

**MONTHLY PROGRESS REPORT #343
FOR OCTOBER 2025**

EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019 and 1-2000-0014

**JOINT BASE CAPE COD (JBCC)
TRAINING RANGE AND IMPACT AREA**

The following summary of progress is for the period from 01 to 31 October 2025.

1. SUMMARY OF REMEDIATION ACTIONS

Remediation Actions (RA) Underway at Camp Edwards as of 31 October 2025:

Demolition Area 1 Comprehensive Groundwater RA

The Demolition Area 1 Comprehensive Groundwater RA consists of the removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. Extraction, treatment, and recharge (ETR) systems at Frank Perkins Road and Base Boundary include extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater, and an infiltration gallery and injection wells to return treated water to the aquifer.

The Frank Perkins Road Treatment Facility has been optimized as part of the Environmental and System Performance Monitoring (ESPM) program at Demolition Area 1. On 31 March 2025, the flow rate at the Frank Perkins Treatment Facility was reduced from 175 gallons per minute (gpm) to 100 gpm as a result of shutting down extraction well D1-EW-501, leaving only D1-EW-4 pumping as part of the Frank Perkins Road system. Due to a vault flood on 23 May 2025, which damaged electrical and pump equipment EW-501 has been operating at 100 gpm in place of EW-4. Diagnostics are ongoing. As of 31 October 2025, over 3.185 billion gallons of water were treated and re-injected. The Frank Perkins Treatment Facility was turned off on 30 September 2025 due to the government shutdown and will remain down until further notice.

The Base Boundary Mobile Treatment Unit (MTU) continues to operate at a flow rate of 65 gpm. As of 31 October 2025, over 449.2 million gallons of water were treated and re-injected. The following Base Boundary system shutdowns occurred in the reporting period:

- 2358 on 13 October 2025 due to a power interruption and was restarted at 0912 on 14 October 2025.
- 0821 on 27 October 2025 to drain IX vessel for resin exchange on 10/28/25 and was restarted at 0830 on 29 October 2025.

The Leading-Edge System was turned off with regulatory approval on 19 August 2025 (formerly operated at a flow rate of 125 gpm). Over 469.4 million gallons of water were treated and re-injected since RA.

The Pew Road MTU was turned off with regulatory approval on 08 March 2021 (formerly operated at a flow rate of 65 gpm). Over 672.9 million gallons of water were treated and re-injected during the RA.

J-2 Range Groundwater RA

Northern

The J-2 Range Northern Treatment facility consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The Extraction, Treatment, and Re-infiltration system includes three extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater, and infiltration galleries to return treated water to the aquifer.

The Northern MTUs E and F continue to operate at a flow rate of 250 gpm. As of 31 October 2025, over 2.386 billion gallons of water have been treated and re-injected. No MTU E and F system shutdowns occurred in the reporting period.

The Northern Treatment Building G continues to operate at a flow rate of 225 gpm. As of 31 October 2025, over 1.838 billion gallons of water have been treated and re-injected. No MTU G system shutdowns occurred in the reporting period.

Eastern

The J-2 Range Eastern Treatment system consists of removal and treatment of groundwater to minimize downgradient migration of explosives compounds and perchlorate. The ETI system includes the following components: two extraction wells, an ex-situ treatment process consisting of an ion exchange (IX) resin and granular activated carbon (GAC) media to treat perchlorate and explosives compounds, and two infiltration galleries. The flow rate at MTU J was reduced from 120 gpm to 90 gpm and MTU K was turned off with regulatory approval on 28 October 2025. The J-2 Range Eastern system is running at a combined total flow rate of 340 gpm.

The MTUs H and I continue to operate at a flow rate of 250 gpm. As of 31 October 2025, over 2.030 billion gallons of water have been treated and re-injected. No MTU H and I system shutdowns occurred in the reporting period.

MTU J continues to operate at a flow rate of 90 gpm. As of 31 October 2025, over 951.4 million gallons of water have been treated and re-injected. No MTU J shutdowns occurred in the reporting period:

MTU K was turned off with regulatory approval at 1110 on 28 October 2025. (formerly operated at a flow rate of 125 gpm). Over 1.086 billion gallons of water were treated and re-injected during the RA.

J-3 Range Groundwater RA

The J-3 Range Groundwater RA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The ETR system includes four extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater and utilizes the existing Fuel Spill-12 (FS-12) injection wells to return treated water to the aquifer.

The J-3 system is currently operating at a flow rate of 255 gpm. As of 31 October 2025, over 2.011 billion gallons of water have been treated and re-injected. The following J-3 system shutdowns occurred in the reporting period:

- 1220 on 02 October 2025 due to FS-12 being off and was restarted at 1425 on 02 October 2025.

- 1023 on 14 October 2025 due to FS-12 being off and was restarted at 1007 on 15 October 2025.

J-1 Range Groundwater RA

Southern

The J-1 Range Southern Groundwater RA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds. The ETR system includes one extraction well, an ex-situ treatment process to remove explosives compounds from the groundwater, and an infiltration gallery to return treated water to the aquifer.

The Southern MTU has been optimized as part of the ESPM program at J-1 Range Southern. The on-base extraction well J1SEW0001 was turned off with regulatory approval on 28 February 2017 (formerly operated at a flow of 35 gpm), and flow was increased from 90 gpm to 125 gpm at the Leading-Edge extraction well J1SEW0002. The Leading-Edge extraction well continues to operate at a flow rate of 125 gpm. As of 31 October 2025, over 891.0 million gallons of water have been treated and re-injected. The following J-1 Range Southern MTU shutdowns occurred in the reporting period:

- 0835 on 02 October 2025 EW0002 was turned off to run EW0001 for sampling. EW0001 was started at 0835 and turned off at 0920 on 02 October 2025 after samples were collected. EW0002 was restarted at 0920 on 02 October 2025.
- 0710 on 04 October 2025 due to programming issues and was restarted at 1005 on 10 October 2025.

Northern

The J-1 Range Northern Groundwater RA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The ETR system includes two extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater, and an infiltration gallery to return treated water to the aquifer.

The Northern MTU continues to operate at a total system flow rate of 250 gpm. The flow rates for the two extraction wells at J-1 Northern were modified on 28 October 2024 based on regulatory agency concurrence with the J-1 Range Northern Data Presentation for January 2023 to December 2023. The flow rate at J1NEW0001 was reduced from 125 gpm to 85 gpm and the flow rate at J1NEW0002 was increased from 125 gpm to 165 gpm. Due to an "Over Temp" alarm at EW0002 on 29 July 2025 J-1 North is currently running at 145 gpm, rather than 165 gpm and EW0001 is running at 105 gpm, rather than 85 gpm.

As of 31 October 2025, over 1.543 billion gallons of water have been treated and re-injected. No J-1 Range Northern MTU shutdowns occurred in the reporting period.

Central Impact Area RA

The Central Impact Area (CIA) Groundwater treatment system consists of removal and treatment of groundwater to minimize downgradient migration of explosives compounds and perchlorate. The ETR system includes the following components: three extraction wells, an ex-

situ treatment process consisting of an ion exchange resin and granular activated carbon media to treat explosives compounds, and three infiltration galleries to return treated water to the aquifer. The CIA system 3 continues to run at a total flow rate of 250 gpm. As of 31 October 2025, over 4.146 billion gallons of water have been treated and re-injected. CIA-1 and CIA-2 were turned off on 30 September 2025 due to the government shutdown and will remain off until further notice. The following CIA system shutdowns occurred in the reporting period:

- 0900 on 30 October 2025 CIA-3 was turned off for BETCO to replace a phase monitor and was restarted at 0926 on 30 October 2025.

2. SUMMARY OF ACTIONS TAKEN

Operable Unit (OU) Activity as of 31 October 2025:

CIA

- Source Area Investigation
 - Conducted routine visual check of CSS cover and surface area around perimeter of the CSS.

Demolition Area 1

- No activity

Demolition Area 2

- No activity

J-1 Range

- Groundwater sampling within the J-1 South SPM Program

J-2 Range

- Groundwater sampling within the J-2 Range North SPM Program
- Groundwater sampling new wells MW-742 and MW-743 for PFAS

J-3 Range

- Groundwater sampling new wells MW-744 through MW-747 for PFAS

L Range

- No activity

Small Arms Ranges

- No activity

Northwest Corner

- No activity

Training Areas

- No activity

Impact Area Roads

- No activity

Other

- Collected process water samples from Central Impact Area, Demolition Area 1, J-1 Range Northern, J-1 Range Southern, J-2 Range Eastern, J-2 Range Northern, and J-3 Range treatment systems.

JBCC Impact Area Groundwater Study Program (IAGWSP) Tech Update Meeting Minutes for 16 October 2025Project and Fieldwork Update

Darrin Smith (USACE) provided the project and fieldwork update. He reported that groundwater sampling crews completed the J-2 North (J-2 N) annual system performance monitoring (SPM) and the synoptic sampling. The J-2 North PFAS semi-annual sampling was also completed. The chemical monitoring of the J-1 South annual SPM was completed, and the hydro event is being performed today. Next will be the J-1 North annual SPM event (w/synoptic), and initial sampling at the six recently installed J-2 North and J-3 wells, once the dedicated bladder pumps arrive and are installed.

Mr. Smith (USACE) reviewed the treatment system sampling update. The quarterly influent and effluent PFAS sampling at J-2 North System F and semiannual PFAS sampling at the J-3 System were completed. The October monthly treatment system process water sampling was completed, and the results are pending. CIA-1, CIA-2 and Demolition Area 1 (Demo 1) Frank Perkins Road (FPR) were not sampled due to being off since 9/30/25 due to the government shutdown.

Based on the September monthly treatment system process water sampling results, the carbon will need to be replaced in two vessels each at CIA-1 and CIA-2 due to mid port sample exceedances of the RDX action level (AL) of 0.25 µg/L at concentrations of 0.60 µg/L and 0.29 µg/L, respectively. Also, the September results for Demo 1 FPR showed an estimated RDX concentration of 0.30J µg/L, exceeding the AL, in the effluent sample. Influent was non detect (ND) and the mid was 0.24 µg/L. These results are similar to the August sampling results. The FPR system is currently offline due to the government shut down. Based on the August monthly treatment process water system sampling results, the ion exchange resin will be replaced in one vessel at Demo 1 base boundary system due to a perchlorate AL (0.35 µg/L) exceedance in the effluent of 0.36 µg/L; influent is 0.36 µg/L and mid is 0.34 µg/L. This work is being scheduled. Mr. Smith (USACE) noted that all decommissioning activities at the Demo 1 leading edge system have been completed, including disconnecting the electricity, removal of the media from the vessels, extraction well EW-5 and MW-659 (M1 and M2) decommissioning, removal of the modular treatment unit, removal of the infiltration gallery and associated piping and site restoration.

Demo 1 FPR, CIA-1, and CIA-2 systems were turned off on 9/30/25 due to the government shutdown and will remain off until further notice. CIA-3 was shut off on 10/9/25 due to concerns over water bubbling out of the ground observed by base Natural Resources staff. The system was turned on and inspected on 10/14/25 and no bubbling was observed, and the system will remain on. Further inspection is planned.

Mr. Dvorak (USACE) noted that a contractor has been selected for the next field season and contract details are being finalized.

Document and Project Tracking

Jeff Dvorak (USACE) reviewed the tracking list for documents and upcoming presentations.

Len Pinaud (MADEP) stated that the Science Advisory Council (SAC) is eager to review the PFAS report. Jodi Lyn Cutler (IAGWSP) noted that the report is still in draft form and is not being worked on currently. She said that the program will need to review the PFAS sampling results, review the previous responses to comments on the report, and evaluate all of the data that has been collected to date. She noted that the Department of Defense has changed the funding authorizations for PFAS-related work and therefore, the draft report will likely need to be rewritten. She stated that this process requires more time and estimated a new draft of the report will not be ready until the first, or second, quarter of the new year. Ms. Cutler (IAGWSP) emphasized that there is no risk from PFAS. Mr. Pinaud (MADEP) said that he conveyed that to the members of the SAC but stated that they would still like to review the report. Mr. Pinaud (MADEP) will tell them that the report is still in draft form and a final version will be provided when completed.

Demolition Area 2 (Demo 2) Demonstration of Compliance Report

Grace Greenberg, a risk assessor from the U.S. Army Corps of Engineers (USACE), provided a presentation of the Demonstration of Compliance Report for the Demo 2 Operable Unit. Ms. Greenberg (USACE) reviewed the site location, physical attributes, and past use. She noted that the Commonwealth of Massachusetts Chapter 47 specifically states that Joint Base Cape Cod (JBCC), including Demo 2, would remain a public conservation land as a water supply and wildlife habitat protection area, be used for the development and construction of public water supply systems, and used for military training. She noted that while the site is currently in an undeveloped area, hypothetical future use was evaluated due to its location above the sole source aquifer and therefore, a potential drinking water source.

Ms. Greenberg (USACE) provided an overview of the investigation activities, which began in 1997 with "Phase 1." RDX and HMX were determined to be contaminants of concern. Soil sampling was conducted in 1999 due to emergency detonation of artillery simulators at the site. Confirmation sampling was conducted in 2000. A remedial investigation (RI) began in 2005 and there was a soil removal Rapid Response Action, which included the removal of the man-made soil berm and surrounding area. Based on confirmation sampling after the soil removal action, no further action (NFA) was recommended for soil at Demo 2. The RI was completed in 2009. RDX was detected up to 6.7 µg/L (August 2006). The Demo 2 Decision Document (DD) was issued in 2010 with the remedy of monitored natural attenuation and land use controls. Long-term monitoring (LTM) was conducted from 2010-2023. There was a DD amendment in 2015, which updated the cleanup timeline predictions from the original DD.

Ms. Greenberg (USACE) reviewed the remedial action objectives for the site which are: Restore the useable groundwater to its beneficial use within a reasonable timeframe, provide a level of protection in the aquifer, a sole source aquifer for Cape Cod, and prevent ingestion of groundwater containing RDX in excess of federal/state levels and/or a risk protective screening level.

A table with the regulatory protective levels: EPA Lifetime Health Advisory (EPA, 1998), the Massachusetts MCP Method 1 GW-1 Standard (MassDEP, 2007), the EPA Regional Screening Level (EPA, 2024), and the Risk Based Concentration (RBC) cleanup level established in the DD (EPA 2010 & 2015) was displayed.

Ms. Greenberg (USACE) explained that the EPA Health Advisory (HA), the MA MCP GW-1 Standard, and the RBC are specifically mentioned in the DD. The DD established the cleanup level using the RBC of 0.6 µg/L, which is based on an increased lifetime cancer risk of one in a million. In comparison, Ms. Greenberg (USACE) also showed EPA's Regional Screening Level (RSL) for tap water of 0.97 µg/L, which is higher than the RBC, and calculated by applying more updated exposure assumptions and toxicity information. She noted that the program is shifting towards using the RBC, but the presentation refers to the RBC because that was used in the DD.

Ms. Greenberg (USACE) reported that the selected remedy included the installation of two additional groundwater monitoring well clusters downgradient of plume. Monitored Natural Attenuation (MNA) and LTM optimized annually was conducted to verify predicted migration and attenuation. Land Use Controls (LUCs) have prevented access to contaminated portions of aquifer for drinking water until groundwater no longer poses an unacceptable risk. Well abandonment will take place three years after the remedial goals are achieved.

The original DD cleanup timeframes were reviewed. The DD predicted that RDX would be below the Health Advisory (2 µg/L) between 2011-2016, below the cleanup level (0.6 µg/L) between 2013-2018, and below the background level (0.25 µg/L) between 2021-2025. The DD was amended in 2015 to take into account the installation of the two groundwater monitoring wells and more current data.

Ms. Greenberg (USACE) provided an overview of the long-term monitoring well network that was in place from 2010–2023 with 23 well screens and annual, semi-annual, biennial monitoring. She noted that the 2022- 2023 Environmental Monitoring Report included data from 21 well screens from 14 wells. The maximum RDX detection was 0.44 µg/L (MW-404M2 – April 2023). All concentrations have been below the cleanup level (0.6 µg/L) since 2021. All remedial goals have been met. RDX was below the Health Advisory (2 µg/L) as of 2016; below the cleanup level (0.6 µg/L) as of 2021. RDX has not yet reached background level (0.25 µg/L).

A demonstration of Compliance Report was prepared to satisfy the requirements of the DD, as well as the Safe Drinking Water Act requirements. Although the cleanup levels have been met, residual RDX contamination does exist in Demo 2 groundwater. Therefore, a residual risk assessment was conducted to evaluate potential risk from exposure to this water.

In accordance with EPA Risk Assessment Guidance, the risk assessors considered all post-DD groundwater data, quantified risk using recent data (2018–2023) to represent current and future conditions, evaluated risks separately for two wells (MW-161S and MW-404M2) with cleanup exceedances within timeframe (2018–2023), calculated cancer and non-cancer risks for most sensitive receptor (hypothetical resident), applied conservative EPA-recommended exposure assumptions, compared estimated risks to EPA target risk thresholds, and qualified risks based on identified uncertainties.

Ms. Greenberg (USACE) displayed a graphic depicting the conceptual site model to show fate and transport noting that impacted soils were removed in 2005 eliminating the fate and transport of the contamination. She noted the exposure pathway is incomplete because RDX is not considered to be volatile and result in inhalation exposures. She added that hypothetical future residents are those that might use the sole source aquifer as a drinking water source in the future.

Ms. Greenberg (USACE) reviewed the risk assessment results for all of the Demo 2 wells and provided an uncertainty analysis based on conservative assumptions, evaluation of the most sensitive receptor (hypothetical resident exposed to groundwater solely from Demo 2), and high-end exposures (i.e., 90th percentile water ingestion rate and time spent bathing). Environmental data from 2018-2023 represents current and future conditions even though results have been below cleanup levels since 2021. Toxicity factors assumed animal carcinogens are likely human carcinogens. EPA typically does not conduct dose-response assessments for chemicals like RDX classified as “suggestive evidence of carcinogenic potential.” The uncertainty factors applied to toxicity values were determined to be protective. In summary, Ms. Grenberg reiterated that RDX concentrations have been below cleanup levels since 2021. Groundwater monitoring has been discontinued because RAOs established in the DD have been met. As part of the Demonstration of Compliance Report, a residual risk assessment was conducted, and all calculated risks were within, or below, EPA’s target risk thresholds. Despite conservative assumptions, residual RDX concentrations do not pose an unacceptable risk for even the most sensitive hypothetical future receptors. The risk assessment concluded that residual RDX does not pose a risk concern to human health and the environment. Demo 2 is recommended for closure.

Len Pinaud (MADEP) commented that he liked the conceptual site model graphic and noted MassDEP would like to use something similar in future presentations. He also stated that because the site is achieving/ approaching background levels, it can be closed under the Massachusetts Contingency Plan. Mr. Pinaud (MADEP) stated that MassDEP would document the agency’s concurrence with the Demonstration of Compliance report for EPA’s records.

Next tech meeting: November 13, 2025

JBCC Cleanup Team Meeting

The next JBCC Cleanup Team (JBCCCT) meeting is tentatively scheduled for December 10, 2025. Meeting details and presentation materials from previous meetings can be found on the IAGWSP web site at <http://jbcc-iagwsp.org/community/impact/presentations/>. The Cleanup Team meeting discusses late breaking news and responses to action items, as well as updates from the IAGWSP and the Installation Restoration Program (IRP). The JBCCCT meetings provide a forum for community input regarding issues related to both the IRP and the IAGWSP.

3. SUMMARY OF DATA RECEIVED

Table 1 summarizes sampling for all media from 01 to 31 October 2025. Table 2 summarizes the validated detections of explosives compounds and perchlorate for all groundwater results received from 01 to 31 October 2025. These results are compared to the Maximum Contaminant Levels/Health Advisory (MCL/HA) values for respective analytes. Explosives and perchlorate are the primary contaminants of concern (COC) at Camp Edwards. Table 3 summarizes the validated detections of per- and polyfluoroalkyl substances (PFAS) for influent

and groundwater results analyzed by EPA draft Method 1633 and received from 01 to 31 October 2025. Table 3 PFAS results are compared to the Regional Screening Levels (RSLs) published by EPA in November 2023. No PFAS validation was completed during October 2025, therefore, Table 3 is not included.

The operable units (OUs) under investigation and cleanup at Camp Edwards are the Central Impact Area, Demolition Area 1, Demolition Area 2, J-1 Range, J-2 Range, J-3 Range, L Range, and Small Arms Ranges. Environmental monitoring reports for each OU are generated each year to evaluate the current year groundwater results. These reports are available on the site Environmental Data Management System (EDMS) and at the project document repository (IAGWSP office).

4. SUBMITTED DELIVERABLES

Deliverables submitted during the reporting period include the following:

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|--|-----------------|
| • Draft Decision Document Addendum: Change in RDX Groundwater Cleanup Level for Impact Area Groundwater Study Program Operable Units Sitewide Response to Comments | 9 October 2025 |
| • Final Decision Document Addendum: Change in RDX Groundwater Cleanup Level for Impact Area Groundwater Study Program Operable Units Sitewide | 20 October 2025 |
| • Final J-1 Range Northern Environmental Monitoring Report for January 2023 through December 2023 | 23 October 2025 |
| • Final J-2 Range Eastern Environmental Monitoring Report for November 2023 through October 2024 | 23 October 2025 |
| • Draft Final Northwest Corner Demonstration of Compliance | 31 October 2025 |

5. SCHEDULED ACTIONS

The following actions and/or documents are being prepared in November 2025.

- Draft J-3 Range EMR for September 2023 through August 2024
- Draft L Range EMR for March 2024 through February 2025
- Draft J-1 Range South EMR for January 2024 through December 2024
- Draft J-1 Range Northern EMR for January 2024 through December 2024
- Response to Comments on the IAGWSP Comprehensive PFAS Report
- Demolition Area 2 Demonstration of Compliance
- Site-Wide QAPP Update

TABLE 1
Sampling Progress: 01 to 31 October 2025

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Fuel Spill 7 (ARNG)	MW-746M2	MW-746M2_F25	N	10/23/2025	Ground Water	145.00	155.00
Fuel Spill 7 (ARNG)	MW-746M1	MW-746M1_F25	N	10/23/2025	Ground Water	190.00	200.00
Fuel Spill 7 (ARNG)	MW-747M2	MW-747M2_F25	N	10/23/2025	Ground Water	165.00	175.00
Fuel Spill 7 (ARNG)	MW-747M1	MW-747M1_F25	N	10/23/2025	Ground Water	190.00	200.00
Fuel Spill 7 (ARNG)	MW-745M2	MW-745M2_F25	N	10/22/2025	Ground Water	50.00	60.00
Fuel Spill 7 (ARNG)	MW-745M1	MW-745M1_F25	N	10/22/2025	Ground Water	90.00	100.00
Fuel Spill 7 (ARNG)	MW-744M2	MW-744M2_F25	N	10/22/2025	Ground Water	90.00	100.00
Fuel Spill 7 (ARNG)	MW-744M1	MW-744M1_F25	N	10/22/2025	Ground Water	135.00	145.00
Fuel Spill 7 (ARNG)	MW-744M1	MW-744M1_F25D	FD	10/22/2025	Ground Water	135.00	145.00
J1 Range Southern	MW-733M2	MW-733M2_F25	N	10/14/2025	Ground Water	190.00	200.00
J1 Range Southern	MW-733M1	MW-733M1_F25	MS	10/14/2025	Ground Water	212.00	222.00
J1 Range Southern	MW-733M1	MW-733M1_F25	N	10/14/2025	Ground Water	212.00	222.00
J1 Range Southern	MW-733M1	MW-733M1_F25	SD	10/14/2025	Ground Water	212.00	222.00
J1 Range Southern	J1S-EFF	J1S-EFF-215A	N	10/14/2025	Process Water	0.00	0.00
J1 Range Southern	J1S-MID	J1S-MID-215A	N	10/14/2025	Process Water	0.00	0.00
J1 Range Southern	J1S-INF-2	J1S-INF-2-215A	N	10/14/2025	Process Water	0.00	0.00
J1 Range Southern	DP-389	DP-389_F25	N	10/14/2025	Ground Water	157.70	162.70
J1 Range Southern	MW-528M1	MW-528M1_F25	N	10/09/2025	Ground Water	117.00	127.00
J1 Range Southern	MW-488PZ	MW-488PZ_F25	N	10/09/2025	Ground Water	119.28	129.28
J3 Range	J3-EFF	J3-EFF_OCT25	N	10/09/2025	Process Water	0.00	0.00
J3 Range	J3-INF	J3-INF_OCT25	N	10/09/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-EFF-F	J2N-EFF-F_OCT25	N	10/09/2025	Process Water	0.00	0.00
J1 Range Southern	MW-488M1	MW-488M1_F25	N	10/09/2025	Ground Water	149.62	159.62
J2 Range Northern	J2N-INF-F	J2N-INF-F_OCT25D	FD	10/09/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-INF-F	J2N-INF-F_OCT25	N	10/09/2025	Process Water	0.00	0.00
J1 Range Southern	MW-592M2	MW-592M2_F25	N	10/08/2025	Ground Water	158.00	168.00
J1 Range Southern	MW-592M1	MW-592M1_F25	N	10/08/2025	Ground Water	201.00	211.00
J1 Range Southern	MW-720M2	MW-720M2_F25	N	10/08/2025	Ground Water	126.20	136.20

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 01 to 31 October 2025

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
J1 Range Southern	MW-720M1	MW-720M1_F25	N	10/08/2025	Ground Water	146.60	156.60
J1 Range Southern	MW-721M2	MW-721M2_F25	N	10/08/2025	Ground Water	138.50	148.50
J1 Range Southern	MW-721M1	MW-721M1_F25	N	10/08/2025	Ground Water	168.10	178.10
J1 Range Southern	MW-669M2	MW-669M2_F25	N	10/07/2025	Ground Water	201.70	211.70
J1 Range Southern	MW-669M1	MW-669M1_F25	N	10/07/2025	Ground Water	223.70	233.70
J1 Range Southern	MW-669M1	MW-669M1_F25D	FD	10/07/2025	Ground Water	223.70	233.70
J2 Range Eastern	J2E-EFF-K	J2E-EFF-K-205A	N	10/07/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-MID-2K	J2E-MID-2K-205A	N	10/07/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-MID-1K	J2E-MID-1K-205A	N	10/07/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-INF-K	J2E-INF-K-205A	N	10/07/2025	Process Water	0.00	0.00
J1 Range Southern	MW-670M2	MW-670M2_F25	N	10/07/2025	Ground Water	198.50	208.50
J2 Range Eastern	J2E-EFF-J	J2E-EFF-J-205A	N	10/07/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-MID-2J	J2E-MID-2J-205A	N	10/07/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-MID-1J	J2E-MID-1J-205A	N	10/07/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-INF-J	J2E-INF-J-205A	N	10/07/2025	Process Water	0.00	0.00
J1 Range Southern	MW-670M1	MW-670M1_F25	N	10/07/2025	Ground Water	220.50	230.50
J1 Range Southern	MW-647M2	MW-647M2_F25	N	10/07/2025	Ground Water	189.30	199.30
J2 Range Eastern	J2E-MID-2H	J2E-MID-2H-205A	N	10/07/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-MID-1H	J2E-MID-1H-205A	N	10/07/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-EFF-IH	J2E-EFF-IH-205A	N	10/07/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-MID-2I	J2E-MID-2I-205A	N	10/07/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-MID-1I	J2E-MID-1I-205A	N	10/07/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-INF-I	J2E-INF-I-205A	N	10/07/2025	Process Water	0.00	0.00
J1 Range Southern	MW-647M1	MW-647M1_F25	N	10/07/2025	Ground Water	211.30	221.30
J1 Range Southern	MW-481M2	MW-481M2_F25	N	10/06/2025	Ground Water	146.28	156.28
J1 Range Southern	MW-481M1	MW-481M1_F25	N	10/06/2025	Ground Water	189.74	199.74
J1 Range Southern	MW-482M2	MW-482M2_F25	N	10/06/2025	Ground Water	172.64	182.64
J1 Range Southern	MW-482M2	MW-482M2_F25D	FD	10/06/2025	Ground Water	172.64	182.64

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 01 to 31 October 2025

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
J3 Range	J3-EFF	J3-EFF-229A	N	10/06/2025	Process Water	0.00	0.00
J3 Range	J3-MID-2	J3-MID-2-229A	N	10/06/2025	Process Water	0.00	0.00
J1 Range Southern	MW-645M2	MW-645M2_F25	N	10/06/2025	Ground Water	143.50	153.50
J3 Range	J3-MID-1	J3-MID-1-229A	N	10/06/2025	Process Water	0.00	0.00
J3 Range	J3-INF	J3-INF-229A	N	10/06/2025	Process Water	0.00	0.00
J1 Range Southern	MW-645M1	MW-645M1_F25	N	10/06/2025	Ground Water	183.50	193.50
Demolition Area 1	D1-EFF	D1-EFF-183A	N	10/06/2025	Process Water	0.00	0.00
Demolition Area 1	D1-MID-2	D1-MID-2-183A	N	10/06/2025	Process Water	0.00	0.00
Demolition Area 1	D1-MID-1	D1-MID-1-183A	N	10/06/2025	Process Water	0.00	0.00
Demolition Area 1	D1-INF	D1-INF-183A	N	10/06/2025	Process Water	0.00	0.00
J1 Range Southern	MW-483M1	MW-483M1_F25	N	10/02/2025	Ground Water	139.52	149.52
Central Impact Area	CIA3-EFF	CIA3-EFF-112A	N	10/02/2025	Process Water	0.00	0.00
Central Impact Area	CIA3-MID2	CIA3-MID2-112A	N	10/02/2025	Process Water	0.00	0.00
Central Impact Area	CIA3-MID1	CIA3-MID1-112A	N	10/02/2025	Process Water	0.00	0.00
Central Impact Area	CIA3-INF	CIA3-INF-112A	N	10/02/2025	Process Water	0.00	0.00
J1 Range Southern	J1S-EW1-INF	J1S-EW1-INF_F25	N	10/02/2025	Process Water	0.00	0.00
J1 Range Southern	J1S-EW2-INF	J1S-EW2-INF_F25	N	10/02/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-EFF-G	J2N-EFF-G-229A	N	10/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-MID-1G	J2N-MID-1G-229A	N	10/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-INF-G	J2N-INF-G-229A	N	10/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-MID-2F	J2N-MID-2F-229A	N	10/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-MID-1F	J2N-MID-1F-229A	N	10/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-EFF-EF	J2N-EFF-EF-229A	N	10/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-MID-2E	J2N-MID-2E-229A	N	10/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-MID-1E	J2N-MID-1E-229A	N	10/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-INF-EF	J2N-INF-EF-229A	N	10/01/2025	Process Water	0.00	0.00
J1 Range Northern	J1N-EFF	J1N-EFF-144A	N	10/01/2025	Process Water	0.00	0.00
J1 Range Northern	J1N-MID2	J1N-MID2-144A	N	10/01/2025	Process Water	0.00	0.00

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TABLE 1
Sampling Progress: 01 to 31 October 2025

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
J1 Range Northern	J1N-MID1	J1N-MID1-144A	N	10/01/2025	Process Water	0.00	0.00
J1 Range Northern	J1N-INF2	J1N-INF2-144A	N	10/01/2025	Process Water	0.00	0.00

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FD = Field Duplicate

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received 01 to 31 October 2025

Area of Concern	Location ID	Field Sample ID	Top Depth (ft bgs)	Bottom Depth (ft bgs)	Date Sampled	Test Method	Analyte	Result Value	Qualifier	Units	MCL/HA	> MCL/HA	MDL	RL
J2 Range Northern	MW-635M1	MW-635M1_F25	265.40	275.40	09/18/2025	SW6850	Perchlorate	0.052	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-621M1	MW-621M1_F25	249.40	259.40	09/18/2025	SW6850	Perchlorate	0.35		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-634M3	MW-634M3_F25	170.60	180.60	09/18/2025	SW6850	Perchlorate	0.12	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-322M1	MW-322M1_F25	245.77	255.77	09/17/2025	SW6850	Perchlorate	0.092	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-296M1	MW-296M1_F25	255.08	265.08	09/17/2025	SW6850	Perchlorate	0.061	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-588M2	MW-588M2_F25	198.00	208.00	09/16/2025	SW6850	Perchlorate	0.36		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-588M2	MW-588M2_F25	198.00	208.00	09/16/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.21	J	µg/L	0.60		0.066	0.20
J2 Range Northern	MW-586M2	MW-586M2_F25	211.00	221.00	09/16/2025	SW6850	Perchlorate	0.081	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-585M3	MW-585M3_F25	198.50	208.50	09/16/2025	SW6850	Perchlorate	1.3		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-585M3	MW-585M3_F25D	198.50	208.50	09/16/2025	SW6850	Perchlorate	1.3		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-585M2	MW-585M2_F25	218.50	228.50	09/16/2025	SW6850	Perchlorate	0.26		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-337M1	MW-337M1_F25	243.71	253.71	09/15/2025	SW6850	Perchlorate	0.24		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-620M1	MW-620M1_F25	268.60	278.60	09/15/2025	SW6850	Perchlorate	0.071	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-640M2	MW-640M2_F25	216.00	226.00	09/15/2025	SW6850	Perchlorate	0.068	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-703M1	MW-703M1_F25	248.00	258.00	09/15/2025	SW6850	Perchlorate	2.2		µg/L	2.0	X	0.019	0.20
J2 Range Northern	J2EW3-MW1-C	J2EW3-MW1-C_F25	245.66	255.66	09/11/2025	SW6850	Perchlorate	0.12	J	µg/L	2.0		0.019	0.20
J2 Range Northern	J2EW2-MW2-C	J2EW2-MW2-C_F25	243.83	253.81	09/11/2025	SW6850	Perchlorate	0.065	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-632M2	MW-632M2_F25	229.50	239.50	09/10/2025	SW6850	Perchlorate	0.047	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-632M1	MW-632M1_F25	254.50	264.50	09/10/2025	SW6850	Perchlorate	0.21		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-318M1	MW-318M1_F25	305.79	315.81	09/10/2025	SW6850	Perchlorate	0.15	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-313M1	MW-313M1_F25	255.42	265.42	09/10/2025	SW6850	Perchlorate	0.77		µg/L	2.0		0.019	0.20
J2 Range Northern	J2EW2-MW3-B	J2EW2-MW3-B_F25	212.65	222.65	09/09/2025	SW6850	Perchlorate	1.8		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-348M2	MW-348M2_F25	206.54	216.54	09/09/2025	SW6850	Perchlorate	0.64		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-621M2	MW-621M2_F25	219.40	229.40	09/09/2025	SW6850	Perchlorate	0.14	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-621M2	MW-621M2_F25D	219.40	229.40	09/09/2025	SW6850	Perchlorate	0.15	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-702M2	MW-702M2_F25	208.10	218.10	09/09/2025	SW6850	Perchlorate	0.041	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-586M1	MW-586M1_F25	237.00	247.00	09/09/2025	SW6850	Perchlorate	0.55		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-587M2	MW-587M2_F25	220.00	230.00	09/08/2025	SW6850	Perchlorate	2.6		µg/L	2.0	X	0.019	0.20

J = Estimated Result
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ND = Non-Detect

MCL/HA= Either the MCL or Lowest Health Advisory Limit

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received 01 to 31 October 2025

Area of Concern	Location ID	Field Sample ID	Top Depth (ft bgs)	Bottom Depth (ft bgs)	Date Sampled	Test Method	Analyte	Result Value	Qualifier	Units	MCL/HA	> MCL/HA	MDL	RL
J2 Range Northern	MW-587M2	MW-587M2_F25D	220.00	230.00	09/08/2025	SW6850	Perchlorate	2.6		µg/L	2.0	X	0.019	0.20
J2 Range Northern	MW-587M1	MW-587M1_F25	250.00	260.00	09/08/2025	SW6850	Perchlorate	6.6		µg/L	2.0	X	0.019	0.20
J2 Range Northern	J2EW1-MW1-C	J2EW1-MW1-C_F25	240.80	250.80	09/08/2025	SW6850	Perchlorate	0.16	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-589M2	MW-589M2_F25	211.00	221.00	09/08/2025	SW6850	Perchlorate	1.8		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-589M1	MW-589M1_F25	240.00	250.00	09/08/2025	SW6850	Perchlorate	0.75		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-585M3	MW-585M3_F25	198.50	208.50	09/04/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.2		µg/L	0.60	X	0.066	0.20
J2 Range Northern	MW-585M3	MW-585M3_F25	198.50	208.50	09/04/2025	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	1.8		µg/L	400		0.028	0.20
J2 Range Northern	MW-585M3	MW-585M3_F25D	198.50	208.50	09/04/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.3		µg/L	0.60	X	0.066	0.20
J2 Range Northern	MW-585M3	MW-585M3_F25D	198.50	208.50	09/04/2025	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	1.9		µg/L	400		0.028	0.20
J2 Range Northern	MW-230M1	MW-230M1_F25	130.00	140.00	09/04/2025	SW6850	Perchlorate	0.30		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-234M2	MW-234M2_F25	110.00	120.00	09/04/2025	SW8330	1,3,5-Trinitrobenzene	0.13	J	µg/L	1090		0.030	0.20
J2 Range Northern	MW-234M2	MW-234M2_F25	110.00	120.00	09/04/2025	SW8330	1,3-Dinitrobenzene	0.038	J	µg/L	1.0		0.022	0.20
J2 Range Northern	MW-234M2	MW-234M2_F25	110.00	120.00	09/04/2025	SW8330	2,4,6-Trinitrotoluene	3.8		µg/L	2.0	X	0.026	0.20
J2 Range Northern	MW-234M2	MW-234M2_F25	110.00	120.00	09/04/2025	SW8330	2,4-Dinitrotoluene	0.18	J	µg/L	5.0		0.045	0.20
J2 Range Northern	MW-234M2	MW-234M2_F25	110.00	120.00	09/04/2025	SW8330	2-Amino-4,6-dinitrotoluene	3.1		µg/L	7.3		0.013	0.20
J2 Range Northern	MW-234M2	MW-234M2_F25	110.00	120.00	09/04/2025	SW8330	4-Amino-2,6-dinitrotoluene	1.5		µg/L	7.3		0.042	0.20
J2 Range Northern	MW-234M1	MW-234M1_F25	130.00	140.00	09/04/2025	SW6850	Perchlorate	0.12	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-634M2	MW-634M2_F25	200.60	210.60	09/03/2025	SW6850	Perchlorate	1.0		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-634M1	MW-634M1_F25	305.60	315.60	09/03/2025	SW6850	Perchlorate	0.074	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-289S	MW-289S_F25	105.00	115.00	09/03/2025	SW6850	Perchlorate	0.037	J	µg/L	2.0		0.019	0.20
J2 Range Northern	MW-289M2	MW-289M2_F25	162.00	172.00	09/03/2025	SW6850	Perchlorate	0.34		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-289M2	MW-289M2_F25	162.00	172.00	09/03/2025	SW8330	4-Amino-2,6-dinitrotoluene	1.9		µg/L	7.3		0.042	0.20
J2 Range Northern	MW-289M2	MW-289M2_F25	162.00	172.00	09/03/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.83		µg/L	0.60	X	0.066	0.20
J2 Range Northern	MW-289M2	MW-289M2_F25	162.00	172.00	09/03/2025	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.42		µg/L	400		0.028	0.20
J2 Range Northern	MW-289M1	MW-289M1_F25	305.00	315.00	09/03/2025	SW8330	4-Amino-2,6-dinitrotoluene	0.80		µg/L	7.3		0.042	0.20
J2 Range Northern	MW-289M1	MW-289M1_F25	305.00	315.00	09/03/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.48		µg/L	0.60		0.066	0.20
J2 Range Northern	MW-289M1	MW-289M1_F25	305.00	315.00	09/03/2025	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.079	J	µg/L	400		0.028	0.20
J2 Range Northern	MW-640M1	MW-640M1_F25	246.00	256.00	09/02/2025	SW6850	Perchlorate	0.039	J	µg/L	2.0		0.019	0.20

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Data Received 01 to 31 October 2025

Area of Concern	Location ID	Field Sample ID	Top Depth (ft bgs)	Bottom Depth (ft bgs)	Date Sampled	Test Method	Analyte	Result Value	Qualifier	Units	MCL/HA	> MCL/HA	MDL	RL
J2 Range Northern	MW-703M2	MW-703M2_F25	224.10	234.10	09/02/2025	SW6850	Perchlorate	0.47		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-703M2	MW-703M2_F25D	224.10	234.10	09/02/2025	SW6850	Perchlorate	0.46		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-622M1	MW-622M1_F25	245.40	255.40	09/02/2025	SW6850	Perchlorate	1.3		µg/L	2.0		0.019	0.20
J2 Range Northern	MW-704M2	MW-704M2_F25	217.80	227.80	09/02/2025	SW6850	Perchlorate	1.9		µg/L	2.0		0.019	0.20

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MCL/HA= Either the MCL or Lowest Health Advisory Limit