MONTHLY PROGRESS REPORT #310
FOR JANUARY 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 January 2023.

1. SUMMARY OF REMEDIATION ACTIONS

Remediation Actions (RA) Underway at Camp Edwards as of 27 January 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 2.980 billion gallons of water treated and re-injected as of 27 January 2023. No Frank Perkins Road Treatment Facility shutdowns occurred in January.

The Base Boundary Mobile Treatment Unit (MTU) continues to operate at a flow rate of 65 gpm. As of 27 January 2023, over 356.1 million gallons of water were treated and re-injected. The following Base Boundary MTU shutdowns occurred in January.

- 0740 on 30 January 2023 to repair a leak in the ion exchange influent line and to install new valves and fittings and was restarted at 1122 on 30 January 2023.

The Leading Edge system continues to operate at a flow rate of 100 gpm. As of 27 January 2023, over 337.1 million gallons of water were treated and re-injected. No Leading Edge system shutdowns occurred in January.

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 Plant

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 January 2023, over 2.043 billion gallons of water have been treated and re-injected. The following MTU E and F shutdowns occurred in January.

- 1311 on 15 January 2023 due to a power interruption and was restarted at 0900 on 17 January 2023.
- 0653 on 21 January 2023 due to a power interruption and was restarted at 0845 on 23 January 2023.

The Northern Treatment Building G continues to operate at a flow rate of 225 gpm. As of 27 January 2023, over 1.560 billion gallons of water have been treated and re-injected. The following Northern MTU G shutdowns occurred in January.

- 1921 on 15 January 2023 due to a power interruption and was restarted at 1300 on 17 January 2023.
- 0653 on 21 January 2023 due to a power interruption and was restarted at 0855 on 23 January 2023.

Eastern Plant

The J-2 Range Eastern Treatment facility 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 January 2023, over 1.684 billion gallons of water have been treated and re-injected. The following MTU H and I shutdowns occurred in January.

- 1005 on 13 January 2023 due to a Variable Frequency Drive (VFD) fault and system reprogramming and was restarted at 1510 on 13 January 2023.
- 1320 on 15 January 2023 due to a power outage, to replace a failed battery, and to perform system reprogramming and was restarted at 1025 on 20 January 2023.

MTU J continues to operate at a flow rate of 120 gpm. As of 27 January 2023, over 786.5 million gallons of water have been treated and re-injected. The following MTU J shutdowns occurred in January.

- 1005 on 13 January 2023 due to a VFD fault and was restarted at 1510 on 13 January 2023.
- 1311 on 15 January 2023 due to a power interruption and was restarted at 0810 on 17 January 2023.
- 0653 on 21 January 2023 due to a power interruption and was restarted at 0824 on 23 January 2023.

MTU K continues to operate at a flow rate of 125 gpm. As of 27 January 2023, over 911.2 million gallons of water have been treated and re-injected. No MTU K shutdowns occurred in January.

<u>J-3 Range Groundwater RA</u>

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 195 gpm (normal flow rate is 255 gpm). As of 27 January 2023, over 1.689 billion gallons of water have been treated and re-injected. The following J-3 Range system shutdowns occurred in January.

- 0815 on 12 December 2022 due to a well vault alarm on EW-IP2; to inspect the pump and motor for inspection; to reinstall the pump and related valves and piping; and was restarted at 1145 on 27 January 2023.
- 1030 on 05 January 2023 due to broken sample port threads and installation of a new sample port and was restarted at 0820 on 06 January 2023.
- 1005 on 13 January 2023 due to a VFD fault and was restarted at 1045 on 13 January 2023.
- 1320 on 15 January 2023 due to a power interruption and was restarted at 0827 on 17 January 2023.

J-1 Range Groundwater RA

Southern Plant

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 50 gpm since 21 November 2022 (normal flow rate is 125 gpm). As of 27 January 2023, over 752.1 million gallons of water have been treated and re-injected. The following J-1 Range Southern system shutdowns occurred in January.

- 1151 on 10 January 2023 to allow the infiltration gallery to dry and to dig a test pit and was restarted at 1150 on 11 January 2023.
- 1320 on 15 January 2023 due to a power interruption and was restarted at 0752 on 17 January 2023.
- 0653 on 21 January 2023 due to a power interruption and was restarted at 0815 on 23 January 2023.
- 0900 on 25 January 2023 to allow for draining of GAC vessels and to perform a carbon exchange and was restarted at 0735 on 27 January 2023.

Northern Plant

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 27 January 2023, over 1.185 billion gallons of water have been treated and re-injected. The following J-1 Range Northern MTU shutdowns occurred in January.

- 0653 on 21 January 2023 due to a power interruption and was restarted at 0831 on 23 January 2023.

Central Impact Area RA

The Central Impact Area (CIA) Groundwater treatment facility 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 January 2023, over 3.106 billion gallons of water have been treated and re-injected. The following CIA system shutdowns occurred in January.

- 1320 on 01 January 2023 due to a power interruption and was restarted at 0814 on 03 January 2023.
- 0900 on 18 January 2023 to allow for draining of GAC vessels and to perform a carbon exchange and was restarted at 0840 on 20 January 2023.
- 0833 on 29 January 2023 due to a VFD fault alarm and was restarted at 0750 on 31 January 2023.

2. SUMMARY OF ACTIONS TAKEN

Operable Unit (OU) Activity as of 27 January 2023:

CIA

- Groundwater sampling within CIA SPM
- Routine visual check of consolidated shot structure (CSS) cover and surface area around perimeter of CSS

Demolition Area 1

- No activity

Demolition Area 2

- No activity

J-1 Range

- No activity

J-2 Range

- Groundwater sampling within J-2 Range Eastern SPM
- Bag filters changed

J-3 Range

- Groundwater sampling within J-3 Range SPM
- Bag filters changed

L Range
- Groundwater sampling within L Range SPM

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 January 2023

Project and Fieldwork Update

Darrin Smith (USACE) provided the project and fieldwork update starting with the status of the J-1 South infiltration gallery. He reminded the group that leaking was observed at the gallery back in September 2022 and that various things have been done to troubleshoot the cause of the leak. Attempts were made to flush it by pressure water in November 2022, which were unsuccessful. It was determined that there were a lot of small roots that had made their way into the infiltration gallery because of the drought this summer. It was decided that it would be prudent to investigate replacing the infiltration gallery. Tetra Tech was out at the site yesterday (11 January 2023) to see what the soil conditions looked like. Prior to their visit, the system was turned off on 10 January 2023 to allow the system to dry out. Silt was observed down to 6 ft and sand at 6 ft and below. A few samples were collected to perform a soil analysis and to determine a new design for an infiltration trench or gallery. IAGWSP expect to have something in the next few weeks, at which point a proposal will be shared with the agencies.

Elliot Jacobs (MassDEP) asked about the operational status of the J-1 South system since September. Mr. Smith explained that in September the ponding was observed the system was running at the normal rate and it was okay for a while, but after ponding was observed again in November, it was reduced to 50 gallons per minute (GPM) and has been running at that rate since then. Jane Dolan (EPA) asked when additional information would be available. Mr. Smith replied that the team expects the sample results soon, after which the infiltration design options will be available for internal review, and then the information will be shared with the agencies as soon as possible.

Mr. Smith continued with an update on the groundwater sampling crews. He noted that the Koman Government Solutions (KGS) groundwater sampling crew completed the Demolition

Area 1 semi-annual sampling event (23 screens) on 28 December 2022. The L Range annual sampling event (8 screens) was completed on 10 January 2023. The crews are currently performing the J-3 Range semi-annual sampling event (12 screens). The J-2 Range East semi-annual sampling event (7 screens) is ongoing. The hydraulic monitoring event (65 screens) was completed on 11 January 2023. After that, crews will move to the Central Impact Area (CIA) annual event (169 screens) and hydraulic monitoring event (79 screens).

The December monthly process water samples were collected 01 to 07 December 2022. CIA 2 mid (post-lead granular activated carbon) had RDX at 0.60 and 0.71 µg/L, which is above the action level of 0.25 µg/L. A carbon changeout is scheduled for 19 January 2023. Ms. Dolan asked when CIA 2 was last changed out. Mr. Smith replied it was 22 November 2022. The January process water sampling was completed on 10 January 2023, and results are pending. The J-3 influent an effluent quarterly PFAS sampling is scheduled for after the J-3 IP2 is back online.

Mr. Smith provided an update of notable system shutdowns since the last tech meeting. Several systems tripped due to power interruptions. Demolition Area 1 Frank Perkins Road system tripped on 18 December 2022 and was restarted on 19 December 2022 resulting in approximately 23.5 hours downtime. J-2 Range units E and F and Demolition Area 1 leading edge system tripped on 23 December 2022, and all were restarted on 27 December 2022 resulting in approximately 85.5 hours of downtime. J-3 Range system tripped on 24 December 2022, and it was restarted on 27 December 2022 for approximately 63.5 hours of downtime. Finally, CIA-3 tripped on 01 January 2023, and it was restarted on 03 January 2023 with approximately 43 hours downtime. Mr. Smith noted other system shutdowns since the last tech meeting included the J-3 Range system on 05 January 2023 to remove threads that broke while crews were attempting to clean the clogged EW0032 sample port (during the J-3 Range semi-annual sampling round). The threads were removed, and the sample port was replaced. The system was turned on 06 January 2023 resulting in approximately 22 hours downtime.

The J-3 Range extraction well (EW)-IP2 has been off since 12 December 2022, and the system is currently running at 195 GPM rather than 255 GPM. The electrical components in the EW-IP2 vault were replaced on 20 December 2022. Well maintenance contractor (DL Maher) has been contacted and repairs to the well are schedule for Tuesday (17 January 2023).

Mr. Smith continued with an update of soil activities. The offsite transportation and disposal of approximately 650 cubic yards of material removed from within and around the consolidated shot structure (CSS) to the Bourne landfill was completed on 21 December 2022.

Gina Kaso (USACE) noted that there is no CIA fieldwork other than daily checks of the CSS cover and the area surrounding it and the items that are awaiting destruction. She explained that the team is still waiting on the approval of the amended Explosives Safety Submission (ESS) approval to remotely move and destroy those items.

<u>CIA Source 2023 Quality Assurance Project Plan (QAPP) Discussion</u>

Ms. Dolan explained she reviewed the QAPP again yesterday and was prepared to go over some items but suggested it would be more efficient if she sent comments in writing and then continue the discussion after the team reviews them. Ms. Dolan explained she would have had comments on the 2022 QAPP but since it was already completed and the work was done, she let it go but notes she would like to have some tweaks made to the 2023 QAPP. Ms. Dolan

noted she thought there were some inconsistencies in the order of sampling. She provided the example of when sampling the CSS or blow in place (BIP) soils; it was her understanding that the soils were screened first and then sampled. Ms. Kaso clarified that when talking about BIP samples, she is referring to the 5X5X1 that's excavated. Ms. Dolan agreed that is what she was referring to. Bryan Hnetinka (IE-Weston) said that Ms. Dolan is correct, for the BIP sampling, the soil is screened before the sampling. Ms. Dolan asked how sampling the CSS soils differed. Mr. Hnetinka said that for the CSS, samples are collected for explosives and perchlorate first. Those are not waste characterization samples, so the soil is not screened. If the decision was made to remove the CSS soils and transport and dispose of them off-site, then waste characterization samples would be collected, and the soil would be screened before doing so.

Ms. Dolan referred to figures 17-5 and 17-6, which are the decision trees on the 5X5X1 and CSS and asked that additional detail be added to the "pre-destination" description and noted she would put all her comments in writing to be discussed after. Shawn Cody (ARNG) agreed with Ms. Dolan and noted he appreciated her telling us ahead of time so we can get ready for her comments.

Ms. Dolan said there was a statement about the material that migrates outside the CSS, and the soil is scraped back to the CSS stockpile, and noted that, in her opinion, there shouldn't be any soil outside. Ms. Kaso asked that when Ms. Dolan submits her comments on that issue, she should review the project note that was signed on the CSS where that particular procedure was agreed upon but noted that it is assumed a little could slough off during operations, but that was not the intent.

Ms. Dolan referred to the 10 August 2017 Dr. Krull memorandum where she recommended a certain depth of sand below the items. Ms. Dolan noted she thought there was an inconsistency with what is currently being done and asked that be reviewed. Ms. Kaso reminded the group that what Ms. Dolan is referring to is Dr. Krull's review of the CSS operations. Ms. Dolan noted that it appeared Parsons videos and Dawson videos were removed from the Environmental Data Management System and asked why. Ms. Kaso said she thought they might have been accidentally deleted and will investigate it and let Ms. Dolan know as soon as possible. Mr. Cody said after the group receives her comments, a meeting will be set up to review them and come to an agreement going forward with the 2023 QAPP.

Ms. Dolan asked for the tentative schedule for the 2023 update. Mr. Hnetinka said they have it prepared and are waiting for the approved ESS but are aiming to get it out for Army and regulatory review as soon as possible. He noted if Ms. Dolan could send the comments she's been discussing, USACE can start addressing them in the draft report. Ms. Dolan said she will try to get them by the 27 January 2023. Mr. Hnetinka explained that they would not hold up the QAPP for the technical memorandum that describes the next acreage for the upcoming field season. If it is available and approved in time, it will be included as an appendix. Ms. Dolan said the group can expect to hear from the agencies on the next fifteen acres by the end of next week.

PFAS Update

Mr. Cody provided an update on PFAS. He announced USACE has brought on a professional geologist and licensed site professional to work on PFAS for the project. Mr. Cody noted that the new USACE geologist has over 30 years' experience and a PhD in geochemistry from the Colorado School of Mines. Elliot Jacobs said that was good news and sounded like a good fit.

Mr. Jacobs asked about the status of the drilling the J-2 North wells for PFAS sampling near Gibbs Road. Mr. Cody replied that the coordination with Natural Heritage and Endangered Species Program, the State Historic Preservation Office, and the Tribe had been completed. Ms. Kaso said that USACE is gearing up to mobilize the drill rig but were waiting for the QAPP addendum to be approved before they are scheduled to come onsite. Greg Hencir (USACE) noted that the contractor is planning to start preliminary activities (e.g., vegetation clearance and Dig Safe™ notification) for the offsite location in mid-February 2023.

Action Items

The action items were discussed and updated.

Miscellaneous

Dave Hill (IAGWSP) noted that USACE and IAGWSP are recommending combining the 2021 and 2022 data into one environmental monitoring report for the J-1 Range. He noted that Chris Kilbridge (USACE) had performed work with the 2017 plume shell using the optimization analyses as requested by EPA. The J-1 North plume shell had been updated as well. IAGWSP would like to present the evaluation that was done with the 2017 plume shell. IAGWSP is also recommending reporting on J-1 South and J-1 North plumes separately. Ms. Dolan asked Mr. Hill to clarify that a report for 2021 was not submitted for either J-1 North or J-1 South. Mr. Hill replied that was correct due to schedules, workload, and PFAS activities caused delays. Mr. Hencir explained that the reports are complete, but the issue is now that with the 2022 sampling completed, so combining 2021 and 2022 data into one report seemed more efficient.

Ms. Dolan noted that she had asked Jodi Cutler (IAGWSP) for the schedule of documents for the year and noted that on it J-1 North and J-1 South are scheduled for June of 2023 and asked if that was the proposed date for this combined report. Mr. Hencir said that they could try to get them done sooner. Ms. Dolan said she wanted to think it over and get some documentation together, and she would schedule a call with Mr. Cody and Ms. Cutler to discuss. Mr. Jacobs said he liked the idea of separating J-1 North and J-1 South into two separate reports, especially because they were separate plumes heading in separate directions.

JBCC Impact Area Groundwater Study Program (IAGWSP) Tech Update Meeting Minutes for 26 January 2023

Project and Fieldwork Update

Darrin Smith (USACE) provided the project and fieldwork update starting with an update on the groundwater sampling crews. He noted that they are currently working in the Central Impact Area (CIA) performing annual sampling. They began on 19 January 2023. There are a significant number of well screens associated with this event, therefore, the work will most likely continue into early March. Since the last tech update meeting, crews completed the J-2 East semi-annual sampling, which consisted of seven well screens as well as the hydro event with 18 screens. They are almost finished with the J-3 semi-annual sampling event. They still need to sample extraction well EW-IP2, which they will do after repairs are completed.

Mr. Smith continued with a status of operations and maintenance activities. The carbon was changed out at CIA-2 on 19 January 2023. This was based on the December monthly process

water sample results, which showed RDX above the treatment goals in the mid sample. Jane Dolan (EPA) asked when the last changeout was for CIA-2. Mr. Smith said he believed it was approximately two months ago. Ms. Dolan asked if anyone had a theory as to why the changeouts were so close together. Mr. Smith noted that when changeouts occur, not every unit is changed, rather the order of the units is changed. For example, the cleanest unit becomes the lag, and the mid becomes the lead, etc. Another carbon changeout is scheduled for today (26 January 2023) at J-1 South. Mr. Smith noted that was being changed out because concentrations were approaching the treatment goals for RDX.

The J-3 influent and effluent quarterly PFAS sampling is scheduled to take place after EW-IP2 is back online. The January process water samples were collected on 10 January 2023. Mr. Smith noted that the team can review the system shutdowns in the weekly report, but that there was one notable one he'd like to mention. J-2 H and J-2 I tripped on 15 January 2023 because of a power interruption, and the program needed to be reinstalled, which was completed on 20 January 2023, and the system is now back up and running.

Extraction well EW-IP2 repairs will require redevelopment and reinstallation of the pump. The contractor was onsite yesterday working on it, so it should be completed tomorrow (27 January 2023) and back online. Mr. Smith provided an update on the status of the J-1 South infiltration gallery. The sieve analysis results came back, and Tetra Tech is working on the design for the new infiltration gallery; the information will be shared with the agencies as soon as possible.

Ms. Dolan asked if the group had considered stockpiling some portion of the Eversource soil to be used as blow in place (BIP) soils since there is no potential for it to become contaminated. Shawn Cody (ARNG) responded that IAGWSP will look at moving some of the soil to a staging area closer to the CIA.

Gina Kaso (USACE) noted that there is no CIA fieldwork other than daily checks of the staging area and the consolidated shot structure (CSS) cover. Ms. Kaso explained that it is anticipated the 2022 CIA report will be provided to the agencies for review on 15 February 2023.
Ms. Dolan asked if the J-1 South well on Checkerberry Lane would be drilled during the upcoming mobilization. Mr. Greg Hencir (USACE) replied that it was. She continued by requesting that a sequencing of drilling, profile calls, and screen installations at J-2 North could be shared with the group. Mr. Hencir said that currently the contractors are clearing out the areas and beginning brush cutting activities next week. He anticipates brush clearing would take a week or two. The drillers should arrive on site Tuesday, 21 February 2023. Mr. Hencir noted that the drillers will need a couple of days to set up and get oriented before they start drilling. He explained that after they have an opportunity to discuss the schedule with the contractor, he will share more information with the group.

Action Items

Mr. Hencir told the group that a new document tracking schedule had been provided to the group and explained it had been based on the one used by the Installation Restoration Program. Moving forward, USACE will keep it updated and present it at the tech meetings. The document list was reviewed and discussed.

J-1 Range Southern 2021 Data Presentation

Dave Hill (IAGWSP) provided a presentation on the J-1 Range Southern Annual Environmental Monitoring Report (EMR). He noted that during the reporting period (January 2021 to December 2021), the RDX plume shell was updated using the five-year protocol. He reminded the team that the update was described in the 2021 EMR (January to December 2020 data reporting period) and that the new 2021 plume shell represents initial concentrations of RDX as of 01 January 2021. Forward migrated data was used to represent chemistry from November 1997 to November 2020. There was no new subsurface investigatory work done during the reporting period.

Mr. Hill continued with a review of the extraction, treatment, and reinjection system performance for 2021. The J-1 Range Southern groundwater treatment system performance statistics were reviewed and discussed. During the reporting period, 62.3 million gallons of groundwater were treated and 0.08 pounds of RDX were removed. There was no breakthrough or media changeout during the reporting period.

Mr. Hill continued with a figure showing the currently observed plume. Sampling locations, groundwater monitoring results, and trends were reviewed and discussed. There were two sampling rounds in 2021: the semi-annual in April/May and the annual in October/November. The maximum RDX concentration in Zone 1 (source area to J1SEW0001) was 0.18J µg/L (MW-360M2), which is a decrease from 2.6 µg/L in 2020. Mr. Hill explained that the Zone 1 plume reflects on-base RDX concentrations with small, predicted patch near Greenway Road at the low end of the 2 – 6 µg/L interval. The majority of on-base plume's typical annual maximum concentration is slightly above/below 2 µg/L. The team currently interprets the RDX plume above the risk-based concentration (RBC) east of MW-528M1, west of MW-721M1, and between MW-131S/MW-360 and the base boundary. The maximum RDX concentration of 0.75 µg/L at MW-721M1, which is an increase from 0.40 µg/L in 2020, may reflect an isolated spike from passing plumelet (declines to 0.33/0.23 µg/L in May/Oct 2022). There was a decline in concentrations at MW-720M2 from 1.5 µg/L (Aug 2019) to 0.062 J µg/L (April 2021) and non-detect (ND) (Oct 2021) near base boundary along the longitudinal axis of the RDX on-base plume.

Mr. Hill continued with a review of Zone 2, which is the area between the on-base extraction well J1SEW0001 to the off-base extraction well J1SE0002. At the Windsong Road well, MW-645M2, there is an off-base maximum concentration of 3.0 µg/L RDX. This increase was a spike from 0.17 J µg/L in 2020. This location is usually non-detect, which suggests an isolated plumelet. Ms. Dolan asked if MW-645 was at the edge of the capture zone. Chris Kilbridge (USACE) explained it was on the eastern edge but was within the predicted and observed capture zone. Elliot Jacobs (MassDEP) asked if there were any additional wells to the east and Mr. Kilbridge explained that, on Windsong Road, that was the easternmost well; however, downgradient from this area, there were additional monitoring wells to the east that showed only trace detections of RDX.

It was noted that all Windsong Road wells west of MW-645 were below 0.6 µg/L for the second year in a row. MW-669M1 is trending below RBC (0.85 µg/l in May 2021 and 0.22 J µg/l in Nov 2021), which is a decrease from Oct 2019 (1.7 µg/L); fluctuating slightly above/below RBC. Mr. Hill explained this likely reflects migration of higher concentrations from upgradient at MW-647M1 in 2015-2018. At MW-647M1, there is a decrease (0.21 µg/L Apr 2021 and 0.069 J µg/L Oct 2021) from 3.5 µg/L in 2018, and MW-524M1 was below 6 µg/L in Oct 2013; less than 2 µg/L in 2017; and less than 0.6 µg/L in 2018.

The eastern extent is constrained by ND to <0.6 µg/L at Pleasant Wood Drive: MW-591M1/M2 and MW-646M1/M2; and Songbird Circle: MW-592M1/M2. At the leading edge of the plume, there is ND to <0.6 µg/L at MW-400M1/M2, MW-402M1/M2 (Little Acorn Ln), and MW-403M1/M2 (Grand Oak Rd); and ND at MW-525M1/M2, MW-526M1, and MW-527M1 (Grandwood Drive). The western Extent is constrained by ND to < 0.6 µg/L at MW-481M1/M2 (Windsong Rd), MW-521M1, and MW-522M1/M2 (Ladyslipper Lane). Figures with RDX trend plots and cross sections were shown. Ms. Dolan asked if a neighborhood notice would be sent before the installation of the new monitoring well on Checkerberry Lane. Pam Richardson (IAGWSP) replied that a notice was being drafted and would be forwarded to the agencies for their review before it was sent to the neighborhood.

Mr. Kilbridge continued the presentation with a review and discussion of the hydraulic monitoring and capture zone analysis. There was one synoptic water level round in October 2021, and hydraulic measurements were generally consistent with past results. Water levels from the top of the mound decreased by approximately 2.5 to 4.0 feet from 2020 to 2021. The capture zones were developed manually and by model. The United States Geological Survey top of mound well is trending lower in October 2021 after a summer 2020 peak at ~74 ft above mean sea level (msl) (June/July), which reflects annual precipitation trends and resulting aquifer recharge. The capture zone extent, horizontally and vertically downgradient of J1SEW0002, is similar to the October 2020 results. There is a flatter hydraulic gradient in 2021 than in 2020. The observed capture zone stagnation point is slightly downgradient of MW-669, and most of plume is captured. The leading edge plumelet is < 6 µg/L between MW-669, and Checkerberry Lane is not captured. Figures with the observed and predicted capture zone were displayed.

Decision Document (DD) cleanup timelines were discussed. The May 2011 DD cleanup timeline (< 0.6 µg/L) was 2024, but the September 2011 project note that located the leading edge extraction well predicted 2032. Predictions based on the 2021 plume shell estimate that upgradient of J1SEW0001 will be < 0.6 µg/L in 2029; upgradient of J1SEW0002 will be < 0.6 µg/L in 2036; and < 2.0 µg/L in 2023. Downgradient of J1SEW0002 < 2.0 µg/L was achieved in 2022; is predicted to be <0.6 µg/L in 2035, and Checkerberry Lane will be <0.6 µg/L in 2027. The maximum predicted downgradient migration is approximately 150 feet downgradient of Checkerberry Lane and never reaches Route 130 (Forestdale Road).

IAGWSP is not recommending any changes to the current treatment system operations, hydraulic or chemical monitoring programs. Repairs to the infiltration trench are pending, which will restore the extraction rate from 50 gallons per minute (gpm) to 125 gpm.

J-2 Range Eastern 2022 Data Presentation

Mr. Hill began a presentation on the J-2 Range Eastern Annual 2022 Environmental Monitoring Report. He noted that the reporting period was November 2021 through October 2022 and that the perchlorate and RDX plume shells were updated in 2022. The new plume shells incorporated groundwater data through December 2021 and were described in a technical memo in August 2022.

Mr. Hill continued with a review of the extraction, treatment, reinjection system performance. The J- 2 Range Eastern groundwater treatment system performance statistics were reviewed and discussed. During the reporting period, 247 million gallons of groundwater were treated and 0.23 pounds of RDX and 1.43 pounds of perchlorate were removed. There was no breakthrough or media changeout during the reporting period.

The groundwater monitoring results for the reporting period were discussed. For perchlorate, detections ranged from ND to 49 µg/L at MW-368M1. There were four well locations above 2 µg/L and two well locations above 15 µg/L. For RDX, detections ranged from ND to 7.6 µg/L at MW-368M1. There were three well locations above 0.6 µg/L and two above 2 µg/L. Mr. Hill continued with a figure showing the current observed RDX and perchlorate plumes. Sampling locations, groundwater monitoring results, and trends were reviewed and discussed.

Ms. Dolan asked if there was a theory how RDX got so deep in the aquifer. Mr. Hill noted that this plume is unique in that only at J-2 eastern is there RDX that far downgradient with the perchlorate contamination. Ms. Dolan explained that she was asking because the PFAS contamination is also very deep at J-2 northern. Mr. Kulbersh reminded the team that, in general, the deeper things are, the further upgradient within the source area they must be, but it cannot come from the other side of the top of the mound. Ms. Dolan explained she was curious why, if the rest of the plume tracked as predicted based on source area, would this plumelet be deeper. Mr. Jacobs noted another factor to consider was recharge and the longer a contaminant is in the aquifer, recharge will drive it deeper and deeper.

Ryan Hupfer (USACE) continued the presentation with a review and discussion of the hydraulic monitoring and capture zone analysis. There were two synoptic water level rounds in April 2022 and August 2022. In April, water levels ranged from 66.65 ft msl at MW-436M1 (north) to 70.59 ft msl at MW-128M2 (south). The water levels were lower than Spring 2021 and the horizontal gradient was approximately 0.00049 ft/ft. In August, water levels ranged from 67.07 ft msl at MW-436M1 (north) to 70.95 ft msl at MW-128M2 (south). A figure with the numerical model capture zone at current pumping ranges was displayed. It was explained the numerical model indicates perchlorate and RDX are being captured and the stagnation points downgradient of each extraction well create a disjointed plume depiction. The measured and predicted perchlorate and RDX plumes were displayed, and it was noted that they were created using the January 2022 perchlorate and RDX plume shells and measured groundwater concentrations. Mr. Hupfer said, in general, they match well.

Decision Document (DD) cleanup timelines were discussed. Perchlorate and RDX measurements indicate that the plumes are reasonably well predicted, but the expected overall cleanup time is 11 years longer than the DD timeline, likely the result of the statistical mapping of contamination to lower hydraulic conductivity (K) units that may not be realistic. The DD predicted perchlorate would be below 2.0 µg/L by 2027 and RDX below 0.6 µg/L by 2022. The model predicted cleanup times are below 2.0 µg/L by 2033 for perchlorate and below 0.6 µg/L by 2033 for RDX.

IAGWSP is not recommending any changes to the current treatment system operations, hydraulic, or chemical monitoring programs. The plume shells for perchlorate and RDX were last updated in 2022, and it is recommended that they be developed in 2027 to ensure reliability.

Miscellaneous

Len Pinaud (MassDEP) mentioned that MassDEP would be providing their input on the 15-acre CIA grids very soon. He also said that he appreciated the new document tracking spreadsheet and noted it was very helpful.

JBCC Cleanup Team Meeting

The next JBCC Cleanup Team (JBCCCT) has yet to be scheduled (previous meeting was 07 December 2022). 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 January 2023. Table 2 summarizes the validated detections of explosives compounds and perchlorate for all groundwater results received from 01 to 31 January 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 sampling of influent and groundwater samples for per- and polyfluoroalkyl substances (PFAS) from 01 June 2019 to present. Table 3 PFAS results are compared to the new Regional Screening Levels (RSL) published by EPA on 17 May 2022 as well as the EPA Lifetime Health Advisory for PFOS+PFOA and the MassDEP MCL for PFAS6.

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. 309 for December 2022 — 11 January 2023
- Final J-2 Range Northern PFAS Work Plan — 04 January 2023
- Draft UFP-QAPP Addendum #2 Per- and Polyfluoroalkyl Substances (PFAS) Sampling and Groundwater Profiling and Well Installation Response to Comments Letter — 06 January 2023
- Final UFP-QAPP 2022 Update – Source Response for Unexploded Ordinance at the Central Impact Area — 09 January 2023
- Revised Final KD Range Completion of Work Report (COWR) and Response to Comments Letter — 17 January 2023
- Draft Demolition Area 1 2022 Environmental Monitoring Report Response to Comments Letter — 19 January 2023
- Final J-3 Range 2021 Environmental Monitoring Report dated January 2022 — 19 January 2023

5. SCHEDULED ACTIONS

The following actions and/or documents are being prepared in February 2023.

- Small Arms Ranges Environmental Monitoring Work Plan Addendum
- Draft Central Impact Area Source 2023 Quality Assurance Project Plan
- J-2 Range Eastern 2022 Environmental Monitoring Report
- Response to Comments on the Draft Demolition Area 1 2022 Environmental Monitoring Report
- Response to Comments on the Draft Central Impact Area 2022 Environmental Monitoring Report
- Memorandum of Resolution for the Northwest Corner Demonstration of Compliance Report (*on hold pending resolution of PFAS issues*)
- Draft Five Year Review Report
- Land Use Controls Report

TABLE 1
Sampling Progress: 01 to 31 January 2023

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	MW-105M1	MW-105M1_S23	N	01-30-2023	Ground Water	205	215
Central Impact Area	MW-726S	MW-726S_S23	N	01-30-2023	Ground Water	135.5	145.5
Central Impact Area	MW-100M2	MW-100M2_S23	N	01-30-2023	Ground Water	164	174
Central Impact Area	MW-100M1	MW-100M1_S23	N	01-30-2023	Ground Water	179	189
Central Impact Area	MW-729M1	MW-729M1_S23	N	01-30-2023	Ground Water	231.5	241.5
Central Impact Area	MW-99S	MW-99S_S23	N	01-26-2023	Ground Water	133	143
Central Impact Area	MW-99M1	MW-99M1_S23	N	01-26-2023	Ground Water	195	205
Central Impact Area	MW-98S	MW-98S_S23	N	01-26-2023	Ground Water	137	147
Central Impact Area	MW-98M1	MW-98M1_S23	N	01-26-2023	Ground Water	164	174
Central Impact Area	MW-92S	MW-92S_S23	N	01-26-2023	Ground Water	139	149
Central Impact Area	MW-209M2	MW-209M2_S23	N	01-25-2023	Ground Water	220	230
Central Impact Area	MW-209M1	MW-209M1_S23	N	01-25-2023	Ground Water	240	250
Central Impact Area	MW-209M1	MW-209M1_S23D	FD	01-25-2023	Ground Water	240	250
Central Impact Area	MW-96M2	MW-96M2_S23	N	01-25-2023	Ground Water	160	170
Central Impact Area	MW-96M1	MW-96M1_S23	N	01-25-2023	Ground Water	206	216
Central Impact Area	MW-185M1	MW-185M1_S23	N	01-25-2023	Ground Water	247	257
Central Impact Area	MW-112M2	MW-112M2_S23	N	01-24-2023	Ground Water	165	175
Central Impact Area	MW-112M1	MW-112M1_S23	N	01-24-2023	Ground Water	195	205
Central Impact Area	MW-113M2	MW-113M2_S23	N	01-24-2023	Ground Water	190	200
Central Impact Area	MW-113M1	MW-113M1_S23	N	01-24-2023	Ground Water	240	250
Central Impact Area	MW-179M1	MW-179M1_S23	N	01-24-2023	Ground Water	187	197
Central Impact Area	MW-442M2	MW-442M2_S23	N	01-23-2023	Ground Water	215.31	225.32
Central Impact Area	MW-442M1	MW-442M1_S23	N	01-23-2023	Ground Water	247.64	257.64
Central Impact Area	MW-03M2	MW-03M2_S23	N	01-23-2023	Ground Water	180	185
Central Impact Area	MW-204M2	MW-204M2_S23	N	01-23-2023	Ground Water	76	86
Central Impact Area	MW-204M1	MW-204M1_S23	N	01-23-2023	Ground Water	141	151
Central Impact Area	MW-204M1	MW-204M1_S23D	FD	01-23-2023	Ground Water	141	151
Central Impact Area	MW-208M1	MW-208M1_S23	N	01-19-2023	Ground Water	195	205
Central Impact Area	MW-180M3	MW-180M3_S23	N	01-19-2023	Ground Water	171	181
Central Impact Area	MW-629M2	MW-629M2_S23	N	01-19-2023	Ground Water	186.9	196.9
Central Impact Area	MW-629M1	MW-629M1_S23	N	01-19-2023	Ground Water	216.9	226.9
Central Impact Area	MW-638M2	MW-638M2_S23	N	01-19-2023	Ground Water	204.2	214.2
Central Impact Area	MW-638M1	MW-638M1_S23	N	01-19-2023	Ground Water	261.2	271.2
J2 Range Eastern	MW-393D	MW-393D_S23	N	01-18-2023	Ground Water	313.56	323.56
J2 Range Eastern	MW-324M2	MW-324M2_S23	N	01-18-2023	Ground Water	203.74	214.74
J2 Range Eastern	MW-324M1	MW-324M1_S23	N	01-18-2023	Ground Water	234.85	244.85
J2 Range Eastern	J2MW-04M2	J2MW-04M2_S23	N	01-17-2023	Ground Water	210	220
J2 Range Eastern	J2MW-04M1	J2MW-04M1_S23	N	01-17-2023	Ground Water	257	267
J2 Range Eastern	MW-339M1	MW-339M1_S23	N	01-17-2023	Ground Water	233	243
J2 Range Eastern	MW-368M2	MW-368M2_S23	N	01-17-2023	Ground Water	202.73	212.73
J2 Range Eastern	MW-368M2	MW-368M2_S23D	FD	01-17-2023	Ground Water	202.73	212.73
J3 Range	J3EWIP1	J3EWIP1_S23	N	01-12-2023	Ground Water	153	193
J3 Range	J3EW0032	J3EW0032_S23	N	01-12-2023	Ground Water	102	152
Demolition Area 1	FPR-2-EFF-A	FPR-2-EFF-A-202A	N	01-10-2023	Process Water	0	0
Demolition Area 1	FPR-2-GAC-MID1A	FPR-2-GAC-MID1A-202A	N	01-10-2023	Process Water	0	0
Demolition Area 1	FPR2-POST-IX-A	FPR2-POST-IX-A-202A	N	01-10-2023	Process Water	0	0
Demolition Area 1	FPR-2-INF	FPR-2-INF-202A	N	01-10-2023	Process Water	0	0
Lima Range	MW-242M1	MW-242M1_S23	MS	01-10-2023	Ground Water	235	245
Lima Range	MW-242M1	MW-242M1_S23	N	01-10-2023	Ground Water	235	245
Lima Range	MW-242M1	MW-242M1_S23	SD	01-10-2023	Ground Water	235	245
Demolition Area 1	D1LE-EFF	D1LE-EFF-78A	N	01-10-2023	Process Water	0	0
Demolition Area 1	D1LE-MID2	D1LE-MID2-78A	N	01-10-2023	Process Water	0	0
Demolition Area 1	D1LE-MID1	D1LE-MID1-78A	N	01-10-2023	Process Water	0	0
Demolition Area 1	D1LE-INF	D1LE-INF-78A	N	01-10-2023	Process Water	0	0
Lima Range	90MW0031	90MW0031_S23	N	01-10-2023	Ground Water	195.32	200.22
Demolition Area 1	D1-EFF	D1-EFF-150A	N	01-10-2023	Process Water	0	0
Demolition Area 1	D1-MID-2	D1-MID-2-150A	N	01-10-2023	Process Water	0	0
Demolition Area 1	D1-MID-1	D1-MID-1-150A	N	01-10-2023	Process Water	0	0
Demolition Area 1	D1-INF	D1-INF-150A	N	01-10-2023	Process Water	0	0

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 01 to 31 January 2023

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Lima Range	MW-651M1	MW-651M1_S23	N	01-10-2023	Ground Water	242.3	252.3
Lima Range	MW-595M2	MW-595M2_S23	N	01-09-2023	Ground Water	205.3	215.3
Lima Range	MW-595M1	MW-595M1_S23	N	01-09-2023	Ground Water	255.3	265.3
Lima Range	MW-595M1	MW-595M1_S23D	FD	01-09-2023	Ground Water	255.3	265.3
Lima Range	MW-650M1	MW-650M1_S23	N	01-09-2023	Ground Water	260	270
J1 Range Southern	J1S-EFF	J1S-EFF-182A	N	01-09-2023	Process Water	0	0
J1 Range Southern	J1S-MID	J1S-MID-182A	N	01-09-2023	Process Water	0	0
J1 Range Southern	J1S-INF-2	J1S-INF-2-182A	N	01-09-2023	Process Water	0	0
Lima Range	MW-596M1	MW-596M1_S23	N	01-09-2023	Ground Water	231.1	241.1
Lima Range	90MW0034	90MW0034_S23	N	01-09-2023	Ground Water	94	99
J3 Range	J3-EFF	J3-EFF-196A	N	01-09-2023	Process Water	0	0
J3 Range	J3-MID-2	J3-MID-2-196A	N	01-09-2023	Process Water	0	0
J3 Range	J3-MID-1	J3-MID-1-196A	N	01-09-2023	Process Water	0	0
J3 Range	J3-INF	J3-INF-196A	N	01-09-2023	Process Water	0	0
Central Impact Area	CIA2-EFF	CIA2-EFF-108A	N	01-05-2023	Process Water	0	0
Central Impact Area	CIA2-MID2	CIA2-MID2-108A	N	01-05-2023	Process Water	0	0
Central Impact Area	CIA2-MID1	CIA2-MID1-108A	N	01-05-2023	Process Water	0	0
Central Impact Area	CIA2-INF	CIA2-INF-108A	N	01-05-2023	Process Water	0	0
Central Impact Area	CIA1-EFF	CIA1-EFF-108A	N	01-05-2023	Process Water	0	0
Central Impact Area	CIA1-MID2	CIA1-MID2-108A	N	01-05-2023	Process Water	0	0
Central Impact Area	CIA1-MID1	CIA1-MID1-108A	N	01-05-2023	Process Water	0	0
Central Impact Area	CIA1-INF	CIA1-INF-108A	N	01-05-2023	Process Water	0	0
Central Impact Area	CIA3-EFF	CIA3-EFF-79A	N	01-05-2023	Process Water	0	0
Central Impact Area	CIA3-MID2	CIA3-MID2-79A	N	01-05-2023	Process Water	0	0
Central Impact Area	CIA3-MID1	CIA3-MID1-79A	N	01-05-2023	Process Water	0	0
J3 Range	90EW0001	90EW0001_S23	N	01-05-2023	Ground Water	83.1	143.8
Central Impact Area	CIA3-INF	CIA3-INF-79A	N	01-05-2023	Process Water	0	0
J2 Range Eastern	J2E-EFF-K	J2E-EFF-K-172A	N	01-04-2023	Process Water	0	0
J3 Range	MW-637M3	MW-637M3_S23	N	01-04-2023	Ground Water	174.1	184.1
J2 Range Eastern	J2E-MID-2K	J2E-MID-2K-172A	N	01-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-1K	J2E-MID-1K-172A	N	01-04-2023	Process Water	0	0
J2 Range Eastern	J2E-INF-K	J2E-INF-K-172A	N	01-04-2023	Process Water	0	0
J3 Range	MW-637M1	MW-637M1_S23	N	01-04-2023	Ground Water	236.1	246.1
J2 Range Eastern	J2E-EFF-J	J2E-EFF-J-172A	N	01-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-2J	J2E-MID-2J-172A	N	01-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-1J	J2E-MID-1J-172A	N	01-04-2023	Process Water	0	0
J2 Range Eastern	J2E-INF-J	J2E-INF-J-172A	N	01-04-2023	Process Water	0	0
J3 Range	MW-637M2	MW-637M2_S23	N	01-04-2023	Ground Water	214.1	224.1
J2 Range Eastern	J2E-EFF-IH	J2E-EFF-IH-172A	N	01-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-2H	J2E-MID-2H-172A	N	01-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-1H	J2E-MID-1H-172A	N	01-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-2I	J2E-MID-2I-172A	N	01-04-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-1I	J2E-MID-1I-172A	N	01-04-2023	Process Water	0	0
J2 Range Eastern	J2E-INF-I	J2E-INF-I-172A	N	01-04-2023	Process Water	0	0
J3 Range	MW-197M1	MW-197M1_S23	N	01-04-2023	Ground Water	120	125
J2 Range Northern	J2N-EFF-G	J2N-EFF-G-196A	N	01-03-2023	Process Water	0	0
J2 Range Northern	J2N-MID-2G	J2N-MID-2G-196A	N	01-03-2023	Process Water	0	0
J2 Range Northern	J2N-MID-1G	J2N-MID-1G-196A	N	01-03-2023	Process Water	0	0
J3 Range	MW-636M2	MW-636M2_S23	N	01-03-2023	Ground Water	110.5	120.5
J2 Range Northern	J2N-INF-G	J2N-INF-G-196A	N	01-03-2023	Process Water	0	0
J2 Range Northern	J2N-EFF-EF	J2N-EFF-EF-196A	N	01-03-2023	Process Water	0	0
J2 Range Northern	J2N-MID-2F	J2N-MID-2F-196A	N	01-03-2023	Process Water	0	0
J3 Range	MW-636M1	MW-636M1_S23	MS	01-03-2023	Ground Water	141.6	151.6
J3 Range	MW-636M1	MW-636M1_S23	N	01-03-2023	Ground Water	141.6	151.6
J3 Range	MW-636M1	MW-636M1_S23	SD	01-03-2023	Ground Water	141.6	151.6
J2 Range Northern	J2N-MID-1F	J2N-MID-1F-196A	N	01-03-2023	Process Water	0	0
J2 Range Northern	J2N-INF-EF	J2N-INF-EF-196A	N	01-03-2023	Process Water	0	0
J2 Range Northern	J2N-MID-2E	J2N-MID-2E-196A	N	01-03-2023	Process Water	0	0
J2 Range Northern	J2N-MID-1E	J2N-MID-1E-196A	N	01-03-2023	Process Water	0	0

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 01 to 31 January 2023

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-653M2	MW-653M2_S23	N	01-03-2023	Ground Water	59.3	69.3
J1 Range Northern	J1N-EFF	J1N-EFF-111A	N	01-03-2023	Process Water	0	0
J1 Range Northern	J1N-MID2	J1N-MID2-111A	N	01-03-2023	Process Water	0	0
J1 Range Northern	J1N-MID1	J1N-MID1-111A	N	01-03-2023	Process Water	0	0
J1 Range Northern	J1N-INF2	J1N-INF2-111A	N	01-03-2023	Process Water	0	0
J3 Range	MW-653M1	MW-653M1_S23	N	01-03-2023	Ground Water	147.5	157.5

N = Normal Sample
FD = Field Duplicate

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received January 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
Lima Range	MW-242M1	MW-242M1_S23	235	245	01-10-2023	SW8330	2-Amino-4,6-dinitrotoluene	0.048	J	µg/L	7.3		0.031	0.20
Lima Range	MW-242M1	MW-242M1_S23	235	245	01-10-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.10	J	µg/L	0.60		0.037	0.20
Lima Range	MW-651M1	MW-651M1_S23	242.3	252.3	01-10-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.26		µg/L	0.60		0.037	0.20
Lima Range	MW-595M2	MW-595M2_S23	205.3	215.3	01-09-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.33		µg/L	0.60		0.037	0.20
Lima Range	MW-595M1	MW-595M1_S23	255.3	265.3	01-09-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.66		µg/L	0.60	X	0.037	0.20
Lima Range	MW-595M1	MW-595M1_S23D	255.3	265.3	01-09-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.69		µg/L	0.60	X	0.037	0.20
Lima Range	MW-650M1	MW-650M1_S23	260	270	01-09-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.081	J	µg/L	0.60		0.037	0.20
Lima Range	MW-596M1	MW-596M1_S23	231.1	241.1	01-09-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.26		µg/L	0.60		0.037	0.20
Lima Range	90MW0034	90MW0034_S23	94	99	01-09-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.50		µg/L	0.60		0.037	0.20
Demolition Area 1	MW-598M2	MW-598M2_F22	88	98	12-28-2022	SW6850	Perchlorate	0.063	J	µg/L	2.0		0.058	0.20
Demolition Area 1	MW-598M1	MW-598M1_F22	122	132	12-28-2022	SW6850	Perchlorate	0.36		µg/L	2.0		0.058	0.20
Demolition Area 1	MW-545M4	MW-545M4_F22	72	82	12-21-2022	SW6850	Perchlorate	0.17	J	µg/L	2.0		0.058	0.20
Demolition Area 1	MW-545M4	MW-545M4_F22	72	82	12-21-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.036	J	µg/L	7.3		0.031	0.20
Demolition Area 1	MW-545M3	MW-545M3_F22	101.5	111.5	12-21-2022	SW6850	Perchlorate	0.38		µg/L	2.0		0.058	0.20
Demolition Area 1	MW-545M2	MW-545M2_F22	142	152	12-21-2022	SW6850	Perchlorate	3.1		µg/L	2.0	X	0.058	0.20
Demolition Area 1	MW-545M2	MW-545M2_F22	142	152	12-21-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.19	J	µg/L	0.60		0.037	0.20
Demolition Area 1	MW-545M1	MW-545M1_F22	162	172	12-21-2022	SW6850	Perchlorate	0.78		µg/L	2.0		0.058	0.20
Demolition Area 1	XX9514	XX9514_F22	0	0	12-21-2022	SW6850	Perchlorate	1.9		µg/L	2.0		0.058	0.20
Demolition Area 1	EW-658	EW-658_F22	96	136	12-20-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.10	J	µg/L	0.60		0.037	0.20
Demolition Area 1	MW-556M1	MW-556M1_F22	153	163	12-19-2022	SW6850	Perchlorate	0.58		µg/L	2.0		0.058	0.20
Demolition Area 1	MW-659M1	MW-659M1_F22	120	130	12-19-2022	SW6850	Perchlorate	0.13	J	µg/L	2.0		0.058	0.20
Demolition Area 1	MW-19S	MW-19S_F22	38	48	12-19-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.6		µg/L	0.60	X	0.037	0.20
Demolition Area 1	MW-19S	MW-19S_F22	38	48	12-19-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.077	J	µg/L	7.3		0.031	0.20
Demolition Area 1	MW-19S	MW-19S_F22	38	48	12-19-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.12	J	µg/L	7.3		0.036	0.20
Demolition Area 1	MW-19S	MW-19S_F22	38	48	12-19-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.68		µg/L	400		0.11	0.20
Demolition Area 1	MW-19S	MW-19S_F22D	38	48	12-19-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.072	J	µg/L	7.3		0.036	0.20
Demolition Area 1	MW-19S	MW-19S_F22D	38	48	12-19-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.5		µg/L	0.60	X	0.037	0.20
Demolition Area 1	MW-19S	MW-19S_F22D	38	48	12-19-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.70		µg/L	400		0.11	0.20
Demolition Area 1	MW-19S	MW-19S_F22D	38	48	12-19-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.063	J	µg/L	7.3		0.031	0.20
Demolition Area 1	MW-544M3	MW-544M3_F22	77.5	87.5	12-15-2022	SW6850	Perchlorate	0.069	J	µg/L	2.0		0.058	0.20
Demolition Area 1	MW-544M2	MW-544M2_F22	112	122	12-15-2022	SW6850	Perchlorate	0.22		µg/L	2.0		0.058	0.20
Demolition Area 1	MW-544M1	MW-544M1_F22	162	172	12-15-2022	SW6850	Perchlorate	5.8		µg/L	2.0	X	0.058	0.20
Demolition Area 1	MW-544M1	MW-544M1_F22	162	172	12-15-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.63		µg/L	0.60	X	0.037	0.20
Demolition Area 1	MW-533M1	MW-533M1_F22	160	170	12-14-2022	SW6850	Perchlorate	17.0		µg/L	2.0	X	0.058	0.20
Demolition Area 1	MW-533M1	MW-533M1_F22	160	170	12-14-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.9		µg/L	0.60	X	0.037	0.20
Demolition Area 1	MW-533M1	MW-533M1_F22D	160	170	12-14-2022	SW6850	Perchlorate	17.0		µg/L	2.0	X	0.058	0.20
Demolition Area 1	MW-533M1	MW-533M1_F22D	160	170	12-14-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.8		µg/L	0.60	X	0.037	0.20
Demolition Area 1	MW-341M3	MW-341M3_F22	209.5	219.5	12-14-2022	SW6850	Perchlorate	0.21		µg/L	2.0		0.058	0.20
Demolition Area 1	MW-341M2	MW-341M2_F22	264.5	269.5	12-14-2022	SW6850	Perchlorate	0.19	J	µg/L	2.0		0.058	0.20
Demolition Area 1	MW-663D	MW-663D_F22	240.6	250.6	12-14-2022	SW6850	Perchlorate	3.1		µg/L	2.0	X	0.058	0.20
Demolition Area 1	MW-663D	MW-663D_F22D	240.6	250.6	12-14-2022	SW6850	Perchlorate	3.1		µg/L	2.0	X	0.058	0.20
Demolition Area 1	MW-231M1	MW-231M1_F22	210.5	220.5	12-14-2022	SW6850	Perchlorate	0.12	J	µg/L	2.0		0.058	0.20
Demolition Area 1	MW-31S	MW-31S_F22	98	103	12-13-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.17	J	µg/L	7.3		0.031	0.20

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

MCL/HA= Either the MCL or Lowest Health Advisory Limit
February 13, 2023

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received January 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
Demolition Area 1	MW-31S	MW-31S_F22	98	103	12-13-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.18	J	µg/L	7.3		0.036	0.20
Demolition Area 1	MW-31S	MW-31S_F22	98	103	12-13-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.0		µg/L	0.60	X	0.037	0.20
Demolition Area 1	MW-31S	MW-31S_F22	98	103	12-13-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.86		µg/L	400		0.11	0.20
Demolition Area 1	MW-31S	MW-31S_F22	98	103	12-13-2022	SW8330	2,4,6-Trinitrotoluene	0.58		µg/L	2.0		0.028	0.20
Demolition Area 1	MW-31M	MW-31M_F22	113	123	12-13-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.91		µg/L	0.60	X	0.037	0.20
Demolition Area 1	MW-31M	MW-31M_F22	113	123	12-13-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	1.0		µg/L	400		0.11	0.20
Demolition Area 1	MW-77M2	MW-77M2_F22	120	130	12-13-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.12	J	µg/L	7.3		0.031	0.20
Demolition Area 1	MW-77M2	MW-77M2_F22	120	130	12-13-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.065	J	µg/L	7.3		0.036	0.20
J1 Range Northern	MW-166M3	MW-166M3_F22	125	135	12-12-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.12	J	µg/L	400		0.11	0.20
J1 Range Northern	MW-166M3	MW-166M3_F22	125	135	12-12-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.18	J	µg/L	0.60		0.037	0.20
J1 Range Northern	MW-166M3	MW-166M3_F22	125	135	12-12-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.31		µg/L	7.3		0.036	0.20
J1 Range Northern	MW-166M3	MW-166M3_F22D	125	135	12-12-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.31		µg/L	7.3		0.036	0.20
J1 Range Northern	MW-166M3	MW-166M3_F22D	125	135	12-12-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.17	J	µg/L	0.60		0.037	0.20
J1 Range Northern	MW-430M2	MW-430M2_F22	188.41	198.41	12-08-2022	SW6850	Perchlorate	0.18	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-164M2	MW-164M2_F22	157	167	12-07-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	6.5		µg/L	400		0.11	0.20
J1 Range Northern	MW-164M2	MW-164M2_F22	157	167	12-07-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.056	J	µg/L	0.60		0.037	0.20
J1 Range Northern	MW-303M3	MW-303M3_F22	139.74	149.69	12-07-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.23		µg/L	0.60		0.037	0.20
J1 Range Northern	MW-303M3	MW-303M3_F22	139.74	149.69	12-07-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.23	J	µg/L	400		0.11	0.20
J1 Range Northern	MW-303M3	MW-303M3_F22	139.74	149.69	12-07-2022	SW8330	4-Amino-2,6-dinitrotoluene	2.5		µg/L	7.3		0.036	0.20
J1 Range Northern	MW-303M2	MW-303M2_F22	235.09	245.1	12-07-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.9		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-303M2	MW-303M2_F22	235.09	245.1	12-07-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2.5		µg/L	400		0.11	0.20
J1 Range Northern	MW-303M2	MW-303M2_F22D	235.09	245.1	12-07-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	4.2		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-303M2	MW-303M2_F22D	235.09	245.1	12-07-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2.5		µg/L	400		0.11	0.20
J1 Range Northern	MW-349M1	MW-349M1_F22	228.6	238.6	12-01-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.4		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-349M1	MW-349M1_F22	228.6	238.6	12-01-2022	SW6850	Perchlorate	0.11	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-349M1	MW-349M1_F22D	228.6	238.6	12-01-2022	SW6850	Perchlorate	0.13	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-349M1	MW-349M1_F22D	228.6	238.6	12-01-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.4		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-326M2	MW-326M2_F22	196.27	206.28	12-01-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.3		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-326M2	MW-326M2_F22	196.27	206.28	12-01-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.36		µg/L	400		0.11	0.20
J1 Range Northern	MW-326M2	MW-326M2_F22	196.27	206.28	12-01-2022	SW6850	Perchlorate	0.27		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-326M1	MW-326M1_F22	250.01	260.01	12-01-2022	SW6850	Perchlorate	2.3		µg/L	2.0	X	0.058	0.20
J1 Range Northern	MW-590M2	MW-590M2_F22	238	248	11-30-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.13	J	µg/L	0.60		0.037	0.20
J1 Range Northern	MW-590M2	MW-590M2_F22	238	248	11-30-2022	SW6850	Perchlorate	1.3		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-590M2	MW-590M2_F22D	238	248	11-30-2022	SW6850	Perchlorate	1.3		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-590M2	MW-590M2_F22D	238	248	11-30-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.14	J	µg/L	0.60		0.037	0.20
J1 Range Northern	MW-584M1	MW-584M1_F22	248	258	11-30-2022	SW6850	Perchlorate	1.6		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-369M1	MW-369M1_F22	254.07	264.07	11-29-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.14	J	µg/L	0.60		0.037	0.20
J1 Range Northern	MW-369M1	MW-369M1_F22	254.07	264.07	11-29-2022	SW6850	Perchlorate	0.13	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-370M2	MW-370M2_F22	215.54	225.54	11-29-2022	SW6850	Perchlorate	0.059	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-370M1	MW-370M1_F22	245.62	255.62	11-29-2022	SW6850	Perchlorate	4.2		µg/L	2.0	X	0.058	0.20
J1 Range Northern	MW-370M1	MW-370M1_F22	245.62	255.62	11-29-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.33		µg/L	0.60		0.037	0.20
J1 Range Northern	MW-245M2	MW-245M2_F22	204	214	11-28-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	4.7		µg/L	400		0.11	0.20
J1 Range Northern	MW-245M2	MW-245M2_F22	204	214	11-28-2022	SW6850	Perchlorate	11.0		µg/L	2.0	X	0.058	0.20

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

MCL/HA= Either the MCL or Lowest Health Advisory Limit
February 13, 2023

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received January 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 Northern	MW-245M2	MW-245M2_F22	204	214	11-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	19.0		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-245M2	MW-245M2_F22D	204	214	11-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	18.0		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-245M2	MW-245M2_F22D	204	214	11-28-2022	SW6850	Perchlorate	11.0		µg/L	2.0	X	0.058	0.20
J1 Range Northern	MW-245M2	MW-245M2_F22D	204	214	11-28-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	4.6		µg/L	400		0.11	0.20
J1 Range Northern	MW-245M1	MW-245M1_F22	244	254	11-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.78		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-245M1	MW-245M1_F22	244	254	11-28-2022	SW6850	Perchlorate	1.8		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-346M4	MW-346M4_F22	140	150	11-28-2022	SW6850	Perchlorate	0.083	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-346M3	MW-346M3_F22	175.3	185.3	11-28-2022	SW6850	Perchlorate	0.13	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-346M2	MW-346M2_F22	205.3	215.3	11-28-2022	SW6850	Perchlorate	0.10	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-346M2	MW-346M2_F22	205.3	215.3	11-28-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	1.5		µg/L	400		0.11	0.20
J1 Range Northern	MW-346M2	MW-346M2_F22	205.3	215.3	11-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.96		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-346M1	MW-346M1_F22	244.7	254.7	11-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	12.0		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-346M1	MW-346M1_F22	244.7	254.7	11-28-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.29		µg/L	400		0.11	0.20
J1 Range Northern	MW-346M1	MW-346M1_F22	244.7	254.7	11-28-2022	SW6850	Perchlorate	15.0		µg/L	2.0	X	0.058	0.20
J1 Range Northern	MW-346M1	MW-346M1_F22D	244.7	254.7	11-28-2022	SW6850	Perchlorate	16.0		µg/L	2.0	X	0.058	0.20
J1 Range Northern	MW-346M1	MW-346M1_F22D	244.7	254.7	11-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	12.0		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-346M1	MW-346M1_F22D	244.7	254.7	11-28-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.26	J	µg/L	400		0.11	0.20
J1 Range Northern	MW-253M1	MW-253M1_F22	265.4	275.4	11-22-2022	SW6850	Perchlorate	0.082	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-564M1	MW-564M1_F22	227	237	11-22-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.51		µg/L	0.60		0.037	0.20
J1 Range Northern	MW-564M1	MW-564M1_F22	227	237	11-22-2022	SW6850	Perchlorate	0.68		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-564M1	MW-564M1_F22	227	237	11-22-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.28		µg/L	400		0.11	0.20
J1 Range Northern	MW-564M1	MW-564M1_F22D	227	237	11-22-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.26		µg/L	400		0.11	0.20
J1 Range Northern	MW-564M1	MW-564M1_F22D	227	237	11-22-2022	SW6850	Perchlorate	0.70		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-564M1	MW-564M1_F22D	227	237	11-22-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.55		µg/L	0.60		0.037	0.20
J1 Range Northern	MW-549M1	MW-549M1_F22	227.4	237.4	11-22-2022	SW6850	Perchlorate	3.1		µg/L	2.0	X	0.058	0.20
J1 Range Northern	MW-549M1	MW-549M1_F22	227.4	237.4	11-22-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.061	J	µg/L	0.60		0.037	0.20
J1 Range Northern	MW-567M1	MW-567M1_F22	215.5	225.5	11-21-2022	SW6850	Perchlorate	0.66		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-286M1	MW-286M1_F22	259	269	11-21-2022	SW6850	Perchlorate	0.090	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-315M2	MW-315M2_F22	195.72	205.72	11-17-2022	SW6850	Perchlorate	0.070	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-315M1	MW-315M1_F22	245.49	255.49	11-17-2022	SW6850	Perchlorate	1.8		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-265M2	MW-265M2_F22	225	235	11-17-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.1		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-265M2	MW-265M2_F22	225	235	11-17-2022	SW6850	Perchlorate	5.7		µg/L	2.0	X	0.058	0.20
J1 Range Northern	MW-265M1	MW-265M1_F22	265	275	11-17-2022	SW6850	Perchlorate	7.8		µg/L	2.0	X	0.058	0.20
J1 Range Northern	MW-566M1	MW-566M1_F22	232	242	11-16-2022	SW6850	Perchlorate	0.69		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-547M1	MW-547M1_F22	237	247	11-16-2022	SW6850	Perchlorate	3.9		µg/L	2.0	X	0.058	0.20
J1 Range Northern	MW-547M1	MW-547M1_F22	237	247	11-16-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.082	J	µg/L	0.60		0.037	0.20
J1 Range Northern	MW-656M1	MW-656M1_F22	244.1	254.1	11-16-2022	SW6850	Perchlorate	0.062	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-606M1	MW-606M1_F22	233.3	243.3	11-14-2022	SW6850	Perchlorate	0.062	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-689M1	MW-689M1_F22	253.5	263.5	11-14-2022	SW6850	Perchlorate	0.51		µg/L	2.0		0.058	0.20

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

MCL/HA= Either the MCL or Lowest Health Advisory Limit
February 13, 2023

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

KGS 2019 PFAS MW&INF - Demolition Area 1

	Location	D1-INF	FPR-2-INF	MW-258M1	MW-663D	PR-INF
	Field Sample ID	D1-INF_PFAS19	FPR-2-INF_PFAS19	MW-258M1_PFAS19	MW-663D_PFAS19	PR-INF_PFAS19
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	109.00 - 119.00	240.60 - 250.60	0.00 - 0.00
	Sampling Date	06/24/2019	06/25/2019	06/19/2019	06/24/2019	06/25/2019
	SDG	320517141	320517141	320515981	320517141	320517141
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	19.0 U	20.0 U	20.0 U	20.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.10 U	9.50 U	9.80 U	9.80 U	9.80 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.10 U	9.50 U	9.80 U	9.80 U	9.80 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.10 U	9.50 U	9.80 U	9.80 U	9.80 U
Perfluorobutanesulfonic acid	600	0.910 U	0.950 U	0.980 U	0.980 U	0.980 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.50 U	1.50 U	1.50 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.910 U	0.950 U	0.980 U	**2.20**	0.980 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.50 U	1.50 U	1.50 U
Perfluoroheptanesulfonic acid (PFHpS)		0.910 U	0.950 U	0.980 U	0.980 U	0.980 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.50 U	1.50 U	1.50 U
Perfluorohexane sulfonate (PFHxS)	39	0.910 U	0.950 U	0.980 U	0.980 U	2.00 U
Perfluorohexanoic acid (PFHxA)		0.910 U	0.950 U	0.980 U	0.980 U	0.980 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.50 U	**1.00 J**	1.50 U
Perfluorooctanesulfonamide (PFOSA)		2.70 U	2.80 U	2.90 U	3.00 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.70 U	2.80 U	2.90 U	3.00 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.50 U	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.910 U	0.950 U	0.980 U	**0.460 J**	0.980 U
Perfluorotetradecanoic acid (PFTeDA)		2.70 U	2.80 U	2.90 U	3.00 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.70 U	2.80 U	2.90 U	3.00 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.50 U	**1.20 J**	1.50 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

	Location	D1-INF	FPR-2-INF	MW-258M1	MW-663D	PR-INF
	Field Sample ID	D1-INF_PFAS19	FPR-2-INF_PFAS19	MW-258M1_PFAS19	MW-663D_PFAS19	PR-INF_PFAS19
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	109.00 - 119.00	240.60 - 250.60	0.00 - 0.00
	Sampling Date	06/24/2019	06/25/2019	06/19/2019	06/24/2019	06/25/2019
	SDG	320517141	320517141	320515981	320517141	320517141
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**2.20**	**0.00**
§Sum of All Compounds Detected		**0.00**	**0.00**	**0.00**	**4.86**	**0.00**

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

KGS 2019 PFAS MW&INF - J1 Range Northern

	Location	J1N-INF2	J1N-INF2	MW-136S	MW-564M1	MW-590M2
	Field Sample ID	J1N-INF2_PFAS19	J1N-INF2_PFAS19R	MW-136S_PFAS19	MW-564M1_PFAS19	MW-590M2_PFAS19
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	107.00 - 117.00	227.00 - 237.00	238.00 - 248.00
	Sampling Date	06/17/2019	07/30/2019	06/24/2019	06/24/2019	06/24/2019
	SDG	320514661	320528231	320517141	320517141	320517141
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	20.0 U	18.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.30 U	9.60 U	9.80 U	9.20 U	9.60 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.30 U	9.60 U	9.80 U	9.20 U	9.60 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.30 U	9.60 U	9.80 U	9.20 U	9.60 U
Perfluorobutanesulfonic acid	600	0.930 U	0.960 U	0.980 U	0.920 U	0.960 U
Perfluorobutanoic acid (PFBA)		1.90 U	1.40 U	**0.990 J**	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.930 U	0.960 U	0.980 U	0.920 U	0.960 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.930 U	0.960 U	0.980 U	0.920 U	0.960 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.930 U	1.90 U	2.00 U	1.80 U	0.960 U
Perfluorohexanoic acid (PFHxA)		0.930 U	0.960 U	0.980 U	0.920 U	0.960 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		**1.80 J**	2.90 U	2.90 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	**4.90**	2.90 U	**1.40 J**	2.80 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	**2.40**	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.930 U	0.960 U	0.980 U	0.920 U	0.960 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.90 U	2.90 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.90 U	2.90 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**4.90**	**0.00**	**3.80**	**0.00**	**0.00**

PFAS Summary Report – Groundwater
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	Location	J1N-INF2	J1N-INF2	MW-136S	MW-564M1	MW-590M2
	Field Sample ID	J1N-INF2_PFAS19	J1N-INF2_PFAS19R	MW-136S_PFAS19	MW-564M1_PFAS19	MW-590M2_PFAS19
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	107.00 - 117.00	227.00 - 237.00	238.00 - 248.00
	Sampling Date	06/17/2019	07/30/2019	06/24/2019	06/24/2019	06/24/2019
	SDG	320514661	320528231	320517141	320517141	320517141
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**4.90**	**0.00**	**2.40**	**0.00**	**0.00**
§Sum of All Compounds Detected		**6.70**	**0.00**	**4.79**	**0.00**	**0.00**

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

KGS 2019 PFAS MW&INF - J2 Range Eastern

	Location	J2E-INF-I	J2E-INF-J	J2E-INF-K	MW-307M3	MW-307M3	MW-368M1
	Field Sample ID	J2E-INF-I_PFAS19	J2E-INF-J_PFAS19	J2E-INF-K_PFAS19	MW-307M3_PFAS19	MW-307M3_PFAS19D	MW-368M1_PFAS19
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	125.80 - 135.82	125.80 - 135.82	237.35 - 247.35
	Sampling Date	06/20/2019	06/20/2019	06/20/2019	06/18/2019	06/18/2019	06/18/2019
	SDG	320515981	320515981	320515981	320514662	320514662	320514662
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Field Duplicate**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	20.0 U	18.0 U	19.0 U	17.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.70 U	9.30 U	9.80 U	9.00 U	9.60 U	8.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.70 U	9.30 U	9.80 U	9.00 U	9.60 U	8.50 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.70 U	9.30 U	9.80 U	9.00 U	9.60 U	8.50 U
Perfluorobutanesulfonic acid	600	0.970 U	0.930 U	0.980 U	0.900 U	0.960 U	0.850 U
Perfluorobutanoic acid (PFBA)		1.50 U	1.40 U	1.50 U	1.80 U	1.90 U	1.70 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.50 U	1.30 U	1.40 U	1.30 U
Perfluorodecanoic acid (PFDA)		0.970 U	0.930 U	0.980 U	0.900 U	0.960 U	**1.40 J**
Perfluorododecanoic acid (PFDoA)		1.50 U	1.40 U	1.50 U	1.30 U	1.40 U	**0.450 J**
Perfluoroheptanesulfonic acid (PFHpS)		0.970 U	0.930 U	0.980 U	0.900 U	0.960 U	0.850 U
Perfluoroheptanoic acid (PFHpA)		1.50 U	1.40 U	1.50 U	1.30 U	1.40 U	1.30 U
Perfluorohexane sulfonate (PFHxS)	39	0.970 U	0.930 U	0.980 U	0.900 U	0.960 U	0.850 U
Perfluorohexanoic acid (PFHxA)		0.970 U	0.930 U	0.980 U	0.900 U	0.960 U	0.850 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.40 U	1.50 U	**0.880 J**	**0.730 J**	**0.650 J**
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.80 U	2.90 U	2.70 U	2.90 U	2.60 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.80 U	2.90 U	2.70 U	2.90 U	2.60 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.40 U	1.50 U	1.30 U	1.40 U	1.30 U
Perfluoropentanoic acid (PFPeA)		0.970 U	0.930 U	0.980 U	0.900 U	0.960 U	0.850 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.80 U	2.90 U	2.70 U	2.90 U	2.60 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.80 U	2.90 U	2.70 U	2.90 U	2.60 U
Perfluoroundecanoic acid (PFUnA)		1.50 U	1.40 U	1.50 U	1.30 U	1.40 U	**4.90**
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

	Location	MW-368M2	MW-667M1
	Field Sample ID	MW-368M2_PFAS19	MW-667M1_PFAS19
	Sampling Depth	202.73 - 212.73	302.30 - 312.30
	Sampling Date	06/18/2019	06/17/2019
	SDG	320514662	320514661
	Sample Type	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		8.80 U	9.00 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		8.80 U	9.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		8.80 U	9.00 U
Perfluorobutanesulfonic acid	600	0.880 U	0.900 U
Perfluorobutanoic acid (PFBA)		1.30 U	1.80 U
Perfluorodecanesulfonic acid (PFDS)		1.30 U	1.40 U
Perfluorodecanoic acid (PFDA)		**0.800 J**	**4.30**
Perfluorododecanoic acid (PFDoA)		1.30 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.880 U	0.900 U
Perfluoroheptanoic acid (PFHpA)		1.30 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.880 U	0.900 U
Perfluorohexanoic acid (PFHxA)		0.880 U	0.900 U
Perfluorononanoic acid (PFNA)	5.9	1.30 U	**2.80**
Perfluorooctanesulfonamide (PFOSA)		2.60 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	4	2.60 U	2.70 U
Perfluorooctanoic acid (PFOA)	6	1.30 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.880 U	0.900 U
Perfluorotetradecanoic acid (PFTeDA)		2.60 U	2.70 U
Perfluorotridecanoic acid (PFTrDA)		2.60 U	2.70 U
Perfluoroundecanoic acid (PFUnA)		**2.40**	**1.60 J**
†PFOS + PFOA (EPA)		**0.00**	**0.00**

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Joint Base Cape Cod, IAGWSP

	Location	J2E-INF-I	J2E-INF-J	J2E-INF-K	MW-307M3	MW-307M3	MW-368M1
	Field Sample ID	J2E-INF-I_PFAS19	J2E-INF-J_PFAS19	J2E-INF-K_PFAS19	MW-307M3_PFAS19	MW-307M3_PFAS19D	MW-368M1_PFAS19
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	125.80 - 135.82	125.80 - 135.82	237.35 - 247.35
	Sampling Date	06/20/2019	06/20/2019	06/20/2019	06/18/2019	06/18/2019	06/18/2019
	SDG	320515981	320515981	320515981	320514662	320514662	320514662
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Field Duplicate**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected		**0.00**	**0.00**	**0.00**	**0.880**	**0.730**	**7.40**

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

	Location	MW-368M2	MW-667M1
	Field Sample ID	MW-368M2_PFAS19	MW-667M1_PFAS19
	Sampling Depth	202.73 - 212.73	302.30 - 312.30
	Sampling Date	06/18/2019	06/17/2019
	SDG	320514662	320514661
	Sample Type	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**7.10**
§Sum of All Compounds Detected		**3.20**	**8.70**

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

KGS 2019 PFAS MW&INF - J2 Range Northern

	Location	J2EW0001	J2EW0002	J2N-INF-E	J2N-INF-F	J2N-INF-F	J2N-INF-G
	Field Sample ID	J2EW0001_PFAS19	J2EW0002_PFAS19	J2N-INF-E_PFAS19	J2N-INF-F_PFAS19	J2N-INF-F_PFAS19R	J2N-INF-G_PFAS19
	Sampling Depth	179.00 - 234.00	198.00 - 233.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
	Sampling Date	11/20/2019	11/20/2019	06/18/2019	06/18/2019	07/30/2019	07/30/2019
	SDG	320565491	320565491	320514662	320514662	320528231	320528231
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	40.0 U	19.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		19.0 U	20.0 U	9.30 U	9.30 U	9.60 U	9.70 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.60 U	10.0 U	9.30 U	9.30 U	9.60 U	9.70 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.60 U	10.0 U	9.30 U	9.30 U	9.60 U	9.70 U
Perfluorobutanesulfonic acid	600	0.960 U	1.00 U	0.930 U	0.930 U	0.960 U	**1.40 J**
Perfluorobutanoic acid (PFBA)		1.40 U	1.50 U	1.40 U	1.90 U	1.40 U	1.50 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.960 U	1.00 U	0.930 U	0.930 U	0.960 U	0.970 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.50 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluoroheptanesulfonic acid (PFHpS)		0.960 U	**0.370 J**	0.930 U	**0.400 J**	**0.500 J**	0.970 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	**1.00 J**	1.40 U	**0.940 J**	**1.00 J**	1.50 U
Perfluorohexane sulfonate (PFHxS)	39	0.960 U	**11.0**	0.930 U	**9.90**	**9.00**	1.90 U
Perfluorohexanoic acid (PFHxA)		0.960 U	**1.30 J**	0.930 U	**1.20 J**	**1.30 J**	**2.30**
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	3.00 U	2.80 U	2.80 U	2.90 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	**1.30 J**	2.80 U	2.80 U	**1.10 J**	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	**1.50 J**	1.40 U	**1.70 J**	**1.50 J**	1.50 U
Perfluoropentanoic acid (PFPeA)		0.960 U	**0.910 J**	0.930 U	**0.840 J**	**1.00 J**	**1.20 J**
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	3.00 U	2.80 U	2.80 U	2.90 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	3.00 U	2.80 U	2.80 U	2.90 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.40 U	1.40 U	1.40 U	1.50 U
†PFOS + PFOA (EPA)		**0.00**	**2.80**	**0.00**	**1.70**	**2.60**	**0.00**

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	Location	MW-234M2	MW-313M1	MW-587M2
	Field Sample ID	MW-234M2_PFAS19	MW-313M1_PFAS19	MW-587M2_PFAS19
	Sampling Depth	110.00 - 120.00	255.40 - 265.40	220.00 - 230.00
	Sampling Date	06/17/2019	06/19/2019	06/19/2019
	SDG	320514661	320515981	320515981
	Sample Type	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	20.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		8.80 U	9.80 U	9.70 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		8.80 U	9.80 U	9.70 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		8.80 U	9.80 U	9.70 U
Perfluorobutanesulfonic acid	600	0.880 U	0.980 U	0.970 U
Perfluorobutanoic acid (PFBA)		1.80 U	**0.700 J**	1.50 U
Perfluorodecanesulfonic acid (PFDS)		1.30 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.880 U	**1.20 J**	0.970 U
Perfluorododecanoic acid (PFDoA)		1.30 U	1.50 U	1.50 U
Perfluoroheptanesulfonic acid (PFHpS)		0.880 U	0.980 U	0.970 U
Perfluoroheptanoic acid (PFHpA)		1.30 U	1.50 U	1.50 U
Perfluorohexane sulfonate (PFHxS)	39	**0.600 J**	0.980 U	0.970 U
Perfluorohexanoic acid (PFHxA)		0.880 U	0.980 U	0.970 U
Perfluorononanoic acid (PFNA)	5.9	1.30 U	**1.10 J**	1.50 U
Perfluorooctanesulfonamide (PFOSA)		2.60 U	2.90 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	**1.90 J**	2.90 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	**0.550 J**	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.880 U	**0.680 J**	0.970 U
Perfluorotetradecanoic acid (PFTeDA)		2.60 U	2.90 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.60 U	2.90 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.30 U	**1.40 J**	1.50 U
†PFOS + PFOA (EPA)		**2.45**	**0.00**	**0.00**

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	Location	J2EW0001	J2EW0002	J2N-INF-E	J2N-INF-F	J2N-INF-F	J2N-INF-G
	Field Sample ID	J2EW0001_PFAS19	J2EW0002_PFAS19	J2N-INF-E_PFAS19	J2N-INF-F_PFAS19	J2N-INF-F_PFAS19R	J2N-INF-G_PFAS19
	Sampling Depth	179.00 - 234.00	198.00 - 233.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
	Sampling Date	11/20/2019	11/20/2019	06/18/2019	06/18/2019	07/30/2019	07/30/2019
	SDG	320565491	320565491	320514662	320514662	320528231	320528231
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**11.0**	**0.00**	**9.90**	**9.00**	**0.00**
§Sum of All Compounds Detected		**0.00**	**17.4**	**0.00**	**15.0**	**15.4**	**4.90**

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	Location	MW-234M2	MW-313M1	MW-587M2
	Field Sample ID	MW-234M2_PFAS19	MW-313M1_PFAS19	MW-587M2_PFAS19
	Sampling Depth	110.00 - 120.00	255.40 - 265.40	220.00 - 230.00
	Sampling Date	06/17/2019	06/19/2019	06/19/2019
	SDG	320514661	320515981	320515981
	Sample Type	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected		**3.05**	**5.08**	**0.00**

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KGS 2019 PFAS MW&INF - J3 Range

	Location	J3-INF	J3-INF	MW-163S	MW-163S	MW-163S	MW-227M2
	Field Sample ID	J3-INF_PFAS19	J3-INF_PFAS19D	MW-163S_PFAS19	MW-163S_PFAS19D	MW-163S_PFAS19R	MW-227M2_PFAS19
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	38.00 - 48.00	38.00 - 48.00	38.00 - 48.00	110.00 - 120.00
	Sampling Date	06/17/2019	06/17/2019	06/18/2019	06/18/2019	07/30/2019	06/19/2019
	SDG	320514661	320514661	320514662	320514662	320528231	320515981
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Field Duplicate**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	18.0 U	17.0 U	17.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U	9.20 U	8.60 U	8.60 U	9.30 U	9.60 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U	9.20 U	8.60 U	8.60 U	9.30 U	9.60 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U	9.20 U	8.60 U	8.60 U	9.30 U	9.60 U
Perfluorobutanesulfonic acid	600	0.940 U	0.920 U	0.860 U	0.860 U	0.930 U	0.960 U
Perfluorobutanoic acid (PFBA)		1.90 U	1.80 U	1.70 U	1.70 U	**0.560 J**	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.30 U	1.30 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.920 U	0.860 U	0.860 U	0.930 U	0.960 U
Perfluorododecanoic acid (PFDoA)		**1.70 J**	1.40 U	1.30 U	1.30 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.940 U	0.920 U	0.860 U	0.860 U	0.930 U	0.960 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.30 U	1.30 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	**1.50 J**	**1.50 J**	**0.690 J**	**0.610 J**	1.90 U	**0.540 J**
Perfluorohexanoic acid (PFHxA)		0.940 U	0.920 U	**0.410 J**	0.860 U	0.930 U	0.960 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.30 U	1.30 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.60 U	2.60 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	**12.0**	**12.0**	**12.0**	2.90 U
Perfluorooctanoic acid (PFOA)	6	**0.520 J**	1.40 U	**1.70**	**1.60 J**	**1.30 J**	1.40 U
Perfluoropentanoic acid (PFPeA)		0.940 U	0.920 U	0.860 U	0.860 U	0.930 U	0.960 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.60 U	2.60 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		**1.40 J**	2.80 U	2.60 U	2.60 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.30 U	1.30 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.520**	**0.00**	**13.7**	**13.6**	**13.3**	**0.00**

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	Location	MW-250M2
	Field Sample ID	MW-250M2_PFAS19
	Sampling Depth	145.00 - 155.00
	Sampling Date	06/20/2019
	SDG	320515981
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.70 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.70 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.70 U
Perfluorobutanesulfonic acid	600	0.970 U
Perfluorobutanoic acid (PFBA)		**0.710 J**
Perfluorodecanesulfonic acid (PFDS)		1.40 U
Perfluorodecanoic acid (PFDA)		0.970 U
Perfluorododecanoic acid (PFDoA)		1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.970 U
Perfluoroheptanoic acid (PFHpA)		1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.970 U
Perfluorohexanoic acid (PFHxA)		0.970 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U
Perfluoropentanoic acid (PFPeA)		0.970 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U
†PFOS + PFOA (EPA)		**0.00**

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	Location	J3-INF	J3-INF	MW-163S	MW-163S	MW-163S	MW-227M2
	Field Sample ID	J3-INF_PFAS19	J3-INF_PFAS19D	MW-163S_PFAS19	MW-163S_PFAS19D	MW-163S_PFAS19R	MW-227M2_PFAS19
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	38.00 - 48.00	38.00 - 48.00	38.00 - 48.00	110.00 - 120.00
	Sampling Date	06/17/2019	06/17/2019	06/18/2019	06/18/2019	07/30/2019	06/19/2019
	SDG	320514661	320514661	320514662	320514662	320528231	320515981
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Field Duplicate**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**13.7**	**12.0**	**12.0**	**0.00**
§Sum of All Compounds Detected		**5.12**	**1.50**	**14.8**	**14.2**	**13.9**	**0.540**

PFAS Summary Report – Groundwater
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	Location	MW-250M2
	Field Sample ID	MW-250M2_PFAS19
	Sampling Depth	145.00 - 155.00
	Sampling Date	06/20/2019
	SDG	320515981
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**
§Sum of All Compounds Detected		**0.710**

KGS 2020 J1 Ranges SPM Fall - J1 Range Northern

	Location	MW-136M1	MW-136M1	MW-191M2	MW-245M1	MW-245M2	MW-303M2
	Field Sample ID	MW-136M1_F20	MW-136M1_F20D	MW-191M2_F20	MW-245M1_F20	MW-245M2_F20	MW-303M2_F20
	Sampling Depth	124.00 - 134.00	124.00 - 134.00	120.00 - 130.00	244.00 - 254.00	204.00 - 214.00	235.09 - 245.10
	Sampling Date	12/07/2020	12/07/2020	12/07/2020	12/07/2020	11/10/2020	12/08/2020
	SDG	320677691	320677691	320677691	320677691	320665921	320677701
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	18.0 U	19.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.60 U	9.20 U	9.70 U	9.30 U	9.30 U	9.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.60 U	9.20 U	**15.0 J**	9.30 U	9.30 U	9.50 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.60 U	9.20 U	**2.90 J**	9.30 U	9.30 U	9.50 U
Perfluorobutanesulfonic acid	600	0.960 U	0.920 U	0.970 U	0.930 U	0.930 U	0.950 U
Perfluorobutanoic acid (PFBA)		**0.920 J**	**0.670 J**	1.50 U	1.40 U	**4.00**	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.960 U	0.920 U	0.970 U	0.930 U	0.930 U	**0.700 J**
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U	**1.70 J**
Perfluoroheptanesulfonic acid (PFHpS)		0.960 U	0.920 U	0.970 U	0.930 U	0.930 U	0.950 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.50 U	1.40 U	**0.700 J**	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	**0.360 J**	0.920 U	0.970 U	0.930 U	0.930 U	0.950 U
Perfluorohexanoic acid (PFHxA)		0.960 U	0.920 U	0.970 U	0.930 U	**0.850 J**	0.950 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.960 U	0.920 U	0.970 U	0.930 U	**4.00**	**0.410 J**
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U	**2.80**
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

	Location	MW-303M3	MW-326M1	MW-326M2	MW-326M3	MW-346M1	MW-346M2
	Field Sample ID	MW-303M3_F20	MW-326M1_F20	MW-326M2_F20	MW-326M3_F20	MW-346M1_F20	MW-346M2_F20
	Sampling Depth	139.74 - 149.69	250.01 - 260.01	196.27 - 206.28	165.24 - 175.26	0.00 - 0.00	0.00 - 0.00
	Sampling Date	12/08/2020	12/09/2020	12/09/2020	12/09/2020	12/02/2020	12/02/2020
	SDG	320677701	320678771	320678771	320678771	320675551	320675551
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	20.0 U	20.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		8.90 U	10.0 U	10.0 U	9.50 U	9.70 U	9.30 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		8.90 U	10.0 U	10.0 U	9.50 U	9.70 U	9.30 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		8.90 U	10.0 U	10.0 U	9.50 U	9.70 U	9.30 U
Perfluorobutanesulfonic acid	600	0.890 U	1.00 U	1.00 U	0.950 U	0.970 U	0.930 U
Perfluorobutanoic acid (PFBA)		**0.920 J**	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.30 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		**1.60 J**	**0.950 J**	**5.40**	**3.50**	**2.50**	**2.40**
Perfluorododecanoic acid (PFDoA)		1.30 U	1.50 U	**1.20 J**	**0.600 J**	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.890 U	1.00 U	1.00 U	0.950 U	0.970 U	0.930 U
Perfluoroheptanoic acid (PFHpA)		1.30 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.890 U	1.00 U	1.00 U	0.950 U	0.970 U	0.930 U
Perfluorohexanoic acid (PFHxA)		0.890 U	1.00 U	1.00 U	0.950 U	0.970 U	0.930 U
Perfluorononanoic acid (PFNA)	5.9	**2.60**	**1.50 J**	**1.40 J**	**2.70**	**3.40**	**3.50**
Perfluorooctanesulfonamide (PFOSA)		2.70 U	3.00 U	3.00 U	2.90 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.70 U	3.00 U	3.00 U	2.90 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.30 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.890 U	**0.440 J**	1.00 U	0.950 U	**0.620 J**	**0.870 J**
Perfluorotetradecanoic acid (PFTeDA)		2.70 U	3.00 U	3.00 U	2.90 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.70 U	3.00 U	3.00 U	2.90 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.30 U	**1.00 J**	**13.0**	**6.90**	**5.90**	**2.50**
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**2.60**	**0.00**	**5.40**	**6.20**	**5.90**	**5.90**

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	Location	MW-346M3	MW-346M4	MW-58S
	Field Sample ID	MW-346M3_F20	MW-346M4_F20	MW-58S_F20
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	100.00 - 110.00
	Sampling Date	12/02/2020	12/02/2020	12/07/2020
	SDG	320675551	320675551	320677691
	Sample Type	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		20.0 U	18.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.80 U	9.20 U	9.30 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.80 U	9.20 U	9.30 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.80 U	9.20 U	9.30 U
Perfluorobutanesulfonic acid	600	0.980 U	0.920 U	0.930 U
Perfluorobutanoic acid (PFBA)		1.50 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		**0.730 J**	**1.70 J**	0.930 U
Perfluorododecanoic acid (PFDoA)		1.50 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.980 U	0.920 U	0.930 U
Perfluoroheptanoic acid (PFHpA)		1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.980 U	0.920 U	0.930 U
Perfluorohexanoic acid (PFHxA)		0.980 U	0.920 U	0.930 U
Perfluorononanoic acid (PFNA)	5.9	**2.20**	**0.650 J**	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.80 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.80 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		**0.750 J**	**0.410 J**	0.930 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.80 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.80 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		**1.00 J**	**6.00**	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**2.20**	**0.00**	**0.00**

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	Location	MW-136M1	MW-136M1	MW-191M2	MW-245M1	MW-245M2	MW-303M2
	Field Sample ID	MW-136M1_F20	MW-136M1_F20D	MW-191M2_F20	MW-245M1_F20	MW-245M2_F20	MW-303M2_F20
	Sampling Depth	124.00 - 134.00	124.00 - 134.00	120.00 - 130.00	244.00 - 254.00	204.00 - 214.00	235.09 - 245.10
	Sampling Date	12/07/2020	12/07/2020	12/07/2020	12/07/2020	11/10/2020	12/08/2020
	SDG	320677691	320677691	320677691	320677691	320665921	320677701
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**1.28**	**0.670**	**17.9**	**0.00**	**9.55**	**5.61**

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	Location	MW-303M3	MW-326M1	MW-326M2	MW-326M3	MW-346M1	MW-346M2
	Field Sample ID	MW-303M3_F20	MW-326M1_F20	MW-326M2_F20	MW-326M3_F20	MW-346M1_F20	MW-346M2_F20
	Sampling Depth	139.74 - 149.69	250.01 - 260.01	196.27 - 206.28	165.24 - 175.26	0.00 - 0.00	0.00 - 0.00
	Sampling Date	12/08/2020	12/09/2020	12/09/2020	12/09/2020	12/02/2020	12/02/2020
	SDG	320677701	320678771	320678771	320678771	320675551	320675551
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**5.12**	**3.89**	**21.0**	**13.7**	**12.4**	**9.27**

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	Location	MW-346M3	MW-346M4	MW-58S
	Field Sample ID	MW-346M3_F20	MW-346M4_F20	MW-58S_F20
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	100.00 - 110.00
	Sampling Date	12/02/2020	12/02/2020	12/07/2020
	SDG	320675551	320675551	320677691
	Sample Type	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**4.68**	**8.76**	**0.00**

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KGS 2020 J2 Ranges SPM Fall - J2 Range Northern

	Location	J2EW0002	J2EW0002	J2EW2-MW2-B	J2EW2-MW2-C	MW-293M2	MW-293M2
	Field Sample ID	J2EW0002_F20	J2EW0002_F20D	J2EW2-MW2-B_F20	J2EW2-MW2-C_F20	MW-293M2_F20	MW-293M2_F20D
	Sampling Depth	198.00 - 233.00	198.00 - 233.00	209.79 - 219.79	243.83 - 253.81	196.42 - 206.42	196.42 - 206.42
	Sampling Date	09/10/2020	09/10/2020	09/09/2020	09/09/2020	08/27/2020	08/27/2020
	SDG	320645641	320645641	320645661	320645661	320641331	320641331
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Field Duplicate**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		20.0 U	19.0 U	19.0 U	19.0 U	18.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.90 U	9.50 U	9.40 U	9.70 U	9.20 U	9.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.90 U	9.50 U	9.40 U	9.70 U	9.20 U	9.50 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.90 U	9.50 U	9.40 U	9.70 U	9.20 U	9.50 U
Perfluorobutanesulfonic acid	600	0.990 U	0.950 U	0.940 U	0.970 U	**3.40**	**3.60**
Perfluorobutanoic acid (PFBA)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.990 U	0.950 U	0.940 U	0.970 U	**4.90**	**4.50**
Perfluorododecanoic acid (PFDoA)		1.50 U	1.40 U	1.40 U	1.50 U	**3.50**	**3.60**
Perfluoroheptanesulfonic acid (PFHpS)		0.990 U	0.950 U	0.940 U	0.970 U	0.920 U	0.950 U
Perfluoroheptanoic acid (PFHpA)		**0.930 J**	**0.910 J**	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	**9.80**	**9.30**	0.940 U	0.970 U	0.920 U	0.950 U
Perfluorohexanoic acid (PFHxA)		**1.10 J**	**1.10 J**	0.940 U	0.970 U	0.920 U	0.950 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.40 U	1.40 U	1.50 U	**2.00**	**1.50 J**
Perfluorooctanesulfonamide (PFOSA)		3.00 U	2.80 U	2.80 U	2.90 U	2.80 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	3.00 U	2.80 U	2.80 U	2.90 U	2.80 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	**1.70 J**	**1.70 J**	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		**1.10 J**	**1.20 J**	0.940 U	0.970 U	**0.460 J**	**0.410 J**
Perfluorotetradecanoic acid (PFTeDA)		3.00 U	2.80 U	2.80 U	2.90 U	2.80 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		3.00 U	2.80 U	2.80 U	2.90 U	**1.50 J**	**1.90 J**
Perfluoroundecanoic acid (PFUnA)		1.50 U	1.40 U	1.40 U	1.50 U	**25.0**	**28.0**
†PFOS + PFOA (EPA)		**1.70**	**1.70**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	MW-300M1	MW-300M2	MW-300M3	MW-302M2	MW-305M1	MW-348M2
	Field Sample ID	MW-300M1_F20	MW-300M2_F20	MW-300M3_F20	MW-302M2_F20	MW-305M1_F20	MW-348M2_F20
	Sampling Depth	293.03 - 303.02	197.23 - 207.23	135.31 - 145.31	194.35 - 204.43	202.82 - 212.82	206.54 - 216.54
	Sampling Date	09/08/2020	09/08/2020	09/08/2020	08/27/2020	08/31/2020	08/31/2020
	SDG	320644781	320644781	320644781	320641331	320642421	320642421
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	18.0 U	19.0 U	18.0 U	18.0 U	20.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.50 U	9.00 U	9.40 U	9.20 U	9.10 U	9.80 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.50 U	9.00 U	9.40 U	9.20 U	9.10 U	9.80 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.50 U	9.00 U	9.40 U	9.20 U	9.10 U	9.80 U
Perfluorobutanesulfonic acid	600	0.950 U	0.900 U	0.940 U	0.920 U	0.910 U	0.980 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	**0.550 J**	1.40 U	1.40 U	**1.00 J**
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		**3.10**	**3.60**	**1.50 J**	**2.80**	**2.40**	**2.50**
Perfluorododecanoic acid (PFDoA)		**0.800 J**	**1.10 J**	**0.610 J**	**1.70 J**	1.40 U	**2.20**
Perfluoroheptanesulfonic acid (PFHpS)		0.950 U	0.900 U	0.940 U	0.920 U	0.910 U	0.980 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorohexane sulfonate (PFHxS)	39	1.90 U	0.900 U	0.940 U	0.920 U	0.910 U	0.980 U
Perfluorohexanoic acid (PFHxA)		0.950 U	0.900 U	0.940 U	0.920 U	0.910 U	0.980 U
Perfluorononanoic acid (PFNA)	5.9	**3.90**	**2.30**	**0.960 J**	**1.00 J**	**1.40 J**	1.50 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.70 U	2.80 U	2.80 U	2.70 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.70 U	2.80 U	2.80 U	2.70 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluoropentanoic acid (PFPeA)		**0.580 J**	**0.430 J**	0.940 U	**1.40 J**	0.910 U	**1.20 J**
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.70 U	2.80 U	2.80 U	2.70 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	**0.880 J**	2.80 U	2.80 U	2.70 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		**8.50**	**9.20**	**4.80**	**22.0**	**1.40 J**	**8.10**
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	MW-586M1	MW-586M2	MW-587M1	MW-588M1	MW-588M2	MW-589M1
	Field Sample ID	MW-586M1_F20	MW-586M2_F20	MW-587M1_F20	MW-588M1_F20	MW-588M2_F20	MW-589M1_F20
	Sampling Depth	237.00 - 247.00	211.00 - 221.00	250.00 - 260.00	238.00 - 248.00	198.00 - 208.00	240.00 - 250.00
	Sampling Date	09/02/2020	09/02/2020	09/10/2020	08/27/2020	08/27/2020	09/02/2020
	SDG	320643521	320643521	320645641	320641331	320641331	320643521
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	19.0 U	19.0 U	19.0 U	18.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.20 U	9.60 U	9.40 U	9.30 U	9.20 U	9.00 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.20 U	9.60 U	9.40 U	9.30 U	9.20 U	9.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.20 U	9.60 U	9.40 U	9.30 U	9.20 U	9.00 U
Perfluorobutanesulfonic acid	600	0.920 U	0.960 U	0.940 U	0.930 U	**3.60**	0.900 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.920 U	0.960 U	0.940 U	0.930 U	0.920 U	0.900 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.920 U	0.960 U	0.940 U	0.930 U	0.920 U	0.900 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.920 U	0.960 U	0.940 U	0.930 U	0.920 U	0.900 U
Perfluorohexanoic acid (PFHxA)		0.920 U	0.960 U	0.940 U	0.930 U	0.920 U	0.900 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.70 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	**0.600 J**
Perfluoropentanoic acid (PFPeA)		**0.490 J**	**0.490 J**	0.940 U	**0.420 J**	0.920 U	**0.600 J**
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.70 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.70 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.600**

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	Location	MW-589M2	MW-621M1	MW-621M2	MW-622M1	MW-622M2	MW-631M1
	Field Sample ID	MW-589M2_F20	MW-621M1_F20	MW-621M2_F20	MW-622M1_F20	MW-622M2_F20	MW-631M1_F20
	Sampling Depth	211.00 - 221.00	249.40 - 259.40	219.40 - 229.40	245.40 - 255.40	220.40 - 230.40	233.10 - 243.10
	Sampling Date	09/02/2020	08/26/2020	08/26/2020	09/01/2020	09/01/2020	08/26/2020
	SDG	320643521	320641331	320641331	320642411	320642411	320641331
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U	9.60 U	9.40 U	9.30 U	9.40 U	9.60 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U	9.60 U	9.40 U	9.30 U	9.40 U	9.60 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U	9.60 U	9.40 U	9.30 U	9.40 U	9.60 U
Perfluorobutanesulfonic acid	600	0.940 U	0.960 U	0.940 U	0.930 U	0.940 U	0.960 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.960 U	0.940 U	0.930 U	0.940 U	0.960 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.940 U	0.960 U	0.940 U	0.930 U	0.940 U	0.960 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.940 U	0.960 U	0.940 U	0.930 U	0.940 U	0.960 U
Perfluorohexanoic acid (PFHxA)		0.940 U	0.960 U	0.940 U	0.930 U	0.940 U	0.960 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.940 U	**0.440 J**	0.940 U	**0.400 J**	0.940 U	**0.420 J**
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

	Location	MW-631M2	MW-632M1	MW-632M2	MW-632M2	MW-640M1	MW-640M2
	Field Sample ID	MW-631M2_F20	MW-632M1_F20	MW-632M2_F20	MW-632M2_F20D	MW-640M1_F20	MW-640M2_F20
	Sampling Depth	200.10 - 210.10	254.50 - 264.50	229.50 - 239.50	229.50 - 239.50	246.00 - 256.00	216.00 - 226.00
	Sampling Date	08/26/2020	09/03/2020	09/03/2020	09/03/2020	09/03/2020	09/03/2020
	SDG	320641331	320643511	320643511	320643511	320643511	320643511
	Sample Type	**Normal**	**Normal**	**Normal**	**Field Duplicate**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	19.0 U	18.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.20 U	9.40 U	9.00 U	9.60 U	9.40 U	9.30 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.20 U	9.40 U	9.00 U	9.60 U	9.40 U	9.30 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.20 U	9.40 U	9.00 U	9.60 U	9.40 U	9.30 U
Perfluorobutanesulfonic acid	600	**8.50**	0.940 U	0.900 U	0.960 U	0.940 U	0.930 U
Perfluorobutanoic acid (PFBA)		**1.70 J**	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.920 U	0.940 U	0.900 U	0.960 U	0.940 U	0.930 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.920 U	0.940 U	0.900 U	0.960 U	0.940 U	0.930 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	1.80 U	0.940 U	0.900 U	0.960 U	**0.360 J**	0.930 U
Perfluorohexanoic acid (PFHxA)		**5.40**	0.940 U	0.900 U	0.960 U	0.940 U	0.930 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.70 U	2.90 U	2.80 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	2.70 U	2.90 U	2.80 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		**1.90**	**0.450 J**	0.900 U	0.960 U	**0.630 J**	0.930 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.70 U	2.90 U	2.80 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.70 U	2.90 U	2.80 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	MW-703M1	MW-703M2	MW-704M1	MW-704M2
	Field Sample ID	MW-703M1_F20	MW-703M2_F20	MW-704M1_F20	MW-704M2_F20
	Sampling Depth	248.00 - 258.00	224.10 - 234.10	244.00 - 254.00	217.80 - 227.80
	Sampling Date	08/31/2020	08/31/2020	09/01/2020	09/01/2020
	SDG	320642421	320642421	320642411	320642411
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	18.0 U	19.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.10 U	9.20 U	9.70 U	9.20 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.10 U	9.20 U	9.70 U	9.20 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.10 U	9.20 U	9.70 U	9.20 U
Perfluorobutanesulfonic acid	600	0.910 U	0.920 U	0.970 U	0.920 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	**1.40 J**	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.40 U
Perfluorodecanoic acid (PFDA)		**3.20**	**1.60 J**	**1.50 J**	**1.90**
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.50 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.910 U	0.920 U	0.970 U	0.920 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.50 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.910 U	0.920 U	0.970 U	0.920 U
Perfluorohexanoic acid (PFHxA)		0.910 U	0.920 U	0.970 U	0.920 U
Perfluorononanoic acid (PFNA)	5.9	**1.80**	**0.900 J**	1.50 U	**0.890 J**
Perfluorooctanesulfonamide (PFOSA)		**1.30 J**	**2.20 J**	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.70 U	2.70 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.50 U	1.40 U
Perfluoropentanoic acid (PFPeA)		**0.650 J**	**0.830 J**	**1.10 J**	**0.400 J**
Perfluorotetradecanoic acid (PFTeDA)		2.70 U	2.70 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.70 U	2.70 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		**0.650 J**	1.40 U	**1.00 J**	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**

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	Location	J2EW0002	J2EW0002	J2EW2-MW2-B	J2EW2-MW2-C	MW-293M2	MW-293M2
	Field Sample ID	J2EW0002_F20	J2EW0002_F20D	J2EW2-MW2-B_F20	J2EW2-MW2-C_F20	MW-293M2_F20	MW-293M2_F20D
	Sampling Depth	198.00 - 233.00	198.00 - 233.00	209.79 - 219.79	243.83 - 253.81	196.42 - 206.42	196.42 - 206.42
	Sampling Date	09/10/2020	09/10/2020	09/09/2020	09/09/2020	08/27/2020	08/27/2020
	SDG	320645641	320645641	320645661	320645661	320641331	320641331
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Field Duplicate**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**9.80**	**9.30**	**0.00**	**0.00**	**6.90**	**4.50**
§Sum of All Compounds Detected		**14.6**	**14.2**	**0.00**	**0.00**	**40.8**	**43.5**

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	Location	MW-300M1	MW-300M2	MW-300M3	MW-302M2	MW-305M1	MW-348M2
	Field Sample ID	MW-300M1_F20	MW-300M2_F20	MW-300M3_F20	MW-302M2_F20	MW-305M1_F20	MW-348M2_F20
	Sampling Depth	293.03 - 303.02	197.23 - 207.23	135.31 - 145.31	194.35 - 204.43	202.82 - 212.82	206.54 - 216.54
	Sampling Date	09/08/2020	09/08/2020	09/08/2020	08/27/2020	08/31/2020	08/31/2020
	SDG	320644781	320644781	320644781	320641331	320642421	320642421
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**7.00**	**5.90**	**0.00**	**2.80**	**2.40**	**2.50**
§Sum of All Compounds Detected		**16.9**	**17.5**	**8.42**	**28.9**	**5.20**	**15.0**

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	Location	MW-586M1	MW-586M2	MW-587M1	MW-588M1	MW-588M2	MW-589M1
	Field Sample ID	MW-586M1_F20	MW-586M2_F20	MW-587M1_F20	MW-588M1_F20	MW-588M2_F20	MW-589M1_F20
	Sampling Depth	237.00 - 247.00	211.00 - 221.00	250.00 - 260.00	238.00 - 248.00	198.00 - 208.00	240.00 - 250.00
	Sampling Date	09/02/2020	09/02/2020	09/10/2020	08/27/2020	08/27/2020	09/02/2020
	SDG	320643521	320643521	320645641	320641331	320641331	320643521
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected		**0.490**	**0.490**	**0.00**	**0.420**	**3.60**	**1.20**

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	Location	MW-589M2	MW-621M1	MW-621M2	MW-622M1	MW-622M2	MW-631M1
	Field Sample ID	MW-589M2_F20	MW-621M1_F20	MW-621M2_F20	MW-622M1_F20	MW-622M2_F20	MW-631M1_F20
	Sampling Depth	211.00 - 221.00	249.40 - 259.40	219.40 - 229.40	245.40 - 255.40	220.40 - 230.40	233.10 - 243.10
	Sampling Date	09/02/2020	08/26/2020	08/26/2020	09/01/2020	09/01/2020	08/26/2020
	SDG	320643521	320641331	320641331	320642411	320642411	320641331
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected		**0.00**	**0.440**	**0.00**	**0.400**	**0.00**	**0.420**

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	Location	MW-631M2	MW-632M1	MW-632M2	MW-632M2	MW-640M1	MW-640M2
	Field Sample ID	MW-631M2_F20	MW-632M1_F20	MW-632M2_F20	MW-632M2_F20D	MW-640M1_F20	MW-640M2_F20
	Sampling Depth	200.10 - 210.10	254.50 - 264.50	229.50 - 239.50	229.50 - 239.50	246.00 - 256.00	216.00 - 226.00
	Sampling Date	08/26/2020	09/03/2020	09/03/2020	09/03/2020	09/03/2020	09/03/2020
	SDG	320641331	320643511	320643511	320643511	320643511	320643511
	Sample Type	**Normal**	**Normal**	**Normal**	**Field Duplicate**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected		**17.5**	**0.450**	**0.00**	**0.00**	**0.990**	**0.00**

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	Location	MW-703M1	MW-703M2	MW-704M1	MW-704M2
	Field Sample ID	MW-703M1_F20	MW-703M2_F20	MW-704M1_F20	MW-704M2_F20
	Sampling Depth	248.00 - 258.00	224.10 - 234.10	244.00 - 254.00	217.80 - 227.80
	Sampling Date	08/31/2020	08/31/2020	09/01/2020	09/01/2020
	SDG	320642421	320642421	320642411	320642411
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**5.00**	**0.00**	**0.00**	**1.90**
§Sum of All Compounds Detected		**7.60**	**5.53**	**5.00**	**3.19**

KGS 2020 J3 Range SPM Fall - J3 Range

	Location	MW-143M2	MW-143M3	MW-163S	MW-163S	MW-181S	MW-193M1
	Field Sample ID	MW-143M2_F20	MW-143M3_F20	MW-163S_F20	MW-163S_F20D	MW-181S_F20	MW-193M1_F20
	Sampling Depth	117.00 - 122.00	107.00 - 112.00	38.00 - 48.00	38.00 - 48.00	32.25 - 42.25	57.50 - 62.50
	Sampling Date	07/20/2020	07/21/2020	07/16/2020	07/16/2020	07/21/2020	07/16/2020
	SDG	320629171	320629171	320627321	320627321	320629171	320627321
	Sample Type	**Normal**	**Normal**	**Normal**	**Field Duplicate**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 U	20.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U	9.50 U	9.70 U	9.80 U	9.40 U	9.60 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U	9.50 U	9.70 U	9.80 U	9.40 U	9.60 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U	9.50 U	9.70 U	9.80 U	9.40 U	9.60 U
Perfluorobutanesulfonic acid	600	**1.20 J**	**0.620 J**	0.970 U	0.980 U	0.940 U	0.960 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	**1.00 J**	**1.00 J**	1.40 U	**0.570 J**
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.950 U	0.970 U	0.980 U	0.940 U	0.960 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.940 U	0.950 U	0.970 U	0.980 U	0.940 U	0.960 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	**26.0**	**4.20**	1.90 U	2.00 U	1.90 U	1.90 U
Perfluorohexanoic acid (PFHxA)		0.940 U	0.950 U	0.970 U	0.980 U	0.940 U	0.960 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.90 U	2.90 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	**4.90**	**5.00**	**16.0**	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	**0.840 J**	**0.940 J**	**0.510 J**	1.40 U
Perfluoropentanoic acid (PFPeA)		0.940 U	0.950 U	0.970 U	**0.460 J**	0.940 U	**0.490 J**
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.90 U	2.90 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.90 U	2.90 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**5.74**	**5.94**	**16.5**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**26.0**	**4.20**	**4.90**	**5.00**	**16.0**	**0.00**

	Location	MW-193S	MW-196M1	MW-196S	MW-197M1	MW-197M2	MW-197M3
	Field Sample ID	MW-193S_F20	MW-196M1_F20	MW-196S_F20	MW-197M1_F20	MW-197M2_F20	MW-197M3_F20
	Sampling Depth	32.50 - 37.50	45.00 - 50.00	32.00 - 37.00	120.00 - 125.00	80.20 - 85.20	60.20 - 65.20
	Sampling Date	07/16/2020	07/23/2020	07/23/2020	07/20/2020	07/20/2020	07/20/2020
	SDG	320627321	320630121	320630121	320629171	320629171	320629171
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	18.0 U	18.0 U	19.0 U	19.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.20 U	9.20 U	9.00 U	9.40 U	9.30 U	9.20 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.20 U	9.20 U	9.00 U	9.40 U	9.30 U	9.20 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.20 U	9.20 U	9.00 U	9.40 U	9.30 U	9.20 U
Perfluorobutanesulfonic acid	600	**2.20**	0.920 U	0.900 U	0.940 U	**1.80 J**	0.920 U
Perfluorobutanoic acid (PFBA)		**1.20 J**	1.80 U	1.80 U	1.40 U	**4.90**	**1.50 J**
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.30 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.920 U	**0.550 J**	0.900 U	0.940 U	0.930 U	0.920 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.30 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.920 U	0.920 U	0.900 U	0.940 U	0.930 U	0.920 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.30 U	1.40 U	**4.00**	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	**19.0**	**1.00 J**	0.900 U	1.90 U	**37.0**	1.80 U
Perfluorohexanoic acid (PFHxA)		**0.830 J**	**0.950 J**	**0.510 J**	0.940 U	**8.40**	0.920 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	**1.10 J**	**3.80**	2.80 U	**10.0**	**1.00 J**
Perfluorooctanoic acid (PFOA)	6	1.40 U	**2.10**	**1.10 J**	**0.550 J**	**3.10**	**0.990 J**
Perfluoropentanoic acid (PFPeA)		**1.30 J**	**0.660 J**	**0.440 J**	**0.400 J**	**6.50**	**0.430 J**
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.30 U	1.40 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**3.20**	**4.90**	**0.550**	**13.1**	**1.99**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**19.0**	**2.10**	**3.80**	**0.00**	**54.1**	**0.00**

	Location	MW-197M3	MW-198M1	MW-198M2	MW-198M3	MW-198M4	MW-232M1
	Field Sample ID	MW-197M3_F20D	MW-198M1_F20	MW-198M2_F20	MW-198M3_F20	MW-198M4_F20	MW-232M1_F20
	Sampling Depth	60.20 - 65.20	150.00 - 155.00	120.00 - 125.00	100.00 - 105.00	70.00 - 75.00	77.50 - 82.50
	Sampling Date	07/20/2020	07/15/2020	07/15/2020	07/15/2020	07/15/2020	07/16/2020
	SDG	320629171	320627321	320627321	320627321	320627321	320627321
	Sample Type	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	19.0 U	19.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.20 U	9.50 U	9.50 U	9.50 U	9.50 U	9.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.20 U	9.50 U	9.50 U	9.50 U	9.50 U	9.50 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.20 U	9.50 U	9.50 U	9.50 U	9.50 U	9.50 U
Perfluorobutanesulfonic acid	600	0.920 U	0.950 U	0.950 U	0.950 U	0.950 U	0.950 U
Perfluorobutanoic acid (PFBA)		**1.40 J**	1.40 U	**0.740 J**	**0.740 J**	**6.50**	**2.20**
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.920 U	0.950 U	0.950 U	0.950 U	0.950 U	0.950 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.920 U	0.950 U	0.950 U	0.950 U	0.950 U	0.950 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	**1.80 J**	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	1.80 U	0.950 U	0.950 U	1.90 U	**4.40**	0.950 U
Perfluorohexanoic acid (PFHxA)		**0.450 J**	0.950 U	0.950 U	0.950 U	**3.70**	0.950 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	2.90 U	2.80 U	**2.30 J**	2.90 U
Perfluorooctanoic acid (PFOA)	6	**1.10 J**	1.40 U	1.40 U	1.40 U	**2.30**	**0.640 J**
Perfluoropentanoic acid (PFPeA)		**0.440 J**	**0.460 J**	0.950 U	0.950 U	**2.80**	**0.420 J**
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**1.10**	**0.00**	**0.00**	**0.00**	**4.60**	**0.640**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**6.70**	**0.00**

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	Location	MW-232M2	MW-30
	Field Sample ID	MW-232M2_F20	MW-30_F20
	Sampling Depth	61.00 - 66.00	26.00 - 36.00
	Sampling Date	07/16/2020	07/21/2020
	SDG	320627321	320629171
	Sample Type	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		20.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		10.0 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		10.0 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		10.0 U	9.40 U
Perfluorobutanesulfonic acid	600	1.00 U	0.940 U
Perfluorobutanoic acid (PFBA)		**3.20**	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U
Perfluorodecanoic acid (PFDA)		1.00 U	0.940 U
Perfluorododecanoic acid (PFDoA)		1.50 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		1.00 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.50 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	1.00 U	0.940 U
Perfluorohexanoic acid (PFHxA)		1.00 U	0.940 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		3.00 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	3.00 U	**15.0**
Perfluorooctanoic acid (PFOA)	6	**1.10 J**	**0.790 J**
Perfluoropentanoic acid (PFPeA)		**0.520 J**	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		3.00 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		3.00 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.50 U	1.40 U
†PFOS + PFOA (EPA)		**1.10**	**15.8**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**15.0**

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	Location	MW-143M2	MW-143M3	MW-163S	MW-163S	MW-181S	MW-193M1
	Field Sample ID	MW-143M2_F20	MW-143M3_F20	MW-163S_F20	MW-163S_F20D	MW-181S_F20	MW-193M1_F20
	Sampling Depth	117.00 - 122.00	107.00 - 112.00	38.00 - 48.00	38.00 - 48.00	32.25 - 42.25	57.50 - 62.50
	Sampling Date	07/20/2020	07/21/2020	07/16/2020	07/16/2020	07/21/2020	07/16/2020
	SDG	320629171	320629171	320627321	320627321	320629171	320627321
	Sample Type	**Normal**	**Normal**	**Normal**	**Field Duplicate**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**27.2**	**4.82**	**6.74**	**7.40**	**16.5**	**1.06**

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	Location	MW-193S	MW-196M1	MW-196S	MW-197M1	MW-197M2	MW-197M3
	Field Sample ID	MW-193S_F20	MW-196M1_F20	MW-196S_F20	MW-197M1_F20	MW-197M2_F20	MW-197M3_F20
	Sampling Depth	32.50 - 37.50	45.00 - 50.00	32.00 - 37.00	120.00 - 125.00	80.20 - 85.20	60.20 - 65.20
	Sampling Date	07/16/2020	07/23/2020	07/23/2020	07/20/2020	07/20/2020	07/20/2020
	SDG	320627321	320630121	320630121	320629171	320629171	320629171
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**24.5**	**6.36**	**5.85**	**0.950**	**75.7**	**3.92**

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	Location	MW-197M3	MW-198M1	MW-198M2	MW-198M3	MW-198M4	MW-232M1
	Field Sample ID	MW-197M3_F20D	MW-198M1_F20	MW-198M2_F20	MW-198M3_F20	MW-198M4_F20	MW-232M1_F20
	Sampling Depth	60.20 - 65.20	150.00 - 155.00	120.00 - 125.00	100.00 - 105.00	70.00 - 75.00	77.50 - 82.50
	Sampling Date	07/20/2020	07/15/2020	07/15/2020	07/15/2020	07/15/2020	07/16/2020
	SDG	320629171	320627321	320627321	320627321	320627321	320627321
	Sample Type	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**3.39**	**0.460**	**0.740**	**0.740**	**23.8**	**3.26**

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	Location	MW-232M2	MW-30
	Field Sample ID	MW-232M2_F20	MW-30_F20
	Sampling Depth	61.00 - 66.00	26.00 - 36.00
	Sampling Date	07/16/2020	07/21/2020
	SDG	320627321	320629171
	Sample Type	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**4.82**	**15.8**

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KGS 2021 J2 North SPM Fall - J2 Range Northern

	Location	J2EW0002	J2EW0002	J2EW2-MW2-B	J2EW2-MW2-C	MW-293M2	MW-293M2
	Field Sample ID	J2EW0002_F21	J2EW0002_F21D	J2EW2-MW2-B_F21	J2EW2-MW2-C_F21	MW-293M2_F21	MW-293M2_F21D
	Sampling Depth	198.00 - 233.00	198.00 - 233.00	209.79 - 219.79	243.83 - 253.81	0.00 - 0.00	0.00 - 0.00
	Sampling Date	09/27/2021	09/27/2021	09/15/2021	09/15/2021	09/08/2021	09/08/2021
	SDG	320796651	320796651	320791141	320791141	320787611	320787611
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Field Duplicate**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		**6.70 J**	**6.70 J**	19.0 U	20.0 U	18.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U	9.00 U	9.50 U	10.0 U	9.20 U	8.90 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U	9.00 U	9.50 U	10.0 U	9.20 U	8.90 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U	9.00 U	9.50 U	10.0 U	9.20 U	8.90 U
Perfluorobutanesulfonic acid	600	0.940 U	0.900 U	0.950 U	1.00 U	**3.90**	**3.80**
Perfluorobutanoic acid (PFBA)		1.40 U	1.30 U	1.40 U	1.50 U	**0.840 J**	**1.10 J**
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.30 U	1.40 U	1.50 U	1.40 U	1.30 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.900 U	0.950 U	1.00 U	**3.20**	**2.80**
Perfluorododecanoic acid (PFDoA)		1.40 U	1.30 U	1.40 U	1.50 U	**2.40**	**2.30**
Perfluoroheptanesulfonic acid (PFHpS)		0.940 U	0.900 U	0.950 U	1.00 U	0.920 U	0.890 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	**0.550 J**	1.40 U	1.50 U	1.40 U	1.30 U
Perfluorohexane sulfonate (PFHxS)	39	**8.10**	**7.70**	0.950 U	1.00 U	0.920 U	0.890 U
Perfluorohexanoic acid (PFHxA)		**0.820 J**	**0.770 J**	0.950 U	1.00 U	**1.30 J**	**1.10 J**
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.30 U	1.40 U	1.50 U	**1.30 J**	**1.10 J**
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.70 U	2.90 U	3.10 U	2.80 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	4	**1.30 J**	**1.10 J**	2.90 U	3.10 U	2.80 U	2.70 U
Perfluorooctanoic acid (PFOA)	6	**1.80 J**	**1.20 J**	1.40 U	1.50 U	1.40 U	1.30 U
Perfluoropentanoic acid (PFPeA)		**0.680 J**	**0.640 J**	0.950 U	1.00 U	**1.10 J**	**1.00 J**
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.70 U	2.90 U	3.10 U	2.80 U	2.70 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.70 U	2.90 U	3.10 U	**0.760 J**	2.70 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.30 U	1.40 U	1.50 U	**23.0**	**22.0**
†PFOS + PFOA (EPA)		**3.10**	**2.30**	**0.00**	**0.00**	**0.00**	**0.00**

	Location	MW-300M1	MW-300M1	MW-300M2	MW-300M3	MW-302M2	MW-302M2
	Field Sample ID	MW-300M1_F21	MW-300M1_F21D	MW-300M2_F21	MW-300M3_F21	MW-302M2_F21	MW-302M2_F21D
	Sampling Depth	293.03 - 303.02	293.03 - 303.02	197.23 - 207.23	135.31 - 145.31	194.35 - 204.43	194.35 - 204.43
	Sampling Date	09/21/2021	09/21/2021	09/21/2021	09/21/2021	09/13/2021	09/13/2021
	SDG	320793351	320793351	320793351	320793351	320790821	320790821
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Field Duplicate**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.70 U	9.60 U	9.30 U	9.50 U	9.60 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.70 U	9.60 U	9.30 U	9.50 U	9.60 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.70 U	9.60 U	9.30 U	9.50 U	9.60 U	9.40 U
Perfluorobutanesulfonic acid	600	0.970 U	0.960 U	0.930 U	0.950 U	0.960 U	0.940 U
Perfluorobutanoic acid (PFBA)		1.50 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		**3.40**	**3.60**	**4.00**	**1.70 J**	**2.60**	**2.50**
Perfluorododecanoic acid (PFDoA)		**0.520 J**	**0.680 J**	**1.10 J**	**0.710 J**	**2.80**	**3.00**
Perfluoroheptanesulfonic acid (PFHpS)		0.970 U	0.960 U	0.930 U	0.950 U	0.960 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.50 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.970 U	0.960 U	0.930 U	**0.440 J**	0.960 U	0.940 U
Perfluorohexanoic acid (PFHxA)		0.970 U	0.960 U	0.930 U	0.950 U	0.960 U	0.940 U
Perfluorononanoic acid (PFNA)	5.9	**4.80**	**4.80**	**3.60**	**2.10**	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.90 U	2.80 U	2.90 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.90 U	2.80 U	2.90 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.970 U	0.960 U	0.930 U	0.950 U	0.960 U	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.90 U	2.80 U	2.90 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.90 U	**0.700 J**	**0.840 J**	**1.10 J**	**1.20 J**
Perfluoroundecanoic acid (PFUnA)		**8.30**	**8.60**	**7.80**	**4.40**	**27.0**	**27.0**
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	MW-305M1	MW-330M1	MW-330M2	MW-330M3	MW-340D	MW-340M1
	Field Sample ID	MW-305M1_F21	MW-330M1_F21	MW-330M2_F21	MW-330M3_F21	MW-340D_F21	MW-340M1_F21
	Sampling Depth	202.82 - 212.82	313.10 - 323.13	238.01 - 248.04	154.97 - 164.99	329.60 - 339.60	255.85 - 265.85
	Sampling Date	09/14/2021	09/17/2021	09/17/2021	09/17/2021	09/23/2021	09/23/2021
	SDG	320790821	320791141	320791141	320791141	320793861	320793861
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 U	20.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.70 U	9.60 U	9.70 U	9.90 U	9.50 U	9.60 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.70 U	9.60 U	9.70 U	9.90 U	9.50 U	9.60 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.70 U	9.60 U	9.70 U	9.90 U	9.50 U	9.60 U
Perfluorobutanesulfonic acid	600	0.970 U	0.960 U	0.970 U	0.990 U	0.950 U	0.960 U
Perfluorobutanoic acid (PFBA)		1.50 U	**1.60 J**	**0.890 J**	1.50 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		**3.60**	**38.0**	**8.90**	**19.0**	**18.0**	**2.30**
Perfluorododecanoic acid (PFDoA)		1.50 U	**2.50**	**2.20**	**0.810 J**	**1.80 J**	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.970 U	0.960 U	0.970 U	0.990 U	0.950 U	0.960 U
Perfluoroheptanoic acid (PFHpA)		1.50 U	**1.10 J**	1.50 U	1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.970 U	0.960 U	0.970 U	0.990 U	0.950 U	0.960 U
Perfluorohexanoic acid (PFHxA)		0.970 U	**0.770 J**	0.970 U	0.990 U	0.950 U	0.960 U
Perfluorononanoic acid (PFNA)	5.9	**2.20**	**16.0**	**12.0**	**25.0**	**14.0**	**1.60 J**
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.90 U	2.90 U	3.00 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.90 U	2.90 U	3.00 U	2.80 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	**0.660 J**	**0.650 J**	1.50 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.970 U	**2.50**	**1.20 J**	0.990 U	0.950 U	0.960 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	**1.10 J**	2.90 U	3.00 U	**0.840 J**	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	**1.60 J**	**2.10 J**	3.00 U	**1.20 J**	2.90 U
Perfluoroundecanoic acid (PFUnA)		**3.30**	**23.0**	**9.60**	**8.90**	**18.0**	**1.50 J**
†PFOS + PFOA (EPA)		**0.00**	**0.660**	**0.650**	**0.00**	**0.00**	**0.00**

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	Location	MW-340M2	MW-345M1	MW-345M2	MW-348M2	MW-586M1	MW-586M2
	Field Sample ID	MW-340M2_F21	MW-345M1_F21	MW-345M2_F21	MW-348M2_F21	MW-586M1_F21	MW-586M2_F21
	Sampling Depth	215.83 - 225.08	311.50 - 321.50	236.62 - 246.62	206.54 - 216.54	237.00 - 247.00	211.00 - 221.00
	Sampling Date	09/23/2021	09/20/2021	09/20/2021	09/07/2021	09/09/2021	09/09/2021
	SDG	320793861	320793351	320793351	320787611	320787751	320787751
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	18.0 U	20.0 U	18.0 U	19.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.50 U	9.20 U	9.90 U	8.90 U	9.30 U	9.10 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.50 U	9.20 U	9.90 U	8.90 U	9.30 U	9.10 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.50 U	9.20 U	9.90 U	8.90 U	9.30 U	9.10 U
Perfluorobutanesulfonic acid	600	0.950 U	0.920 U	0.990 U	0.890 U	0.930 U	0.910 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	**0.790 J**	1.30 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.30 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		**1.60 J**	**56.0**	**2.90**	**2.40**	0.930 U	0.910 U
Perfluorododecanoic acid (PFDoA)		1.40 U	**3.40**	**0.760 J**	**2.40**	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.950 U	0.920 U	0.990 U	0.890 U	0.930 U	0.910 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	**0.910 J**	1.50 U	1.30 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.950 U	**0.410 J**	**0.810 J**	0.890 U	0.930 U	0.910 U
Perfluorohexanoic acid (PFHxA)		0.950 U	0.920 U	0.990 U	0.890 U	0.930 U	0.910 U
Perfluorononanoic acid (PFNA)	5.9	**4.00**	**14.0**	**6.80**	1.30 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.70 U	3.00 U	2.70 U	2.80 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.70 U	**1.20 J**	2.70 U	2.80 U	2.70 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	**1.10 J**	**0.580 J**	1.30 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.950 U	**0.480 J**	**0.960 J**	0.890 U	0.930 U	0.910 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	**0.930 J**	3.00 U	2.70 U	2.80 U	2.70 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	**1.80 J**	**0.840 J**	**0.740 J**	2.80 U	2.70 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	**32.0**	**3.60**	**8.70**	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**1.10**	**1.78**	**0.00**	**0.00**	**0.00**

	Location	MW-587M1	MW-588M1	MW-588M2	MW-589M1	MW-589M2	MW-612M1
	Field Sample ID	MW-587M1_F21	MW-588M1_F21	MW-588M2_F21	MW-589M1_F21	MW-589M2_F21	MW-612M1_F21
	Sampling Depth	250.00 - 260.00	238.00 - 248.00	198.00 - 208.00	240.00 - 250.00	211.00 - 221.00	297.00 - 307.00
	Sampling Date	08/24/2021	09/08/2021	09/08/2021	09/09/2021	09/09/2021	09/14/2021
	SDG	320781081	320787611	320787611	320787751	320787751	320790821
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	19.0 U	18.0 U	19.0 U	19.0 U	20.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.20 U	9.30 U	9.10 U	9.40 U	9.40 U	9.80 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.20 U	9.30 U	9.10 U	9.40 U	9.40 U	9.80 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.20 U	9.30 U	9.10 U	9.40 U	9.40 U	9.80 U
Perfluorobutanesulfonic acid	600	0.920 U	0.930 U	**1.70 J**	0.940 U	0.940 U	0.980 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.920 U	0.930 U	0.910 U	0.940 U	0.940 U	0.980 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluoroheptanesulfonic acid (PFHpS)		0.920 U	0.930 U	0.910 U	0.940 U	0.940 U	0.980 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorohexane sulfonate (PFHxS)	39	0.920 U	0.930 U	0.910 U	0.940 U	0.940 U	0.980 U
Perfluorohexanoic acid (PFHxA)		0.920 U	0.930 U	0.910 U	0.940 U	0.940 U	0.980 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	**0.570 J**	1.40 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.920 U	0.930 U	0.910 U	0.940 U	0.940 U	0.980 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	3.00 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.570**	**0.00**	**0.00**

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	Location	MW-612M2	MW-613M1	MW-613M2	MW-621M1	MW-621M2	MW-622M1
	Field Sample ID	MW-612M2_F21	MW-613M1_F21	MW-613M2_F21	MW-621M1_F21	MW-621M2_F21	MW-622M1_F21
	Sampling Depth	267.00 - 277.00	267.10 - 277.10	246.10 - 256.10	249.40 - 259.40	219.40 - 229.40	245.40 - 255.40
	Sampling Date	09/14/2021	09/17/2021	09/17/2021	09/08/2021	09/08/2021	09/13/2021
	SDG	320790821	320791141	320791141	320787611	320787611	320790821
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 U	19.0 U	18.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.30 U	9.40 U	9.40 U	9.30 U	8.90 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.30 U	9.40 U	9.40 U	9.30 U	8.90 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.30 U	9.40 U	9.40 U	9.30 U	8.90 U	9.40 U
Perfluorobutanesulfonic acid	600	0.930 U	0.940 U	0.940 U	0.930 U	0.890 U	0.940 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.930 U	0.940 U	0.940 U	0.930 U	0.890 U	0.940 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.930 U	0.940 U	0.940 U	0.930 U	0.890 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.930 U	0.940 U	0.940 U	0.930 U	0.890 U	0.940 U
Perfluorohexanoic acid (PFHxA)		0.930 U	0.940 U	0.940 U	0.930 U	0.890 U	0.940 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.80 U	2.80 U	2.70 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	2.80 U	2.80 U	2.70 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.930 U	0.940 U	0.940 U	0.930 U	0.890 U	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.80 U	2.80 U	2.70 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.80 U	2.80 U	2.70 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	MW-622M2	MW-631M1	MW-631M2	MW-632M1	MW-632M2	MW-640M1
	Field Sample ID	MW-622M2_F21	MW-631M1_F21	MW-631M2_F21	MW-632M1_F21	MW-632M2_F21	MW-640M1_F21
	Sampling Depth	220.40 - 230.40	233.10 - 243.10	200.10 - 210.10	254.50 - 264.50	229.50 - 239.50	246.00 - 256.00
	Sampling Date	09/13/2021	08/23/2021	08/23/2021	09/07/2021	09/07/2021	09/07/2021
	SDG	320790821	320781081	320781081	320787611	320787611	320787611
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	18.0 U	18.0 U	18.0 U	18.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.60 U	8.80 U	9.00 U	9.00 U	9.00 U	9.60 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.60 U	8.80 U	9.00 U	9.00 U	9.00 U	9.60 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.60 U	8.80 U	9.00 U	9.00 U	9.00 U	9.60 U
Perfluorobutanesulfonic acid	600	0.960 U	0.880 U	**12.0**	0.900 U	0.900 U	0.960 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.30 U	**2.80**	1.40 U	1.30 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.30 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.960 U	0.880 U	0.900 U	0.900 U	0.900 U	0.960 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.30 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.960 U	0.880 U	0.900 U	0.900 U	0.900 U	0.960 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.30 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.960 U	0.880 U	0.900 U	0.900 U	0.900 U	0.960 U
Perfluorohexanoic acid (PFHxA)		0.960 U	0.880 U	**23.0**	0.900 U	0.900 U	0.960 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.30 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.60 U	2.70 U	2.70 U	2.70 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.60 U	2.70 U	2.70 U	2.70 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.30 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.960 U	0.880 U	**11.0**	0.900 U	0.900 U	0.960 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.60 U	2.70 U	2.70 U	2.70 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.60 U	2.70 U	2.70 U	2.70 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.30 U	1.40 U	1.40 U	1.30 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	MW-640M2	MW-703M1	MW-703M2	MW-704M1	MW-704M2
	Field Sample ID	MW-640M2_F21	MW-703M1_F21	MW-703M2_F21	MW-704M1_F21	MW-704M2_F21
	Sampling Depth	216.00 - 226.00	248.00 - 258.00	224.10 - 234.10	244.00 - 254.00	217.80 - 227.80
	Sampling Date	09/07/2021	09/14/2021	09/14/2021	09/13/2021	09/13/2021
	SDG	320787611	320790821	320790821	320790821	320790821
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	20.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.10 U	9.80 U	9.70 U	9.70 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.10 U	9.80 U	9.70 U	9.70 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.10 U	9.80 U	9.70 U	9.70 U	9.40 U
Perfluorobutanesulfonic acid	600	0.910 U	0.980 U	0.970 U	0.970 U	0.940 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.50 U	1.50 U	**3.30**	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.910 U	**3.90**	**2.00**	**2.00**	**2.20**
Perfluorododecanoic acid (PFDoA)		1.40 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.910 U	0.980 U	0.970 U	0.970 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.910 U	0.980 U	0.970 U	0.970 U	0.940 U
Perfluorohexanoic acid (PFHxA)		0.910 U	0.980 U	0.970 U	**0.900 J**	0.940 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	**1.60 J**	**0.640 J**	**1.10 J**	**0.830 J**
Perfluorooctanesulfonamide (PFOSA)		2.70 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.70 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.910 U	**0.700 J**	0.970 U	**3.20**	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		2.70 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.70 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.50 U	1.50 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	J2EW0002	J2EW0002	J2EW2-MW2-B	J2EW2-MW2-C	MW-293M2	MW-293M2
	Field Sample ID	J2EW0002_F21	J2EW0002_F21D	J2EW2-MW2-B_F21	J2EW2-MW2-C_F21	MW-293M2_F21	MW-293M2_F21D
	Sampling Depth	198.00 - 233.00	198.00 - 233.00	209.79 - 219.79	243.83 - 253.81	0.00 - 0.00	0.00 - 0.00
	Sampling Date	09/27/2021	09/27/2021	09/15/2021	09/15/2021	09/08/2021	09/08/2021
	SDG	320796651	320796651	320791141	320791141	320787611	320787611
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Field Duplicate**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**8.10**	**7.70**	**0.00**	**0.00**	**3.20**	**2.80**
§Sum of All Compounds Detected		**19.4**	**18.7**	**0.00**	**0.00**	**37.8**	**35.2**

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	Location	MW-300M1	MW-300M1	MW-300M2	MW-300M3	MW-302M2	MW-302M2
	Field Sample ID	MW-300M1_F21	MW-300M1_F21D	MW-300M2_F21	MW-300M3_F21	MW-302M2_F21	MW-302M2_F21D
	Sampling Depth	293.03 - 303.02	293.03 - 303.02	197.23 - 207.23	135.31 - 145.31	194.35 - 204.43	194.35 - 204.43
	Sampling Date	09/21/2021	09/21/2021	09/21/2021	09/21/2021	09/13/2021	09/13/2021
	SDG	320793351	320793351	320793351	320793351	320790821	320790821
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Field Duplicate**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**8.20**	**8.40**	**7.60**	**2.10**	**2.60**	**2.50**
§Sum of All Compounds Detected		**17.0**	**17.7**	**17.2**	**10.2**	**33.5**	**33.7**

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	Location	MW-305M1	MW-330M1	MW-330M2	MW-330M3	MW-340D	MW-340M1
	Field Sample ID	MW-305M1_F21	MW-330M1_F21	MW-330M2_F21	MW-330M3_F21	MW-340D_F21	MW-340M1_F21
	Sampling Depth	202.82 - 212.82	313.10 - 323.13	238.01 - 248.04	154.97 - 164.99	329.60 - 339.60	255.85 - 265.85
	Sampling Date	09/14/2021	09/17/2021	09/17/2021	09/17/2021	09/23/2021	09/23/2021
	SDG	320790821	320791141	320791141	320791141	320793861	320793861
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**5.80**	**54.0**	**20.9**	**44.0**	**32.0**	**2.30**
§Sum of All Compounds Detected		**9.10**	**88.8**	**37.5**	**53.7**	**53.8**	**5.40**

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	Location	MW-340M2	MW-345M1	MW-345M2	MW-348M2	MW-586M1	MW-586M2
	Field Sample ID	MW-340M2_F21	MW-345M1_F21	MW-345M2_F21	MW-348M2_F21	MW-586M1_F21	MW-586M2_F21
	Sampling Depth	215.83 - 225.08	311.50 - 321.50	236.62 - 246.62	206.54 - 216.54	237.00 - 247.00	211.00 - 221.00
	Sampling Date	09/23/2021	09/20/2021	09/20/2021	09/07/2021	09/09/2021	09/09/2021
	SDG	320793861	320793351	320793351	320787611	320787751	320787751
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**4.00**	**70.0**	**9.70**	**2.40**	**0.00**	**0.00**
§Sum of All Compounds Detected		**5.60**	**111**	**19.2**	**14.2**	**0.00**	**0.00**

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	Location	MW-587M1	MW-588M1	MW-588M2	MW-589M1	MW-589M2	MW-612M1
	Field Sample ID	MW-587M1_F21	MW-588M1_F21	MW-588M2_F21	MW-589M1_F21	MW-589M2_F21	MW-612M1_F21
	Sampling Depth	250.00 - 260.00	238.00 - 248.00	198.00 - 208.00	240.00 - 250.00	211.00 - 221.00	297.00 - 307.00
	Sampling Date	08/24/2021	09/08/2021	09/08/2021	09/09/2021	09/09/2021	09/14/2021
	SDG	320781081	320787611	320787611	320787751	320787751	320790821
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected		**0.00**	**0.00**	**1.70**	**0.570**	**0.00**	**0.00**

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	Location	MW-612M2	MW-613M1	MW-613M2	MW-621M1	MW-621M2	MW-622M1
	Field Sample ID	MW-612M2_F21	MW-613M1_F21	MW-613M2_F21	MW-621M1_F21	MW-621M2_F21	MW-622M1_F21
	Sampling Depth	267.00 - 277.00	267.10 - 277.10	246.10 - 256.10	249.40 - 259.40	219.40 - 229.40	245.40 - 255.40
	Sampling Date	09/14/2021	09/17/2021	09/17/2021	09/08/2021	09/08/2021	09/13/2021
	SDG	320790821	320791141	320791141	320787611	320787611	320790821
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	MW-622M2	MW-631M1	MW-631M2	MW-632M1	MW-632M2	MW-640M1
	Field Sample ID	MW-622M2_F21	MW-631M1_F21	MW-631M2_F21	MW-632M1_F21	MW-632M2_F21	MW-640M1_F21
	Sampling Depth	220.40 - 230.40	233.10 - 243.10	200.10 - 210.10	254.50 - 264.50	229.50 - 239.50	246.00 - 256.00
	Sampling Date	09/13/2021	08/23/2021	08/23/2021	09/07/2021	09/07/2021	09/07/2021
	SDG	320790821	320781081	320781081	320787611	320787611	320787611
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected		**0.00**	**0.00**	**48.8**	**0.00**	**0.00**	**0.00**

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	Location	MW-640M2	MW-703M1	MW-703M2	MW-704M1	MW-704M2
	Field Sample ID	MW-640M2_F21	MW-703M1_F21	MW-703M2_F21	MW-704M1_F21	MW-704M2_F21
	Sampling Depth	216.00 - 226.00	248.00 - 258.00	224.10 - 234.10	244.00 - 254.00	217.80 - 227.80
	Sampling Date	09/07/2021	09/14/2021	09/14/2021	09/13/2021	09/13/2021
	SDG	320787611	320790821	320790821	320790821	320790821
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**3.90**	**2.00**	**2.00**	**2.20**
§Sum of All Compounds Detected		**0.00**	**6.20**	**2.64**	**10.5**	**3.03**

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KGS 2021 J2 Ranges SPM Spring - J2 Range Northern

	Location	J2EW0002
	Field Sample ID	J2EW0002_521
	Sampling Depth	198.00 - 233.00
	Sampling Date	01/13/2021
	SDG	320689351
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		**7.40 J**
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U
Perfluorobutanesulfonic acid	600	0.940 U
Perfluorobutanoic acid (PFBA)		1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U
Perfluorodecanoic acid (PFDA)		0.940 U
Perfluorododecanoic acid (PFDoA)		1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		**0.430 J**
Perfluoroheptanoic acid (PFHpA)		**0.860 J**
Perfluorohexane sulfonate (PFHxS)	39	**11.0**
Perfluorohexanoic acid (PFHxA)		**0.900 J**
Perfluorononanoic acid (PFNA)	5.9	1.40 U
Perfluorooctanesulfonamide (PFOSA)		**1.80 J**
Perfluorooctanesulfonic acid (PFOS)	4	**1.00 J**
Perfluorooctanoic acid (PFOA)	6	**1.80 J**
Perfluoropentanoic acid (PFPeA)		1.90 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U
†PFOS + PFOA (EPA)		**2.80**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**11.0**

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	Location	J2EW0002
	Field Sample ID	J2EW0002_521
	Sampling Depth	198.00 - 233.00
	Sampling Date	01/13/2021
	SDG	320689351
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
§Sum of All Compounds Detected		**25.2**

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KGS 2021 J3 Range SPM Fall - J3 Range

	Location	90EW0001	90WT0004	J3-EFF	J3-EFF	J3EW0032	J3EWIP1
	Field Sample ID	90EW0001_F21	90WT0004_F21	J3-EFF_4Q21	J3-EFF_F21	J3EW0032_F21	J3EWIP1_F21
	Sampling Depth	83.10 - 143.80	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	102.00 - 152.00	153.00 - 193.00
	Sampling Date	07/13/2021	08/10/2021	10/20/2021	07/13/2021	07/13/2021	07/13/2021
	SDG	320762631	320775331	320807451	320762631	320762631	320762631
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	18.0 U	19.0 U	19.0 U	20.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.20 U	9.20 U	9.60 U	9.50 U	9.80 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.20 U	9.20 U	9.60 U	9.50 U	9.80 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.20 U	9.20 U	9.60 U	9.50 U	9.80 U	9.40 U
Perfluorobutanesulfonic acid	600	0.920 U	0.920 U	0.960 U	0.950 U	0.980 U	0.940 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.920 U	0.920 U	0.960 U	0.950 U	0.980 U	0.940 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.920 U	0.920 U	0.960 U	0.950 U	0.980 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	**0.500 J**	0.920 U	0.960 U	0.950 U	**0.720 J**	**0.520 J**
Perfluorohexanoic acid (PFHxA)		0.920 U	0.920 U	0.960 U	0.950 U	0.980 U	0.940 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.70 U	2.80 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.70 U	2.80 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.920 U	0.920 U	0.960 U	0.950 U	0.980 U	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		2.70 U	2.80 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.70 U	2.80 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	J3EWIP2	J3-INF	J3-INF	MW-142M2	MW-142S	MW-143M1
	Field Sample ID	J3EWIP2_F21	J3-INF_4Q21	J3-INF_F21	MW-142M2_F21	MW-142S_F21	MW-143M1_F21
	Sampling Depth	150.50 - 170.50	0.00 - 0.00	0.00 - 0.00	140.00 - 150.00	42.00 - 52.00	144.00 - 154.00
	Sampling Date	07/13/2021	10/20/2021	07/13/2021	07/27/2021	07/27/2021	07/26/2021
	SDG	320762631	320807451	320762631	320769671	320769671	320769671
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		20.0 U	19.0 U	19.0 U	19.0 UJ	19.0 UJ	19.0 UJ
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.80 U	9.70 U	9.50 U	9.70 UJ	9.30 UJ	9.60 UJ
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.80 U	9.70 U	9.50 U	9.70 UJ	9.30 UJ	9.60 UJ
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.80 U	9.70 U	9.50 U	9.70 UJ	9.30 UJ	9.60 UJ
Perfluorobutanesulfonic acid	600	0.980 U	0.970 U	0.950 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluorobutanoic acid (PFBA)		1.50 U	1.50 U	1.40 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.50 U	1.40 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluorodecanoic acid (PFDA)		0.980 U	0.970 U	0.950 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluorododecanoic acid (PFDoA)		1.50 U	1.50 U	1.40 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluoroheptanesulfonic acid (PFHpS)		0.980 U	0.970 U	0.950 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluoroheptanoic acid (PFHpA)		1.50 U	1.50 U	1.40 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluorohexane sulfonate (PFHxS)	39	**2.80**	**1.00 J**	**1.20 J**	**2.80 J**	0.930 UJ	0.960 UJ
Perfluorohexanoic acid (PFHxA)		0.980 U	0.970 U	0.950 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.50 U	1.40 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.90 U	2.80 U	2.90 UJ	2.80 UJ	2.90 UJ
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.90 U	2.80 U	2.90 UJ	2.80 UJ	2.90 UJ
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.50 U	1.40 U	1.50 UJ	**0.510 J**	1.40 UJ
Perfluoropentanoic acid (PFPeA)		0.980 U	0.970 U	0.950 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.90 U	2.80 U	2.90 UJ	2.80 UJ	2.90 UJ
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.90 U	2.80 U	2.90 UJ	2.80 UJ	2.90 UJ
Perfluoroundecanoic acid (PFUnA)		1.50 U	1.50 U	1.40 U	1.50 UJ	1.40 UJ	1.40 UJ
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.510**	**0.00**

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	Location	MW-143M2	MW-143M2	MW-144M2	MW-144S	MW-145M1	MW-145S
	Field Sample ID	MW-143M2_F21DR	MW-143M2_F21R	MW-144M2_F21	MW-144S_F21R	MW-145M1_F21	MW-145S_F21
	Sampling Depth	117.00 - 122.00	117.00 - 122.00	130.00 - 140.00	26.00 - 36.00	125.00 - 135.00	30.00 - 40.00
	Sampling Date	09/16/2021	09/16/2021	07/27/2021	09/16/2021	08/11/2021	08/11/2021
	SDG	320791142	320791142	320769671	320791142	320776031	320776031
	Sample Type	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 UJ	20.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.50 U	9.40 U	9.40 UJ	9.90 U	9.50 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.50 U	9.40 U	9.40 UJ	9.90 U	9.50 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.50 U	9.40 U	9.40 UJ	9.90 U	9.50 U	9.40 U
Perfluorobutanesulfonic acid	600	**0.640 J**	**0.700 J**	0.940 UJ	0.990 U	0.950 U	0.940 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 UJ	1.50 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 UJ	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.950 U	0.940 U	0.940 UJ	0.990 U	0.950 U	0.940 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 UJ	1.50 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.950 U	0.940 U	0.940 UJ	0.990 U	0.950 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 UJ	1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	**4.10**	**4.00**	0.940 UJ	0.990 U	0.950 U	**1.50 J**
Perfluorohexanoic acid (PFHxA)		0.950 U	0.940 U	0.940 UJ	0.990 U	0.950 U	**0.630 J**
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 UJ	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.80 UJ	3.00 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	2.80 UJ	**3.60 J**	2.90 U	**3.90**
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 UJ	**0.570 J**	1.40 U	**0.760 J**
Perfluoropentanoic acid (PFPeA)		0.950 U	0.940 U	0.940 UJ	0.990 U	0.950 U	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.80 UJ	3.00 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.80 UJ	3.00 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 UJ	1.50 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**4.17**	**0.00**	**4.66**

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	Location	MW-157M1	MW-157M2	MW-157M3	MW-163S	MW-181S	MW-181S
	Field Sample ID	MW-157M1_F21	MW-157M2_F21	MW-157M3_F21	MW-163S_F21	MW-181S_F21	MW-181S_F21D
	Sampling Depth	154.00 - 164.00	110.00 - 120.00	70.00 - 80.00	38.00 - 48.00	32.25 - 42.25	32.25 - 42.25
	Sampling Date	07/14/2021	07/14/2021	07/14/2021	07/14/2021	08/02/2021	08/02/2021
	SDG	320763871	320763871	320763871	320763871	320772471	320772471
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Field Duplicate**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	20.0 U	19.0 U	19.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.30 U	9.70 U	10.0 U	9.40 U	9.50 U	9.00 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.30 U	9.70 U	10.0 U	9.40 U	9.50 U	9.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.30 U	9.70 U	10.0 U	9.40 U	9.50 U	9.00 U
Perfluorobutanesulfonic acid	600	0.930 U	**9.40**	1.00 U	0.940 U	0.950 U	0.900 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.930 U	0.970 U	1.00 U	0.940 U	0.950 U	0.900 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.930 U	0.970 U	1.00 U	0.940 U	0.950 U	0.900 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.930 U	**0.720 J**	**1.50 J**	**0.450 J**	0.950 U	0.900 U
Perfluorohexanoic acid (PFHxA)		0.930 U	0.970 U	1.00 U	0.940 U	0.950 U	0.900 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.90 U	3.00 U	2.80 U	2.80 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.90 U	3.00 U	**4.80**	**15.0**	**15.0**
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.50 U	**0.730 J**	**1.10 J**	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.930 U	0.970 U	1.00 U	0.940 U	0.950 U	0.900 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.90 U	3.00 U	2.80 U	2.80 U	2.70 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.90 U	3.00 U	2.80 U	2.80 U	2.70 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.730**	**5.90**	**15.0**	**15.0**

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	Location	MW-193S	MW-193S	MW-196M1	MW-196S	MW-197M2	MW-197M2
	Field Sample ID	MW-193S_F21	MW-193S_F21D	MW-196M1_F21	MW-196S_F21	MW-197M2_F21	MW-197M2_F21D
	Sampling Depth	32.50 - 37.50	32.50 - 37.50	45.00 - 50.00	32.00 - 37.00	80.20 - 85.20	80.20 - 85.20
	Sampling Date	08/04/2021	08/04/2021	08/11/2021	08/11/2021	08/02/2021	08/02/2021
	SDG	320772871	320772871	320776031	320776031	320772471	320772471
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Field Duplicate**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 U	20.0 U	19.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U	9.40 U	9.60 U	10.0 U	9.60 U	9.20 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U	9.40 U	9.60 U	10.0 U	9.60 U	9.20 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U	9.40 U	9.60 U	10.0 U	9.60 U	9.20 U
Perfluorobutanesulfonic acid	600	0.940 U	0.940 U	0.960 U	1.00 U	**0.450 J**	**0.460 J**
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	**0.900 J**	1.50 U	**2.60**	**2.60**
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.940 U	0.960 U	1.00 U	0.960 U	0.920 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.940 U	0.940 U	0.960 U	1.00 U	0.960 U	0.920 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.50 U	**3.00**	**3.00**
Perfluorohexane sulfonate (PFHxS)	39	**2.80**	**2.60**	0.960 U	**0.440 J**	**15.0**	**15.0**
Perfluorohexanoic acid (PFHxA)		0.940 U	0.940 U	**0.760 J**	**0.480 J**	**5.00**	**5.50**
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.90 U	3.00 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	2.90 U	**5.30 J**	**4.90**	**4.80**
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	**1.40 J**	**0.700 J**	**2.70**	**2.90**
Perfluoropentanoic acid (PFPeA)		0.940 U	0.940 U	0.960 U	1.00 U	**4.20**	**4.20**
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.90 U	3.00 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.90 U	3.00 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**1.40**	**6.00**	**7.60**	**7.70**

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	Location	MW-197M3	MW-198M4	MW-218M1	MW-218M1	MW-218M2	MW-218M2
	Field Sample ID	MW-197M3_F21	MW-198M4_F21	MW-218M1_F21	MW-218M1_F21R	MW-218M2_F21	MW-218M2_F21R
	Sampling Depth	60.20 - 65.20	70.00 - 75.00	128.00 - 133.00	128.00 - 133.00	98.00 - 103.00	98.00 - 103.00
	Sampling Date	08/02/2021	08/05/2021	08/16/2021	09/30/2021	08/16/2021	09/30/2021
	SDG	320772471	320773351	320778561	320797671	320778561	320797671
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	18.0 U	19.0 U	19.0 U	20.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U	9.30 U	9.10 U	9.50 U	9.40 U	10.0 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U	9.30 U	9.10 U	9.50 U	9.40 U	10.0 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U	9.30 U	9.10 U	9.50 U	9.40 U	10.0 U
Perfluorobutanesulfonic acid	600	0.940 U	0.930 U	**0.420 J**	0.950 U	0.940 U	1.00 U
Perfluorobutanoic acid (PFBA)		**1.30 J**	**1.40 J**	**400**	1.40 U	**64.0**	**3.00**
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.930 U	**42.0**	**5.60**	**10.0**	**5.10**
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	**32.0**	1.40 U	**2.30**	**0.600 J**
Perfluoroheptanesulfonic acid (PFHpS)		0.940 U	0.930 U	0.910 U	0.950 U	0.940 U	1.00 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	**360**	1.40 U	**100**	**2.10**
Perfluorohexane sulfonate (PFHxS)	39	**2.40**	**8.50**	0.910 U	0.950 U	0.940 U	1.00 U
Perfluorohexanoic acid (PFHxA)		**0.590 J**	0.930 U	**350**	0.950 U	**57.0**	**1.90 J**
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	**75.0**	**6.20**	**35.0**	**6.20**
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	**1.70 J**	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorooctanoic acid (PFOA)	6	**1.00 J**	**0.870 J**	**120**	**5.70**	**49.0**	**2.10**
Perfluoropentanoic acid (PFPeA)		0.940 U	0.930 U	**770**	0.950 U	**110**	**5.00**
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	**35.0**	2.80 U	**2.00 J**	3.00 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	**49.0**	2.80 U	**2.60 J**	3.00 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	**48.0**	**3.60**	**6.80**	**3.50**
†PFOS + PFOA (EPA)		**1.00**	**2.57**	**120**	**5.70**	**49.0**	**2.10**

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	Location	MW-218M3	MW-218M3	MW-250M1	MW-250M3	MW-30	MW-576M2
	Field Sample ID	MW-218M3_F21	MW-218M3_F21R	MW-250M1_F21	MW-250M3_F21	MW-30_F21	MW-576M2_F21
	Sampling Depth	78.00 - 83.00	78.00 - 83.00	185.00 - 195.00	95.00 - 105.00	26.00 - 36.00	133.90 - 143.90
	Sampling Date	08/16/2021	09/30/2021	07/15/2021	07/15/2021	08/02/2021	08/10/2021
	SDG	320778561	320797671	320763871	320763871	320772471	320775331
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	19.0 U	18.0 U	18.0 U	18.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.10 U	9.30 U	9.00 U	9.00 U	9.00 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.10 U	9.30 U	9.00 U	9.00 U	9.00 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.10 U	9.30 U	9.00 U	9.00 U	9.00 U	9.40 U
Perfluorobutanesulfonic acid	600	0.910 U	0.930 U	0.900 U	0.900 U	0.900 U	0.940 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.910 U	0.930 U	0.900 U	0.900 U	0.900 U	0.940 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.910 U	0.930 U	0.900 U	0.900 U	0.900 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.910 U	0.930 U	**0.550 J**	**1.90**	0.900 U	**0.470 J**
Perfluorohexanoic acid (PFHxA)		0.910 U	0.930 U	0.900 U	0.900 U	0.900 U	0.940 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.70 U	2.80 U	2.70 U	2.70 U	2.70 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.70 U	2.80 U	2.70 U	**1.00 J**	**7.00**	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.910 U	0.930 U	0.900 U	0.900 U	0.900 U	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		2.70 U	2.80 U	2.70 U	2.70 U	2.70 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.70 U	2.80 U	2.70 U	2.70 U	2.70 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**1.00**	**7.00**	**0.00**

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	Location	MW-636M1	MW-636M2	MW-653M1	MW-653M2
	Field Sample ID	MW-636M1_F21	MW-636M2_F21	MW-653M1_F21	MW-653M2_F21
	Sampling Depth	141.60 - 151.60	110.50 - 120.50	147.50 - 157.50	59.30 - 69.30
	Sampling Date	07/29/2021	07/29/2021	07/29/2021	07/29/2021
	SDG	320769861	320769861	320769861	320769861
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	20.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.50 U	9.30 U	9.80 U	9.10 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.50 U	9.30 U	9.80 U	9.10 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.50 U	9.30 U	9.80 U	9.10 U
Perfluorobutanesulfonic acid	600	0.950 U	**1.20 J**	**3.50**	0.910 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	**1.20 J**	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.950 U	0.930 U	0.980 U	0.910 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.50 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.950 U	0.930 U	0.980 U	0.910 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	**2.50**	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.950 U	**4.80**	**83.0**	0.910 U
Perfluorohexanoic acid (PFHxA)		**0.460 J**	**0.570 J**	**5.80**	0.910 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.50 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.80 U	2.90 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	**1.60 J**	**5.30**	2.70 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	**1.80 J**	1.40 U
Perfluoropentanoic acid (PFPeA)		0.950 U	0.930 U	**3.30**	0.910 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.80 U	2.90 U	2.70 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.80 U	2.90 U	2.70 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.50 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**1.60**	**7.10**	**0.00**

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	Location	90EW0001	90WT0004	J3-EFF	J3-EFF	J3EW0032	J3EWIP1
	Field Sample ID	90EW0001_F21	90WT0004_F21	J3-EFF_4Q21	J3-EFF_F21	J3EW0032_F21	J3EWIP1_F21
	Sampling Depth	83.10 - 143.80	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	102.00 - 152.00	153.00 - 193.00
	Sampling Date	07/13/2021	08/10/2021	10/20/2021	07/13/2021	07/13/2021	07/13/2021
	SDG	320762631	320775331	320807451	320762631	320762631	320762631
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected		**0.500**	**0.00**	**0.00**	**0.00**	**0.720**	**0.520**

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	Location	J3EWIP2	J3-INF	J3-INF	MW-142M2	MW-142S	MW-143M1
	Field Sample ID	J3EWIP2_F21	J3-INF_4Q21	J3-INF_F21	MW-142M2_F21	MW-142S_F21	MW-143M1_F21
	Sampling Depth	150.50 - 170.50	0.00 - 0.00	0.00 - 0.00	140.00 - 150.00	42.00 - 52.00	144.00 - 154.00
	Sampling Date	07/13/2021	10/20/2021	07/13/2021	07/27/2021	07/27/2021	07/26/2021
	SDG	320762631	320807451	320762631	320769671	320769671	320769671
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**2.80**	**0.00**	**0.00**	**2.80**	**0.00**	**0.00**
§Sum of All Compounds Detected		**2.80**	**1.00**	**1.20**	**2.80**	**0.510**	**0.00**

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	Location	MW-143M2	MW-143M2	MW-144M2	MW-144S	MW-145M1	MW-145S
	Field Sample ID	MW-143M2_F21DR	MW-143M2_F21R	MW-144M2_F21	MW-144S_F21R	MW-145M1_F21	MW-145S_F21
	Sampling Depth	117.00 - 122.00	117.00 - 122.00	130.00 - 140.00	26.00 - 36.00	125.00 - 135.00	30.00 - 40.00
	Sampling Date	09/16/2021	09/16/2021	07/27/2021	09/16/2021	08/11/2021	08/11/2021
	SDG	320791142	320791142	320769671	320791142	320776031	320776031
	Sample Type	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**4.10**	**4.00**	**0.00**	**0.00**	**0.00**	**3.90**
§Sum of All Compounds Detected		**4.74**	**4.70**	**0.00**	**4.17**	**0.00**	**6.79**

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	Location	MW-157M1	MW-157M2	MW-157M3	MW-163S	MW-181S	MW-181S
	Field Sample ID	MW-157M1_F21	MW-157M2_F21	MW-157M3_F21	MW-163S_F21	MW-181S_F21	MW-181S_F21D
	Sampling Depth	154.00 - 164.00	110.00 - 120.00	70.00 - 80.00	38.00 - 48.00	32.25 - 42.25	32.25 - 42.25
	Sampling Date	07/14/2021	07/14/2021	07/14/2021	07/14/2021	08/02/2021	08/02/2021
	SDG	320763871	320763871	320763871	320763871	320772471	320772471
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Field Duplicate**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**4.80**	**15.0**	**15.0**
§Sum of All Compounds Detected		**0.00**	**10.1**	**2.23**	**6.35**	**15.0**	**15.0**

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	Location	MW-193S	MW-193S	MW-196M1	MW-196S	MW-197M2	MW-197M2
	Field Sample ID	MW-193S_F21	MW-193S_F21D	MW-196M1_F21	MW-196S_F21	MW-197M2_F21	MW-197M2_F21D
	Sampling Depth	32.50 - 37.50	32.50 - 37.50	45.00 - 50.00	32.00 - 37.00	80.20 - 85.20	80.20 - 85.20
	Sampling Date	08/04/2021	08/04/2021	08/11/2021	08/11/2021	08/02/2021	08/02/2021
	SDG	320772871	320772871	320776031	320776031	320772471	320772471
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Field Duplicate**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**2.80**	**2.60**	**0.00**	**5.30**	**25.6**	**25.7**
§Sum of All Compounds Detected		**2.80**	**2.60**	**3.06**	**6.92**	**37.9**	**38.5**

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	Location	MW-197M3	MW-198M4	MW-218M1	MW-218M1	MW-218M2	MW-218M2
	Field Sample ID	MW-197M3_F21	MW-198M4_F21	MW-218M1_F21	MW-218M1_F21R	MW-218M2_F21	MW-218M2_F21R
	Sampling Depth	60.20 - 65.20	70.00 - 75.00	128.00 - 133.00	128.00 - 133.00	98.00 - 103.00	98.00 - 103.00
	Sampling Date	08/02/2021	08/05/2021	08/16/2021	09/30/2021	08/16/2021	09/30/2021
	SDG	320772471	320773351	320778561	320797671	320778561	320797671
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**2.40**	**8.50**	**597**	**17.5**	**194**	**15.5**
§Sum of All Compounds Detected		**5.29**	**12.5**	**2280**	**21.1**	**439**	**29.5**

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	Location	MW-218M3	MW-218M3	MW-250M1	MW-250M3	MW-30	MW-576M2
	Field Sample ID	MW-218M3_F21	MW-218M3_F21R	MW-250M1_F21	MW-250M3_F21	MW-30_F21	MW-576M2_F21
	Sampling Depth	78.00 - 83.00	78.00 - 83.00	185.00 - 195.00	95.00 - 105.00	26.00 - 36.00	133.90 - 143.90
	Sampling Date	08/16/2021	09/30/2021	07/15/2021	07/15/2021	08/02/2021	08/10/2021
	SDG	320778561	320797671	320763871	320763871	320772471	320775331
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**1.90**	**7.00**	**0.00**
§Sum of All Compounds Detected		**0.00**	**0.00**	**0.550**	**2.90**	**7.00**	**0.470**

PFAS Summary Report – Groundwater
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	Location	MW-636M1	MW-636M2	MW-653M1	MW-653M2
	Field Sample ID	MW-636M1_F21	MW-636M2_F21	MW-653M1_F21	MW-653M2_F21
	Sampling Depth	141.60 - 151.60	110.50 - 120.50	147.50 - 157.50	59.30 - 69.30
	Sampling Date	07/29/2021	07/29/2021	07/29/2021	07/29/2021
	SDG	320769861	320769861	320769861	320769861
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**4.80**	**90.8**	**0.00**
§Sum of All Compounds Detected		**0.460**	**8.17**	**106**	**0.00**

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KGS 2022 J MID PFAS - J2 Range Northern

	Location	J2N-MID-1F
	Field Sample ID	J2N-MID-1F-P01
	Sampling Depth	0.00 - 0.00
	Sampling Date	08/08/2022
	SDG	320909141
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		**2.00 J**
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.930 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.930 U
Perfluorobutanesulfonic acid	600	0.930 U
Perfluorobutanoic acid (PFBA)		**0.220 J**
Perfluorodecanesulfonic acid (PFDS)		1.40 U
Perfluorodecanoic acid (PFDA)		0.930 U
Perfluorododecanoic acid (PFDoA)		0.930 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U
Perfluoroheptanoic acid (PFHpA)		0.930 U
Perfluorohexane sulfonate (PFHxS)	39	0.930 U
Perfluorohexanoic acid (PFHxA)		**1.00 J**
Perfluorononanoic acid (PFNA)	5.9	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.40 U
Perfluoropentanoic acid (PFPeA)		**0.790 J**
Perfluorotetradecanoic acid (PFTeDA)		1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U
Perfluoroundecanoic acid (PFUnA)		1.40 U
†PFOS + PFOA (EPA)		**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**

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	Location	J2N-MID-1F
	Field Sample ID	J2N-MID-1F-P01
	Sampling Depth	0.00 - 0.00
	Sampling Date	08/08/2022
	SDG	320909141
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
§Sum of All Compounds Detected		**4.01**

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KGS 2022 J MID PFAS - J3 Range

	Location	J3-MID-1
	Field Sample ID	J3-MID-1-P01
	Sampling Depth	0.00 - 0.00
	Sampling Date	08/08/2022
	SDG	320909141
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.950 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.950 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.950 U
Perfluorobutanesulfonic acid	600	0.950 U
Perfluorobutanoic acid (PFBA)		0.480 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U
Perfluorodecanoic acid (PFDA)		0.950 U
Perfluorododecanoic acid (PFDoA)		0.950 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U
Perfluoroheptanoic acid (PFHpA)		0.950 U
Perfluorohexane sulfonate (PFHxS)	39	0.950 U
Perfluorohexanoic acid (PFHxA)		1.40 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.40 U
Perfluoropentanoic acid (PFPeA)		0.480 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U
Perfluoroundecanoic acid (PFUnA)		1.40 U
†PFOS + PFOA (EPA)		**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**

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	Location	J3-MID-1
	Field Sample ID	J3-MID-1-P01
	Sampling Depth	0.00 - 0.00
	Sampling Date	08/08/2022
	SDG	320909141
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
§Sum of All Compounds Detected		**0.00**

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KGS 2022 J2 North PFAS Fall - J2 Range Northern

	Location	J2EW0002	J2N-EFF-F	J2N-INF-F	MW-293M1	MW-330M1	MW-330M1
	Field Sample ID	J2EW0002_P22	J2N-EFF-F_P22	J2N-INF-F_P22	MW-293M1_P22	MW-330M1_P22	MW-330M1_P22D
	Sampling Depth	198.00 - 233.00	0.00 - 0.00	0.00 - 0.00	296.26 - 306.27	313.10 - 323.13	313.10 - 323.13
	Sampling Date	10/11/2022	10/11/2022	10/11/2022	10/06/2022	10/06/2022	10/06/2022
	SDG	320931732	320931732	320931732	320929361	320929361	320929361
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Field Duplicate**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		**10.0**	0.990 U	**8.20**	0.950 U	0.970 U	0.960 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.930 U	0.990 U	0.980 U	0.950 U	0.970 U	0.960 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.930 U	0.990 U	0.980 U	0.950 U	0.970 U	0.960 U
Perfluorobutanesulfonic acid	600	0.930 U	0.990 U	0.980 U	0.950 U	0.970 U	0.960 U
Perfluorobutanoic acid (PFBA)		**0.410 J**	0.490 U	**0.390 J**	**0.530 J**	**1.40 J**	**1.30 J**
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.930 U	0.990 U	0.980 U	**11.0**	**19.0**	**20.0**
Perfluorododecanoic acid (PFDoA)		0.930 U	0.990 U	0.980 U	**0.830 J**	**1.20 J**	**1.50 J**
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)		**1.20 J**	0.990 U	**1.10 J**	0.950 U	**0.950 J**	**0.960 J**
Perfluorohexane sulfonate (PFHxS)	39	**16.0**	0.990 U	**12.0**	0.950 U	0.970 U	0.960 U
Perfluorohexanoic acid (PFHxA)		**1.70 J**	1.50 U	**1.40 J**	1.40 U	**0.650 J**	**0.700 J**
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U	1.50 U	**1.80 J**	**6.40**	**7.20**
Perfluorooctanesulfonamide (PFOSA)		1.40 U	**0.530 J**	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	**2.20 J**	1.50 U	**1.50 J**	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	6	**2.90**	1.50 U	**2.30**	1.40 U	1.40 U	**0.600 J**
Perfluoropentanoic acid (PFPeA)		**1.70 J**	0.490 U	**1.10 J**	**0.850 J**	**2.00**	**2.00**
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.50 U	**13.0**	**19.0**	**19.0**
†PFOS + PFOA (EPA)		**5.10**	**0.00**	**3.80**	**0.00**	**0.00**	**0.600**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**21.1**	**0.00**	**14.3**	**11.0**	**25.4**	**27.2**

	Location	MW-330M2	MW-330M3	MW-337D	MW-340D	MW-345M1	MW-345M2
	Field Sample ID	MW-330M2_P22	MW-330M3_P22	MW-337D_P22	MW-340D_P22	MW-345M1_P22	MW-345M2_P22
	Sampling Depth	238.01 - 248.04	154.97 - 164.99	310.00 - 320.00	329.60 - 339.60	311.50 - 321.50	236.62 - 246.62
	Sampling Date	10/06/2022	10/06/2022	10/12/2022	10/05/2022	10/05/2022	10/05/2022
	SDG	320929361	320929361	320932701	320929441	320929441	320929441
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.990 U	0.950 U	0.990 U	0.910 U	0.960 U	0.950 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.990 U	0.950 U	0.990 U	0.910 U	0.960 U	0.950 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.990 U	0.950 U	0.990 U	0.910 U	0.960 U	0.950 U
Perfluorobutanesulfonic acid	600	0.990 U	0.950 U	0.990 U	0.910 U	0.960 U	0.950 U
Perfluorobutanoic acid (PFBA)		0.500 U	**0.670 J**	**0.250 J**	0.460 U	0.480 U	**0.360 J**
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		**2.40**	**16.0**	**14.0**	**12.0**	**19.0**	**1.90**
Perfluorododecanoic acid (PFDoA)		0.990 U	**0.770 J**	**0.670 J**	**1.30 J**	**3.40**	0.950 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)		0.990 U	0.950 U	0.990 U	0.910 U	0.960 U	0.950 U
Perfluorohexane sulfonate (PFHxS)	39	0.990 U	0.950 U	0.990 U	0.910 U	0.960 U	0.950 U
Perfluorohexanoic acid (PFHxA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorononanoic acid (PFNA)	5.9	**4.50**	**11.0**	**5.70**	**7.10**	**2.80**	**6.00**
Perfluorooctanesulfonamide (PFOSA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		**0.480 J**	**0.370 J**	**0.280 J**	**0.380 J**	**0.380 J**	**0.660 J**
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	1.40 U	1.50 U	1.40 U	**1.30 J**	1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U	1.40 U	1.50 U	1.40 U	**3.30**	1.40 U
Perfluoroundecanoic acid (PFUnA)		**3.40**	**9.50**	**12.0**	**19.0**	**46.0**	**3.10**
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**6.90**	**27.0**	**19.7**	**19.1**	**21.8**	**7.90**

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	Location	J2EW0002	J2N-EFF-F	J2N-INF-F	MW-293M1	MW-330M1	MW-330M1
	Field Sample ID	J2EW0002_P22	J2N-EFF-F_P22	J2N-INF-F_P22	MW-293M1_P22	MW-330M1_P22	MW-330M1_P22D
	Sampling Depth	198.00 - 233.00	0.00 - 0.00	0.00 - 0.00	296.26 - 306.27	313.10 - 323.13	313.10 - 323.13
	Sampling Date	10/11/2022	10/11/2022	10/11/2022	10/06/2022	10/06/2022	10/06/2022
	SDG	320931732	320931732	320931732	320929361	320929361	320929361
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Field Duplicate**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**36.1**	**0.530**	**28.0**	**28.0**	**50.6**	**53.3**

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	Location	MW-330M2	MW-330M3	MW-337D	MW-340D	MW-345M1	MW-345M2
	Field Sample ID	MW-330M2_P22	MW-330M3_P22	MW-337D_P22	MW-340D_P22	MW-345M1_P22	MW-345M2_P22
	Sampling Depth	238.01 - 248.04	154.97 - 164.99	310.00 - 320.00	329.60 - 339.60	311.50 - 321.50	236.62 - 246.62
	Sampling Date	10/06/2022	10/06/2022	10/12/2022	10/05/2022	10/05/2022	10/05/2022
	SDG	320929361	320929361	320932701	320929441	320929441	320929441
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**10.8**	**38.3**	**32.9**	**39.8**	**76.2**	**12.0**

KGS 2022 J2 North PFAS Spring - J2 Range Eastern

	Location	MW-128S	MW-18D	MW-18S	MW-48D	MW-48M2	MW-48S
	Field Sample ID	MW-128S_S22	MW-18D_S22	MW-18S_S22	MW-48D_S22	MW-48M2_S22	MW-48S_S22
	Sampling Depth	87.00 - 97.00	265.00 - 275.00	35.00 - 45.00	221.00 - 231.00	161.00 - 171.00	99.00 - 109.00
	Sampling Date	01/11/2022	12/27/2021	12/27/2021	01/04/2022	01/04/2022	01/05/2022
	SDG	320838001	320834481	320834481	320836321	320836321	320837121
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
Perfluorobutanesulfonic acid	600	0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
Perfluorobutanoic acid (PFBA)		0.480 U	0.500 U	0.490 U	0.470 U	0.490 U	0.500 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
Perfluorododecanoic acid (PFDoA)		0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
Perfluorohexane sulfonate (PFHxS)	39	**4.30**	1.00 U	0.980 U	0.950 U	0.990 U	**0.600 J**
Perfluorohexanoic acid (PFHxA)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.480 U	0.500 U	0.490 U	0.470 U	0.490 U	0.500 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**4.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

	Location	MW-49D	MW-49M1	MW-49M2	MW-49M3	MW-49S
	Field Sample ID	MW-49D_S22	MW-49M1_S22	MW-49M2_S22	MW-49M3_S22	MW-49S_S22
	Sampling Depth	185.00 - 195.00	160.00 - 170.00	130.00 - 140.00	100.50 - 110.50	68.50 - 78.00
	Sampling Date	01/03/2022	01/03/2022	01/03/2022	01/03/2022	01/03/2022
	SDG	320836321	320836321	320836321	320836321	320836321
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
Perfluorobutanesulfonic acid	600	1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
Perfluorobutanoic acid (PFBA)		0.500 U	0.480 U	0.490 U	0.480 U	0.480 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
Perfluorododecanoic acid (PFDoA)		1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)		1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
Perfluorohexane sulfonate (PFHxS)	39	1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
Perfluorohexanoic acid (PFHxA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.500 U	0.480 U	0.490 U	0.480 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoroundecanoic acid (PFUnA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	MW-128S	MW-18D	MW-18S	MW-48D	MW-48M2	MW-48S
	Field Sample ID	MW-128S_S22	MW-18D_S22	MW-18S_S22	MW-48D_S22	MW-48M2_S22	MW-48S_S22
	Sampling Depth	87.00 - 97.00	265.00 - 275.00	35.00 - 45.00	221.00 - 231.00	161.00 - 171.00	99.00 - 109.00
	Sampling Date	01/11/2022	12/27/2021	12/27/2021	01/04/2022	01/04/2022	01/05/2022
	SDG	320838001	320834481	320834481	320836321	320836321	320837121
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**4.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.600**

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	Location	MW-49D	MW-49M1	MW-49M2	MW-49M3	MW-49S
	Field Sample ID	MW-49D_S22	MW-49M1_S22	MW-49M2_S22	MW-49M3_S22	MW-49S_S22
	Sampling Depth	185.00 - 195.00	160.00 - 170.00	130.00 - 140.00	100.50 - 110.50	68.50 - 78.00
	Sampling Date	01/03/2022	01/03/2022	01/03/2022	01/03/2022	01/03/2022
	SDG	320836321	320836321	320836321	320836321	320836321
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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KGS 2022 J2 North PFAS Spring - J2 Range Northern

	Location	C-4D	C-4D	C-4M	C-4S	C-7D	C-7M
	Field Sample ID	C-4D_S22	C-4D_S22D	C-4M_S22	C-4S_S22	C-7D_S22	C-7M_S22
	Sampling Depth	310.00 - 350.00	310.00 - 350.00	260.00 - 300.00	200.00 - 250.00	295.00 - 335.00	247.00 - 287.00
	Sampling Date	01/13/2022	01/13/2022	01/13/2022	01/13/2022	01/12/2022	01/12/2022
	SDG	320838831	320838831	320838831	320838831	320838831	320838831
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.960 U	0.950 U	0.920 U	0.950 U	0.930 U	0.950 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.960 U	0.950 U	0.920 U	0.950 U	0.930 U	0.950 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.960 U	0.950 U	0.920 U	0.950 U	0.930 U	0.950 U
Perfluorobutanesulfonic acid	600	0.960 U	0.950 U	0.920 U	0.950 U	0.930 U	0.950 U
Perfluorobutanoic acid (PFBA)		0.480 U	0.470 U	0.460 U	0.480 U	0.470 U	0.480 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		**4.30**	**4.50**	**5.90**	**5.30**	**4.80**	**4.20**
Perfluorododecanoic acid (PFDoA)		**0.760 J**	**1.00 J**	**1.60 J**	**1.10 J**	**1.70 J**	**0.960 J**
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)		0.960 U	0.950 U	0.920 U	0.950 U	0.930 U	0.950 U
Perfluorohexane sulfonate (PFHxS)	39	0.960 U	0.950 U	0.920 U	0.950 U	0.930 U	0.950 U
Perfluorohexanoic acid (PFHxA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorononanoic acid (PFNA)	5.9	**0.900 J**	**0.930 J**	**1.30 J**	**1.90**	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.480 U	0.470 U	0.460 U	0.480 U	0.470 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.40 U	1.40 U	**0.970 J**	**0.940 J**	1.40 U
Perfluoroundecanoic acid (PFUnA)		**4.60**	**4.30**	**13.0**	**14.0**	**12.0**	**5.80**
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	C-7S	J2EW3-MW1-A	J2EW3-MW1-B	J2EW3-MW1-C	J2EW3-MW-2-A	J2EW3-MW-2-B
	Field Sample ID	C-7S_S22	J2EW3-MW1-A_S22	J2EW3-MW1-B_S22	J2EW3-MW1-C_S22	J2EW3-MW-2-A_S22	J2EW3-MW-2-B_S22
	Sampling Depth	199.00 - 239.00	145.66 - 155.66	210.66 - 220.66	245.66 - 255.66	151.16 - 161.16	216.16 - 226.16
	Sampling Date	01/12/2022	01/05/2022	01/05/2022	01/05/2022	01/06/2022	01/06/2022
	SDG	320838831	320837121	320837121	320837121	320836691	320836691
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.990 U	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.990 U	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.990 U	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
Perfluorobutanesulfonic acid	600	0.990 U	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
Perfluorobutanoic acid (PFBA)		0.490 U	0.490 U	0.490 U	0.460 U	0.500 U	0.510 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)		**2.20**	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
Perfluorododecanoic acid (PFDoA)		**1.70 J**	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.990 U	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
Perfluorohexane sulfonate (PFHxS)	39	0.990 U	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
Perfluorohexanoic acid (PFHxA)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.490 U	0.490 U	0.490 U	0.460 U	0.500 U	0.510 U
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		**13.0**	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	J2EW3-MW-2-C	J2N-EFF-E	J2N-EFF-F	J2N-EFF-G	MW-130D	MW-18M1
	Field Sample ID	J2EW3-MW-2-C_S22	J2N-EFF-E_S22	J2N-EFF-F_S22	J2N-EFF-G_S22	MW-130D_S22	MW-18M1_S22
	Sampling Depth	251.13 - 261.13	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	320.00 - 330.00	171.00 - 176.00
	Sampling Date	01/06/2022	01/10/2022	01/10/2022	01/10/2022	12/29/2021	12/27/2021
	SDG	320836691	320838001	320838001	320838001	320835011	320834481
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.950 U	0.970 U	**1.20 J**	0.950 U	1.00 U	0.990 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.950 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.950 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorobutanesulfonic acid	600	**1.30 J**	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorobutanoic acid (PFBA)		**0.380 J**	0.490 U	**0.250 J**	**0.290 J**	0.510 U	0.500 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.950 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorododecanoic acid (PFDoA)		0.950 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.950 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorohexane sulfonate (PFHxS)	39	**1.20 J**	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorohexanoic acid (PFHxA)		**1.70 J**	1.50 U	**1.00 J**	**1.60 J**	1.50 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.50 U	1.40 U	1.40 U	**1.00 J**	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)		**0.900 J**	0.490 U	**0.620 J**	**0.510 J**	0.510 U	0.500 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**1.00**	**0.00**

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	Location	MW-18M2	MW-289M1	MW-293M1	MW-296M1	MW-296M2	MW-318M1
	Field Sample ID	MW-18M2_S22	MW-289M1_S22	MW-293M1_S22	MW-296M1_S22	MW-296M2_S22	MW-318M1_S22
	Sampling Depth	107.00 - 112.00	0.00 - 0.00	296.26 - 306.27	255.08 - 265.08	214.98 - 224.98	305.79 - 315.81
	Sampling Date	12/27/2021	12/22/2021	01/11/2022	01/10/2022	01/10/2022	12/22/2021
	SDG	320834481	320833751	320838001	320838001	320838001	320833751
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		1.00 U	0.970 U	0.960 U	0.940 U	0.930 U	**5.30**
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		1.00 U	0.970 U	0.960 U	0.940 U	0.930 U	0.950 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		1.00 U	0.970 U	**0.590 J**	0.940 U	0.930 U	0.950 U
Perfluorobutanesulfonic acid	600	1.00 U	0.970 U	0.960 U	0.940 U	0.930 U	0.950 U
Perfluorobutanoic acid (PFBA)		0.500 U	1.90 U	0.480 U	**0.310 J**	0.460 U	1.90 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		1.00 U	**2.00**	**14.0**	0.940 U	**1.20 J**	**3.50**
Perfluorododecanoic acid (PFDoA)		1.00 U	**1.10 J**	**1.30 J**	**0.780 J**	**0.490 J**	0.950 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)		1.00 U	0.970 U	0.960 U	0.940 U	0.930 U	0.950 U
Perfluorohexane sulfonate (PFHxS)	39	1.00 U	**0.700 J**	0.960 U	0.940 U	0.930 U	0.950 U
Perfluorohexanoic acid (PFHxA)		1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.50 U	**20.0**	**0.570 J**	**1.10 J**	**1.70 J**
Perfluorooctanesulfonamide (PFOSA)		1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.500 U	0.490 U	0.480 U	0.470 U	0.460 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U	1.50 U	**0.990 J**	1.40 U	1.40 U	1.40 U
Perfluoroundecanoic acid (PFUnA)		1.50 U	**10.0**	**15.0**	**3.20**	**1.20 J**	**6.50**
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

	Location	MW-318M2	MW-318M2	MW-327M1	MW-327M2	MW-327M3	MW-330M1
	Field Sample ID	MW-318M2_S22	MW-318M2_S22D	MW-327M1_S22	MW-327M2_S22	MW-327M3_S22	MW-330M1_S22
	Sampling Depth	205.80 - 215.82	205.80 - 215.82	296.06 - 306.04	265.01 - 275.01	220.16 - 230.15	313.10 - 323.13
	Sampling Date	12/22/2021	12/22/2021	12/28/2021	12/28/2021	12/28/2021	12/16/2021
	SDG	320833751	320833751	320834481	320834481	320834481	320831661
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.920 U	0.960 U	0.910 U	0.950 U	0.960 U	0.990 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.920 U	0.960 U	0.910 U	0.950 U	0.960 U	0.990 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.920 U	0.960 U	0.910 U	0.950 U	0.960 U	0.990 U
Perfluorobutanesulfonic acid	600	0.920 U	0.960 U	0.910 U	**0.450 J**	0.960 U	0.990 U
Perfluorobutanoic acid (PFBA)		1.80 U	1.90 U	0.460 U	**1.80 J**	0.480 U	**1.40 J**
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		**1.60 J**	**1.40 J**	**2.00**	**1.40 J**	**2.10**	**23.0**
Perfluorododecanoic acid (PFDoA)		0.920 U	0.960 U	**3.20**	**8.80**	**0.820 J**	**1.40 J**
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.920 U	0.960 U	0.910 U	**0.470 J**	0.960 U	**0.910 J**
Perfluorohexane sulfonate (PFHxS)	39	0.920 U	0.960 U	0.910 U	0.950 U	0.960 U	0.990 U
Perfluorohexanoic acid (PFHxA)		**1.30 J**	**1.20 J**	1.40 U	**0.560 J**	1.40 U	**0.680 J**
Perfluorononanoic acid (PFNA)	5.9	**0.560 J**	**0.630 J**	1.40 U	1.40 U	1.40 U	**4.20**
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluoropentanoic acid (PFPeA)		**1.10 J**	**1.00 J**	**0.240 J**	**0.900 J**	0.480 U	**1.70 J**
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.40 U	**0.650 J**	**1.70 J**	1.40 U	**0.880 J**
Perfluoroundecanoic acid (PFUnA)		**5.80**	**5.80**	**17.0**	**17.0**	**4.70**	**18.0**
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	MW-330M1	MW-330M2	MW-330M3	MW-330M3	MW-337D	MW-337M1
	Field Sample ID	MW-330M1_S22D	MW-330M2_S22	MW-330M3_S22	MW-330M3_S22D	MW-337D_S22	MW-337M1_S22
	Sampling Depth	313.10 - 323.13	238.01 - 248.04	154.97 - 164.99	154.97 - 164.99	310.00 - 320.00	243.71 - 253.71
	Sampling Date	12/16/2021	12/16/2021	12/16/2021	12/16/2021	12/20/2021	12/20/2021
	SDG	320831661	320831661	320831661	320831661	320833421	320833421
	Sample Type	**Field Duplicate**	**Normal**	**Normal**	**Field Duplicate**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.970 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.970 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.970 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
Perfluorobutanesulfonic acid	600	0.970 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
Perfluorobutanoic acid (PFBA)		**1.30 J**	**0.400 J**	**0.510 J**	0.490 U	2.10 U	2.10 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorodecanoic acid (PFDA)		**18.0**	**5.10**	**14.0**	**11.0**	**23.0**	**1.00 J**
Perfluorododecanoic acid (PFDoA)		**0.800 J**	**0.650 J**	**0.560 J**	0.980 U	**0.640 J**	1.00 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		**0.870 J**	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
Perfluorohexane sulfonate (PFHxS)	39	0.970 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
Perfluorohexanoic acid (PFHxA)		**0.580 J**	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	**3.50**	**4.70**	**6.50**	**6.00**	**19.0**	**5.80**
Perfluorooctanesulfonamide (PFOSA)		1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoropentanoic acid (PFPeA)		**1.60 J**	**0.250 J**	0.500 U	0.490 U	0.520 U	0.510 U
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	1.50 U	1.50 U	1.50 U	**0.530 J**	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U	**0.820 J**	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		**16.0**	**5.20**	**6.50**	**5.70**	**16.0**	**1.90 J**
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	MW-340D	MW-340D	MW-345M1	MW-345M1	MW-48M1	MW-48M3
	Field Sample ID	MW-340D_S22	MW-340D_S22D	MW-345M1_S22	MW-345M1_S22D	MW-48M1_S22	MW-48M3_S22
	Sampling Depth	329.60 - 339.60	329.60 - 339.60	311.50 - 321.50	311.50 - 321.50	191.00 - 201.00	131.50 - 142.00
	Sampling Date	12/29/2021	12/29/2021	12/16/2021	12/16/2021	01/04/2022	01/04/2022
	SDG	320835011	320835011	320831661	320831661	320836321	320836321
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Field Duplicate**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		**6.50 J**	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		1.00 U	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		1.00 U	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
Perfluorobutanesulfonic acid	600	1.00 U	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
Perfluorobutanoic acid (PFBA)		**0.310 J**	0.490 U	**0.440 J**	**0.280 J**	0.490 U	0.490 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)		**13.0**	**14.0**	**21.0**	**28.0**	0.980 U	0.990 U
Perfluorododecanoic acid (PFDoA)		**0.830 J**	**0.990 J**	**0.960 J**	**1.70 J**	0.980 U	0.990 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		1.00 U	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
Perfluorohexane sulfonate (PFHxS)	39	1.00 U	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
Perfluorohexanoic acid (PFHxA)		1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	**3.50**	**3.60**	**3.00**	**4.50**	1.50 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.500 U	0.490 U	0.490 U	0.490 U	0.490 U	0.490 U
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U	1.50 U	1.50 U	**1.30 J**	1.50 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		**19.0**	**20.0**	**20.0**	**23.0**	1.50 U	1.50 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	MW-55D	MW-55M1	MW-55M2	MW-55M3	MW-619M1	MW-619M2
	Field Sample ID	MW-55D_S22	MW-55M1_S22	MW-55M2_S22	MW-55M3_S22	MW-619M1_S22	MW-619M2_S22
	Sampling Depth	255.00 - 265.00	225.00 - 235.00	195.00 - 205.00	164.50 - 174.00	255.10 - 265.10	234.10 - 244.10
	Sampling Date	12/21/2021	12/21/2021	12/21/2021	12/21/2021	12/20/2021	12/20/2021
	SDG	320833421	320833421	320833421	320833421	320833421	320833421
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
Perfluorobutanesulfonic acid	600	0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
Perfluorobutanoic acid (PFBA)		1.90 U	1.90 U	1.90 U	2.00 U	1.90 U	1.90 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
Perfluorododecanoic acid (PFDoA)		0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
Perfluorohexane sulfonate (PFHxS)	39	0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
Perfluorohexanoic acid (PFHxA)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		**0.590 J**	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.480 U	0.480 U	0.470 U	0.500 U	0.480 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)		**0.620 J**	**0.540 J**	1.40 U	1.50 U	1.40 U	**0.620 J**
Perfluorotridecanoic acid (PFTrDA)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	MW-620M1	MW-634M1	MW-63D	MW-63M1	MW-63M2	MW-63M3
	Field Sample ID	MW-620M1_S22	MW-634M1_S22	MW-63D_S22	MW-63M1_S22	MW-63M2_S22	MW-63M3_S22
	Sampling Depth	268.60 - 278.60	305.60 - 315.60	375.00 - 380.00	244.00 - 254.00	214.00 - 224.00	182.00 - 192.00
	Sampling Date	12/20/2021	12/22/2021	12/15/2021	12/15/2021	12/15/2021	12/15/2021
	SDG	320833421	320833751	320831661	320831661	320831661	320831661
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
Perfluorobutanesulfonic acid	600	0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
Perfluorobutanoic acid (PFBA)		0.480 U	2.00 U	2.00 U	0.490 U	**0.290 J**	0.490 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.960 U	0.980 U	0.990 U	0.980 U	**2.20**	0.970 U
Perfluorododecanoic acid (PFDoA)		0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
Perfluorohexane sulfonate (PFHxS)	39	0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
Perfluorohexanoic acid (PFHxA)		1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U	1.50 U	1.50 U	**1.20 J**	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.50 U	**0.790 J**	**0.590 J**	1.60 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.480 U	0.490 U	0.490 U	0.490 U	0.520 U	0.490 U
Perfluorotetradecanoic acid (PFTeDA)		**0.610 J**	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.50 U	1.50 U	**1.40 J**	1.50 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.790**	**0.590**	**0.00**	**0.00**

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	Location	MW-63S
	Field Sample ID	MW-63S_S22
	Sampling Depth	153.00 - 163.00
	Sampling Date	12/15/2021
	SDG	320831661
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.950 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.950 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.950 U
Perfluorobutanesulfonic acid	600	0.950 U
Perfluorobutanoic acid (PFBA)		0.470 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U
Perfluorodecanoic acid (PFDA)		0.950 U
Perfluorododecanoic acid (PFDoA)		0.950 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U
Perfluoroheptanoic acid (PFHpA)		0.950 U
Perfluorohexane sulfonate (PFHxS)	39	0.950 U
Perfluorohexanoic acid (PFHxA)		1.40 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.40 U
Perfluoropentanoic acid (PFPeA)		0.470 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U
Perfluoroundecanoic acid (PFUnA)		1.40 U
†PFOS + PFOA (EPA)		**0.00**

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	Location	C-4D	C-4D	C-4M	C-4S	C-7D	C-7M
	Field Sample ID	C-4D_S22	C-4D_S22D	C-4M_S22	C-4S_S22	C-7D_S22	C-7M_S22
	Sampling Depth	310.00 - 350.00	310.00 - 350.00	260.00 - 300.00	200.00 - 250.00	295.00 - 335.00	247.00 - 287.00
	Sampling Date	01/13/2022	01/13/2022	01/13/2022	01/13/2022	01/12/2022	01/12/2022
	SDG	320838831	320838831	320838831	320838831	320838831	320838831
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**4.30**	**4.50**	**5.90**	**7.20**	**4.80**	**4.20**
§Sum of All Compounds Detected		**10.6**	**10.7**	**21.8**	**23.3**	**19.4**	**11.0**

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	Location	C-7S	J2EW3-MW1-A	J2EW3-MW1-B	J2EW3-MW1-C	J2EW3-MW-2-A	J2EW3-MW-2-B
	Field Sample ID	C-7S_S22	J2EW3-MW1-A_S22	J2EW3-MW1-B_S22	J2EW3-MW1-C_S22	J2EW3-MW-2-A_S22	J2EW3-MW-2-B_S22
	Sampling Depth	199.00 - 239.00	145.66 - 155.66	210.66 - 220.66	245.66 - 255.66	151.16 - 161.16	216.16 - 226.16
	Sampling Date	01/12/2022	01/05/2022	01/05/2022	01/05/2022	01/06/2022	01/06/2022
	SDG	320838831	320837121	320837121	320837121	320836691	320836691
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**2.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected		**16.9**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	J2EW3-MW-2-C	J2N-EFF-E	J2N-EFF-F	J2N-EFF-G	MW-130D	MW-18M1
	Field Sample ID	J2EW3-MW-2-C_S22	J2N-EFF-E_S22	J2N-EFF-F_S22	J2N-EFF-G_S22	MW-130D_S22	MW-18M1_S22
	Sampling Depth	251.13 - 261.13	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	320.00 - 330.00	171.00 - 176.00
	Sampling Date	01/06/2022	01/10/2022	01/10/2022	01/10/2022	12/29/2021	12/27/2021
	SDG	320836691	320838001	320838001	320838001	320835011	320834481
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected		**5.48**	**0.00**	**3.07**	**2.40**	**1.00**	**0.00**

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	Location	MW-18M2	MW-289M1	MW-293M1	MW-296M1	MW-296M2	MW-318M1
	Field Sample ID	MW-18M2_S22	MW-289M1_S22	MW-293M1_S22	MW-296M1_S22	MW-296M2_S22	MW-318M1_S22
	Sampling Depth	107.00 - 112.00	0.00 - 0.00	296.26 - 306.27	255.08 - 265.08	214.98 - 224.98	305.79 - 315.81
	Sampling Date	12/27/2021	12/22/2021	01/11/2022	01/10/2022	01/10/2022	12/22/2021
	SDG	320834481	320833751	320838001	320838001	320838001	320833751
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**2.00**	**34.0**	**0.00**	**0.00**	**3.50**
§Sum of All Compounds Detected		**0.00**	**13.8**	**51.9**	**4.86**	**3.99**	**17.0**

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	Location	MW-318M2	MW-318M2	MW-327M1	MW-327M2	MW-327M3	MW-330M1
	Field Sample ID	MW-318M2_S22	MW-318M2_S22D	MW-327M1_S22	MW-327M2_S22	MW-327M3_S22	MW-330M1_S22
	Sampling Depth	205.80 - 215.82	205.80 - 215.82	296.06 - 306.04	265.01 - 275.01	220.16 - 230.15	313.10 - 323.13
	Sampling Date	12/22/2021	12/22/2021	12/28/2021	12/28/2021	12/28/2021	12/16/2021
	SDG	320833751	320833751	320834481	320834481	320834481	320831661
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**2.00**	**0.00**	**2.10**	**27.2**
§Sum of All Compounds Detected		**10.4**	**10.0**	**23.1**	**33.1**	**7.62**	**52.2**

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	Location	MW-330M1	MW-330M2	MW-330M3	MW-330M3	MW-337D	MW-337M1
	Field Sample ID	MW-330M1_S22D	MW-330M2_S22	MW-330M3_S22	MW-330M3_S22D	MW-337D_S22	MW-337M1_S22
	Sampling Depth	313.10 - 323.13	238.01 - 248.04	154.97 - 164.99	154.97 - 164.99	310.00 - 320.00	243.71 - 253.71
	Sampling Date	12/16/2021	12/16/2021	12/16/2021	12/16/2021	12/20/2021	12/20/2021
	SDG	320831661	320831661	320831661	320831661	320833421	320833421
	Sample Type	**Field Duplicate**	**Normal**	**Normal**	**Field Duplicate**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**21.5**	**9.80**	**20.5**	**17.0**	**42.0**	**5.80**
§Sum of All Compounds Detected		**42.7**	**17.1**	**28.1**	**22.7**	**59.2**	**8.70**

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	Location	MW-340D	MW-340D	MW-345M1	MW-345M1	MW-48M1	MW-48M3
	Field Sample ID	MW-340D_S22	MW-340D_S22D	MW-345M1_S22	MW-345M1_S22D	MW-48M1_S22	MW-48M3_S22
	Sampling Depth	329.60 - 339.60	329.60 - 339.60	311.50 - 321.50	311.50 - 321.50	191.00 - 201.00	131.50 - 142.00
	Sampling Date	12/29/2021	12/29/2021	12/16/2021	12/16/2021	01/04/2022	01/04/2022
	SDG	320835011	320835011	320831661	320831661	320836321	320836321
	Sample Type	**Normal**	**Field Duplicate**	**Normal**	**Field Duplicate**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**16.5**	**17.6**	**24.0**	**32.5**	**0.00**	**0.00**
§Sum of All Compounds Detected		**43.1**	**38.6**	**45.4**	**58.8**	**0.00**	**0.00**

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	Location	MW-55D	MW-55M1	MW-55M2	MW-55M3	MW-619M1	MW-619M2
	Field Sample ID	MW-55D_S22	MW-55M1_S22	MW-55M2_S22	MW-55M3_S22	MW-619M1_S22	MW-619M2_S22
	Sampling Depth	255.00 - 265.00	225.00 - 235.00	195.00 - 205.00	164.50 - 174.00	255.10 - 265.10	234.10 - 244.10
	Sampling Date	12/21/2021	12/21/2021	12/21/2021	12/21/2021	12/20/2021	12/20/2021
	SDG	320833421	320833421	320833421	320833421	320833421	320833421
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected		**1.21**	**0.540**	**0.00**	**0.00**	**0.00**	**0.620**

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	Location	MW-620M1	MW-634M1	MW-63D	MW-63M1	MW-63M2	MW-63M3
	Field Sample ID	MW-620M1_S22	MW-634M1_S22	MW-63D_S22	MW-63M1_S22	MW-63M2_S22	MW-63M3_S22
	Sampling Depth	268.60 - 278.60	305.60 - 315.60	375.00 - 380.00	244.00 - 254.00	214.00 - 224.00	182.00 - 192.00
	Sampling Date	12/20/2021	12/22/2021	12/15/2021	12/15/2021	12/15/2021	12/15/2021
	SDG	320833421	320833751	320831661	320831661	320831661	320831661
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**2.20**	**0.00**
§Sum of All Compounds Detected		**0.610**	**0.00**	**0.790**	**0.590**	**5.09**	**0.00**

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	Location	MW-63S
	Field Sample ID	MW-63S_S22
	Sampling Depth	153.00 - 163.00
	Sampling Date	12/15/2021
	SDG	320831661
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**
§Sum of All Compounds Detected		**0.00**

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KGS 2022 J2 North PFAS Spring - J3 Range

	Location	MW-237S
	Field Sample ID	MW-237S_S22
	Sampling Depth	49.00 - 59.00
	Sampling Date	12/29/2021
	SDG	320835011
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.990 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.990 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.990 U
Perfluorobutanesulfonic acid	600	0.990 U
Perfluorobutanoic acid (PFBA)		0.500 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U
Perfluorodecanoic acid (PFDA)		0.990 U
Perfluorododecanoic acid (PFDoA)		0.990 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U
Perfluoroheptanoic acid (PFHpA)		0.990 U
Perfluorohexane sulfonate (PFHxS)	39	0.990 U
Perfluorohexanoic acid (PFHxA)		1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.50 U
Perfluoropentanoic acid (PFPeA)		0.500 U
Perfluorotetradecanoic acid (PFTeDA)		1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U
Perfluoroundecanoic acid (PFUnA)		1.50 U
†PFOS + PFOA (EPA)		**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**

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	Location	MW-237S
	Field Sample ID	MW-237S_S22
	Sampling Depth	49.00 - 59.00
	Sampling Date	12/29/2021
	SDG	320835011
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
§Sum of All Compounds Detected		**0.00**

PFAS Summary Report – Groundwater
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KGS 2022 J2 North PFAS Spring - Lima Range

	Location	MW-236S
	Field Sample ID	MW-236S_S22
	Sampling Depth	96.00 - 106.00
	Sampling Date	01/11/2022
	SDG	320838001
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.960 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.960 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.960 U
Perfluorobutanesulfonic acid	600	0.960 U
Perfluorobutanoic acid (PFBA)		**1.50 J**
Perfluorodecanesulfonic acid (PFDS)		1.40 U
Perfluorodecanoic acid (PFDA)		0.960 U
Perfluorododecanoic acid (PFDoA)		0.960 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U
Perfluoroheptanoic acid (PFHpA)		**1.20 J**
Perfluorohexane sulfonate (PFHxS)	39	0.960 U
Perfluorohexanoic acid (PFHxA)		**1.20 J**
Perfluorononanoic acid (PFNA)	5.9	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	**2.30**
Perfluorooctanoic acid (PFOA)	6	**1.30 J**
Perfluoropentanoic acid (PFPeA)		**0.640 J**
Perfluorotetradecanoic acid (PFTeDA)		1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U
Perfluoroundecanoic acid (PFUnA)		1.40 U
†PFOS + PFOA (EPA)		**3.60**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**2.30**

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	Location	MW-236S
	Field Sample ID	MW-236S_S22
	Sampling Depth	96.00 - 106.00
	Sampling Date	01/11/2022
	SDG	320838001
	Sample Type	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)
§Sum of All Compounds Detected		**8.14**

PFAS Summary Report – Groundwater
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KGS 2022 J3 Range SPM Spring - J3 Range

	Location	J3-EFF	J3-EFF	J3-EFF	J3-EFF	J3-INF	J3-INF
	Field Sample ID	J3-EFF_1Q22	J3-EFF_2Q22	J3-EFF_3Q22	J3-EFF_4Q22	J3-INF_1Q22	J3-INF_2Q22
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
	Sampling Date	01/24/2022	04/28/2022	07/11/2022	10/11/2022	01/24/2022	04/28/2022
	SDG	320842111	320873411	320899771	320931731	320842111	320873411
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
Perfluorobutanesulfonic acid	600	0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
Perfluorobutanoic acid (PFBA)		**0.240 J**	0.480 U	0.470 U	0.470 U	**0.250 J**	0.480 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
Perfluorododecanoic acid (PFDoA)		0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)		0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
Perfluorohexane sulfonate (PFHxS)	39	0.940 U	0.960 U	0.930 U	0.940 U	**1.10 J**	**0.480 J**
Perfluorohexanoic acid (PFHxA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.470 U	0.480 U	0.470 U	0.470 U	0.470 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	J3-INF	J3-INF
	Field Sample ID	J3-INF_3Q22	J3-INF_4Q22
	Sampling Depth	0.00 - 0.00	0.00 - 0.00
	Sampling Date	07/11/2022	10/11/2022
	SDG	320899771	320931731
	Sample Type	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.950 U	0.970 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.950 U	0.970 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.950 U	0.970 U
Perfluorobutanesulfonic acid	600	0.950 U	0.970 U
Perfluorobutanoic acid (PFBA)		0.480 U	0.480 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.950 U	0.970 U
Perfluorododecanoic acid (PFDoA)		0.950 U	0.970 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.950 U	0.970 U
Perfluorohexane sulfonate (PFHxS)	39	**1.10 J**	**1.10 J**
Perfluorohexanoic acid (PFHxA)		1.40 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.480 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U
†PFOS + PFOA (EPA)		**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)		**0.00**	**0.00**

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	Location	J3-EFF	J3-EFF	J3-EFF	J3-EFF	J3-INF	J3-INF
	Field Sample ID	J3-EFF_1Q22	J3-EFF_2Q22	J3-EFF_3Q22	J3-EFF_4Q22	J3-INF_1Q22	J3-INF_2Q22
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
	Sampling Date	01/24/2022	04/28/2022	07/11/2022	10/11/2022	01/24/2022	04/28/2022
	SDG	320842111	320873411	320899771	320931731	320842111	320873411
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**0.240**	**0.00**	**0.00**	**0.00**	**1.35**	**0.480**

Notes:

ng/L = nanograms per liter; ug/kg = micrograms per kilogram; U = not detected; J = estimated; UJ = estimated non detect

Non detects are calculated as zero in the summations.

Bolded results indicate detections of PFAS

Bolded and highlighted results indicate detection of PFAS above the EPA Lifetime Health Advisory: PFOS + PFOA > 70 ng/L.

Bolded and highlighted results indicate detection of PFAS6 above the MassDEP MCL: PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA > 20 ng/L

Bolded and highlighted results indicate detection of PFAS above the 2022 May EPA Tapwater (THQ 0.1)

† Lifetime Health Advisory, US Environmental Protection Agency, May 2016

The PFOS and PFOA summation includes all detections at and above the DL.

‡ PFAS Maximum Contaminant Level (MCL) Final Amendments ("MCL", 310 CMR 22.00 PFAS MCL Amendments), Massachusetts Department of Environmental Protection, October 2, 2020

The MassDEP PFAS summation includes all quantifiable results reported at and above the LOQ.

PFHxS represents the reported presence of Perfluorohexanesulfonic acid or Perfluorohexane sulfonate as reported for the project.

§ Sum of All Compounds Detected includes all detections at and above the DL.

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	Location	J3-INF	J3-INF
	Field Sample ID	J3-INF_3Q22	J3-INF_4Q22
	Sampling Depth	0.00 - 0.00	0.00 - 0.00
	Sampling Date	07/11/2022	10/11/2022
	SDG	320899771	320931731
	Sample Type	**Normal**	**Normal**
PFAS 21 Cmps	**Screening Limit**	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected		**1.10**	**1.10**