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January 10, 2020

Ms. Pamela Innis
U.S. Department of the Interior
CHF Remedial Project Manager
One North Central Avenue, Suite 800
Phoenix, AZ 85004-4427

Mr. Aaron Yue
California Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630

Subject: **December 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup, PG&E Topock Compressor Station, Needles, California**
(Document ID: TPK_Monthly_Progress_Rpt_December_2019_20200110_Final)

Dear Ms. Innis and Mr. Yue:

In compliance with the *1996 Corrective Action Consent Agreement* (CACA) (Attachment 6, Part E, Section 9a and Attachment 7) and the *2013 Remedial Design/Remedial Action Consent Decree* (CD) (Paragraph 32 and Appendix C, Section 5), and pursuant to the *Construction/ Remedial Action Work Plan* (C/RAWP) (Section 2.6.3.1), this monthly report describes activities taken at Pacific Gas and Electric Company's (PG&E's) Topock Compressor Station during December 2019 as well as activities planned for the next six weeks (December 29, 2019 through February 15, 2020), and presents available results from sampling and testing performed in November and December 2019.

In addition, this report discusses material deviations from the approved design documents and/or the C/RAWP, if any, that PG&E has proposed to the California Department of Toxic Substances Control (DTSC) and the U.S. Department of the Interior (DOI), or that have been approved by DTSC and DOI. This report also highlights key personnel changes, if any, and summarizes activities performed and activities planned in support of DOI's 2012 Community Involvement Plan and DTSC's 2019 Community Outreach Plan, as well as contacts with the local community, representatives of the press, and/or public interest groups, if any. This report also includes data from samples collected as part of the sitewide groundwater monitoring program within 60 days of sample collection, as required by the Condition of Approval # xi in DTSC's approval letter dated August 24, 2018.

Please note that since activities conducted to comply with the project's Applicable or Relevant and Appropriate Requirement (ARARs) and the Subsequent Environmental Impact Report (SEIR) mitigation measures are currently reported in separate compliance reports, this information is not repeated in the monthly reports.

Monthly progress reports will be submitted to DTSC and DOI by the 10th day of the following month during construction and start-up of the groundwater remedy at the Topock Compressor Station which officially began on October 2, 2018. This is the fifteenth monthly progress report. Please contact me at (760) 791-5884 if you have any questions or comments regarding this submittal.

Sincerely,

Curt Russell
Topock Project Manager

Topock Project Executive Abstract

Document Title: *December 2019 Monthly Progress Report for the Groundwater Remedy Construction and Startup, PG&E Topock Compressor Station, Needles, California* Submitting Agency: DOI, DTSC Final Document? X Yes __ No	Date of Document: 01/10/2020 Who Created this Document?: (i.e. PG&E, DTSC, DOI, Other) PG&E
Priority Status: __ HIGH __ MED X LOW	Is this time critical? __ Yes X No
Type of Document: __ Draft X Report __ Letter __ Memo __ Other / Explain:	Action Required: X Information Only __ Review and Input __ Other / Explain:
What does this information pertain to? __ Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA)/Preliminary Assessment (PA) __ RCRA Facility Investigation (RFI)/Remedial Investigation (RI) (including Risk Assessment) __ Corrective Measures Study (CMS)/Feasibility Study (FS) X Corrective Measures Implementation (CMI)/ Remedial Action (RA) __ California Environmental Quality Act (CEQA)/ Environmental Impact Report (EIR) __ Interim Measures __ Other / Explain:	Is this a Regulatory Requirement? X Yes __ No If no, why is the document needed?
What is the consequence of NOT doing this item? What is the consequence of DOING this item? The consequence for not doing this item is PG&E will be out of compliance with the 1996 Corrective Action Consent Agreement (CACA) and the 2013 Remedial Design/ Remedial Action Consent Decree (CD), as well as the Construction/Remedial Action Work Plan (C/RAWP).	Other Justification/s: __ Permit __ Other / Explain:

Brief Summary of attached document:

This monthly report describes activities taken during December 2019 and activities planned for the next six weeks (December 29, 2019 through February 15, 2020) and presents available results from sampling and testing in November and December 2019. In addition, this report discusses material deviations from the approved design documents and/or the *Construction/ Remedial Action Work Plan* (C/RAWP), if any, that PG&E has proposed to the California Department of Toxic Substances Control (DTSC) and the U.S. Department of the Interior (DOI) or that have been approved by DTSC and DOI. This report also highlights key personnel changes, if any, and summarizes activities performed and activities planned at the Topock Compressor Station in support of DOI's 2012 Community Involvement Plan and DTSC's 2019 Community Outreach Plan, as well as contacts with local community, representatives of the press, and/or public interest groups, if any.

Written by: Pacific Gas and Electric Company

Recommendations:
Provide input to PG&E.

How is this information related to the Final Remedy or Regulatory Requirements:
This submittal is required in compliance with the CACA, CD, and pursuant to the C/RAWP.

Other requirements of this information?
None.

JACOBS

December 2019
Monthly Progress Report for the Final Groundwater Remedy Construction and Startup

PG&E Topock Compressor Station
Needles, California

Document ID: TPK_Monthly_Progress_Rpt_November_20200110_Final

January 2020

Prepared for
U.S. Department of the Interior and California Department of Toxic Substances Control

On Behalf of
Pacific Gas and Electric Company

Contents

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Acronyms and Abbreviations

µg/m^3	micrograms per cubic meter
AOC	Area of Concern
ARAR	applicable or relevant and appropriate requirement
BLM	U.S. Bureau of Land Management
BMP	best management practice
CACA	Corrective Action Consent Agreement
C/RAWP	Construction/Remedial Action Work Plan
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CH2M	CH2M HILL, Inc.
CHQ	Construction Headquarters
CRWQCB	California Regional Water Quality Control Board, Colorado River Basin Region
DOI	United States Department of the Interior
DTSC	California Department of Toxic Substances Control
ERTC	Environmental Release to Construct
FCR	field contact representative
IM-3	Interim Measure No. 3
IRZ	in-situ reactive zone
LOC	level of concern
NTH	National Trails Highway
PG&E	Pacific Gas and Electric Company
RCRA	Resource Conservation and Recovery Act
SEIR	Subsequent Environmental Impact Report
SMP	Soil Management Plan
SPY	Soil Processing Yard
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCS	Topock Compressor Station
TRC	Technical Review Committee
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WEAT	Worker Environmental Awareness Training
WVR	Work Variance Request

1. Introduction

Pacific Gas and Electric Company (PG&E) is implementing the final groundwater remedy to address chromium in groundwater near the PG&E Topock Compressor Station (TCS), located in eastern San Bernardino County 15 miles southeast of the city of Needles, California.

The U.S. Department of the Interior (DOI) is the lead federal agency overseeing remedial actions at the TCS. PG&E and the United States executed a Remedial Design/Remedial Action Consent Decree (CD), on behalf of the DOI, under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 2012, which was approved by the U.S. District Court for the Central District of California in November 2013 (DOI, 2013). Paragraph 32 and Appendix C (Section 5) of the CD requires PG&E to submit to DOI monthly electronic progress reports during construction of the remedial action, and to submit progress reports on a quarterly basis after the selected remedy has been implemented and demonstrated to be operating as intended.

The California Department of Toxic Substances Control (DTSC) is the lead state agency overseeing corrective actions at the TCS. Remedial activities are being performed in conformance with the requirements of the Resource Conservation and Recovery Act (RCRA) Corrective Action pursuant to a Corrective Action Consent Agreement (CACA) entered into by PG&E and the DTSC in February 1996 (DTSC, 1996). Attachment 6, Part E, Section 9a and Attachment 7 of the CACA require PG&E to provide certain information in monthly progress reports during construction of the corrective action.

In compliance with the CACA and CD requirements, PG&E proposed a template for the monthly progress reports in Exhibit 2.6-2 of the Construction/Remedial Action Work Plan (C/RAWP) (CH2M HILL, Inc. [CH2M], 2015b). The C/RAWP was approved by DOI on April 3, 2018 (DOI, 2018) and DTSC on April 24, 2018 (DTSC, 2018a).

This is the fifteenth of the monthly progress reports that will be submitted to DOI and DTSC for the duration of the remedy construction and startup. This monthly progress report documents activities during December 2019, and follows the content and format described in Exhibit 2.6-2 of the approved C/RAWP. The report is organized as follows:

- Sections 2.1 through 2.7 describe completed construction activities; data collected, generated or received; nature and volume of waste generated; waste handling/disposal; issues encountered; actions taken to rectify problems/issues; personnel changes; and Work Variance Requests (WVRs; i.e., material deviations from the design documents, the C/RAWP, or other approved work plans), if any, as well as agencies' actions on those requests, and potential schedule impacts.
- Sections 2.8 through 2.10 summarize key project personnel changes, if any, contacts with representatives of the press, local community, or public interest groups during the reporting period, other activities provided to assist DTSC and/or DOI in support of the Community Outreach Plan (DTSC, 2019) and/or Community Involvement Plan (DOI, 2012), respectively, and anticipated near-term (approximately next six weeks) activities in support of the Community Outreach and Community Involvement Plans.
- Section 2.11 provides information relating to the construction schedule progress, sequencing of activities, information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule, and a description of efforts made to mitigate those delays or anticipated delays, if any.
- Section 2.12 presents validated data from samples collected as part of the sitewide groundwater monitoring program within 60 days of sample collection, as required by the Condition of Approval # xi in DTSC's approval letter dated August 24, 2018 (DTSC, 2018a).
- Section 3 lists the references cited in this report.

Please note that since activities conducted to comply with the project's Applicable or Relevant and Appropriate Requirement (ARARs) and the Subsequent Environmental Impact Report (SEIR) (DTSC,

2018b) mitigation measures are currently reported in separate compliance reports, the same information is not repeated in the monthly reports.

2. Monthly Update

2.1 Work Completed

Highlights of key activities related to the construction of the groundwater remedy completed during the reporting period include the following (in chronological order):

- On July 13, 2018, PG&E sent via email the first weekly six-week look-ahead schedule for the remedy construction field work. The weekly emails provide highlights of field activities in the previous week, field activities scheduled for the next week, and planned activities for the next six weeks. Recipients of the weekly emails are DOI, DTSC, the U.S. Fish and Wildlife Service (USFWS), the California Regional Water Quality Control Board, Colorado River Basin Region (CRWQCB), the Metropolitan Water District of Southern California, Tribes, and the Technical Review Committee (TRC). PG&E continues to send these weekly emails to date. As of December 31, 2019, a total of 77 six-week look-ahead schedule emails have been sent. Of those, five six-week look-ahead schedule emails were sent in December 2019 (on December 1, 8, 15, 21, and 29).
- On August 10, 2018, PG&E issued the first Environmental Release to Construct (ERTC) to contractors. As of December 31, 2019, a total of 57 ERTCs were issued for mobilization and construction activities. Three new ERTCs were issued in the month of December for site preparation and installation of Pipelines M (Segments M2 through M6) and X inside TCS, soil resistivity survey, and installation of Pipelines C9 (jack and bore under National Trails Highway (NTH) and C8b in the floodplain. The ERTCs are listed in Tables 2-1a and 2-1b.
- Starting on October 4, 2018, PG&E has published a daily construction activities list and discussed the list at the morning tailboards with Tribes and agency representatives. This daily list is intended to inform and facilitate observation by Tribes and agency representatives on site on that day. PG&E continues to publish these daily lists and discuss the list at the daily morning tailboards to date. In December 2019, a total of 18 daily construction activities lists were published and discussed at the morning tailboards.
- In December 2019, PG&E completed the following construction activities (note that Figures 2-1 and 2-2 show the locations of key areas and wells, and Table 2-2 presents the changes in well nomenclature):
  - Prepared the MW-20 Bench for installation of remedy piping and facilities. Preparation activities included removing the light and security camera pole, pipelines and conduits for PE-1 along with some water tanks, as well as potholing to locate underground utilities.
  - Performed recovery activities in response to two winter storms that affected pipeline construction and roadways, including storm damage repairs on the Interim Measure No. 3 (IM-3) access road and removal of the storm-damaged silt fence at MW-S.
  - Completed hydrostatic testing of Pipelines C7 and C8.
  - Potholed within TCS for Pipeline B installation and for site preparation associated with Pipeline M installation.
  - Removed portions of the retaining wall in the southern portion of TCS for Pipeline M installation.
  - Performed pilot boring/well installation activities (by Rotosonic drilling):
    a) Completed installation of pilot boreholes at IRZ-16, IRZ-18, and IRZ-29.
    b) Completed installation of monitoring well MW-81 at the former site of IRZ-19 pilot boring.
    c) Completed well development at MW-81, Hydro-6, and MW-70BR.
  - Performed remedy well installation (by dual rotary drilling) and well testing activities:

a) Completed remedy well installation at IRZ-16 and IRZ-17.

b) Conducted video survey at RB-3. The bottom damaged bottom portion of the screen will be backfilled with pea gravel. Continued with development and testing.

c) Completed well development at RB-2.

d) Completed well testing at RB-5.

- Attachment A includes select photos of activities during this reporting period.
- Attachment B presents water analytical results from well drilling that are available to date. Two separate PDFs containing available boring and well construction logs, and information about well testing activities are also included in Attachment B.
- Baseline/opportunistic soil sampling activities:

a) Pursuant to the Baseline Soil Sampling and Analysis Plan (Appendix A of the Soil Management Plan [SMP] [which is Appendix L of the C/RAWP]), the following soil samples were collected in December 2019:

- On December 4, 2019, a total of three baseline soil samples were collected along the remedy pipeline alignment, in the footprint of the carbon substrate tank, and in the footprint of the carbon amendment building on the MW-20 bench.
- On December 18, 2019, one soil sample was collected at the bottom of the remedy pipeline trench on the MW-20 Bench and another soil sample was collected the bottom of the excavation for the carbon substrate tank.
- On December 20, 2019, one soil sample was collected at the bottom of the excavation for the carbon amendment building.

b) On December 17, 2019, an opportunistic sample was collected of the stained soil (black) encountered at the approximate northwest corner of the carbon amendment building footprint on the MW-20 Bench. According to the Jacobs compliance technician who was onsite during this discovery, the extent of the stained soil stripe was a few inches deep and 3-4 feet long. The excavated stained material was segregated and transported to the Soil Processing Yard (SPY).

c) On December 23 and 24, 2019, at the request of DTSC, two opportunistic samples were collected of the stained soil encountered in an open trench located by the old scrubber sump inside TCS. This trench was not part of the groundwater remedy. Based on PG&E's knowledge of potential constituents in the old scrubber sump, the samples were analyzed for dioxins and furans, Title 22 metals, sodium, polyaromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), volative organic compounds (VOCs), semivolatile organic compounds (SVOCs), and total petrolum hydrocarbons (TPH).

d) Attachment C includes a figure showing soil sampling locations and an excel spreadsheet presenting soil analytical results that are available to date.

- Perimeter Air Sampling Activities:

a) Dust monitoring/observation was conducted through December 20, 2019 at the perimeter of select work areas.

b) Perimeter air sampling for hexavalent chromium is performed at the perimeter of the work areas (outside of the exclusion zone) that are inside or within 20 feet of Areas of Concern (AOCs) and within the construction footprint where hexavalent chromium concentrations in soil have been historically reported. Five perimeter air sampling events were conducted in December 2019 during removal of the retainer wall near the paint locker (AOC 8) inside TCS (this is part of the site preparation for Pipeline M installation) and during excavation at the MW-20 Bench (AOC 30).

c) Attachment D presents a summary of the perimeter air sampling methodology and a table showing air analytical results available to date.

– Noise monitoring activities:

a) Noise monitoring is conducted at pre-approved locations closest to the construction activities. Through December 20, 2019, noise monitoring was conducted at the following pre-approved locations:

- Location west of the mobile home park at Moabi Regional Park
- Maze A Area 2
- Maze B Combined Area 1/2
- Maze C Area 1
- Mobile home park at Topock Marina

b) Attachment E presents a summary of the noise monitoring methodology and a summary of noise monitoring data collected during December 2019.

2.2 Work Already Underway and During Implementation

As of December 31, 2019, PG&E has started and will continue to perform the following activities:

- Complete re-building of the westernmost portion of the Pipeline B corridor that was damaged by rain storms.
- Continue with well development and testing at RB-3 (after backfilling bottom of screen).
- Continue to install Pipelines B and J.
- Continue installation of Pipeline C, Segments C8, C8-Alt and C14.
- Continue work to install remedy facilities on the MW-20 Bench.
- Continue to install Pipeline M, Segments M2 through M6 and Pipeline X inside TCS.
- Continue to conduct noise and dust monitoring and inspection of Stormwater Pollution Prevention Plan (SWPPP) Best Management Practices (BMPs).
- Continue to track and manage waste generated.
- Continue to manage displaced soil per the approved SMP (Appendix L of the C/RAWP).

2.3 Freshwater Usage, Waste Generation and Management

As of December 31, 2019, the volumes of freshwater used for remedy construction and waste streams generated from remedy construction (starting on October 2, 2018) are as follows:

2.3.1 Freshwater and Wastewater

- Since October 2, 2018, an approximate total of 4,375,150 gallons (13.43 acre-feet) of freshwater have been used, of which approximately 22.3 percent was for pilot boring/well installation and general construction, 0.8 percent was for hydrostatic testing of pipeline, and 76.9 percent was for fugitive dust suppression. Of this amount, approximately 83,000 gallons of freshwater was used in December 2019.
- An approximate total of 45,820 gallons of hydrostatic testing water has been discharged to land. Of this amount, 44,500 gallons were discharged in May 2019, 1,100 gallons were discharged in June 2019, and 220 gallons were discharged in October 2019. All discharges to land comply with the substantive requirements of State Water Resources Control Board (SWRCB) Water Quality Order 2003-0003-DWQ. Attachment F presents the approximate volume at each approved discharge location and date of each discharge. No hydrostatic testing activities occurred in July, August, September, or November 2019. Although hydrostatic testing activities were conducted in December 2019, no discharge to land occurred as the testing water was captured and used for dust control.

- As of December 31, 2019, approximately 55,029 gallons of injectivity testing water has been discharged to land. Information related to this discharge is included in Attachment F**,** as required by the substantive requirements of SWRCB Water Quality Order 2003-0003-DWQ. In November 2019, approximately 5,153 gallons were discharged to land from the injectivity tests conducted at IRZ-39. No injectivity test occurred in December 2019.
- As of December 31, 2019, IM-3 has treated an approximate total of 78,000 gallons of wastewater generated from drilling operations in August and October 2019. The discharge complies with the IM-3 ARARs. No remedy wastewater was sent to IM-3 in December 2019.
- An approximate total of 627,916 gallons of wastewater generated from drilling operations were discharged to Compressor Station evaporation pond #4. In December 2019, 66,441 gallons of wastewater was discharged to pond #4. The discharge complies with the Waste Discharge Requirements (WDRs) of the CRWQCB Order No. R7-2018-0022.

  At each sonic drilling location, the wastewater is initially stored in a holding tank in the primary work zone, and is transferred from the primary work zone, as needed, to 20,000-gallon frac tanks located at the MW-20 Bench. Each transfer load is tracked. At each dual rotary drilling location, freshwater and wastewater are conveyed between the frac tanks and the drilling location via pipes. Once a frac tank is full, its contents are characterized and managed in accordance with the approved Waste Management Plan (Appendix R of the C/RAWP).
- Wastewater from drilling operations contains particulates that settle near the bottom of the frac tanks over time. At this time, the sediments that collect near the bottom of the frac tanks are being consolidated and stored in a designated frac tank at the Construction Headquarters (CHQ) (WWT #8).

2.3.2 Displaced Materials/Soils/Clay

- Approximately 517.3 cubic yards of displaced materials (drill cuttings from well drilling and geotechnical investigation, and excess soil from potholing activities) were generated. Drill cuttings are typically stored in roll-off bins with closed tops. Displaced clay materials are handled in accordance with the special clay handling protocol as specified in the Addendum to the SMP dated May 28, 2019. Samples are collected for characterization and analyzed in accordance with the SMP.
- Approximately 20 cubic yards of drill cuttings generated in June 2019 and excess material from potholing activities conducted in May 2019 contain hexavalent chromium at concentrations slightly above the interim screening level (i.e., background concentration for hexavalent chromium). This material was shipped offsite on October 1, 2019 for disposal at the US Ecology landfill in Beatty, Nevada. No offsite shipment occurred in November and December 2019.
- **Pipeline Installation Outside of the MW-20 Bench and TCS Fenceline**:
  - In March 2019, approximately 40 cubic yards of displaced soil was generated from potholing activities at the MW-20 Bench and along a remedy pipeline alignment in the shoulder of NTH to pre-characterize soil in preparation for pipeline installation. Samples were collected for characterization in accordance with the SMP. These soils are currently stored in bins at the SPY. A decision on the final disposition of these soils is forthcoming.
  - In February 2019, approximately 100 cubic yards of displaced soil was generated from excavation for the brine tanks containment upgrade at the MW-20 Bench. Samples were collected for characterization and analyzed in accordance with the SMP. This soil is currently stockpiled on a plastic liner at the SPY. A decision on the final disposition of this soil is forthcoming.
  - Displaced sands from construction of Pipeline C Segments C3 through C5 in the floodplain was used as pipe bedding material for Pipeline B/J. As of early October 2019, those displaced sands from the floodplain were consumed, and therefore imported sands from the CEMEX quarry in Bullhead, AZ have been used.

  - With one exception, displaced material from trenching along the Pipeline B/J alignment (rocks, soils) was used to repair/build a 2-foot berm to control erosion and fill in existing eroded channels along the alignment. The exception is displaced soil from two segments of Pipeline B, Station 8+55 to 9+25 and Station 6+40 to 6+60, where stained soil was observed in November 2019. The soil from these two segments are currently stockpiled on plastic (along Pipeline B, close to where they were excavated. The estimated volume of the stockpile from Station 8+55 to 9+25 is 57 cubic yards. The estimated volume for the stockpile from Station 6+40 to 6+60 is 17 cubic yards. Both stockpiles were sampled on November 21, 2019 in accordance with the SMP. Analytical results are forthcoming. The soil piles are currently placed on visqueen and covered with plastic.
  - Displaced material from trenching along Segment C14 has been used to fill in existing eroded channels on the hillside south of the alignment. Excess material is stored at the SPY and is available for reuse.
  - Displaced material from trenching along Segment C8 (floodplain) is stored at the SPY, awaiting further processing (e.g., removal of rocks/boulders, plastic, etc.). After processing, the material will be available for reuse.

- **Pipeline Installation Inside TCS Fenceline:** In December 2019, excess soil was generated from the preparation for and the installation of Pipeline M Segments M2 through M6 and Pipeline X at TCS. In addition, concrete and asphalt debris were also generated from removal of the south retaining wall and trenching through the asphalt road for pipeline installation. The excess soil has been transported to and stockpiled at the SPY. The debris is stockpiled inside TCS and will be disposed of in January.
- **MW-20 Bench:** As of December 31, 2019, approximately 1,680 cubic yards of excavated soil was generated from remedy construction activities at the MW-20 Bench. The excavated soil was classified using recent potholing data (collected specifically for soil management purposes). As a result, 1,370 cubic yards of soil was classified as suitable for onsite reuse. A decision on the disposition of the remaining 310 cubic yards of soil is forthcoming. Due to space constraints at the MW-20 Bench, all excess soil has been transported to and stored at the SPY. Some of the clean soil will be transported back to the MW-20 Bench for use in construction.

2.3.3 General Construction Waste, Sanitary Waste, and Recyclables

- In December 2019, approximately 36 cubic yards of trash was generated and transported to Republic Services in Lake Havasu City for disposal and management.
- Sanitary waste from construction trailers/portable toilets is hauled offsite as needed.
- A total of nine tires were recovered during construction along Pipeline B/J. These tires were transported to and are currently stockpiled at the SPY. They will be transported to Mojave Valley landfill in Fort Mohave, Arizona.

2.4 Worker Training and Education

- PG&E continues to provide the mandatory Site Health and Safety Training for its employees and contractors on a daily basis. As of December 31, 2019, a total of 123 health and safety training sessions were held and 396 employees and contractors received the training. Of those, in December 2019, six sessions were conducted and 27 employees/contractors were trained. After the training, the attendees signed the training roster.
- PG&E continues to provide the mandatory Worker Environmental Awareness Training (WEAT) to its employees and contractors that will be involved in the remedy construction project. The training is offered regularly on Mondays and Thursdays, and more frequently as needed. As of December 31, 2019, a total of 127 WEAT sessions were conducted and 456 employees and contractors received the training. Of those, in December 2019, 6 sessions were conducted and 21 employees/contractors were trained. Educational brochures are made available to attendees of the training; they are designed to reinforce the key topics and highlight the take-aways discussed during the classroom training. After the training, the attendees signed the WEAT Completion Form.

- In December 2019, no WEAT refresher session was conducted but two employees/contractors were retrained.

- PG&E's onsite biologist also trained Field Contact Representatives (FCRs), who will be responsible for compliance with biological avoidance and mitigation measures. As of December 31, 2019, a total of 12 FCR training sessions were conducted and 56 employees and contractors received the training. No training occurred in December 2019.

- Training records are kept electronically and at the temporary construction trailers at the SPY. The records are available upon request.

2.5 Status of Work Variance Requests (WVRs)

There were no proposed WVRs in December 2019. Table 2-3 includes information regarding activities related to previously proposed WVRs (i.e., material deviations from the design documents, the C/RAWP, or other approved work plans), and agencies' actions on those requests.

2.6 Use of Future Activity Allowance

There has been no proposed use of Future Activity Allowance (FAA) to date.

2.7 Issues Encountered and Actions Taken to Rectify Issues/Problems

- PG&E selected California Boring to install the jack-and-bore under NTH and has worked with the contractor to refine its installation plan. California Boring proposed a change in the alignment of the jack-n-bore as well as locations of the bore pits and work area. PG&E discussed these changes with the agencies in a field meeting on November 7, 2019. The change in the alignment resulted in avoidance of nearby, mature palo verde tree and mesquite plants. However, there are historical resources within the proposed work area; PG&E has documented those resources and is consulting with the U.S. Bureau of Land Management (BLM) and State Historic Preservation Office. In compliance with the Programmatic Biological Agreement (CH2M, 2014), PG&E has also obtained approval from the California Department of Fish and Wildlife (CDFW), USFWS, and BLM for construction activities in the proposed work area. USFWS, CDFW, and BLM provided approval on November 25, December 10, and December 16, 2019, respectively.

- On December 12, 2019, a biological monitor noticed wet spots on the ground where a front-end loader was traveling along the floodplain access road and Pipeline C7. The biological monitor stopped the loader operator and had him put the front-end loader on visqueen. The operator inspected the front-end loader to find that when he had refueled, he had not placed the cap on correctly, causing fuel to leak out as he was operating. The impacted soil was removed and containerized in three 55-gallon drums filling two and a half of them. The drums were labeled and taken to the IM-3 treatment plant for pick up and disposal during the next "milk run."

  A detailed report was submitted to DTSC, DOI, BOR, and BLM on December 16, 2019. The root cause for the incident was not following established work procedures. Corrective actions were taken to prevent a reoccurrence, including a discussion and emphasis on attention to detail and proper fueling procedures in the following work day's safety tailgate meeting and retraining the front-end loader operator on post-fueling equipment inspection.

- On November 22, 2019, DTSC and DOI directed PG&E to install the provisional MW-V monitoring well due to the concentration of hexavalent chromium found at MW-10D. As a result, PG&E and contractors started to plan for the well installation and determined that additional areas beyond the current construction footprint are needed to create a safe access route for the drill rig and support equipment to reach the drilling location, as well as for equipment/material staging and construction vehicle parking. PG&E sent an invitation to the Tribes and the agencies on December 13, 2019 for a site walk to view the additional areas on January 6, 2020.

- The MW-Z drilling location is approximately 130-150 feet from the edge of the nearest Topock maze locus and is at a lower elevation than the maze. Due to its proximity to the maze, on November 16, 2019, PG&E conducted a short-term pre-mobilization sound test with the drill rig engine at rated load to assess potential compliance with NOISE-2. Based on the sound data collected, a sound barrier is anticipated to be required to comply with NOISE-2. Tribal inputs were solicited during the December 10, 2019 Cultural and Historic Properties Management Plan meeting about the potential placement of a sound barrier (consisting of CONEX boxes) close to the maze for compliance with NOISE-2. The Tribes requested a site walk to view the potential location of the CONEX boxes in the field. PG&E sent an invitation to the Tribes and the agencies on December 13, 2019 for a site walk on January 6, 2020.
- During development of well RB-3, sand production was observed in the development water. Development was stopped, and the cause of sand production was investigated by down-hole camera survey. Several feet of sand was observed in the bottom of the well, and the lower screen was determined to be damaged below 192 feet (bottom 24 feet of screen). Options for a path forward at this well were discussed with the agencies on December 19, 2019. The following path forward will be implemented:
  - Backfill bottom portion of screen with pea stone
  - Potentially add plug above pea stone
  - Finish developing and testing well
  - Evaluate testing data to determine if well will meet its design function
  - If well will not meet design function abandon well in place, offset, and re-drill replacement well

2.8 Key Personnel Changes

There was no change to key PG&E project personnel in December 2019.

2.9 Communication with the Public

In compliance with SEIR mitigation measure HYDRO-6a, PG&E has sought permission from private owners to access non-project private water supply wells for sampling and reported the results to DTSC on December 13, 2019.

2.10 Planned Activities for Next Six Weeks

The planned activities for next six weeks (December 29, 2019 through February 15, 2020) include the following:

- Complete installation of MW-Z, IRZ-15, and NTH IRZ wells (IRZ-27 and 29).
- Start MW-V site preparation and well installation.
- Complete installation of pilot borings at IRZ-31, -33, -35, and -37.
- Conduct well testing at RB-3, RB-4, IRZ-16, and IRZ-17.
- Complete well development at IRZ-16, IRZ-17, IRZ-27, MW-Z, MW-81, RB-2, and RB-3.
- Continue to install remedy facilities at the MW-20 Bench.
- Complete installation of Pipeline B.
- Continue installation of Pipeline J.
- Continue installation of Pipeline M Segments M2-M6 and Pipeline X inside TCS.
- Continue installation of Pipeline C in the floodplain and along the southern access road to the floodplain.

- Complete soil resistivity survey for cathodic protection in the jack and bore receiving area south of NTH.
- Continue to conduct noise and dust monitoring and inspection of SWPPP BMPs.
- Continue to log and manage waste generated.
- Continue to manage displaced soil per the approved SMP.

Attachment G contains the six-week look-ahead schedule available at this time. Any adjustments to the schedule will occur as needed via the weekly emails (sent at the end of each week) and/or the daily list of construction activities (published daily and discussed with agency and Tribal representatives on site on that day).

2.11 Construction Schedule Review

Phase 1 of the groundwater remedy construction started on October 2, 2018. Table 2-4 presents a summary of the percent completeness for key construction activities as of December 31, 2019.

In addition, the latest project schedule including Phase 1 construction can be downloaded from the project website.

2.12 Available Sitewide Groundwater Monitoring Data (DTSC Condition of Approval xi)

Pursuant to Condition of Approval # xi in DTSC's approval letter dated August 24, 2018 (DTSC, 2018a), PG&E is required to report data from samples collected as part of the sitewide groundwater monitoring program within 60 days of sample collection. In compliance with this requirement, PG&E submitted validated data to DTSC via monthly emails. For ease of recordkeeping and to minimize the number of ad-hoc compliance reports/emails, PG&E has included validated data in each monthly progress report starting with the November 2018 monthly report. The validated data are included in Attachment H of this report.

3. References

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United States Department of the Interior (DOI). 2018. *Approval of PG&E Topock Compressor Station Remediation Site – Basis of Design Report/Final (100%) Design Submittal and Construction/Remedial Action Work Plan for the Final Groundwater Remedy and the Supplemental and Errata Information for the Final (100%) Design for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California.* Letter from Pamela Innis/DOI to Curt Russell/PG&E. April 3.

Tables

Table 2-1a. Summary of Non-Well Environmental Release-To-Constructions (ERTCs)

December 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California

ERTC No.	Brief Description of Covered Areas and Scope of Authorized Activities	Issue Date
1	Initial mobilization activities at the Construction Headquarters (CHQ), Soil Processing Yard (SPY), and three staging areas (#9 Parking area off I-40, #18 MW-20 Bench, and #23 Transwestern Bench). Scope included installation of temporary construction trailers, portable generators, SWPPP BMPs, construction signages, and temporary construction fencing, as well as equipment staging and truck inspections.	August 10, 2018
Addendum 1 to ERTC #1	Scope included setup of wastewater and freshwater storage tanks at MW-20 Bench, improvement of the access road at the CHQ, installation of perimeter fence at the SPY, and grading at SPY.	September 21, 2018
Addendum 2 to ERTC #1	Scope included grading for drill rig setup at IRZ-20.	October 4, 2018
Addendum 3 to ERTC #1	Scope included geotechnical investigation in the footprint of the future Carbon Amendment building at the MW-20 Bench.	October 9, 2018
Addendum 4 to ERTC #1	Scope included the installation of a temporary handrail along the walkway from the MW-20 Bench to the floodplain.	December 28, 2018
2	Scope included the installation of the temporary construction water system and construction water tanks at Area #25 Route 66 Welcome Sign.	September 28, 2018
3	Scope included the installation of the Public Information Trailer, a fugitive dust sign, an information kiosk, and a construction delivery sign at the northwest corner of Park Moabi Road and National Trails Highway (NTH).	September 4, 2018
4	Scope included the installation of a truck containment pad at the Topock Compressor Station (TCS) evaporation ponds and maintenance of the access road to the ponds.	September 24, 2018
6	Scope included the geotechnical investigation along Pipeline F alignment (on the Compressor Station entrance road).	October 3, 2018
7	Scope included the installation of traffic control along the southern end of NTH per the Traffic Control Plan.	September 17, 2018
9	Scope included the transplantation and planting of sensitive plants.	November 9, 2018
10	Scope included potholing activities along approved pipeline alignments and in building footprints, that are also in AOCs/SMWUs. The purpose is to pre-characterize soil in preparation for construction.	March 29, 2019
11	Scope included preparation of temporary staging areas, vegetation clearance, placement of stabilization mats, potholing in select locations, and installation of Pipeline C segments C1 through C6 in the floodplain.	January 3, 2019
11a	Scope included preparation of temporary staging areas, vegetation clearance, placement of stabilization mats, potholing in select locations, and installation of Pipeline C segments C7-C10, and C17 in the floodplain.	February 11, 2019
Addendum 1 to ERTC #11a	Scope included installation of Pipeline C Segment C14 along the southern access road to the floodplain (between BNSF railroad and I-40 bridges.	October 3, 2019
11b	Scope included installation of Pipelines B, F, and J.	May 31, 2019
Addendum 1 to ERTC #11b	Scope included details for installation of Pipeline B/F/J inside TCS.	July 25, 2019
12	Scope included non-intrusive site preparation work for the brine tanks containment upgrade on the MW-20 Bench (per Work Variance Request #1, refer to Table 2-3). A forthcoming addendum to this ERTC will be issued to include the actual upgrade activities.	January 10, 2019

ERTC No.	Brief Description of Covered Areas and Scope of Authorized Activities	Issue Date
12a	Scope included the actual brine tanks containment upgrade activities which include intrusive work on the MW-20 Bench (per Work Variance Request #1, refer to Table 2-3).	February 6, 2019
13	Scope included the installation of remedy facilities on MW-20 Bench.	November 21, 2019
14	Scope included site preparation for the installation of Pipeline M inside TCS.	December 11, 2019
15	Scope included the installation of Pipeline M2-M6 and X Installation Inside TCS	December 13, 2019
16	Scope included soil resistivity survey and the installation of pipeline C9 (Jack and Bore) and pipeline C8b.	December 29, 2019

Table 2-1b. Summary of Well Environmental Release-To-Constructions (ERTCs)

December 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California

ERTC No.	Brief Description of Covered Areas and Scope of Authorized Activities	Issue Date
5a	Scope included the site setup, drilling, testing, and demobilization at MW-L.	September 27, 2018
5b	Scope included the placement of soil stabilization mats in the floodplain, setup of a temporary staging area near the north end of the access route in the floodplain, rig setup, installation of snow fence to protect plants, drilling, testing, and demobilization at IRZ-15.	October 12, 2018
5c	Scope included the site setup, drilling, testing, and demobilization at IRZ-20 on the MW-20 Bench.	October 15, 2018
5d	Scope included the site setup, drilling, testing, and demobilization at MW-E on the MW-20 Bench.	October 29, 2018
5e	Scope included the site setup, drilling, testing, and demobilization at MW-N in the upland.	November 15, 2018
5f	Scope included the site setup, drilling, testing, and demobilization at IRZ-13 in the floodplain.	November 7, 2018
5g	Scope included the site setup, drilling, testing, and demobilization at IRZ-23 on the MW-20 Bench.	November 8, 2018
5h	Scope included the site setup, drilling, testing, and demobilization at MW-M in the upland.	January 15, 2019
5i	Scope included the site setup, drilling, testing, and demobilization at IRZ-9 in the floodplain.	November 28, 2018
5j	Scope included the site setup, drilling, testing, and demobilization at IRZ-25 on the MW-20 Bench.	December 3, 2018
5k	Scope included the site setup, drilling, testing, and demobilization at IRZ-21 on the MW-20 Bench.	December 9, 2018
5l	Scope included the site setup, drilling, testing, and demobilization at MW-B in the floodplain.	December 10, 2018
Addendum to ERTC #5l	Scope included the setup of an additional temporary equipment and material staging area in the floodplain.	December 13, 2018
5m	Scope included the site setup, drilling, testing, and demobilization at MW-F along NTH.	December 17, 2018
5n	Scope included the site setup, drilling, testing, and demobilization at IRZ-11 in the floodplain.	December 17, 2018
5o	Scope included the site setup, drilling, testing, and demobilization at MW-X and MW-Y' in Arizona.	April 23, 2019
5p	Scope included the site setup, drilling, testing, and demobilization at MW-G along NTH.	January 14, 2019
5q	Scope included the site setup, drilling, testing, and demobilization at IRZ-16 and IRZ-17 in the floodplain.	February 14, 2019
5r	Scope included the site setup, drilling, testing, and demobilization at IRZ-27 and IRZ-29 along NTH. Also included in the scope are potholing activities along Pipeline C Segments C13, C15, and C16 and on the MW-20 Bench.	March 9, 2019
Addendum #1 to ERTC #5r	Scope included the potholing to locate Transwestern Gas Pipeline within NTH (in support of Pipeline C installation).	April 24, 2019
Addendum #2 to ERTC #5r	Scope included the installation of NTH IRZ-27/29/31/33/35 and the temporary Frontier bypass.	November 19, 2019
5s	Scope included the site setup, drilling, testing, and demobilization at IRZ-39 in the low area, north of the Transwestern Bench.	March 12, 2019

ERTC No.	Brief Description of Covered Areas and Scope of Authorized Activities	Issue Date
5t	Scope included the site setup, drilling, testing, and demobilization at IRZ-27 along NTH.	March 19, 2019
5u	Scope included the site setup, drilling, testing, and demobilization at MW-U in I-40 median.	March 22, 2019
5v	Scope included the site setup, drilling, testing, and demobilization at MW-10D in Bat Cave Wash.	March 27, 2019
5w	Scope included the site setup, drilling, testing, and demobilization at MW-W in the floodplain.	March 22, 2019
5x	Scope included the site setup, drilling, testing, and demobilization at RB-1 through 5 wells and MW-O in the floodplain.	March 30, 2019
5y	Scope included the site setup, drilling, testing, and demobilization at MW-S on the access road to Bat Cave Wash.	April 12, 2019
5z	Scope included the site setup, drilling, testing, and demobilization at MW-R in the Upland.	May 8, 2019
5aa	Scope included the site setup, drilling, testing, and demobilization at MW-C, MW-D, and MW-H in the floodplain	June 6, 2019
5ab	Scope included the site setup, drilling, testing, and demobilization at IRZ-19 (sonic drilling) in the floodplain	July 22, 2019
5ac	Scope included the site setup, drilling, testing, and demobilization at MW-11D (sonic drilling) in Bat Cave Wash	September 25, 2019
5ad	Scope included the site setup, drilling, testing, and demobilization at Hydro-6a monitoring well in Arizona	October 16, 2019
5ae	Scope included the site setup, drilling, testing, and demobilization at MW-70BRd in East Ravine	October 4, 2019
5ag	Scope included the site setup, drilling, testing, and demobilization at IRZ-18 on MW-20 Bench	November 15, 2019

Note: ERTC 5af is reserved for MW-Z and is under preparation.

Table 2-2. Monitoring Wells Nomenclature Changes

December 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California

Previous Well Name	New Monitoring Well Name
MW-10D	MW-10D
MW-11D	MW-11D
MW-70BR-D	MW-70BR-289
MW-B-033	MW-75-033
MW-B-117	MW-75-117
MW-B-202	MW-75-202
MW-B-267R	MW-75-267
MW-B-337	MW-75-337
MW-C-039	MW-76-039
MW-C-156	MW-76-156
MW-C-181	MW-76-181
MW-C-218	MW-76-218
MW-D-046R	MW-77-046
MW-D-102	MW-77-102
MW-D-158	MW-77-158
MW-D-187	MW-77-187
MW-E-072	MW-78-072
MW-E-142	MW-78-142
MW-F-060	MW-79-060
MW-F-104	MW-79-104
MW-G-057	MW-80-057
MW-G-082	MW-80-082
Former IRZ-19	MW-81-43
Former IRZ-19	MW-81-98
MW-H-046	MW-82-046
MW-H-112	MW-82-112
MW-H-168	MW-82-168
MW-H-198	MW-82-198
MW-L-090	MW-83-090
MW-L-180	MW-83-180
MW-L-225	MW-83-225
MW-L-245	MW-83-245
MW-M-057	MW-84-057
MW-M-095	MW-84-095

Previous Well Name	New Monitoring Well Name
MW-M-132	MW-84-132
MW-M-193	MW-84-193
MW-N-129	MW-85-129
MW-N-217	MW-85-217
MW-N-237	MW-85-237
MW-O-030	MW-86-030
MW-O-066	MW-86-066
MW-O-120	MW-86-120
MW-O-140	MW-86-140
MW-R-109	MW-87-109
MW-R-139	MW-87-139
MW-R-192	MW-87-192
MW-R-275	MW-87-275
MW-S-109	MW-88-109
MW-U-183	MW-89-183
MW-U-273	MW-89-273
MW-W-031	MW-90-031
MW-X-045	MW-91-045
MW-X-120	MW-91-120
MW-X-170	MW-91-170
MW-X-320	MW-91-320
MW-Y-037	MW-92-037
MW-Y-072	MW-92-072
MW-Y-102	MW-92-102
MW-Y-122	MW-92-122
HYDRO-6 (deep)	MW-94-30
HYDRO-6 (mid)	MW-94-100
HYDRO-6 (shallow)	MW-94-175

Table 2-3. Summary of Work Variance Requests (WVRs)

December 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California

WVR No.	Brief Description of Work Variance Request	Approval Dates
1	This WVR addressed PG&E's proposed modification to the brine tanks containment for use by the remedy, specifically: • **Upgrade the existing lined containment to concrete** - The original synthetic liner material has degraded from exposure to UV light, heat, and abrasion and must be replaced. PG&E proposed to replace the synthetic-lined containment (including K-rails) with a concrete containment to support the groundwater remedy. The concrete color will be desert tan, and information on this proposed concrete color will be submitted to the agencies for review. The proposed concrete material will be similar to the material of the truck lane in the final remedy design (refer to Appendix E of the Final Basis of Design Report (CH2M, 2015a),* Section 033 00, Cast-In-Place Concrete). • **Shorten the length of the containment** - This containment will have the same height as the existing containment, but with a slightly smaller footprint (the length is 5 feet shorter). This smaller footprint still meets the required volume for a secondary containment and allows for more space for remedy construction at the tight MW-20 bench.	DOI approved WVR #1 on June 22, 2018 DTSC approved WVR #1 on July 5, 2018
2	PG&E proposed to relocate the tie-in point for remedy construction water to an aboveground location inside Topock Compressor Station (TCS) and below the TCS Water Storage Tanks. This is to eliminate the risk of damaging the existing pressurized 6-inch water line and to avoid any interference with PG&E Gas Operations control of the Station's water supply. The WVR addressed this relocation, specifically: • Relocate the construction water tie-in point to an aboveground location below the TCS Water Storage Tanks, inside TCS – The final design calls for the temporary construction water line to hot-tap into the existing 6-inch steel water line just as the line turns southwest to continue to TCS. PG&E proposed to move the tie-in point to an aboveground valve manifold, located below the TCS Water Storage Tanks in the boneyard area. • Extend the temporary construction water line to the new tie-in point, along Pipeline 300A access road – The planned 4-inch high-density polyethylene (HDPE) temporary construction water line will be extended, following the route of the Pipeline 300A access road, to the new tie-in point inside TCS. This pipeline extension is approximately 1,950 feet and is also made of 4-inch HDPE. The pipe will be laid on ground surface and to the south of the 6-inch water line where possible. At the crossing with the SoCal Gas pipeline access road, the pipeline will be at grade with fill to allow for vehicle crossing.	DOI/DTSC approved WVR #2 on August 29, 2018
3	PG&E proposed changes within the CHQ fence line to avoid/minimize the overall amount of soil disturbance during construction, reduce the number of truck trips to haul wastewater, and allow for additional working space within the yard. There are no proposed changes to the CHQ footprint nor its fence line. The specifics are described below: • Relocate the decontamination pad from the western fence to the northern fence (near the western corner). Based on recent survey data collected during construction, the difference in ground elevation between northern and southern end of the pad is about 4 feet. Moving the pad to the northern fence would eliminate the difference in ground elevation and reduce the amount of soil disturbance by at least 80 cubic yards. • Bring the remedy-produced wastewater tank from belowground to aboveground, increase the tank volume from 1,000 to 2,500 gallons, and place the aboveground, double-walled tank adjacent to the decontamination pad. The change from belowground to aboveground reduces the amount of soil disturbance by at least 50 cubic yards. The change to a bigger tank will reduce the amount of truck trips needed to haul wastewater. The placement of the tank adjacent to the decontamination pad allows for the pad to function as a secondary containment for the haul truck during off-loading of the wastewater. • Defer construction of the underground sewage tanks. Deferral of the underground tanks reduces the overall amount of soil disturbance by at least 800 cubic yards. All sanitary wastes will be managed in aboveground sewage tanks (similar to the ones currently used for the SPY trailers) or portable toilets. • Swap the location of the construction trailers and the sunshade and change the configuration of the sunshade from a rectangle to a square. This change will allow for more working space within the CHQ. All functions that would occur in the Workshop/Sampling Processing building will be conducted in the construction trailers.	DOI/DTSC approved WVR #3 on January 4, 2019

WVR No.	Brief Description of Work Variance Request	Approval Dates
4	PG&E proposed to revise a segment of Pipeline C near the I-40 bridge, to meet the permit requirement in Caltrans Encroachment Permit No. 08-18-6-MW-0533. The revision involves relocating a small segment of Pipeline C to within National Trails Highway to meet a minimum distance of 10 feet from current and future I-40 bridge footings. The treatment measure specified for Segment X of National Trails Highway in the Cultural and Historic Property Management Plan will be implemented during installation of this pipeline segment.	DOI/DTSC approved WVR #4 on May 14, 2019
5	PG&E proposed to phase the remedy produced water conditioning system within the approved footprint inside TCS.	DOI and DTSC approved WVR #5 on July 19 and July 22, 2019, respectively.
6	In early October 2018, PG&E conducted a geotechnical investigation along the Pipeline F alignment on the entrance road to the TCS and the adjacent hill side. Based on the geotechnical results, the construction contractor (PIVOX) indicated that soldier piles and lagging would be required for temporary shoring. Over 40 soldier piles would be installed by drilling using a 330-sized excavator or larger. A 330-sized excavator has a general width of 11 feet, and counter weight clearance of approximately 4 feet. During operation, this rig would occupy a minimum 15 to 16 feet width of the TCS entrance road for about 12 days. The paved width of the road is between 22 to 24 feet in the area of shoring (per review of the location via Google Earth). Assuming a minimum clearance of 1 foot (which is still less than the recommended clearance) from any operating equipment, there will be approximately 5 to 8 feet of available lane width for access by TCS traffic. Large vehicles (tractor-trailers, delivery trucks, construction equipment) will likely not be able to pass by the active operation, and passenger vehicles may also not be able to pass the active operation in locations where the road narrows. Also, the excavator cannot be repositioned while soldier piles are being drilled. In sum, access to TCS will be severely restricted for about 12 days. This is not acceptable for Compressor Station operations. Therefore, PG&E proposed to realign Pipeline F (starting from segment F3) along the approved alignment of Pipelines B and J. Construction of Pipelines F, B, and J would occur in the same alignment and at the same time.	DOI and DTSC approved WVR #6 on May 21 and May 22, 2019, respectively.
7	This WVR proposed the following changes to remedy infrastructure at the CHQ and SPY. a) Locate all temporary office and break trailers at the SPY. PG&E proposed to keep the three existing office trailers at their current locations in the SPY and add two additional office trailers and one break trailer for workers. The additional trailers will be equipped with aboveground sewage tanks, similar to the existing trailers. They will also be powered by Needles Electric. This will require the original SPY fence line to be extended south/southwest to encompass these trailers and the original truck entrance from National Trails Highway to the access road east of SPY. Neither changes reduce the overall area available for soil storage. b) Eliminate the workshop/sample processing building at the CHQ. The function planned for this building will be moved to the Carbon Amendment building at the MW-20 Bench. Removal of this building reduces the amount of soil disturbance by approximately 334 cubic yards. c) Eliminate the sunshade at the CHQ. The function for the sunshade will be replaced by the break trailer for the workers. Removal of the sunshade reduces the amount of soil distance (i.e., installation of the footings) by approximately 14 cubic yards. d) Convert the utility pad at the CHQ to a smaller transformer/electrical panel pad. With the relocation of the six trailers to SPY and elimination of the workshop/sample processing building, PG&E proposed to convert the utility pad to smaller pad for a smaller transformer/electrical panel to serve the remaining trailers at the CHQ. This reduces the amount of soil disturbance by approximately 61 cubic yards.	DOI and DTSC approved WVR #7 on June 14, 2019.
8	On September 12, 2019, PG&E proposed a WVR to change the alignment of pipeline segment C6 on the eastern slope of the MW-20 Bench. The purpose of the WVR is to reduce the amount of soil disturbance, reduce the number of plants to be removed, reduce the safety risks associated with construction atop the MW-20 bench, and reduce the hazards associated with operation at the MW-20 bench during construction.	DTSC and DOI approved WVR #8 on October 4 and 8, 2019, respectively.

Note:
* CH2M HILL, Inc. (CH2M). 2015a. *Basis of Design Report/Final (100%) Design Submittal for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California*. November 18.

Table 2-4. Summary of Percent Completeness of Key Construction Activities

December 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup

PG&E Topock Compressor Station, Needles, California

Activity	% Complete	Current Status of Construction Activities (as of December 31, 2019)
Project signage & Public Information Office	100%	Complete.
Staging Areas 9, 18, and 23 setup	100%	Complete.
Temporary construction offices at Soil Processing Yard	100%	Complete.
Soil Processing Yard including security fence	100%	Complete.
National Trails Highway lane closure and traffic control installation	100%	Complete.
Temporary construction water line	100%	Complete.
TCS Ponds concrete containment pad	100%	Complete.
Construction Headquarters (CHQ) access road and security fence	100%	Complete.
Aggregate-based access road in floodplain	Not Available	Portion north of BNSF bridge is substantially complete.
MW-L, N, E, W, O, R, M, U, 10D, B, H, X, and Y'	100%	Complete.
MW-F, MW-G, MW-D (rebuilt), MW-C, MW-S, Hydro-6 monitoring well, MW-70BR, MW-81, IRZ-37, IRZ-39, RB-2, RB-3	Not Available	Well construction complete. Surface completion will be scheduled when rig is available.
MW-B-267 (damaged)	100%	Completed well abandonment. Installation of replacement well complete.
MW-C (shallow, sand entered well casing)	100%	Video log complete. A plug was installed below well screen. Subsequent development was successful.
MW-S (damaged)	100%	Over drill effort unsuccessful. Installation of replacement well complete.
RB-5, RB-4, RB-3, RB-2, IRZ-9, 13, 15, 16, 17, 18, 21, 23, 25, 27, 29, and 39 pilot borings	100%	Complete.
RB-2, RB-3, RB-4, RB-5, IRZ-16, IRZ-17, IRZ-20, IRZ-21, IRZ-23, IRZ-25, and IRZ-39 remedy wells	Not Available	Well construction complete. Well testing ongoing.
Evaluation of RB-3 performance (sand production observed during development)	Not Available	Video log complete. Options for path forward were discussed with agencies on 12/19/19. A path forward was selected and is being implemented. Bottom portion of screen backfilled with pea gravel. Continue with development and testing.
Pipeline C Segments C3, C4, C5, C7	Not Available	Substantially complete.
Pipeline C Segments C8, C8-Alt, and C14	Not Available	Currently underway.
Brine Tanks containment upgrade	100%	Complete.
Pipeline B and J	Not Available	Started on August 12, 2019. Currently underway.
Pipeline M2-M6 (inside TCS0	Not Available	Started on December 18, 2019. Currently underway.
Pipeline X (inside TCS)	Not Available	Started on December 18, 2019. Currently underway.
Remedy pipeline/infrastructure on MW-20 Bench	Not Available	Started on December 16, 2019. Currently underway.

Figures

SOIL PROCESSING YARD

CONSTRUCTION HEADQUARTERS

Park Moabi RD.

San Bernardino County

BOR

Fort Mojave Indian Tribe

National Trails HWY

Treatment Plant Facility

MW-20 BENCH

BLM

INTERSTATE 40

County Hwy 10

TCS EVAPORATION PONDS

HNWR

PG&E TOPOCK COMPRESSOR STATION

TRANSWESTERN BENCH

PG&E

6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

LEGEND

- Existing Access Route (will continue to be used for remedial activities)
- Existing Route (to be used as is for access to remedial activities)
- Roads to be improved or constructed for groundwater remedy
- Soil Processing (Area #5) and Construction Headquarter (Area #4) for Remediation Project
- Staging Areas for Remediation Project

Notes:

1. Decontamination pads will be located in Area #4 (Construction Headquarters), Area #21 (Topock Compressor Station), and Area #23 (Transwestern Bench).
2. Areas #15, 16, 17, 19, and 20 will not be used as staging areas. Areas #16, 17, and 19 may be part of the primary work zones for remedy infrastructure along the access road.
3. Area #20 may be part of the primary work zone for installation of future provisional well IRL-6 (if determined to be needed in the future) and associated piping/concrete/vault.
4. Public roadways outside of the EIR project area and the APE can also be used for remedy implementation.

N

0 900

Feet

FIGURE 2-1
CONSTRUCTION SITE PLAN AND ACCESS ROUTES

GROUNDWATER REMEDY CONSTRUCTION/ PHASE 1
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

JACOBS

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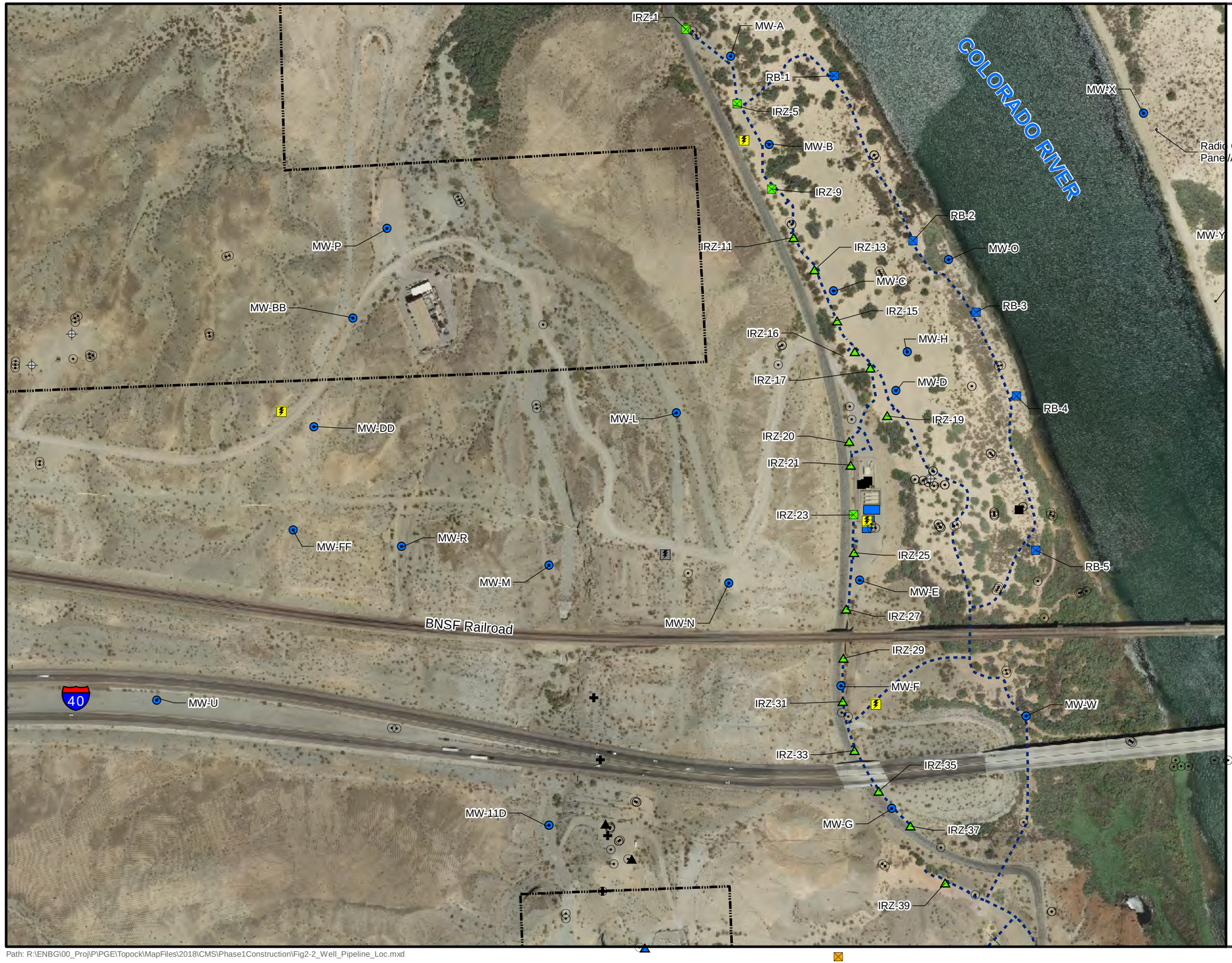

LEGEND

- Property Boundaries

Existing Wells:

- Extraction Well
- Injection Well
- Monitoring Well
- Water Supply Well

Planned Wells:

- Extraction, National Trails Highway (NTH) In-situ Reactive Zone (IRZ)
- Extraction, Riverbank
- Injection, NTH IRZ
- Injection, Topock Compressor Station
- Remedy Monitoring Well
- Recirculation Well

Pipeline Corridor for Remedy

- Aboveground Pipe
- Underground Pipe/Conduit

Remedy Facilities

- Planned Transformer
- Future Provisional Transformer
- Proposed Remedy Structure

Note:

1. Note that in compliance with EIR mitigation measure CUL-1a-9, as well as PA and CHPMP mitigation measures, the pipeline along the dirt road west of National Trails Hwy is located in an existing, previously disturbed, access road. In addition, the location of the road and pipeline was field verified and does not create any direct physical impact or effect on the Topock Maze, as it is manifested archaeologically, in compliance with EIR mitigation measure CUL-1a-10, PA, and CHPMP mitigation measures.
2. All well and structure locations are approximate.

This figure will be updated with the new monitoring well nomenclatures as presented in Table 2-2. The updated figure will be included in the January 2020 Monthly Progress Report

N

0 150 300 600

Feet

FIGURE 2-2
WELL AND PIPELINE LOCATIONS
GROUNDWATER REMEDY PHASE 1 CONSTRUCTION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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Path: R:\ENBG\00_Proj\P\PGE\Topock\MapFiles\2018\CMS\Phase1Construction\Fig2-2_Well_Pipeline_Loc.mxd

Attachment A
Photographs

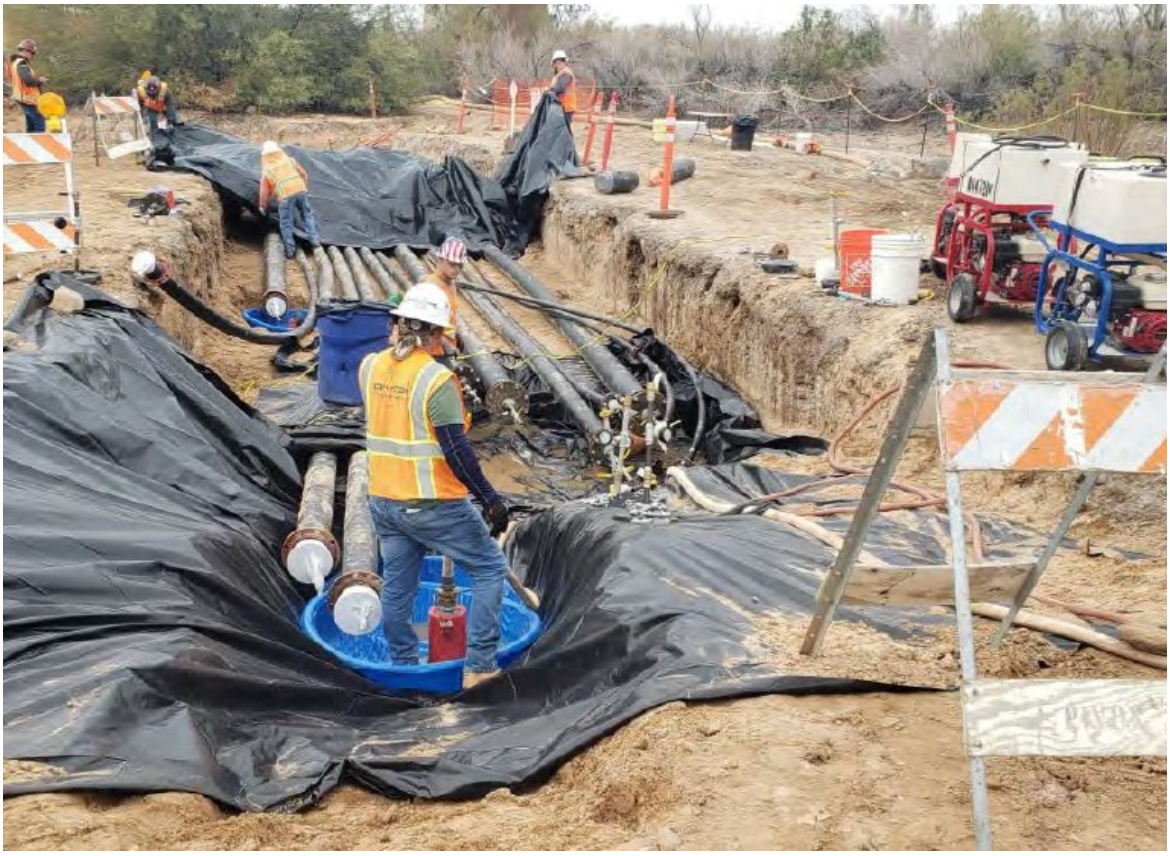


Photo showing pipe flushing setup/activities at Pipeline C8

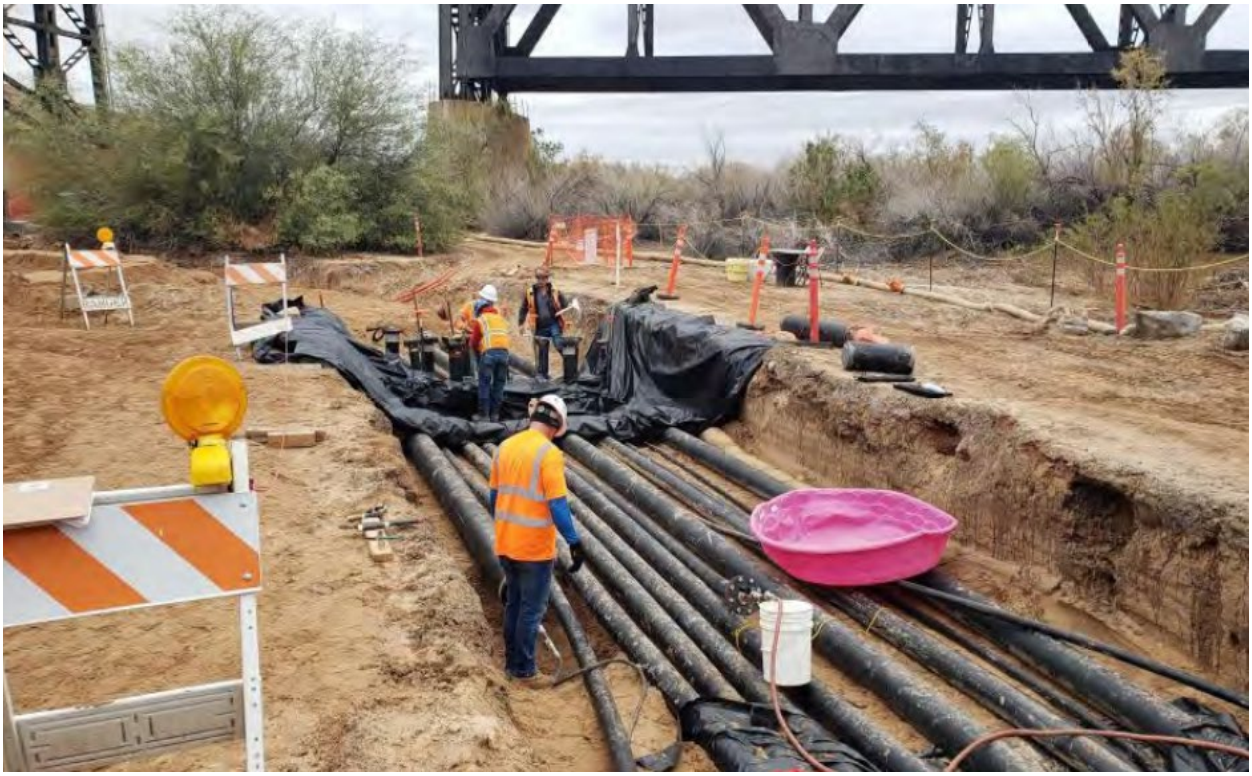


Photo showing leak test setup at Pipeline C8 end of the Pipeline C7, C8, C14 testing segment

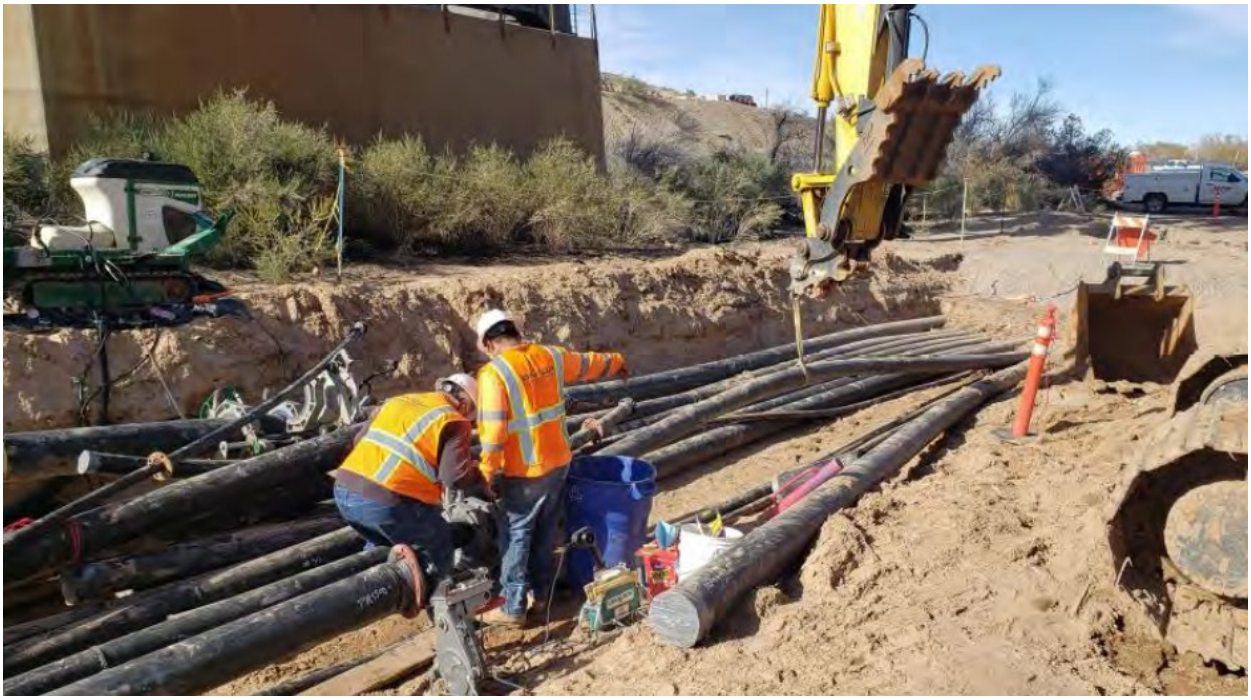


Photo showing fusing of pipes at Pipeline C7 in the floodplain

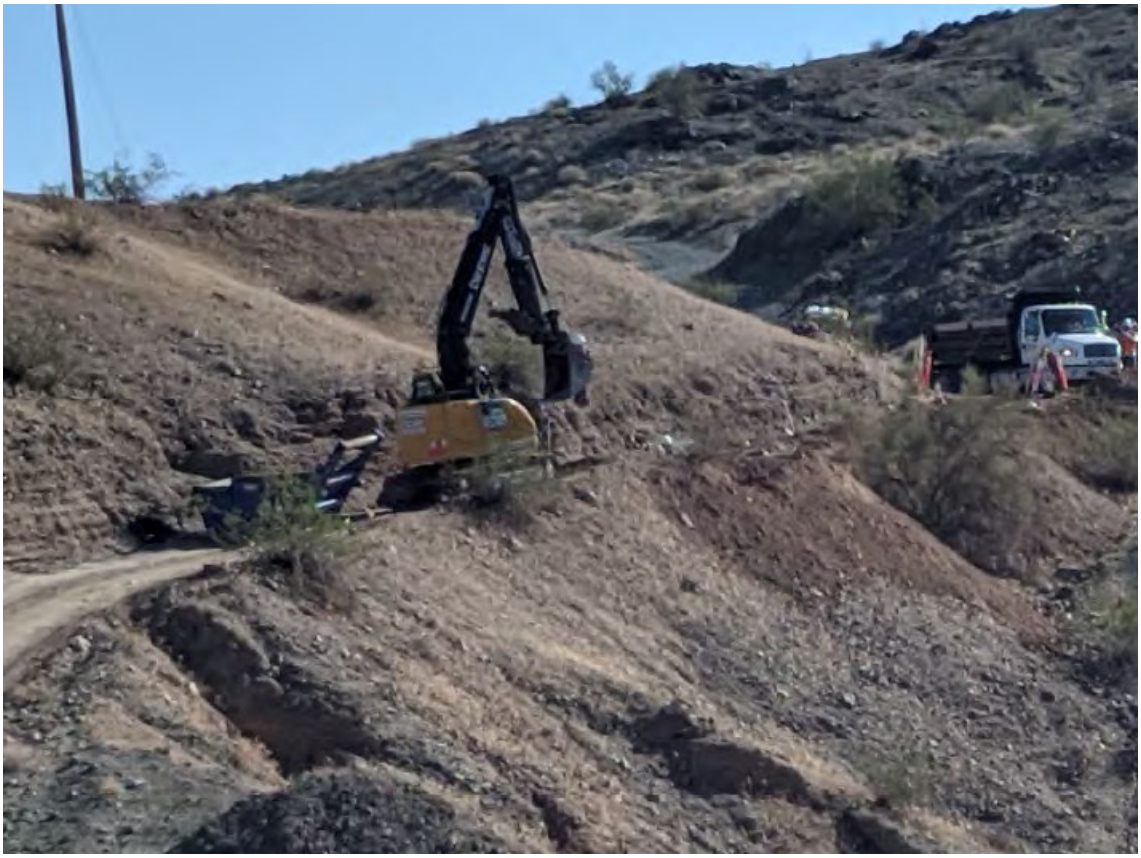


Photo showing trenching along the narrow alignment of Pipeline J

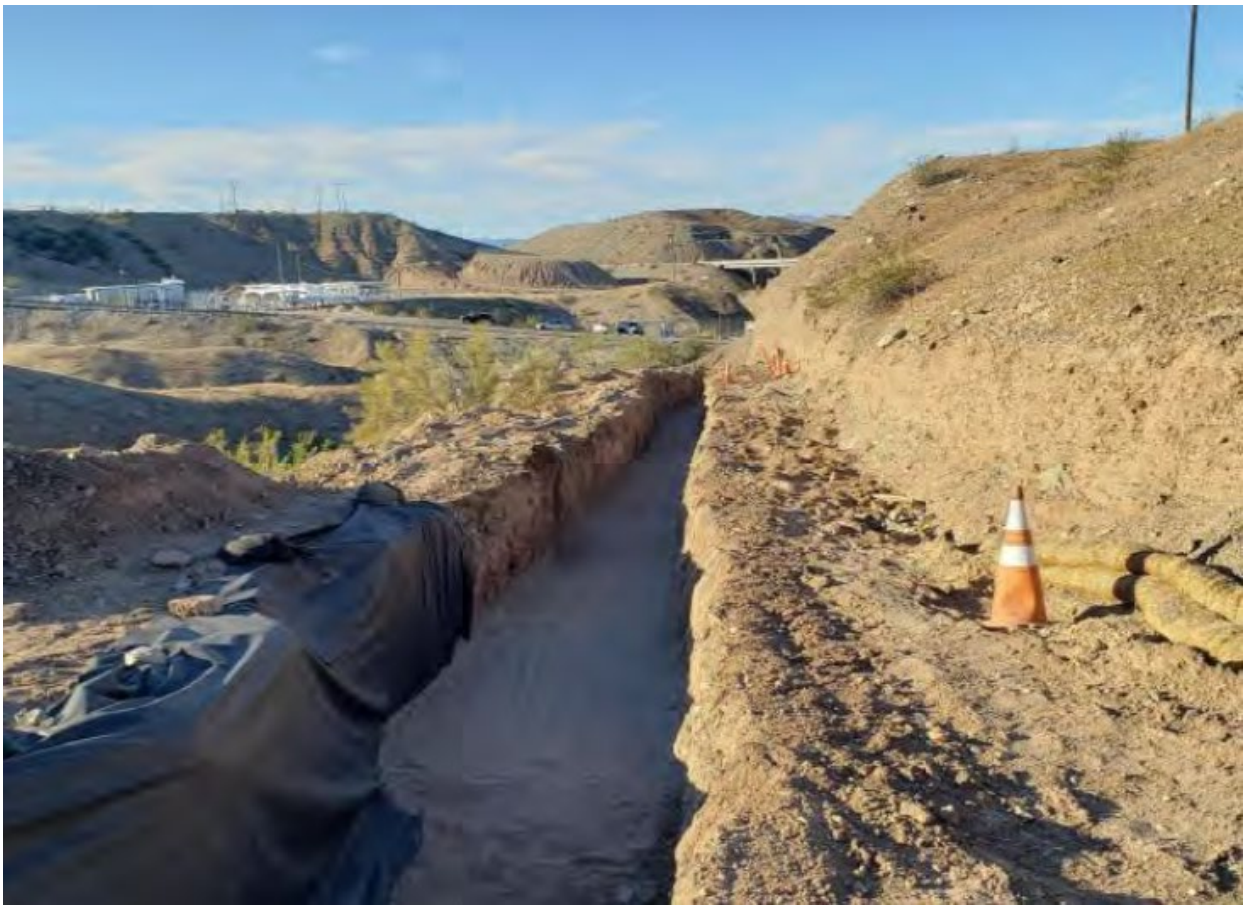


Photo showing Pipeline J trench prior to pipe placement

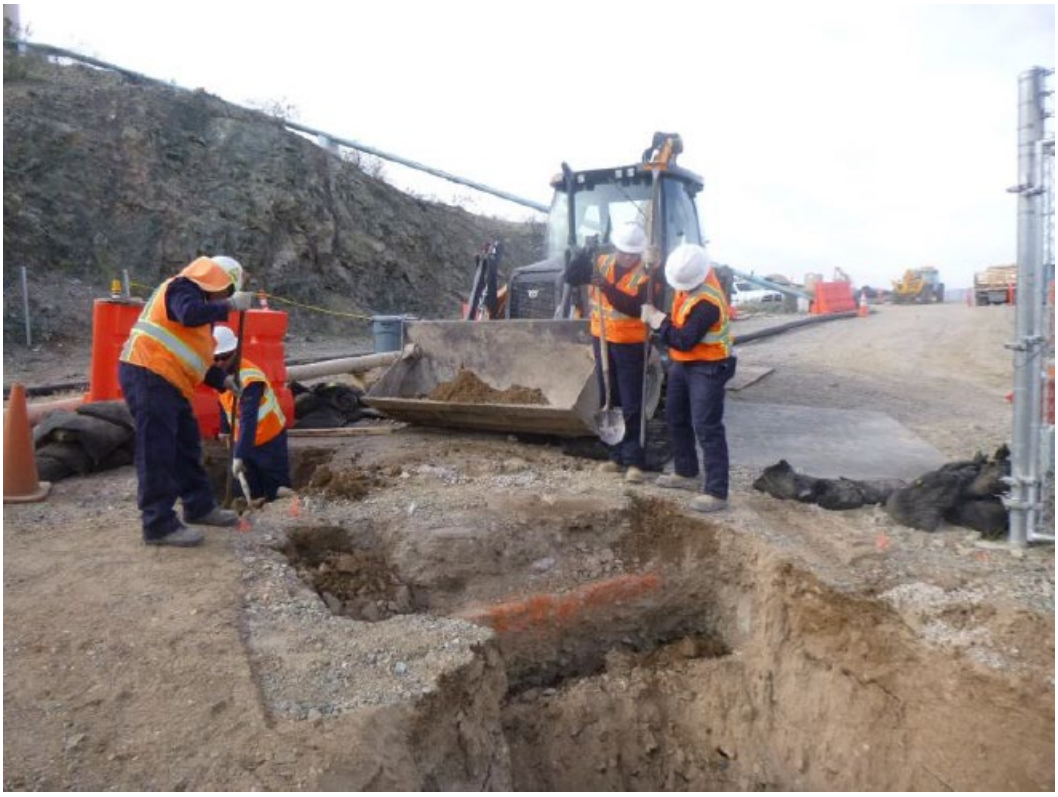


Photo showing hand excavation to locate utilities at Pipeline B, just inside TCS fence/gate

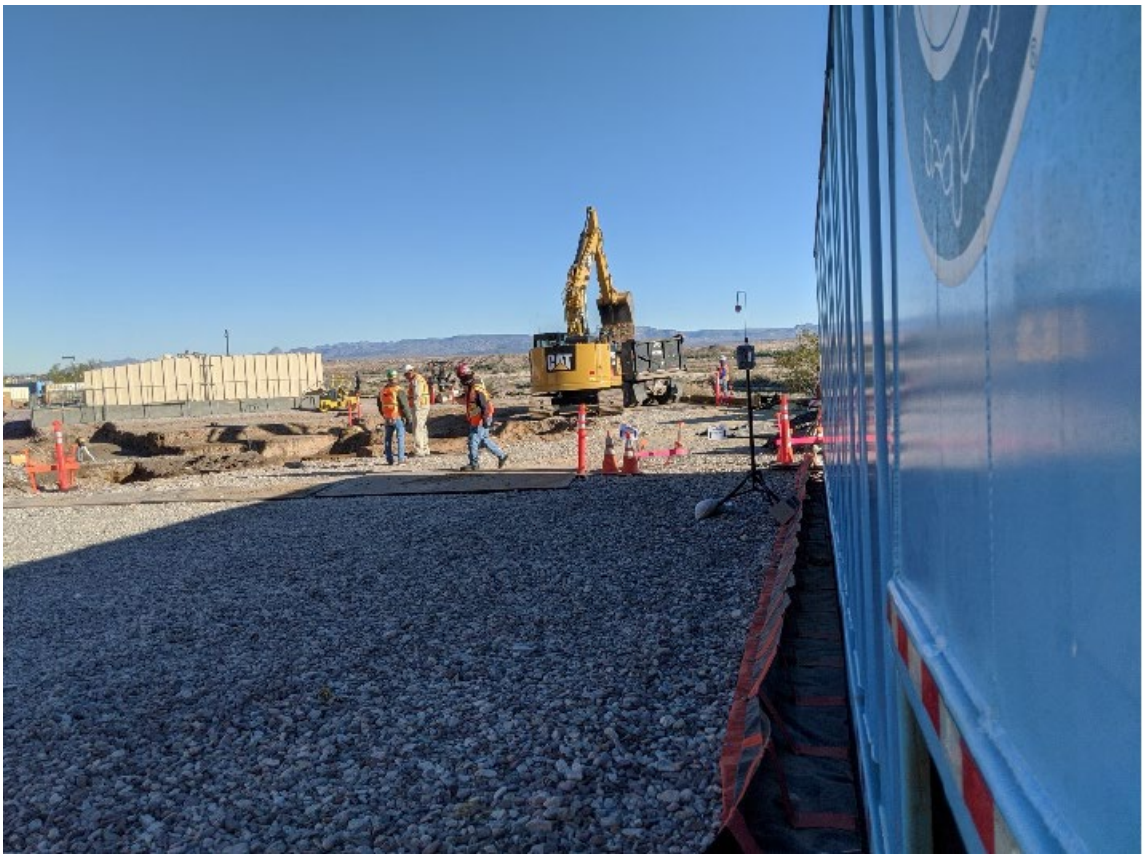


Photo showing excavation at MW-20 Bench

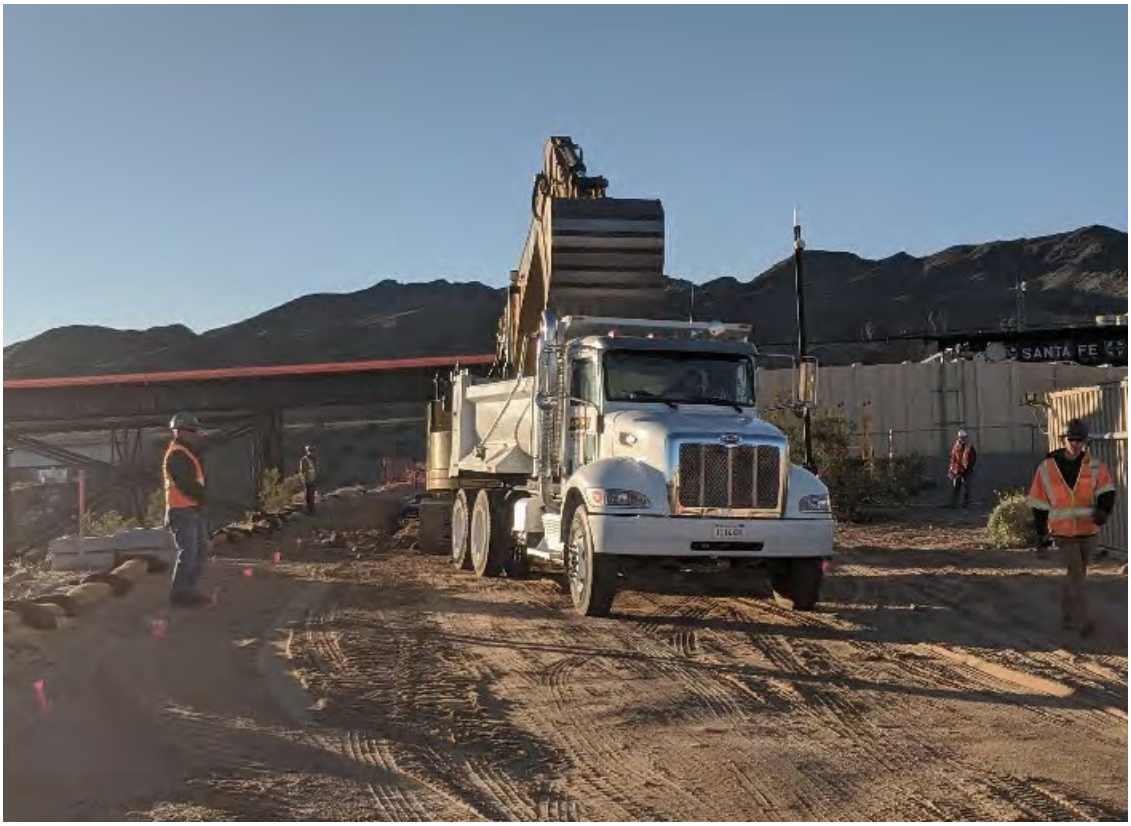


Photo showing loading of excavated material from MW-20 bench into dump truck for transport to SPY

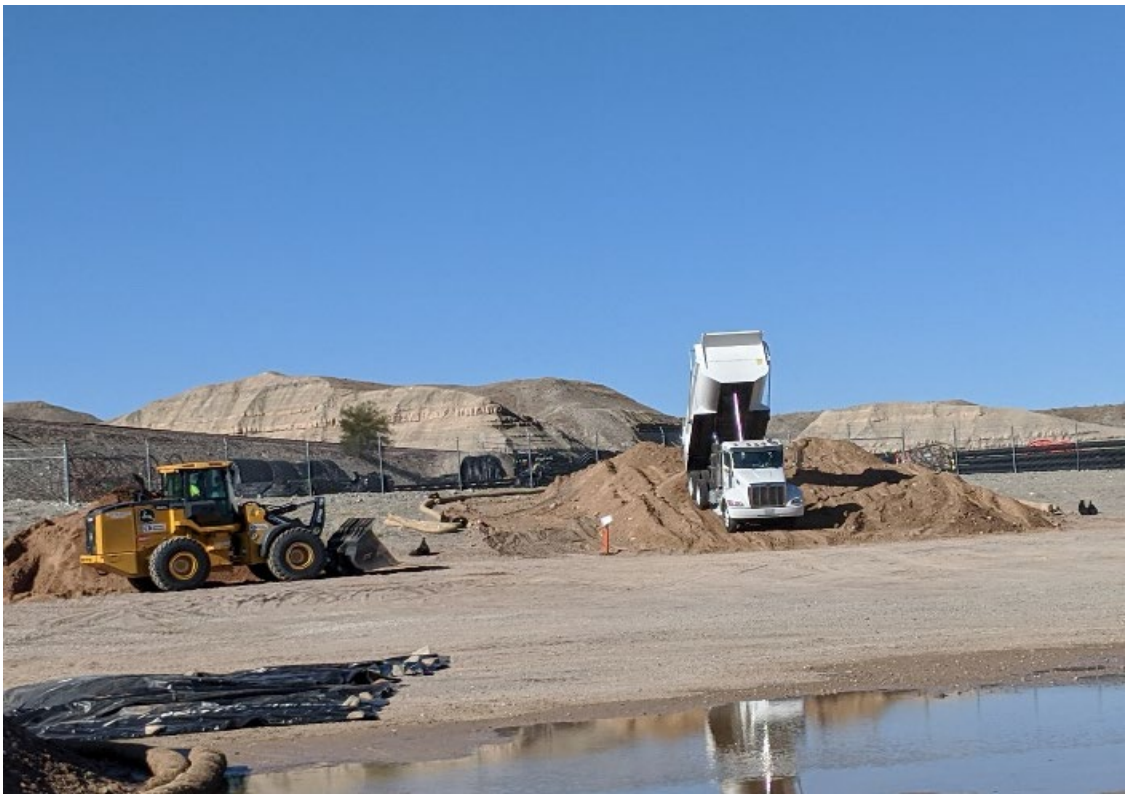


Photo showing unloading of excavated material from MW-20 Bench at SPY

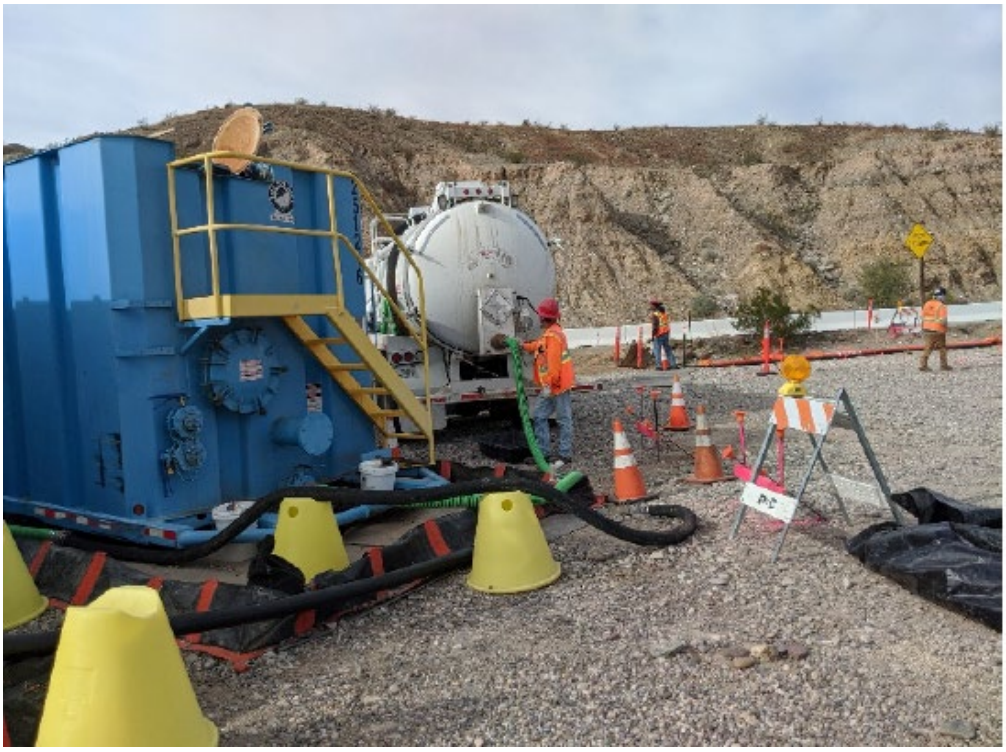


Photo showing transfer of wastewater from frac tank to vac truck for transport to pond for disposal

Photo showing backfilling of well at IRZ-16 in the floodplain

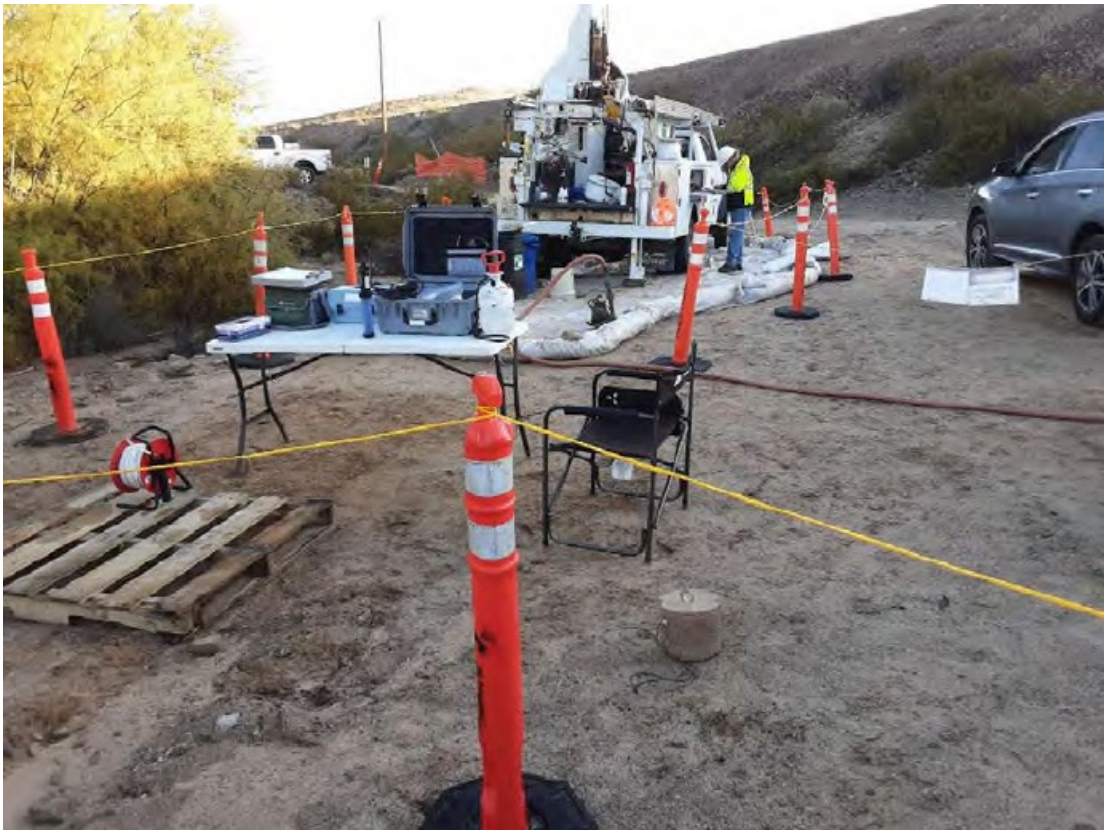


Photo showing development rig at Hydro-6 monitoring well in Arizona

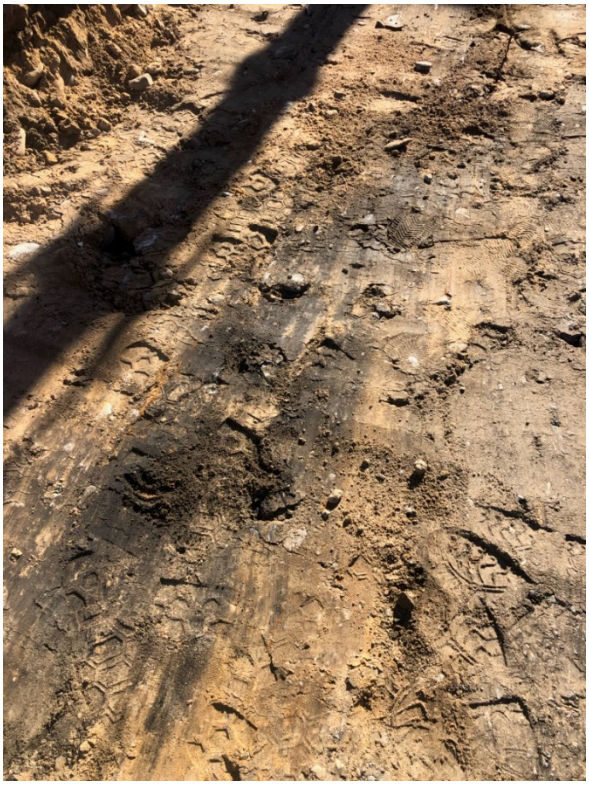


Photo showing a stained soil stripe encountered during excavation near the northwest corner of the carbon amendment footprint on the MW-20 Bench. An opportunistic sample of the stained soil was collected on December 17, 2019.

Attachment B
Available Boring and Well Construction Logs, Groundwater Sample Results from Well Drilling, and Well Testing Activities

(Logs and Well Testing Plans/Results are Presented in Separate PDFs)

Table B-1. Groundwater Sampling Results

December 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-10D	MW-10D-041119	04/11/19	Vertical aquifer sample collected at 108 – 123 feet	160	160
MW-10D	MW-10D-VAS-107-112	04/01/19	Vertical aquifer sample collected at 107 – 112 feet	95	96
MW-10D	MW-10D-VAS-118-123	04/02/19	Vertical aquifer sample collected at 118 - 123 feet	200	190
MW-11D	MW-11D-VAS-122-127	10/07/19	Vertical aquifer sample collected at 122 - 127 feet	120	92
MW-11D	MW-11D-VAS-152-157	10/07/19	Vertical aquifer sample collected at 152 - 157 feet	1.1	10
MW-11D	MW-11D-VAS-177-182	10/08/19	Vertical aquifer sample collected at 177 - 182 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-11D	MW-11D-VAS-67-72	10/06/19	Vertical aquifer sample collected at 67 - 72 feet	370	370
MW-11D	MW-11D-VAS-92-97	10/06/19	Vertical aquifer sample collected at 92 - 97 feet	99	72
MW-11D	MW-11D-110219	11/02/19	Sample collected from well development	26	17
MW-94 (formerly Hydro-6)	MW-94-175-120419	12/04/19	Sample collected from well development	5.2	5.7
MW-B	MW-B-VAS-27-32	01/06/19	Vertical aquifer sample collected at 27 - 32 feet	Estimated concentration of 5.9 micrograms per liter	Estimated concentration of 7.7 micrograms per liter
MW-B	MW-B-VAS-47-52	01/09/19	Vertical aquifer sample collected at 47 - 52 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-67-72	01/09/19	Vertical aquifer sample collected at 67 – 72 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-102-107	01/10/19	Vertical aquifer sample collected at 102 – 107 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-142-147	01/15/19	Vertical aquifer sample collected at 142 – 147 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-B	MW-B-VAS-182-187	02/13/19	Vertical aquifer sample collected at 182 - 187 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-207-212	02/14/19	Vertical aquifer sample collected at 207 - 212 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-247-252	02/17/19	Vertical aquifer sample collected at 247 - 252 feet	Estimated concentration of 11 micrograms per liter	Not detected below reporting limit of 0.83 microgram per liter
MW-B	MW-B-VAS-264-269	02/18/19	Vertical aquifer sample collected at 264 - 269 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.33 microgram per liter
MW-B	MW-B-VAS-287-292	02/20/19	Vertical aquifer sample collected at 287 - 292 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-317-322	02/21/19	Vertical aquifer sample collected at 317 - 322 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-339-344	02/27/19	Vertical aquifer sample collected at 339 - 344 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.33 microgram per liter
MW-B	MW-B-VAS-352-357	02/28/19	Vertical aquifer sample collected at 352 - 357 feet	Estimated concentration of 0.603 micrograms per liter	Not detected below reporting limit of 0.33 microgram per liter
MW-B	MW-B-117-033019	03/30/19	Sample collected from well development at 117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-33-033119	03/31/19	Sample collected from well development at 33 feet	3.7	2.3
MW-B	MW-B-337-062619-INTERIM	6/26/19	Sample collected from well development	Estimated concentration of 0.255 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-337-090719	9/7/2019	Sample collected from well development	Estimated concentration of 0.251 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-267R-101619	10/16/19	Sample collected from well development	Estimated concentration of 0.147 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-202-101819	10/18/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-26-31	6/19/19	Vertical aquifer sample collected at 26-31 feet	360	380
MW-C	MW-C-VAS-51-56	6/25/19	Vertical aquifer sample collected at 51-56 feet	Estimated concentration of 0.13 micrograms per liter	Estimated concentration of 0.146 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-C	DUP-01-062519	6/25/19	Vertical aquifer sample collected at 51-56 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.0931 microgram per liter
MW-C	MW-C-VAS-66-71	6/26/19	Vertical aquifer sample collected at 66-71 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-C	MW-C-VAS-81-86	6/27/19	Vertical aquifer sample collected at 81-86 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-117-122	6/28/19	Vertical aquifer sample collected at 117-122 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-147-152	6/29/19	Vertical aquifer sample collected at 147-152 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-165-170	6/30/19	Vertical aquifer sample collected at 165-170 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-176-181	7/1/19	Vertical aquifer sample collected at 176-181 feet	380	410
MW-C	MW-C-VAS-186-191	7/1/19	Vertical aquifer sample collected at 186-191 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-200-205	7/2/19	Vertical aquifer sample collected at 200-205 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-216-221	7/3/19	Vertical aquifer sample collected at 216-221 feet	Estimated concentration of 0.448 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-156-081519	8/15/2019	Sample collected from well development	Data not yet available	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-181-082019	8/20/2019	Sample collected from well development	280	280
MW-C	MW-C-218-082219	8/22/2019	Sample collected from well development	39	40
MW-C	MW-C-39-090519	9/5/2019	Sample collected from well development	14	16
MW-D	MW-D-VAS-30-35	08/10/19	Vertical aquifer sample collected at 30-35	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-VAS-46-51	08/11/19	Vertical aquifer sample collected at 46-51 feet	Estimated concentration of 0.558 micrograms per liter	0.47

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-D	MW-D-VAS-91-96	08/12/19	Vertical aquifer sample collected at 91-96 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-D	MW-D-VAS-131-136	08/21/19	Vertical aquifer sample collected at 131-136 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.066 microgram per liter
MW-D	MW-D-VAS-141-146	08/22/19	Vertical aquifer sample collected at 141-146 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-VAS-151-156	08/22/19	Vertical aquifer sample collected at 151 - 156 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-VAS-161-166	08/23/19	Vertical aquifer sample collected at 161 - 166 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-VAS-171-176	08/23/19	Vertical aquifer sample collected at 171 - 176 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-VAS-181-186	08/24/19	Vertical aquifer sample collected at 181 - 186 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-VAS-191-196	08/25/19	Vertical aquifer sample collected at 191 - 196 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-158-092419	09/24/19	Sample collected from well development	Estimated concentration of 0.203 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-187-092519	09/25/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-102-100219	10/02/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-D	MW-D-46R-103119	10/31/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-E	MW-E-VAS-52-57	11/05/18	Vertical aquifer sample collected at 52 - 57 feet	7800	7000
MW-E	MW-E-VAS-82-87	11/06/18	Vertical aquifer sample collected at 82 - 87 feet	190	200
MW-E	MW-E-VAS-112-117	11/06/18	Vertical aquifer sample collected at 112 - 117 feet	3000	3100
MW-E	MW-E-VAS-137-142	11/07/18	Vertical aquifer sample collected at 137 - 142 feet	7900	7300

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-E	MW-E-70-121418	12/14/18	Sample collected from well development at a depth of 70 feet	Data not available	3000
MW-E	MW-E-142-121418	12/14/18	Sample collected from well development at a depth of 142 feet	4500	4200
MW-F	MW-F-VAS-52-57	01/06/19	Vertical aquifer sample collected at 52 - 57 feet	2700	2500
MW-F	MW-F-VAS-82-87	01/07/19	Vertical aquifer sample collected at 82 - 87 feet	120	110
MW-F	MW-F-VAS-97-102	01/07/19	Vertical aquifer sample collected at 97 - 102 feet	1900	1800
MW-F	MW-F-VAS-112-117	01/08/19	Vertical aquifer sample collected at 112 - 117 feet	790	740
MW-F	MW-F-104-022719	02/27/19	Sample collected from well development at a depth of 104 feet	1800	1700
MW-F	MW-F-60-022819	02/28/19	Sample collected from well development at a depth of 60 feet	2300	2200
MW-G	MW-G-VAS-52-57	02/13/19	Vertical aquifer sample collected at 52 - 57 feet	790	680
MW-G	MW-G-VAS-67-72	02/14/19	Vertical aquifer sample collected at 67 - 72 feet	1000	920
MW-G	MW-G-VAS-77-82	02/15/19	Vertical aquifer sample collected at 77 - 82 feet	710	600
MW-G	MW-G-82-030219	03/02/19	Sample collected from well development at a depth of 82 feet	1500	1500
MW-G	MW-G-57-030219	03/02/19	Sample collected from well development at a depth of 57 feet	510	560
MW-H	MW-H-VAS-32-37	8/7/2019	Vertical aquifer sample collected at 32 - 37 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-47-52	8/7/2019	Vertical aquifer sample collected at 47-52 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-H	MW-H-VAS-82-87	08/08/19	Vertical aquifer sample collected at 82-87 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-H	MW-H-VAS-112-117	08/09/19	Vertical aquifer sample collected at 112-117 feet	8.1	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-142-147	08/10/19	Vertical aquifer sample collected at 142-147 feet	Estimated concentration of 18 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-152-157	08/10/19	Vertical aquifer sample collected at 152-157 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-162-167	08/11/19	Vertical aquifer sample collected at 162-167 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-172-177	08/12/19	Vertical aquifer sample collected at 172-177 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-182-187	08/13/19	Vertical aquifer sample collected at 182-187 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-192-197	08/14/19	Vertical aquifer sample collected at 192-197 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-112-092019	09/20/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-168-092119	09/21/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-198-092219	09/22/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-46-091919	09/19/19	Sample collected from well development	19	1.4
MW-L	MW-L-VAS-76-81	10/06/18	Vertical aquifer sample collected at 76 - 81 feet	8.1	31
MW-L	MW-L-VAS-106-111	10/09/18	Vertical aquifer sample collected at 106 - 111 feet	Estimated concentration of 0.697 micrograms per liter	0.84
MW-L	MW-L-VAS-141-146	10/10/18	Vertical aquifer sample collected at 141 - 146 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-L	MW-L-VAS-181-186	10/20/18	Vertical aquifer sample collected at 181 - 186 feet	3.8	3.3
MW-L	MW-L-VAS-218-223	10/21/18	Vertical aquifer sample collected at 218 - 223 feet	68	66

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-L	MW-L-VAS-261-266	10/22/18	Vertical aquifer sample collected at 261 - 266 feet	0.284 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-L	MW-L-180-032819	03/28/19	Sample collected from well development at a depth of 180 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-L	MW-L-245-030319	03/03/19	Sample collected from well development at a depth of 245 feet	14	15
MW-L	MW-L-90-032919	03/29/19	Sample collected from well development at a depth of 90 feet	19	18
MW-L	MW-L-225-032919	03/29/19	Sample collected from well development at a depth of 225 feet	410	380
MW-M	MW-M-VAS-52-57	03/28/19	Vertical aquifer sample collected at 52 - 57 feet	29	28
MW-M	MW-M-VAS-72-77	03/29/19	Vertical aquifer sample collected at 72 - 77 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-M	MW-M-VAS-107-112	03/30/19	Vertical aquifer sample collected at 107 - 112 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-M	MW-M-VAS-147-152	03/31/19	Vertical aquifer sample collected at 147 - 152 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-M	MW-M-VAS-172-177	04/02/19	Vertical aquifer sample collected at 172 - 177 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-M	MW-M-VAS-190-195	04/10/19	Vertical aquifer sample collected at 190 - 195 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-M	MW-M-132-061519	6/16/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-M	MW-M-193-061419	6/14/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-M	MW-M-57-061719	6/17/19	Sample collected from well development	Estimated concentration of 0.715 micrograms per liter	0.72
MW-M	MW-M-95-061619	6/16/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-N	MW-N-VAS-121-126	02/14/19	Vertical aquifer sample collected at 121 - 126 feet	Estimated concentration of 0.699 micrograms per liter	0.51
MW-N	MW-N-VAS-142-147	02/16/19	Vertical aquifer sample collected at 142 - 147 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-N	MW-N-VAS-173-178	02/18/19	Vertical aquifer sample collected at 173 - 178 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-N	MW-N-VAS-210-215	02/21/19	Vertical aquifer sample collected at 210 - 215 feet	320	290
MW-N	MW-N-VAS-228-233	02/26/19	Vertical aquifer sample collected at 228 – 233 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-N	MW-N-217-040219	04/02/19	Sample collected from well development at a depth of 217 feet	110	110
MW-N	MW-N-237-040119	04/01/19	Sample collected from well development at a depth of 237 feet	1600	1500
MW-N	MW-N-129-040319	04/03/19	Sample collected from well development at a depth of 129 feet	45	46
MW-O	MW-O-VAS-101-106	05/10/19	Vertical aquifer sample collected at 101 - 106 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-O	MW-O-VAS-106-111	05/11/19	Vertical aquifer sample collected at 106 - 111 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-O	MW-O-VAS-12.5-17.5	05/08/19	Vertical aquifer sample collected at 12 - 18 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.163 J
MW-O	MW-O-VAS-136-141	05/11/19	Vertical aquifer sample collected at 136 - 141 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-O	MW-O-VAS-51-56	05/09/19	Vertical aquifer sample collected at 51 - 56 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-O	MW-O-VAS-66-71	05/09/19	Vertical aquifer sample collected at 66 - 71 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.178 J
MW-O	MW-O-140-071819	7/18/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-O	MW-O-30-071719	7/17/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-O	MW-O-66-071519	7/15/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-R	MW-R-VAS-92-97	05/13/19	Vertical aquifer sample collected at 92 - 97 feet	42	45
MW-R	MW-R-VAS-117-122	05/14/19	Vertical aquifer sample collected at 117 - 122 feet	4.6	5.8
MW-R	MW-R-VAS-151-156	05/15/19	Vertical aquifer sample collected at 151 - 156 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-R	MW-R-VAS-192-197	05/16/19	Vertical aquifer sample collected at 192 - 197 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-R	MW-R-VAS-227-232	05/17/19	Vertical aquifer sample collected at 227 - 232 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-R	MW-R-VAS-255-260	05/29/19	Vertical aquifer sample collected at 255 - 260 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-R	MW-R-VAS-269-274	05/30/19	Vertical aquifer sample collected at 269 - 274 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-R	MW-R-109-062819	6/28/19	Sample collected from well development	2.6	2.5
MW-R	MW-R-139-071319	7/13/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-R	MW-R-192-070219	7/2/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-R	MW-R-275-070919	7/9/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-S	MW-S-VAS-107-112	09/24/19	Vertical aquifer sample collected at 107 - 112 feet	20	15
MW-S	MW-S-VAS-92-97	09/22/19	Vertical aquifer sample collected at 92 - 97 feet	25	26

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-W	MW-W-VAS-7-12	03/27/19	Vertical aquifer sample collected at 7 - 12 feet	Estimated concentration of 0.266 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-W	MW-W-VAS-22-27	03/28/19	Vertical aquifer sample collected at 22 - 27 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-W	MW-W-31-040419	04/04/19	Sample collected from well development at a depth of 31 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-12-17	06/25/19	Vertical aquifer sample collected at 12-17 feet	1.2	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-VAS-32-37	06/26/19	Vertical aquifer sample collected at 32-37 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-VAS-71-76	6/27/19	Vertical aquifer sample collected at 71 - 76 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-VAS-107-112	6/27/19	Vertical aquifer sample collected at 107-112 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-VAS-112-117	6/28/19	Vertical aquifer sample collected at 112-117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-VAS-152-157	6/29/19	Vertical aquifer sample collected at 152-157 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-182-187	6/29/19	Vertical aquifer sample collected at 182-187 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-207-212	6/30/19	Vertical aquifer sample collected at 207-212 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-245-250	7/1/19	Vertical aquifer sample collected at 245-250 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-VAS-292-297	7/2/19	Vertical aquifer sample collected at 292-297 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-337-342	7/11/19	Vertical aquifer sample collected at 337-342 feet	Estimated concentration of 0.564 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-382-387	7/13/19	Vertical aquifer sample collected at 382-387 feet	Estimated concentration of 0.582 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-X	MW-X-VAS-412-417	7/15/19	Vertical aquifer sample collected at 412-417 feet	38	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-120-112019	11/20/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-170-112319	11/23/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-320-112219	11/22/19	Sample collected from well development	Estimated concentration of 0.912 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-45-111819	11/18/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-Y'	MW-Y-122-103119	10/31/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-Y'	MW-Y-102-102319	10/23/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-Y'	MW-Y-72-102219	10/22/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-Y'	MW-Y-37-102019	10/20/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-Y'	MW-Y-VAS-92-97	08/22/19	Vertical aquifer sample collected at 92 - 97 feet	Estimated concentration of 0.620 micrograms per liter	0.31
MW-Y'	MW-Y-VAS-98-103	08/23/19	Vertical aquifer sample collected at 98 - 103 feet	Estimated concentration of 0.521 micrograms per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-Y'	MW-Y-VAS-112-117	08/23/19	Vertical aquifer sample collected at 112 - 117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-Y'	MW-Y-VAS-52-57	08/21/19	Vertical aquifer sample collected at 52-57 feet	Estimated concentration of 0.378 micrograms per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-Y'	MW-Y-VAS-12-17	08/20/19	Vertical aquifer sample collected at 12-17 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-U	MW-U-VAS-137-142	04/12/19	Vertical aquifer sample collected at 137 - 142 feet	Estimated concentration of 0.818 micrograms per liter	1.4
MW-U	MW-U-VAS-181-186	04/13/19	Vertical aquifer sample collected at 181 - 186 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.112 J
MW-U	MW-U-VAS-222-227	04/14/19	Vertical aquifer sample collected at 222 - 227 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-U	MW-U-VAS-257-262	04/16/19	Vertical aquifer sample collected at 257 - 262 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.0896 J
MW-U	MW-U-VAS-287-292	04/17/19	Vertical aquifer sample collected at 287 - 292 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-U	MW-U-VAS-317-322	04/24/19	Vertical aquifer sample collected at 317 - 322 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-U	MW-U-183-050819	05/08/19	Sample collected from well development at a depth of 183 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-U	MW-U-273-051019	05/10/19	Sample collected from well development at a depth of 273 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-9	IRZ-9-VAS-27-32	12/03/18	Vertical aquifer sample collected at 27 -32 feet	120	120
IRZ-9	IRZ-9-VAS-47-52	12/04/18	Vertical aquifer sample collected at 47 -52 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-9	IRZ-9-VAS-62-67	12/04/18	Vertical aquifer sample collected at 62 -67 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-9	IRZ-9-VAS-182-187	12/11/18	Vertical aquifer sample collected at 182 -187 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-9	IRZ-9-VAS-207-212	12/13/18	Vertical aquifer sample collected at 207 -212 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-9	IRZ-9-VAS-232-237	12/13/18	Vertical aquifer sample collected at 232 -237 feet	Estimated concentration of 0.811 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-9	IRZ-9-VAS-264-269	12/15/18	Vertical aquifer sample collected at 264 -269 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
IRZ-9	IRZ-9-VAS-276-281	12/16/18	Vertical aquifer sample collected at 276 -281 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-9	IRZ-9-VAS-292-297	12/18/18	Vertical aquifer sample collected at 292 -297 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-13	IRZ-13-VAS-32-37	11/17/18	Vertical aquifer sample collected at 32 - 37 feet	170	220
IRZ-13	IRZ-13-VAS-57-62	11/18/18	Vertical aquifer sample collected at 57 - 62 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-13	IRZ-13-VAS-102-107	11/19/18	Vertical aquifer sample collected at 102 - 107 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-13	IRZ-13-VAS-142-147	11/19/18	Vertical aquifer sample collected at 142 - 147 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-13	IRZ-13-VAS-180-185	11/27/18	Vertical aquifer sample collected at 180 - 185 feet	230	190
IRZ-13	IRZ-13-VAS-197-202	11/28/18	Vertical aquifer sample collected at 197 - 202 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.83 microgram per liter
IRZ-13	IRZ-13-VAS-224-229	11/28/18	Vertical aquifer sample collected at 224 - 229 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.83 microgram per liter
IRZ-13	IRZ-13-VAS-237-242	11/29/18	Vertical aquifer sample collected at 237 - 242 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-15	IRZ-15-VAS-32-37	11/01/18	Vertical aquifer sample collected at 32 - 37 feet	13	13
IRZ-15	IRZ-15-VAS-62-67	11/02/18	Vertical aquifer sample collected at 62 - 67 feet	Not detected below reporting limit of 0.65 microgram per liter	Estimated concentration of 0.459 J
IRZ-15	IRZ-15-VAS-102-107	11/03/18	Vertical aquifer sample collected at 102 - 107 feet	Not detected below reporting limit of 0.65 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-15	IRZ-15-VAS-132-137	11/04/18	Vertical aquifer sample collected at 132 - 137 feet	Estimated concentration of 0.228 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-15	IRZ-15-VAS-162-167	11/05/18	Vertical aquifer sample collected at 162 - 167 feet	3400	3200
IRZ-15	IRZ-15-VAS-182-187	11/06/18	Vertical aquifer sample collected at 182 - 187 feet	130	140
IRZ-15	IRZ-15-VAS-222-227	11/07/18	Vertical aquifer sample collected at 222 - 227 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
IRZ-16	IRZ-16-VAS-27-32	02/20/19	Vertical aquifer sample collected at 27 - 32 feet	480	480
IRZ-16	IRZ-16-VAS-57-62	02/20/19	Vertical aquifer sample collected at 57 - 62 feet	Not detected below reporting limit of 0.033 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-16	IRZ-16-VAS-102-107	02/21/19	Vertical aquifer sample collected at 102 - 107 feet	Not detected below reporting limit of 0.033 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-16	IRZ-16-VAS-132-137	02/26/19	Vertical aquifer sample collected at 132 - 137 feet	Not detected below reporting limit of 0.17 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-16	IRZ-16-VAS-147-152	02/27/19	Vertical aquifer sample collected at 147 - 152 feet	Not detected below reporting limit of 0.17 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-16	IRZ-16-VAS-172-177	02/27/19	Vertical aquifer sample collected at 172 - 177 feet	110	110
IRZ-16	IRZ-16-VAS-192-197	02/28/19	Vertical aquifer sample collected at 192 - 197 feet	Not detected below reporting limit of 0.17 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-17	IRZ-17-VAS-32-37	03/02/19	Vertical aquifer sample collected at 32 - 37 feet	78	67
IRZ-17	IRZ-17-VAS-62-67	03/02/19	Vertical aquifer sample collected at 62 - 67 feet	Estimated concentration of 0.750 micrograms per liter	Estimated concentration of 0.604 micrograms per liter
IRZ-17	IRZ-17-VAS-102-107	03/03/19	Vertical aquifer sample collected at 102 - 107 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-17	IRZ-17-VAS-132-137	03/13/19	Vertical aquifer sample collected at 132 - 137 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-17	IRZ-17-VAS-137-142	03/12/19	Vertical aquifer sample collected at 137 - 142 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.13 microgram per liter
IRZ-17	IRZ-17-VAS-142-147	03/04/19	Vertical aquifer sample collected at 142 - 147 feet	68	84
IRZ-17	IRZ-17-VAS-147-152	03/12/19	Vertical aquifer sample collected at 147 - 152 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-17	IRZ-17-VAS-152-157	03/04/19	Vertical aquifer sample collected at 152 - 157 feet	16	7.0
IRZ-17	IRZ-17-VAS-162-167	03/04/19	Vertical aquifer sample collected at 162 - 167 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
IRZ-17	IRZ-17-VAS-172-177	03/05/19	Vertical aquifer sample collected at 172 - 177 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-18	IRZ-18-VAS-42-47	11/19/19	Vertical aquifer sample collected at 42 - 47 feet	520	580
IRZ-18	IRZ-18-VAS-62-67	11/19/19	Vertical aquifer sample collected at 62 - 67 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-18	IRZ-18-VAS-67-72	11/19/19	Vertical aquifer sample collected at 67 - 72 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-18	IRZ-18-VAS-102-107	11/20/19	Vertical aquifer sample collected at 102 – 107 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-18	IRZ-18-VAS-112-117	11/20/19	Vertical aquifer sample collected at 112 – 117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-18	IRZ-18-VAS-137-142	11/21/19	Vertical aquifer sample collected at 137 - 142 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-18	IRZ-18-VAS-147-152	11/21/19	Vertical aquifer sample collected at 147 - 152 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-18	IRZ-18-VAS-152-157	11/22/19	Vertical aquifer sample collected at 152 - 157 feet	Estimated concentration of 0.267 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-18	IRZ-18-VAS-157-162	11/22/19	Vertical aquifer sample collected at 157 - 162 feet	1100	870
IRZ-18	IRZ-18-VAS-162-167	11/22/19	Vertical aquifer sample collected at 162 - 167 feet	3400	3300
IRZ-18	IRZ-18-VAS-167-172	11/23/19	Vertical aquifer sample collected at 167 - 172 feet	4800	4700
IRZ-18	IRZ-18-VAS-172-177	12/03/19	Vertical aquifer sample collected at 172 – 177 feet	740	660
IRZ-18	IRZ-18-VAS-177-182	12/03/19	Vertical aquifer sample collected at 177 – 182 feet	360	390
IRZ-18	IRZ-18-VAS-182-187	12/04/19	Vertical aquifer sample collected at 182 – 187 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-18	IRZ-18-VAS-187-192	12/04/19	Vertical aquifer sample collected at 187 – 192 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-18	IRZ-18-VAS-202-207	12/05/19	Vertical aquifer sample collected at 202 – 207 feet	Estimated concentration of 0.204 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
IRZ-19	IRZ-19-VAS-122-127	9/8/2019	Vertical aquifer sample collected at 122 - 127 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-131-136	9/9/2019	Vertical aquifer sample collected at 131-136 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-142-147	9/9/2019	Vertical aquifer sample collected at 142-147 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-VAS-152-157	9/10/2019	Vertical aquifer sample collected at 152 - 157 feet	Estimated concentration of 0.187 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-VAS-162-167	9/11/2019	Vertical aquifer sample collected at 162 - 167 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-VAS-177-182	9/12/2019	Vertical aquifer sample collected at 177 - 182 feet	Estimated concentration of 0.275 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-VAS-27-32	9/6/2019	Vertical aquifer sample collected at 27 - 32 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-19	IRZ-19-VAS-37-42	9/6/2019	Vertical aquifer sample collected at 37 - 42 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-19	IRZ-19-VAS-82-87	9/7/2019	Vertical aquifer sample collected at 82 - 87 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-20	IRZ-17-VAS-197-202	03/06/19	Vertical aquifer sample collected at 197 - 202 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-20	IRZ-17-VAS-217-222	03/06/19	Vertical aquifer sample collected at 217 - 222 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-20	IRZ-20-VAS-112-117	10/22/18	Vertical aquifer sample collected at 112 - 117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-20	IRZ-20-VAS-131-136	10/23/18	Vertical aquifer sample collected at 131 - 136 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-20	IRZ-20-VAS-173-178	10/24/18	Vertical aquifer sample collected at 173 - 178 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.83 microgram per liter
IRZ-21	IRZ-21-VAS-52-57	12/15/18	Vertical aquifer sample collected at 52 - 57 feet	100	97
IRZ-21	IRZ-21-VAS-77-82	12/16/18	Vertical aquifer sample collected at 77 - 82 feet	1.3	1.1

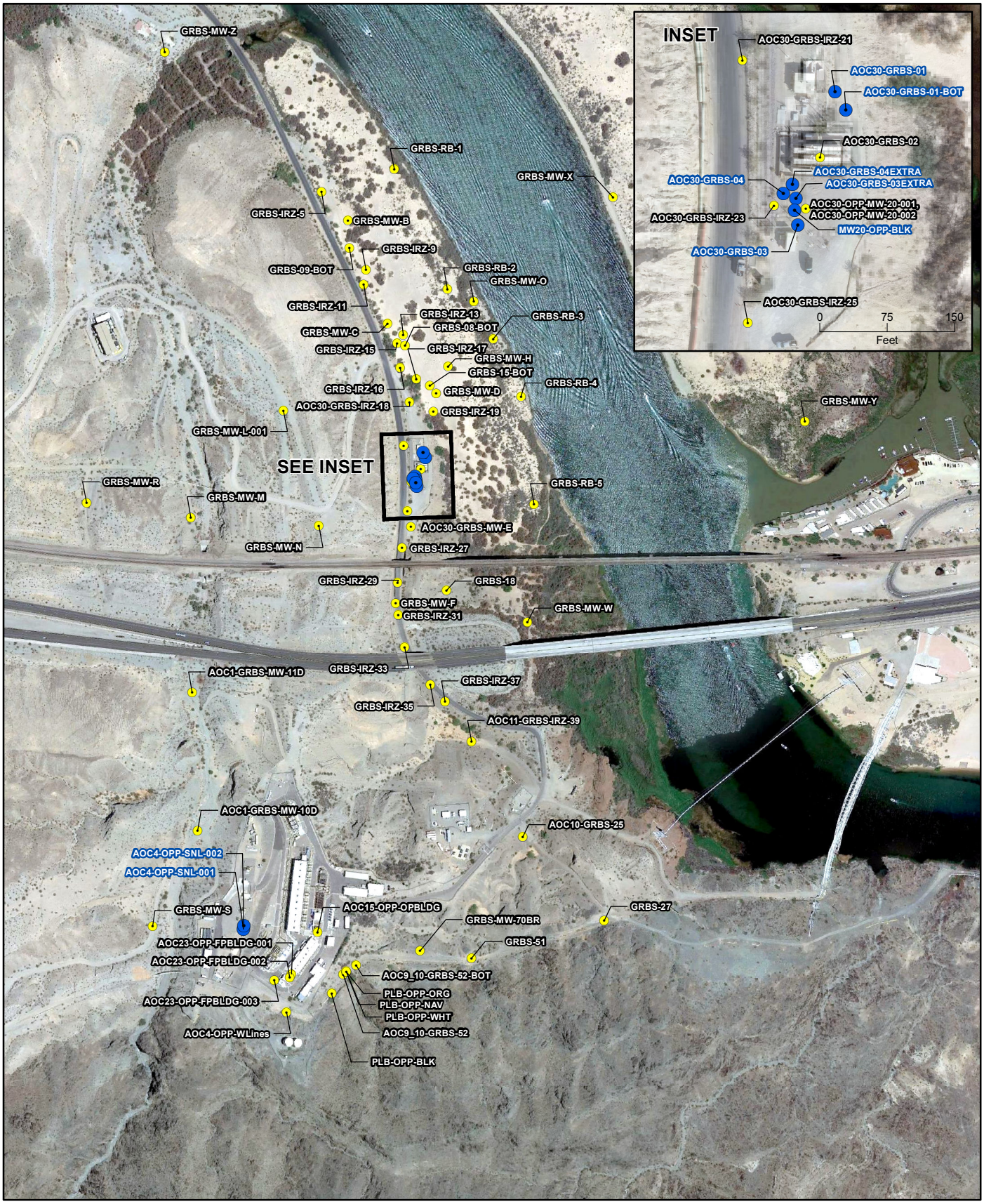
Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
IRZ-21	IRZ-21-VAS-112-117	12/16/18	Vertical aquifer sample collected at 112 - 117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-21	IRZ-21-VAS-132-137	12/17/18	Vertical aquifer sample collected at 132 - 137 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-21	IRZ-21-VAS-147-152	12/18/18	Vertical aquifer sample collected at 147 - 152 v	4000	3600
IRZ-23	IRZ-23-VAS-67-72	12/01/18	Vertical aquifer sample collected at 67 - 72 feet	86	85
IRZ-23	IRZ-23-VAS-92-97	12/01/18	Vertical aquifer sample collected at 92 - 97 feet	Estimated concentration of 0.453 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-23	IRZ-23-VAS-122-127	12/02/18	Vertical aquifer sample collected at 122 - 127 feet	2100	2000
IRZ-23	IRZ-23-VAS-139-144	12/02/18	Vertical aquifer sample collected at 139 - 144 feet	3400	3000
IRZ-25	IRZ-25-VAS-52-57	12/05/18	Vertical aquifer sample collected at 52 - 57 feet	4300	3500
IRZ-25	IRZ-25-VAS-67-72	12/05/18	Vertical aquifer sample collected at 67 - 72 feet	750	620
IRZ-25	IRZ-25-VAS-92-97	12/06/18	Vertical aquifer sample collected at 92 - 97 feet	140	130
IRZ-25	IRZ-25-VAS-112-117	12/11/18	Vertical aquifer sample collected at 112 - 117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-25	IRZ-25-VAS-147-152	12/11/18	Vertical aquifer sample collected at 147 - 152 feet	3800	3600
IRZ-25	IRZ-25-VAS-162-167	12/13/18	Vertical aquifer sample collected at 162 - 167 feet	3000	3000
IRZ-27	IRZ-27-VAS-52-57	03/15/19	Vertical aquifer sample collected at 52 - 57 feet	4500	4400
IRZ-27	IRZ-27-VAS-72-77	03/17/19	Vertical aquifer sample collected at 72 - 77 feet	Estimated concentration of 0.338 micrograms per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-27	IRZ-27-VAS-102-107	03/18/19	Vertical aquifer sample collected at 102 - 107 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-27	IRZ-27-VAS-132-137	03/20/19	Vertical aquifer sample collected at 132 - 137 feet	1200	1300

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
IRZ-29	IRZ-29-VAS-112-117	12/18/19	Vertical aquifer sample collected at 112 – 117 feet	Validated data not yet available	760
IRZ-29	IRZ-29-VAS-47-52	12/16/19	Vertical aquifer sample collected at 47 – 52 feet	Validated data not yet available	4500
IRZ-29	IRZ-29-VAS-62-67	12/17/19	Vertical aquifer sample collected at 62 – 67 feet	Validated data not yet available	2400
IRZ-29	IRZ-29-VAS-87-92	12/17/19	Vertical aquifer sample collected at 87 – 92 feet	Validated data not yet available	Not detected below reporting limit of 0.033 microgram per liter
IRZ-37	IRZ-37-VAS-52-57	10/06/19	Vertical aquifer sample collected at 52 – 57 feet	1100	1000
IRZ-37	IRZ-37-VAS-57-62	10/07/19	Vertical aquifer sample collected at 57 – 62 feet	1200	1100
IRZ-39	IRZ-39-VAS-27-32	03/30/19	Vertical aquifer sample collected at 27 - 32 feet	31	29
IRZ-39	IRZ-39-110419	11/04/19	Sample collected from well development	38	36
RB-2	RB-2-VAS-102-107	7/1/19	Vertical aquifer sample collected at 102-107 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-2	RB-2-VAS-142-147	7/9/19	Vertical aquifer sample collected at 142-147 feet	Estimated concentration of 0.270 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-2	RB-2-VAS-172-177	7/12/19	Vertical aquifer sample collected at 172-177 feet	Estimated concentration of 0.233 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-2	RB-2-VAS-202-207	7/14/19	Vertical aquifer sample collected at 202-207 feet	Estimated concentration of 0.218 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-2	RB-2-VAS-237-242	7/15/19	Vertical aquifer sample collected at 237-242 feet	Estimated concentration of 0.233 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-2	RB-2-VAS-274-279	7/18/19	Vertical aquifer sample collected at 274-279 feet	Estimated concentration of 0.514 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-2	RB-2-VAS-287-292	7/26/19	Vertical aquifer sample collected at 287-292 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-2	RB-2-VAS-36.5-41.5	6/29/19	Vertical aquifer sample collected at 36 – 42 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
RB-2	RB-2-VAS-72-77	6/30/19	Vertical aquifer sample collected at 72 – 77 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-3	RB-3-VAS-15-20	04/26/19	Vertical aquifer sample collected at 15 - 20 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-3	RB-3-VAS-50-55	04/27/19	Vertical aquifer sample collected at 50 - 55 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.100 micrograms per liter
RB-3	RB-3-VAS-80-85	04/27/19	Vertical aquifer sample collected at 80 - 85 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.132 micrograms per liter
RB-3	RB-3-VAS-120-125	04/28/19	Vertical aquifer sample collected at 120 - 125 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-3	RB-3-VAS-150-155	04/29/19	Vertical aquifer sample collected at 150 - 155 feet	Estimated concentration of 0.257 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-3	RB-3-VAS-180-185	04/29/19	Vertical aquifer sample collected at 180 - 185 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-3	RB-3-VAS-205-210	04/30/19	Vertical aquifer sample collected at 205 - 210 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-4	RB-4-VAS-15-20	04/12/19	Vertical aquifer sample collected at 15 - 20 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.0556 microgram per liter
RB-4	RB-4-VAS-41-46	04/12/19	Vertical aquifer sample collected at 41 - 46 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-4	RB-4-VAS-81-86	04/12/19	Vertical aquifer sample collected at 81 - 86 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-4	RB-4-VAS-121-126	04/13/19	Vertical aquifer sample collected at 121 - 126	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-4	RB-4-VAS-136-141	04/13/19	Vertical aquifer sample collected at 136 - 141 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-4	RB-4-VAS-155-160	04/17/19	Vertical aquifer sample collected at 155 - 160 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
RB-4	RB-4-138-102019	10/20/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.135 microgram per liter
RB-4	RB-4-58-102119	10/21/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-5	RB-5-VAS-12-17	04/04/19	Vertical aquifer sample collected at 12 - 17 feet	Estimated concentration of 0.235 microgram per liter	Estimated concentration of 0.125 microgram per liter
RB-5	RB-5-VAS-42-47	04/09/19	Vertical aquifer sample collected at 42 - 47 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-5	RB-5-VAS-82-87	04/09/19	Vertical aquifer sample collected at 82 - 87 feet	Estimated concentration of 0.769 microgram per liter	Estimated concentration of 0.127 microgram per liter
RB-5	RB-5-44-102419	10/24/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-5	RB-5-89-102319	10/23/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter

Attachment C
Soil Sampling Locations and Available Soil Analytical Results
(Soil Data Presented in Excel File)



LEGEND

- Soil Sample Collected from this Location in December 2019
- Soil Sample Location

0 300 600
Feet

N

Baseline and Opportunistic Soil Sampling Locations

Monthly Progress Report
Groundwater Remedy Phase 1 Construction
PG&E Topock Compressor Station, Needles, California

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Attachment D
Perimeter Air Sampling Analytical Results

Attachment D. Perimeter Air Sampling Analytical Results

In conformance with the approved *Construction/Remedial Action Work Plan for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California* (CH2M, 2015), air monitoring has been conducted during construction to evaluate the ongoing effectiveness of the dust control program, to guide modifications to field activities and engineering control measures, if necessary, and to document that construction activities do not result in the migration of soil contaminants beyond the work area boundaries.

Perimeter air monitoring has been performed if construction activities have the potential to generate visible dust. The air monitoring program consists of both real-time fugitive dust monitoring and perimeter air sampling for select soil contaminants. Locations to be monitored and sampled are as follows:

- Real-time fugitive dust monitoring is performed at the perimeter of the work areas (outside of the exclusion zone) that have the potential to generate visible dust, including the Construction Headquarters (CHQ) and the Soil Processing Yard (SPY).
- Perimeter air sampling for hexavalent chromium is performed at the perimeter of the work areas (outside of the exclusion zone) that are inside Areas of Concern (AOCs) within the construction footprint where hexavalent chromium concentrations in soil have been historically reported. Air sampling for hexavalent chromium in the SPY will be performed when soil from AOCs with reported concentrations of hexavalent chromium is actively being processed. Air sampling may also be performed at other work areas at the site based on hexavalent chromium concentrations reported from new soil data or based on field observations during construction activities.
- Air sampling for asbestos will be limited to work areas where asbestos-containing material (ACM) has been observed in prior field investigations, including two areas in AOC 12 and one area in AOC 4. Perimeter air monitoring may also be performed at other work areas at the site if ACM is discovered during construction activities.

Project-specific levels of concern (LOCs) and action levels were developed as an indicator to determine whether additional dust control measures, as presented in the project's Dust Control Plan required by the Mojave Desert Air Quality Management District (MDAQMD), are necessary.

- The LOCs, which represent conservative concentrations of compounds that receptors outside the work area could be safely exposed to during construction, have been evaluated for all compounds that have been detected in soil samples collected at the site in the prior investigations. The LOCs were developed using standard U.S. Environmental Protection Agency (USEPA) and California Environmental Protection Agency risk assessment methodology, toxicology data, and exposure assumptions (USEPA, 2009, 2017; California Department of Toxic Substances Control [DTSC], 2018). Both cancer and noncancer health effects were considered. For each type of health effect, the LOC was back-calculated from an established target or from acceptable cancer risk or noncancer hazard where USEPA or DTSC toxicity values are available. The LOCs for cancer effects are based on a target excess cancer risk of one in a million (1×10^{-6}). The LOCs for noncancer effects are based on a target hazard quotient of 1. The LOCs were developed using these assumptions:
  - Receptors are present outside the perimeter of the work areas
  - Exposure via inhalation is 10 hours per day for a 10 days on/4 days off schedule
  - Duration of Phase 1 of the final groundwater remedy construction is 20 months
- The action level for fugitive dust monitoring is 100 micrograms per cubic meter ($\mu g/m^3$) for a net (downwind minus upwind) dust concentration. This action level is based on MDAQMD Rule 403, Part C. A 10-hour time-weighted average of readings collected throughout the work day will be used to document compliance with MDAQMD Rule 403.
- For analytes detected in soil, the following equation was used to calculate maximum allowable airborne particulate concentrations for receptor exposure outside the work area (based on the approach presented by Marlowe (1999):

$$AL = \frac{LOC\ x\ 1{,}000{,}000\ mg/kg}{CS}$$

Where:

AL = action level for airborne particulates (µg/m^3)

LOC = Project specific risk-based level of concern (µg/m^3)

CS = maximum detected concentration of compound in site soil (milligrams per kilogram [mg/kg])

Action levels were determined as follows:

- Soil data from prior investigations were gathered for the entire site.
- Sample locations within the maximum construction footprint were evaluated. Some sample locations were removed from evaluation as they were within the compressor station in locations where no construction activities will actually occur.
- The maximum reported soil concentration for each compound was determined and then used to calculate an airborne particulate action level.
- All compounds had allowable airborne particulate action levels greater than 100 µg/m^3 except for hexavalent chromium at a few locations.
- Lead does not have USEPA or DTSC toxicity values; however, an action level was calculated using the DTSC (2011) LeadSpread 8 model. This is based on the maximum reported soil concentration for lead of 1,400 mg/kg from samples collected within the construction footprint and a blood level of concern through inhalation of 1 microgram per deciliter. The resulting action level for lead is 548 µg/m^3.
- Therefore, keeping fugitive dust below the action level 100 µg/m^3 will result in airborne particulate concentrations of contaminants (other than hexavalent chromium) remaining below their respective LOCs.
- Fugitive dust monitoring will be used to evaluate airborne contaminants in dust for all compounds except for hexavalent chromium.

In December 2019, 108 real time dust observation/monitoring events were conducted at the perimeter of the work areas (outside of the exclusion zone). There was no exceedance of the action level for fugitive dust monitoring (100 µg/m^3).

A total of five perimeter air sampling events were conducted in December 2019 (December 16, 17, 18, 19, and 20). Two sampling events were performed during removal of the retaining wall near the paint locker (AOC 8) inside TCS, which is part of site preparation of installation of Pipeline M. Three sampling events were performed during excavation at the MW-20 Bench (AOC 30). Table D-1 presents analytical results from air sampling events that are available at this time. December 2019 air sampling results are not yet available and will be included in the next monthly progress report.

References Cited:

California Department of Toxic Substances Control (DTSC). 2011. LeadSpread8.

California Department of Toxic Substances Control (DTSC). 2018. Human Health Risk Assessment Note 3 – DTSC-Modified Screening Levels (DTSC-SLs), California Department of Toxic Substances Control, Human and Ecological Risk Office (HERO). January.

CH2M HILL, Inc. (CH2M). 2015. *Construction/Remedial Action Work Plan for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California.* November 18.

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U.S. Environmental Protection Agency (USEPA). 2009. *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)*. Final. OSWER 9285.7-82. January.

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Table D-1. Perimeter Air Sampling Results

December 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California

Location ID	Location	Sampling Date	Hexavalent Chromium Concentration in micrograms per cubic meter
AOC10-D1	AOC10 Downwind 1	11/04/2019	0.0000696 - concentration estimated by laboratory or data validation
AOC10-D2	AOC10 Downwind 2	11/04/2019	0.0000781 - concentration estimated by laboratory or data validation
AOC10-U1	AOC10 Upwind	11/04/2019	0.0000609 - concentration estimated by laboratory or data validation
AOC10-D1	AOC10 Downwind 1	11/06/2019	0.0000602 - concentration estimated by laboratory or data validation
AOC10-D2	AOC10 Downwind 2	11/06/2019	0.0000582 - concentration estimated by laboratory or data validation
AOC10-U1	AOC10 Upwind	11/06/2019	0.0000401 - concentration estimated by laboratory or data validation
AOC10-D1	AOC10 Downwind 1	10/18/2019	Not detected at a reporting limit of 0.0000347 micrograms per cubic meter
AOC10-D2	AOC10 Downwind 2	10/18/2019	Not detected at a reporting limit of 0.0000375 micrograms per cubic meter
AOC10-U1	AOC10 Upwind	10/18/2019	Not detected at a reporting limit of 0.0000386 micrograms per cubic meter
AOC10-D1	AOC10 Downwind 1	10/17/2019	0.0000321 - concentration estimated by laboratory or data validation
AOC10-D2	AOC10 Downwind 2	10/17/2019	Not detected at a reporting limit of 0.0000321 micrograms per cubic meter
AOC10-U1	AOC10 Upwind	10/17/2019	Not detected at a reporting limit of 0.0000322 micrograms per cubic meter
AOC10-D1	AOC10 Downwind 1	10/15/2019	Not detected at a reporting limit of 0.0000324 micrograms per cubic meter
AOC10-D2	AOC10 Downwind 2	10/15/2019	Not detected at a reporting limit of 0.0000331 micrograms per cubic meter
AOC10-U1	AOC10 Upwind	10/15/2019	Not detected at a reporting limit of 0.0000316 micrograms per cubic meter
PIPE B-D1	PIPE B Downwind 1	8/13/2019	Not detected at a reporting limit of 0.0000276 micrograms per cubic meter
PIPE B-D2	PIPE B Downwind 2	8/13/2019	Not detected at a reporting limit of 0.0000276 micrograms per cubic meter
PIPE B-U1	PIPE B Upwind	8/13/2019	Not detected at a reporting limit of 0.0000276 micrograms per cubic meter
PIPE B-D1	PIPE B Downwind 1	8/12/2019	Not detected at a reporting limit of 0.0000278 micrograms per cubic meter
PIPE B-D2	PIPE B Downwind 2	8/12/2019	0.000035 - concentration estimated by laboratory or data validation
PIPE B-U1	PIPE B Upwind	8/12/2019	Not detected at a reporting limit of 0.0000279 micrograms per cubic meter

Location ID	Location	Sampling Date	Hexavalent Chromium Concentration in micrograms per cubic meter
AOC30-D1	AOC30 Downwind 1	6/18/2019	0.0000407 - concentration estimated by laboratory or data validation
AOC30-D2	AOC30 Downwind 2	6/18/2019	Not detected at a reporting limit of 0.0000313 micrograms per cubic meter
AOC30-U1	AOC30 Upwind	6/18/2019	Not detected at a reporting limit of 0.000031 micrograms per cubic meter
AOC30-D1	AOC30 Downwind 1	6/17/2019	Not detected at a reporting limit of 0.0000633 micrograms per cubic meter
AOC30-D2	AOC30 Downwind 2	6/17/2019	Not detected at a reporting limit of 0.0000636 micrograms per cubic meter
AOC30-U1	AOC30 Upwind	6/17/2019	Not detected at a reporting limit of 0.0000589 micrograms per cubic meter
AOC4-D1	AOC4 Downwind 1	5/16/2019	0.0000423 - concentration estimated by laboratory or data validation
AOC4-D2	AOC4 Downwind 2	5/16/2019	Not detected at a reporting limit of 0.0000385 micrograms per cubic meter
AOC4-U	AOC4 Upwind	5/16/2019	Not detected at a reporting limit of 0.0000378 micrograms per cubic meter
AOC11-D1	AOC11 Downwind 1	5/15/2019	Not detected at a reporting limit of 0.0000392 micrograms per cubic meter
AOC11-D2	AOC11 Downwind 2	5/15/2019	0.0001262 - concentration estimated by laboratory or data validation
AOC11-U	AOC11 Upwind	5/15/2019	Not detected at a reporting limit of 0.0000386 micrograms per cubic meter
AOC4-D1	AOC4 Downwind 1	5/14/2019	Not detected at a reporting limit of 0.000148 micrograms per cubic meter
AOC4-D2	AOC4 Downwind 2	5/14/2019	Not detected at a reporting limit of 0.000155 micrograms per cubic meter
AOC4-U	AOC4 Upwind	5/14/2019	Not detected at a reporting limit of 0.000148 micrograms per cubic meter
AOC30-IRZ-23-D1	AOC30-IRZ-23 Downwind 1	2/20/2019	Not detected at a reporting limit of 0.0000859 micrograms per cubic meter
AOC30-IRZ-23-D2	AOC30-IRZ-23 Downwind 2	2/20/2019	Not detected at a reporting limit of 0.0000862 micrograms per cubic meter
AOC30-IRZ-23-U1	AOC30-IRZ-23 Upwind	2/20/2019	0.000104 - concentration estimated by laboratory or data validation
AOC13-D1	AOC13 Downwind 1	10/09/18	0.000732 - concentration estimated by laboratory or data validation
AOC13-D2	AOC13 Downwind 2	10/09/18	0.000709 - concentration estimated by laboratory or data validation
AOC13-U	AOC13 Upwind	10/09/18	Not detected at a reporting limit of 0.000172 micrograms per cubic meter

Attachment E
Noise Monitoring Results
(SEIR NOISE-2 Requirement)

Attachment E. Noise Monitoring Results

In conformance with the Supplemental Environmental Impact Report (SEIR) Mitigation Measure NOISE-2, noise monitoring has been conducted with ANSI S1.4 Type 1, precision sound level meters when construction activities are within the specified distance (e.g., 1,850 feet from sensitive receptors in California) at approved monitoring locations previously determined in coordination with the Tribes and land owners/managers. The goal of the noise monitoring is to identify if noise levels from project construction activities exceed applicable standards of the San Bernardino and Mohave County codes. Exceedance of standards would require coordination with the Tribes and land owners/managers to evaluate the potential constraints and locations for temporary engineered acoustical barriers. Consistent with the request of the Tribes, monitoring equipment is not left at the approved monitoring locations; rather, it is mounted on a tripod for attended representative measurements and removed when the monitoring event is complete.

When a new construction activity is conducted or a previously monitored construction activity is conducted closer to a noise-sensitive area, monitoring is conducted at more frequent intervals to evaluate the potential need for an acoustical barrier. As the activities continue in the same location and multiple attended measurements indicate that the applicable standard has not been exceeded by the construction activity, periodic attending monitoring events are conducted to confirm continued compliance.

The attended monitoring events document the A-weighted equivalent continuous sound level (L_{eq}) at periodic intervals (e.g., 5, 10, 15, 20, 30, 40, 50 and 60 minutes). The trend of the data at these intervals is evaluated in the field to assess the stability in the sound level to determine the duration of the monitoring event. When the interval data are relatively stable or clearly below the standard, the attended monitoring event will typically be 15 to 30 minutes in duration. As the applicable standards are expressed in terms of the 24-hour average day-night sound level (L_{dn}) which is based on the L_{eq} metric, the measured L_{eq} is compared to the applicable L_{dn} standard for mobile noise sources (i.e., 60 A-weighted decibels [dBA] for Park Moabi, 65 dBA at all other locations). This results in a reasonable and conservative assessment given construction activities are not emitting noise continuously over a 24-hour period, nor are they occurring during the nighttime hours (10 p.m. to 7 a.m.).

In December 2019, the following monitoring events were conducted:

- Twenty-one events at a location west of the mobile home park at Moabi Regional Park. Construction activities closest to this monitoring location include activities at the SPY and CHQ, as well as construction traffic on NTH. The sound level typically varied between 40 and 56 dBA, with an average and median of 47-48 dBA.

- Seventeen events at a location in the Upland just off the IM-3 access road, and near the top of the hill closest to the NTH and MW-20 Bench. Construction activities closest to this monitoring location include activities at the MW-20 Bench, repair of portion of the IM-3 access road damaged from recent storm events, and construction traffic on the access road. The sound level varied between 47 and 63 dBA, with an average and median of 51-52 dBA. Sound levels spiked when repair of nearby IM-3 access road was conducted.

- Eighteen events at the old restaurant location west of NTH. Construction activities closest to this monitoring location include construction traffic on NTH and in the northern end of the floodplain. The sound level varied between 43 and 55 dBA, with an average and median of 48 dBA.

- Four events at a location along the edge of the Colorado River within the mobile home park at Topock Marina. Construction activities closest to this monitoring location are associated with work at Hydro-6. The sound level typically varied between 46 and 57 dBA, with an average and median of 53-575 dBA. Sound levels spiked when there are boat traffic, train traffic, wildlife activities, and wind gust around the mobile homes.

- Six events at a location on a bluff below TCS, just south of I-40 and east of the Topock Maze. Construction activities closest to this monitoring location are associated with work at Pipeline J and MW-11D. The sound level typically varied between 53 and 59 dBA, with an average and median of 56 dBA.

Sound monitoring will continue as work progresses and moves into new areas to identify when an acoustical barrier needs to be considered.

Attachment F
Discharge Monitoring Record in Compliance with Monitoring and Reporting Program for Order No. 2003-0003-DWQ (Table 2)

Dishcarge Monitoring Record

Corporation

PGE Project / Property Name: Topock Final Remedy **Project Number:** ARC-18-T46 **Project Number:** ARC-18-T46

Affected System: Week of 12/2/19 - Pipeline C7, 20+20 to Pipeline C8 STA 22+50 to Pipeline C14 STA 14+00

Discharge Date		C7 Discharge Location - Approximate QTY (gal)	C8 Discharge Location - Approximate QTY (gal)	Discharge Monitor Initials
12/3/2019			0 gallons (Note: 500 gallons captured and used for dust suppression)	DZ
12/4/2019		0 gallons (Note: 1000 gallons captured and used for dust suppression)	0 gallons (Note: 1500 gallons captured and used for dust suppression)	DZ
12/5/2019		0 gallons (Note: 1000 gallons captured and used for dust suppression)	0 gallons (Note: 1000 gallons captured and used for dust suppression)	DZ

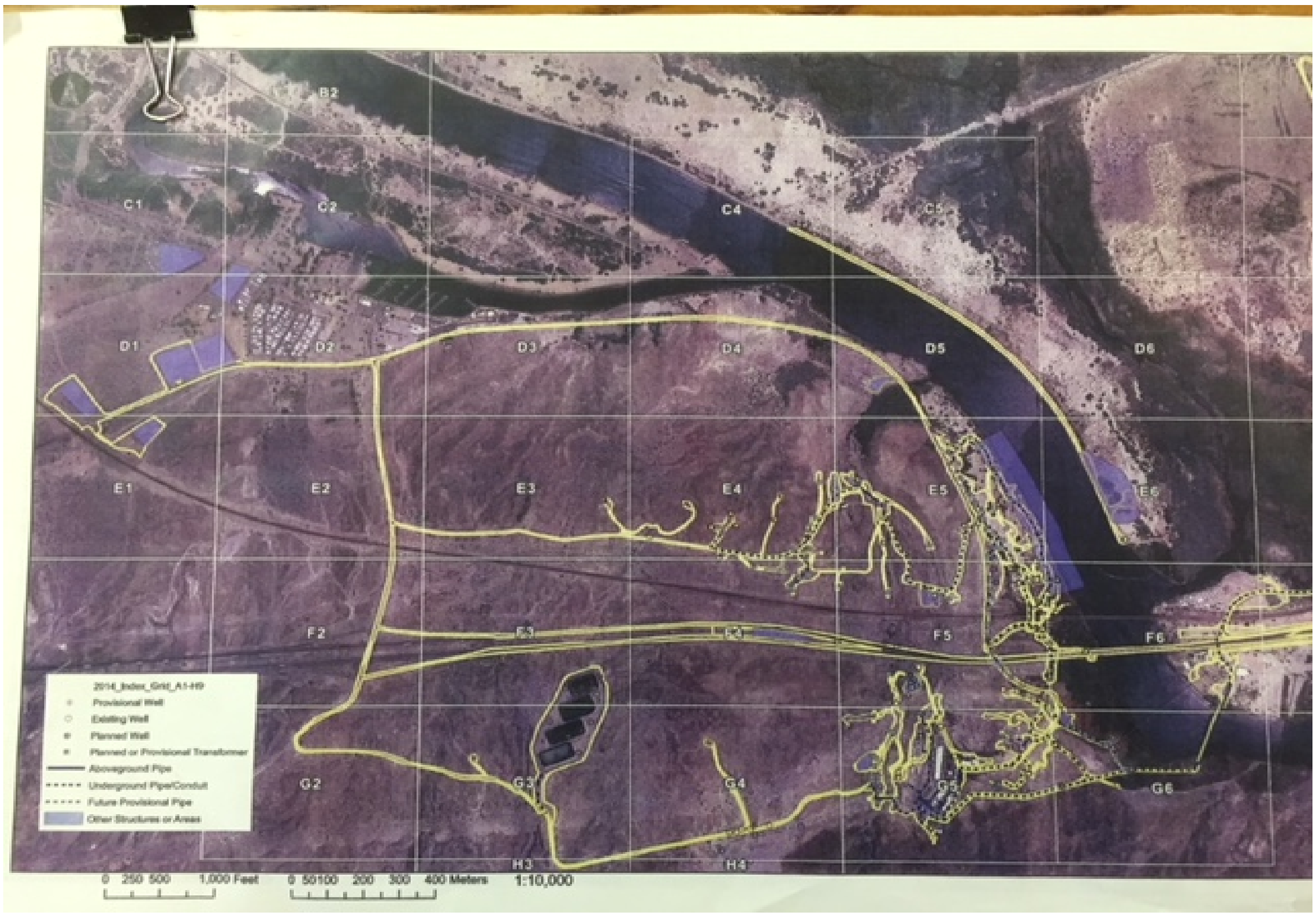
Attachment G
Six-Week Look-Ahead Schedule

Topock Final Groundwater Remedy Construction
Field Work Look-ahead Schedule

Primary Planned Activities	12/29/2019	12/30/2019	12/31/2019	1/1/2020	1/2/2020	1/3/2020	1/4/2020
Start Time (Pacific Standard Time)	No Work	No Work	No Work	No Work	7:00 AM	7:00 AM	7:00 AM
Pipeline C Installation **F5**					--	--	--
TCS Approach Pipeline Installation **F5, G5, G6**					--	--	--
TCS Pipeline Construction **G5**					Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation
MW-20 Bench Facility Construction **E5, F5**					--	--	--
Well Installation					--	--	--
Well Development					--	--	--
Well Testing					--	--	--
Primary Planned Activities	**1/5/2020**	**1/6/2020**	**1/7/2020**	**1/8/2020**	**1/9/2020**	**1/10/2020**	**1/11/2020**
Start Time (Pacific Standard Time)	No Work	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM
Pipeline C Installation **F5**		Remobilization and Pipeline installation at C8-Alt	Pipeline installation at C8-Alt	Pipeline installation at C8-Alt	Pipeline installation at C8-Alt	--	--
TCS Approach Pipeline Installation **F5, G5, G6**		Remobilization and Pipeline installation at B and J	Pipeline installation at B and J	Pipeline installation at B and J	Pipeline installation at B and J	--	--
TCS Pipeline Construction **G5**		Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation
MW-20 Bench Facility Construction **E5, F5**		Remobilization, Facility and yard piping construction	Facility and yard piping construction	Facility and yard piping construction	Facility and yard piping construction	--	--
Well Installation		--	IRZ-31 pilot **(F5)**, IRZ-15 **(E5)**, Surface completions (site-wide)	IRZ-31 pilot **(F5)**, IRZ-15 **(E5)**, Surface completions (site-wide)	IRZ-31 pilot **(F5)**, IRZ-15 **(E5)**, Surface completions (site-wide)	IRZ-33 pilot **(F5)**, IRZ-15 **(E5)**, Surface completions (site-wide)	IRZ-33 pilot **(F5)**, IRZ-15 **(E5)**, Surface completions (site-wide)
Well Development		--	MW-81 **(E5)**	MW-81 **(E5)**	IRZ-17 **(E5)**	IRZ-17 **(E5)**	IRZ-17 **(E5)**
Well Testing		--	RB-4 **(E5)**	RB-4 **(E5)**	RB-4 **(E5)**	RB-4 **(E5)**	RB-4 **(E5)**
Primary Planned Activities	**1/12/2020**	**1/13/2020**	**1/14/2020**	**1/15/2020**	**1/16/2020**	**1/17/2020**	**1/18/2020**
Start Time (Pacific Standard Time)	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM
Pipeline C Installation **F5**	--	Pipeline installation at C8-Alt, Soil resitivity testing at C9	Pipeline installation at C8-Alt, Soil resitivity testing at C10	Pipeline installation at C8-Alt	Pipeline installation at C8-Alt	--	--
TCS Approach Pipeline Installation **F5, G5, G6**	--	Pipeline installation at B and J	Pipeline installation at B and J	Pipeline installation at B and J	Pipeline installation at B and J	--	--
TCS Pipeline Construction **G5**	--	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation
MW-20 Bench Facility Construction **E5, F5**	--	Facility and yard piping construction	Facility and yard piping construction	Facility and yard piping construction	Facility and yard piping construction	--	--
Well Installation	IRZ-33 pilot **(F5)**, IRZ-15 **(E5)**, Surface completions (site-wide)	IRZ-33 pilot **(F5)**, IRZ-15 **(E5)**, Surface completions (site-wide)	IRZ-33 pilot **(F5)**, IRZ-15 **(E5)**, Surface completions (site-wide)	IRZ-35 pilot **(F5)**, IRZ-27 **(F5)**, Surface completions (site-wide)	IRZ-35 pilot **(F5)**, IRZ-27 **(F5)**, Surface completions (site-wide)	--	--
Well Development	IRZ-17 **(E5)**, RB-2 (E5)	IRZ-17 **(E5)**, RB-2 (E5)	IRZ-17 **(E5)**, RB-2 (E5)	IRZ-17 **(E5)**, RB-2 (E5)	IRZ-17 **(E5)**, RB-2 (E5)	--	--
Well Testing	--	--	--	--	--	--	--
Primary Planned Activities	**1/19/2020**	**1/20/2020**	**1/21/2020**	**1/22/2020**	**1/23/2020**	**1/24/2020**	**1/25/2020**
Start Time (Pacific Standard Time)	No Work	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM
Pipeline C Installation **F5**		Pipeline installation at C8-Alt	Pipeline installation at C8-Alt	Pipeline installation at C8-Alt	Pipeline installation at C8-Alt	--	--
TCS Approach Pipeline Installation **F5, G5, G6**		Pipeline installation at B and J	Pipeline installation at B and J	Pipeline installation at B and J	Pipeline installation at B and J	--	--
TCS Pipeline Construction **G5**		Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation
MW-20 Bench Facility Construction **E5, F5**		Facility and yard piping construction	Facility and yard piping construction	Facility and yard piping construction	Facility and yard piping construction	--	--
Well Installation		--	IRZ-35 pilot **(F5)**, IRZ-27 **(F5)**	IRZ-35 pilot **(F5)**, IRZ-27 **(F5)**	IRZ-35 pilot **(F5)**, IRZ-27 **(F5)**	IRZ-37 pilot **(F5)**, IRZ-27 **(F5)**	IRZ-37 pilot **(F5)**, IRZ-27 **(F5)**
Well Development		--	RB-3 (E5)	RB-3 (E5)	RB-3 (E5)	RB-3 (E5)	RB-3 (E5)
Well Testing		--	IRZ-17 **(E5)**	IRZ-17 **(E5)**	IRZ-17 **(E5)**	IRZ-17 **(E5)**	IRZ-17 **(E5)**
Primary Planned Activities	**1/26/2020**	**1/27/2020**	**1/28/2020**	**1/29/2020**	**1/30/2020**	**1/31/2020**	**2/1/2020**
Start Time (Pacific Standard Time)	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM
Pipeline C Installation **F5**	--	Pipeline installation at C8-Alt	Pipeline installation at C8-Alt	Pipeline installation at C8-Alt	Pipeline installation at C8-Alt	--	--
TCS Approach Pipeline Installation **F5, G5, G6**	--	Pipeline installation at B and J	Pipeline installation at B and J	Pipeline installation at J	Pipeline installation at J	--	--
TCS Pipeline Construction **G5**	--	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation
MW-20 Bench Facility Construction **E5, F5**	--	Facility and yard piping construction	Facility and yard piping construction	Facility and yard piping construction	Facility and yard piping construction	--	--
Well Installation	IRZ-37 pilot **(F5)**, IRZ-27 **(F5)**	IRZ-37 pilot **(F5)**, IRZ-27 **(F5)**, MW-Z site prep **(D5)**	IRZ-27 **(F5)**, MW-Z **(D5)**	IRZ-27 **(F5)**, MW-Z **(D5)**	IRZ-27 **(F5)**, MW-Z **(D5)**	--	--
Well Development	IRZ-16 **(E5)**	IRZ-16 **(E5)**	IRZ-16 **(E5)**	IRZ-16 **(E5)**	IRZ-16 **(E5)**	--	--
Well Testing	RB-3 **(E5)**	RB-3 **(E5)**	RB-3 **(E5)**	RB-3 **(E5)**	RB-3 **(E5)**	--	--
Primary Planned Activities	**2/2/2020**	**2/3/2020**	**2/4/2020**	**2/5/2020**	**2/6/2020**	**2/7/2020**	**2/8/2020**
Start Time (Pacific Standard Time)	No Work	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM
Pipeline C Installation **F5**		Pipeline installation at C8-Alt	Red slurry cap install at C5, C7, C8, C14	Red slurry cap install at C5, C7, C8, C14	Red slurry cap install at C5, C7, C8, C14	--	--
TCS Approach Pipeline Installation **F5, G5, G6**		Pipeline installation at J	Pipeline installation at J	Pipeline installation at J	Pipeline installation at J	--	--
TCS Pipeline Construction **G5**		Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation	Pipeline M trench excavation & rebar installation	Pipeline M trench excavation & rebar installation	Pipeline M trench excavation & rebar installation
MW-20 Bench Facility Construction **E5, F5**		Facility and yard piping construction	Facility and yard piping construction	Facility and yard piping construction	Facility and yard piping construction	--	--
Well Installation		--	IRZ-27 **(F5)**, MW-Z **(D5)**	IRZ-29 **(F5)**, MW-Z **(D5)**	IRZ-29 **(F5)**, MW-Z **(D5)**	IRZ-29 **(F5)**, MW-Z **(D5)**	IRZ-29 **(F5)**, MW-Z **(D5)**
Well Development		--	IRZ-16 **(E5)**	IRZ-16 **(E5)**	IRZ-16 **(E5)**	IRZ-16 **(E5)**	IRZ-16 **(E5)**
Well Testing		--	RB-3 **(E5)**	RB-3 **(E5)**	RB-3 **(E5)**	RB-3 **(E5)**	RB-3 **(E5)**
Primary Planned Activities	**2/9/2020**	**2/10/2020**	**2/11/2020**	**2/12/2020**	**2/13/2020**	**2/14/2020**	**2/15/2020**
Start Time (Pacific Standard Time)	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM
Pipeline C Installation **F5**	--	Red slurry cap and cleanout install at C5, C7, C8, C14 **Tentative: C6**	Red slurry cap and cleanout install at C5, C7, C8, C14 **Tentative: C6**	Red slurry cap and cleanout install at C5, C7, C8, C14 **Tentative: C6**	Red slurry cap and cleanout install at C5, C7, C8, C14 **Tentative: C6**	--	--
TCS Approach Pipeline Installation **F5, G5, G6**	--	Pipeline installation at J	Pipeline installation at J	Pipeline installation at J	Pipeline installation at J	--	--
TCS Pipeline Construction **G5**	--	Pipeline M trench rebar & conduit installation	Pipeline M trench conduit installation and concrete pour	Pipeline M trench conduit installation and concrete pour	Pipeline M trench conduit installation and concrete pour	Pipeline M trench conduit installation and concrete pour	Pipeline M trench conduit installation and concrete pour
MW-20 Bench Facility Construction **E5, F5**	--	Facility and yard piping construction	Facility and yard piping construction	Facility and yard piping construction	Facility and yard piping construction	--	--
Well Installation	IRZ-29 **(F5)**, MW-V **(D5)**	IRZ-29 **(F5)**, MW-V **(D5)**	IRZ-29 **(F5)**, MW-V**(D5)**	IRZ-29 **(F5)**, MW-V **(D5)**	IRZ-29 **(F5)**, MW-V **(D5)**	--	--
Well Development	IRZ-27 (F5), MW-Z (D5)	IRZ-27 (F5), MW-Z (D5)	IRZ-27 (F5), MW-Z (D5)	IRZ-27 (F5), MW-Z (D5)	IRZ-27 (F5), MW-Z (D5)	--	--
Well Testing	IRZ-16 **(E5)**	IRZ-16 **(E5)**	IRZ-16 **(E5)**	IRZ-16 **(E5)**	IRZ-16 **(E5)**	--	--

The timing of field activities are estimated and may change day-to-day based on site conditions, field progress, or other factors.
When planning to visit the site to observe a specific activity or area, please contact Curt Russell (760-791-5884) for the latest schedule information.

"G5" - Intrusive work location as described on the project grid map. See Project Grid Map tab for location of grid positions provided on the lookahead


B2
C1
C2
C4
C5
D1
D2
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D4
D5
D6
E1
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E4
E5
E6
F2
F3
F4
F5
F6
G2
G3
G4
G5
G6
H3
H4
2014_Index_Grid_A1-H9
Provisional Well
Existing Well
Planned Well
Planned or Provisional Transformer
Aboveground Pipe
Underground Pipe/Conduit
Future Provisional Pipe
Other Structures or Areas
0 250 500 1,000 Feet
0 50100 200 300 400 Meters
1:10,000

Attachment H
Validated Groundwater Monitoring Data
(DTSC Condition of Approval xi)

Attachment H. Validated Groundwater Monitoring Data

Pursuant to Condition of Approval # xi in DTSC's approval letter dated August 24, 2018 (DTSC, 2018a), PG&E is required to report data from samples collected as part of the sitewide groundwater monitoring program within 60 days of sample collection. In compliance with this requirement, PG&E initially submitted validated data to DTSC via monthly emails. For ease of recordkeeping and to minimize the number of ad-hoc compliance reports/emails, PG&E has since included validated data in each monthly progress report starting with the November 2018 report.

TMP October 2019 Post-Development Sampling

ARCADIS Design & Consultancy for natural and built assets

				LAB_NAME_CODE	ASSET	ASSET	ASSET
				CHEMICAL_NAME	Arsenic, dissolved	Chromium, Hexavalent	Chromium, total dissolved
				ANALYTIC_METHOD	SW 6020	EPA 218.6	SW 6020
				RESULT_UNIT	ug/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Matrix	Date Sampled			
MW-B-202	MW-B-202-101819	N	GW	10/18/2019	2.3	ND (1.0)	ND (1.0)
MW-B-267R	MW-B-267R-101619	N	GW	10/16/2019		ND (1.0)	ND (1.0)
MW-D-46R	MW-D-46R-103119	N	GW	10/31/2019		ND (0.2)	ND (1.0)
MW-Y-102	MW-Y-102-102319	N	GW	10/23/2019		ND (0.2)	ND (1.0)
MW-Y-122	MW-Y-122-103119	N	GW	10/31/2019		ND (1.0)	ND (1.0)
MW-Y-37	MW-Y-37-102019	N	GW	10/20/2019		ND (0.2)	ND (1.0)
MW-Y-72	MW-Y-72-102219	N	GW	10/22/2019		ND (0.2)	ND (1.0)
RB-4-138	RB-4-138-102019	N	GW	10/20/2019		ND (0.2)	ND (1.0)
RB-4-58	RB-4-58-102119	N	GW	10/21/2019		ND (0.2)	ND (1.0)
RB-5-44	RB-5-44-102419	N	GW	10/24/2019		ND (0.2)	ND (1.0)
RB-5-89	RB-5-89-102319	N	GW	10/23/2019		ND (0.2)	ND (1.0)

Notes:
N - Normal
GW - Groundwater
ND - Not Detected
ug/L - micrograms per liter

TMP October 2019 Baseline Sampling

ARCADIS Design & Consultancy for natural and built assets

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Alkalinity, total as CaCO3	Aluminum	Aluminum, dissolved	Antimony	Antimony, dissolved	Arsenic	Arsenic, dissolved	Barium
						ANALYTIC_METHOD	SM 2320 B	SW 6010B	SW 6010B	SW 6020	SW 6020	SW 6020	SW 6020	SW 6020
						RESULT_UNIT	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled								
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019	77	ND (250)	ND (250)	ND (0.5)	ND (0.5)	1.5	1.3	100
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019	46	ND (250)	ND (250)	ND (0.5)	ND (0.5)	2.7	2.6	200
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019	42	ND (250)	ND (250)	ND (2.5)	ND (2.5)	1.8	1.8	180
MW-B-33	MW-923-Q419	FD			GW	10/21/2019	89	ND (250)	ND (250)	ND (0.5)	ND (0.5)	3	2.7	82
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019	87	250	ND (50)	ND (0.5)	ND (0.5)	3	2.8	80
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019	60	ND (250)	ND (250)	ND (2.5)	ND (2.5)	1.8	1.8	67
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019	52	ND (250)	ND (50)	ND (0.5)	ND (0.5)	2.1	2.3	97
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019	68	ND (250)	ND (50)	ND (0.5)	ND (0.5)	1.4	1.4	140
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019	46	ND (250)	ND (250)	ND (0.5)	ND (2.5)	3.4	3.1	170
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019	92	140	ND (50)	ND (0.5)	ND (0.5)	1.3	1.2	75
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019	160	140	ND (50)	ND (0.5)	ND (0.5)	1.4	1.4	64
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019	50	ND (250)	ND (250)	ND (0.5)	ND (2.5)	2.9	2.5	110
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019	49	ND (250)	ND (250)	ND (0.5)	ND (2.5)	3.8	3.7	82
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019	88	60	ND (50)	ND (0.5)	ND (0.5)	2.1	2.1	52
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019	68	73	ND (50)	ND (0.5)	ND (0.5)	1.6	1.3	80
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019	50	ND (250)	ND (250)	ND (0.5)	ND (0.5)	3.3	3.5	74
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019	1,000	120	ND (50)	ND (0.5)	ND (0.5)	10	11	84
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019	40	ND (50)	ND (50)	ND (0.5)	ND (0.5)	4	3.9	52
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019	54	210	ND (50)	ND (0.5)	ND (0.5)	2.8	2.5	130
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019	49	260	76	ND (0.5)	ND (0.5)	5.1	4.5	73
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019	89	130	ND (50)	ND (0.5)	ND (0.5)	1.5	1.6	46
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019	88	140	ND (50)	ND (0.5)	ND (0.5)	1.6	1.5	46
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019	61	220	ND (50)	ND (0.5)	ND (0.5)	1.2	1	220
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019	61	110	ND (50)	ND (0.5)	ND (0.5)	6	6.1	31
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019	100	97	ND (50)	ND (0.5)	ND (0.5)	2.3	2.1	81
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019	67	68	ND (250)	ND (0.5)	ND (0.5)	2	2	110
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019	260	460	ND (50)	ND (0.5)	ND (0.5)	2.9	2.5	76
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019	170	440	ND (50)	ND (0.5)	ND (0.5)	3.9	3.6	140
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019	82	170	ND (50)	ND (0.5)	ND (0.5)	1.2	1.2	93
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019	52	ND (250)	ND (250)	ND (0.5)	ND (0.5)	1	0.75	280
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019	51	ND (250)	ND (250)	ND (0.5)	ND (0.5)	1	0.79	290
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019	48	ND (50)	ND (50)	ND (0.5)	ND (0.5)	1.8	1.7	120
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019	46	ND (50)	ND (50)	ND (0.5)	ND (0.5)	3.3	3.4	100

Notes:

N - Normal
FD - Field Duplicate
LF - Low Flow
GW - Groundwater
ND - Not Detected

ug/L - micrograms per liter
mg/L - milligrams per liter

TMP October 2019 Baseline Sampling

ARCADIS Design & Consultancy for natural and built assets

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Barium, dissolved	Beryllium	Beryllium, dissolved	Boron	Boron, dissolved	Bromide	Cadmium	Cadmium, dissolved
						ANALYTIC_METHOD	SW 6020	SW 6020	SW 6020	SW 6010B	SW 6010B	EPA 300.0	SW 6020	SW 6020
						RESULT_UNIT	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled								
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019	96	ND (2.5)	ND (2.5)	950	1.1	ND (2.5)	ND (0.5)	ND (0.5)
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019	200	ND (12)	ND (2.5)	1,100	1.2	ND (2.5)	ND (0.5)	ND (0.5)
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019	180	ND (12)	ND (2.5)	2,200	2.2	ND (2.5)	ND (2.5)	ND (2.5)
MW-B-33	MW-923-Q419	FD			GW	10/21/2019	75	ND (2.5)	ND (0.5)	670	0.57	ND (2.5)	ND (0.5)	ND (0.5)
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019	77	ND (2.5)	ND (2.5)	690	0.67	ND (2.5)	ND (0.5)	ND (0.5)
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019	66	ND (12)	ND (12)	2,800	2.9	ND (2.5)	ND (2.5)	ND (2.5)
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019	100	ND (2.5)	ND (2.5)	1,400	1.2	ND (5.0)	ND (0.5)	ND (0.5)
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019	130	ND (12)	ND (2.5)	1,700	1.1	ND (5.0)	ND (0.5)	ND (0.5)
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019	160	ND (12)	ND (2.5)	2,900	0.87	ND (5.0)	ND (0.5)	ND (2.5)
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019	67	ND (2.5)	ND (0.5)	590	0.52	ND (2.5)	ND (0.5)	ND (0.5)
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019	62	ND (2.5)	ND (2.5)	1,200	1.2	ND (2.5)	ND (0.5)	ND (0.5)
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019	68	ND (12)	ND (2.5)	1,800	1.4	ND (5.0)	ND (0.5)	ND (2.5)
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019	76	ND (12)	ND (12)	3,200	3.1	ND (2.5)	ND (0.5)	ND (2.5)
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019	47	ND (2.5)	ND (2.5)	1,500	1.8	ND (5.0)	ND (0.5)	ND (0.5)
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019	72	ND (2.5)	ND (2.5)	1,100	1.3	ND (5.0)	ND (0.5)	ND (0.5)
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019	72	ND (2.5)	ND (2.5)	2,000	0.63	ND (2.5)	ND (0.5)	ND (0.5)
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019	64	ND (2.5)	ND (0.5)	1,300	1.2	ND (2.5)	ND (0.5)	ND (0.5)
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019	50	ND (2.5)	ND (2.5)	1,400	1.6	ND (5.0)	ND (0.5)	ND (0.5)
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019	130	ND (2.5)	ND (2.5)	1,100	1.2	ND (5.0)	ND (0.5)	ND (0.5)
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019	67	ND (2.5)	ND (2.5)	1,700	2	ND (5.0)	ND (0.5)	ND (0.5)
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019	43	ND (0.5)	ND (0.5)	440	0.49	ND (2.5)	ND (0.5)	ND (0.5)
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019	44	ND (0.5)	ND (0.5)	430	0.46	ND (2.5)	ND (0.5)	ND (0.5)
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019	220	ND (2.5)	ND (0.5)	500	0.53	ND (5.0)	ND (0.5)	ND (0.5)
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019	31	ND (2.5)	ND (2.5)	2,000	2	ND (2.5)	ND (0.5)	ND (0.5)
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019	70	ND (2.5)	ND (12)	890	1.2	ND (5.0)	ND (0.5)	ND (0.5)
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019	110	ND (2.5)	ND (2.5)	1,100	1.2	ND (5.0)	ND (0.5)	ND (0.5)
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019	67	ND (0.5)	ND (0.5)	210	0.21 J	ND (1.0)	ND (0.5)	ND (0.5)
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019	120	ND (2.5)	ND (2.5)	910	0.93	ND (5.0)	ND (0.5)	ND (0.5)
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019	86	ND (0.5)	ND (0.5)	370	0.32	ND (1.0)	ND (0.5)	ND (0.5)
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019	280	ND (2.5)	ND (2.5)	1,100	0.8	ND (5.0)	ND (0.5)	ND (0.5)
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019	290	ND (2.5)	ND (2.5)	900	0.73	ND (5.0)	ND (0.5)	ND (0.5)
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019	110	ND (2.5)	ND (2.5)	1,200	1.3	ND (10)	ND (0.5)	ND (0.5)
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019	100	ND (2.5)	ND (2.5)	1,500	1.7	ND (5.0)	ND (0.5)	ND (0.5)

Notes:

N - Normal
FD - Field Duplicate
LF - Low Flow
GW - Groundwater
ND - Not Detected

ug/L - micrograms per liter
mg/L - milligrams per liter

TMP October 2019 Baseline Sampling

ARCADIS Design & Consultancy for natural and built assets

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Calcium	Calcium, dissolved	Chloride	Chromium, Hexavalent	Chromium, total	Chromium, total dissolved	Cobalt	Cobalt, dissolved
						ANALYTIC_METHOD	SW 6010B	SW 6010B	EPA 300.0	EPA 218.6	SW 6020	SW 6020	SW 6020	SW 6020
						RESULT_UNIT	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled								
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019	240,000	280	3,900	1.4	16	1.7	ND (0.5)	ND (0.5)
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019	390,000	480	5,300	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019	320,000	330	7,300	ND (1.0)	8.6	ND (1.0)	ND (0.5)	ND (0.5)
MW-B-33	MW-923-Q419	FD			GW	10/21/2019	170,000	160	1,300	12	16	12	ND (0.5)	ND (0.5)
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019	180,000	200	1,300	12	15	12	ND (0.5)	ND (0.5)
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019	230,000	260	9,900	ND (1.0)	1.5	ND (1.0)	ND (0.5)	ND (0.5)
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019	410,000	400	5,200	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019	590,000	670	6,300	270	250	270	ND (0.5)	ND (0.5)
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019	260,000	240	7,000	ND (1.0)	5.4	ND (1.0)	ND (0.5)	ND (0.5)
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019	120,000	130	850	30	38	32	ND (0.5)	ND (0.5)
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019	260,000	290	2,200	ND (0.2)	3.5	ND (1.0)	ND (0.5)	ND (0.5)
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019	510,000	460	6,100	1.4	9.6	1.5	ND (0.5)	ND (0.5)
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019	130,000	130	7,100	ND (1.0)	2	ND (1.0)	ND (0.5)	ND (0.5)
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019	240,000	250	2,400	ND (1.0)	40	3.7	ND (0.5)	ND (0.5)
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019	610,000	670	5,900	ND (1.0)	47	6.5	0.78	ND (0.5)
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019	110,000	93	6,700	ND (1.0)	23	1.8	ND (0.5)	ND (0.5)
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019	170,000	160	1,800	ND (1.0)	7.5	ND (1.0)	1	0.76
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019	300,000	300	3,500	5.9	6.4	5.2	ND (0.5)	ND (0.5)
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019	300,000	310	2,700	ND (0.2)	5	ND (1.0)	ND (0.5)	ND (0.5)
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019	240,000	240	3,900	7.3	23	9.9	ND (0.5)	ND (0.5)
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019	83,000	86	380	23	25	23	ND (0.5)	ND (0.5)
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019	85,000	82	360	22	25	23	ND (0.5)	ND (0.5)
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019	340,000	310	1,700	0.23	3.3	ND (1.0)	ND (0.5)	ND (0.5)
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019	240,000	230	3,600	1,000	1,000	1,000	ND (0.5)	ND (0.5)
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019	310,000	270	3,500	ND (1.0)	3.8	ND (1.0)	ND (0.5)	ND (0.5)
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019	660,000	480	5,400	ND (1.0)	6	ND (1.0)	ND (0.5)	ND (0.5)
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019	93,000	91 J	140	ND (0.2)	5.1	ND (1.0)	0.51	ND (0.5)
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019	280,000	250	2,000	ND (0.2)	1.8	ND (1.0)	0.54	ND (0.5)
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019	110,000 J	110	520	21	27	22	ND (0.5)	ND (0.5)
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019	540,000	530	2,100	5.2	11	5.2	0.56	ND (0.5)
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019	490,000	520	2,100	5	12	5.7	0.66	ND (0.5)
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019	270,000	270	2,800	ND (0.2)	ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019	300,000	290	3,400	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)

Notes:

N - Normal
FD - Field Duplicate
LF - Low Flow
GW - Groundwater
ND - Not Detected

ug/L - micrograms per liter
mg/L - milligrams per liter

TMP October 2019 Baseline Sampling

ARCADIS Design & Consultancy for natural and built assets

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Copper	Copper, dissolved	Fluoride	Iron	Iron, dissolved	Lead	Lead, dissolved	Magnesium
						ANALYTIC_METHOD	SW 6020	SW 6020	EPA 300.0	SW 6010B	SW 6010B	SW 6020	SW 6020	SW 6010B
						RESULT_UNIT	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled								
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019	16	ND (1.0)	3.3	370	ND (100)	ND (5.0)	ND (1.0)	60,000
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019	ND (1.0)	ND (1.0)	3.5	160	160	ND (5.0)	ND (5.0)	51,000
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019	10	ND (1.0)	4.5	440	260	ND (5.0)	ND (5.0)	17,000
MW-B-33	MW-923-Q419	FD			GW	10/21/2019	29	5.2	3	160	ND (100)	ND (1.0)	ND (1.0)	31,000
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019	29	6	3.2	350	120	ND (1.0)	ND (1.0)	33,000
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019	120	8.1	6.6	450	350	ND (5.0)	ND (5.0)	8,800
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019	ND (5.0)	ND (1.0)	3.3	ND (100)	26	ND (5.0)	ND (5.0)	39,000
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019	ND (1.0)	ND (1.0)	3.1	ND (100)	ND (20)	ND (5.0)	ND (5.0)	91,000
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019	2.8	ND (5.0)	4.8	240	ND (100)	ND (5.0)	ND (5.0)	12,000
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019	1.6	ND (1.0)	3.5	230	85	ND (1.0)	ND (1.0)	21,000
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019	ND (1.0 J)	ND (1.0 J)	3	230	61	ND (1.0)	ND (1.0)	33,000
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019	9.6	5.2 J	3.3	280	ND (100)	ND (5.0)	ND (5.0)	47,000
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019	4.2	2.9 J	7.7	ND (100)	ND (100)	ND (5.0)	ND (5.0)	3,700
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019	ND (1.0)	ND (1.0)	3	290	53	ND (1.0)	ND (1.0)	17,000
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019	ND (1.0)	ND (1.0)	2.7	450	120	ND (5.0)	ND (5.0)	68,000
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019	ND (1.0)	ND (1.0)	6.2	240	ND (100)	ND (5.0)	ND (5.0)	3,800
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019	ND (1.0)	ND (1.0)	1.9	2,700	2,300	ND (1.0)	ND (1.0)	200,000
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019	ND (1.0)	ND (1.0)	4.7	23	ND (20)	ND (1.0)	ND (1.0)	18,000
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019	9.1	ND (1.0)	3.6	590	170	ND (1.0)	ND (1.0)	28,000
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019	10	1.5	4.6	630	130	ND (1.0)	ND (1.0)	9,500
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019	ND (1.0)	ND (1.0)	1.9	190 J	ND (20)	ND (1.0)	ND (1.0)	14,000
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019	ND (1.0)	ND (1.0)	1.9	260 J	25	ND (1.0)	ND (1.0)	14,000
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019	4.7	ND (1.0)	3.2	440	54	ND (1.0)	ND (1.0)	53,000
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019	ND (1.0)	ND (1.0)	4.9	210	54	ND (1.0)	ND (1.0)	8,900
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019	ND (1.0)	ND (1.0)	3	220	30	ND (1.0)	ND (1.0)	63,000
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019	ND (1.0)	ND (1.0)	3.2	500	370	ND (1.0)	ND (5.0)	64,000
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019	ND (1.0)	ND (1.0)	0.81	1,400 J	800 J	ND (1.0)	ND (1.0)	28,000
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019	ND (1.0)	ND (1.0)	2.3	1,400	880	ND (1.0)	ND (1.0)	47,000
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019	ND (1.0)	ND (1.0)	2.3	380 J	32	ND (1.0)	ND (1.0)	14,000
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019	ND (1.0)	ND (1.0)	2.4	520	ND (100)	ND (1.0)	ND (1.0)	90,000
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019	ND (1.0)	ND (1.0)	2.7	570	ND (100)	ND (1.0)	ND (1.0)	81,000
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019	ND (1.0)	ND (1.0)	3.9	130	24	ND (1.0)	ND (1.0)	22,000
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019	ND (1.0)	ND (1.0)	4.6	87	23	ND (1.0)	ND (1.0)	19,000

Notes:

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GW - Groundwater
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ug/L - micrograms per liter
mg/L - milligrams per liter

TMP October 2019 Baseline Sampling

ARCADIS Design & Consultancy for natural and built assets

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Molybdenum	Molybdenum, dissolved	Nickel
						ANALYTIC_METHOD	SW 6010B	SW 6020	SW 6020	EPA 7470A	EPA 7470A	SW 6020	SW 6020	SW 6020
						RESULT_UNIT	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled								
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019	65	1,100	1,100	ND (0.2)	ND (0.2)	39	40	7.6
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019	61	2,800	2,700	0.23	ND (0.2)	87	84	ND (1.0)
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019	17	1,100	1,200	ND (0.2)	ND (0.2)	160	160	5.4
MW-B-33	MW-923-Q419	FD			GW	10/21/2019	29	350	290	ND (0.2)	ND (0.2)	14	13	1.7
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019	32	350	300	ND (0.2)	ND (0.2)	14	14	1.4
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019	8.9	560	550	ND (0.2)	ND (0.2)	220	240	ND (1.0)
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019	32	380	380	ND (0.2)	ND (0.2)	34	37	ND (5.0)
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019	65	1,400	1,300	ND (0.2)	ND (0.2)	41	42	ND (1.0)
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019	58	370	360	ND (0.2)	ND (0.2)	96	93	4.1
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019	21	140	140	ND (0.2)	ND (0.2)	29	29	1.7
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019	34	190	180	ND (0.2)	ND (0.2)	5.9 J	5.6 J	1.7
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019	43	290	260	ND (0.2)	ND (0.2)	40	38	3.6
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019	3.8	170	160	ND (0.2)	ND (0.2)	280	270	ND (1.0)
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019	18	120	120	ND (0.2)	ND (0.2)	12	11	19
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019	68	990	960	ND (0.2)	ND (0.2)	22	21	24
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019	3.3	86	76	ND (0.2)	ND (0.2)	160	160	12
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019	200	230	210	ND (0.2)	ND (0.2)	15	16	3.8
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019	19	ND (0.5)	ND (0.5)	ND (0.2)	ND (0.2)	35	33	ND (1.0)
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019	30	350	330	ND (0.2)	ND (0.2)	26	26	2.5
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019	9.7	97	130	ND (0.2)	ND (0.2)	49	49	1.8
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019	14	5.5	ND (0.5)	ND (0.2)	ND (0.2)	18	18	1.4
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019	14	6.6	ND (0.5)	ND (0.2)	ND (0.2)	18	18	1.6
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019	52	280	260	ND (0.2)	ND (0.2)	7.3	7.4	1.5
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019	8.6	6.3	ND (0.5)	ND (0.2)	ND (0.2)	96	100	5.2
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019	75	1,100	1,100	ND (0.2)	ND (0.2)	50	45	1.1
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019	92	2,300	2,400	ND (0.2)	ND (0.2)	47	49	2.6
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019	35 J	410 J	380 J	ND (0.2)	ND (0.2)	11	11	2.6
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019	58	1,800	1,700	ND (0.2)	ND (0.2)	21	21	ND (1.0)
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019	14	54	9.6	ND (0.2)	ND (0.2)	10	10	1.6
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019	90	24	ND (0.5)	ND (0.2)	ND (0.2)	5.6	5.1	16
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019	87	29	ND (0.5)	ND (0.2)	ND (0.2)	5.7	5.2	18
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019	23	220	210	ND (0.2)	ND (0.2)	32	30	ND (1.0)
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019	19	200	170	ND (0.2)	ND (0.2)	44	44	ND (1.0)

Notes:

N - Normal
FD - Field Duplicate
LF - Low Flow
GW - Groundwater
ND - Not Detected

ug/L - micrograms per liter
mg/L - milligrams per liter

TMP October 2019 Baseline Sampling

ARCADIS Design & Consultancy for natural and built assets

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Nickel, dissolved	Nitrate/Nitrite as Nitrogen	Potassium, dissolved	Selenium	Selenium, dissolved	Silver	Silver, dissolved	Sodium, dissolved
						ANALYTIC_METHOD	SW 6020	SM 4500-NO3 F	SW 6010B	SW 6020	SW 6020	SW 6020	SW 6020	SW 6010B
						RESULT_UNIT	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled								
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019	ND (1.0)	1.6	18	ND (2.5)	1.5	ND (2.5)	ND (0.5)	2,100
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019	ND (1.0)	0.95 J	29	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	3,400
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019	ND (1.0)	0.26	62	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	4,400
MW-B-33	MW-923-Q419	FD			GW	10/21/2019	ND (1.0)	1.4	9.3	1.7	1.2	ND (0.5)	ND (0.5)	700
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019	ND (1.0)	1.4	9.8	1.3	1.4	ND (0.5)	ND (0.5)	720
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019	ND (1.0)	0.35	69	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	6,100
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019	ND (1.0)	1.5 J	26	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	2,700
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019	ND (1.0)	1.2 J	29	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	3,100
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019	ND (5.0)	0.34 J	48	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	4,700
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019	ND (1.0)	2.1 J	10	2.2	2.3	ND (0.5)	ND (0.5)	500
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019	ND (1.0)	0.35 J	16	ND (0.5)	ND (2.5)	ND (0.5)	ND (0.5)	1,300
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019	ND (1.0)	1.4 J	36	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	3,200
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019	ND (1.0)	1.1 J	46	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	6,200
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019	3.8	0.6	16	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1,500
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019	3.7	1.5	35 J	0.63	ND (0.5)	ND (0.5)	ND (0.5)	3,300
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019	ND (1.0)	0.69	16	ND (0.5)	ND (0.5)	ND (2.5)	ND (0.5)	5,100
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019	ND (1.0)	0.092	20	0.99	1.3	ND (0.5)	ND (0.5)	1,700
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019	ND (1.0)	0.58 J	18	0.82	ND (0.5)	ND (0.5)	ND (0.5)	2,200
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019	ND (1.0)	0.34 J	16	0.67	ND (0.5)	ND (0.5)	ND (0.5)	1,300
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019	1	0.76 J	28	0.74	1	ND (0.5)	ND (0.5)	2,400
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019	ND (1.0)	9.3 J	6.9	4.6	4.4	ND (0.5)	ND (0.5)	230
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019	1.1	9.8 J	6.9	4.2	4.8	ND (0.5)	ND (0.5)	230
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019	ND (1.0)	0.78 J	11	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	660
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019	ND (1.0)	7.8 J	25 J	5.3	6.6	ND (0.5)	ND (0.5)	2,500
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019	ND (1.0)	0.15	21	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1,900
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019	ND (1.0)	0.55	19	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	4,100
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019	ND (1.0)	0.064	33	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	140
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019	ND (1.0)	ND (0.05)	13	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1,200
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019	ND (1.0)	9.0 J	7.7	6	6.1	ND (0.5)	ND (0.5)	260
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019	11	1.0 J	14 J	0.94	0.88	ND (0.5)	ND (0.5)	740
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019	10	1.0 J	14	0.75	0.77	ND (0.5)	ND (0.5)	750
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019	ND (1.0)	0.37 J	15	0.75	0.93	ND (0.5)	ND (0.5)	1,400
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019	ND (1.0)	0.57 J	18	0.81	0.8	ND (0.5)	ND (0.5)	1,800

Notes:

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ug/L - micrograms per liter
mg/L - milligrams per liter

TMP October 2019 Baseline Sampling

ARCADIS Design & Consultancy for natural and built assets

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Sulfate	Thallium	Thallium, dissolved	Total dissolved solids	Total organic carbon	Vanadium	Vanadium, dissolved	Zinc
						ANALYTIC_METHOD	EPA 300.0	SW 6020	SW 6020	SM 2540 C	SM 5310 C	SW 6020	SW 6020	SW 6020
						RESULT_UNIT	mg/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled								
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019	620	ND (2.5)	ND (0.5)	7,400	ND (1.0)	2.4	ND (1.0)	ND (10)
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019	1,100	ND (2.5)	ND (2.5)	11,000	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019	1,100	ND (2.5)	ND (2.5)	14,000	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)
MW-B-33	MW-923-Q419	FD			GW	10/21/2019	250	ND (0.5)	ND (0.5)	2,700	ND (1.0)	2.8	2.2	ND (10)
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019	250	ND (0.5)	ND (0.5)	2,700	ND (1.0)	2.8	2.2	ND (10)
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019	1,700	ND (2.5)	ND (2.5)	18,000	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019	790	ND (2.5)	ND (2.5)	9,500	ND (1.0)	1.6	1.6	ND (50)
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019	920	ND (2.5)	ND (2.5)	13,000	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019	880	ND (2.5)	ND (2.5)	13,000	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019	190	ND (0.5)	ND (0.5)	1,900	ND (1.0)	3.3	2.3	ND (10)
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019	550	ND (0.5)	ND (0.5)	4,600	ND (10)	3	2.5	ND (10 J)
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019	1,200	ND (2.5)	ND (2.5)	12,000	ND (1.0)	4.3	2.8	ND (10)
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019	920	ND (2.5)	ND (2.5)	13,000	ND (1.0)	3.1	2.9	ND (10)
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019	620	ND (0.5)	ND (0.5)	4,900	ND (1.0)	5.5	4.7	ND (10)
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019	1,100	ND (2.5)	ND (2.5)	11,000	ND (1.0)	2	1.3	ND (10)
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019	1,000	ND (2.5)	ND (2.5)	12,000 J	ND (1.0)	1.1	ND (1.0)	ND (10)
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019	1,400	ND (0.5)	ND (0.5)	5,800	2	2.7	1.9	ND (10)
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019	480	ND (0.5)	ND (0.5)	6,400	ND (1.0)	9.2	8.6	ND (10)
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019	350	ND (0.5)	ND (0.5)	4,900	ND (1.0)	4.9	2.9	ND (10)
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019	520	ND (0.5)	ND (0.5)	7,000	ND (1.0)	10	6.9	ND (10)
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019	180	ND (0.5)	ND (0.5)	1,100	ND (1.0)	7.4	6.8	ND (10)
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019	180	ND (0.5)	ND (0.5)	1,100	ND (1.0)	7.4	6.8	ND (10)
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019	230	1	0.88	3,400	ND (1.0)	4.3	2.5	ND (10)
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019	980	ND (0.5)	ND (0.5)	7,200	ND (1.0)	6.2	5.9	ND (10)
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019	960	ND (0.5)	ND (0.5)	7,400	ND (1.0)	1.4	ND (1.0)	ND (10)
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019	950	ND (0.5)	ND (2.5)	9,600	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019	230	ND (0.5)	ND (0.5)	800	1.2	1.4	ND (1.0)	ND (10 J)
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019	450	ND (0.5)	ND (0.5)	4,200	ND (1.0)	1.6	ND (1.0)	ND (10)
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019	170	ND (0.5)	ND (0.5)	1,200	ND (1.0)	5.2	3.1	ND (10)
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019	340	ND (0.5)	ND (0.5)	4,300	ND (1.0)	4.5	2.9	ND (10)
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019	320	ND (0.5)	ND (0.5)	4,300	ND (1.0)	4.9	3	ND (10)
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019	360	ND (0.5)	ND (0.5)	5,100	ND (1.0)	3.8	3.4	ND (10)
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019	440	ND (0.5)	ND (0.5)	5,900	ND (1.0)	3.2	3.1	ND (10)

Notes:

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ND - Not Detected

ug/L - micrograms per liter
mg/L - milligrams per liter

TMP October 2019 Baseline Sampling

ARCADIS Design & Consultancy for natural and built assets

						LAB_NAME_CODE	ASSET	CTBERK
						CHEMICAL_NAME	Zinc, dissolved	Ammonia as nitrogen
						ANALYTIC_METHOD	SW 6020	A4500NH
						RESULT_UNIT	ug/L	mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled		
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019	ND (10)	0.11
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019	ND (10)	ND (0.09)
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019	ND (10)	0.11
MW-B-33	MW-923-Q419	FD			GW	10/21/2019	ND (10)	0.2
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019	ND (10)	0.13
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019	ND (10)	0.14
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019	ND (10)	ND (0.17)
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019	ND (10)	0.37
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019	ND (50)	0.23
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019	ND (10)	ND (0.15)
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019	ND (10 J)	ND (0.12)
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019	ND (10)	ND (0.09)
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019	ND (10)	ND (0.09)
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019	18	0.09
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019	ND (10)	0.07
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019	ND (10)	0.09
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019	ND (10)	4.8
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019	ND (10)	0.18
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019	ND (10)	0.09
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019	ND (10)	0.09
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019	ND (10)	0.07
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019	ND (10)	0.07
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019	ND (10)	0.05
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019	ND (10)	0.11
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019	ND (10)	0.23
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019	ND (10)	0.25
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019	ND (10 J)	0.26
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019	ND (10)	0.18
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019	ND (10)	0.22
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019	ND (10)	0.21
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019	ND (10)	0.13
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019	ND (10)	0.09
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019	ND (10)	0.08

Notes:

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mg/L - milligrams per liter

PMP November 2019 Sampling

ARCADIS Design & Consultancy for natural and built assets

SYS_LOC_CODE	PE-01	TW-03D
SYS_SAMPLE_CODE	PE-01-1119*	TW-03D-1119*
SAMPLE_TYPE_CODE	N	N
MATRIX_CODE	GW	GW
SAMPLE_DATE	11/7/2019	11/7/2019

Lab	Chemical Name	Analytic Method	Unit		
ASSET	Alkalinity, total as CaCO3	SM 2320 B	mg/L	270	160
ASSET	Calcium, dissolved	EPA 200.7	mg/L	190	210
ASSET	Chloride	EPA 300.0	mg/L	960	2,000
ASSET	Chromium, Hexavalent	EPA 218.6	ug/L	ND (0.2)	440
ASSET	Chromium, total dissolved	EPA 200.8	ug/L	ND (1.0)	430
ASSET	Iron, dissolved	EPA 200.7	ug/L	570	ND (20)
ASSET	Magnesium, dissolved	EPA 200.7	mg/L	47	27
ASSET	Manganese, dissolved	EPA 200.8	ug/L	510	ND (0.5)
ASSET	Nitrate/Nitrite as Nitrogen	SM 4500-NO3 F	mg/L	ND (0.05)	2.8
ASSET	pH	SM 4500-H+ B	PHUNITS	7.4	7.2
ASSET	Sodium, dissolved	EPA 200.7	mg/L	640	1,300
ASSET	Specific conductance	EPA 120.1	uS/cm	3,600	6,800
ASSET	Sulfate	EPA 300.0	mg/L	290	480
ASSET	Total dissolved solids	SM 2540 C	mg/L	2,200	4,100

*Preliminary data

Notes:
N - Normal
FD - Field Duplicate
LF - Low Flow
GW - Groundwater
ND - Not Detected
ug/L - micrograms per liter
mg/L - milligrams per liter
uS/cm - microSiemens per centimeter

RMP November 2019 Surface Water Sampling

ARCADIS Design & Consultancy for natural and built assets

					LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
					CHEMICAL_NAME	Alkalinity, total as CaCO3	Arsenic, dissolved	Barium, dissolved	Boron, dissolved	Bromide	Calcium, dissolved	Chloride	Chromium, Hexavalent	Chromium, total dissolved	Iron
					ANALYTIC_METHOD	SM 2320 B	SW 6020	SW 6020	SW 6010B	EPA 300.0	SW 6010B	EPA 300.0	EPA 218.6	SW 6020	SW 6010B
					RESULT_UNIT	mg/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Parent Sample	Matrix	Date Sampled										
C-BNS	C-BNS-Q419*	N		GW	11/20/2019		2.2	110					ND (0.2)	ND (1.0)	37
C-CON-D	C-CON-D-Q419*	N		GW	11/21/2019		2.2	120					ND (0.2)	ND (1.0)	440
C-CON-S	C-CON-S-Q419*	N		GW	11/21/2019		2.1	120					ND (0.2)	ND (1.0)	100
C-CON-S	MW-900-Q419*	FD	C-CON-S-Q419	GW	11/21/2019		2.3	120					ND (0.2)	ND (1.0)	97
C-I-3-D	C-I-3-D-Q419*	N		GW	11/20/2019		2.2	110					ND (0.2)	ND (1.0)	76
C-I-3-S	C-I-3-S-Q419*	N		GW	11/20/2019		2.2	110					ND (0.2)	ND (1.0)	42
C-MAR-D	C-MAR-D-Q419*	N		GW	11/21/2019		2.4	130					ND (0.2)	ND (1.0)	2,000
C-MAR-S	C-MAR-S-Q419*	N		GW	11/21/2019		2.4	130					ND (0.2)	ND (1.0)	1,500
C-MAR-S	MW-901-Q419*	FD	C-MAR-S-Q419	GW	11/21/2019		2.4	130					ND (0.2)	ND (1.0)	1,900
C-NR1-D	C-NR1-D-Q419*	N		GW	11/21/2019		2.3	120					ND (0.2)	ND (1.0)	200
C-NR1-S	C-NR1-S-Q419*	N		GW	11/21/2019		2.1	120					ND (0.2)	ND (1.0)	160
C-NR3-D	C-NR3-D-Q419*	N		GW	11/21/2019		2	110					ND (0.2)	ND (1.0)	150
C-NR3-S	C-NR3-S-Q419*	N		GW	11/21/2019		2.3	120					ND (0.2)	ND (1.0)	140
C-NR4-D	C-NR4-D-Q419*	N		GW	11/21/2019		2.3	120					ND (0.2)	ND (1.0)	140
C-NR4-S	C-NR4-S-Q419*	N		GW	11/21/2019		2.2	120					ND (0.2)	ND (1.0)	120
C-R22A-D	C-R22A-D-Q419*	N		GW	11/20/2019		2.2	110					ND (0.2)	ND (1.0)	60
C-R22A-D	MW-902-Q419*	FD	C-R22A-D-Q419	GW	11/20/2019		2.2	110					ND (0.2)	ND (1.0)	89
C-R22A-S	C-R22A-S-Q419*	N		GW	11/20/2019		2.2	110					ND (0.2)	ND (1.0)	27
C-R27-D	C-R27-D-Q419*	N		GW	11/20/2019		2.1	110					ND (0.2)	ND (1.0)	ND (20)
C-R27-S	C-R27-S-Q419*	N		GW	11/20/2019		2.1	110					ND (0.2)	ND (1.0)	30
C-TAZ-D	C-TAZ-D-Q419*	N		GW	11/20/2019		2.2	110					ND (0.2)	ND (1.0)	140
C-TAZ-S	C-TAZ-S-Q419*	N		GW	11/20/2019		2.3	110					ND (0.2)	ND (1.0)	21
R-19	R-19-Q419*	N		GW	11/21/2019		2.2	120					ND (0.2)	ND (1.0)	1,800
R-28	R-28-Q419*	N		GW	11/20/2019	130	2.1	110	0.17	ND (1.0)	68	87	ND (0.2)	ND (1.0)	67
R63	R63-Q419*	N		GW	11/20/2019		2.2	110					ND (0.2)	ND (1.0)	40
RRB	RRB-Q419*	N		GW	11/21/2019		2.4	300					ND (0.2)	ND (1.0)	180
SW1	SW1-Q419*	N		GW	11/21/2019								ND (0.2)	ND (1.0)	
SW2	SW2-Q419*	N		GW	11/21/2019								ND (0.2)	ND (1.0)	

*Preliminary data

Notes:
N - Normal
FD - Field Duplicate
GW - Groundwater
ND - Not Detected
ug/L - micrograms per liter
mg/L - milligrams per liter
uS/cm - microSiemens per centimeter

RMP November 2019 Surface Water Sampling

ARCADIS Design & Consultancy for natural and built assets

					LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
					CHEMICAL_NAME	Iron, dissolved	Magnesium, dissolved	Manganese, dissolved	Molybdenum, dissolved	Nitrate/Nitrite as Nitrogen	pH	Potassium, dissolved	Selenium, dissolved	Sodium, dissolved
					ANALYTIC_METHOD	SW 6010B	SW 6010B	SW 6020	SW 6020	SM 4500-NO3 F	SM 4500-H+ B	SW 6010B	SW 6020	SW 6010B
					RESULT_UNIT	ug/L	mg/L	ug/L	ug/L	mg/L	PHUNITS	mg/L	ug/L	mg/L
Location ID	Sample ID	Sample Type	Parent Sample	Matrix	Date Sampled									
C-BNS	C-BNS-Q419*	N		GW	11/20/2019	ND (20)		ND (0.5)	4.4	0.28	8.2		1.5	
C-CON-D	C-CON-D-Q419*	N		GW	11/21/2019	ND (20)		ND (0.5)	4.8	0.25	8.3		1.6	
C-CON-S	C-CON-S-Q419*	N		GW	11/21/2019	ND (20)		ND (0.5)	4.6	0.26	8.3		1.7	
C-CON-S	MW-900-Q419*	FD	C-CON-S-Q419	GW	11/21/2019	ND (20)		ND (0.5)	4.8	0.25	8.3		1.6	
C-I-3-D	C-I-3-D-Q419*	N		GW	11/20/2019	ND (20)		ND (0.5)	4.4	0.26	8.3		1.4	
C-I-3-S	C-I-3-S-Q419*	N		GW	11/20/2019	ND (20)		ND (0.5)	4.4	0.27	8.3		1.6	
C-MAR-D	C-MAR-D-Q419*	N		GW	11/21/2019	75		17	5.4	0.3	8		1.3	
C-MAR-S	C-MAR-S-Q419*	N		GW	11/21/2019	37		9.9	5.1	0.29	8		1.3	
C-MAR-S	MW-901-Q419*	FD	C-MAR-S-Q419	GW	11/21/2019	91		9.4	5.2	0.28	8		1.3	
C-NR1-D	C-NR1-D-Q419*	N		GW	11/21/2019	23		ND (0.5)	4.9	0.27	8.3		1.8	
C-NR1-S	C-NR1-S-Q419*	N		GW	11/21/2019	ND (20)		ND (0.5)	4.7	0.28	8.3		1.3	
C-NR3-D	C-NR3-D-Q419*	N		GW	11/21/2019	35		ND (0.5)	4.5	0.3	8.2		1.5	
C-NR3-S	C-NR3-S-Q419*	N		GW	11/21/2019	28		ND (0.5)	4.8	0.27	8.3		1.4	
C-NR4-D	C-NR4-D-Q419*	N		GW	11/21/2019	49		ND (0.5)	4.8	0.27	8.3		1.8	
C-NR4-S	C-NR4-S-Q419*	N		GW	11/21/2019	52		ND (0.5)	4.7	0.28	8.2		1.2	
C-R22A-D	C-R22A-D-Q419*	N		GW	11/20/2019	23		ND (0.5)	4.4	0.24	8.3		1.7	
C-R22A-D	MW-902-Q419*	FD	C-R22A-D-Q419	GW	11/20/2019	ND (20)		ND (0.5)	4.6	0.27	8.3		1.4	
C-R22A-S	C-R22A-S-Q419*	N		GW	11/20/2019	ND (20)		ND (0.5)	4.4	0.26	8.2		1.3	
C-R27-D	C-R27-D-Q419*	N		GW	11/20/2019	ND (20)		ND (0.5)	4.6	0.23	8.3		1.3	
C-R27-S	C-R27-S-Q419*	N		GW	11/20/2019	ND (20)		ND (0.5)	4.9	0.31	8.3		1.6	
C-TAZ-D	C-TAZ-D-Q419*	N		GW	11/20/2019	ND (20)		ND (0.5)	4.4	0.28	8.3		1.5	
C-TAZ-S	C-TAZ-S-Q419*	N		GW	11/20/2019	ND (20)		ND (0.5)	4.8	0.25	8.3		1.7	
R-19	R-19-Q419*	N		GW	11/21/2019	1,800		1.5	4.7	0.26	8.3		1.7	
R-28	R-28-Q419*	N		GW	11/20/2019	ND (20)	24	ND (0.5)	5.1	0.28	8.3	4.4	1.8	90
R63	R63-Q419*	N		GW	11/20/2019	ND (20)		ND (0.5)	4.3	0.28	8.2		1.6	
RRB	RRB-Q419*	N		GW	11/21/2019	210		590	6.3	0.3	7.3		1.5	
SW1	SW1-Q419*	N		GW	11/21/2019						7.8			
SW2	SW2-Q419*	N		GW	11/21/2019						6.9			

*Preliminary data

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RMP November 2019 Surface Water Sampling

ARCADIS Design & Consultancy for natural and built assets

					LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET
					CHEMICAL_NAME	Specific conductance	Sulfate	Total dissolved solids	Total Suspended Solids (TSS)
					ANALYTIC_METHOD	EPA 120.1	EPA 300.0	SM 2540 C	SM 2540 D
					RESULT_UNIT	uS/cm	mg/L	mg/L	mg/L
Location ID	Sample ID	Sample Type	Parent Sample	Matrix	Date Sampled				
C-BNS	C-BNS-Q419*	N		GW	11/20/2019	910			ND (5.0)
C-CON-D	C-CON-D-Q419*	N		GW	11/21/2019	890			32
C-CON-S	C-CON-S-Q419*	N		GW	11/21/2019	900			26
C-CON-S	MW-900-Q419*	FD	C-CON-S-Q419	GW	11/21/2019	910			28
C-I-3-D	C-I-3-D-Q419*	N		GW	11/20/2019	910			ND (5.0)
C-I-3-S	C-I-3-S-Q419*	N		GW	11/20/2019	910			ND (5.0)
C-MAR-D	C-MAR-D-Q419*	N		GW	11/21/2019	1,100			88
C-MAR-S	C-MAR-S-Q419*	N		GW	11/21/2019	1,100			87
C-MAR-S	MW-901-Q419*	FD	C-MAR-S-Q419	GW	11/21/2019	1,100			90
C-NR1-D	C-NR1-D-Q419*	N		GW	11/21/2019	900			27
C-NR1-S	C-NR1-S-Q419*	N		GW	11/21/2019	900			22
C-NR3-D	C-NR3-D-Q419*	N		GW	11/21/2019	900			20
C-NR3-S	C-NR3-S-Q419*	N		GW	11/21/2019	900			18
C-NR4-D	C-NR4-D-Q419*	N		GW	11/21/2019	900			20
C-NR4-S	C-NR4-S-Q419*	N		GW	11/21/2019	910			15
C-R22A-D	C-R22A-D-Q419*	N		GW	11/20/2019	920			ND (5.0)
C-R22A-D	MW-902-Q419*	FD	C-R22A-D-Q419	GW	11/20/2019	920			ND (5.0)
C-R22A-S	C-R22A-S-Q419*	N		GW	11/20/2019	920			ND (5.0)
C-R27-D	C-R27-D-Q419*	N		GW	11/20/2019	910			ND (5.0)
C-R27-S	C-R27-S-Q419*	N		GW	11/20/2019	920			ND (5.0)
C-TAZ-D	C-TAZ-D-Q419*	N		GW	11/20/2019	920			ND (5.0)
C-TAZ-S	C-TAZ-S-Q419*	N		GW	11/20/2019	910			ND (5.0)
R-19	R-19-Q419*	N		GW	11/21/2019	880			72
R-28	R-28-Q419*	N		GW	11/20/2019	920	210	580	ND (5.0)
R63	R63-Q419*	N		GW	11/20/2019	920			16
RRB	RRB-Q419*	N		GW	11/21/2019	3,200			34
SW1	SW1-Q419*	N		GW	11/21/2019	900			
SW2	SW2-Q419*	N		GW	11/21/2019	960			

*Preliminary data

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TMP November 2019 Baseline Sampling

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Alkalinity, total as CaCO3	Aluminum	Aluminum, dissolved	Antimony	Antimony, dissolved	Arsenic	Arsenic, dissolved
						ANALYTIC_METHOD	SM 2320 B	SW 6010B	SW 6010B	SW 6020	SW 6020	SW 6020	SW 6020
						RESULT_UNIT	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled							
IRZ-39-SC-28-39	IRZ-39-SC-28-39*	N	LF		GW	11/5/2019	310	ND (50)	ND (50)	ND (0.5)	ND (0.5)	3	3
MW-B-117	MW-B-117-1119*	N	LF		GW	11/18/2019	76	ND (50)	ND (50)	ND (0.5)	ND (0.5)	1.3	1.2
MW-B-202	MW-B-202-1119*	N	LF		GW	11/18/2019	52	350	ND (250)	ND (0.5)	ND (0.5)	2.9	2.7
MW-B-267R	MW-B-267R-1119*	N	LF		GW	11/18/2019	49	ND (250)	ND (250)	ND (0.5)	ND (0.5)	2.3	2.2
MW-B-33	MW-926-Q419*	FD	LF	MW-B-33-1119	GW	11/19/2019	88	1,200	ND (50)	ND (0.5)	ND (0.5)	3.7	2.8
MW-B-33	MW-B-33-1119*	N	LF		GW	11/19/2019	88	2,000	ND (50)	ND (0.5)	ND (0.5)	3.7	2.8
MW-B-337	MW-B-337-1119*	N	LF		GW	11/18/2019	62	ND (250)	ND (250)	ND (0.5)	ND (2.5)	3.7	3.7
MW-C-156	MW-C-156-1119*	N	LF		GW	11/21/2019	50	ND (250)	ND (50)	ND (0.5)	ND (2.5)	2.3	2.3
MW-C-181	MW-C-181-1119*	N	LF		GW	11/21/2019	74	88	ND (50)	ND (0.5)	ND (2.5)	1.5	1.4
MW-C-218	MW-C-218-1119*	N	LF		GW	11/21/2019	40	ND (250)	ND (50)	ND (0.5)	ND (2.5)	3.9	4.1
MW-C-39	MW-C-39-1119*	N	LF		GW	11/21/2019	89	220	ND (50)	ND (0.5)	ND (0.5)	1.2	0.97
MW-D-102	MW-929-Q419*	FD	LF	MW-D-102-1119	GW	11/21/2019	160	ND (50)	ND (50)	ND (0.5)	ND (0.5)	1.3	1.4
MW-D-102	MW-D-102-1119*	N	LF		GW	11/21/2019	150	52	ND (50)	ND (0.5)	ND (0.5)	1.3	1.4
MW-D-158	MW-D-158-1119*	N	LF		GW	11/21/2019	48	ND (250)	ND (50)	ND (0.5)	ND (2.5)	2.6	2.6
MW-D-187	MW-D-187-1119*	N	LF		GW	11/21/2019	47	ND (250)	ND (250)	ND (0.5)	ND (2.5)	3.7	3.6
MW-D-46R	MW-D-46R-1119*	N	LF		GW	11/21/2019	870	1,200	ND (50)	ND (0.5)	ND (2.5)	6.2	4.7
MW-H-112	MW-927-Q419*	FD	LF	MW-H-112-1119	GW	11/20/2019	80	ND (250)	ND (50)	ND (0.5)	ND (0.5)	2.3	2.1
MW-H-112	MW-H-112-1119*	N	LF		GW	11/20/2019	80	72	ND (50)	ND (0.5)	ND (0.5)	2.4	2.2
MW-H-168	MW-H-168-1119*	N	LF		GW	11/20/2019	65	ND (250)	ND (250)	ND (0.5)	ND (2.5)	1.8	1.4
MW-H-198	MW-H-198-1119*	N	LF		GW	11/20/2019	46	ND (250)	ND (250)	ND (0.5)	ND (0.5)	3.2	3.4
MW-H-46	MW-H-46-1119*	N	LF		GW	11/20/2019	880	200	ND (50)	ND (0.5)	ND (0.5)	12	13
MW-L-180	MW-L-180-1119*	N	LF		GW	11/22/2019	39	ND (250)	ND (250)	ND (0.5)	ND (2.5)	3.8	3.9
MW-M-132	MW-M-132-1119*	N	LF		GW	11/22/2019	51	ND (50)	ND (50)	ND (0.5)	ND (2.5)	2.1	2.1
MW-M-193	MW-M-193-1119*	N	LF		GW	11/22/2019	47	ND (250)	ND (50)	ND (0.5)	ND (2.5)	4.4	4.6
MW-M-57	MW-M-57-1119*	N	LF		GW	11/19/2019	81	250	ND (50)	ND (0.5)	ND (0.5)	1.7	1.4
MW-M-95	MW-928-Q419*	FD	LF	MW-M-95-1119	GW	11/19/2019	59	2,000	110	ND (0.5)	ND (0.5)	1.5	1.1
MW-M-95	MW-M-95-1119*	N	LF		GW	11/19/2019	57	1,600	77	ND (0.5)	ND (0.5)	1.4	1
MW-R-109	MW-R-109-1119*	N	LF		GW	11/20/2019	78	730	86	ND (0.5)	ND (0.5)	1.2	1.1
MW-R-139	MW-R-139-1119*	N	LF		GW	11/20/2019	48	190	ND (50)	ND (0.5)	ND (0.5)	0.87	0.75
MW-R-192	MW-R-192-1119*	N	LF		GW	11/20/2019	47	210	ND (50)	ND (0.5)	ND (0.5)	2	2.1
MW-R-275	MW-R-275-1119*	N	LF		GW	11/20/2019	43	ND (250)	ND (50)	ND (0.5)	ND (0.5)	3.3	3.4
MW-Y-102	MW-Y-102-1119*	N	LF		GW	11/19/2019	110	ND (50)	ND (50)	ND (0.5)	ND (0.5)	6.4	6.7
MW-Y-122	MW-Y-122-1119*	N	LF		GW	11/19/2019	95	ND (250)	ND (250)	ND (0.5)	ND (0.5)	3.7	4.8
MW-Y-37	MW-Y-37-1119*	N	LF		GW	11/19/2019	160	1,600	110	ND (0.5)	ND (0.5)	23	21
MW-Y-72	MW-Y-72-1119*	N	LF		GW	11/19/2019	120	440	ND (50)	0.61	0.92	16	16

*Preliminary data

Notes:

N - Normal
FD - Field Duplicate
LF - Low Flow
3V - Three volume purge
ND - Not Detected
ug/L - micrograms per liter
mg/L - milligrams per liter
mg/L - milligrams per liter

TMP November 2019 Baseline Sampling

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Barium	Barium, dissolved	Beryllium	Beryllium, dissolved	Boron	Boron, dissolved	Bromide
						ANALYTIC_METHOD	SW 6020	SW 6020	SW 6020	SW 6020	SW 6010B	SW 6010B	EPA 300.0
						RESULT_UNIT	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled							
IRZ-39-SC-28-39	IRZ-39-SC-28-39*	N	LF		GW	11/5/2019	58	59	ND (0.5)	ND (0.5)	1,300	1.3	ND (2.5)
MW-B-117	MW-B-117-1119*	N	LF		GW	11/18/2019	90	86	ND (2.5)	ND (2.5)	1,100	1	ND (2.5)
MW-B-202	MW-B-202-1119*	N	LF		GW	11/18/2019	220	180	ND (2.5)	ND (2.5)	2,000	1.6	ND (2.5)
MW-B-267R	MW-B-267R-1119*	N	LF		GW	11/18/2019	140	120	ND (2.5)	ND (2.5)	3,300	2.9	ND (2.5)
MW-B-33	MW-926-Q419*	FD	LF	MW-B-33-1119	GW	11/19/2019	81	66	ND (0.5)	ND (0.5)	550	0.63	ND (2.5)
MW-B-33	MW-B-33-1119*	N	LF		GW	11/19/2019	85	67	ND (0.5)	ND (0.5)	550	0.64	ND (2.5)
MW-B-337	MW-B-337-1119*	N	LF		GW	11/18/2019	68	67	ND (2.5)	ND (2.5)	3,900	3.5	ND (2.5)
MW-C-156	MW-C-156-1119*	N	LF		GW	11/21/2019	83	79	ND (2.5)	ND (2.5)	1,600	1.3	ND (5.0)
MW-C-181	MW-C-181-1119*	N	LF		GW	11/21/2019	110	110	ND (2.5)	ND (2.5)	1,200	1.3	ND (5.0)
MW-C-218	MW-C-218-1119*	N	LF		GW	11/21/2019	120	130	ND (2.5)	ND (2.5)	2,900	2.1	ND (5.0)
MW-C-39	MW-C-39-1119*	N	LF		GW	11/21/2019	72	67	ND (0.5)	ND (0.5)	550	0.62	ND (2.5)
MW-D-102	MW-929-Q419*	FD	LF	MW-D-102-1119	GW	11/21/2019	57	54	ND (2.5)	ND (0.5)	1,200	1.4	ND (2.5)
MW-D-102	MW-D-102-1119*	N	LF		GW	11/21/2019	57	53	ND (2.5)	ND (0.5)	1,300	1.4	ND (2.5)
MW-D-158	MW-D-158-1119*	N	LF		GW	11/21/2019	55	56	ND (2.5)	ND (2.5)	2,000	1.4	ND (5.0)
MW-D-187	MW-D-187-1119*	N	LF		GW	11/21/2019	61	61	ND (2.5)	ND (2.5)	3,300	3.4	ND (2.5)
MW-D-46R	MW-D-46R-1119*	N	LF		GW	11/21/2019	80	53	ND (2.5)	ND (0.5)	2,800	2.2	ND (2.5)
MW-H-112	MW-927-Q419*	FD	LF	MW-H-112-1119	GW	11/20/2019	46	43	ND (2.5)	ND (0.5)	1,600	1.6	ND (5.0)
MW-H-112	MW-H-112-1119*	N	LF		GW	11/20/2019	48	42	ND (2.5)	ND (0.5)	1,400	1.6	ND (5.0)
MW-H-168	MW-H-168-1119*	N	LF		GW	11/20/2019	69	64	ND (2.5)	ND (2.5)	1,300	1.4	ND (5.0)
MW-H-198	MW-H-198-1119*	N	LF		GW	11/20/2019	54	53	ND (2.5)	ND (2.5)	2,300	2.4	ND (2.5)
MW-H-46	MW-H-46-1119*	N	LF		GW	11/20/2019	64	63	ND (0.5)	ND (0.5)	1,000	1.4	ND (2.5)
MW-L-180	MW-L-180-1119*	N	LF		GW	11/22/2019	49	46	ND (2.5)	ND (2.5)	1,600	1.9	ND (5.0)
MW-M-132	MW-M-132-1119*	N	LF		GW	11/22/2019	110	100	ND (2.5)	ND (2.5)	1,200	1.2	ND (5.0)
MW-M-193	MW-M-193-1119*	N	LF		GW	11/22/2019	61	62	ND (2.5)	ND (0.5)	1,900	1.6	ND (5.0)
MW-M-57	MW-M-57-1119*	N	LF		GW	11/19/2019	49	43	ND (0.5)	ND (0.5)	340	0.45	ND (2.5)
MW-M-95	MW-928-Q419*	FD	LF	MW-M-95-1119	GW	11/19/2019	220	230	ND (0.5)	ND (0.5)	390	0.47	ND (5.0)
MW-M-95	MW-M-95-1119*	N	LF		GW	11/19/2019	240	220	ND (0.5)	ND (0.5)	400	0.5	ND (5.0)
MW-R-109	MW-R-109-1119*	N	LF		GW	11/20/2019	89	87	ND (0.5)	ND (0.5)	410	0.46	ND (1.0)
MW-R-139	MW-R-139-1119*	N	LF		GW	11/20/2019	270	260	ND (0.5)	ND (0.5)	630	0.68	ND (5.0)
MW-R-192	MW-R-192-1119*	N	LF		GW	11/20/2019	110	110	ND (2.5)	ND (2.5)	1,200	1.2	ND (5.0)
MW-R-275	MW-R-275-1119*	N	LF		GW	11/20/2019	100	92	ND (2.5)	ND (2.5)	1,700	1.6	ND (5.0)
MW-Y-102	MW-Y-102-1119*	N	LF		GW	11/19/2019	73	68	ND (0.5)	ND (0.5)	1,100	1.1	ND (2.5)
MW-Y-122	MW-Y-122-1119*	N	LF		GW	11/19/2019	110	96	ND (2.5)	ND (2.5)	3,600	3.4	ND (2.5)
MW-Y-37	MW-Y-37-1119*	N	LF		GW	11/19/2019	23	9.7	ND (0.5)	ND (0.5)	710	0.61	ND (2.5)
MW-Y-72	MW-Y-72-1119*	N	LF		GW	11/19/2019	59	46	ND (0.5)	ND (0.5)	780	0.68	ND (2.5)

*Preliminary data

Notes:

N - Normal
FD - Field Duplicate
LF - Low Flow
3V - Three volume purge
ND - Not Detected
ug/L - micrograms per liter
mg/L - milligrams per liter
mg/L - milligrams per liter

TMP November 2019 Baseline Sampling

ARCADIS Design & Consultancy for natural and built assets

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Cadmium	Cadmium, dissolved	Calcium	Calcium, dissolved	Chloride	Chromium, Hexavalent	Chromium, total
						ANALYTIC_METHOD	SW 6020	SW 6020	SW 6010B	SW 6010B	EPA 300.0	EPA 218.6	SW 6020
						RESULT_UNIT	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled							
IRZ-39-SC-28-39	IRZ-39-SC-28-39*	N	LF		GW	11/5/2019	ND (0.5)	ND (0.5)	120,000	130	520	59	64
MW-B-117	MW-B-117-1119*	N	LF		GW	11/18/2019	ND (0.5)	ND (0.5)	330,000	320	4,000	1.8	4.1
MW-B-202	MW-B-202-1119*	N	LF		GW	11/18/2019	ND (0.5)	ND (0.5)	490,000	590	5,500	ND (1.0)	4.8
MW-B-267R	MW-B-267R-1119*	N	LF		GW	11/18/2019	ND (0.5)	ND (0.5)	410,000	470	7,600	ND (1.0)	1.8
MW-B-33	MW-926-Q419*	FD	LF	MW-B-33-1119	GW	11/19/2019	ND (0.5)	ND (0.5)	150,000	160	1,200	17	19
MW-B-33	MW-B-33-1119*	N	LF		GW	11/19/2019	ND (0.5)	ND (0.5)	150,000	160	1,200	17	20
MW-B-337	MW-B-337-1119*	N	LF		GW	11/18/2019	ND (0.5)	ND (2.5)	280,000	330	10,000	ND (1.0)	ND (1.0)
MW-C-156	MW-C-156-1119*	N	LF		GW	11/21/2019	ND (0.5)	ND (2.5)	440,000	460	5,300	ND (1.0)	42
MW-C-181	MW-C-181-1119*	N	LF		GW	11/21/2019	ND (0.5)	ND (2.5)	610,000	590	6,400	390	370
MW-C-218	MW-C-218-1119*	N	LF		GW	11/21/2019	ND (0.5)	ND (2.5)	300,000	300	7,300	ND (1.0)	15
MW-C-39	MW-C-39-1119*	N	LF		GW	11/21/2019	ND (0.5)	ND (0.5)	140,000	140	880	44	40
MW-D-102	MW-929-Q419*	FD	LF	MW-D-102-1119	GW	11/21/2019	ND (0.5)	ND (0.5)	300,000	310	2,300	0.31	ND (1.0)
MW-D-102	MW-D-102-1119*	N	LF		GW	11/21/2019	ND (0.5)	ND (0.5)	310,000	290	2,300	0.31	ND (1.0)
MW-D-158	MW-D-158-1119*	N	LF		GW	11/21/2019	ND (0.5)	ND (2.5)	610,000	680	6,400	3.9	4.2
MW-D-187	MW-D-187-1119*	N	LF		GW	11/21/2019	ND (0.5)	ND (2.5)	130,000	130	7,500	ND (1.0)	1.2
MW-D-46R	MW-D-46R-1119*	N	LF		GW	11/21/2019	ND (0.5)	ND (2.5)	190,000	190	3,000	ND (0.2)	14
MW-H-112	MW-927-Q419*	FD	LF	MW-H-112-1119	GW	11/20/2019	ND (0.5)	ND (0.5)	310,000	250	2,400	0.24	23
MW-H-112	MW-H-112-1119*	N	LF		GW	11/20/2019	ND (0.5)	ND (0.5)	260,000	260	2,400	0.24	19
MW-H-168	MW-H-168-1119*	N	LF		GW	11/20/2019	ND (0.5)	ND (2.5)	570,000	590	6,000	ND (1.0)	310
MW-H-198	MW-H-198-1119*	N	LF		GW	11/20/2019	ND (0.5)	ND (0.5)	100,000	110	6,900	ND (1.0)	8.9
MW-H-46	MW-H-46-1119*	N	LF		GW	11/20/2019	ND (0.5)	ND (0.5)	200,000	200	1,700	ND (1.0)	14
MW-L-180	MW-L-180-1119*	N	LF		GW	11/22/2019	ND (0.5)	ND (2.5)	320,000	320	3,600	7.7	7.5
MW-M-132	MW-M-132-1119*	N	LF		GW	11/22/2019	ND (0.5)	ND (2.5)	330,000	310	2,700	ND (0.2)	ND (1.0)
MW-M-193	MW-M-193-1119*	N	LF		GW	11/22/2019	ND (0.5)	ND (2.5)	240,000	220	4,000	28	25
MW-M-57	MW-M-57-1119*	N	LF		GW	11/19/2019	ND (0.5)	ND (0.5)	87,000	85	380	29	31
MW-M-95	MW-928-Q419*	FD	LF	MW-M-95-1119	GW	11/19/2019	ND (0.5)	ND (0.5)	330,000	320	1,700	0.72	7.4
MW-M-95	MW-M-95-1119*	N	LF		GW	11/19/2019	ND (0.5)	ND (0.5)	340,000	330	1,700	0.67	6
MW-R-109	MW-R-109-1119*	N	LF		GW	11/20/2019	ND (0.5)	ND (0.5)	110,000	120	510	24	26
MW-R-139	MW-R-139-1119*	N	LF		GW	11/20/2019	ND (0.5)	ND (0.5)	460,000	490	2,100	8.1	13
MW-R-192	MW-R-192-1119*	N	LF		GW	11/20/2019	ND (0.5)	ND (0.5)	300,000	270	2,800	ND (0.2)	ND (1.0)
MW-R-275	MW-R-275-1119*	N	LF		GW	11/20/2019	ND (0.5)	ND (0.5)	370,000	300	3,400	ND (0.2)	ND (5.0)
MW-Y-102	MW-Y-102-1119*	N	LF		GW	11/19/2019	ND (0.5)	ND (0.5)	22,000	21	1,000	ND (0.2)	ND (1.0)
MW-Y-122	MW-Y-122-1119*	N	LF		GW	11/19/2019	ND (0.5)	ND (0.5)	85,000	91	4,500	ND (1.0)	ND (1.0)
MW-Y-37	MW-Y-37-1119*	N	LF		GW	11/19/2019	ND (0.5)	ND (0.5)	14,000	11	390	ND (0.2)	2.2
MW-Y-72	MW-Y-72-1119*	N	LF		GW	11/19/2019	ND (0.5)	ND (0.5)	21,000	18	600	ND (0.2)	1.3

*Preliminary data

Notes:

N - Normal
FD - Field Duplicate
LF - Low Flow
3V - Three volume purge
ND - Not Detected
ug/L - micrograms per liter
mg/L - milligrams per liter
mg/L - milligrams per liter

TMP November 2019 Baseline Sampling

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Chromium, total dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Fluoride	Iron
						ANALYTIC_METHOD	SW 6020	SW 6020	SW 6020	SW 6020	SW 6020	EPA 300.0	SW 6010B
						RESULT_UNIT	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled							
IRZ-39-SC-28-39	IRZ-39-SC-28-39*	N	LF		GW	11/5/2019	65	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	2.1	ND (20)
MW-B-117	MW-B-117-1119*	N	LF		GW	11/18/2019	1.4	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	2.9	60
MW-B-202	MW-B-202-1119*	N	LF		GW	11/18/2019	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.6	950
MW-B-267R	MW-B-267R-1119*	N	LF		GW	11/18/2019	ND (1.0)	ND (0.5)	ND (0.5)	5.7	ND (1.0)	4.6	680
MW-B-33	MW-926-Q419*	FD	LF	MW-B-33-1119	GW	11/19/2019	16	0.53	ND (0.5)	ND (1.0)	ND (1.0)	3	1,300
MW-B-33	MW-B-33-1119*	N	LF		GW	11/19/2019	15	0.72	ND (0.5)	ND (1.0)	ND (1.0)	3.1	2,000
MW-B-337	MW-B-337-1119*	N	LF		GW	11/18/2019	ND (1.0)	ND (0.5)	ND (0.5)	2.9	1.4	6.6	610
MW-C-156	MW-C-156-1119*	N	LF		GW	11/21/2019	ND (1.0)	ND (2.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.7	360
MW-C-181	MW-C-181-1119*	N	LF		GW	11/21/2019	340	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.4	270
MW-C-218	MW-C-218-1119*	N	LF		GW	11/21/2019	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	5.4	130
MW-C-39	MW-C-39-1119*	N	LF		GW	11/21/2019	40	ND (0.5)	ND (0.5)	2.4	ND (1.0)	3.6	350
MW-D-102	MW-929-Q419*	FD	LF	MW-D-102-1119	GW	11/21/2019	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.3	120
MW-D-102	MW-D-102-1119*	N	LF		GW	11/21/2019	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.1	120
MW-D-158	MW-D-158-1119*	N	LF		GW	11/21/2019	2.5	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.6	140
MW-D-187	MW-D-187-1119*	N	LF		GW	11/21/2019	1.1	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	8.3	ND (100)
MW-D-46R	MW-D-46R-1119*	N	LF		GW	11/21/2019	ND (1.0)	0.95	ND (0.5)	ND (1.0)	ND (1.0)	5.4	2,400
MW-H-112	MW-927-Q419*	FD	LF	MW-H-112-1119	GW	11/20/2019	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.5	240
MW-H-112	MW-H-112-1119*	N	LF		GW	11/20/2019	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.4	190
MW-H-168	MW-H-168-1119*	N	LF		GW	11/20/2019	ND (1.0)	2.6	ND (0.5)	ND (1.0)	ND (1.0)	3.2	1,200
MW-H-198	MW-H-198-1119*	N	LF		GW	11/20/2019	ND (1.0)	ND (2.5)	ND (0.5)	ND (1.0)	1.5	6.6	ND (100)
MW-H-46	MW-H-46-1119*	N	LF		GW	11/20/2019	ND (1.0)	0.86	0.71	ND (1.0)	ND (1.0)	1.9	2,700
MW-L-180	MW-L-180-1119*	N	LF		GW	11/22/2019	6.6	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	5.4	ND (100)
MW-M-132	MW-M-132-1119*	N	LF		GW	11/22/2019	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	4.3	110
MW-M-193	MW-M-193-1119*	N	LF		GW	11/22/2019	27	ND (0.5)	ND (2.5)	ND (1.0)	ND (1.0)	4.8	ND (100)
MW-M-57	MW-M-57-1119*	N	LF		GW	11/19/2019	26	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	1.9	330
MW-M-95	MW-928-Q419*	FD	LF	MW-M-95-1119	GW	11/19/2019	1.1	0.69	ND (0.5)	ND (1.0)	ND (1.0)	3.1	2,300
MW-M-95	MW-M-95-1119*	N	LF		GW	11/19/2019	ND (1.0)	0.53	ND (0.5)	ND (1.0)	ND (1.0)	3	2,100
MW-R-109	MW-R-109-1119*	N	LF		GW	11/20/2019	23	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	2.5	1,200
MW-R-139	MW-R-139-1119*	N	LF		GW	11/20/2019	7.9	0.55	ND (0.5)	ND (1.0)	ND (1.0)	2.8	410
MW-R-192	MW-R-192-1119*	N	LF		GW	11/20/2019	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.9	250
MW-R-275	MW-R-275-1119*	N	LF		GW	11/20/2019	ND (1.0)	ND (2.5)	ND (0.5)	ND (1.0)	ND (1.0)	5.2	ND (100)
MW-Y-102	MW-Y-102-1119*	N	LF		GW	11/19/2019	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	5.7	94
MW-Y-122	MW-Y-122-1119*	N	LF		GW	11/19/2019	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	7.4	140
MW-Y-37	MW-Y-37-1119*	N	LF		GW	11/19/2019	ND (1.0)	0.58	ND (0.5)	ND (1.0)	ND (1.0)	4.2	2,000
MW-Y-72	MW-Y-72-1119*	N	LF		GW	11/19/2019	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	4.9	600

*Preliminary data

Notes:

N - Normal
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3V - Three volume purge
ND - Not Detected
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mg/L - milligrams per liter
mg/L - milligrams per liter

TMP November 2019 Baseline Sampling

ARCADIS Design & Consultancy for natural and built assets

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Iron, dissolved	Lead	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved
						ANALYTIC_METHOD	SW 6010B	SW 6020	SW 6020	SW 6010B	SW 6010B	SW 6020	SW 6020
						RESULT_UNIT	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled							
IRZ-39-SC-28-39	IRZ-39-SC-28-39*	N	LF		GW	11/5/2019	ND (20)	ND (1.0)	ND (1.0)	13,000	13	48	51
MW-B-117	MW-B-117-1119*	N	LF		GW	11/18/2019	47	ND (1.0)	ND (5.0)	70,000	67	740	770
MW-B-202	MW-B-202-1119*	N	LF		GW	11/18/2019	210	ND (1.0)	ND (5.0)	85,000	76	2,700	3,100
MW-B-267R	MW-B-267R-1119*	N	LF		GW	11/18/2019	280	ND (1.0)	ND (25)	22,000	19	730	870
MW-B-33	MW-926-Q419*	FD	LF	MW-B-33-1119	GW	11/19/2019	91	ND (1.0)	ND (1.0)	28,000	28	400	210
MW-B-33	MW-B-33-1119*	N	LF		GW	11/19/2019	55	ND (1.0)	ND (1.0)	28,000	28	500	220
MW-B-337	MW-B-337-1119*	N	LF		GW	11/18/2019	560	ND (5.0)	ND (25)	14,000	11	600	590
MW-C-156	MW-C-156-1119*	N	LF		GW	11/21/2019	ND (20)	ND (5.0)	ND (5.0)	42,000	34	270	280
MW-C-181	MW-C-181-1119*	N	LF		GW	11/21/2019	ND (20)	ND (5.0)	ND (5.0)	65,000	73	1,200	1,100
MW-C-218	MW-C-218-1119*	N	LF		GW	11/21/2019	89	ND (5.0)	ND (5.0)	10,000	7.2	260	280
MW-C-39	MW-C-39-1119*	N	LF		GW	11/21/2019	31	ND (1.0)	ND (1.0)	22,000	24	1.4	ND (0.5)
MW-D-102	MW-929-Q419*	FD	LF	MW-D-102-1119	GW	11/21/2019	64	ND (1.0)	ND (1.0)	34,000	38	130	140
MW-D-102	MW-D-102-1119*	N	LF		GW	11/21/2019	53	ND (1.0)	ND (5.0)	34,000	36	140	150
MW-D-158	MW-D-158-1119*	N	LF		GW	11/21/2019	ND (20)	ND (5.0)	ND (5.0)	55,000	42	230	140
MW-D-187	MW-D-187-1119*	N	LF		GW	11/21/2019	ND (100)	ND (5.0)	ND (5.0)	3,800	4.1	130	120
MW-D-46R	MW-D-46R-1119*	N	LF		GW	11/21/2019	310	ND (5.0)	ND (5.0)	180,000	160	370	340
MW-H-112	MW-927-Q419*	FD	LF	MW-H-112-1119	GW	11/20/2019	40	ND (1.0)	ND (5.0)	25,000	19	56	43
MW-H-112	MW-H-112-1119*	N	LF		GW	11/20/2019	33	ND (1.0)	ND (5.0)	18,000	18	52	46
MW-H-168	MW-H-168-1119*	N	LF		GW	11/20/2019	ND (100)	ND (1.0)	ND (5.0)	77,000	80	610	550
MW-H-198	MW-H-198-1119*	N	LF		GW	11/20/2019	ND (100)	ND (1.0)	ND (1.0)	2,900	3.1	ND (2.5)	130
MW-H-46	MW-H-46-1119*	N	LF		GW	11/20/2019	2,400	ND (1.0)	ND (1.0)	220,000	230	210	170
MW-L-180	MW-L-180-1119*	N	LF		GW	11/22/2019	ND (100)	ND (1.0)	ND (5.0)	22,000	23	ND (0.5)	ND (0.5)
MW-M-132	MW-M-132-1119*	N	LF		GW	11/22/2019	100	ND (1.0)	ND (5.0)	29,000	28	180	190
MW-M-193	MW-M-193-1119*	N	LF		GW	11/22/2019	ND (20)	ND (1.0)	ND (5.0)	13,000	9.8	ND (0.5)	ND (2.5)
MW-M-57	MW-M-57-1119*	N	LF		GW	11/19/2019	41	ND (1.0)	ND (1.0)	14,000	15	4.1	ND (0.5)
MW-M-95	MW-928-Q419*	FD	LF	MW-M-95-1119	GW	11/19/2019	200	ND (1.0)	ND (1.0)	57,000	55	210	150
MW-M-95	MW-M-95-1119*	N	LF		GW	11/19/2019	160	ND (1.0)	ND (1.0)	59,000	58	220	130
MW-R-109	MW-R-109-1119*	N	LF		GW	11/20/2019	220	ND (1.0)	ND (1.0)	16,000	17	51	9.9
MW-R-139	MW-R-139-1119*	N	LF		GW	11/20/2019	54	ND (1.0)	ND (1.0)	75,000	80	2.5	ND (0.5)
MW-R-192	MW-R-192-1119*	N	LF		GW	11/20/2019	43	ND (1.0)	ND (1.0)	26,000	26	89	90
MW-R-275	MW-R-275-1119*	N	LF		GW	11/20/2019	ND (100)	ND (1.0)	ND (1.0)	27,000	21	56	49
MW-Y-102	MW-Y-102-1119*	N	LF		GW	11/19/2019	50	ND (1.0)	ND (1.0)	2,700	2.7	ND (0.5)	ND (0.5)
MW-Y-122	MW-Y-122-1119*	N	LF		GW	11/19/2019	ND (100)	ND (1.0)	ND (5.0)	9,400	8.7	23	ND (0.5)
MW-Y-37	MW-Y-37-1119*	N	LF		GW	11/19/2019	160	2.4	ND (1.0)	2,700	1.9	25	ND (0.5)
MW-Y-72	MW-Y-72-1119*	N	LF		GW	11/19/2019	82	ND (1.0)	ND (1.0)	2,300	2	6.2	ND (0.5)

*Preliminary data

Notes:

N - Normal
FD - Field Duplicate
LF - Low Flow
3V - Three volume purge
ND - Not Detected
ug/L - micrograms per liter
mg/L - milligrams per liter
mg/L - milligrams per liter

TMP November 2019 Baseline Sampling

ARCADIS Design & Consultancy for natural and built assets

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Mercury	Mercury, dissolved	Molybdenum	Molybdenum, dissolved	Nickel	Nickel, dissolved	Nitrate/Nitrite as Nitrogen
						ANALYTIC_METHOD	EPA 7470A	EPA 7470A	SW 6020	SW 6020	SW 6020	SW 6020	SM 4500-NO3 F
						RESULT_UNIT	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled							
IRZ-39-SC-28-39	IRZ-39-SC-28-39*	N	LF		GW	11/5/2019	ND (0.2)	ND (0.2)	15	15	5.5	6.3	4.4
MW-B-117	MW-B-117-1119*	N	LF		GW	11/18/2019	ND (0.2)	ND (0.2)	33	33	ND (1.0)	ND (1.0)	2
MW-B-202	MW-B-202-1119*	N	LF		GW	11/18/2019	ND (0.2)	ND (0.2)	84	81	ND (1.0)	ND (1.0)	0.062
MW-B-267R	MW-B-267R-1119*	N	LF		GW	11/18/2019	ND (0.2)	ND (0.2)	130	130	ND (5.0)	ND (1.0)	ND (0.05)
MW-B-33	MW-926-Q419*	FD	LF	MW-B-33-1119	GW	11/19/2019	ND (0.2)	ND (0.2)	14	13	ND (1.0)	ND (1.0)	2.1
MW-B-33	MW-B-33-1119*	N	LF		GW	11/19/2019	ND (0.2)	ND (0.2)	14	13	ND (1.0)	ND (1.0)	2
MW-B-337	MW-B-337-1119*	N	LF		GW	11/18/2019	ND (0.2)	ND (0.2)	200	210	ND (5.0)	ND (1.0)	ND (0.05)
MW-C-156	MW-C-156-1119*	N	LF		GW	11/21/2019	ND (0.2)	ND (0.2)	34	31	19	ND (1.0)	1.5
MW-C-181	MW-C-181-1119*	N	LF		GW	11/21/2019	ND (0.2)	ND (0.2)	38	33	19	ND (1.0)	1.9
MW-C-218	MW-C-218-1119*	N	LF		GW	11/21/2019	ND (0.2)	ND (0.2)	91	85	6.7	ND (1.0)	0.25
MW-C-39	MW-C-39-1119*	N	LF		GW	11/21/2019	ND (0.2)	ND (0.2)	21	20	ND (1.0)	ND (1.0)	2.1
MW-D-102	MW-929-Q419*	FD	LF	MW-D-102-1119	GW	11/21/2019	ND (0.2)	ND (0.2)	4.5	4.3	ND (1.0)	ND (1.0)	0.51
MW-D-102	MW-D-102-1119*	N	LF		GW	11/21/2019	ND (0.2)	ND (0.2)	4.6	4.2	ND (1.0)	ND (1.0)	0.5
MW-D-158	MW-D-158-1119*	N	LF		GW	11/21/2019	ND (0.2)	ND (0.2)	34	29	ND (1.0)	ND (1.0)	1.5
MW-D-187	MW-D-187-1119*	N	LF		GW	11/21/2019	ND (0.2)	ND (0.2)	270	240	ND (1.0)	ND (5.0)	1.2
MW-D-46R	MW-D-46R-1119*	N	LF		GW	11/21/2019	ND (0.2)	ND (0.2)	97	88	10	1.4	0.1
MW-H-112	MW-927-Q419*	FD	LF	MW-H-112-1119	GW	11/20/2019	ND (0.2)	ND (0.2)	11	11	9.4	ND (1.0)	0.74
MW-H-112	MW-H-112-1119*	N	LF		GW	11/20/2019	ND (0.2)	ND (0.2)	11	11	7.7	ND (1.0)	0.73
MW-H-168	MW-H-168-1119*	N	LF		GW	11/20/2019	ND (0.2)	ND (0.2)	25	19	150	3.3	1.5
MW-H-198	MW-H-198-1119*	N	LF		GW	11/20/2019	ND (0.2)	ND (0.2)	160	160	ND (5.0)	ND (1.0)	1.1
MW-H-46	MW-H-46-1119*	N	LF		GW	11/20/2019	ND (0.2)	ND (0.2)	13	11	ND (5.0)	ND (1.0)	0.079
MW-L-180	MW-L-180-1119*	N	LF		GW	11/22/2019	ND (0.2)	ND (0.2)	34	30	ND (1.0)	ND (1.0)	0.56
MW-M-132	MW-M-132-1119*	N	LF		GW	11/22/2019	ND (0.2)	ND (0.2)	26	24	ND (1.0)	ND (1.0)	0.48
MW-M-193	MW-M-193-1119*	N	LF		GW	11/22/2019	ND (0.2)	ND (0.2)	49	46	ND (1.0)	ND (5.0)	0.83
MW-M-57	MW-M-57-1119*	N	LF		GW	11/19/2019	ND (0.2)	ND (0.2)	19	18	ND (1.0)	ND (1.0)	10
MW-M-95	MW-928-Q419*	FD	LF	MW-M-95-1119	GW	11/19/2019	ND (0.2)	ND (0.2)	6.5	7.3	ND (5.0)	ND (1.0)	0.94
MW-M-95	MW-M-95-1119*	N	LF		GW	11/19/2019	ND (0.2)	ND (0.2)	7.6	6.9	1.6	ND (1.0)	0.95
MW-R-109	MW-R-109-1119*	N	LF		GW	11/20/2019	ND (0.2)	ND (0.2)	9.4	9.1	ND (1.0)	ND (1.0)	8.7
MW-R-139	MW-R-139-1119*	N	LF		GW	11/20/2019	ND (0.2)	ND (0.2)	5.4	4.6	23	16	1.1
MW-R-192	MW-R-192-1119*	N	LF		GW	11/20/2019	ND (0.2)	ND (0.2)	27	28	ND (5.0)	ND (1.0)	0.55
MW-R-275	MW-R-275-1119*	N	LF		GW	11/20/2019	ND (0.2)	ND (0.2)	47	43	ND (1.0)	ND (1.0)	0.56
MW-Y-102	MW-Y-102-1119*	N	LF		GW	11/19/2019	ND (0.2)	ND (0.2)	46	45	ND (1.0)	ND (1.0)	0.051
MW-Y-122	MW-Y-122-1119*	N	LF		GW	11/19/2019	ND (0.2)	ND (0.2)	200	210	ND (1.0)	ND (1.0)	ND (0.05)
MW-Y-37	MW-Y-37-1119*	N	LF		GW	11/19/2019	ND (0.2)	ND (0.2)	19	18	1.1	ND (1.0)	0.11
MW-Y-72	MW-Y-72-1119*	N	LF		GW	11/19/2019	ND (0.2)	ND (0.2)	22	22	ND (1.0)	ND (1.0)	0.6

*Preliminary data

Notes:

N - Normal
FD - Field Duplicate
LF - Low Flow
3V - Three volume purge
ND - Not Detected
ug/L - micrograms per liter
mg/L - milligrams per liter
mg/L - milligrams per liter

TMP November 2019 Baseline Sampling

ARCADIS Design & Consultancy for natural and built assets

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Potassium, dissolved	Selenium	Selenium, dissolved	Silver	Silver, dissolved	Sodium, dissolved	Sulfate	Thallium
						ANALYTIC_METHOD	SW 6010B	SW 6020	SW 6020	SW 6020	SW 6020	SW 6010B	EPA 300.0	SW 6020
						RESULT_UNIT	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled								
IRZ-39-SC-28-39	IRZ-39-SC-28-39*	N	LF		GW	11/5/2019	12	9.5	9.8	ND (0.5)	ND (0.5)	490	390	ND (0.5)
MW-B-117	MW-B-117-1119*	N	LF		GW	11/18/2019	16	1.4	1.2	ND (0.5)	ND (0.5)	2,400	590	ND (0.5)
MW-B-202	MW-B-202-1119*	N	LF		GW	11/18/2019	25	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	4,000	1,000	ND (0.5)
MW-B-267R	MW-B-267R-1119*	N	LF		GW	11/18/2019	67	ND (0.5)	ND (0.5)	ND (0.5)	ND (2.5)	5,200	1,100	ND (0.5)
MW-B-33	MW-926-Q419*	FD	LF	MW-B-33-1119	GW	11/19/2019	9.9	1.8	1.5	ND (0.5)	ND (0.5)	670	230	ND (0.5)
MW-B-33	MW-B-33-1119*	N	LF		GW	11/19/2019	9.8	1.2	1.8	ND (0.5)	ND (0.5)	690	230	ND (0.5)
MW-B-337	MW-B-337-1119*	N	LF		GW	11/18/2019	74	ND (0.5)	ND (0.5)	ND (0.5)	ND (2.5)	7,000	1,600	ND (2.5)
MW-C-156	MW-C-156-1119*	N	LF		GW	11/21/2019	26	ND (2.5)	ND (2.5)	ND (0.5)	ND (0.5)	3,300	790	ND (2.5)
MW-C-181	MW-C-181-1119*	N	LF		GW	11/21/2019	32	1.9	ND (2.5)	ND (0.5)	ND (0.5)	4,400	960	ND (2.5)
MW-C-218	MW-C-218-1119*	N	LF		GW	11/21/2019	45	ND (2.5)	ND (2.5)	ND (0.5)	ND (0.5)	4,800	900	ND (2.5)
MW-C-39	MW-C-39-1119*	N	LF		GW	11/21/2019	8.5	1.8	2.1	ND (0.5)	ND (0.5)	470	180	ND (0.5)
MW-D-102	MW-929-Q419*	FD	LF	MW-D-102-1119	GW	11/21/2019	19	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1,700	580	ND (0.5)
MW-D-102	MW-D-102-1119*	N	LF		GW	11/21/2019	18	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1,500	580	ND (0.5)
MW-D-158	MW-D-158-1119*	N	LF		GW	11/21/2019	46	ND (2.5)	ND (2.5)	ND (0.5)	ND (0.5)	4,500	1,200	ND (2.5)
MW-D-187	MW-D-187-1119*	N	LF		GW	11/21/2019	44	ND (2.5)	ND (2.5)	ND (0.5)	ND (0.5)	5,300	930	ND (2.5)
MW-D-46R	MW-D-46R-1119*	N	LF		GW	11/21/2019	44	4.7	4.5	ND (0.5)	ND (0.5)	2,500	1,300	ND (2.5)
MW-H-112	MW-927-Q419*	FD	LF	MW-H-112-1119	GW	11/20/2019	15	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1,600	640	ND (0.5)
MW-H-112	MW-H-112-1119*	N	LF		GW	11/20/2019	15	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1,600	630	ND (0.5)
MW-H-168	MW-H-168-1119*	N	LF		GW	11/20/2019	39	ND (0.5)	ND (0.5)	ND (0.5)	ND (2.5)	3,800	1,100	ND (0.5)
MW-H-198	MW-H-198-1119*	N	LF		GW	11/20/2019	46	0.62	0.86	ND (0.5)	ND (2.5)	4,900	1,000	ND (0.5)
MW-H-46	MW-H-46-1119*	N	LF		GW	11/20/2019	20	0.71	0.92	ND (0.5)	ND (0.5)	1,600	1,300	ND (0.5)
MW-L-180	MW-L-180-1119*	N	LF		GW	11/22/2019	22	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	2,300	500	ND (0.5)
MW-M-132	MW-M-132-1119*	N	LF		GW	11/22/2019	23	0.68	ND (2.5)	ND (0.5)	ND (0.5)	1,700	350	ND (0.5)
MW-M-193	MW-M-193-1119*	N	LF		GW	11/22/2019	33	ND (2.5)	ND (2.5)	ND (0.5)	ND (0.5)	2,600	500	ND (0.5)
MW-M-57	MW-M-57-1119*	N	LF		GW	11/19/2019	8	5.3	4.5	ND (0.5)	ND (0.5)	240	190	ND (0.5)
MW-M-95	MW-928-Q419*	FD	LF	MW-M-95-1119	GW	11/19/2019	14	0.91	0.66	ND (0.5)	ND (0.5)	800	230	1.2
MW-M-95	MW-M-95-1119*	N	LF		GW	11/19/2019	14	0.82	0.76	ND (0.5)	ND (0.5)	800	230	1.2
MW-R-109	MW-R-109-1119*	N	LF		GW	11/20/2019	9.6	5.6	5.3	ND (0.5)	ND (0.5)	340	170	ND (0.5)
MW-R-139	MW-R-139-1119*	N	LF		GW	11/20/2019	18	0.89	0.61	ND (0.5)	ND (0.5)	950	330	ND (0.5)
MW-R-192	MW-R-192-1119*	N	LF		GW	11/20/2019	18	0.74	0.93	ND (0.5)	ND (0.5)	1,400	340	ND (0.5)
MW-R-275	MW-R-275-1119*	N	LF		GW	11/20/2019	23	0.75	0.81	ND (0.5)	ND (0.5)	1,600	430	ND (0.5)
MW-Y-102	MW-Y-102-1119*	N	LF		GW	11/19/2019	14	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	790	130	ND (0.5)
MW-Y-122	MW-Y-122-1119*	N	LF		GW	11/19/2019	39	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	3,000	350	ND (0.5)
MW-Y-37	MW-Y-37-1119*	N	LF		GW	11/19/2019	5.6	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	380	90	ND (0.5)
MW-Y-72	MW-Y-72-1119*	N	LF		GW	11/19/2019	10	0.57	ND (0.5)	ND (0.5)	ND (0.5)	440	96	ND (0.5)

*Preliminary data

Notes:

N - Normal
FD - Field Duplicate
LF - Low Flow
3V - Three volume purge
ND - Not Detected
ug/L - micrograms per liter
mg/L - milligrams per liter
mg/L - milligrams per liter

TMP November 2019 Baseline Sampling

						LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						CHEMICAL_NAME	Thallium, dissolved	Total dissolved solids	Total organic carbon	TPH as diesel	TPH as motor oil	Vanadium	Vanadium, dissolved	Zinc
						ANALYTIC_METHOD	SW 6020	SM 2540 C	SM 5310 C	SW 8015B	SW 8015B	SW 6020	SW 6020	SW 6020
						RESULT_UNIT	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled								
IRZ-39-SC-28-39	IRZ-39-SC-28-39*	N	LF		GW	11/5/2019	ND (0.5)	1,700	ND (1.0)	ND (52)	64	ND (1.0)	ND (1.0)	110
MW-B-117	MW-B-117-1119*	N	LF		GW	11/18/2019	ND (2.5)	8,600	ND (1.0)			1.5	ND (1.0)	ND (10)
MW-B-202	MW-B-202-1119*	N	LF		GW	11/18/2019	ND (2.5)	12,000	ND (1.0)			1.2	ND (1.0)	ND (10)
MW-B-267R	MW-B-267R-1119*	N	LF		GW	11/18/2019	ND (12)	14,000	ND (1.0)			1.2	ND (1.0)	ND (10)
MW-B-33	MW-926-Q419*	FD	LF	MW-B-33-1119	GW	11/19/2019	ND (0.5)	2,500	ND (1.0)			5	2	ND (10)
MW-B-33	MW-B-33-1119*	N	LF		GW	11/19/2019	ND (0.5)	2,600	ND (1.0)			5.9	2.2	ND (10)
MW-B-337	MW-B-337-1119*	N	LF		GW	11/18/2019	ND (12)	19,000	ND (1.0)			1.1	ND (1.0)	ND (10)
MW-C-156	MW-C-156-1119*	N	LF		GW	11/21/2019	ND (2.5)	11,000	ND (10)			3.5	2.4	ND (50)
MW-C-181	MW-C-181-1119*	N	LF		GW	11/21/2019	ND (2.5)	13,000	ND (10)			1.6	1.1	ND (10)
MW-C-218	MW-C-218-1119*	N	LF		GW	11/21/2019	ND (2.5)	14,000	ND (1.0)			ND (1.0)	ND (1.0)	ND (10)
MW-C-39	MW-C-39-1119*	N	LF		GW	11/21/2019	ND (0.5)	2,000	ND (1.0)			3.2	2.3	ND (10)
MW-D-102	MW-929-Q419*	FD	LF	MW-D-102-1119	GW	11/21/2019	ND (0.5)	5,000	ND (1.0)			3.6	3.2	ND (10)
MW-D-102	MW-D-102-1119*	N	LF		GW	11/21/2019	ND (2.5)	5,100	ND (1.0)			3.4	2.9	ND (10)
MW-D-158	MW-D-158-1119*	N	LF		GW	11/21/2019	ND (2.5)	12,000	ND (1.0)			3.4	3.2	ND (10)
MW-D-187	MW-D-187-1119*	N	LF		GW	11/21/2019	ND (2.5)	14,000	ND (1.0)			3.8	4	ND (10)
MW-D-46R	MW-D-46R-1119*	N	LF		GW	11/21/2019	ND (2.5)	8,400	1.5			8.3	5.2	ND (10)
MW-H-112	MW-927-Q419*	FD	LF	MW-H-112-1119	GW	11/20/2019	ND (2.5)	5,300	ND (1.0)			5.8	4.8	ND (10)
MW-H-112	MW-H-112-1119*	N	LF		GW	11/20/2019	ND (2.5)	5,300	ND (1.0)			6	5.1	ND (10)
MW-H-168	MW-H-168-1119*	N	LF		GW	11/20/2019	ND (2.5)	14,000	ND (1.0)			ND (5.0)	1.6	ND (10)
MW-H-198	MW-H-198-1119*	N	LF		GW	11/20/2019	ND (0.5)	13,000	ND (1.0)			ND (5.0)	2.2	ND (10)
MW-H-46	MW-H-46-1119*	N	LF		GW	11/20/2019	ND (0.5)	5,700	1.7			1.8	1.4	ND (10)
MW-L-180	MW-L-180-1119*	N	LF		GW	11/22/2019	ND (2.5)	7,900	ND (1.0)			9.3	9.6	ND (10)
MW-M-132	MW-M-132-1119*	N	LF		GW	11/22/2019	ND (2.5)	6,100	ND (10)			3.9	3.9	ND (10)
MW-M-193	MW-M-193-1119*	N	LF		GW	11/22/2019	ND (2.5)	8,300	ND (1.0)			7.6	1.8	ND (10)
MW-M-57	MW-M-57-1119*	N	LF		GW	11/19/2019	ND (0.5)	1,100	ND (1.0)			7.9	6.5	ND (10)
MW-M-95	MW-928-Q419*	FD	LF	MW-M-95-1119	GW	11/19/2019	1.2	4,000	ND (1.0)			6.4	2.9	ND (10)
MW-M-95	MW-M-95-1119*	N	LF		GW	11/19/2019	1.1	3,800	ND (1.0)			6.2	2.7	ND (10)
MW-R-109	MW-R-109-1119*	N	LF		GW	11/20/2019	ND (0.5)	1,300	ND (1.0)			5.4	3.5	ND (10)
MW-R-139	MW-R-139-1119*	N	LF		GW	11/20/2019	ND (0.5)	4,300	ND (1.0)			4.1	3.3	ND (10)
MW-R-192	MW-R-192-1119*	N	LF		GW	11/20/2019	ND (0.5)	6,200	ND (1.0)			5.4	4.9	ND (10)
MW-R-275	MW-R-275-1119*	N	LF		GW	11/20/2019	ND (0.5)	7,600	ND (1.0)			ND (5.0)	3.5	ND (10)
MW-Y-102	MW-Y-102-1119*	N	LF		GW	11/19/2019	ND (0.5)	2,100	ND (1.0)			ND (1.0)	ND (1.0)	ND (10)
MW-Y-122	MW-Y-122-1119*	N	LF		GW	11/19/2019	ND (2.5)	8,600	ND (1.0)			ND (1.0)	ND (1.0)	ND (10)
MW-Y-37	MW-Y-37-1119*	N	LF		GW	11/19/2019	ND (0.5)	980	ND (1.0)			2	ND (1.0)	ND (10)
MW-Y-72	MW-Y-72-1119*	N	LF		GW	11/19/2019	ND (0.5)	1,300	ND (1.0)			6.2	5.4	ND (10)

*Preliminary data

Notes:

N - Normal
FD - Field Duplicate
LF - Low Flow
3V - Three volume purge
ND - Not Detected
ug/L - micrograms per liter
mg/L - milligrams per liter
mg/L - milligrams per liter

TMP November 2019 Baseline Sampling

						LAB_NAME_CODE	ASSET	CTBERK
						CHEMICAL_NAME	Zinc, dissolved	Ammonia as nitrogen
						ANALYTIC_METHOD	SW 6020	A4500NH
						RESULT_UNIT	ug/L	mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled		
IRZ-39-SC-28-39	IRZ-39-SC-28-39*	N	LF		GW	11/5/2019	120	0.18
MW-B-117	MW-B-117-1119*	N	LF		GW	11/18/2019	ND (10)	
MW-B-202	MW-B-202-1119*	N	LF		GW	11/18/2019	ND (10)	
MW-B-267R	MW-B-267R-1119*	N	LF		GW	11/18/2019	ND (10)	
MW-B-33	MW-926-Q419*	FD	LF	MW-B-33-1119	GW	11/19/2019	ND (10)	0.12
MW-B-33	MW-B-33-1119*	N	LF		GW	11/19/2019	ND (10)	0.12
MW-B-337	MW-B-337-1119*	N	LF		GW	11/18/2019	ND (10)	
MW-C-156	MW-C-156-1119*	N	LF		GW	11/21/2019	ND (10)	
MW-C-181	MW-C-181-1119*	N	LF		GW	11/21/2019	ND (10)	
MW-C-218	MW-C-218-1119*	N	LF		GW	11/21/2019	ND (10)	
MW-C-39	MW-C-39-1119*	N	LF		GW	11/21/2019	ND (10)	
MW-D-102	MW-929-Q419*	FD	LF	MW-D-102-1119	GW	11/21/2019	ND (10)	
MW-D-102	MW-D-102-1119*	N	LF		GW	11/21/2019	ND (10)	
MW-D-158	MW-D-158-1119*	N	LF		GW	11/21/2019	ND (10)	
MW-D-187	MW-D-187-1119*	N	LF		GW	11/21/2019	ND (10)	
MW-D-46R	MW-D-46R-1119*	N	LF		GW	11/21/2019	ND (10)	
MW-H-112	MW-927-Q419*	FD	LF	MW-H-112-1119	GW	11/20/2019	ND (10)	
MW-H-112	MW-H-112-1119*	N	LF		GW	11/20/2019	ND (10)	
MW-H-168	MW-H-168-1119*	N	LF		GW	11/20/2019	ND (10)	
MW-H-198	MW-H-198-1119*	N	LF		GW	11/20/2019	ND (10)	
MW-H-46	MW-H-46-1119*	N	LF		GW	11/20/2019	ND (10)	
MW-L-180	MW-L-180-1119*	N	LF		GW	11/22/2019	ND (10)	
MW-M-132	MW-M-132-1119*	N	LF		GW	11/22/2019	ND (10)	
MW-M-193	MW-M-193-1119*	N	LF		GW	11/22/2019	ND (10)	
MW-M-57	MW-M-57-1119*	N	LF		GW	11/19/2019	ND (10)	0.08
MW-M-95	MW-928-Q419*	FD	LF	MW-M-95-1119	GW	11/19/2019	ND (10)	0.06
MW-M-95	MW-M-95-1119*	N	LF		GW	11/19/2019	13	0.06
MW-R-109	MW-R-109-1119*	N	LF		GW	11/20/2019	ND (10)	
MW-R-139	MW-R-139-1119*	N	LF		GW	11/20/2019	ND (10)	
MW-R-192	MW-R-192-1119*	N	LF		GW	11/20/2019	ND (10)	
MW-R-275	MW-R-275-1119*	N	LF		GW	11/20/2019	ND (10)	
MW-Y-102	MW-Y-102-1119*	N	LF		GW	11/19/2019	ND (10)	0.13
MW-Y-122	MW-Y-122-1119*	N	LF		GW	11/19/2019	ND (10)	0.1
MW-Y-37	MW-Y-37-1119*	N	LF		GW	11/19/2019	ND (10)	0.11
MW-Y-72	MW-Y-72-1119*	N	LF		GW	11/19/2019	ND (10)	0.09

*Preliminary data

Notes:

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3V - Three volume purge
ND - Not Detected
ug/L - micrograms per liter
mg/L - milligrams per liter
mg/L - milligrams per liter

TMP November 2019 Post Development Sampling

ARCADIS Design & Consultancy for natural and built assets

			LAB_NAME_CODE		ASSET	ASSET
			CHEMICAL_NAME		Chromium, Hexavalent	Chromium, total dissolved
			ANALYTIC_METHOD		EPA 218.6	SW 6020
			RESULT_UNIT		ug/L	ug/L
Location ID	Sample ID	Sample Type	Matrix	Date Sampled		
IRZ-39	IRZ-39-110419*	N	GW	11/4/2019	36	38
MW-11D	MW-11D-110219*	N	GW	11/2/2019	17	26
MW-S-109	MW-S-107R-111319*	N	GW	11/13/2019	29	28
MW-X-170	MW-X-170-112319*	N	GW	11/23/2019	ND (0.2)	ND (1.0)
MW-X-320	MW-X-320-112219*	N	GW	11/22/2019	ND (1.0)	ND (1.0)
MW-X-45	MW-X-45-111819*	N	GW	11/18/2019	ND (0.2)	ND (1.0)

*Preliminary data

Notes:
N - Normal
GW - Groundwater
ND - Not Detected
ug/L - micrograms per liter