

January 29, 2024

Ms. Laurie Butler
Environmental Manager
Menziess Aviation
6000 DeHavilland Avenue
Anchorage, AK 99502
E-mail: laurie.butler@menziessaviation.com

Subject: FINAL 2023 AFSC Former Cross-Town Pipeline Maintenance Inspections Arctic Boulevard and Tudor Road Intersection Report, Anchorage DEC Hazard ID: 2018; DEC File Number 2100.38.438

Dear Ms. Butler:

Ahtna Engineering Services, LLC, (Ahtna) has prepared this report for the Anchorage Fueling and Service Company (AFSC), owner, and Menziess Aviation (Menziess), operator, to present the findings and observations of the maintenance inspections and visual surveys at the AFSC former Cross-town Pipeline site located at the intersection of Arctic Boulevard and Tudor Road, Anchorage, Alaska.

This report describes the condition of the environmental monitoring wells and recovery well vault associated with the AFSC former Cross-Town Pipeline site documented during field activities conducted in 2023. Attachment 1 includes figures depicting the general vicinity of the site (Figure 1) and a site map (Figure 2). Attachment 2 includes field notes. Attachment 3 includes a photographic log.

SITE LOCATION

The former AFSC Cross-Town Pipeline site is located at the intersection of Arctic Boulevard and Tudor Road (Arctic and Tudor) in Anchorage, Alaska. The work specific to this project is at the Idle Wheels Mobile Home Park northwest of the intersection.

SITE HISTORY AND PREVIOUS INVESTIGATIONS

The AFSC Cross-Town Pipeline was in service from 1962 to 1999 when it was abandoned in place. The pipeline was used to transport Jet A fuel from the Port of Alaska to the Ted Stevens Anchorage International Airport and was installed approximately 6 feet below ground surface (bgs). Hydrostatic testing in August 1999 showed the pipeline to be suitable for service. Subsequently, ENSTAR encountered impacted soil while working in the intersection. Great Northern Engineering (GNE) removed 500 feet of the pipeline in May 2000. Soil samples

contaminated with diesel-range organics (DRO) in concentrations as high as 90,000 milligrams per kilogram were encountered during excavation (OASIS Environmental [OASIS], 2010). GNE's subsequent pipe testing showed a leak to be present at a 45-degree elbow weld located at the corner of Arctic and Tudor (GNE, 2000).

In addition, Geoengineers, Inc., (GeoEngineers) was investigating gasoline releases at the then Texaco station on the southwest corner of the intersection and encountered kerosene/Jet A range light, non-aqueous-phase liquid (LNAPL) (or floating product) as early as 1994 in monitoring well MW-4, and in MW-6 beginning in 1997. Jet fuel was also identified in MW-10 and MW-13 in June 1999 (GeoEngineers, 2000).

Ecology and Environment (E&E) conducted site assessment work from 2000 to 2002, which is summarized in its Site Characterization Report (E&E, 2002). The objective was to evaluate the extent of soil/groundwater impacts from jet fuel LNAPL. E&E advanced 30 soil borings, collected 58 primary soil samples, and installed 26 monitoring wells (MW-100 through MW-105, MW-107 through MW-120, and MW-122 through MW-127) and three product recovery wells (RW-1 through RW-3). Fifteen preexisting monitoring wells were identified at the site. Bail-down tests were conducted at nine monitoring wells (MW-6, MW-10, MW-13, MW-21, MW-31, MW-103, MW-105, MW-110, and MW-112) (E&E, 2002).

- A free-product recovery vapor enhanced skimming (VES) pilot system was installed to recover free product from RW-1. The total free product recovered as of November 2022 was 5,479 gallons. The total estimated current mass of Jet A fuel present in the subsurface as free product and adsorbed product for the release is 380,000 kilograms. An estimated 48,000 gallons (324,000 kilograms) of the total mass consists of free product located at the capillary fringe and associated smear zone; 56,000 kilograms is estimated to be associated with the overlying vadose zone. Based on the RW-1 recovery data, it was estimated that approximately three to five more years would be required to exhaust free-product recovery at RW-1. The free-product distribution covers an area of approximately 30,000 square feet (0.7 acre). The affected area is mostly located beneath the intersection of Arctic and Tudor at a depth of 30–35 feet bgs. The free-product plume extends beneath a relatively small percentage of the Idle Wheels property located to the northwest of the intersection. The Jet A fuel free-product is contained in a sand unit that extends from 30 feet bgs to more than 50 feet bgs. The sand unit has ample air permeability for the injection of air. The site data supports the conclusion that there is a clayey silt aquitard present limiting the migration of free product and groundwater north of Tudor (E&E, 2002).
- Seven quarterly groundwater monitoring events occurred from 2001 to 2002. The sample results indicated that the concentrations of dissolved-phase petroleum constituents are relatively stable. The same is true of free-product measurements, except for changes due to the installation of the VES pilot well at RW-1 (E&E, 2002).
- Recommended to reduce the quarterly groundwater monitoring program to semiannually. Reduction in the number of wells to be sampled was also recommended. Complete the

installation of RW-3. Continue to operate and monitor free-product collection in the pilot VE skimmer system (E&E, 2002).

- Remedial options were also evaluated. A horizontal bioslurping system was recommended for the site. However, the feasibility of the horizontal system needed to be evaluated, therefore continued use of the VES/recovery was recommended until the evaluation was completed (E&E, 2002).

In 2003, E&E completed a three-tier vapor intrusion (VI) evaluation of the subsurface migration of diesel vapors to indoors at the Idle Wheels trailer court to assess if residents were at risk from petroleum vapors entering their trailers. Conclusions of the assessment suggested that the VI pathway for residents was incomplete because trailers were neither sitting on concrete slabs nor did they have basements. The incomplete pathway suggests that residents living in the area would not be exposed to petroleum vapors. Further, Johnson and Ettinger VI modeling indicated that inhalation of indoor air for cancer risk and non-carcinogenic hazard quotient for benzene, toluene, ethylbenzene, and xylenes vapors were below the 2003 Alaska Department of Environmental Conservation (DEC) risk management thresholds (E&E, 2003a).

LNAPL Recovery 2002–2009

The VES recovery system at the Idle Wheels site was initiated in 2001 and expanded over time as follows:

- A pilot system of two recovery wells (RW-1 and RW-2) were installed in 2001. RW-2 was constructed to be compared to RW-1, but was found to be inferior and therefore not used (E&E, 2003a).
- RW-3 was installed in 2002 and became operational in 2003 (E&E, 2003a).
- RW-4 was installed and became operational in 2003 (E&E, 2003a).
- In 2005, monitoring wells MW-31, MW-115, and MW-116 were converted to recovery wells (RW-31, RW-115, and RW-116, respectively) and the use of RW-3 was discontinued. A total of 11,471 gallons of free product was recovered at the site from 2001 to 2005. The estimated rate of recovery for the system from May 2005 to September 2005 is approximately 3.1 gallons per day (E&E, 2003b).

The VES recovery system operated through mid-August 2009 with some winter shutdowns during 2006–2009. For October 2002 through mid-August 2009, approximately 12,800 gallons of LNAPL were recovered. OASIS conducted bail-down testing to assess the recovery rate. Results showed the recovery rate had fallen below the practicable rate of 0.005 gallon per hour. Since free-phase product recovery commenced in 2001, the areal extent of the free-phase product plume had decreased by over 92% (6.5 feet to less than 0.5 foot). It was recommended to shut down the vacuum portion of the system and a pulsing approach be used for continued free-product recovery (OASIS, 2010).

Due to the low recovery value and the location of the shed impacting the final grading of a road construction project, AFSC petitioned DEC to decommission the VES recovery system (Ahtna,

2018). Permission was granted by DEC in 2017; the recovery shed and horizontal piping components of the system were removed in fall 2017. DEC requested that further evaluation of the recovery wells be conducted prior to granting permission to decommission. In January 2019, baildown testing was conducted at RW-1 and RW-115 to address the LNAPL transmissivity at the site in order to assist in future remedial activity decision-making. Neither of the two wells tested at the site exhibited LNAPL transmissivity values that indicate product recovery was practicable. Based on the results of this testing, it was recommended that no further product recovery be conducted at the site and any remaining infrastructure related to the recovery wells be removed from the site, excluding those wells currently used for groundwater monitoring purposes (Ahtna, 2019).

Recovery well decommissioning was initiated in December 2019, but due to site access issues, was not completed until June 2021, when it was completed in conjunction with soil sampling/drilling activities at the site. Six recovery well vaults (RW-2, RW-3, RW-31, RW-115, RW-116, and RW-120) and the VES recovery system piping that connected the recovery shed to the recovery and monitoring well vaults on site was decommissioned and one recovery well was converted into a monitoring well. In December 2019 MW-114, which was connected to the VES system, was encountered during the excavation and removal of adjacent recovery wells. All piping going into MW-114 was cut and sealed and the vault was sealed with foam, however not removed. In June 2021, the location and presence of monitoring well MW-114 and vault located along the east side of the property could not be located. RW-1 was left in place to monitor residual LNAPL level (Ahtna, 2022c).

Site Groundwater/LNAPL Monitoring/Soil Assessment

Groundwater monitoring has been conducted at the site since 2001. Over time, as data were accumulated, contaminant trends were evaluated and the collected data suggests that the areal extent of both the LNAPL and dissolved-phase plumes in the area have decreased and/or remain stable. The sampling frequency and the number of wells included in the monitoring program has also decreased with the focus remaining on the Idle Wheels property.

A water supply well at a residence on Cope Street was sampled in 2009. No petroleum contaminants were detected in the water (the well was only sampled once; the elder resident did not want further intrusion) (OASIS, 2009). MW-119 has acted as the sentinel well between the Idle Wheels property and the Cope Street well. In summer 2013, MW-119 was found without a lid and filled with soil, and was decommissioned in fall 2013. MW-119 was replaced with MW-200, located one block to the west (Ahtna, 2014). Based on communication with the Anchorage Water and Wastewater Utility in December 2018, it was confirmed that this house had not been connected to the municipal water system. It was assumed that the drinking well is still in use. It should be noted that the drinking water well is not within the same unconfined aquifer monitored at the site. It is in a deeper water bearing zone beneath the Bootlegger Cove formation, a low permeability, silty/clayey unit in this area (Ahtna, 2022a).

In June 2021, Ahtna was contracted to assess current soil impacts at the southeast corner of the Idle Wheels property located at the northwest corner of Arctic and Tudor. Additionally, monitoring well MW-122, which was destroyed during 2019 road construction activities, was replaced. The field team advanced 10 soil characterization soil borings as well as the soil boring for the replacement of monitoring well MW-122. Seven of the characterization borings were advanced to 15 feet bgs. The remaining three characterization borings were advanced to 35 feet bgs. The field team collected a total of 18 primary and two duplicate samples from the soil borings. Replacement monitoring well MW-128 was installed near the former location of MW-122. Based on data collected from soil analytical sampling, contamination above the DEC cleanup levels (18 AAC 75, Table C) only exists in subsurface soils from approximately 28 to 32 feet bgs; these impacts are most likely associated with the groundwater smear zone. No samples collected above 28 feet bgs had analyte concentrations that exceeded the DEC cleanup levels. Contamination at this depth limits receptor exposure and it is unlikely that any site receptors will be exposed to contamination at this depth. Exposure pathways that remain complete include ingestion of groundwater, inhalation of indoor air, and dermal exposure to contaminants in groundwater (Ahtna, 2022b).

Groundwater monitoring was last performed at Arctic and Tudor in September 2021. The field team collected groundwater samples from monitoring wells MW-30, MW-123, MW-124, MW-125, MW-126, MW-127, and MW-128. A sample was not collected from monitoring well MW-200 due to insufficient recharge after purging. LNAPL was detected in recovery well RW-1 in 2021. The dissolved-phase DRO plume continues to be present in and around MW-125 and MW-126 and is present in new monitoring well MW-128. The DRO level observed in MW-125 was in the range of previously observed concentrations. Benzene is also present above the cleanup level in MW-125 (Ahtna, 2022a).

Prior to November 2021, monitoring well MW-30 was erroneously decommissioned by another contractor on behalf of Shell Oil at the Texaco-#85-Arctic site. Monitoring well MW-30 was replaced as MW-30R in May 2022 (Ahtna, 2021).

Other

A feasibility study was conducted in 2020 to evaluate remedial alternatives for addressing contaminated soil and groundwater. Four remedial alternatives were evaluated, and in-situ chemical oxidation plus in-situ sorption and biodegradation was found to be the most effective and cost appropriate alternative (Ahtna, 2020). Additional soil data was collected, and it was determined that contamination is no longer present in the soil, therefore no further remediation was proposed.

WORK PERFORMED

The objective of this work was to assess and document the condition of the environmental monitoring wells and recovery well associated with the AFSC former Cross-Town Pipeline site. All work was conducted in general accordance with the DEC *Field Sampling Guidance* (DEC, 2022) and the DEC-approved work plan (Ahtna, 2023).

Mobilization

Ahtna personnel mobilized to the Idle Wheels property on November 2, 2023, to perform well maintenance inspections. A safety and health meeting was held on site before any field activities commenced.

Maintenance Inspections

Environmental monitoring wells were located visually and by using previously collected survey data. A Schonstedt magnetic locator was used to identify their location when buried under gravel. All wells were opened and inspected to ensure they were in good condition. Minor damage, such as corroded lock replacement, was repaired at the time of inspection. Monument lids were all cleaned with a wire brush. No major damage was observed. All the wells in this inspection were flush mount wells. Photographs of the wells can be found in Attachment 3.

The following wells were included in this assessment:

- MW-30R
- MW-123
- MW-124
- MW-125
- MW-126
- MW-127
- MW-128
- RW-1

The well monument, cap, and riser of MW-30R were all in good condition. Because MW-30R is a newly installed well, previous Global Positioning System data did not exist, so its location was surveyed.

MW-123 was mostly covered by a non-functioning car but was still accessible. The well monument was in good condition. Soil inside the monument was nearing the top of the casing but is not currently an issue.

MW-124 was located with the magnetic detector because the flush mount was covered with approximately 2 inches of gravel. The monument was in acceptable condition. The well riser was below the soil level inside of the monument. The well cap did not fit on the riser due to soil that had encroached around the top of riser, and the inside of the riser appeared dirty, indicating soil may have fallen in the well. The soil was frozen solid and could not be removed. The bolt threads on the monument were found to be stripped when closing the well.

The flush mount for MW-125 was covered by approximately 1 inch of gravel and had to be located with the magnetic detector. MW-125 had a smaller monument inside of the outer monument. The

outer monument was in good condition. The top of the riser, while in good condition, was just below the inner monument.

MW-126 had concrete surrounding the monument that was in good condition. The monument and riser were also in good condition. Sand inside the monument was near the top of the casing but not over the well casing causing any damage to the well. The lock on the well cap was found to be corroded, so a new lock was placed on the well cap before closing the monument.

The monument, riser, and well cap of MW-127 were all in good condition. The soil inside the monument was near the top of the casing but not over the top of the casing. The lock on the well cap was corroded and replaced with a new lock before closing the monument.

The bolts and lid on the monument of MW-128 were covered with silt and were cleaned prior to opening. The monument was in good condition. The soil in the well vault was close to the top of the casing but was not causing any damage to the well.

The monument for RW-1 was missing all three bolts and the bolt holes showed signs of damage in the monument. RW-1 is a 4-inch well with a riser in good condition. The well lock showed signs of corrosion and was replaced with a new lock.

CONCLUSIONS AND RECOMMENDATIONS

All eight environmental monitoring wells associated with the AFSC Former Cross-Town Pipeline site located at the intersection of Arctic Boulevard and Tudor Road were located. The field team inspected and documented the condition of each well. Corroded locks on well caps for monitoring wells MW-126, MW-127, and RW-1 were replaced.

Additionally, the bolt holes in the monument of RW-1 and MW-124 appeared to be broken, preventing the monument lid from being bolted down. The lid to each well was placed back on the monument after the lock was replaced. If RW-1 and MW-124 are scheduled for continued use, it is recommended the monuments be replaced in spring 2024 once the ground has thawed. It was noted that numerous wells contain soil inside the well monuments, near the top of the well casings. If further monitoring continues, it would be beneficial for the soil to be removed in the spring, once the ground has thawed.

Lastly, the presence and condition of MW-114 should be investigated to determine the condition of the well and assess any further actions that may be required.

Please do not hesitate to contact me at 907-433-0764 if you have any questions regarding this report.

Sincerely,

Ahtna Engineering Services, LLC



Nicholas B. Simmons
Project Manager

cc: Shawn Tisdell, DEC

Attachments:

1. Figures
2. Field Notebook
3. Photographic Log

REFERENCES

- Ahtna Engineering Services (Ahtna), 2014. *2013 Final Fall Groundwater Monitoring Report for the Crosstown Pipeline located at Arctic Boulevard and Tudor Road, Anchorage, Alaska, ADEC File No. 2100.38.438*. May.
- Ahtna, 2018. *Final 2017 Groundwater Monitoring Report, Cross-town Pipeline Groundwater Sampling, Arctic Boulevard and Tudor Road Intersection, Anchorage Alaska ADEC File Number 2100.38.438, Hazard ID 2018*. May.
- Ahtna, 2019. *2019 Baildown Test Report, Cross-town Pipeline, Arctic Boulevard and Tudor Road Intersection, Anchorage Alaska ADEC File Number 2100.38.438, Hazard ID 2018*. May.
- Ahtna, 2020. *Feasibility Study Report, Cross-town Pipeline, Arctic Boulevard and Tudor Road Intersection, Anchorage, Alaska. ADEC File Number 2100.38.438, Hazard ID 2018*. September.
- Ahtna, 2021. *Monitoring Well MW-30, AFSC Crosstown Pipeline, Arctic Boulevard and Tudor Road, Anchorage, Alaska*. November.
- Ahtna, 2022a. *Groundwater Monitoring Report 2021, Anchorage Fueling and Service Company – Crosstown Pipeline, Arctic Boulevard and Tudor Road Intersection, Anchorage, Alaska, (Revised)*. March.
- Ahtna, 2022b. *Supplemental Soil Characterization Report, Anchorage Fueling and Service Company Cross-Town Pipeline, Arctic Boulevard and Tudor Road Intersection, Anchorage, Alaska*. March.

- Ahtna, 2022c. *Final VES Recovery System Piping and Recovery Well Decommissioning Report, Crosstown Pipeline, Arctic Boulevard and Tudor Road, Anchorage, Alaska – ADEC File No. 2100.38.438*. April.
- Ahtna, 2023. *2023 AFSC Former Cross-Town Pipeline Maintenance Inspections, Arctic Boulevard and Tudor Road Intersection Work Plan, Anchorage, Alaska*. October.
- Alaska Department of Environmental Conservation (DEC), 2022. *Field Sampling Guidance*. January.
- Ecology and Environment (E&E), 2002. *Site Characterization Report, Crosstown Pipeline, at the Intersection of Arctic Boulevard and Tudor Road, Anchorage, Alaska*. November.
- E&E, 2003a. *April 2003 Groundwater Monitoring and Recovery Well Installation Report, Crosstown Pipeline, Intersection of Arctic Boulevard and Tudor Road (Arctic and Tudor), Anchorage, Alaska*. April.
- E&E, 2003b. *October 2003. Groundwater Monitoring Report, Crosstown Pipeline, Intersection of Arctic Boulevard and Tudor Road (Arctic and Tudor), Anchorage, Alaska*. December.
- GeoEngineers, Inc, 2000. *Supplemental Report for Subsurface Exploration near the AFSC Pipeline Texaco Service Station*. May.
- OASIS Environmental (OASIS), 2008. *September 2008 Groundwater Monitoring Report, Crosstown Pipeline, Intersection of Arctic Boulevard and Tudor Road (Arctic and Tudor), Anchorage, Alaska*. December.
- OASIS Environmental (OASIS), 2009. *Report for Water Supply Sampling at 430 Cope Street, Arctic Boulevard and Tudor Crosstown Pipeline Project, Anchorage, AK*. June.
- OASIS, 2010. *Groundwater Sampling and Product Recovery System Assessment, Crosstown Pipeline, Arctic Boulevard and Tudor Road Intersection*. January.

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ATTACHMENT 1
FIGURES

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AFSC Former Crosstown Pipeline Maintenance Inspection Report
Arctic Blvd and Tudor Rd, Anchorage Alaska

Ahtna
Engineering Services, LLC

Project Number: 20204.087	Figure Number: 1
Date: 12/14/2023	
Drafted By: AES	

STATE AND SITE VICINITY

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LEGEND

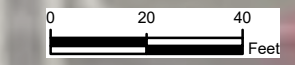
- Monitoring Well
- Monitoring Well installed in 2022
- Monitoring Well Decommissioned in 2017 (vault not relocated)
- Monitoring Well Decommissioned in 2021
- Recovery Well
- Former Pipeline
- ▨ Dissolved Phase DRO Plume
- ▭ Former Remediation Conex

Notes:

1. All locations are approximate.
2. Images acquired from ESRI basemaps Oct. 2019.
3. Former trailer on corner lot of Arctic and Tudor has been removed
4. Map coordinate system: NAD83 2011 AK SPZ 4 (ft)

AFSC Former Crosstown Pipeline Maintenance Inspection Report
Arctic Blvd and Tudor Rd, Anchorage Alaska

SITE MAP



Project Number: 20204.007	Figure Number: 2
Date: 1/5/2024	
Drafted By: AES	

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ATTACHMENT 2
FIELD NOTEBOOK

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MEBERT
V. PAUL
M. HANSMETTER

ARCTIC AND TUDOR
WELL MAINTENANCE
20204.087.02

CLOUDY
51°F 41
11/2/23

800 ARRIVE AT AHINA WH. MEET
WITH VICTORIA AND MARC.
START TO GATHER EQUIPMENT.

GOAL: PERFORM WELL WELL MAINTENANCE
AT ARCTIC AND TUDOR

PRE: LEVEL 0

920 ARRIVE AT IDLE WHEELS TRAILER
PARK.

930 LOCATE MW-128. BOLTS WERE
SILTED. CLEANED OUTER MONUMENT
INSIDE ~~IS~~ IS IN GOOD CONDITION.

SOIL IN THE WELL VAULT IS CLOSE
TO THE TOP OF CASING. DOES NOT SEEM
TO BE ISSUE CURRENTLY. NO LOCK ON WELL.

945 LEAVE SITE TO GRAB WIRE BRUSH
AND SCREW DRIVER

1005 ARRIVE BACK ON SITE

1010 ARRIVE AT MW-128. WELL IS ALMOST
COVERED BY NON-FUNCTIONING
VEHICLE. WELL MONUMENT IS IN
GOOD CONDITION. SOIL IN MONUMENT
IS NEAR TOP OF CASING. CLEANED
LED WITH WIRE BRUSH. NO LOCK
ON WELL

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MEBERT
42 V. PAUL
M. HANSMETER

ARCTIC + TUDOR
WELL MAINTENANCE
20204.087

CLOUDY
33°F
11/2/23

1025 ARRIVE AT MW-125. WELL IS IN
THE ROAD AND UNDER 1 INCH OF
GRAVEL. MONUMENT IS IN OK
CONDITION. THERE IS A SMALLER
MONUMENT IN THE OUTER MONUMENT.
THE WELL TOP OF CASING IS JUST
BELOW THE INNER MONUMENT. WITH
THE WELL CAP ON IT IS ABOVE
THE INNER MONUMENT. THE
OUTER MONUMENT IS IN GOOD
CONDITION. NO LOCK IS ON THE
WELL. WELL RISER IS IN
GOOD CONDITION.

1040 ARRIVE AT RW-10. WELL IS MISS-
ING ALL 3 BOLTS FOR THE MONUMENT
LED. BOLT HOLES IN MONUMENT
ARE DAMAGED MAKING IT IMPOSSIBLE
TO SEAL THE WELL JUNCT/MONUMENT.
WELL IS 4 INCH WELL AND
RISER IS IN GOOD CONDITION.
WELL WAS LOCKED WITH A DAMAGED
LOCK. LOCK WAS REPLACED.

1055 ARRIVE AT MW-30. WELL MONUMENT
IS IN GOOD CONDITION. WELL

MEBERT
V. PAUL
M. HANSMETER

ARCTIC + TUDOR
WELL MAINTENANCE
20204.087

CLOUDY
33°F 43
11/2/23

CAP AND RISER ARE IN GOOD CONDITION
WELL APPEARS NEW. ~~WELL~~ ^{ME} NO LOCK
ON WELL CAP. WELL IS IN GREAT ~~WELL~~
CONDITION

1120 ARRIVE AT MW-124. WELL
IS IN ROAD AND BURIED UNDER
2 INCHES OF GRAVEL. MONUMENT
IS IN OK CONDITION. WELL RISER
IS BELOW THE SOIL LEVEL IN
THE ~~WELL~~ ^{ME} MONUMENT. CAP FOR WELL
DOES NOT FIT ON THE RISER.
INSIDE OF WELL CASING APPEARS
DIRTY, LIKE SOIL HAS FALLEN
IN THE WELL. WELL CAP JUST
SITS IN SOIL ABOVE RISER.
NO LOCK IS ON WELL CAP.
BOLT THREADS APPEAR TO BE STRIPPED
ON THE MONUMENT.

1145 ARRIVE AT MW-126. WELL MONUMENT
IS IN GOOD CONDITION. CONCRETE
PAD AROUND MONUMENT IS IN GOOD
CONDITION. WELL RISER LOOKS
GOOD. WELL CAP HAS CORRODED LOCK.
WE REPLACED THE LOCK WITH NEW

Rite in the Rain

44 M EBERT
V. PAUL
M. HANSMREER
LOCK. SAND IN MONUMENT IS NEAR
TOP OF CASING BUT NOT OVER.

ARCTIC + TUDOR
WELL MAINTENANCE
20204.087
11/2/23

CLOUDY
33 OF

1155 ARRIVE AT MW-127. WELL MONUMENT
IS IN GOOD CONDITION. WELL
RISER AND CAP IN GOOD CONDITION
WELL LOCK WAS CORRODED. WE CUT
LOCK AND DID NOT HAVE REPLACEMENT.
SOIL IN MONUMENT IS NEAR TOP
OF CASING BUT NOT OVER.

NOTE ALL WELLS ARE FLUSH MOUNT

1230 SURVEY MW-30R LOCATION
SINCE IT WAS REPLACED.

1245 OFFSITE

1345 ARRIVE BACK AT THE XHTMA WH
PUT SUPPLIES AWAY. EOD

Deal
11/2/23

**ATTACHMENT 3
PHOTGRAPHIC LOG**

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Photographic Log
Arctic Boulevard and Tudor Road Maintenance Inspection



Photograph 1: View looking down. MW-30R closed.



Photograph 2: View looking down. MW-30R opened with well cap on.

Photographic Log
Arctic Boulevard and Tudor Road Maintenance Inspection



Photograph 3: View looking northwest. MW-123 location relative to the non-functional vehicle.



Photograph 4: View looking down. MW-123 opened with well cap off.



Photograph 5: View looking down. MW-124 closed after gravel covering it was removed.



Photograph 6: View looking down. MW-124 opened with well cap off showing high soil level in the monument and dirt inside of the riser.

Photographic Log
Arctic Boulevard and Tudor Road Maintenance Inspection



Photograph 7: View looking north. MW-125 after being dug out in relation to the rest of the trailer park.



Photograph 8: View looking down. MW-125 with the well cap off after being opened and cleaned. The smaller monument inside of the outer monument is visible.

Photographic Log
Arctic Boulevard and Tudor Road Maintenance Inspection



Photograph 9: View looking down. MW-126 closed.



Photograph 10: View looking down. MW-126 opened with new lock installed on well cap. Shows high sand level.



Photograph 11: View looking down. MW-127 closed after being cleaned.



Photograph 12: View looking down. MW-127 opened with well cap off.

Photographic Log
Arctic Boulevard and Tudor Road Maintenance Inspection



Photograph 13: View looking south. MW-128 unopened in relation to Tudor Road.



Photograph 14: View looking down. MW-128 opened with well cap off.



Photograph 15: View looking down. RW-1 closed and cleaned.



Photograph 16: View close up. RW-1 opened with old lock on well cap. Missing bolts and damaged bolt holes shown.
