THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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Anchorage, AK 99501
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www.dec.alaska.gov

File: 2423.38.001

November 19, 2020

Aaron Acena
Alaska Army National Guard
P.O. Box 5169
JBER, AK 99505

Re: Decision Document: AKARNG Kotlik FSA
Cleanup Complete Determination

Dear Mr. Acena:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Alaska Army National Guard (AKARNG) Kotlik Federal Scout Readiness Center (FSA) Kotlik, Alaska (Figure 1). Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and no further remedial action will be required unless new information becomes available that indicates residual contaminants may pose an unacceptable risk.

This cleanup complete determination is based on the administrative record for the AKARNG Kotlik FSA, which is located in the ADEC office in Anchorage, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:
AKARNG Kotlik FSA
Unnamed Road, Near Post Office
Kotlik, AK 99620

Name and Mailing Address of Contact Party:
Aaron Acena
Alaska Army National Guard
P.O. Box 5169
JBER, AK 99505

DEC Site Identifiers:
File No.: 2423.38.001
Hazard ID.: 2822

Regulatory Authority for Determination:
18 AAC 75

Site Description and Background
AKARNG Kotlik FSA (site) was established at its current location in 1973 until the late 1990's when the unit was deactivated. Prior to 1973, the site and immediate vicinity were undeveloped. Prior to 1995, a fuel line connected the 3,000-gallon AST to the city fuel farm northeast of the site, and a 110-gallon

day tank on the north side of the FSA building transferred fuel to heaters within the building and possibly to the generator at the northeast corner of the building. The 110-gallon day tank on the north side has been removed; however, the stand for the tank is still attached to the north side of the building.

Currently, the site is an inoperable scout readiness center that was originally established at its current location in 1973 (Figure 2). The facility layout consists of a 20-foot by 60-foot, butler-style, prefabricated building and a 1,500-gallon, double-walled heating oil AST welded onto steel skids resting on wooden timbers. Also, present onsite are an abandoned 3,000-gallon, single-walled AST; an abandoned 300-gallon, single-walled AST; a hazardous materials storage locker; and an 8-foot by 20-foot storage van. Historical practices and several AST's have resulted in releases of fuel oil contamination of the soil and groundwater.

Contaminants of Concern

During the site characterization and cleanup activities at this site, samples were collected from soil and analyzed for benzene, toluene, ethylbenzene, xylenes, (BTEX), gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO), polycyclic aromatic hydrocarbons (PAHs), GRO/ Synthetic Precipitation Leaching Procedure (SPLP), BTEX/SPLP, DRO/SPLP, extractable petroleum hydrocarbons (EPH), and volatile organic hydrocarbons (VPH). Groundwater samples were analyzed for BTEX, GRO, and DRO. Surface water samples were analyzed for BTEX and PAHs to calculate total aromatic hydrocarbons (TAH) and total aqueous hydrocarbons (TAqH). Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at this site:

- Diesel Range Organics (DRO)
- Gasoline Range Organics (GRO)
- Benzo(a)pyrene
- Benzene
- Dibenz(a,h)anthracene
- Ethylbenzene
- Naphthalene
- Xylenes

Cleanup Levels

A Record of Decision (ROD) was finalized in December 2014 which documented the approved site specific alternative cleanup levels (ACLs) using the ADEC Method 3 calculator. For soil these were 11,777 mg/kg for DRO, 1,221 mg/kg for GRO, 0.165 mg/kg for benzene, and 6.9 mg/kg for ethylbenzene. For groundwater, the cleanup levels were 1.5 mg/L for DRO and 0.005 mg/L for benzene. For surface water on site the approved surface water quality standards for freshwater are 0.01 mg/L for TAH and 0.015 mg/L for TAqH.

DRO, GRO, benzene, ethylbenzene, naphthalene, and xylenes were detected in surface and subsurface soil to a depth of approximately 3 feet below ground surface (bgs) above the migration to groundwater cleanup levels established in 18 AAC 75.341 (d) Table B2.

DRO, GRO, benzene, benzo(a)pyrene, and dibenz(a,h)anthracene were detected in samples of onsite supra-permafrost groundwater and were greater than ADEC cleanup levels 18 AAC 75.345(b)(1) Table C. Groundwater was encounters between 1.5 – 3.0 feet bgs.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)	Groundwater (mg/L)	Surface Water (mg/L)
DRO	10,250	1.5	N/A
GRO	1,221	2.2	N/A
Benzo(a)pyrene	1.5	0.00025	N/A
Benzene	0.165	0.005	N/A
Dibenz(a,h)anthracene	1.5	0.00025	N/A
Ethylbenzene	6.9	0.015	N/A
Naphthalene	0.038	0.0017	N/A
Xylenes	1.5	0.19	N/A

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
N/A = Not Applicable

Characterization and Cleanup Activities
In September 1995, a preliminary assessment and site investigation (PA/SI) was conducted at the site. A total of eight soil borings were drilled and six soil samples were submitted for laboratory analysis. Boring samples were collected between 0.0 and 1.5 feet below ground surface (bgs), field screened for total petroleum hydrocarbons (TPH) using a portable infrared spectrophotometer and submitted to a laboratory for DRO. Water was encountered in all borings between 1.0 and 1.5 feet bgs. A subsurface water sample was collected from a borehole located on the north side of the newer AST and submitted for benzene, ethylbenzene, toluene and total xylenes (BTEX) analysis. DRO was detected in all six soil samples, at concentrations ranging from 15 to 2,660 milligrams per kilogram (mg/kg). The highest DRO concentration of 2,660 mg/kg was located closest to the former day tank AST and across the boardwalk from the former day tank AST. The remaining samples contained low-level diesel rang organics (DRO) concentrations of 32 mg/kg and lower. The PA/SI concluded that the total area impacted at the site is roughly L-shaped and is distributed through portions of Areas 1, 2, and 3. The report estimated 37 cubic yards of soil containing DRO, GRO, BTEX were detected in concentrations that exceeded ADEC cleanup levels and estimated to be centered around the former 3,000-gallon AST stand.

In September 1998, a remedial investigation (RI) was conducted at the site. Sampling involved collection of 51 surface and subsurface soil samples, installation of one well point, and collection of one surface-water and one active-layer (supra-permafrost) groundwater sample. A maximum surface soil DRO concentration of 24,000 mg/kg was identified near the former day tank AST at a depth of 0.0 to 0.5 feet bgs. The maximum subsurface soil DRO concentration of 17,000 mg/kg was identified in a sample from the same location at a depth of 1.25 to 1.75 feet bgs. All concentrations of benzene, toluene, ethylbenzene, and xylenes (BTEX), gasoline range organics (GRO), and polycyclic aromatic hydrocarbons (PAH) detected in soil samples were less than 18 AAC 75.341 (d) Table B2 soil migration to groundwater cleanup levels.

An active-layer (supra-permafrost) groundwater sample was collected from a drive point at a boring location at the site of the former day tank AST. Groundwater sample analytical results indicated cleanup level exceedances for DRO detected at concentrations of 53 mg/L, and GRO was detected at concentrations of 2.7 mg/L. These levels were greater than 18 AAC 75.345, Table C groundwater cleanup levels.

A surface-water sample was also collected from freestanding water at the site and analyzed for TAH and TAqH. Most reported levels of contaminant compounds were less than analytical detection limits and followed the surface water quality standards in 18 AAC 70. A contaminated soil sample from a boring was collected and submitted for laboratory analysis to assess the potential for leaching to groundwater using synthetic precipitation leaching procedure (SPLP) analysis. Results indicated a DRO leachate concentration of 0.72 mg/L.

In 2005, an interim remedial action (IRA) was conducted and consisted of soil excavation and confirmation sampling at the areas of concern identified as contaminated during the 1998 RI. Petroleum-contaminated soil was removed from two areas (Figure 3). Area 1 was associated with the existing AST operation on the northwestern side of the building, and Area 2 was associated with the former day tank AST on the northern side of the FSA building. Approximately 11 cy of soil was removed during excavation activities. Permafrost at this site limited the maximum vertical depth of the excavations to 2 feet bgs. Both excavations were extended laterally to the point at which (1) field screening indicated that DRO concentrations were less than 2,000 parts per million by volume or (2) structural foundations were present (the southern extent of both excavations). Confirmation samples were collected from the sidewalls and bottom of the excavations and were analyzed for DRO. Soil analytical results indicated 18 AAC 75.341 (d) Table B2 soil migration to groundwater cleanup levels exceedances for DRO at concentrations up to 7,560 mg/kg in the confirmation samples beneath the former day tank cradle.

A data gap investigation (DGI) was conducted during the 2011 and 2012 field seasons to delineate the extent of contamination remaining in soil and support risk assessment efforts. During the investigation, a total of 31 soil borings and 4 duplicate soil samples were advanced using a hand auger to the depths of refusal at approximately 3 to 3.5 feet bgs. Soil samples were collected from the borings and analyzed for DRO, with select samples being analyzed for GRO, BTEX, extractable petroleum hydrocarbons and volatile petroleum hydrocarbons, and PAHs. Analytical soil sample results were compared to the most stringent 18 AAC 75.341 (d) Table B2 soil migration to groundwater cleanup levels.
Soil sample analytical results indicated cleanup level exceedances for DRO at concentrations up to 120,000 mg/kg, GRO at concentrations up to 760 mg/kg, benzene at concentrations up to 0.0983 mg/kg, ethylbenzene at concentrations up to 8.035 mg/kg, xylenes at concentrations up to 20 mg/kg, and naphthalene at concentrations up to 3.4 mg/kg. Additionally, soil samples analytical results detected benzo(a)anthracene at concentrations up to 0.14 mg/kg, and dibenz(a,h)anthracene at concentrations up to 0.14 mg/kg.

Two temporary monitoring wells were installed; one was located between the site and Yukon River; and one was located near the southwest corner of the Lower Yukon School District tank farm. Supra-permafrost groundwater samples were collected and analyzed for DRO, GRO, and BTEX, and one

sample was also collected for PAH analysis. Groundwater and supra-permafrost groundwater sample analytical results indicated Table C groundwater cleanup level exceedances in DRO at highest concentrations of 53 and 56 mg/L, GRO at highest concentrations of 2.7 mg/L, benzene at highest concentrations of 0.025 and 0.0579 mg/L, benzo(a)pyrene at highest concentrations of 0.098 mg/L, and dibenz(a,h)anthracene at concentrations of 0.098 mg/L. Additionally, groundwater samples analytical results detected benzo(a)anthracene at highest concentrations of 0.00016 mg/L, ethylbenzene at highest concentration of 0.05 mg/L, toluene at highest concentrations of 0.063 mg/L, and xylenes at highest concentrations of 0.37 mg/L.

One surface water sample was collected approximately 7 feet north of the FSA building in an area of standing water and analyzed for GRO, BTEX, and PAH. TAH and TAqH concentrations calculated using the BTEX and PAH results for the surface water sample result indicated a surface water value of TAH at a highest concentration of 0.017 mg/L- less than the surface water quality criteria listed in 18 AAC 70.

The ADEC-approved Hydrocarbon Risk Calculator (HRC) (ADEC Method 3, 18 AAC 75.340[e]) was used to evaluate current cumulative risk to human health from petroleum hydrocarbons remaining at the site. Results of the cumulative risk assessment indicated that carcinogenic and non-carcinogenic risk levels for hazardous substances remaining in soil do not meet regulatory thresholds. HRC results indicated that petroleum hydrocarbons in soil pose an ingestion risk greater than State of Alaska regulations allow. Site-specific soil alternative cleanup levels (ACLs) were calculated and proposed for compounds that showed unacceptable risk. Site-specific soil ACLs of 10,250 mg/kg for DRO, 1,221 mg/kg for GRO, and 0.165 mg/kg for benzene were proposed. Based on the proposed soil ACLs, the DGI report estimated that 38 cy of contaminated soil would need to be excavated to achieve the ACLs. DRO and benzene were detected in groundwater at concentrations greater than the respective cleanup levels of 1.5 mg/L and 0.005 mg/L during the DGI. The DGI report recommended groundwater at the site be sampled in the long-term to monitor the natural attenuation of petroleum contamination.

On December 19, 2014 the ROD was signed and established the cleanup levels applicable to the site for soil, groundwater, and surface water (Table 1). Remedial alternatives were selected to remediate soil and monitor groundwater and surface water to protect human health and the environment and meet applicable regulatory requirements. The remedial alternative selected was the excavation of soil with contaminant concentrations greater than the applicable cleanup levels identified in the ROD and transport to an offsite facility for treatment or disposal. Long term monitoring (LTM) with institutional controls (ICs) were the selected remedial alternatives for groundwater and surface water. The ROD states that the LTM should involve groundwater sampling for DRO and benzene and surface water sampling for TAH and TAqH until the contaminant concentrations are shown to be less than the applicable cleanup levels identified in the ROD, at which time LTM and ICs on groundwater may be terminated with ADEC agreement.

During the summer of 2016, a remedial action (RA) and the first of five years of groundwater and surface water LTM was performed at the site. The objectives of the RA were to remove soil contaminated with DRO, GRO, benzene, and ethylbenzene to achieve the ADEC-approved site-specific cleanup levels; restore the site to conditions that are protective of human health and the environment. A total of approximately 34 cy of petroleum-contaminated soil was excavated and placed in 34 Super

Sacks. Three areas were targeted for soil excavation. The three remedial excavations are identified as "Excavation 1," "Excavation 2," and "Excavation 3."

Excavation 1:
Excavation 1 was located beneath the FSA building. Approximately 2 cy of petroleum contaminated soil was removed from this area and five confirmation soil samples plus one field duplicate was collected from the limits of the excavation at locations with the highest PID field screening results. Analytical results verified DRO, GRO, benzene, and ethylbenzene concentrations at the limits of Excavation 1 were less than the applicable ADEC-approved site-specific cleanup levels but above migration to groundwater cleanup levels. Confirmation sample analytical results indicated DRO at highest concentrations of 2,510 mg/kg and GRO at highest concentrations of 80.3 mg/kg both located on the west side wall at 1.5 feet bgs.

Excavation 2:
Excavation 2 was located northeast of the FSA building adjacent to boardwalks. Five confirmation samples were collected from the limits of the Excavation 2. A total of 31 cy of petroleum-contaminated soil was removed from Excavation 2. Confirmation soil samples were collected from the limits of Excavation 2 at locations with the highest PID field screening results. Initial analytical results for samples collected from the north and west sidewalls indicated DRO concentrations were greater than the ADEC-approved site-specific cleanup levels at the west and north sidewall at 13,900 mg/kg and 11,000 mg/kg respectively. Additional petroleum-contaminated soil was removed from these locations until analytical results verified DRO, GRO, benzene, and ethylbenzene concentrations at the final limits of Excavation 2 were less than the applicable ADEC-approved site-specific cleanup levels but above migration to groundwater cleanup levels. Confirmation sample analytical results indicated DRO at highest concentrations of 8,970-8,500 mg/kg and GRO at highest concentrations of 39.7 mg/kg both located on the north side wall at 1.5 feet bgs.

Excavation 3:
Excavation 3 was located to just north of the FSA building and partially beneath the former day tank cradle. A total of 1 cy of petroleum-contaminated soil was removed from Excavation 3. Five confirmation soil samples were collected from the limits of Excavation 3. Analytical results verified DRO, GRO, benzene, and ethylbenzene concentrations at the limits of Excavation 3 were less than the applicable ADEC-approved site-specific cleanup levels but above migration to groundwater cleanup levels. Confirmation sample analytical results indicated DRO at highest concentrations of 626 mg/kg and GRO at highest concentrations of 19.9 mg/kg located at the base of the excavation and on the west side wall at 1.5 feet bgs and 1.2 feet bgs, respectively.

Four temporary monitoring wells were installed after the RA during the 2016 field effort. A hand auger was used to bore down to permafrost for MW-1, MW-2, and MW-3. MW-4 was installed while backfilling Excavation 2. Monitoring wells were developed, sampled for DRO and benzene, and decommissioned prior to demobilization. Groundwater samples collected from MW-2 and MW-4 contained DRO concentrations greater than the Table C groundwater cleanup level at 4.08 mg/L and 3.67 mg/L respectively. Benzene concentrations were non-detect in the four temporary monitoring wells. Additionally, two surface water samples were collected during the 2016 field effort for BTEX and PAH

analysis. Calculated TAH and TAqH concentrations were less than the surface water quality criteria listed in 18 AAC 70.020(b)(5)(A)(iii) at both surface water sample locations.

In 2017, the second of five years of groundwater and surface water LTM was performed at the site. Four temporary monitoring wells were installed during the 2017 field effort. A hand auger was used to bore down to permafrost for MW-1, MW-2, and MW-3 in the locations identified in the 2016 LTM report. MW-4 was installed south of the previous location due to complications with borehole collapse while advancing the borehole within the excavation backfill. Monitoring wells were developed, sampled for DRO and benzene, and decommissioned prior to demobilization. Groundwater samples collected from MW-4 were shown to contain DRO concentrations of 4.55 mg/L, greater than the Table C groundwater cleanup level. Benzene concentrations were non-detect or less than the Table C groundwater cleanup level in the four temporary monitoring wells.
Additionally, two surface water samples were collected during the 2017 field effort for BTEX and PAH analysis. Calculated TAH and TAqH concentrations were less than the surface water quality criteria listed in 18 AAC 70.020(b)(5)(A)(iii) at both surface water sample locations.

In 2018, the third of five years of groundwater and surface water LTM was performed at the site. Four temporary monitoring wells were installed during the 2018 field effort. A hand auger was used to bore down to approximately 5 feet bgs for all four wells as nearly as possible to the locations identified in the 2016 LTM report. Monitoring wells were purged, stabilized, and sampled for DRO and benzene, and decommissioned prior to demobilization. Groundwater samples collected from MW-4 contained benzene concentrations of 0.0428 mg/L, greater than the Table C groundwater cleanup level. DRO concentrations in all wells and benzene concentrations in wells other than MW-4 were non-detect or less than the Table C groundwater cleanup levels. Additionally, two surface water samples were collected during the 2018 field effort for BTEX and PAH analysis. Calculated TAH and TAqH concentrations were less than the surface water quality criteria listed in 18 AAC 70.020(b)(5)(A)(iii) at both surface water sample locations.

In 2019, the fourth of five years of groundwater and surface water LTM was performed at the site. Four temporary monitoring wells were installed during the late September-early October 2019 field effort. A hand auger was used to bore down to approximately 5 feet bgs for all four wells as nearly as possible to the locations identified in the 2016 LTM report. All 2019 wells had non-slotted risers to a minimum of 2 feet bgs, and the three wells in areas in or near surface water (MW-1, MW-2, and MW-3) were sealed at the ground surface with bentonite and allowed to cure for approximately 24 hours prior to development. Monitoring wells were purged, stabilized, and sampled for DRO and benzene, and decommissioned prior to demobilization. DRO was detected at concentrations less than the Table C groundwater cleanup level in all four monitoring wells. Benzene was detected at concentrations less than the Table C groundwater cleanup level in two temporary monitoring wells (MW-2 and MW-4) and was not detected in the other two wells. Additionally, two surface water samples were collected during the 2019 field effort for BTEX and PAH analysis. Calculated TAH and TAqH concentrations were less than the surface water quality criteria listed in 18 AAC 70.020(b)(5)(A)(iii) at both surface water sample locations.

In the summer of 2020, the final groundwater and surface water LTM was performed at the site. Four temporary monitoring wells were installed during the July field effort. A hand auger was used to

advance boreholes to depths up to 5 feet below ground surface (bgs). On July 15, 2020, after the temporary monitoring wells were purged and water quality parameters stabilized, or after the wells were purged dry and allowed to recharge to 80%, groundwater samples were collected and analyzed for DRO and benzene. Results for groundwater samples collected from four temporary monitoring wells installed at the site FSRC demonstrated that all contaminant concentrations were less than cleanup values established by the ADEC-approved ROD and Table C groundwater cleanup levels. Results for samples collected from two surface water locations at the site indicated the calculated TAH and TAqH concentrations were less than the surface water cleanup levels listed in the ADEC-approved ROD and 18 AAC 70.020. (Figure 4).

Annual groundwater sampling for DRO and benzene, as well as surface water monitoring for BTEX and PAH (for calculation of TAH and TAqH), from 2019 and 2020 have demonstrated that concentrations have been achieved and remained less than the ADEC approved cleanup levels; and ROD cleanup goals for the site have been met.

Cumulative Risk Evaluation
Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index of one across all exposure pathways.

Based on a review of the environmental record, ADEC has determined that residual contaminant concentrations at the site meet the human health cumulative risk criteria for residential land use.

Exposure Pathway Evaluation
Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using ADEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De-Minimis Exposure or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De-Minimis Exposure	Contamination was detected and removed. Soil samples results indicate contamination remaining is below Method 2 cleanup levels.
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination remains in the sub-surface but is below ingestion cleanup levels.
Inhalation – Outdoor Air	De-Minimis Exposure	Contamination remains in the sub-surface but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De-Minimis Exposure	Subsurface soil contained DRO, naphthalene benzo(a)anthracene at concentrations that do not pose vapor intrusion concern, given the limited

		volume of contaminated soil remaining. The pathway is considered de-minimis.
Groundwater Ingestion	De-Minimis Exposure	Groundwater is approximately 5 feet bgs. Groundwater contained detections of DRO, GRO, benzene, benzo(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, naphthalene and xylenes at concentrations below 18 AAC 75.345 Table C cleanup levels. Pathway considered de-minimis.
Surface Water Ingestion	De-Minimis Exposure	Surface water contained detections of TAH at concentrations below surface water quality criteria listed in 18 AAC 70.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	De-Minimis Exposure	Contamination remains in the subsurface soil, but it is of limited volume and is located within a developed area unlikely to attract ecological receptors. Pathway considered de-minimis.

Notes to Table 2: "De-Minimis Exposure" means that in ADEC's judgment receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination. "Pathway Incomplete" means that in ADEC's judgment contamination has no potential to contact receptors.

ADEC Decision

Soil and groundwater contamination at the site have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. Sufficient site characterization has been completed and ADEC determines that contaminants in soil have achieved stead state equilibrium and will not migrate to groundwater. This site will receive a "Cleanup Complete" designation on the Contaminated Sites Database, subject to the following standard conditions.

Standard Conditions

1. Any proposal to transport soil or groundwater from a site that is subject to the site cleanup rules or for which a written determination from the department has been made under 18 AAC 75.380(d)(1) that allows contamination to remain at the site above method two soil cleanup levels or groundwater cleanup levels listed in Table C requires DEC approval in accordance with 18 AAC 75.325(i). A "site" as defined by 18 AAC 75.990 (115) means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.)

2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

3. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be

used for other purposes in the future, such as aquaculture, additional testing and treatment may be required to ensure the water is suitable for its intended use.

This determination is in accordance with 18 AAC 75.380 and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

Appeal

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 555 Cordova Street, Anchorage, Alaska 99501-2617, within 20 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, P.O. Box 111800, Juneau, Alaska 99811-1800, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

If you have questions about this closure decision, please feel free to contact Rachael Petraeus at (907) 269-7520, or email at rachael.petraeus@alaska.gov.

Sincerely,

Rachael Petraeus

Rachael Petraeus
CS Project Manager
ADEC Contaminated Sites Program

cc: Spill Prevention and Response, Cost Recovery Unit

Figure 1.

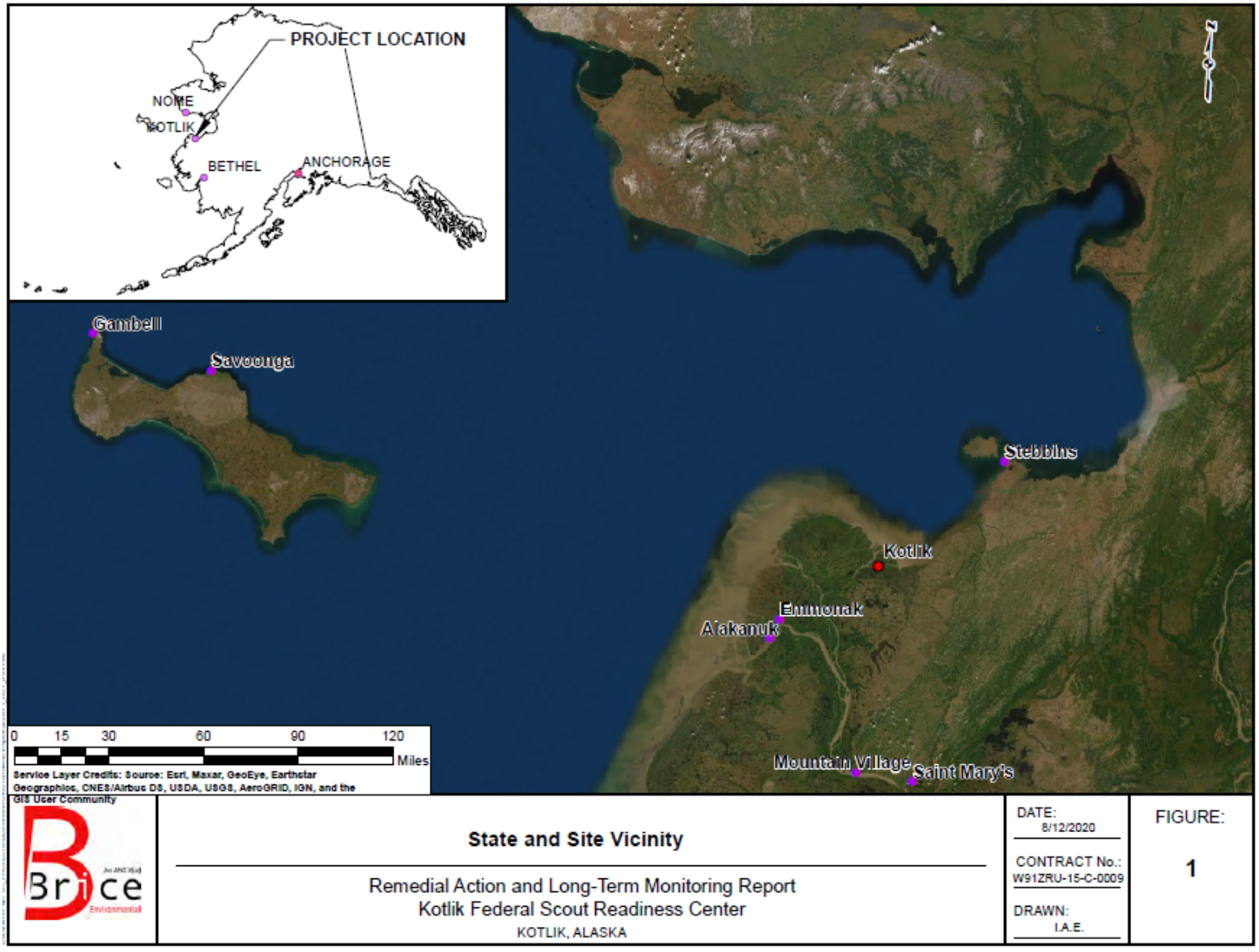

PROJECT LOCATION
NOME
KOTLIK
BETHEL
ANCHORAGE
Gambell
Savoonga
Stebbins
Kotlik
Emmonak
Alakanuk
Mountain Village
Saint Mary's
0 15 30 60 90 120
Miles
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Brice Environmental
State and Site Vicinity
Remedial Action and Long-Term Monitoring Report
Kotlik Federal Scout Readiness Center
KOTLIK, ALASKA
DATE: 8/12/2020
CONTRACT No.: W91ZRU-15-C-0009
DRAWN: I.A.E.
FIGURE: 1

Figure 2.

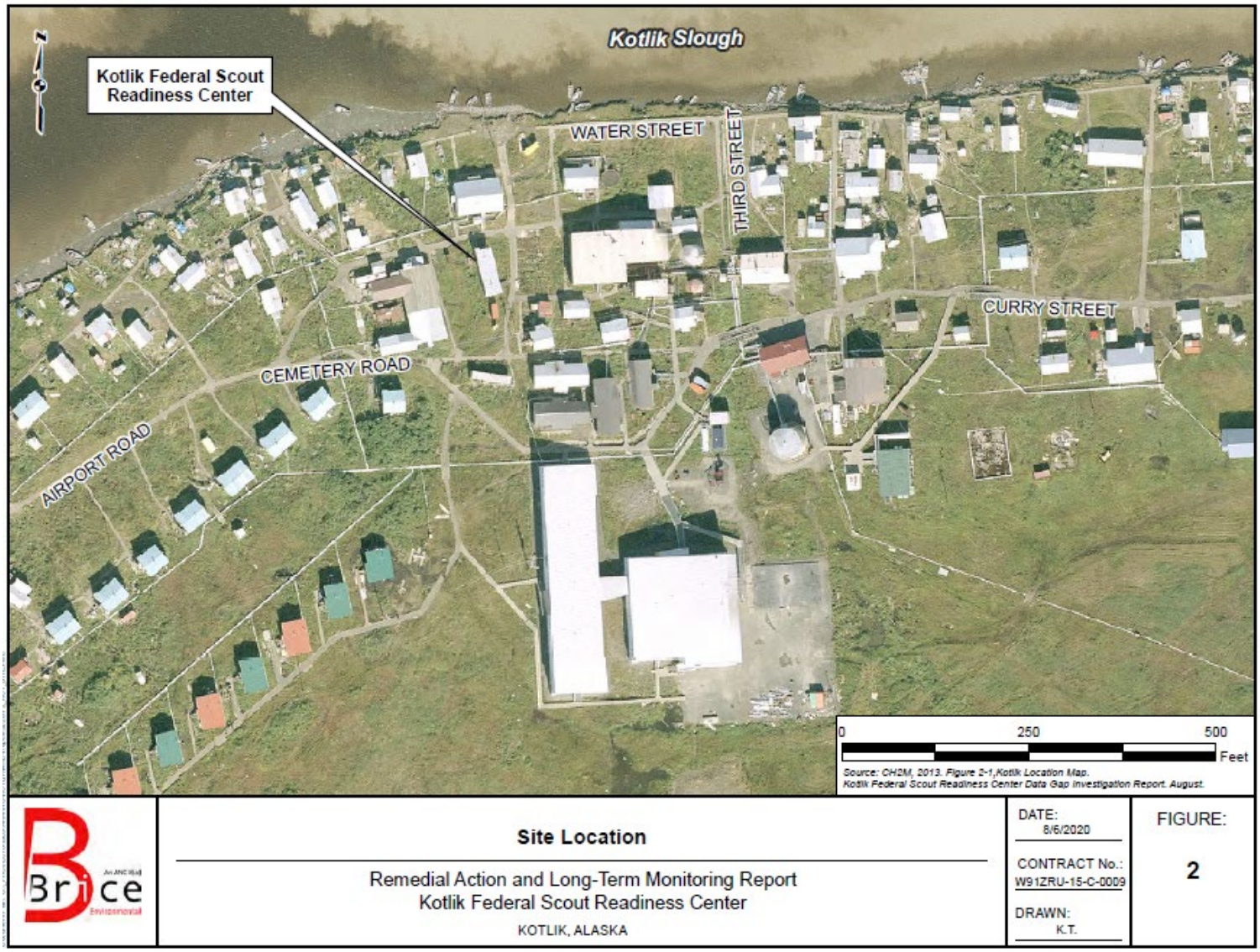

Kotlik Slough
Kotlik Federal Scout Readiness Center
WATER STREET
THIRD STREET
CURRY STREET
CEMETERY ROAD
AIRPORT ROAD
0
250
500
Feet
Source: CH2M, 2013. Figure 2-1,Kotlik Location Map.
Kotlik Federal Scout Readiness Center Data Gap Investigation Report. August.
Site Location
Remedial Action and Long-Term Monitoring Report
Kotlik Federal Scout Readiness Center
KOTLIK, ALASKA
DATE: 8/6/2020
CONTRACT No.: W91ZRU-15-C-0009
DRAWN: K.T.
FIGURE: 2

Figure 3.

Environmental Health Engineering Environmental Baseline Survey No. S.0057366.08-18, 19 June to 13 July 2018

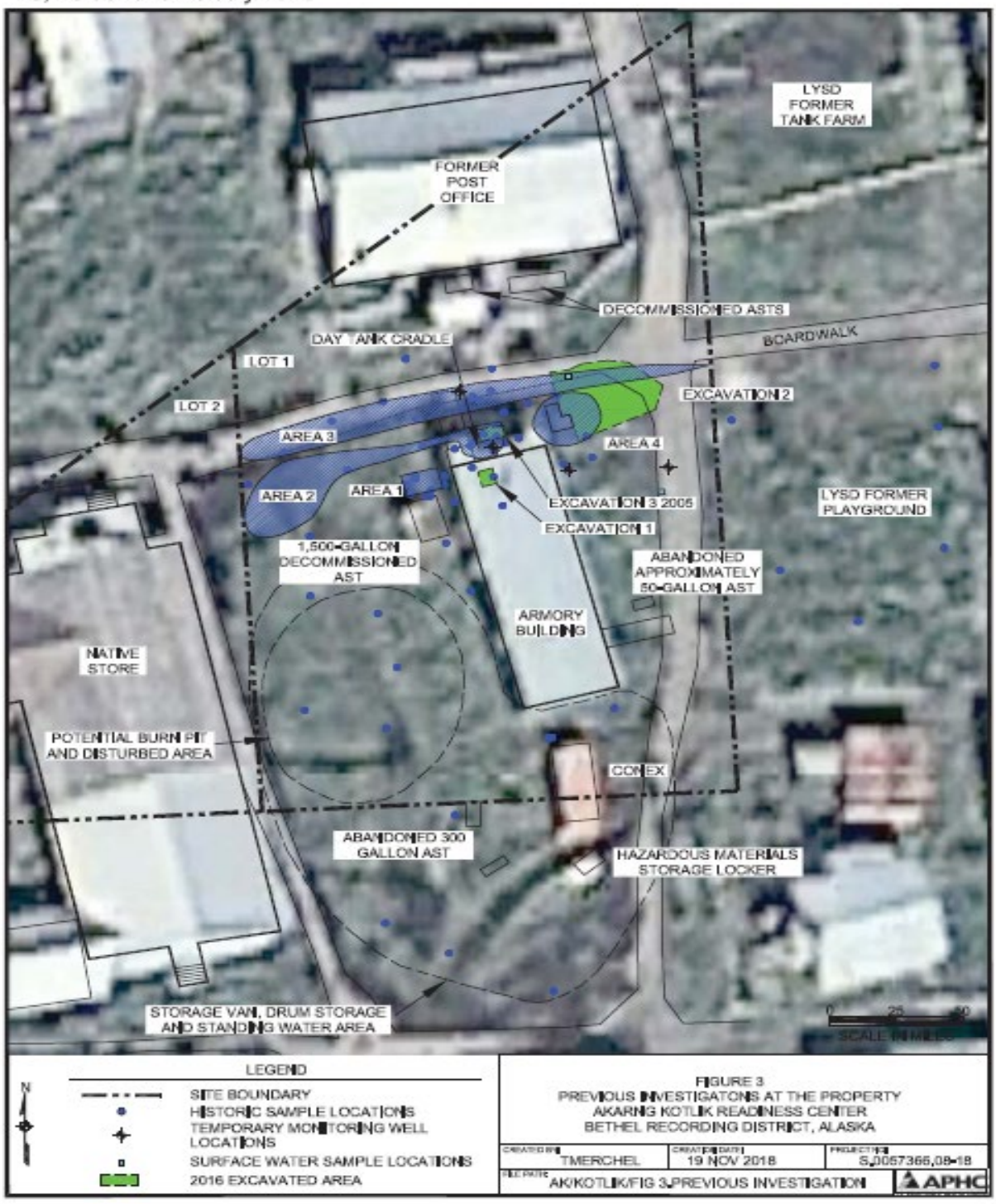
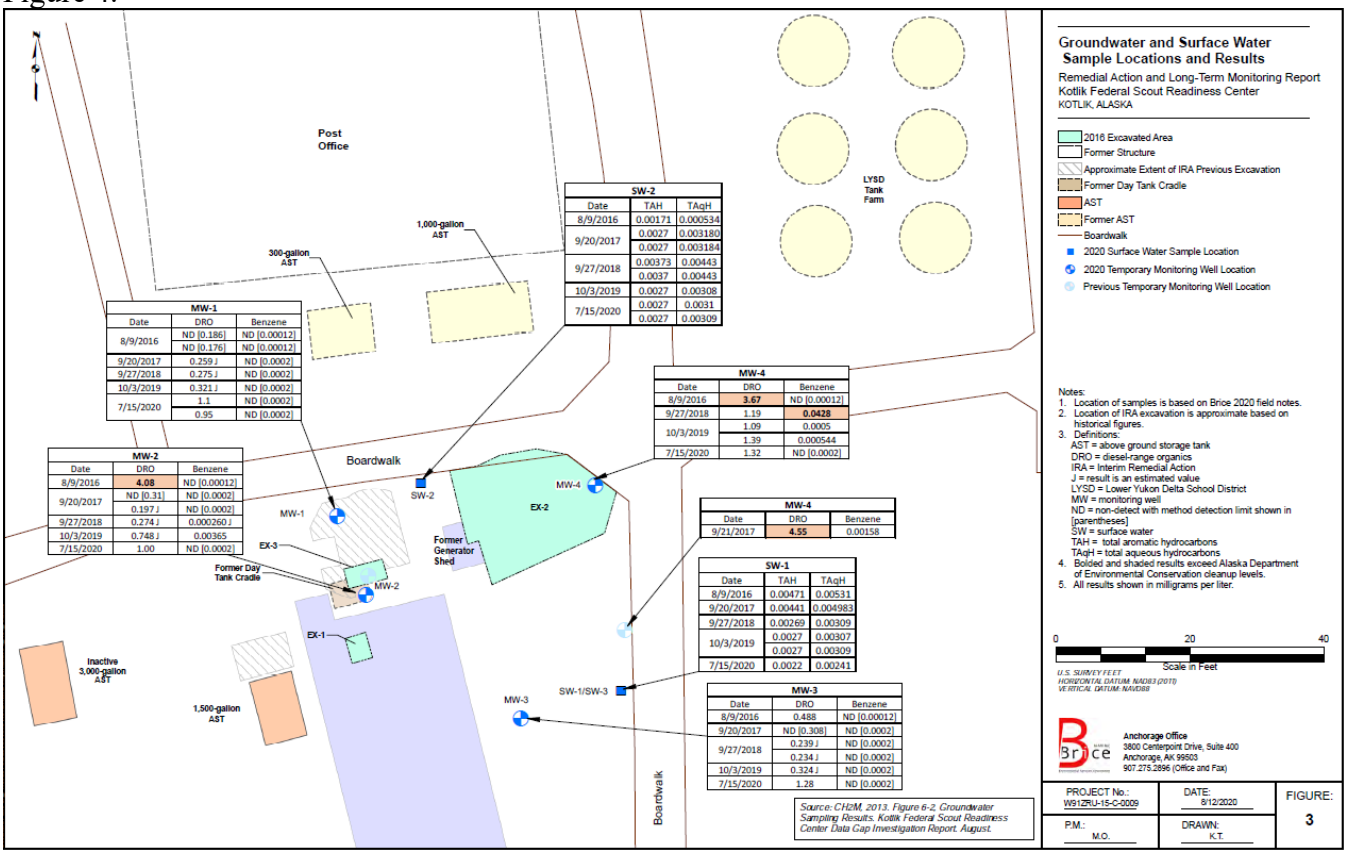


Figure 4.


Groundwater and Surface Water Sample Locations and Results
Remedial Action and Long-Term Monitoring Report
Kotlik Federal Scout Readiness Center
KOTLIK, ALASKA
2016 Excavated Area
Former Structure
Approximate Extent of IRA Previous Excavation
Former Day Tank Cradle
AST
Former AST
Boardwalk
2020 Surface Water Sample Location
2020 Temporary Monitoring Well Location
Previous Temporary Monitoring Well Location
Post Office
LYSD Tank Farm
1,000-gallon AST
300-gallon AST
Boardwalk
MW-1
MW-2
MW-3
MW-4
SW-2
SW-1/SW-3
EX-1
EX-2
EX-3
Former Generator Shed
Former Day Tank Cradle
Inactive 3,000-gallon AST
1,500-gallon AST
SW-2
Date TAH TAqH
8/9/2016 0.00171 0.000534
9/20/2017 0.0027 0.003180
0.0027 0.003184
9/27/2018 0.00373 0.00443
0.0037 0.00443
10/3/2019 0.0027 0.00308
7/15/2020 0.0027 0.0031
0.0027 0.00309
MW-1
Date DRO Benzene
8/9/2016 ND [0.186] ND [0.00012]
ND [0.176] ND [0.00012]
9/20/2017 0.259 J ND [0.0002]
9/27/2018 0.275 J ND [0.0002]
10/3/2019 0.321 J ND [0.0002]
7/15/2020 1.1 ND [0.0002]
0.95 ND [0.0002]
MW-2
Date DRO Benzene
8/9/2016 4.08 ND [0.00012]
9/20/2017 ND [0.31] ND [0.0002]
0.197 J ND [0.0002]
9/27/2018 0.274 J 0.000260 J
10/3/2019 0.748 J 0.00365
7/15/2020 1.00 ND [0.0002]
MW-4
Date DRO Benzene
8/9/2016 3.67 ND [0.00012]
9/27/2018 1.19 0.0428
10/3/2019 1.09 0.0005
1.39 0.000544
7/15/2020 1.32 ND [0.0002]
MW-4
Date DRO Benzene
9/21/2017 4.55 0.00158
SW-1
Date TAH TAqH
8/9/2016 0.00471 0.00531
9/20/2017 0.00441 0.004983
9/27/2018 0.00269 0.00309
10/3/2019 0.0027 0.00307
0.0027 0.00309
7/15/2020 0.0022 0.00241
MW-3
Date DRO Benzene
8/9/2016 0.488 ND [0.00012]
9/20/2017 ND [0.308] ND [0.0002]
9/27/2018 0.239 J ND [0.0002]
0.234 J ND [0.0002]
10/3/2019 0.324 J ND [0.0002]
7/15/2020 1.28 ND [0.0002]
Source: CH2M. 2013. Figure 6-2. Groundwater Sampling Results. Kotlik Federal Scout Readiness Center Data Gap Investigation Report. August.
Notes:
1. Location of samples is based on Brice 2020 field notes.
2. Location of IRA excavation is approximate based on historical figures.
3. Definitions:
AST = above ground storage tank
DRO = diesel-range organics
IRA = Interim Remedial Action
J = result is an estimated value
LYSD = Lower Yukon Delta School District
MW = monitoring well
ND = non-detect with method detection limit shown in [parentheses]
SW = surface water
TAH = total aromatic hydrocarbons
TAqH = total aqueous hydrocarbons
4. Bolded and shaded results exceed Alaska Department of Environmental Conservation cleanup levels.
5. All results shown in milligrams per liter.
0 20 40
Scale in Feet
U.S. SURVEY FEET
HORIZONTAL DATUM: NAD83 (2011)
VERTICAL DATUM: NAVD88
Brice
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907.275.2896 (Office and Fax)
PROJECT No.: W912RU-15-C-0009
DATE: 8/12/2020
FIGURE: 3
P.M.: M.O.
DRAWN: K.T.