

# MOAB TAILINGS PROJECT STEERING COMMITTEE

Quarterly Meeting

Anchor Location: 125 E Center St, Moab, Utah 84532 (Commission Chambers)

Public is invited to view the Quarterly Meeting on YouTube: <https://www.youtube.com/@MTPSCGrandCo>

See below for instructions to provide public comment on Zoom

Meeting ID: 831 5135 2513 Passcode (as needed): 315795

Link: <https://us06web.zoom.us/j/83151352513?pwd=pe10NQ9IoTxUgehRJB9GOeA9g0Ekxj.1>

## AGENDA

Tuesday, July 30, 2024 at 3:00PM (MST)

- A. **CALL TO ORDER (3:00PM)**
- B. **INTRODUCTIONS (Chair, Mary McGann)**
- C. **ACTION ITEM: APPROVAL OF MINUTES (Chair, Mary McGann)**
  - a. April 23, 2024 Quarterly Meeting
- D. **CITIZENS TO BE HEARD**

We are receiving public comments by phone and online through Zoom.  
Meeting ID: 831 5135 2513 Passcode (as needed): 315795  
Link: <https://us06web.zoom.us/j/83151352513?pwd=pe10NQ9IoTxUgehRJB9GOeA9g0Ekxj.1>

Please note that when joining the meeting, you will be placed in a waiting room and will be added to the meeting by the moderator. Your comments will be recorded and are limited to a duration of three (3) minutes in length.
- E. **STAKEHOLDER INQUIRIES & MOAB UMTRA RESPONSE (Barbara Michel, Department of Energy)**
- F. **MOAB UMTRA PROJECT UPDATE (Pro2Serve, Technical Assistance Contract, Liz Moran)**
- G. **PRESENTATION OF THE DOE ANNUAL STATEMENT OF CONTINUED COMPLIANCE WITH GRAND COUNTY'S CONDITIONAL USE PERMIT FOR THE MOAB UMTRA PROJECT (Pro2Serve, Technical Assistance Contract, Liz Moran)**
- H. **CONSIDERATION OF APPROVAL OF THE ANNUAL STATEMENT OF CONTINUED COMPLIANCE (Chair, Mary McGann)**
- I. **AIR MONITORING AND LIAISON ACTIVITIES STATUS UPDATE (UMTRA Liaison, Jessica Thacker)**
- J. **STAKEHOLDERS UPDATES**
- K. **FUTURE CONSIDERATIONS (Chair, Mary McGann)**
  - a. Site Visit to the Los Colonias Park in Grand Junction, Colorado
  - b. 2024 MTPSC Meeting Dates (October 22)
- L. **ADJOURNMENT**

**NOTE:** Individuals with special needs requests wishing to attend MTPSC meetings are encouraged to contact the Grand County UMTRA Liaison at least twenty-four (24) hours in advance of these events. Specific accommodations necessary to allow participation of disabled persons will be provided to the maximum extent possible. T.D.D. (Telecommunication Device for the Deaf) calls can be answered at: 435-259-1346. Individuals with speech and/or hearing impairments may also call Relay Utah by dialing 711 or Spanish Relay Utah at 888-346-3162. Please contact the UMTRA Liaison for general requests, or any questions or comments at [jthacker@grandcountyutah.net](mailto:jthacker@grandcountyutah.net).

Dated this 29th day of July 2024

*Jessica Thacker*

s/S Jessica Thacker, UMTRA Liaison

**Stakeholder Questions for 07.30.202 Moab Tailings Project Steering Committee (MTPSC) Meeting:**

1. It was previously discussed that the project would file Floodplain Development Permits with the County to help with tracking and record keeping at the Federal level. Is this still in progress or has the plan for that tracking changed? *(As Provided by Bryce Rogers, Grand County Associate Planner)*
2. There is mapping and a CLOMR-F proposed (or ongoing) for adjacent properties to the east of the site. Has it been proposed to extend this work downstream to aid in mapping the entire developable river corridor? *(As Provided by Bryce Rogers, Grand County Associate Planner)*
3. Provide any information regarding what if any the June storms had on the projects process or any damage sustained and what mitigation/repairs have been completed or planned. *(Bill Jackson, Grand County Roads Department)*

**Grand County**  
**Annual Statement of Continued Compliance**  
**July 18, 2023 – July 19, 2024**

**I. Per requirements of the Grand County Conditional Use Permit (CUP), Resolution #2006-2741, DOE submits this Annual Statement of Continued Compliance. The following is specific information requested in item #17 of the resolution:**

**a. Summary of work completed by the Moab Uranium Mill Tailings Remedial Action Project (Project) pursuant to the approved CUP in the past 12 months:**

**Project Accomplishments**

During the reporting period, the Project shipped over 1,036,719 tons of uranium mill tailings. To date, the Project has shipped more than 14.8 million tons, or about 92 percent of the total estimated 16 million tons in the tailings pile to be moved.

During the reporting period, more than 151,162 tons of debris was placed in the disposal cell, which was shipped by train.

In October 2023, the Project reached 14 million tons of mill tailings shipped from Moab to Crescent Junction.

In March 2023, the U.S. Congress approved the Fiscal Year (FY) 2024 budget. It provided \$67 million for the Project.

**Moab**

Tailings excavation, conditioning, loading, and unloading were performed throughout the year. The Project continued the four trains a week shipping schedule for the duration of the reporting period.

Approximately 4.8 million gallons of groundwater were extracted during the past 12 months, removing 9,108 pounds of ammonia and 103 pounds of uranium, through the interim action groundwater system. The extraction system was shut down from early-November 2023 through late-March 2024 as there is minimal evaporation during the winter months and the existing storage capacity for contaminated water is limited. More than 2.3 million gallons of freshwater were injected to create a hydraulic barrier to protect the adjacent aquatic habitat.

The Project did experience minor seasonal flooding at the Moab site during the reporting period. Flood waters from the Colorado River entered the formerly remediated area north of Moab Wash during the weekend of June 7 and peaked at 25,100 cfs on June 10. By July 17 flood waters were no longer connected to the river and waters started to recede. No flooding occurred in the well field south of Moab Wash and there were no impacts to infrastructure.

## **Crescent Junction**

Tailings placement and compaction in the disposal cell continued throughout the reporting period.

The Project has proposed to the Nuclear Regulatory Commission (NRC), changing the Crescent Junction disposal cell cover to an evapotranspiration (ET) cover design. The final change report was officially submitted in January 2024 after project staff worked with NRC through two separate rounds of report reviews, which included comments and edits from NRC about the cover design change. The project is hopeful that an NRC response will come within this calendar year.

**b. Number of workers employed on site in the past year and projection for the coming year:**

As of July 2024, the Project employed 139 people. Staffing will continue to reflect the shipping schedule.

**c. The work plan for the coming 12 months including any modifications, additions, and deletions:**

The Project plans to continue excavating and conditioning mill tailings, and shipping four trains per week through the end of this FY on September 30, 2024. The project is also periodically shipping debris from the Moab site with tailings. By moving the debris incrementally now, the project is trying to reduce the amount of time that it would take to move the debris at the end of the tailings pile removal process.

Placement of tailings four days per week will continue at the Crescent Junction site for the foreseeable future. The Project has been placing interim cover on tailings that have reached final design elevation in the disposal cell.

Operation of the interim groundwater remedial action system will continue, including groundwater extraction, freshwater injection, and surface water diversion (when necessary), along with system monitoring.

Field investigations will continue in support of the determination of the Groundwater Compliance Action Plan (GCAP).

**d. Air and water quality monitoring reports and support materials sufficient to inform the public regarding any health risks associated with the Project:**

The Project prepares an Annual Site Environmental Report (ASER) to inform the public of the environmental site conditions, document compliance with environmental standards and requirements, and highlight significant programs and efforts. The ASER, along with

groundwater and surface water monitoring reports and quarterly air monitoring data reports are all available on the Project website at [Environmental Compliance and Plans | Department of Energy](#) . In addition, hard copies are maintained in the public reading room at the Grand County Public Library, and key stakeholders are notified of their availability on the Project website.

### **Air**

The Project monitors public exposure to contaminants, including direct gamma radiation, radon, and airborne radioparticulates, which are directly attributable to the uranium mill tailings and other contaminated materials from the Moab and Crescent Junction sites. Monitoring locations are shown on maps included in the quarterly air monitoring reports. Public exposure to direct gamma radiation and radioparticulates from the Project sites did not exceed DOE public dose limits during the most recent quarterly period (January-March 2024).

### **Employee Radiological Monitoring**

The Project conducts a separate employee radiological monitoring program. Employees who routinely enter the Contamination Area represent the highest potentially exposed individuals. They are monitored for their radiation exposure, known as total effective dose, from gamma radiation, radon, and radioparticulates. DOE has a total effective dose limit of 5,000 millirems per year (mrem/yr.) and an administrative control level of 2,000 mrem/yr. The Project sets its own goal of 500 mrem/yr and ensures engineering and administrative controls are in place to maintain employee radiological dose as low as reasonably achievable (ALARA). Radiation exposure results to date indicate that the Project has adequately protected its workers from radiological hazards by keeping the total effective dose well below the DOE administrative control level.

### **Water**

Active groundwater remediation is conducted to protect the critical habitat areas adjacent to the site, and to remove ammonia and uranium mass from the groundwater system. In addition to extraction of contaminated groundwater through eight wells located close to the tailings pile, freshwater (diverted river water) was injected through wells near the river as an additional way of minimizing the discharge of ammonia to the river. Surface water diversion was not necessary from July 2023 through July 2024 because areas adjacent to the well field did not develop into a suitable habitat for endangered fish species.

# MOAB TAILINGS PROJECT STEERING COMMITTEE

Quarterly Meeting

Anchor Location: Grand County Commission Chambers 125 E Center St, Moab, UT 84532

Held virtually on Zoom and Livestreamed on YouTube

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## MTPSC MINUTES

Tuesday, April 24, 2024 at 3:00PM (MST)

### A. CALL TO ORDER

The April 23, 2024 quarterly meeting of the Moab Tailings Project Steering Committee was called to order at 3:06pm. The following committee members were in attendance:

Mary McGann (Grand County Commission), Dave Pals (Bureau of Land Management), Amy Tendick (National Park Service), Josh Green (Grand Water and Sewer Service Agency), Bill Jackson (Grand Co. Roads Department), Ben Musselman (Grand Water and Sewer Service Agency), Colin Topper (City of Moab Representative), Ben Fredregill (Grand Co. Department of Economic Development), Phil Goble (Utah Department of Environmental Quality), Larry Ellertson (Representative from the Utah 3<sup>rd</sup> Congressional District U.S. Senator's Office), Joel Brown (Representative from the Utah Senate District 26 State Senator's Office), and Kent Wilson (Representative from the Utah Senate District 26 State Senator's Office).

The following non-committee members were in attendance:

Matt Udovitsch (DOE), Barbara Michel (DOE), Liz Moran (Pro2Serve, Technical Assistance Contract), Jim Ritchey (North Wind Portage, Remedial Action Contract), Russ von Koch (Site Futures Committee), Ken Pill (DOE), Christopher Pulskamp (DOE), Kenny Schafer (DOE), Bill Winfield (Grand County Commission), and Jessica Thacker (Grand County UMTRA Liaison/Technical Inspector).

Per Resolution 3198 at least seven committee members were present to constitute a quorum.

### B. INTRODUCTIONS

### C. APPROVAL OF JANUARY 23, 2024 MINUTES

**MOTION: Colin Topper motioned to approve the minutes for the January 23, 2024 meeting. Seconded by Ben Musselman. All in favor – motion passes.**

### D. CITIZENS TO BE HEARD

No comments were received.

### E. MOAB UMTRA PROJECT UPDATE

Matt Udovitsch provided a detailed project update expressing appreciation to the stakeholders' participation in the recent site tour as well as highlighting the 2024 project milestones such the amount of tailings and historical debris removed, the project schedule, the anticipated transition from environmental remediation management to legacy management, and any issues encountered during the project's operations. He stated that good weather and the purchase of newer equipment allowed the project to remain ahead of schedule. He also provided an update on the timeline of the completion of the End Vision document for the project. Matt Udovitsch provided a brief update on the ET cover (alternative cover) for the Crescent Junction disposal site and stated that a final document should be completed soon. He stated that the project had hoped to provide further, more definitive information on the Final Status Survey at the next meeting. Matt Udovitsch detailed the schedule, operation, and proposal to fully dispose of the historical autoclaves from the Moab site. A brief discussion on the necessary lift and spacing requirements in

regards to the autoclaves compaction and burial ensued. He stated that the project had received approval from the NRC for the unique disposal method at the Crescent Junction site. A brief discussion on the safety culture of the project as well as any recorded incidents ensued.

Liz Moran provided a brief project update in regards to groundwater remediation processes and completed field studies as well as stating the Conceptual Site Model will be used to generate the Groundwater Compliance Action Plan with the hope to submit this plan in 2027 to accelerate the schedule for closure.

Several brief discussions between DOE staff and stakeholders on cleanup standards, survey status processes, cover materials, and other topics ensued.

## **F. AIR MONITORING AND LIAISON ACTIVITIES STATUS UPDATES**

Jessica Thacker provided a detailed presentation regarding activities observed at the Project along with a summary of air monitoring data for both sites (Moab and Crescent Junction). At the time of the meeting, air monitoring data for the 3<sup>rd</sup> and 4<sup>th</sup> quarter of 2023 had not been received and therefore was not included in the Liaison Status Update presentation. She stated that once the data had been received, it would be presented to the Committee. The status update can be found on the Grand County Moab UMTRA website or by email at [jthacker@grandcountyutah.net](mailto:jthacker@grandcountyutah.net)

## **G. CONSIDERATION OF CHANGES TO MOAB TAILINGS PROJECT STEERING COMMITTEE MEMBER ORGANIZATION IN REGARDS TO SITE CLOSURE AND TRANSITION**

Mary McGann stated that Jessica Thacker's position as the UMTRA Liaison would be changing as site closure and transition occurred and requested input from the Stakeholders and the DOE on how the position would evolve. Matt Udovitsch stated that a meeting could be arranged to discuss these changes. Jessica Thacker provided a brief overview of her position as it currently stood with a brief list of expected responsibilities and duties. Mary McGann stated that if the stakeholders had any further considerations to the development of Ms. Thacker's position to submit them via email.

## **H. STAKEHOLDERS UPDATE**

No stakeholders update were provided.

## **I. FUTURE CONSIDERATIONS**

Mary McGann requested the stakeholders review their schedule for the July 23<sup>rd</sup> quarterly meeting and inform the Liaison if a quorum would not be feasible for that date so it could be adjusted accordingly. Russ von Koch stated that it would be helpful to have a Site Futures presentation presented at the October meeting to update any new members to the Steering Committee. Mary McGann stated that she would like to organize another field trip to the Los Colonias park in Grand Junction, Colorado to advise the stakeholders on how the Moab UMTRA project could be converted into a useful asset of the community.

## **J. ADJOURNMENT**

Mary McGann adjourned the meeting at 3:58PM.

# MOAB UMTRA PROJECT

## URANIUM MILL TAILINGS REMEDIAL ACTION

### MOAB, UTAH



*Panoramic view of Moab UMTRA Site (June 26, 2024)*



Prepared by:  
**Jessica Thacker**  
UMTRA Liaison/Technical Inspector

**MTPSC Status Update**

**07.30.2024**

# INTRODUCTION & PURPOSE

The UMTRA Liaison/Technical Inspector position, as established by Grand County Resolution 3198 and located within the Grand County Planning and Community Development Department (P&CD), serves as an independent and neutral figure regarding activities utilizing a conditional use permit (CUP) through Grand County.

The UMTRA Liaison/Technical Inspector provides observations, reports, and other applicable duties to the following sites:

- The Moab UMTRA Site and associated Crescent Junction Disposal Site
- Oilfield Water Logistics at Danish Flats
- IACX Helium Processing Plant at Harley Dome

The UMTRA Liaison/Technical Inspector works with a variety of entities and committees to ensure full transparency and accurate reporting. This position is currently funded through Grant DE-EM0005196 and has a period of performance through February 4, 2025.

# UMTRA SITE MAP



Google Maps – Image not to scale

# OBSERVATION POINT #1



## OBSERVATION POINT #2

APR 2024



JUNE 2024



# OBSERVATION POINT #4

APR 2024



JUNE 2024



# OBSERVATION POINT #5

APR 2024



JUNE 2024



# OBSERVATION POINT #6

MAY 2024

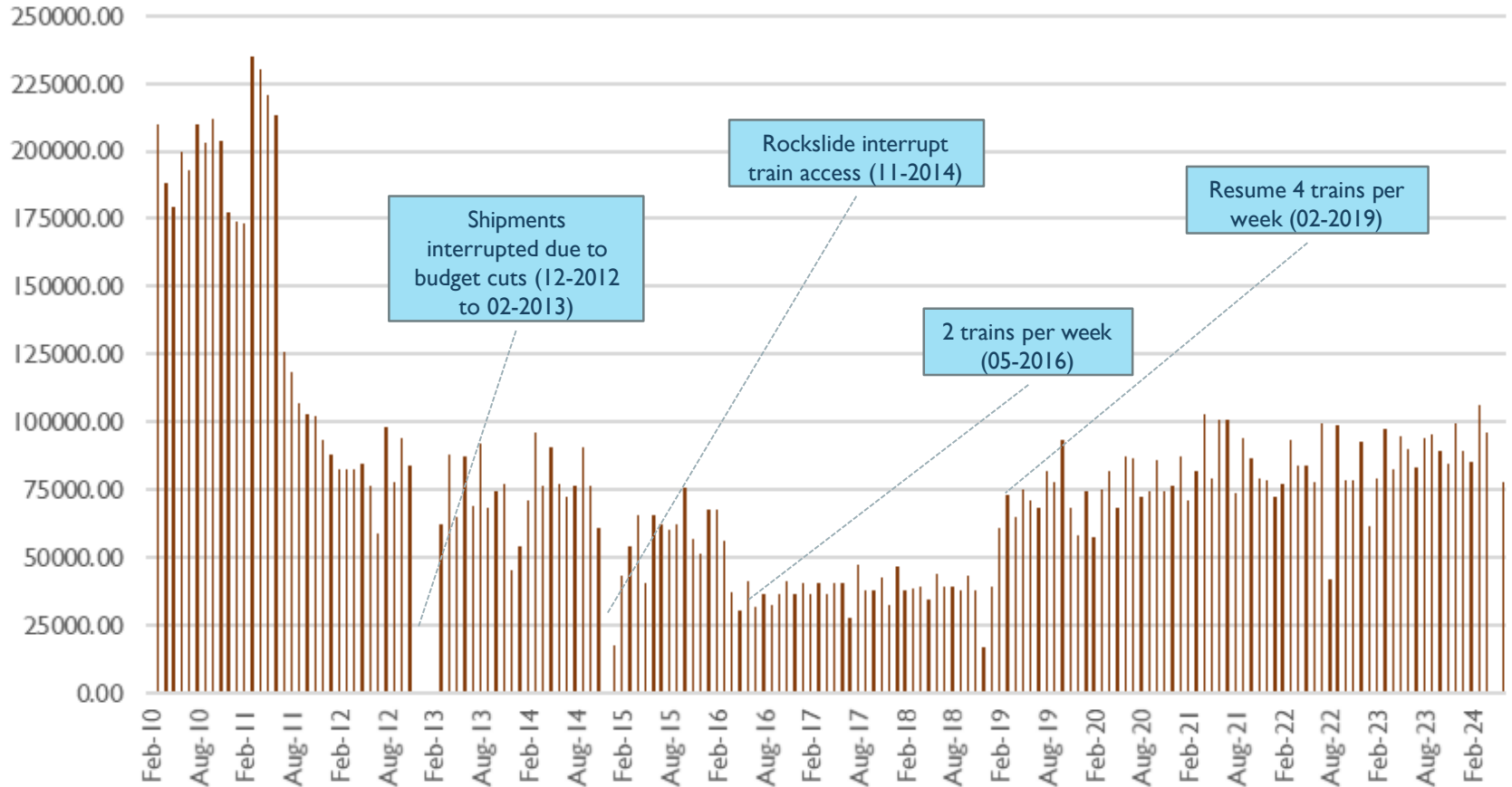


JUNE 2024



# TAILINGS SUMMARY - OVERALL

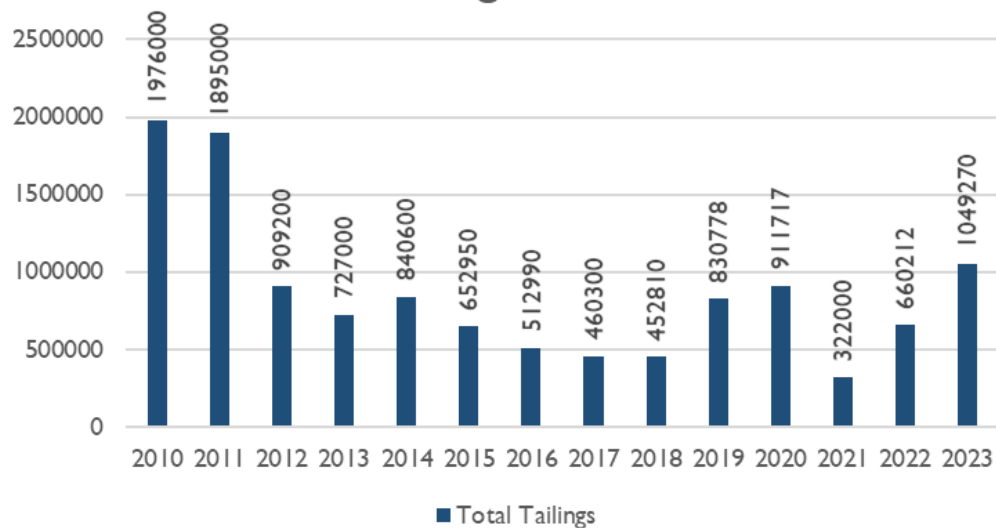
## Tailings moved (in tons) from March 2010 - June 2024



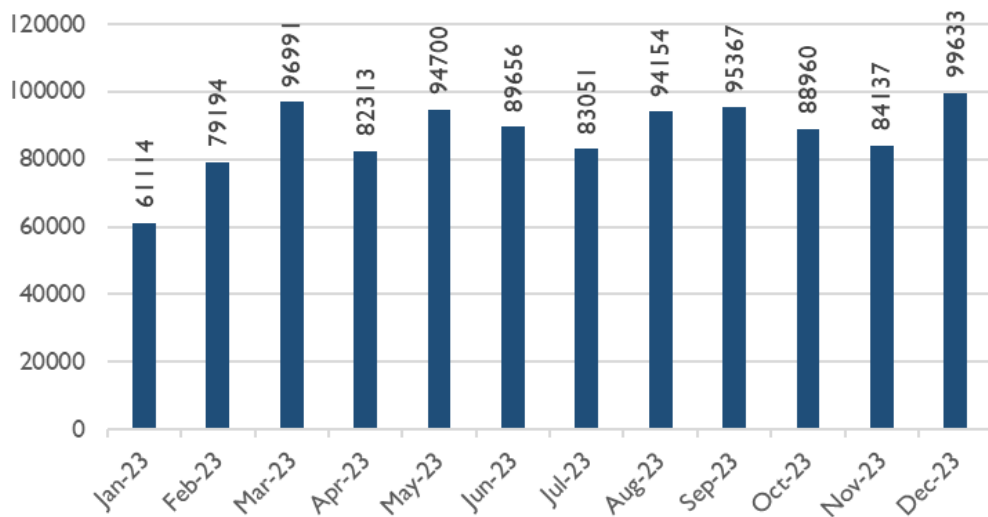
- At the end of June 2024, approximately 14.6 million tons of tailings and mill debris has been shipped to the Crescent Junction site for disposal. Approximately 77,508 tons of tailings and mill debris were moved in June 2024 (end of 2Q24).
- Indicates that 91.8% of the estimated 16 million total tonnage contained at the Moab UMTRA site has been removed since the beginning of the project.
- The Moab UMTRA Project continues to operate on a regular schedule of four (4) trains per week.

## TAILINGS SUMMARY - YEARLY OVERALL & 2023

### Total Tailings: 2010 - 2023



### UMTRA Tailings Removed in 2023



- To further provide a clearer picture of tailings removal over time, two (2) preliminary graphs have been created.
- The first graph demonstrates approximately thirteen (13) years of tailings removal and the second graph shows tailings removal for 2023.
- The graph on the previous slide demonstrates tailings removal since data collection began but presented in monthly intervals.
- These graphs are preliminary as there are some gaps in data that need to be identified and once located, the appropriate graphs will be updated.

# GROUNDWATER REMEDIATION

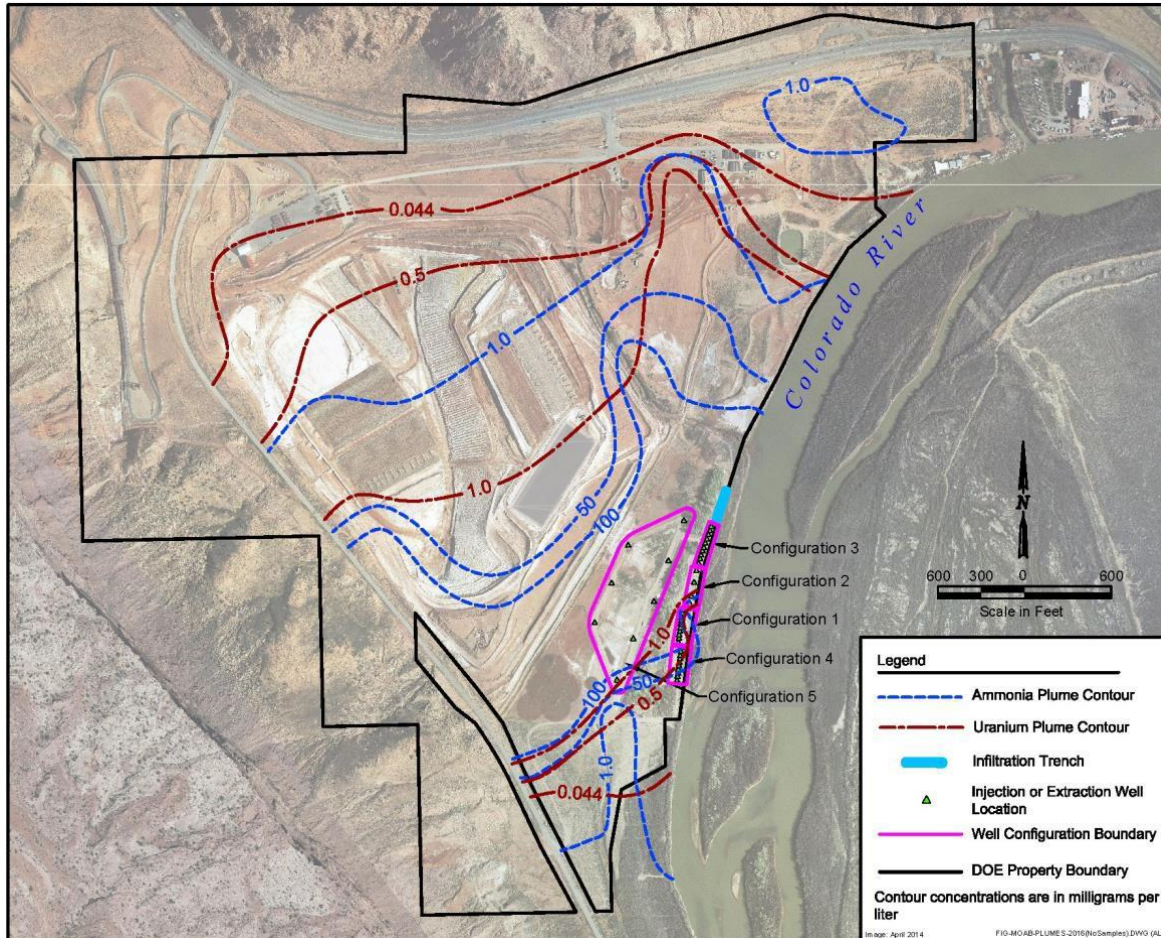
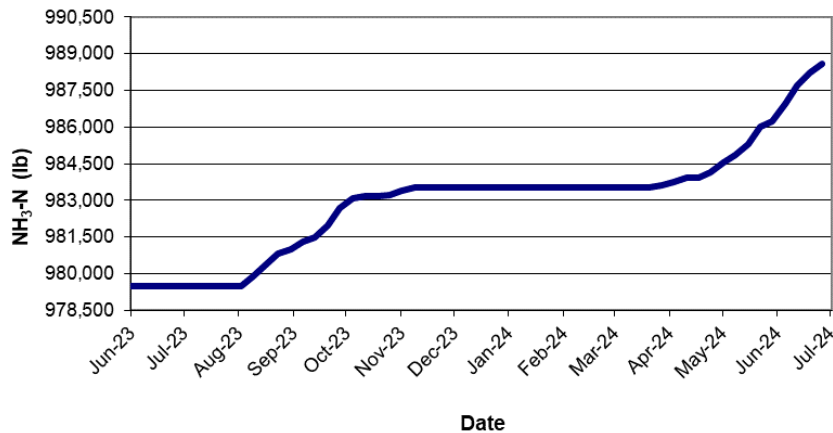


Image: [https://www.gjem.energy.gov/general/interim\\_gw\\_action.htm](https://www.gjem.energy.gov/general/interim_gw_action.htm)

- In 2003, DOE implemented an interim action system at the Moab site to address concerns regarding elevated ammonia and uranium concentrations in groundwater discharging to the Colorado River. A total of five well configurations are used to reduce the amount of ammonia and uranium that discharges to the river.
- Groundwater extraction is through Configuration 5 wells, which are located closer to the tailings pile.

# GROUNDWATER REMEDIATION

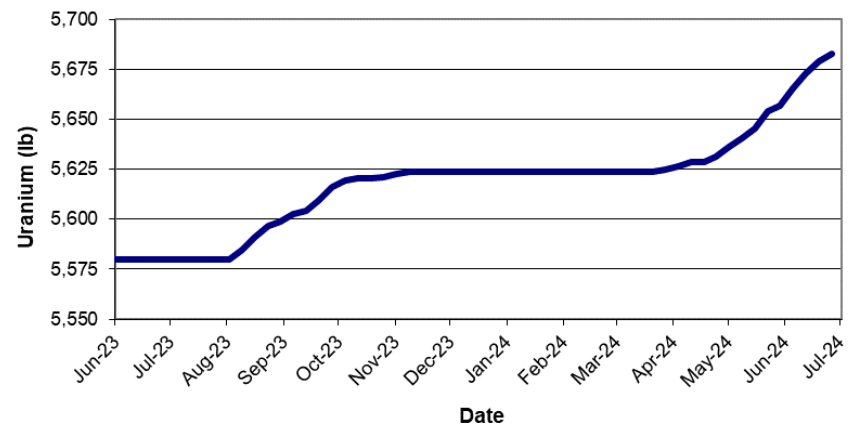
Interim Action Groundwater System  
Cumulative Mass of Ammonia Extracted



Over the life of the Project, extraction has prevented **988,591** pounds of ammonia and **5,683** pounds of uranium from reaching the river.

Freshwater (diverted river water) is injected through wells in Configuration 4 as an additional way of minimizing the discharge of ammonia to the Colorado River. So far in 2024, more than 112,579,269 gallons of water has been injected.

Interim Action Groundwater System  
Cumulative Mass of Uranium Extracted



# AIR MONITORING & GROUNDWATER REMEDIATION DATA SUMMARY 2Q23 VS. 3Q23

Ammonia Extraction (in lbs)	APR-23	MAY-23	JUNE-23	JULY-23	AUG-23	SEPT-23	OCT-23	NOV-23	DEC-23	JAN-24	FEB-24	MAR-24
	979483	979483	979483	979483	980985	982695	983410	983536	983536	983535	983535	983627
Difference (in lbs)	148	0	0	0	1502	1710	715	126	0	-1	0	92
Uranium Extraction (in lbs)	APR-23	MAY-23	JUNE-23	JULY-23	AUG-23	SEPT-23	OCT-23	NOV-23	DEC-23	JAN-24	FEB-24	MAR-24
	5580	5580	5580	5580	5599	5616	5625	5625	5625	5624	5624	5625
Difference (in lbs)	2	0	0	0	19	17	9	0	0	-1	0	1

Moab Site - Radioparticulates (mrem)			
Station No.	2Q23	3Q23	Diff
MSP-0102-RP	2.15	1.7	-0.45
MSP-0105-RP	2.49	2.46	-0.03
MSP-0114-RP	2.46	2.13	-0.33
MSP-0117-RP	2.05	1.83	-0.22
MSP-0118-MEI	3.38	3.19	-0.19
MSP-0119-RP	1.69	1.56	-0.13
MSP-0122-RP	1.77	1.46	-0.31
MSP-0123-RP	1.76	1.45	-0.31
MSP-0129-RP	3.29	3.19	-0.1

Moab Site - Radon (pCi/L)			
Station No.	2Q23	3Q23	Diff
MO-RN-1	0.46	0.53	0.07
MO-RN-2	1.9	1.99	0.09
MO-RN-3	0.54	0.54	0
MO-RN-4	1.09	0.99	-0.1
MO-RN-5	0.75	0.73	-0.02
MO-RN-6	1.18	1.25	0.07

Crescent Junction Site - Radioparticulates (mrem)			
Station No.	2Q23	3Q23	Diff
0306	1.59	1.34	-0.25
0307	1.98	1.21	-0.77
0308	1.78	1.34	-0.44
0309	1.98	1.58	-0.4

Crescent Junction Site - Radon (pCi/L)			
Station No.	2Q23	3Q23	Diff
CJ-RN-1	<Background'	<Background'	0
CJ-RN-2	Removed'	-	-
CJ-RN-2A	0.39	<Background'	0
CJ-RN-3	Removed'	-	-
CJ-RN-4	0.52	<Background'	0
CJ-RN-5	0.19	0.16	-0.03
CJ-RN-6	0.33	0.24	-0.09
CJ-RN-7	0.35	0.23	-0.12
0301	Removed'	-	-

Notes: Some stations were installed/removed/shifted, resulting in averages different than past four quarters. 'Average is based on three quarters, not four.

# AIR MONITORING & GROUNDWATER REMEDIATION DATA SUMMARY 3Q23 VS. 4Q23

Moab Site - Radioparticulates (mrem)			
Station No.	3Q23	4Q23	Diff
MSP-0102-RP	1.7	2.16	0.46
MSP-0105-RP	2.46	2.96	0.5
MSP-0114-RP	2.13	2.36	0.23
MSP-0117-RP	1.83	2.07	0.24
MSP-0118-MEI	3.19	3.34	0.15
MSP-0119-RP	1.56	1.76	0.2
MSP-0122-RP	1.46	1.55	0.09
MSP-0123-RP	1.45	1.52	0.07
MSP-0129-RP	3.19	3.44	0.25

Moab Site - Radon (pCi/L)			
Station No.	3Q23	4Q23	Diff
MO-RN-1	0.53	0.76	0.23
MO-RN-2	1.99	2.72	0.73
MO-RN-3	0.54	0.58	0.04
MO-RN-4	0.99	0.84	-0.15
MO-RN-5	0.73	0.73	0
MO-RN-6	1.25	1.42	0.17

Crescent Junction Site - Radioparticulates (mrem)			
Station No.	3Q23	4Q23	Diff
0306	1.34	1.5	0.16
0307	1.21	1.37	0.16
0308	1.34	1.75	0.41
0309	1.58	1.25	-0.33

Crescent Junction Site - Radon (pCi/L)			
Station No.	3Q23	4Q23	Diff
CJ-RN-1	<Background!	<Background!	0
CJ-RN-2A	<Background!	<Background!	0
CJ-RN-4	<Background!	<Background!	0
CJ-RN-5	0.16	0.28	0.12
CJ-RN-6	0.24	0.31	0.07
CJ-RN-7	0.23	0.06	-0.17

# RESOURCES

## Online

- <https://www.energy.gov/em/moab/moab-umtra-homepage>
- <https://www.grandcountyutah.net/257/Moab-UMTRA-Project>
- <https://www.grandcountyutah.net/206/Moab-Tailings-Project-Site-Futures-Commi>
- Moab UMTRA Project Five-Year Site Plan FY's 2022-2026 (DOE): <https://www.gjem.energy.gov/documents/Five-YearSitePlan22.pdf>
- Moab UMTRA Project Surface Water and Groundwater Project Documents <https://www.energy.gov/em/moab/surface-water-and-groundwater>
- **Public meetings**
- *Moab Tailings Project Steering Committee, quarterly (April 23, July 30, October 22, 2024)*
- *Site Futures Committee: 2013, 2018, and 2023*
- **UMTRA Reading Room (Library)**
- **Contact Grand County's UMTRA Liaison at** [jthacker@grandcountyutah.net](mailto:jthacker@grandcountyutah.net)

QUESTIONS?