-60-5	Dichloroethene[trans-1,2-]	0.333	ug/L	U	N	REG	2023-566	REG	SW-846-8260D	0.333	100	
RLWTF-23-260630	RLWTF_MES	04/13/2023	120-83-2	Dichlorophenol[2,4-]	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	45.3	
RLWTF-23-260630	RLWTF_MES	04/13/2023	78-87-5	Dichloropropene[cis/trans-1,3-]	0.333	ug/L	U	N	REG	2023-566	REG	SW-846-8260D	0.333	5	
RLWTF-23-260630	RLWTF_MES	04/13/2023	542-75-6	Dichloropropene[cis/trans-1,3-]	0.5	ug/L	U	N	REG	2023-566	REG	SW-846-8260D	0.5	4.71	
RLWTF-23-260630	RLWTF_MES	04/13/2023	60-57-1	Diethyl Phthalate	0.01	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	0.01	0.0175	
RLWTF-23-260630	RLWTF_MES	04/13/2023	84-66-2	Dimethyl Phthalate	0.3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	0.3	14,800.5	
RLWTF-23-260630	RLWTF_MES	04/13/2023	131-11-3	Di-n-butylphthalate	0.3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	0.3	611.6	
RLWTF-23-260630	RLWTF_MES	04/13/2023	84-74-2	Di-n-butylphthalate	0.3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	0.3	384.8	
RLWTF-23-260630	RLWTF_MES	04/13/2023	534-52-1	Dinitro-2-methylphenol[4,6-]	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	1.52	
RLWTF-23-260630	RLWTF_MES	04/13/2023	51-28-5	Dinitrophenol[2,4-]	5	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	5	38.67	
RLWTF-23-260630	RLWTF_MES	04/13/2023	121-14-2	Dinitrotoluene[2,4-]	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	2.37	
RLWTF-23-260630	RLWTF_MES	04/13/2023	606-20-2	Dinitrotoluene[2,6-]	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	0.49	
RLWTF-23-260630	RLWTF_MES	04/13/2023	123-91-1	Dioxane[1,4-]	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	4.59	
RLWTF-23-260630	RLWTF_MES	04/13/2023	122-39-4	Diphenylamine	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	122	
RLWTF-23-260630	RLWTF_MES	04/13/2023	959-78-8	Endosulfan I	0.00665	ug/L	U	N	REG	2023-566	REG	SW-846-8081B	0.00665	98.7	
RLWTF-23-260630	RLWTF_MES	04/13/2023	33213-55-9	Endosulfan II	0.01	ug/L	U	N	F	2023-566	REG	SW-846-8081B	0.01	98.7	
RLWTF-23-260630	RLWTF_MES	04/13/2023	72-20-8	Endrin	0.01	ug/L	U	N	REG	2023-566	REG	SW-846-8081B	0.01	2.23	
RLWTF-23-260630	RLWTF_MES	04/13/2023	100-41-4	Ethylbenzene	0.333	ug/L	U	N	REG	2023-566	REG	SW-846-8260D	0.333	700	
RLWTF-23-260630	RLWTF_MES	04/13/2023	206-44-0	Fluoranthene	0.3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	0.3	302.2	
RLWTF-23-260630	RLWTF_MES	04/13/2023	86-73-7	Fluorene	0.3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	0.3	287.64	
RLWTF-23-260630	RLWTF_MES	04/13/2023	F(-)	Fluoride	0.033	mg/L	U	N	REG	2023-566	REG	EPA-300.0	0.033	1.6	
RLWTF-23-260630	RLWTF_MES	04/13/2023	76-44-8	Heptachlor	0.00665	ug/L	U	N	REG	2023-566	REG	SW-846-8081B	0.00665	0.022	
RLWTF-23-260630	RLWTF_MES	04/13/2023	118-74-1	Hexachlorobenzene	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	0.098	
RLWTF-23-260630	RLWTF_MES	04/13/2023	87-68-3	Hexachlorobutadiene	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	1.39	
RLWTF-23-260630	RLWTF_MES	04/13/2023	77-47-4	Hexachlorocyclopentadiene	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	0.41	
RLWTF-23-260630	RLWTF_MES	04/13/2023	67-72-1	Hexachloroethane	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	3.28	
RLWTF-23-260630	RLWTF_MES	04/13/2023	2691-41-0	HMX	0.0795	ug/L	U	N	REG	2023-566	REG	SW-846-8330B	0.0795	1,001.11	
RLWTF-23-260632	RLWTF_MES	04/13/2023	2691-41-0	Hg	0.0791	ug/L	U	N	F	2023-566	FD	SW-846-8330B	0.0791	1,001.11	
RLWTF-23-260595	RLWTF_MES	04/13/2023	Fe	Iron	30	ug/L	U	N	F	2023-566	REG	EPA-200.7	30	1,000	
RLWTF-23-260630	RLWTF_MES	04/13/2023	78-59-1	Iosphorone	3.5	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3.5	780.63	
RLWTF-23-260630	RLWTF_MES	04/13/2023	Pb	Lead	0.531	ug/L	J	Y	REG	2023-566	REG	EPA-200.8	0.5	15	
RLWTF-23-260595	RLWTF_MES	04/13/2023	Mn	Manganese	2	ug/L	U	N	F	2023-566	REG	EPA-200.7	2	200	
RLWTF-23-260595	RLWTF_MES	04/13/2023	Hg	Mercury	0.093	ug/L	U	N	F	2023-566	REG	EPA-245.2	0.067	2	
RLWTF-23-260595	RLWTF_MES	04/13/2023	Mo	Methyl tert-Butyl Ether	0.333	ug/L	U	N	F	2023-566	REG	EPA-245.2	0.067	2	
RLWTF-23-260630	RLWTF_MES	04/13/2023	1634-04-4	Methylene Chloride	0.67	ug/L	U	N	REG	2023-566	REG	SW-846-8260D	0.333	100	
RLWTF-23-260630	RLWTF_MES	04/13/2023	75-09-2	Methylaphthalene[1-]	0.3	ug/L	U	J	Y	REG	2023-566	REG	SW-846-8260D	0.5	5
RLWTF-23-260630	RLWTF_MES	04/13/2023	90-12-0	Methylaphthalene[2-]	0.3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	0.3	30	
RLWTF-23-260630	RLWTF_MES	04/13/2023	91-57-6	Nitrate-Nitrite as Nitrogen	1.55	mg/L	NQ	Y	F	2023-566	REG	SW-846-8270E	0.085	10	
RLWTF-23-260630	RLWTF_MES	04/13/2023	NO2	Nitrite	0.033	mg/L	U	N	F	2023-566	REG	EPA-300.0	0.033	1	
RLWTF-23-260630	RLWTF_MES	04/13/2023	98-95-3	Nitrobenzene	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	1.4	
RLWTF-23-260630	RLWTF_MES	04/13/2023	55-18-5	Nitrosodimethylamine[N-]	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	0.00167	
RLWTF-23-260630	RLWTF_MES	04/13/2023	62-75-9	Nitrosodimethylamine[N-]	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	0.0049	
RLWTF-23-260630	RLWTF_MES	04/13/2023	924-16-3	Nitroso-dimethylamine[N-]	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	0.0273	
RLWTF-23-260630	RLWTF_MES	04/13/2023	930-55-2	Nitrosopirroloindine[N-]	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	0.3696	
RLWTF-23-260630	RLWTF_MES	04/13/2023	108-60-1	Oxybis(1-chloropropane)[2,2-]	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	9.81	
RLWTF-23-260630	RLWTF_MES	04/13/2023	608-93-5	Pentachlorobenzene	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	3.068	
RLWTF-23-260630	RLWTF_MES	04/13/2023	87-86-5	Pentachlorophenol	3	ug/L	U	N	REG	2023-566	REG	SW-846-8270E	3	1	
RLWTF-23-260630	RLWTF_MES	04/13/2023	Clo4	Perchlorate	0.05	ug/L	U	N	REG	2023-566	REG	SW-846-6850	0.05	13.82	

## Attachment 4

**Table 2.** Analytical Results from the Quarterly Sampling of RLWTF Treated Effluent Discharged to Mechanical Evaporator System on April 13, 2023, Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Name	Parameter Code	Report Result	Report Units <sup>1</sup>	Validation Qualifier <sup>2</sup>	Detected <sup>3</sup>	Field Preparation Code <sup>4</sup>	COC #	Sample Purpose <sup>5</sup>	Lab Method	Report Method Detection Limit <sup>6</sup>	Groundwater Limit <sup>7</sup>
RLWTF-23-260630	RLWTF_MES	04/13/2023	355-46-4	Perfluorohexanesulfonic acid	0.585	ng/L	U	N	UF	2023-566	REG	EPA:537M	0.585	401.1
RLWTF-23-260630	RLWTF_MES	04/13/2023	1763-23-1	Perfluorooctanesulfonic acid	0.709	ng/L	U	N	UF	2023-566	REG	EPA:537M	0.709	60.16
RLWTF-23-260630	RLWTF_MES	04/13/2023	335-67-1	Perfluorooctanoic acid	0.709	ng/L	U	N	UF	2023-566	REG	EPA:537M	0.709	60.16
RLWTF-23-260630	RLWTF_MES	04/13/2023	pH		8.1	SU								6.9
RLWTF-23-260630	RLWTF_MES	04/13/2023	85-01-8	Phenanthrene	0.3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	0.3	170.41
RLWTF-23-260630	RLWTF_MES	04/13/2023	108-95-2	Phenol	3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	3	5
RLWTF-23-260630	RLWTF_MES	04/13/2023	1610-18-0	Prometone	3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	3	249.93
RLWTF-23-260630	RLWTF_MES	04/13/2023	129-00-0	Pyrene	0.3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	0.3	117.42
RLWTF-23-260630	RLWTF_MES	04/13/2023	Ra-226+228	Radium-226 and Radium-228	0.606	pCi/L	U	N	UF	2023-566	REG			
RLWTF-23-260630	RLWTF_MES	04/13/2023	121-82-4	RDX	0.0795	ug/L	U	N	UF	2023-566	REG	SW-846-833.0B	0.0795	9.66
RLWTF-23-260632	RLWTF_MES	04/13/2023	121-82-4	RDX	0.0791	ug/L	U	N	UF	2023-566	FD	SW-846-833.0B	0.0791	9.66
RLWTF-23-260595	RLWTF_MES	04/13/2023	Se	Selenium	1.5	ug/L	U	N	F	2023-566	REG	EPA:200.8	1.5	50
RLWTF-23-260595	RLWTF_MES	04/13/2023	Ag	Silver	0.3	ug/L	U	N	F	2023-566	REG	EPA:200.8	0.3	50
RLWTF-23-260630	RLWTF_MES	04/13/2023	100-42-5	Styrene	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	100
RLWTF-23-260595	RLWTF_MES	04/13/2023	504(-2)	Sulfate	0.133	mg/L	U	N	F	2023-566	REG	EPA:300.0	0.133	600
RLWTF-23-260636	RLWTF_MES	04/13/2023	504(-2)	Sulfate	0.133	mg/L	U	N	F	2023-566	FD	EPA:300.0	0.133	600
RLWTF-23-260630	RLWTF_MES	04/13/2023	126-33-0	Sulfoflame	3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	3	20.03
RLWTF-23-260630	RLWTF_MES	04/13/2023	95-94-3	Tetrachlorobenzene[1,2,4,5]	3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	3	1.66
RLWTF-23-260630	RLWTF_MES	04/13/2023	79-34-5	Tetrachloroethane[1,1,2,2]	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	10
RLWTF-23-260630	RLWTF_MES	04/13/2023	127-18-4	Tetrachloroethene	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	5
RLWTF-23-260595	RLWTF_MES	04/13/2023	Tl	Thallium	0.6	ug/L	U	N	F	2023-566	REG	EPA:200.8	0.6	2
RLWTF-23-260630	RLWTF_MES	04/13/2023	108-88-3	Toluene	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	1,000
RLWTF-23-260595	RLWTF_MES	04/13/2023	TDS	Total Dissolved Solids	65	mg/L	NQ	Y	F	2023-566	REG	EPA:160.1	2.38	1,000
RLWTF-23-260595	RLWTF_MES	04/13/2023	TKN	Total Kjeldahl Nitrogen	0.033	mg/L	U	N	F	2023-566	REG	EPA:351.2	0.033	-
RLWTF-23-260630	RLWTF_MES	04/13/2023	8001-35-2	Toxaphene [Technical Grade]	0.15	ug/L	U	N	UF	2023-566	REG	SW-846-8081B	0.15	0.158
RLWTF-23-260630	RLWTF_MES	04/13/2023	120-82-1	Trichlorobenzene[1,2,4-]	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	70
RLWTF-23-260630	RLWTF_MES	04/13/2023	71-55-6	Trichloroethane[1,1,1-]	0.333	ug/L	UJ	N	UF	2023-566	REG	SW-846-8260D	0.333	200
RLWTF-23-260630	RLWTF_MES	04/13/2023	79-00-5	Trichloroethane[1,1,2-]	0.333	ug/L	UJ	N	UF	2023-566	REG	SW-846-8260D	0.333	5
RLWTF-23-260630	RLWTF_MES	04/13/2023	79-01-6	Trichloroethene	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	5
RLWTF-23-260630	RLWTF_MES	04/13/2023	75-69-4	Trichlorofluoromethane	0.333	ug/L	U	N	F	2023-566	REG	SW-846-8260D	0.333	1336.82
RLWTF-23-260630	RLWTF_MES	04/13/2023	95-95-4	Trichlorophenol[2,4,5-]	3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	3	1165.98
RLWTF-23-260630	RLWTF_MES	04/13/2023	88-06-2	Trichlorophenol[2,4,6-]	3	ug/L	U	N	UF	2023-566	REG	SW-846-8270E	3	11.88
RLWTF-23-260630	RLWTF_MES	04/13/2023	118-96-7	Trinitrotoluene[2,4,6-]	0.0795	ug/L	U	N	UF	2023-566	REG	SW-846-8330B	0.0795	9.8
RLWTF-23-260632	RLWTF_MES	04/13/2023	118-96-7	Trinitrotoluene[2,4,6-]	0.0791	ug/L	U	N	UF	2023-566	FD	SW-846-8330B	0.0791	9.8
RLWTF-23-260595	RLWTF_MES	04/13/2023	U	Uranium	0.067	ug/L	U	N	F	2023-566	REG	EPA:200.8	0.067	30
RLWTF-23-260630	RLWTF_MES	04/13/2023	75-01-4	Vinyl Chloride	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	2
RLWTF-23-260630	RLWTF_MES	04/13/2023	1330-20-7	Xylene[Total]	1	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	1	620
RLWTF-23-260630	RLWTF_MES	04/13/2023	95-47-6	Xylene[1,2-]	0.333	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.333	193
RLWTF-23-260630	RLWTF_MES	04/13/2023	Xylenes[1,3-;1,4-]	0.5	ug/L	U	N	UF	2023-566	REG	SW-846-8260D	0.5	396	
RLWTF-23-260595	RLWTF_MES	04/13/2023	Zinc	3.3	ug/L	U	N	F	2023-566	REG	EPA:200.7	3.3	10,000	

Notes:

<sup>1</sup>ug/L - micrograms per liter.

<sup>2</sup>mg/L - milligrams per liter.

<sup>3</sup>ng/L - nanograms per liter.

<sup>4</sup>SU - standard units.

<sup>5</sup>pCi/L - picocuries per liter.

<sup>6</sup>U - The analyte is classified as not detected.

<sup>7</sup>J - The analyte is classified as detected but the reported concentration value is more uncertain than usual.

<sup>8</sup>NQ - No validation qualifier flag is associated with this result, and the analyte is classified as detected.

<sup>9</sup>N - In the detected column means the analyte was detected.

<sup>Y</sup> - In the detected column means the analyte was detected.

#### Attachment 4

**Table 2.** Analytical Results from the Quarterly Sampling of RLWTF Treated Effluent Discharged to Mechanical Evaporator System on April 13, 2023, Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units <sup>1</sup>	Validation Qualifier <sup>2</sup>	Report Units <sup>1</sup>	Field Preparation Detected <sup>3</sup>	COC #	Sample Purpose <sup>5</sup>	Lab Method	Report Method Detection Limit <sup>6</sup>	Groundwater Limit <sup>7</sup>
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<sup>4</sup>UF - Unfiltered.

<sup>5</sup>F - Filtered.

<sup>5</sup>REG - In the sample purpose column means the sample was a regular sample.

<sup>6</sup>FD - In the sample purpose column means the sample was a field duplicate.

<sup>6</sup> There is not a Report Detection Limit for Radium-226 and Radium-228 since this result is calculated.

<sup>7</sup> Groundwater Limit represents standards for groundwater as identified in NMAC 20.6.2.3103 where available, otherwise the value represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Groundwater Limit for N-nitrosodiphenylamine, which represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Groundwater Limit for combined Endosulfan I and Endosulfan II is 38.7 µg/L, which represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Total Keidahl Nitrogen does not contain either a 20.6.2.3103 NMAC standard or NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Groundwater Limit for combined Napthalene plus monomethylnaphthalenes is 30 µg/L, which represents the NMAC 20.6.2.3103 Groundwater Standard.

## Attachment 4

**Table 3.** Analytical Results from the Monthly Sampling of RLWTF Treated Effluent Discharged to Mechanical Evaporator System on May 4, 2023. Permit Condition No. 29.

Field Sample ID	Location ID	Sample ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units <sup>1</sup>	Validation Qualifier <sup>2</sup>	Detected <sup>3</sup>	Field Preparation Code <sup>4</sup>	CCC #	Sample Purpose <sup>5</sup>	Lab Method	Report Method Detection Limit	Groundwater Limit <sup>6</sup>
RLWTF-23-260527	RLWTF_MES	05/04/2023	Cl(-1)		Chloride	0.639	mg/L	NQ	Y	F	2023-627	REG	EPA:300.0	0.067	250
RLWTF-23-260527	RLWTF_MES	05/04/2023	F(-1)		Fluoride	0.033	mg/L	U	N	F	2023-627	REG	EPA:300.0	0.033	1,6000
RLWTF-23-260527	RLWTF_MES	05/04/2023	NO3-NO2-N		Nitrate-Nitrite as Nitrogen	1.27	mg/L	J+	Y	F	2023-627	REG	EPA:353.2	0.095	10
RLWTF-23-260762	RLWTF_MES	05/04/2023	NO3-NO2-N		Nitrate-Nitrite as Nitrogen	1.24	mg/L	J+	Y	F	2023-627	FD	EPA:353.2	0.095	10
RLWTF-23-260551	RLWTF_MES	05/04/2023	ClO4		Perchlorate	0.05	ug/L	U	N	UF	2023-627	REG	SW-846/8850	0.05	13.8
RLWTF-23-260527	RLWTF_MES	05/04/2023	TDS		Total Dissolved Solids	32	mg/L	NQ	Y	F	2023-627	REG	EPA:160.1	2.38	1,000
RLWTF-23-260527	RLWTF_MES	05/04/2023	TKN		Total Kjeldahl Nitrogen	0.148	mg/L	J-	Y	F	2023-627	REG	EPA:351.2	0.033	-
RLWTF-23-260762	RLWTF_MES	05/04/2023	TKN		Total Kjeldahl Nitrogen	0.033	mg/L	UJ	N	F	2023-627	FD	EPA:351.2	0.033	-

<sup>1</sup>mg/L - milligrams per liter.  
<sup>2</sup>ug/L - micrograms per liter.

<sup>2</sup>NQ - No validation qualifier flag is associated with this result, and the analyte is classified as detected.

U - The analyte is classified as not detected.

J+ - The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual with a potential positive bias.

J- -The analyte is classified as detected but the reported concentration values is expected to be more uncertain than usual with a potential negative bias.

UJ - The analyte is classified as not detected, with an expectation that the reported result is more uncertain than usual.

<sup>3</sup>Y - In the detected column means the analyte was detected.

N - In the detected column means the analyte was not detected.

<sup>4</sup>F - Filtered.

UF - Unfiltered.

<sup>5</sup>REG - In the sample purpose column means the sample was a regular sample.

FD - In the sample purpose column means the sample was a field duplicate.

<sup>6</sup>Groundwater Limit represents standards for groundwater as identified in NMAC 20.6.2.3103 where available, otherwise the value represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.  
 Total Kjeldahl Nitrogen does not contain either a 20.6.2.3103 NMAC standard or NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

## Attachment 4

**Table 4.** Analytical Results from the Monthly Sampling of RLWTF Treated Effluent Discharged to Mechanical Evaporator System on June 8, 2023 - Permit Condition No. 29.

Field Sample ID	Location ID	Sample ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units <sup>1</sup>	Validation Qualifier <sup>2</sup>	Detected <sup>3</sup>	Field Preparation Code <sup>4</sup>	COC #	Sample Purpose <sup>5</sup>	Lab Method	Report Method Detection Limit	Groundwater Limit <sup>6</sup>
RLWTF-23-260528	RLWTF_MES	06/08/2023	Cl(-1)	Chloride	0.172	mg/L	J	Y	F	2023-729	REG	EPA:300.0	0.067	250	
RLWTF-23-260528	RLWTF_MES	06/08/2023	F(-1)	Fluoride	0.033	mg/L	U	N	F	2023-729	REG	EPA:300.0	0.033	1,6000	
RLWTF-23-260528	RLWTF_MES	06/08/2023	NO3+NO2-N	Nitrate-Nitrite as Nitrogen	1.63	mg/L	NQ	Y	F	2023-729	REG	EPA:353.2	0.17	10	
RLWTF-23-260763	RLWTF_MES	06/08/2023	NO3+NO2-N	Nitrate-Nitrite as Nitrogen	1.63	mg/L	NQ	Y	F	2023-729	FID	EPA:353.2	0.17	10	
RLWTF-23-260552	RLWTF_MES	06/08/2023	ClO4	Perchlorate	0.05	ug/L	U	N	UF	2023-729	REG	SW-846:6850	0.05	13.8	
RLWTF-23-260528	RLWTF_MES	06/08/2023	TDS	Total Dissolved Solids	24	mg/L	NQ	Y	F	2023-729	REG	EPA:160.1	2.38	1,000	
RLWTF-23-260528	RLWTF_MES	06/08/2023	TKN	Total Kjeldahl Nitrogen	0.218	mg/L	NQ	Y	F	2023-729	REG	EPA:351.2	0.033	-	
RLWTF-23-260763	RLWTF_MES	06/08/2023	TKN	Total Kjeldahl Nitrogen	0.194	mg/L	NQ	Y	F	2023-729	FID	EPA:351.2	0.033	-	

<sup>1</sup>mg/L - milligrams per liter.  
<sup>2</sup>ug/L - micrograms per liter.

<sup>3</sup>J - The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual.

U - The analyte is classified as not detected.

NQ - No validation qualifier flag is associated with this result, and the analyte is classified as detected.

<sup>4</sup>Y - In the detected column means the analyte was detected.

N - In the detected column means the analyte was not detected.

F - Filtered.

UF - Unfiltered.

<sup>5</sup>REG - In the sample purpose column means the sample was a regular sample.

FD - In the sample purpose column means the sample was a field duplicate.

<sup>6</sup>Groundwater Limit represents standards for groundwater as identified in NMAC 20.6.2.3103 where available, otherwise the value represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit. Total Kjeldahl Nitrogen does not contain either a 20.6.2.3103 NMAC standard or NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

# **Attachment 5**

## **Groundwater Monitoring Report -**

### **Second Quarter 2023**

EPC-DO: 23-226

LA-UR-23-27491

Date: July 31, 2023

## **Quarterly Groundwater Monitoring Report – Second Quarter 2023**

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**MCA-RLW-1, Second Quarter 2023**

a	Sample Date	4/13/2023
b	Sample Time	0748
c	Individuals collecting sample	N3B Staff
d	Monitoring well identification	MCA-RLW-1
e	Physical description of monitoring well location	See Location Map, Attachment 6
f	Ground-water surface elevation (ft above mean sea level (msl))	6,864.4
g	Total depth of the well (ft below ground surface (bgs))	22.2
h	Total volume of water in the monitoring well prior to sample collection (gal)	N/A
i	Total volume of water purged prior to sample collection (gal)	N/A
j	Physical parameters including temperature, conductivity, pH, oxidation/reduction potential	DO (mg/L): N/A Oxidation/Reduction Potential (MV): N/A Temp (deg C): N/A pH (SU): N/A Turbidity (NTU): N/A Specific Conductance ( $\mu$ S/cm): N/A
k	Description of sample methods	N/A
l	Chain-of-Custody	N/A
m	Location Map	Attachment 6
	Analytical Results	N/A

## Notes:

N/A – Not applicable. Well was not sampled when visited on April 13, 2023, due to insufficient water in the well. The well only contained 0.14 ft of standing water.

**MCA-RLW-2, Second Quarter 2023**

a	Sample Date	4/13/2023
b	Sample Time	0720
c	Individuals collecting sample	N3B Staff
d	Monitoring well identification	MCA-RLW-2
e	Physical description of monitoring well location	See Location Map, Attachment 6
f	Ground-water surface elevation (ft above mean sea level (msl))	6,806.41
g	Total depth of the well (ft below ground surface (bgs))	40.4
h	Total volume of water in the monitoring well prior to sample collection (gal)	N/A
i	Total volume of water purged prior to sample collection (gal)	N/A
j	Physical parameters including temperature, conductivity, pH, oxidation/reduction potential	DO (mg/L): N/A Oxidation/Reduction Potential (MV): N/A Temp (deg C): N/A pH (SU): N/A Turbidity (NTU): N/A Specific Conductance ( $\mu$ S/cm): N/A
k	Description of sample methods	N/A
l	Chain-of-Custody	N/A
m	Location Map	Attachment 6
	Analytical Results	N/A

## Notes:

N/A – Not applicable. Well was not sampled when visited on April 13, 2023, due to insufficient water in the well. The well only contained 0.52 ft of standing water.

**MCOI-6, Second Quarter 2023**

a	Sample Date	5/16/2023
b	Sample Time	1344
c	Individuals collecting sample	N3B Staff
d	Monitoring well identification	MCOI-6
e	Physical description of monitoring well location	See Location Map, Attachment 6
f	Ground-water surface elevation (ft above mean sea level (msl))	6,133.19
g	Total depth of the well (ft below ground surface (bgs))	712.6
h	Total volume of water in the monitoring well prior to sample collection (gal)	28.65
i	Total volume of water purged prior to sample collection (gal)	89.9
j	Physical parameters including temperature, conductivity, pH, oxidation/reduction potential	DO (mg/L): 7.57 Oxidation/Reduction Potential (MV): 162.5 Temp (deg C): 17.4 pH (SU): 7.34 Turbidity (NTU): 0.32 Specific Conductance ( $\mu$ S/cm): 529
k	Description of sample methods	Attachment 5 Page 5
l	Chain-of-Custody	Attachment 5 Page 5
m	Location Map	Attachment 6
	Analytical Results	Attachment 5 Page 6, Table 1



## Attachment 5

**Table 1.** Analytical Results from Second Quarter Groundwater Sampling of Perched/Intermediate Aquifer Monitoring Well MC01-6.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units <sup>1</sup>	Validation Qualifier <sup>2</sup>	Detected <sup>3</sup>	Field Preparation Code <sup>4</sup>	COC #	Sample Purpose <sup>5</sup>	Lab Method	Report Method Detection Limit	Groundwater Limit <sup>6</sup>
CAMO-23-281893	MC01-6	05-03-2023	Cl(-)	Chloride	46.8	mg/L	NQ	Y	F	N3B-2023-2247	REG	EPA:300.0	0.67	250
CAMO-23-281893	MC01-6	05-03-2023	F(-)	Fluoride	0.588	mg/L	NQ	Y	F	N3B-2023-2247	REG	EPA:300.0	0.033	1.6
CAMO-23-281893	MC01-6	05-03-2023	NO3-NO2-N	Nitrate-Nitrite as Nitrogen	14	mg/L	NQ	Y	F	N3B-2023-2247	REG	EPA:353.2	0.17	10
CAMO-23-281893	MC01-6	05-03-2023	ClO4	Perchlorate	108	ug/L	NQ	Y	F	N3B-2023-2247	REG	SW-846:6850	1	13.8
CAMO-23-281893	MC01-6	05-03-2023	TDS	Total Dissolved Solids	369	mg/L	J	Y	F	N3B-2023-2247	REG	EPA:160.1	2.38	1,000
CAMO-23-281892	MC01-6	05-03-2023	TKN	Total Kjeldahl Nitrogen	0.033	mg/L	UJ	N	UF	N3B-2023-2247	REG	EPA:351.2	0.033	-

<sup>1</sup>mg/L - milligrams per liter.  
<sup>2</sup>ug/L - micrograms per liter.

<sup>3</sup>NQ - No validation qualifier flag is associated with this result, and the analyte is classified as detected.

<sup>4</sup>J - The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual.

<sup>5</sup>UJ - The analyte is classified as not detected, with an expectation that the reported result is more uncertain than usual.

<sup>6</sup>Y - In the detected column means the analyte was detected.

<sup>7</sup>N - In the detected column means the analyte was not detected.

<sup>8</sup>F - Filtered.

<sup>9</sup>UF - Unfiltered.

<sup>10</sup>REG - In the sample purpose column means the sample was a regular sample.

<sup>11</sup>FD - In the sample purpose column means the sample was a field duplicate.

<sup>12</sup>Groundwater Limit represents standards for groundwater as identified in NMAC 20.6.2.3103 where available, otherwise the value represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.  
 Total Kjeldahl Nitrogen does not contain either a 20.6.2.3103 NMAC standard or NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

# **Attachment 6**

## Monitoring Well Location Map

EPC-DO: 23-226

LA-UR-23-27491

Date: July 31, 2023

