

**MONTHLY PROGRESS REPORT #339
FOR JUNE 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 27 June 2025.

1. SUMMARY OF REMEDIATION ACTIONS

Remediation Actions (RA) Underway at Camp Edwards as of 27 June 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, Base Boundary, and the Leading Edge include extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater, 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. As of 27 June 2025, over 3.172 billion gallons of water were treated and re-injected. The following Frank Perkins Road Treatment Facility shutdowns occurred in the reporting period:

- 2021 on 22 May 2025 due to a power interruption caused by a Nor' Easter. Upon attempting to restart, no flow was noticed and the PLC displayed EW-4 running. Upon further inspection, a significant amount of water and sand were in the vault. BETCO and Maher Services are currently performing diagnostics on EW-4, which remains offline. EW-501 was brought online at a flow rate of 100 gpm at 0730 on 04 June 2025.
- 0936 on 24 June 2025 due to a power interruption and was restarted at 1038 on 25 June 2025.

The Base Boundary Mobile Treatment Unit (MTU) continues to operate at a flow rate of 65 gpm. As of 27 June 2025, over 437.7 million gallons of water were treated and re-injected. The following Base Boundary system shutdowns occurred in the reporting period:

- 1738 on 31 May 2025 due to a power interruption and was restarted at 0758 on 02 June 2025.

The flow rate at the Leading-Edge system was increased from 100 gpm to 125 gpm on 26 September 2024 based on regulatory agency concurrence with the 26 September 2024 Demolition Area 1 Extraction Well 5 (EW-5) Optimization presentation. As of 27 June 2025, over 461.9 million gallons of water were treated and re-injected. The following Leading-Edge system shutdowns occurred in the reporting period:

- 1752 on 31 May 2025 due to a power interruption and was restarted at 1004 on 02 June 2025.

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 an infiltration basin 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 27 June 2025, over 2.342 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 27 June 2025, over 1.805 billion gallons of water have been treated and re-injected. The following MTU G system shutdowns occurred in the reporting period:

- 0912 on 28 March 2025 due to the unit only pumping at 170 GPM. Based on follow-up inspections it was determined that the pump was beginning to fail. Unit G was turned off to prevent further damage to the pump or extraction well. The existing pump/motor from EW0003 was removed on 13 May 2025. A modified well development was performed on 14 May 2025, and 4,300 gallons were purged from EW0003 and transported to Frank Perkins Treatment Plant for treatment. The system will remain off until a new pump/motor is installed.

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: three extraction wells in an axial array, 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 three infiltration trenches located along the lateral boundaries of the plume where treated water enters the vadose zone and infiltrates into the aquifer. The J-2 Range Eastern system is running at a combined total flow rate of 495 gpm.

The MTUs H and I continue to operate at a flow rate of 250 gpm. As of 27 June 2025, over 1.986 billion gallons of water have been treated and re-injected. The following MTU H and I system shutdowns occurred in the reporting period:

- 0855 on 03 June 2025 to collect an IX resin sample from MTU I, and MTUs H and I were restarted at 0930 on 03 June 2025.

MTU J continues to operate at a flow rate of 120 gpm. As of 27 June 2025, over 929.6 million gallons of water have been treated and re-injected. The following MTU J shutdowns occurred in the reporting period:

- 1650 on 31 May 2025 due to a power interruption and was restarted at 0910 on 02 June 2025.

MTU K continues to operate at a flow rate of 125 gpm. As of 27 June 2025, over 1.064 billion gallons of water have been treated and re-injected. No MTU K shutdowns occurred in the reporting period.

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) infiltration gallery to return treated water to the aquifer.

The J-3 system is currently operating at a flow rate of 255 gpm. As of 27 June 2025, over 1.974 billion gallons of water have been treated and re-injected. The following J-3 system shutdowns occurred in the reporting period:

- 1625 on 24 June 2025 due to an FS-12 being turned off for an energy curtailment and was restarted at 1208 on 25 June 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 two extraction wells, an ex-situ treatment process to remove explosives compounds from the groundwater, and an infiltration trench 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 27 June 2025, over 869.4 million gallons of water have been treated and re-injected. No J-1 Range Southern MTU shutdowns occurred in the reporting period.

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 trench 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 at 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. As of 27 June 2025, over 1.500 billion gallons of water have been treated and re-injected. The following J-1 Range Northern MTU shutdowns occurred in the reporting period:

- 0922 on 05 June 2025 at EW0002 due to a VFD fault. Air filters were replaced in the VFD cabinet and EW0002 was restarted at 0740 on 06 June 2025.
- 0937 on 21 June 2025 at EW0002 due to a VFD fault (Over Temp) and was restarted at 1021 on 23 June 2025.
- 0905 on 24 June 2025 at EW0002 due to a VFD fault (Over Temp) and was restarted at 1000 on 24 June 2025.
- 1015 on 24 June 2025 at EW0002 due to a VFD fault (Over Temp) and was restarted at 0650 on 27 June 2025 at 100 gpm (J-1 Northern is currently running at 185 gpm with EW0001 at 85 gpm and EW0002 at 100 gpm).

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 systems 1, 2, and 3 continue to run at a combined total flow rate of 750 gpm. As of 27 June 2025, over 4.030 billion gallons of water have been treated and re-injected. The following CIA system shutdowns occurred in the reporting period:

- 2328 on 12 June 2025 at CIA-3 due to a "Phase/Voltage" fault and was restarted at 0810 on 17 June 2025.
- 0936 on 24 June 2025 at CIA-1 due to a power interruption and was restarted at 1138 on 25 June 2025.
- 0936 on 24 June 2025 at CIA-2 due to a power interruption and was restarted at 1129 on 25 June 2025.

2. SUMMARY OF ACTIONS TAKEN

Operable Unit (OU) Activity as of 27 June 2025:

CIA

- Source Area investigations
 - No field activities
 - Conducted routine visual checks of CSS soil cover and surface area around the perimeter of the CSS.

Demolition Area 1

- No activity.

Demolition Area 2

- No activity.

J-1 Range

- Groundwater sampling within the J-1 Range Southern SPM Program.
- Groundwater sampling within the J-1 Range Northern SPM Program.
- Bag filters changed at J-1 Range Northern on 11 June 2025.
- Bag filters changed at J-1 Range Southern on 26 June 2025.

J-2 Range

- Vertical profiling at BH-743 (J2-PFAS-1) completed
- Bag filters changed at J-2 Range Northern MTU J on 27 June 2025.

J-3 Range

- Vertical profiling at BH-744 (J3-PFAS-1) completed
- Vertical profiling at BH-745 (J3-PFAS-2) completed
- Began decontaminating equipment and mobilization to BH-747 (J3-PFAS-4)
- Preparation for groundwater sampling at J-3 Range
- Bag filters changed at J-3 Range on 26 June 2025.

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 12 June 2025

Project and Fieldwork Update

Darrin Smith (USACE) provided the project and fieldwork update. He reported that groundwater sampling crews completed the annual system performance monitoring (SPM) sampling at Demolition Area 1 (Demo 1) and the semi-annual SPM sampling at J-1 North, and J-1 South. Crews will conduct annual SPM sampling at J-3, which is expected to continue through June. Mr. Smith (USACE) stated that the May monthly treatment system sampling was completed on 5/7/25. At CIA-1, RDX was reported at 0.57 µg/L, exceeding the 0.25 µg/L action level (AL). Because the April result was non-detect (ND), and the May effluent result was ND, a sample collected on 6/3/25 will be processed with a “rushed turnaround time” to confirm the result and determine if a changeout should be scheduled. At J-2 East Unit I, perchlorate was reported at 0.39 µg/L, exceeding the 0.35 µg/L AL. Replacement of the ion exchange resin is being scheduled. The June monthly treatment system sampling was completed on 6/11/25.

Mr. Smith (USACE) explained that the Demo 1 Frank Perkins Road (FPR) system went down during a storm on 5/22/25. Diagnostics were performed on extraction well (EW) 4 on 6/10/25 and USACE is waiting to learn what is needed to turn the extraction well back on. EW-501 was turned back on at 100 gallons per minute (gpm) on 6/4/25 to support drilling. The total downtime for the FPR system was approximately 12 days.

Mr. Smith (USACE) reported that the J-2 N System G was shut down on 3/28/25 due to EW0003 pump failure. The pump and motor were removed, and a camera inspection was performed on 5/13/25. Well redevelopment was performed on 5/14/25. A new pump and motor were ordered, and installation is anticipated by 7/20/25.

Mr. Smith (USACE) reported that drilling was completed at Jefferson Road, Sierra Range, and Wood Road. Drilling will commence at J-3 Range next. He also stated that off-site disposal of the blow-in-place and cracked open item location soils and Consolidated Shot Structure soils (~400 CY total) is scheduled for the week of 7/21/25.

Document and Project Tracking

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

L Range Groundwater Monitoring Annual Report Presentation

Shawn Cody (ARNG) requested that the agency contractors who are reviewing the environmental monitoring reports also attend the monthly Technical Meetings to see the data presentations and subsequent conclusions/recommendations. He surmised this will reduce

report comments and help reach agreement on next steps more efficiently. Mr. Cody (ARNG) also offered to have additional meetings to address questions before comments are submitted to increase efficiency in the process for all.

Chris Kilbridge (USACE) provided a presentation of the data in the L Range Environmental Monitoring Report (EMR) for the reporting period of 3/1/24 through 2/28/25. Mr. Kilbridge (USACE) reported that during the reporting period there was only one RDX exceedance above the risk base concentration (RBC) of 0.6 µg/L. This also means a decrease from two “plumelets” in 2024 to one in 2025.

The historical maximum concentration was 9.8 µg/L at MW-242M1 in 2012. Regional groundwater flow is north to south. The original monitoring network included eight well screens, eight of which are sampled annually (in the winter) and five are sampled semi-annually (in the summer). Mr. Kilbridge (USACE) noted that sampling for perchlorate was discontinued in 2014 when the Decision Document (DD) cleanup level (below 2 µg/L Massachusetts Maximum Contaminant Level (MCL) was achieved.

During the July 2024 semi-annual sampling event of the five wells (MW-242M1, MW-595M1/M2, MW- 596M1, MW-651M1), no samples were above the risk-based concentration (RBC) of 0.6 µg/L, no samples were above the EPA risk screening level (RSL) of 0.97 µg/L, and no samples were above the MassDEP GW-1 standard of 1 µg/L. The maximum RDX concentration was 0.40 µg/L at MW-595M2, which is downgradient of the base boundary and downgradient on the west side of predicted flow path from historic RDX maximum at MW-242M1 (9.8 µg/L) in 2012. Downgradient concentrations have also decreased.

Mr. Kilbridge (USACE) presented the results from the January 2025 annual sampling event at 8 wells (the five aforementioned semi-annual well screens, plus 90MW0031, 90MW0034, and MW-650M1). There was only a single detection above the RBC of 0.6 µg/L. He noted that this is second year in row that there has only been one exceedance of the RBC. Only three detections in eight samples were greater than the reporting limit (RL) of 0.20 µg/L and the other five samples were ND.

Mr. Kilbridge (USACE) displayed trend graphs to show the concentrations during the reporting period. The maximum RDX concentration was detected at MW-595M2 at 0.91 µg/L. He noted that this is the only RBC exceedance during reporting period. The 2024 maximum concentration was at MW-595M1 at 0.66 µg/L. He reported the upgradient RDX concentration at MW-242M1 (0.21 µg/L) was lower than the July 2024 result (0.22 µg/L) and has been below the RBC since January 2020. The MW-651M1 detection (0.20 µg/L) is less than the July 2022 result (0.9 µg/L). MW-650M1 and MW-596M1 were both ND. MW-650M1 decreased from 0.90 µg/L in February 2022 to ND in 2024 and 2025. MW-596M1 bounds the plume in the east with a maximum concentration of 0.26 µg/L in January 2023 (sampling began 2013). A figure showing the measured concentrations vs. the model-predicted concentrations was displayed. The model-predicted concentrations were less than the RBC for MW-596M1 and MW-650M1 in 2025. Well 90MW0034 has been ND to below 0.6 µg/L since August 2016 and only exceeded the RBC twice since 1998: in 2001 (0.78 µg/L) and 2016 (0.86 µg/L).

Mr. Kilbridge (USACE) showed a comparison of the modeled results compared to the DD cleanup criteria. The measured concentrations were below the 2 µg/L Health Advisory (HA), and below the RBC, and only one well (MW-595M1/M2) had an exceedance above the RSL during last two reporting periods (2023–2024 and 2024–2025). The attenuation equation used in plume shell development predicts that the recent annual maximum RDX concentrations should naturally attenuate by 2031. Figures were shown to illustrate that point. Mr. Kilbridge (USACE) explained that past attenuation measured in the monitoring network is evidence of future attenuation RDX trends for magnitude decline and time to attenuate. The attenuation equation predicts 37% RDX remains after 5 years of transport, 14% after 10 years of transport, relative to original sample result.

Mr. Kilbridge (USACE) stated the recommendation for the chemical monitoring is to discontinue sampling for explosives at all wells because remedial goals are predicted to be achieved by the DD timeframe in 2031.

He reiterated that perchlorate sampling was discontinued 2014. Mr. Kilbridge (USACE) noted that multiple lines of evidence support discontinuing sampling for explosives. There is no evidence of a continual upgradient RDX source migrating off-base. MW-242M1 has only had trace to 0.22 µg/L detections since 2020. The annual maximum RDX concentrations are lower in magnitude and in far less wells (i.e., 2016, 2022, and 2025). Empirical sampling data indicate natural attenuation of the remaining RDX is occurring on pace toward the DD timelines. The recent annual maximum RDX should attenuate below the RBC by 2031. There are no receptors downgradient before that attenuation is predicted to occur. Surface water sampling has been performed at Snake Pond at three sample stations for J-3 Range since 2001/2002. There is no evidence of exceedances of RDX (or perchlorate). The only RDX maximum concentration was 0.044J µg/L (LKSNNK0005) in July 2021. The perchlorate maximum concentration was 0.72 µg/L (LKSNNK0005) in September 2002. Mr. Kilbridge (USACE) displayed a figure comparing the L Range historical plume concentrations and the current conditions.

Elliot Jacobs (MassDEP) asked if a Completion of Work Report is in progress and asked for clarification on the proposed long-term strategy if sampling is discontinued. He also asked if there would be a final sampling effort to confirm attenuation. Jodi Lyn Cutler (IAGWSP) replied that the IAGWSP team was discussing the necessary documentation for the proposed discontinuation of sampling. She stated that IAGWSP would plan to do a final round of sampling in 2031 to confirm attenuation. Ms. Cutler (IAGWSP) also mentioned that Bob Lim (EPA) had previously suggested a DD amendment to document the RDX RSL changing from 0.6 µg/L to 0.97 µg/L. She suggested that the IAGWSP could do that now, along with a Completion of Work Report, to document the site cleanup achievements. Mr. Lim (EPA) replied that he concurred with the suggestion to document the achievement of the 0.97 µg/L goal. He stated that he also would concur with a sampling event in 2031.

Len Pinaud (MassDEP) stated that, based on the current sampling results, the site is eligible for closure under the Massachusetts Contingency Plan (MCP). He noted that the only potential outlier is whether detections at MW-595M2 would go above the GW-1 standard. Mr. Pinaud (MassDEP) noted he felt that is highly unlikely based on the supporting data that Mr. Kilbridge

(USACE) presented. Ms. Cutler (IAGWSP) stated that the IAGWSP would like to avoid the expense in time and resources to complete another EMR.

Mr. Dvorak (USACE) suggested that there be an internal discussion to determine the next steps. Mr. Lim (EPA) and Mr. Pinaud (MassDEP) concurred with that. Ms. Cutler (IAGWSP) asked if a DD addendum to document the change in cleanup level could be done to address all of the sites with RDX detections. Mr. Lim (EPA) replied that had been done at the Installation Restoration Program for several operable units. He agreed with this approach for the IAGWSP sites. Ms. Cutler (IAGWSP) stated the IAGWSP would propose a documentation strategy.

Upcoming tech meetings: July 17, 2025

JBCC Cleanup Team Meeting

The next JBCC Cleanup Team (JBCCCT) is tentatively scheduled for 27 August 2025. Meeting details and presentation materials from previous meetings can be found on the IAGWSP web site at <http://bcc-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 30 June 2025. Table 2 summarizes the validated detections of explosives compounds and perchlorate for all groundwater results received from 01 to 30 June 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 30 June 2025. 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 30 June 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 June 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, Northwest Corner, Small Arms Ranges, and Training Areas. 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 repositories (IAGWSP office and Jonathan Bourne Library).

4. SUBMITTED DELIVERABLES

Deliverables submitted during the reporting period include the following:

- | | |
|---|--------------|
| • Memorandum of Resolution on the Draft J-1 Range
Southern Environmental Monitoring Report for January
2023 through December 2023 | 10 June 2025 |
| • Final 2024 Source Removal Annual Report at the
Central Impact Area | 20 June 2025 |

5. SCHEDULED ACTIONS

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

- Response to Comments on the Impact Area Groundwater Study Program Draft Comprehensive PFAS Report
- Draft 2025 Source Removal Annual Report
- Draft J-3 Range EMR for September 2023 through August 2024
- Draft J-2 Range East EMR for November 2023 through October 2024
- Draft J-2 Range North EMR for November 2023 through October 2024
- Draft L Range EMR for March 2024 through February 2025
- Response to Comments for Draft J-1 Range North EMR for January 2023 through December 2023
- Response to Comments for Central Impact Area EMR for July 2023 through June 2024

TABLE 1
Sampling Progress: 01 to 31 June 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	MW-198M4	MW-198M4_F25	N	06/26/2025	Ground Water	70	75
J3 Range	BH-745	BH-745-243-248	N	06/26/2025	Water	243	248
J3 Range	MW-198M3	MW-198M3_F25	N	06/26/2025	Ground Water	100	105
J3 Range	MW-198M2	MW-198M2_F25	N	06/26/2025	Ground Water	120	125
J3 Range	BH-745	BH-745-231-236	N	06/25/2025	Water	231	236
J3 Range	MW-143M3	MW-143M3_F25	N	06/25/2025	Ground Water	107	112
J3 Range	MW-143M1	MW-143M1_F25	N	06/25/2025	Ground Water	144	154
J3 Range	MW-142M2	MW-142M2_F25	N	06/24/2025	Ground Water	140	150
J3 Range	MW-243M1	MW-243M1_F25	N	06/24/2025	Ground Water	114.5	124.5
J3 Range	BH-745	BH-745-221-226-D	FD	06/24/2025	Water	221	226
J3 Range	BH-745	BH-745-221-226	N	06/24/2025	Water	221	226
J3 Range	MW-295M1	MW-295M1_F25	N	06/24/2025	Ground Water	145	155
J3 Range	BH-745	BH-745-211-216	N	06/24/2025	Water	211	216
J3 Range	BH-745	BH-745-201-206	N	06/23/2025	Water	201	206
J3 Range	BH-745	BH-745-191-196	N	06/23/2025	Water	191	196
J3 Range	BH-745	BH-745-181-186	N	06/23/2025	Water	181	186
J3 Range	BH-745	BH-745-171-176	N	06/23/2025	Water	171	176
J3 Range	BH-745	BH-745-161-166	N	06/23/2025	Water	161	166
J3 Range	BH-745	BH-745-151-156	N	06/23/2025	Water	151	156
J3 Range	BH-745	BH-745-141-146	N	06/20/2025	Water	141	146
J3 Range	BH-745	BH-745-131-136	N	06/20/2025	Water	131	136
J3 Range	BH-745	BH-745-121-126	N	06/20/2025	Water	121	126
J3 Range	BH-745	BH-745-111-116	N	06/20/2025	Water	111	116
J3 Range	BH-745	BH-745-101-106-D	FD	06/20/2025	Water	101	106
J3 Range	BH-745	BH-745-101-106	N	06/20/2025	Water	101	106
J3 Range	BH-745	BH-745-91-96	N	06/20/2025	Water	91	96
J3 Range	BH-745	BH-745-81-86	N	06/20/2025	Water	81	86
J3 Range	BH-745	BH-745-71-76	N	06/19/2025	Water	71	76
J3 Range	BH-745	BH-745-61-66	N	06/19/2025	Water	61	66
J3 Range	BH-745	BH-745-51	N	06/19/2025	Water	51	51
J3 Range	BH-744	BH-744-251-256	N	06/16/2025	Water	251	256
J3 Range	BH-744	BH-744-241-246	N	06/16/2025	Water	241	246
J3 Range	BH-744	BH-744-231-236	N	06/13/2025	Water	231	236
J3 Range	BH-744	BH-744-221-226	N	06/13/2025	Water	221	226
J3 Range	BH-744	BH-744-211-216-D	FD	06/13/2025	Water	211	216
J3 Range	BH-744	BH-744-211-216	N	06/13/2025	Water	211	216
J3 Range	BH-744	BH-744-201-206	N	06/12/2025	Water	201	206
J3 Range	BH-744	BH-744-191-196	N	06/12/2025	Water	191	196
J3 Range	BH-744	BH-744-181-186	N	06/12/2025	Water	181	186
J3 Range	BH-744	BH-744-171-176	N	06/12/2025	Water	171	176
J3 Range	BH-744	BH-744-161-166	N	06/12/2025	Water	161	166
J3 Range	BH-744	BH-744-151-156	N	06/12/2025	Water	151	156
J3 Range	BH-744	BH-744-141-146	N	06/11/2025	Water	141	146
J3 Range	BH-744	BH-744-131-136	N	06/11/2025	Water	131	136
J3 Range	BH-744	BH-744-121-126-D	FD	06/11/2025	Water	121	126
J3 Range	BH-744	BH-744-121-126	N	06/11/2025	Water	121	126
J3 Range	BH-744	BH-744-111-116	N	06/11/2025	Water	111	116
J1 Range Northern	MW-245M2	MW-245M2_S25	N	06/11/2025	Ground Water	204	214
J1 Range Northern	MW-245M2	MW-245M2_S25D	FD	06/11/2025	Ground Water	204	214
Demolition Area 1	FPR-2-EFF-A	FPR-2-EFF-A-231A	N	06/11/2025	Process Water	0	0
Demolition Area 1	FPR-2-GAC-MID1A	FPR-2-GAC-MID1A-231A	N	06/11/2025	Process Water	0	0
Demolition Area 1	FPR-2-INF	FPR-2-INF-231A	N	06/11/2025	Process Water	0	0
J3 Range	BH-744	BH-744-101-106	N	06/11/2025	Water	101	106
J1 Range Northern	MW-540M1	MW-540M1_S25	N	06/11/2025	Ground Water	258	268
J3 Range	BH-744	BH-744-91-96	N	06/11/2025	Water	91	96

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 01 to 31 June 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	BH-744	BH-744-81-86	N	06/11/2025	Water	81	86
J3 Range	BH-744	BH-744-71-76	N	06/10/2025	Water	71	76
J3 Range	BH-744	BH-744-61-66	N	06/10/2025	Water	61	66
J1 Range Northern	MW-590M2	MW-590M2_S25	N	06/10/2025	Ground Water	238	248
J1 Range Northern	MW-590M2	MW-590M2_S25D	FD	06/10/2025	Ground Water	238	248
J1 Range Northern	MW-590M1	MW-590M1_S25	N	06/10/2025	Ground Water	258	268
J3 Range	BH-744	BH-744-52	N	06/10/2025	Water	52	52
J1 Range Northern	MW-584M2	MW-584M2_S25	N	06/10/2025	Ground Water	228	238
J1 Range Northern	MW-584M1	MW-584M1_S25	N	06/10/2025	Ground Water	248	258
J1 Range Northern	MW-401M3	MW-401M3_S25	N	06/09/2025	Ground Water	228.5	238.5
J1 Range Northern	MW-401M1	MW-401M1_S25	N	06/09/2025	Ground Water	256.1	266.1
J1 Range Northern	MW-430M2	MW-430M2_S25	N	06/09/2025	Ground Water	188.41	198.41
J1 Range Northern	MW-430M1	MW-430M1_S25	N	06/09/2025	Ground Water	245.23	255.23
J2 Range Northern	BH-743	BH-743-319-324	N	06/06/2025	Water	319	324
J2 Range Northern	BH-743	BH-743-311-316	N	06/06/2025	Water	311	316
J2 Range Northern	BH-743	BH-743-301-306-D	FD	06/05/2025	Water	301	306
J2 Range Northern	BH-743	BH-743-301-306	N	06/05/2025	Water	301	306
J2 Range Northern	BH-743	BH-743-291-296	N	06/05/2025	Water	291	296
J2 Range Eastern	J2E-EFF-K	J2E-EFF-K-201A	N	06/05/2025	Process Water	0	0
J2 Range Eastern	J2E-MID-2K	J2E-MID-2K-201A	N	06/05/2025	Process Water	0	0
J2 Range Eastern	J2E-MID-1K	J2E-MID-1K-201A	N	06/05/2025	Process Water	0	0
J2 Range Eastern	J2E-INF-K	J2E-INF-K-201A	N	06/05/2025	Process Water	0	0
J2 Range Northern	BH-743	BH-743-281-286	N	06/05/2025	Water	281	286
J2 Range Eastern	J2E-EFF-J	J2E-EFF-J-201A	N	06/05/2025	Process Water	0	0
J2 Range Eastern	J2E-MID-2J	J2E-MID-2J-201A	N	06/05/2025	Process Water	0	0
J1 Range Northern	MW-303M2	MW-303M2_S25	N	06/05/2025	Ground Water	235.09	245.1
J1 Range Northern	MW-303M2	MW-303M2_S25D	FD	06/05/2025	Ground Water	235.09	245.1
J2 Range Eastern	J2E-MID-1J	J2E-MID-1J-201A	N	06/05/2025	Process Water	0	0
J2 Range Eastern	J2E-INF-J	J2E-INF-J-201A	N	06/05/2025	Process Water	0	0
J2 Range Eastern	J2E-MID-2H	J2E-MID-2H-201A	N	06/05/2025	Process Water	0	0
J2 Range Eastern	J2E-MID-1H	J2E-MID-1H-201A	N	06/05/2025	Process Water	0	0
J2 Range Eastern	J2E-EFF-IH	J2E-EFF-IH-201A	N	06/05/2025	Process Water	0	0
J2 Range Eastern	J2E-MID-2I	J2E-MID-2I-201A	N	06/05/2025	Process Water	0	0
J2 Range Eastern	J2E-MID-1I	J2E-MID-1I-201A	N	06/05/2025	Process Water	0	0
J2 Range Eastern	J2E-INF-I	J2E-INF-I-201A	N	06/05/2025	Process Water	0	0
J1 Range Southern	MW-722M2	MW-722M2_S25	N	06/04/2025	Ground Water	93.9	103.9
J1 Range Southern	MW-722M1	MW-722M1_S25	N	06/04/2025	Ground Water	114.2	124.2
J1 Range Southern	MW-722M1	MW-722M1_S25D	FD	06/04/2025	Ground Water	114.2	124.2
J3 Range	J3-EFF	J3-EFF-225A	N	06/04/2025	Process Water	0	0
J3 Range	J3-MID-2	J3-MID-2-225A	N	06/04/2025	Process Water	0	0
J3 Range	J3-MID-1	J3-MID-1-225A	N	06/04/2025	Process Water	0	0
J3 Range	J3-INF	J3-INF-225A	N	06/04/2025	Process Water	0	0
Demolition Area 1	D1-EFF	D1-EFF-179A	N	06/04/2025	Process Water	0	0
Demolition Area 1	D1-MID-2	D1-MID-2-179A	N	06/04/2025	Process Water	0	0
Demolition Area 1	D1-MID-1	D1-MID-1-179A	N	06/04/2025	Process Water	0	0
Demolition Area 1	D1-INF	D1-INF-179A	N	06/04/2025	Process Water	0	0
J1 Range Southern	MW-720M2	MW-720M2_S25	N	06/04/2025	Ground Water	126.2	136.2
J1 Range Southern	MW-720M1	MW-720M1_S25	N	06/04/2025	Ground Water	146.6	156.6
Demolition Area 1	D1LE-EFF	D1LE-EFF-107A	N	06/04/2025	Process Water	0	0
Demolition Area 1	D1LE-MID2	D1LE-MID2-107A	N	06/04/2025	Process Water	0	0
Demolition Area 1	D1LE-MID1	D1LE-MID1-107A	N	06/04/2025	Process Water	0	0
Demolition Area 1	D1LE-INF	D1LE-INF-107A	N	06/04/2025	Process Water	0	0
J2 Range Northern	BH-743	BH-743-271-276	N	06/04/2025	Water	271	276
J1 Range Southern	MW-403M2	MW-403M2_S25	N	06/03/2025	Ground Water	127.26	137.36
J1 Range Southern	MW-403M1	MW-403M1_S25	N	06/03/2025	Ground Water	159.9	169.89

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 01 to 31 June 2025

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Central Impact Area	CIA2-EFF	CIA2-EFF-137A	N	06/03/2025	Process Water	0	0
Central Impact Area	CIA2-MID2	CIA2-MID2-137A	N	06/03/2025	Process Water	0	0
Central Impact Area	CIA2-MID1	CIA2-MID1-137A	N	06/03/2025	Process Water	0	0
Central Impact Area	CIA2-INF	CIA2-INF-137A	N	06/03/2025	Process Water	0	0
Central Impact Area	CIA3-EFF	CIA3-EFF-108A	N	06/03/2025	Process Water	0	0
Central Impact Area	CIA3-MID2	CIA3-MID2-108A	N	06/03/2025	Process Water	0	0
J1 Range Southern	MW-669M2	MW-669M2_S25	N	06/03/2025	Ground Water	201.7	211.7
Central Impact Area	CIA3-MID1	CIA3-MID1-108A	N	06/03/2025	Process Water	0	0
Central Impact Area	CIA3-INF	CIA3-INF-108A	N	06/03/2025	Process Water	0	0
J1 Range Southern	MW-669M1	MW-669M1_S25	N	06/03/2025	Ground Water	223.7	233.7
J1 Range Southern	MW-669M1	MW-669M1_S25D	FD	06/03/2025	Ground Water	223.7	233.7
Central Impact Area	CIA1-EFF	CIA1-EFF-137A	N	06/03/2025	Process Water	0	0
Central Impact Area	CIA1-MID2	CIA1-MID2-137A	N	06/03/2025	Process Water	0	0
Central Impact Area	CIA1-MID1	CIA1-MID1-137A	N	06/03/2025	Process Water	0	0
J2 Range Northern	BH-743	BH-743-261-266	N	06/03/2025	Water	261	266
Central Impact Area	CIA1-INF	CIA1-INF-137A	N	06/03/2025	Process Water	0	0
J2 Range Northern	BH-743	BH-743-251-256	N	06/02/2025	Water	251	256
J1 Range Southern	J1S-EFF	J1S-EFF-211A	N	06/02/2025	Process Water	0	0
J1 Range Southern	J1S-MID	J1S-MID-211A	N	06/02/2025	Process Water	0	0
J1 Range Southern	J1S-INF-2	J1S-INF-2-211A	N	06/02/2025	Process Water	0	0
J2 Range Northern	J2N-MID-2F	J2N-MID-2F-225A	N	06/02/2025	Process Water	0	0
J2 Range Northern	J2N-MID-1F	J2N-MID-1F-225A	N	06/02/2025	Process Water	0	0
J2 Range Northern	J2N-EFF-EF	J2N-EFF-EF-225A	N	06/02/2025	Process Water	0	0
J1 Range Southern	MW-733M2	MW-733M2_S25	N	06/02/2025	Ground Water	190	200
J2 Range Northern	J2N-MID-2E	J2N-MID-2E-225A	N	06/02/2025	Process Water	0	0
J2 Range Northern	J2N-MID-1E	J2N-MID-1E-225A	N	06/02/2025	Process Water	0	0
J2 Range Northern	J2N-INF-EF	J2N-INF-EF-225A	N	06/02/2025	Process Water	0	0
J1 Range Southern	MW-733M1	MW-733M1_S25	N	06/02/2025	Ground Water	212	222
J1 Range Southern	MW-670M2	MW-670M2_S25	N	06/02/2025	Ground Water	198.5	208.5
J1 Range Southern	MW-670M1	MW-670M1_S25	N	06/02/2025	Ground Water	220.5	230.5
J2 Range Northern	BH-743	BH-743-241-246	N	06/02/2025	Water	241	246
J1 Range Northern	J1N-EFF	J1N-EFF-140A	N	06/02/2025	Process Water	0	0
J1 Range Northern	J1N-MID2	J1N-MID2-140A	N	06/02/2025	Process Water	0	0
J1 Range Northern	J1N-MID1	J1N-MID1-140A	N	06/02/2025	Process Water	0	0
J1 Range Northern	J1N-INF2	J1N-INF2-140A	N	06/02/2025	Process Water	0	0

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received June 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
J1 Range Southern	MW-669M1	MW-669M1_S25	223.7	233.7	06/03/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.58	J	µg/L	0.60		0.092	0.20
J1 Range Southern	MW-669M1	MW-669M1_S25D	223.7	233.7	06/03/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.58	J	µg/L	0.60		0.092	0.20
J1 Range Southern	MW-733M2	MW-733M2_S25	190	200	06/02/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.17	J	µg/L	0.60		0.092	0.20
J1 Range Southern	MW-733M1	MW-733M1_S25	212	222	06/02/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.97		µg/L	0.60	X	0.092	0.20
J1 Range Southern	MW-721M1	MW-721M1_S25	168.1	178.1	05/21/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.0		µg/L	0.60	X	0.092	0.20
J1 Range Southern	MW-721M1	MW-721M1_S25	168.1	178.1	05/21/2025	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.21		µg/L	400		0.13	0.20
J1 Range Southern	MW-591M1	MW-591M1_S25	200	210	05/15/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.16	J	µg/L	0.60		0.092	0.20
J1 Range Southern	MW-524M1	MW-524M1_S25	148	158	05/14/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.3		µg/L	0.60	X	0.092	0.20
J1 Range Southern	MW-524M1	MW-524M1_S25	148	158	05/14/2025	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.52		µg/L	400		0.13	0.20
J1 Range Southern	MW-524M1	MW-524M1_S25D	148	158	05/14/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.5		µg/L	0.60	X	0.092	0.20
J1 Range Southern	MW-524M1	MW-524M1_S25D	148	158	05/14/2025	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.53		µg/L	400		0.13	0.20
Demolition Area 1	MW-556M2	MW-556M2_S25	111	121	05/08/2025	SW6850	Perchlorate	0.11	J	µg/L	2.0		0.019	0.20
Demolition Area 1	MW-556M1	MW-556M1_S25	153	163	05/08/2025	SW6850	Perchlorate	0.29		µg/L	2.0		0.047	0.20
Demolition Area 1	MW-558M2	MW-558M2_S25	98	108	05/07/2025	SW6850	Perchlorate	0.071	J	µg/L	2.0		0.047	0.20
Demolition Area 1	MW-558M1	MW-558M1_S25	134	144	05/07/2025	SW6850	Perchlorate	0.27		µg/L	2.0		0.047	0.20
Demolition Area 1	MW-559M2	MW-559M2_S25	87	97	05/07/2025	SW6850	Perchlorate	0.083	J	µg/L	2.0		0.047	0.20
Demolition Area 1	MW-559M1	MW-559M1_S25	135.6	145.6	05/07/2025	SW6850	Perchlorate	0.25		µg/L	2.0		0.047	0.20
Demolition Area 1	MW-604M1	MW-604M1_S25	111	121	05/06/2025	SW6850	Perchlorate	0.063	J	µg/L	2.0		0.047	0.20
Demolition Area 1	MW-602M2	MW-602M2_S25	27	37	05/06/2025	SW6850	Perchlorate	0.22		µg/L	2.0		0.047	0.20
Demolition Area 1	MW-602M1	MW-602M1_S25	109	119	05/06/2025	SW6850	Perchlorate	5.3		µg/L	2.0	X	0.047	0.20
Demolition Area 1	MW-602M1	MW-602M1_S25	109	119	05/06/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.28		µg/L	0.60		0.092	0.20
Demolition Area 1	MW-659M2	MW-659M2_S25	85	95	05/01/2025	SW6850	Perchlorate	0.095	J	µg/L	2.0		0.047	0.20
Demolition Area 1	MW-659M1	MW-659M1_S25	120	130	05/01/2025	SW6850	Perchlorate	0.11	J	µg/L	2.0		0.047	0.20
Demolition Area 1	MW-582M2	MW-582M2_S25	84	94	05/01/2025	SW6850	Perchlorate	0.11	J	µg/L	2.0		0.047	0.20
Demolition Area 1	MW-582M1	MW-582M1_S25	134	144	05/01/2025	SW6850	Perchlorate	0.23		µg/L	2.0		0.047	0.20
Demolition Area 1	MW-571M2	MW-571M2_S25	74	84	04/30/2025	SW6850	Perchlorate	0.12	J	µg/L	2.0		0.047	0.20
Demolition Area 1	MW-571M1	MW-571M1_S25	114	124	04/30/2025	SW6850	Perchlorate	0.60		µg/L	2.0		0.047	0.20
Demolition Area 1	MW-569M2	MW-569M2_S25	84	94	04/30/2025	SW6850	Perchlorate	0.079	J	µg/L	2.0		0.047	0.20
Demolition Area 1	MW-569M1	MW-569M1_S25	114	124	04/30/2025	SW6850	Perchlorate	0.31		µg/L	2.0		0.047	0.20
Demolition Area 1	MW-353M1	MW-353M1_S25	107	117	04/24/2025	SW6850	Perchlorate	0.063	J	µg/L	2.0		0.047	0.20
Demolition Area 1	XX9514	XX9514_S25	102	112	04/24/2025	SW6850	Perchlorate	3.1		µg/L	2.0	X	0.047	0.20
Demolition Area 1	XX9514	XX9514_S25	102	112	04/24/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.40		µg/L	0.60		0.092	0.20
Demolition Area 1	XX9514	XX9514_S25D	102	112	04/24/2025	SW6850	Perchlorate	3.3		µg/L	2.0	X	0.047	0.20
Demolition Area 1	XX9514	XX9514_S25D	102	112	04/24/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.34		µg/L	0.60		0.092	0.20
Demolition Area 1	MW-732M2	MW-732M2_S25	96.2	106.2	04/23/2025	SW6850	Perchlorate	0.20		µg/L	2.0		0.047	0.20
Demolition Area 1	MW-732M1	MW-732M1_S25	156	166	04/23/2025	SW6850	Perchlorate	0.050	J	µg/L	2.0		0.047	0.20
Demolition Area 1	MW-731M3	MW-731M3_S25	160.1	170.1	04/23/2025	SW6850	Perchlorate	0.53		µg/L	2.0		0.047	0.20
Demolition Area 1	MW-731M3	MW-731M3_S25	160.1	170.1	04/23/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.21		µg/L	0.60		0.092	0.20
Demolition Area 1	MW-731M2	MW-731M2_S25	190.9	200.9	04/23/2025	SW6850	Perchlorate	2.6		µg/L	2.0	X	0.047	0.20
Demolition Area 1	MW-731M2	MW-731M2_S25	190.9	200.9	04/23/2025	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.23		µg/L	0.60		0.092	0.20
Demolition Area 1	MW-731M1	MW-731M1_S25	220.8	230.8	04/23/2025	SW6850	Perchlorate	1.2		µg/L	2.0		0.047	0.20

J = Estimated Result
MDL = Method Detection Limit
RL = Reporting Limit
ND = Non-Detect