



Hazardous Waste Storage Tank 110-D1 Closure Plan

Eareckson Air Station, Shemya Island, Alaska

Submitted by Pacific Air Forces Regional Support Center to

U.S. Environmental Protection Agency in response to

Consent Agreement Final Order

Docket No. RCRA-10-2022-0192

May 2024

This page intentionally blank

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS	B-III
1.0 FACILITY DESCRIPTION AND HISTORY	B-1
1.1 Environmental Setting	B-2
1.1.1 Soil.....	B-2
1.1.2 Groundwater.....	B-2
2.0 CLOSURE PERFORMANCE STANDARDS	B-3
2.1 Closure Sampling	B-3
2.2 Natural Background	B-4
2.3 Site Safety and Decontamination	B-4
2.4 Indicator Constituents	B-4
2.5 Pre-Existing Contamination	B-4
3.0 TANK CLEANING.....	B-5
4.0 WASTE MANAGEMENT	B-6
4.1 Aboveground Storage Tank Cleaning.....	B-6
4.2 Other Materials and Decontamination.....	B-6
5.0 CLOSURE SAMPLING REQUIREMENTS	B-7
5.1 Soil Sample Locations	B-7
5.1.1 Aboveground Storage Tank Concrete Pad.....	B-7
5.1.2 Pipelines.....	B-7
5.1.3 Intermediate Bulk Container Tote Storage Area	B-7
5.1.4 Additional Samples	B-8
5.2 Groundwater Sampling.....	B-8
5.3 Sample Analysis	B-8
5.4 Sample Comparison to Project Action Levels	B-9
6.0 FINAL SITE INSPECTION AND REPORTING.....	B-9
7.0 SCHEDULE.....	B-9
8.0 REFERENCES	B-11

TABLES

Table B-1	EAS Tank 110-D1 Closure Soil Sampling Summary	B-8
Table B-2	EAS Tank 110-D1 Closure Schedule Summary.....	B-10

FIGURES

Figure B-1	Site and Vicinity Map
Figure B-2	Proposed Soil Boring Locations

TABLE OF CONTENTS (CONTINUED)

ATTACHMENTS

Attachment B-1	Tank 110-D1 Waste Disposal Documentation
Attachment B-2	1994 Potentiometric Surface Map
Attachment B-3	Site ST039 Documentation
Attachment B-4	Tank 110-D1 Photos
Attachment B-5	Tank 110-D1 Diagram
Attachment B-6	Tank Inventory Sheet

ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
API	American Petroleum Institute
AST	aboveground storage tank
bgs	below ground surface
CAFO	Consent Agreement Final Order
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	contaminant of concern
DD	Decision Document
DOT	U.S. Department of Transportation
DRO	diesel range organics
EAS	Eareckson Air Station
EM	Engineer Manual
EPA	U.S. Environmental Protection Agency
GRO	gasoline range organics
IBC	Intermediate Bulk Container
IC	institutional control
msl	mean sea level
PAH	polycyclic aromatic hydrocarbon
PAL	project action level
PCB	polychlorinated biphenyl
PID	photoionization detector
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RRO	residual range organics
SAP	Sampling and Analysis Plan
SVOC	semi-volatile organic compound
TCLP	Toxic Characteristic Leaching Procedure
TSDF	Treatment, Storage, and Disposal Facility
USAF	U.S. Air Force
UST	underground storage tank
VOC	volatile organic compound

This page intentionally blank

1.0 FACILITY DESCRIPTION AND HISTORY

Eareckson Air Station (EAS) is approximately 1,500 miles southwest of Anchorage, Alaska, in the Aleutian Islands (Figure 1). EAS is located on Shemya Island, which is approximately 3.5 miles long by 1.5 miles wide (Figure 2). EAS is under the command of the Pacific Air Forces Regional Support Center (PRSC), with headquarters located at Joint Base Elmendorf-Richardson, Alaska.

Building 110 is a former communications structure on the north-central side of EAS that is currently under consideration for future use (Figures 2 and 3). It is co-located with site ST039, a U.S. Air Force (USAF) restoration program designation for cleanup activities related to two former diesel underground storage tanks (USTs) removed from the east side of Building 110 in 1993. ST039 is subject to institutional controls (ICs) as described in the 2008 Non-Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Decision Document (DD). Long-term monitoring is conducted every 2 years and reported along with other EAS restoration sites. No water or soil sampling is required by the DD. As documented in a separate Record of Decision (ROD), no CERCLA contaminants of concern (COCs) were identified for ST039. Based on the administrative record, no pre-existing contamination is known to be present in the surface immediately around Tank 110-D1 or the Intermediate Bulk Container (IBC) Tote Storage Area.

Adjacent to Building 110 to the north, Tank 110-D1 is a 10,000-gallon welded-steel aboveground storage tank (AST) that historically contained DF-8 (diesel) or JP-8 (jet fuel). DF-8 is JP-8 that did not meet aviation quality control standards but is suitable as a diesel substitute. Tank 110-D1 is a double-walled tank with an enclosed dike, which provides integral secondary containment (Attachment B-4). The AST is constructed with a cylindrical primary tank surrounded by a rectangular perimeter (Attachment B-5). Of note, the Consent Agreement Final Order (CAFO) (EPA 2022) reports the tank as a 6,000-gallon AST; the 2020 Eareckson Oil Discharge Prevention and Contingency Plan (ODPCP) inventory records the volume as 8,000-gallons; however, 10,000 gallons has been confirmed as the true capacity as documented in the tank inventory in Attachment B-6.

The AST supplied fuel via piping through the north wall to a heating system and emergency power generator. The fuel has not been used for at least 3 years.

As described in Item 26 of the CAFO, since 2019 approximately 48,000 pounds (6,325 gallons) of a hazardous waste mixture was accumulated and stored in Tank 110-D1. The mixture resulted from adding used non-polychlorinated biphenyl (PCB) transformer oil to DF-8 in the tank for heat recovery. The mixture proved incompatible with heating systems and was left in the tank to settle.

In 2022, contents from Tank 110-D1 were analyzed for waste disposal characterization. Samples were collected from within the tank and tested for halogens by ion chromatographic analysis (SW9056A), ignitability seta flashpoint (SW1020B), metals by inductively coupled plasma-mass spectrometry (ICP-MS; SW6020A TCLP [Toxic Characteristic Leaching Procedure]), reactivity (SW846 7.3), semi-volatile TCLP (SW8270D), and PCBs (SW8082). The only Resource Conservation and Recovery Act (RCRA) exceedance was for ignitability at 110 degrees Fahrenheit (°F; less than 140°F). The contents were thus declared ignitable hazardous waste. The mixture in Tank 110-D1 was removed and transported off-island for disposal via the USAF hazardous waste program, as documented in Attachment B-1.

Use of Tank 110-D1 as a hazardous waste storage tank has been discontinued. The tank has been locked out and tagged out from further use. No leaking or other discharge has been observed.

1.1 Environmental Setting

Shemya Island topography consists of elevations ranging from sea level to 300 feet above mean sea level (msl), with a gently rolling plain that slopes downward from north to south. Coastal sea cliffs and higher ground are located on the north side of the island. The island's natural terrain, where undisturbed by human activities, consists of rolling hills of hummocky tundra, dotted with small lakes and low-lying marshy areas. The south side coastal areas are low-lying drainages with gentle, sandy dunes and beach areas.

The climate of Shemya Island is marine, with moist conditions and temperature variances moderated by the Pacific Ocean. As a result, Shemya's climate is milder than expected considering the island's latitude. Local weather conditions are influenced by Shemya's location within a persistent low-pressure system, referred to as the "Aleutian Low," which causes North Pacific storms to track through the area and perpetuates constant windy and rainy conditions. The often-abundant precipitation and high winds can frequently interfere with air transportation to and from the island.

1.1.1 Soil

Bedrock at Shemya Island consists of a relatively flat, wave-cut platform of sedimentary marine deposits intruded by igneous material, with overlying layers of igneous rock material. The bedrock surface is highly faulted and fractured, which provides source material for the overlying surface sediments. The unconsolidated surface sediments of natural origin generally consist of sand and gravel deposits, with a significant occurrence of organic peat derived from the abundant tundra plant material. Much of the island's natural terrain has been disturbed by years of military and construction activities, which began during World War II. Many areas are covered by fill material placed to provide stable construction and road surfaces.

At Building 110, a gravel layer ranging in thickness from 1 to 12 feet is present throughout much of the area. The gravel was also used for the parking lot and fill material. Mixtures of sand, silt, and gravel are present beneath the fill materials. Bedrock was not encountered during 1993 drilling to a maximum depth of 39 feet below ground surface (bgs). It is believed that the geology underlying Building 110 is weathered mudstone lenses lying above an andesite bedrock layer existing at approximately 46 feet bgs (207 feet above msl).

1.1.2 Groundwater

Groundwater consists of confined and unconfined aquifers that are thin, have low porosity, or have low permeability occur on Shemya Island, with some areas having multiple zones of saturation. Groundwater can be encountered at about 10 feet to about more than 197 feet bgs, generally flowing in the same direction as surface contours within the surface peat layer, unconsolidated sand and gravel, or fractured bedrock of the island.

Building 110 is approximately 225 feet above msl. Groundwater below Building 110 is believed to be at approximately 137 to 142 feet bgs (80 to 90 feet above msl) based on measurements at Monitoring Well COE-12, which is approximately 500 feet southwest of the site. Multiple nearby soil boring investigations to 50 feet bgs did not encounter groundwater near the location of Tank 110-D1. During the basewide groundwater evaluation, a groundwater divide was identified south of Building 110. The groundwater divide is present in a northwest to southeast trending position (USAF 1996). Data collected in 1993 and 1994 indicate that groundwater beneath Building 110 flows north toward the Bering Sea, with a relatively steep hydraulic gradient (Attachment B-2). Groundwater is not expected to be encountered during the

planned field activities.

2.0 CLOSURE PERFORMANCE STANDARDS

The main purpose of this closure plan is to describe the overall requirements and procedures to close Tank 110-D1 as a hazardous waste storage container in accordance with 40 Code of Federal Regulations (CFR) 262 and 265, 29 CFR 1910, Unified Facilities Code 3-460-01, American Petroleum Institute (API) 2015, and Engineer Manual (EM) 385-1-1 (USACE 2024). USAF will clean and close the tank and associated piping in accordance with 40 CFR 265 Subpart G closure requirements for Treatment, Storage, and Disposal Facilities (TSDF) and 40 CFR 265 Subpart J closure requirements for TSDF hazardous waste tanks. The hazardous waste mixture previously stored in the tank was removed to the extent practical, and the waste was transported in IBC totes to Emerald Services of Tacoma, Washington (see Attachment B-1, Waste Manifests for Disposal). The remaining actions to close the tank are as follows:

1. Cleaning and capping of the tank
2. Soil sampling around the tank concrete pad and IBC Tote Storage Area,
3. Evaluation of analytical data from surface soil, subsurface soil, and groundwater (if encountered) to determine whether releases have occurred from the tank
4. Analytical sampling of rinsate after tank cleaning to support administrative closure of the tank

Performance standards for these closure actions were determined to comply with the requirements of 40 CFR 265. To verify completion of the Closure Plan while also being protective of human health and the environment, the standards that must be met by project execution are as follows:

1. Final cleaning of the tank, removal of piping to the exterior wall and capping of the remaining piping, and administrative closure
2. Completion of soil and groundwater investigation to document any potential impacts to the environment
3. If contamination is documented in the soil (and not resolved within 20 feet bgs) or groundwater (if encountered) investigation, USAF will coordinate with EPA to determine whether additional action is necessary to protect human health and the environment. If no further action is deemed necessary, USAF will provide the U.S. Environmental Protection Agency (EPA) with a Final Report. If additional action is necessary, USAF will develop a subsequent plan driven by the data collected and assessed.

All project actions will be documented in a report to be drafted for EPA review entitled *Eareckson Air Station Tank 110-D1 Closure Report and Site Assessment/Release Investigation*. The report will include descriptions of activities, photos, field logs, analytical results, conclusions, waste disposal descriptions and documentation, plan deviations, and descriptions of the site after closure work has been completed.

2.1 Closure Sampling

Drilling and soil sampling will be performed in accordance with the Sampling and Analysis (SAP). Sampling will be conducted to document whether tank contents were released to the environment. Groundwater, if encountered, will also be sampled. Section 5 describes closure sampling requirements.

2.2 Natural Background

There are no natural background levels for any petroleum-based fuel constituent such as would be detected in analysis of diesel range organics (DRO), gasoline range organics (GRO), or residual range organics (RRO). Detections of these analyte ranges greater than practical quantitation limits will be considered evidence of contamination to be compared against clean closure levels.

Metals occur naturally throughout Alaska in soil, groundwater, surface water, and sediments. It can be difficult to differentiate natural background levels from metals concentrations due to human activity. A “multiple lines of evidence” approach will be used to evaluate any metal analyte detection. This approach considers the likelihood that specific metals would result from human activity at a site, along with the distribution of metal detections and any background metal concentration data. During previous investigations at EAS, arsenic, antimony, and chromium were detected in soil at concentrations that exceeded ADEC Method Two Cleanup Levels. However, the concentrations were close to the background levels for those metals. Chromium, lead, and nickel have been detected in groundwater at concentrations exceeding ADEC Groundwater Cleanup Levels. Aluminum, chromium, lead, magnesium, manganese, nickel, and vanadium exceeded groundwater background levels. Antimony has also been detected in groundwater at concentrations that are consistent with background levels (USAF 2010).

2.3 Site Safety and Decontamination

During closure activities, workers will use a minimum of Level D personal protective equipment (PPE) sufficient to protect from exposure to hazardous materials and waste. The contractor work plan will include an Accident Prevention Plan and Site Safety and Health Plan that describe safety procedures in place, decontamination requirements, and potential site hazards in accordance with EM 385-1-1. Sampling equipment will be decontaminated with water or Alconox, which will be collected and transported to Building 749 for disposal. Tools will be wiped with disposable materials and collected for proper disposal.

2.4 Indicator Constituents

Hazardous waste associated with this closure includes the mixture of JP-8 and used non-PCB transformer oil, both of which are petroleum-based fluids. DRO and RRO will be the indicator constituent analyses for these substances. Because transformer oil was used, potential for wear-metals exists. RCRA metals analysis will include silver, arsenic, barium, cadmium, chromium, lead, mercury, and selenium. PCBs will also be analyzed for in waste products.

2.5 Pre-Existing Contamination

No pre-existing contamination has been previously documented immediately around Tank 110-D1 or the IBC Tote Storage Area. Building 110 is co-located with restoration program site ST039, which consists of two former USTs east of Building 110 that were removed in 1993. Multiple environmental investigations have been conducted at ST039 since 1988. ST039 was included in island-wide Remedial Investigation/Feasibility Study (USAF 1996). Contaminants detected in soil include petroleum hydrocarbons, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and low levels of PCBs. No CERCLA hazardous substances posing unacceptable risk were found at the site, as documented in the CERCLA ROD (2008) for ST039 (USAF 2008a). However, non-CERCLA (e.g., petroleum) substances were documented above levels allowed by Alaska regulations or at levels posing an unacceptable risk to human health or the environment; therefore, institutional controls were established

under Alaska State regulations. A separate DD was prepared outlining actions and controls in place in accordance with Alaska State laws and regulations, along with a complete list of investigations and removal actions for the site (USAF 2008b).

The selected remedy for ST039 in the 2008 DD included implementation of ICs to include preventing exposure to surface and subsurface soil by ensuring that contaminants remain undisturbed, specifically, “USAF will notify ADEC prior to making any major changes to the Plan that could affect the ICs and USAF will obtain prior concurrence from ADEC ... for anticipated actions that may disrupt protectiveness of IC” (USAF 2008). The ICs also include annual IC inspections, identification of site boundaries, and review of dig permits conducted within the area. Additionally, the site is included in the Non-CERCLA Five-Year Reviews.

3.0 TANK CLEANING

The tank was not cleaned after removal of the contents, and some residual material likely remains. The interior of the tank will be cleaned of residual waste with water in accordance with 265.197. The rinsate will be containerized, sampled, and disposed of off-island in accordance with EPA and U.S. Department of Transportation (DOT) regulations. The description of the steps needed to remove waste residues from Tank 110-D1 are detailed below.

Pipes connected to the tank will be evaluated to confirm that they do not contain waste (site history indicates that the mixture stored in Tank 110-D1 was never pumped into Building 110 as the building was not in use and did not require heat or fuel) and drained, if necessary, to include interior piping. This will be achieved by slowly disconnecting piping at joint location and catching any remaining material into appropriately staged drip pans on site.

1. The tank will be made safe for exterior work as no entry into the tank is expected. This may include cutting the long bolts off the top manhole wall to allow for access into the primary tank. If bolts or screws are cut, they will be replaced to reattach the manhole cover to the tank.
2. The primary tank will be inspected visually from above prior to rinsing to evaluate for an estimate of material remaining inside, any tank cracks or compromised seams, or any other anomalies.
3. The interstitial space between the primary and secondary tank will be inspected for waste/fuel intrusion.
4. To the extent practical, residual waste material will be removed by rinsing and removal of rinsate. The rinsate will be containerized, characterized through analytical sampling, and stored for disposal.
5. Final disposal of waste material will be off-island at an approved waste facility depending on analytical results.

4.0 WASTE MANAGEMENT

40 CFR 265.197 requires removal or decontamination of all waste residues, contaminated containment system components (e.g., liners), contaminated soils, and structures and equipment contaminated with waste, which may generate additional hazardous wastes. 40 CFR 265.114 requires hazardous waste generated during closure activities to be managed in accordance with 40 CFR 262. The anticipated solid waste and debris from the project activities are steel pipes and fittings, soil cuttings from subsurface sampling, waste sampling supplies and equipment, decontamination waste fluids, and rinsate from the tank.

4.1 Aboveground Storage Tank Cleaning

While the contents of Tank 110-D1 were removed in December 2021, the tank requires closure. The following is a general description of the disposal approach for the tank system piping and fittings. The associated work plan, which is subject to EPA review, will provide additional detail for this work.

1. All associated piping will be cut and plugged at each end to prevent any discharge to the environment. Exterior piping will be removed to the exterior wall of Building 110 and disposed of. All fill and vent piping will be removed or capped. Piping and hardware will be drained of any material and disposed of at the onsite scrap metal yard. Interior piping will be inspected and flushed prior to capping.
2. The tank will be triple rinsed with hot water and capped/locked-out. Cleaning will be conducted in accordance with API Standard 2015 Requirements for Safe Entry and Cleaning of Petroleum Storage Tanks (API 2018).
3. Rinsate will be placed in DOT-approved containers with tight-fitting lids, labeled, transported to Building 749 (Eareckson Central Accumulation Area), and sampled for analysis according to the associated SAP for TCLP metals, VOCs, SVOCs, PCBs, and flashpoint.
4. Rinsate will be disposed of off island as non-regulated or hazardous waste depending on the analytical results.

4.2 Other Materials and Decontamination

It is anticipated that soil cuttings from drilled borings and shovel work will not be returned to the borehole. Soil cuttings will be staged in appropriate containers pending analytical results. If analytical results document soils are below appropriate cleanup or screening levels, the soils will be returned to site. If soils are above cleanup levels, the soils be disposed of off island. It is not anticipated that any groundwater waste will be generated as part of the closure plan; however, the associated SAP (Appendix C to the Work Plan) will further detail the requirements for groundwater sampling decontamination should groundwater be encountered.

Decontamination liquid and absorbent pads/wipes generated from equipment will be placed in DOT-approved containers with tight-fitting lids, labeled, and transported to Building 749 for analytical sampling.

General refuse will be collected in bulk bags and transported for disposal to a Subtitle D landfill.

5.0 CLOSURE SAMPLING REQUIREMENTS

This section summarizes sampling requirements for the tank closure. Further details are provided in the associated SAP (Appendix C to the Work Plan). The SAP includes data quality objectives, sampling methods, sampling locations, decontamination procedures, waste handling, field documentation requirements, sample packaging and shipping requirements, laboratory qualification requirements, a Quality Assurance Project Plan, sample custody requirements, analytical methods and procedures, and requirements for data evaluation, quality assurance, and quality control, and reporting. Specific sampling requirements are provided in this section.

If contamination is found above project screening levels, follow on removal actions will be required. This closure plan does not propose the removal of any potentially impacted soil encountered during the execution of the plan.

5.1 Soil Sample Locations

Building 110 and the concrete pad for Tank 110-D1 will remain in place for potential future use by USAF. No demolition or remodeling of the building, tank, or pad is planned during this project. The foundation is reported to be in good condition with no visible cracking.

Sampling will occur in the immediate area surrounding the concrete pad/piping and the hard-packed gravel staging area where the 275-gallon transfer IBC totes were placed during waste removal. The IBC totes were not provided with secondary containment while stored at this location. Table B-1 summarizes anticipated sampling activities.

5.1.1 Aboveground Storage Tank Concrete Pad

Four sample locations will be identified at each corner of the AST pad, approximately 1 foot from either side as shown on Figure 4. Boring holes will be drilled to a depth of 20 feet bgs next to the pad at each corner. One primary sample will be collected between 0 and 2 feet bgs from the interval with the highest PID reading, and two primary subsurface samples will be collected from each soil boring directed by field screening from a photoionization detector (PID).

5.1.2 Pipelines

Samples will be collected at the joint locations along the aboveground pipeline from Tank 110-D1 to Building 110 as shown on Figure 4. Two soil borings will be drilled to a depth of 20 feet bgs. One primary sample will be collected from each boring between 0 and 2 feet bgs from the interval with the highest PID reading, and two primary subsurface samples will be collected (directed by field screening from a PID) from each.

5.1.3 Intermediate Bulk Container Tote Storage Area

Samples will be collected within the former IBC Tote Storage Area as shown on Figure 4. Four soil borings will be drilled up to a depth of 20 feet. One primary sample will be collected from each boring between 0 and 2 feet bgs from the interval with the highest PID reading, and two primary subsurface samples will be collected (directed by field screening from a PID).

5.1.4 Additional Samples

Two additional borings, located west and southeast of Tank 110-D1, will be advanced to a depth of 20 feet bgs. One primary sample will be collected from each boring between 0 and 2 feet bgs from the interval with the highest PID reading, and two primary subsurface samples will be collected (directed by field screening from a PID).

5.2 Groundwater Sampling

Previous investigations (Attachment B-3) indicate that groundwater is approximately 140 feet bgs near the tank site. Estimated groundwater contours identify groundwater between 80 and 90 feet above mean sea level (USAF 1996; Attachment B-2) which is significantly deeper than the anticipated drilling depth. The approximate ground surface elevation of 225 feet generally confirms the groundwater depth of 140 feet water depth measured near the site. This provides two lines of evidence that groundwater is very deep in the area and is unlikely to have been impacted by small releases.

However, if groundwater is encountered, one primary sample will be collected and analyzed for GRO, DRO, RRO, VOCs, SVOCs, polycyclic aromatic hydrocarbons (PAHs), RCRA metals, mercury, and PCBs as detailed in the associated SAP.

5.3 Sample Analysis

Based on user knowledge and waste determination from the tank contents, soil samples will be submitted for analysis of GRO, DRO, RRO, PAHs, VOCs, SVOCs, metals, mercury, and PCBs. In addition, surface and subsurface soil samples from six soil borings (shown on Figure 4) will be submitted for analysis of PCBs.

Table B-1 EAS Tank 110-D1 Closure Soil Sampling Summary

PROPOSED SAMPLING LOCATION	SAMPLE DEPTH	NUMBERS OF SAMPLES	ANALYTICAL METHOD ¹
AST Concrete Pad Corners (n = 12)	Surface Soil (0-2 feet bgs)	4	GRO – AK 101 DRO – AK 102 RRO – AK 103 VOCs – SW8260D RCRA Metals – SW6020B
	Borings (2-20 feet bgs)	8 (four borings – two samples per boring)	Mercury – SW7471B SVOCs – SW8270E PAHs – SW8270E-SIM PCBs – SW8082
Pipelines (n = 8)	Surface Soil (0-2 feet bgs)	2	GRO – AK 101 DRO – AK 102 RRO – AK 103 VOCs – SW8260D
	Borings (2-20 feet bgs)	4 (two borings – two samples per boring)	Metals – SW6020B Mercury – SW7471B SVOCs – SW8270E PAHs – SW8270E-SIM PCBs – SW8082
IBC Tote Storage Area (n = 12)	Surface Soil (0-2 feet bgs)	4	GRO – AK 101 DRO – AK 102 RRO – AK 103 VOCs – SW8260D
	Borings (2-20 feet bgs)	8	Metals – SW6020B Mercury – SW7471B

Table B-1 EAS Tank 110-D1 Closure Soil Sampling Summary

PROPOSED SAMPLING LOCATION	SAMPLE DEPTH	NUMBERS OF SAMPLES	ANALYTICAL METHOD ¹
		(four borings – two samples per boring)	SVOCs – SW8270E PAHs – SW8270E-SIM PCBs – SW8082
Additional Samples (n=8)	Surface Soil (0-2 feet bgs)	2	GRO – AK 101 DRO – AK 102 RRO – AK 103 VOCs – SW8260D
	Borings (2-20 feet bgs)	4 (two borings – two samples per boring)	Metals – SW6020B Mercury – SW7471B SVOCs – SW8270E PAHs – SW8270E-SIM PCBs – SW8082

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

Samples will be discrete.

¹ Quality assurance/quality control sample quantities can be found in the associated SAP.

5.4 Sample Comparison to Project Action Levels

Sample results will be compared to the project action levels (PALs). Soil PALs are defined as the most stringent between 18 AAC 75 Method Two, Tables B1 and B2, Migration to Groundwater (ADEC 2023) and the EPA Regional Screening Levels for Residential Soil (EPA 2024). The associated SAP will further detail target analytes, analytical methods, screening levels, and laboratory reporting limits for soil samples.

There are many analytes that have PALs less than laboratory reporting limits. Reporting limits exceeding PALs will be flagged but will not be considered a contaminant exceedance.

6.0 FINAL SITE INSPECTION AND REPORTING

A final closure report entitled *Eareckson Air Station Tank 110-D1 Closure Report and Site Assessment/Release Investigation* will be prepared, including a description of visual inspections of the site before, during, and after project work. Photos will be included to document the original and final state of the remaining AST and site conditions. The condition of the concrete foundation and the project area soil will be described in the report and depicted in photos. The report will document whether waste or waste residue is known to remain on site and the state of environmental contamination based on analytical results from soil and groundwater (if encountered) samples. Final disposition of wastes and debris and associated documentation will also be included, along with recommendations for next steps.

Within 60 days of completion of this effort, including the receipt of the validated sampling results, USAF will provide to EPA a Final Report to include its assessment of whether additional action is necessary to protect human health and the environment. If additional action is necessary, USAF will develop a subsequent work plan driven by the data collected and assessed.

7.0 SCHEDULE

The anticipated schedule for the Tank 110-D1 Closure is presented in Table B-2.

Table B-2 EAS Tank 110-D1 Closure Schedule Summary

ACTIVITY	ESTIMATED DATE
Work Plan with Accident Prevention Plan, Tank Closure Plan, SAP Submittal	July 2024
Fieldwork	August 2024
Sample Results	September 2024
Rinsate Disposal	September 2024
Draft Tank Closure Report	15 October 2024
Final Tank Closure Report	30 Days after resolution of EPA comments

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

Tank Closure Plan and Sampling Analysis Plan will be submitted for public comment.

8.0 REFERENCES

- Alaska Department of Environmental Conservation (ADEC). 2018. *Technical Memorandum: Guidance for Evaluating Metals at Contaminated Sites*. August.
- American Petroleum Institute (API). 2018. *Standard 2015 Requirements for Safe Entry and Cleaning Petroleum Storage Tanks, Eighth Edition*. January.
- U.S. Environmental Protection Agency (EPA). 2022. *Eareckson Air Station Consent Agreement and Final Order*. June.
- EPA. 2024. *Regional Screening Levels – Generic Tables as of May 2024*.
<https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>. Accessed May 2024.
- U.S. Air Force (USAF). 1996. *Final Remedial Investigation/Feasibility Study Report. Vol III*. January.
- USAF. 2008a. *CERCLA Record of Decision, West End Oil/Water Separator Ponds (SS007) & Underground Storage Tanks at Building 110 (ST039)*. September.
- USAF. 2008b. *Non-CERCLA Decision Document, West End Oil/Water Separator Ponds (SS007) & Underground Storage Tanks at Building 110 (ST039)*. September.
- USAF. 2010. *Final CERCLA Record of Decision, OT048 (Water Gallery), Eareckson Air Station, Alaska*. March.
- U.S. Army Corps of Engineers (USACE). 2024. *Engineer Manual 385-1-1 Safety and Health Requirements Manual*. February.

This page intentionally blank