MONTHLY PROGRESS REPORT #321
FOR DECEMBER 2023

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 December 2023.

1. SUMMARY OF REMEDIATION ACTIONS

Remediation Actions (RA) Underway at Camp Edwards as of 29 December 2023:

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. The treatment facility continues to operate at a flow rate of 175 gallons per minute (gpm), with over 3.055 billion gallons of water treated and re-injected as of 29 December 2023. The following Frank Perkins Road Treatment Facility shutdowns occurred in December:

- 1158 on 18 December 2023 due to a power interruption and was restarted at 1418 on 18 December 2023.

The Base Boundary Mobile Treatment Unit (MTU) continues to operate at a flow rate of 65 gpm. As of 29 December 2023, over 387.4 million gallons of water were treated and re-injected. No Base Boundary MTU shutdowns occurred in December.

The Leading Edge system continues to operate at a flow rate of 100 gpm. As of 29 December 2023, over 385.0 million gallons of water were treated and re-injected. The following Leading Edge system shutdowns occurred in December:

- 0659 on 18 December 2023 due to a power outage caused by downed power lines and was restarted at 1341 on 18 December 2023.
- 0002 on 19 December 2023 due to a power interruption and was restarted at 1243 on 19 December 2023.

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 29 December 2023, over 2.159 billion gallons of water have been treated and re-injected. No MTU E and F shutdowns occurred in December.

The Northern Treatment Building G continues to operate at a flow rate of 225 gpm. As of 29 December 2023, over 1.661 billion gallons of water have been treated and re-injected. The following MTU G shutdowns occurred in December:

- 1900 on 17 December 2023 due to a power interruption and was restarted at 0940 on 18 December 2023.

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 29 December 2023, over 1.797 billion gallons of water have been treated and re-injected. The following MTU H and I shutdowns occurred in December:

- 1804 on 08 December 2023 due to a power interruption and was restarted at 0900 on 11 December 2023.
- 1530 on 18 December 2023 due to a power outage and was restarted at 1120 on 20 December 2023.

MTU J continues to operate at a flow rate of 120 gpm. As of 29 December 2023, over 842.9 million gallons of water have been treated and re-injected. The following MTU J shutdowns occurred in December:

- 1804 on 08 December 2023 due to a power interruption and was restarted at 0807 on 11 December 2023.
- 0830 on 18 December 2023 due to blown fuses on power lines and was restarted at 1140 on 20 December 2023.
- 0825 on 29 December 2023 to repair the powerlines on Greenway Road and was restarted at 1106 on 29 December 2023.

MTU K continues to operate at a flow rate of 125 gpm. As of 29 December 2023, over 967.7 million gallons of water have been treated and re-injected. The following MTU K shutdowns occurred in December:

- 0750 on 07 December 2023 due to a leak on the GAC #2 effluent pipe, which was repaired, and was restarted at 0930 on 11 December 2023.
- 0620 on 15 December 2023 due to a leak on the GAC #2 effluent pipe, which was repaired, and was restarted at 1045 on 18 December 2023.

- 1320 on 18 December 2023 due to a power outage and to replace a damaged variable frequency drive (VFD) panel and was restarted at 1100 on 20 December 2023.

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 29 December 2023, over 1.780 billion gallons of water have been treated and re-injected. The following J3 system shutdowns occurred in December:

- 1505 on 04 December 2023 due to FS-12 being off and was restarted at 0750 on 05 December 2023.
- 1804 on 08 December 2023 due to a power interruption and was restarted at 0748 on 11 December 2023.

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 continues to operate at a flow rate of 125 gpm. As of 29 December 2023, over 774.6 million gallons of water have been treated and re-injected. The following J-1 Range Southern MTU shutdowns occurred in December:

- 1804 on 08 December 2023 due to a power interruption and was restarted at 0740 on 11 December 2023.
- 1130 on 17 December 2023 due to a power supply interruption because a tree fell on the powerlines along Greenway Road. The powerlines were repaired, and the system was restarted at 1115 on 29 December 2023.

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. As of 29 December 2023, over 1.305 billion gallons of water have been treated and re-injected. No J-1 Range Northern MTU shutdowns occurred in December.

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 29 December 2023, over 3.435 billion gallons of water have been treated and re-injected. The following CIA system shutdowns occurred in December:

- 1220 on 18 December 2023 at CIA-1 due to downed powerlines on Burgoyne Rd., which were repaired, and the system was restarted at 1255 on 19 December 2023.
- 1225 on 18 December 2023 at CIA-2 due to downed powerlines on Burgoyne Rd., which were repaired. When power was restarted there was a power fault alarm, mechanical maintenance was performed, and the system was restarted at 0910 on 20 December 2023.

2. SUMMARY OF ACTIONS TAKEN

Operable Unit (OU) Activity as of 29 December 2023:

CIA

- Groundwater sampling within CIA SPM Program
- Programming of CIA-1, CIA-2, and CIA-3 floor sump pump alarms
- Source Area investigations
    - Routine visual check of CSS soil cover and surface area around the perimeter of the CSS

Demolition Area 1

- Groundwater sampling within the Demo 1 SPM Program
- Bag filters changed
- Programming of floor sump pump alarm

Demolition Area 2

- No activity

J-1 Range

- Groundwater and synoptic sampling within J-1 Range North SPM Program
- Programming of floor sump pump alarm

J-2 Range

- Bag filters changed at Unit I

J-3 Range

- No activity

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 15 December 2023

Project and Fieldwork Update

Darrin Smith (USACE) provided the project and fieldwork update starting with the status of the groundwater sampling crews. He said that Koman Government Solutions (KGS) crews are currently sampling at the J-1 Range North annual system performance monitoring (SPM) wells (70 screens). They began on 20 November and are expected to be complete by 19 December. They J-1 Range North hydraulic event consisting of 84 screens was completed on 12 December. Crews will move to perform sampling at the Central Impact Area (CIA) semi-annual SPM wells and the Demolition Area 1 semi-annual SPM wells.

Mr. Smith (USACE) continued with a status of operations and maintenance activities. He noted that the December monthly process water samples were collected between 4 December through 7 December and results are pending. The November samples were all below changeout criteria except for CIA-3. A carbon changeout was performed on 16 November. Notable system shutdowns since the last tech meeting included the shutdown of CIA-3 for the carbon changeout; J-2 East system K was shut down on 7 December to repair the effluent pipe; J-1 Range South, J-2 Range East, H, I, and J, and J-3 Range were all down 8 December through 11 December due to a power interruption. Mr. Smith (USACE) reported that results are still pending on the consolidated shot material sampling that was performed on 6 November. Gina Kaso (USACE) provided a CIA update. She explained that there is no work being performed as the contractor de-mobilized from the site in early December. The contractor is in the process of preparing the 2023 annual report which should be available in mid-February. Ms. Kaso (USACE) said that the recommendation for the next ten acres will be submitted soon. Contractors are expected to resume site activities in March or April, depending on weather. Jane Dolan (EPA) said that she had started to review the revised 2021 report but was surprised at the number of changes. Ms. Kaso (USACE) replied that because EPA comments on the 2022

report had requested changes to definitions and terminology, the contractor made those changes to the 2021 report as well. Ms. Dolan (EPA) said she would begin to take a more detailed look at the report.

Document and Project Tracking

Jeff Dvorak (USACE) reviewed the tracking list to review and discuss documents and upcoming presentations. Ms. Dolan (EPA) asked why the J-3 Range Annual Environmental Monitoring Report would be delayed. Chris Kilbridge (USACE) reminded Ms. Dolan (EPA) that at a previous technical meeting it was explained that there was a domino effect after the PFAS investigation efforts ramped up, which caused some reports to be delayed.

Ms. Dolan (EPA) asked about the "PFAS data presentation" item on the tracker. Jodi Lyn Cutler (IAGSWP) explained that as the IAGWSP continues to gather data, draft the comprehensive report, and look at how the information would be presented graphically, the team felt it would be beneficial to present draft graphic styles to EPA and MassDEP before the report is submitted to ensure that the graphics are going to be providing the information that the agencies would like to see included. Ms. Dolan (EPA) agreed that was a good approach and asked if that presentation would be in January. Shawn Cody (ARNG) said that was too soon, and it was more likely that it would be in March or April. Ms. Dolan (EPA) asked if the report would be submitted shortly after that, and Mr. Cody (ARNG) said it was scheduled to be submitted in July. Ms. Dolan (EPA) suggested that IAGWSP leaves enough time between the presentation and the submission of the report in case the agencies request changes to how the information is being presented.

PFAS Investigation Discussion

Mr. Cody (ARNG) explained that in recent weeks, the program had been involved in several briefings, including Dr. La Scala and his colleagues from Strategic Environmental Research and Development Program-Environmental Security Technology Certification Program (SERDP-ESTCP). During the briefing to Dr. La Scala (SERDP-ESTCP), he was given a history of the program and went through the PFAS samples that had been collected to date. Mr. Cody (ARNG) noted that at the end of the briefing, Dr. La Scala (SERDP-ESTCP) and his colleagues asked, "What do you need us for? You have actual data," and noted that they would like the data sent to them as it could help with their research efforts. Mr. Cody (ARNG) said he told Dr. La Scala (SERDP-ESTCP) that we are still interested in receiving a briefing from his group to understand where they are with their PFAS research project, and hope that can happen early in the new year.

Mr. Cody (ARNG) also noted that he recently briefed Dr. David Cash, EPA Region 1 Regional Administrator, and MassDEP officials. Mr. Cody (ARNG) explained that he participated in a meeting that included the Assistant Secretary of the Army and members of EPA's Sole Source Aquifer division. Ms. Dolan (EPA) asked what the briefing was for and specifically what Mr. Cody (ARNG) said about the IAGWSP program. Mr. Cody (ARNG) replied that the meeting was a part of the ongoing negotiations around the proposed multi-purpose machine gun range (MPMG) and that he said that the program was the "best program in the DoD" that won the award in 2020 and it's a shame that no one from EPA—that had been working on the program for over 25 years (and spent $750 million)—was in the meeting to talk about the work that had been accomplished.

Ms. Dolan (EPA) said she was unaware that these meetings had taken place. Ms. Dolan (EPA) noted that she went to the Defense Environmental Restoration Program conference a few weeks ago. Mr. Cody (ARNG) interjected that he had heard from colleagues that Ms. Dolan(EPA) was in attendance. Ms. Dolan (EPA) explained that her travel was approved very late and, therefore, her name was not included in the attendee list. Ms. Dolan continued to say that she spoke with Brian Jordan (US Army) and reminded him of her outstanding requests for information and told him that IAGWSP has done a lot of great work and hopes they continue to do so. Mr. Cody (ANRG) said if EPA set a standard, it would be easier to continue to address PFAS and noted that IAGWSP has only been successful in investigating PFAS because detections have been inside the footprint of existing contamination.

Ms. Cutler (IAGWSP) said she wanted to follow up with Ms. Dolan (EPA) regarding an email that Ms. Dolan (EPA) sent on 26 October asking for information on what material other than water might have been used during wildfire training and the use of herbicides and pesticides in the northern portion of Joint Base Cape Cod. Ms. Cutler (IAGSWP) replied that the IAGWSP is coordinating with Camp Edwards to get the information and plans to include it as part of the PFAS report. Mr. Cody (ARNG) said that he raised the issue of herbicides and pesticides in one of their national PFAS meetings and noted that they are not concerned about herbicides and pesticides as a source because no linkage has been found to PFAS in these items.

Ms. Cutler (IAGWSP) continued with Ms. Dolan's (EPA) request for IAGWSP to investigate PFAS in the Northwest Corner. Ms. Cutler (IAGWSP) noted that there was a project note submitted earlier regarding sampling for PFAS at Demolition Area 2 but explained that was because Demolition Area 2 was an open burning/open detonation site. Since Northwest Corner has no PFAS correlation, the request will be addressed as part of the comprehensive report which will look at all the sites on Camp Edwards. Ms. Cutler (IAGWSP) said that if after evaluating all the potential PFAS sources the Northwest Corner meets the criteria for additional investigation, it will be proposed at that time.

Ms. Cutler (IAGWSP) said that since we last met, new Regional Screening Levels (RSLs) were released and stated that those included in Method 1633 would be incorporated in our tables as references. Mr. Cody (ARNG) said we're always talking with the USACE and the labs to ensure the program is up on the latest methodology. Ms. Dolan (EPA) said that if you exceed an RSL, you should expand your investigation, so the comprehensive report will make clear where you might have some data gaps. Ms. Cutler (IAGWSP) noted that the team did compare the new RSLs to past data, and there were no new exceedances. Ms. Dolan (EPA) asked if PFAS is being addressed as its own operable unit. Ms. Cutler (IAGWSP) said at this time, PFAS is not being put into the EMRs for individual operable units but handled separately in the comprehensive report for reporting purposes.

Ms. Cutler (IAGWSP) continued by reporting that the preliminary data of the resampling at J-3 Range had just been received, are undergoing technical review, and will be distributed as soon as possible. Ms. Dolan (EPA) asked if it looked like the prior results were confirmed. Ms. Cutler (IAGWSP) said there was still an exceedance at MW-125S but it was significantly lower and there was a detect at depth at the same location, but not an exceedance. In addition, there were three screens downgradient that were sampled and those also were relatively low. Ms. Dolan (EPA) asked if the samples were filtered and Yixian Zhang (USACE) noted they were not centrifuged.

Ms. Cutler (IAGWSP) said at the last tech meeting there was a request to have a discussion regarding when to initiate retesting when there is an exceedance. She explained that the topic was tabled until such time that all participants were available, and it was scheduled to be a part of this meeting however neither Elliot Jacobs nor Len Pinaud from MassDEP were in attendance. Mr. Cody (ARNG) suggested it be put on an agenda as for an upcoming tech meeting. Ms. Dolan (EPA) agreed.

Ms. Dolan (EPA) asked if the program sampled all the wells that the Upper Cape Water Supply Cooperative had asked for. Mr. Cody (ARNG) said that while we don't normally sample every well that they ask us to, the program identified some data gaps and was able to collect the samples.

JBCC Cleanup Team Meeting Discussion

Ms. Dolan (EPA) said during Ms. Cutler's (IAGWSP) briefing, she mentioned a reduction in the number of samples and asked what specifically that was referring to. Mr. Cody (ARNG) said that there was a push to optimize systems to reduce costs, especially with the addition of PFAS sampling. He said there are many samples that do not provide any good data or have been non-detect for many years. Mr. Cody (ARNG) said there is an effort to save money on sampling we don't need, so it can be put towards more imperative sampling, like PFAS.

JBCC Cleanup Team Meeting

The next JBCC Cleanup Team (JBCCCT) has yet to be scheduled (previous meeting was 13 December 2023). 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 December 2023. Table 2 summarizes the validated detections of explosives compounds and perchlorate for all groundwater results received from 01 to 31 December 2023. 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 December 2023. Table 3 PFAS results are compared to the Regional Screening Levels (RSLs) published by EPA in November 2023.

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:

• Monthly Progress Report No. 320 for November 2023	11 December 2023
• Range Roads UXO Clearance 2020 through 2022	05 December 2023
• Operation and Maintenance Manual Central Impact Area Groundwater Treatment System	07 December 2023
• Draft Demolition Area 2 - Discontinuing Chemical Monitoring for Explosives and Proposed One-time PFAS Sampling Event	14 December 2023
• Final J-2 Range Northern Environmental Monitoring Report for November 2021 through October 2022	20 December 2023
• Response to Comments on the Draft Five-Year Review: 2017-2021	21 December 2023

5. SCHEDULED ACTIONS

The following actions and/or documents are being prepared in January 2024.

- IAGWSP Comprehensive PFAS Groundwater Sampling Summary Report
- Response to Comments on J-1 Range North 2022 Environmental Monitoring Report
- Draft J-2 Range East Environmental Monitoring Report for November 2022 – October 2023
- Draft Land Use Controls Monitoring Report
- Memorandum of Resolution for the Northwest Corner Demonstration of Compliance Report (on hold pending resolution of PFAS issues)
- Draft Demo 1 Environmental Monitoring Report for July 2022 through June 2023
- Draft Central Impact Area Environmental Monitoring Report for July 2022 through June 2023
- Response to Comments on J-1 Range South 2022 Environmental Monitoring Report
- Draft J-3 Range Environmental Monitoring Report for September 2022 to August 2023

TABLE 1
Sampling Progress: 01 to 31 December 2023

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Demolition Area 1	MW-31S	MW-31S_F23	N	12-28-2023	Ground Water	98	103
Demolition Area 1	MW-31M	MW-31M_F23	N	12-28-2023	Ground Water	113	123
Demolition Area 1	MW-648M1	MW-648M1_F23	N	12-28-2023	Ground Water	112	122
Demolition Area 1	MW-341M3	MW-341M3_F23	N	12-27-2023	Ground Water	209.5	219.5
Demolition Area 1	MW-341M2	MW-341M2_F23	N	12-27-2023	Ground Water	264.5	269.5
Demolition Area 1	MW-663D	MW-663D_F23	N	12-27-2023	Ground Water	240.6	250.6
Demolition Area 1	MW-231M1	MW-231M1_F23	MS	12-27-2023	Ground Water	210.5	220.5
Demolition Area 1	MW-231M1	MW-231M1_F23	N	12-27-2023	Ground Water	210.5	220.5
Demolition Area 1	MW-231M1	MW-231M1_F23	SD	12-27-2023	Ground Water	210.5	220.5
Central Impact Area	MW-617M1	MW-617M1_F23	N	12-27-2023	Ground Water	175.8	185.8
Central Impact Area	MW-441M2	MW-441M2_F23	N	12-21-2023	Ground Water	109.45	119.45
Central Impact Area	MW-625M2	MW-625M2_F23	N	12-21-2023	Ground Water	230	240
Central Impact Area	MW-625M1	MW-625M1_F23	N	12-21-2023	Ground Water	260	270
Central Impact Area	MW-695S	MW-695S_F23	N	12-21-2023	Ground Water	130	140
Central Impact Area	MW-695S	MW-695S_F23D	FD	12-21-2023	Ground Water	130	140
Central Impact Area	MW-624M2	MW-624M2_F23	N	12-20-2023	Ground Water	254	264
Central Impact Area	MW-624M1	MW-624M1_F23	N	12-20-2023	Ground Water	284	294
Central Impact Area	MW-623M3	MW-623M3_F23	N	12-20-2023	Ground Water	275	285
Central Impact Area	MW-623M2	MW-623M2_F23	MS	12-20-2023	Ground Water	291.8	301.8
Central Impact Area	MW-623M2	MW-623M2_F23	N	12-20-2023	Ground Water	291.8	301.8
Central Impact Area	MW-623M2	MW-623M2_F23	SD	12-20-2023	Ground Water	291.8	301.8
Central Impact Area	MW-623M1	MW-623M1_F23	N	12-20-2023	Ground Water	340	350
Central Impact Area	MW-616M1	MW-616M1_F23	N	12-19-2023	Ground Water	217.1	227.1
J1 Range Northern	MW-430M2	MW-430M2_F23	N	12-19-2023	Ground Water	188.41	198.41
J1 Range Northern	MW-430M1	MW-430M1_F23	N	12-19-2023	Ground Water	245.23	255.23
J1 Range Northern	MW-584M2	MW-584M2_F23	N	12-18-2023	Ground Water	228	238
J1 Range Northern	MW-584M1	MW-584M1_F23	N	12-18-2023	Ground Water	248	258
J1 Range Northern	MW-401M3	MW-401M3_F23	N	12-18-2023	Ground Water	228.5	238.5
J1 Range Northern	MW-401M1	MW-401M1_F23	N	12-18-2023	Ground Water	256.1	266.1
J1 Range Northern	MW-540M1	MW-540M1_F23	N	12-18-2023	Ground Water	258	268
J1 Range Northern	MW-541M1	MW-541M1_F23	N	12-14-2023	Ground Water	210	220
J1 Range Northern	MW-349M2	MW-349M2_F23	N	12-14-2023	Ground Water	194.9	204.9
J1 Range Northern	MW-349M1	MW-349M1_F23	N	12-14-2023	Ground Water	228.6	238.6
J1 Range Northern	MW-349M1	MW-349M1_F23D	FD	12-14-2023	Ground Water	228.6	238.6
J1 Range Northern	MW-220M1	MW-220M1_F23	MS	12-12-2023	Ground Water	248	258
J1 Range Northern	MW-220M1	MW-220M1_F23	N	12-12-2023	Ground Water	248	258
J1 Range Northern	MW-220M1	MW-220M1_F23	SD	12-12-2023	Ground Water	248	258
J1 Range Northern	MW-346M4	MW-346M4_F23	N	12-12-2023	Ground Water	140	150
J1 Range Northern	MW-346M3	MW-346M3_F23	N	12-12-2023	Ground Water	175.3	185.3
J1 Range Northern	MW-346M2	MW-346M2_F23	N	12-12-2023	Ground Water	205.3	215.3
J1 Range Northern	MW-346M1	MW-346M1_F23	N	12-12-2023	Ground Water	244.7	254.7
J1 Range Northern	MW-346M1	MW-346M1_F23D	FD	12-12-2023	Ground Water	244.7	254.7
J1 Range Northern	MW-326M3	MW-326M3_F23	N	12-11-2023	Ground Water	165.24	175.26
J1 Range Northern	MW-326M2	MW-326M2_F23	N	12-11-2023	Ground Water	196.27	206.28
J1 Range Northern	MW-326M1	MW-326M1_F23	N	12-11-2023	Ground Water	250.01	260.01
J1 Range Northern	MW-245M2	MW-245M2_F23	N	12-11-2023	Ground Water	204	214
J1 Range Northern	MW-245M2	MW-245M2_F23D	FD	12-11-2023	Ground Water	204	214
J1 Range Northern	MW-245M1	MW-245M1_F23	N	12-11-2023	Ground Water	244	254
Demolition Area 1	FPR-2-EFF-A	FPR-2-EFF-A-213A	N	12-07-2023	Process Water	0	0
Demolition Area 1	FPR-2-GAC-MID1A	FPR-2-GAC-MID1A-213A	N	12-07-2023	Process Water	0	0
Demolition Area 1	FPR2-POST-IX-A	FPR2-POST-IX-A-213A	N	12-07-2023	Process Water	0	0
Demolition Area 1	FPR-2-INF	FPR-2-INF-213A	N	12-07-2023	Process Water	0	0
J1 Range Northern	MW-657M2	MW-657M2_F23	N	12-07-2023	Ground Water	208.3	218.3
J1 Range Northern	MW-657M1	MW-657M1_F23	N	12-07-2023	Ground Water	240.3	250.3
Demolition Area 1	D1-EFF	D1-EFF-161A	N	12-07-2023	Process Water	0	0
Demolition Area 1	D1-MID-2	D1-MID-2-161A	N	12-07-2023	Process Water	0	0
Demolition Area 1	D1-MID-1	D1-MID-1-161A	N	12-07-2023	Process Water	0	0
Demolition Area 1	D1-INF	D1-INF-161A	N	12-07-2023	Process Water	0	0
Demolition Area 1	D1LE-EFF	D1LE-EFF-89A	N	12-07-2023	Process Water	0	0
J1 Range Northern	MW-590M2	MW-590M2_F23	N	12-07-2023	Ground Water	238	248

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 01 to 31 December 2023

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	MW-590M2	MW-590M2_F23D	FD	12-07-2023	Ground Water	238	248
Demolition Area 1	D1LE-MID2	D1LE-MID2-89A	N	12-07-2023	Process Water	0	0
Demolition Area 1	D1LE-MID1	D1LE-MID1-89A	N	12-07-2023	Process Water	0	0
Demolition Area 1	D1LE-INF	D1LE-INF-89A	N	12-07-2023	Process Water	0	0
J1 Range Northern	MW-590M1	MW-590M1_F23	N	12-07-2023	Ground Water	258	268
J1 Range Southern	J1S-EFF	J1S-EFF-193A	N	12-06-2023	Process Water	0	0
J1 Range Southern	J1S-MID	J1S-MID-193A	N	12-06-2023	Process Water	0	0
J1 Range Southern	J1S-INF-2	J1S-INF-2-193A	N	12-06-2023	Process Water	0	0
J1 Range Northern	MW-564M1	MW-564M1_F23	N	12-06-2023	Ground Water	227	237
J1 Range Northern	MW-564M1	MW-564M1_F23D	FD	12-06-2023	Ground Water	227	237
J3 Range	J3-EFF	J3-EFF-207A	N	12-06-2023	Process Water	0	0
J3 Range	J3-MID-2	J3-MID-2-207A	N	12-06-2023	Process Water	0	0
J3 Range	J3-MID-1	J3-MID-1-207A	N	12-06-2023	Process Water	0	0
J3 Range	J3-INF	J3-INF-207A	N	12-06-2023	Process Water	0	0
J1 Range Northern	MW-563M1	MW-563M1_F23	N	12-06-2023	Ground Water	215	225
J1 Range Northern	MW-549M2	MW-549M2_F23	MS	12-06-2023	Ground Water	187.3	197.3
J1 Range Northern	MW-549M2	MW-549M2_F23	N	12-06-2023	Ground Water	187.3	197.3
J1 Range Northern	MW-549M2	MW-549M2_F23	SD	12-06-2023	Ground Water	187.3	197.3
J2 Range Northern	J2N-EFF-G	J2N-EFF-G-207A	N	12-06-2023	Process Water	0	0
J2 Range Northern	J2N-MID-2G	J2N-MID-2G-207A	N	12-06-2023	Process Water	0	0
J2 Range Northern	J2N-MID-1G	J2N-MID-1G-207A	N	12-06-2023	Process Water	0	0
J2 Range Northern	J2N-INF-G	J2N-INF-G-207A	N	12-06-2023	Process Water	0	0
J1 Range Northern	MW-549M1	MW-549M1_F23	N	12-06-2023	Ground Water	227.4	237.4
J2 Range Northern	J2N-EFF-EF	J2N-EFF-EF-207A	N	12-06-2023	Process Water	0	0
J2 Range Northern	J2N-MID-2F	J2N-MID-2F-207A	N	12-06-2023	Process Water	0	0
J2 Range Northern	J2N-MID-1F	J2N-MID-1F-207A	N	12-06-2023	Process Water	0	0
J2 Range Northern	J2N-INF-EF	J2N-INF-EF-207A	N	12-06-2023	Process Water	0	0
J2 Range Northern	J2N-MID-2E	J2N-MID-2E-207A	N	12-06-2023	Process Water	0	0
J2 Range Northern	J2N-MID-1E	J2N-MID-1E-207A	N	12-06-2023	Process Water	0	0
J1 Range Northern	J1N-INF1B	J1N-INF1B_F23	N	12-06-2023	Process Water	0	0
J1 Range Northern	J1N-INF1A	J1N-INF1A_F23	N	12-06-2023	Process Water	0	0
J1 Range Northern	MW-265M3	MW-265M3_F23	N	12-05-2023	Ground Water	200	210
Central Impact Area	CIA2-EFF	CIA2-EFF-119A	N	12-05-2023	Process Water	0	0
Central Impact Area	CIA2-MID2	CIA2-MID2-119A	N	12-05-2023	Process Water	0	0
Central Impact Area	CIA2-MID1	CIA2-MID1-119A	N	12-05-2023	Process Water	0	0
J1 Range Northern	MW-265M2	MW-265M2_F23	N	12-05-2023	Ground Water	225	235
Central Impact Area	CIA2-INF	CIA2-INF-119A	N	12-05-2023	Process Water	0	0
J1 Range Northern	MW-265M1	MW-265M1_F23	N	12-05-2023	Ground Water	265	275
Central Impact Area	CIA1-EFF	CIA1-EFF-119A	N	12-05-2023	Process Water	0	0
Central Impact Area	CIA1-MID2	CIA1-MID2-119A	N	12-05-2023	Process Water	0	0
Central Impact Area	CIA1-MID1	CIA1-MID1-119A	N	12-05-2023	Process Water	0	0
Central Impact Area	CIA1-INF	CIA1-INF-119A	N	12-05-2023	Process Water	0	0
J1 Range Northern	MW-315M2	MW-315M2_F23	N	12-05-2023	Ground Water	195.72	205.72
Central Impact Area	CIA3-EFF	CIA3-EFF-90A	N	12-05-2023	Process Water	0	0
Central Impact Area	CIA3-MID2	CIA3-MID2-90A	N	12-05-2023	Process Water	0	0
Central Impact Area	CIA3-MID1	CIA3-MID1-90A	N	12-05-2023	Process Water	0	0
Central Impact Area	CIA3-INF	CIA3-INF-90A	N	12-05-2023	Process Water	0	0
J1 Range Northern	MW-315M1	MW-315M1_F23	N	12-05-2023	Ground Water	245.49	255.49
J2 Range Eastern	J2E-EFF-K	J2E-EFF-K-183A	N	12-04-2023	Process Water	0	0
J1 Range Northern	MW-567M1	MW-567M1_F23	N	12-04-2023	Ground Water	215.5	225.5
J2 Range Eastern	J2E-MID-2K	J2E-MID-2K-183A	N	12-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-1K	J2E-MID-1K-183A	N	12-04-2023	Process Water	0	0
J2 Range Eastern	J2E-INF-K	J2E-INF-K-183A	N	12-04-2023	Process Water	0	0
J2 Range Eastern	J2E-EFF-J	J2E-EFF-J-183A	N	12-04-2023	Process Water	0	0
J1 Range Northern	MW-306M2	MW-306M2_F23	N	12-04-2023	Ground Water	164.69	174.69
J2 Range Eastern	J2E-MID-2J	J2E-MID-2J-183A	N	12-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-1J	J2E-MID-1J-183A	N	12-04-2023	Process Water	0	0
J2 Range Eastern	J2E-INF-J	J2E-INF-J-183A	N	12-04-2023	Process Water	0	0
J1 Range Northern	MW-306M1	MW-306M1_F23	N	12-04-2023	Ground Water	184.88	194.88
J1 Range Northern	MW-306D	MW-306D_F23	N	12-04-2023	Ground Water	291.66	301.66

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 01 to 31 December 2023

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
J2 Range Eastern	J2E-EFF-IH	J2E-EFF-IH-183A	N	12-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-2H	J2E-MID-2H-183A	N	12-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-1H	J2E-MID-1H-183A	N	12-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-2I	J2E-MID-2I-183A	N	12-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-1I	J2E-MID-1I-183A	N	12-04-2023	Process Water	0	0
J1 Range Northern	MW-187M1	MW-187M1_F23	N	12-04-2023	Ground Water	160	170
J2 Range Eastern	J2E-INF-I	J2E-INF-I-183A	N	12-04-2023	Process Water	0	0
J1 Range Northern	J1N-EFF	J1N-EFF-122A	N	12-04-2023	Process Water	0	0
J1 Range Northern	J1N-MID2	J1N-MID2-122A	N	12-04-2023	Process Water	0	0
J1 Range Northern	J1N-MID1	J1N-MID1-122A	N	12-04-2023	Process Water	0	0
J1 Range Northern	MW-187D	MW-187D_F23	N	12-04-2023	Ground Water	306	316
J1 Range Northern	J1N-INF2	J1N-INF2-122A	N	12-04-2023	Process Water	0	0

N = Normal Sample
FD = Field Duplicate

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received December 2023

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-360M2	MW-360M2_F23	102	112	11-20-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.2		µg/L	0.60	X	0.043	0.20
J1 Range Southern	MW-360M2	MW-360M2_F23	102	112	11-20-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.43		µg/L	400		0.091	0.20
J1 Range Southern	MW-360M2	MW-360M2_F23D	102	112	11-20-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.2		µg/L	0.60	X	0.043	0.20
J1 Range Southern	MW-360M2	MW-360M2_F23D	102	112	11-20-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.41		µg/L	400		0.091	0.20
J1 Range Southern	MW-480M2	MW-480M2_F23	143.57	153.57	11-16-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.060	J	µg/L	0.60		0.043	0.20
J1 Range Southern	MW-645M2	MW-645M2_F23	143.5	153.5	11-13-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.17	J	µg/L	400		0.091	0.20
J1 Range Southern	MW-645M1	MW-645M1_F23	183.5	193.5	11-13-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.24		µg/L	0.60		0.043	0.20
J1 Range Southern	MW-647M1	MW-647M1_F23	211.3	221.3	11-13-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.17	J	µg/L	0.60		0.043	0.20
J1 Range Southern	DP-379	DP-379_F23	184	189	11-08-2023	SW8330	2,4-Dinitrotoluene	0.068	J	µg/L	5.0		0.045	0.20
J1 Range Southern	DP-379	DP-379_F23	184	189	11-08-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.8	J	µg/L	0.60	X	0.043	0.20
J1 Range Southern	MW-591M1	MW-591M1_F23	200	210	11-01-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.10	J	µg/L	0.60		0.043	0.20
J1 Range Southern	MW-481M2	MW-481M2_F23	146.28	156.28	11-01-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.11	J	µg/L	0.60		0.043	0.20
J1 Range Southern	MW-524M1	MW-524M1_F23	148	158	10-31-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.060	J	µg/L	0.60		0.043	0.20
J1 Range Southern	MW-524M1	MW-524M1_F23D	148	158	10-31-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.066	J	µg/L	0.60		0.043	0.20
J1 Range Southern	MW-669M1	MW-669M1_F23	223.7	233.7	10-30-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.19	J	µg/L	0.60		0.043	0.20
J1 Range Southern	MW-669M1	MW-669M1_F23D	223.7	233.7	10-30-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.16	J	µg/L	0.60		0.043	0.20
J1 Range Southern	MW-721M1	MW-721M1_F23	168.1	178.1	10-26-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.61		µg/L	0.60	X	0.043	0.20
J1 Range Southern	MW-721M1	MW-721M1_F23	168.1	178.1	10-26-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.11	J	µg/L	400		0.091	0.20

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

MCL/HA= Either the MCL or Lowest Health Advisory Limit
January 08, 2024

TABLE 3
VALIDATED PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) RESULTS
Data Received December 2023

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
J3 Range	MW-356S	MW-356S_OCT23	105	115	10-25-2023	E1633DR	Perfluorodecanoic acid (PFDA)	5.4		ng/L			0.48	3.1
J3 Range	MW-356S	MW-356S_OCT23	105	115	10-25-2023	E1633DR	Perfluorononanoic acid (PFNA)	1.6	J	ng/L	5.9		0.45	1.8
J3 Range	MW-356S	MW-356S_OCT23	105	115	10-25-2023	E1633DR	Perfluorooctanesulfonic acid (PFOS)	0.59	J	ng/L	4.0		0.48	1.9
J3 Range	MW-356S	MW-356S_OCT23	105	115	10-25-2023	E1633DR	Perfluoroundecanoic acid (PFUnA)	5.0		ng/L			0.48	1.9
J3 Range	MW-356M2	MW-356M2_OCT23	140	150	10-25-2023	E1633DR	Perfluorodecanoic acid (PFDA)	24.0		ng/L			0.52	3.3
J3 Range	MW-356M2	MW-356M2_OCT23	140	150	10-25-2023	E1633DR	Perfluorododecanoic acid (PFDoA)	1.1	J	ng/L			0.52	2.1
J3 Range	MW-356M2	MW-356M2_OCT23	140	150	10-25-2023	E1633DR	Perfluorononanoic acid (PFNA)	9.7	J	ng/L	5.9	X	0.48	1.9
J3 Range	MW-356M2	MW-356M2_OCT23	140	150	10-25-2023	E1633DR	Perfluorotridecanoic acid (PFTrDA)	0.85	J	ng/L			0.52	2.1
J3 Range	MW-356M2	MW-356M2_OCT23	140	150	10-25-2023	E1633DR	Perfluoroundecanoic acid (PFUnA)	12.0		ng/L			0.52	2.1
J3 Range	MW-356M1	MW-356M1_OCT23	185	195	10-25-2023	E1633DR	N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.3	J	ng/L			0.47	1.9
J3 Range	MW-356M1	MW-356M1_OCT23	185	195	10-25-2023	E1633DR	Perfluorodecanoic acid (PFDA)	14.0		ng/L			0.47	3.0
J3 Range	MW-356M1	MW-356M1_OCT23	185	195	10-25-2023	E1633DR	Perfluorododecanoic acid (PFDoA)	1.1	J	ng/L			0.47	1.9
J3 Range	MW-356M1	MW-356M1_OCT23	185	195	10-25-2023	E1633DR	Perfluorononanoic acid (PFNA)	5.7	J	ng/L	5.9		0.47	1.9
J3 Range	MW-356M1	MW-356M1_OCT23	185	195	10-25-2023	E1633DR	Perfluorotridecanoic acid (PFTrDA)	0.74	J	ng/L			0.47	1.9
J3 Range	MW-356M1	MW-356M1_OCT23	185	195	10-25-2023	E1633DR	Perfluoroundecanoic acid (PFUnA)	11.0		ng/L			0.47	1.9
J3 Range	MW-125S	MW-125S_OCT23	50	60	10-25-2023	E1633DR	N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.93	J	ng/L			0.48	1.9
J3 Range	MW-125S	MW-125S_OCT23	50	60	10-25-2023	E1633DR	Perfluorobutanesulfonic acid (PFBS)	0.62	J	ng/L	600		0.48	1.9
J3 Range	MW-125S	MW-125S_OCT23	50	60	10-25-2023	E1633DR	Perfluoroheptanesulfonic acid (PFHpS)	5.2		ng/L			0.48	1.9
J3 Range	MW-125S	MW-125S_OCT23	50	60	10-25-2023	E1633DR	Perfluoroheptanoic acid (PFHpA)	5.9		ng/L			0.48	1.9
J3 Range	MW-125S	MW-125S_OCT23	50	60	10-25-2023	E1633DR	Perfluorohexanesulfonic acid (PFHxS)	5.8		ng/L	39.0		0.48	1.9
J3 Range	MW-125S	MW-125S_OCT23	50	60	10-25-2023	E1633DR	Perfluorohexanoic acid (PFHxA)	1.8	J	ng/L	990		0.48	1.9
J3 Range	MW-125S	MW-125S_OCT23	50	60	10-25-2023	E1633DR	Perfluorononanoic acid (PFNA)	0.93	J	ng/L	5.9		0.48	1.9
J3 Range	MW-125S	MW-125S_OCT23	50	60	10-25-2023	E1633DR	Perfluorooctanesulfonamide (PFOSA)	1.3	J	ng/L			0.48	1.9
J3 Range	MW-125S	MW-125S_OCT23	50	60	10-25-2023	E1633DR	Perfluorooctanesulfonic acid (PFOS)	150		ng/L	4.0	X	0.48	1.9
J3 Range	MW-125S	MW-125S_OCT23	50	60	10-25-2023	E1633DR	Perfluorooctanoic acid (PFOA)	61.0		ng/L	6.0	X	0.48	1.9
J3 Range	MW-125S	MW-125S_OCT23	50	60	10-25-2023	E1633DR	Perfluoropentanesulfonic acid (PFPeS)	0.70	J	ng/L			0.48	1.9
J3 Range	MW-125S	MW-125S_OCT23D	50	60	10-25-2023	E1633DR	N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.82	J	ng/L			0.47	1.9
J3 Range	MW-125S	MW-125S_OCT23D	50	60	10-25-2023	E1633DR	Perfluorobutanesulfonic acid (PFBS)	0.49	J	ng/L	600		0.47	1.9
J3 Range	MW-125S	MW-125S_OCT23D	50	60	10-25-2023	E1633DR	Perfluoroheptanesulfonic acid (PFHpS)	5.6		ng/L			0.47	1.9
J3 Range	MW-125S	MW-125S_OCT23D	50	60	10-25-2023	E1633DR	Perfluoroheptanoic acid (PFHpA)	5.9		ng/L			0.47	1.9
J3 Range	MW-125S	MW-125S_OCT23D	50	60	10-25-2023	E1633DR	Perfluorohexanesulfonic acid (PFHxS)	6.1		ng/L	39.0		0.47	1.9
J3 Range	MW-125S	MW-125S_OCT23D	50	60	10-25-2023	E1633DR	Perfluorohexanoic acid (PFHxA)	1.8	J	ng/L	990		0.47	1.9
J3 Range	MW-125S	MW-125S_OCT23D	50	60	10-25-2023	E1633DR	Perfluorononanoic acid (PFNA)	1.6	J	ng/L	5.9		0.49	1.9
J3 Range	MW-125S	MW-125S_OCT23D	50	60	10-25-2023	E1633DR	Perfluorooctanesulfonamide (PFOSA)	1.1	J	ng/L			0.47	1.9
J3 Range	MW-125S	MW-125S_OCT23D	50	60	10-25-2023	E1633DR	Perfluorooctanesulfonic acid (PFOS)	160		ng/L	4.0	X	0.47	1.9
J3 Range	MW-125S	MW-125S_OCT23D	50	60	10-25-2023	E1633DR	Perfluorooctanoic acid (PFOA)	54.0		ng/L	6.0	X	0.47	1.9
J3 Range	MW-125S	MW-125S_OCT23D	50	60	10-25-2023	E1633DR	Perfluoropentanesulfonic acid (PFPeS)	0.56	J	ng/L			0.47	1.9

J = Estimated Result
MDL = Method Detection Limit
RL = Reporting Limit

MCL/HA= Either the MCL or Lowest Health Advisory Limit
January 08, 2024