



**Decision Document
POL Storage (ST004)**

Final

Oliktok LRRS, Alaska

Prepared By

**United States Air Force
Pacific Air Forces Command
611 CES, Alaska**

March 2008

PART 1: THE DECLARATION

SITE NAME AND LOCATION: This Environmental Restoration Program (ERP) site is known as petroleum, oil and lubricant (POL) Storage site (ST004). It is located at Oliktok Long Range Radar Station (LRRS), 30 miles northeast of the Village of Nuiqsut on Alaska's Arctic Coastal Plain. The Alaska Department of Environmental Conservation (ADEC) Record Key number for this site is 198931X102559. The site is located at 70° 15' 05.30'N latitude and 140° 38' 14.12' W longitude. These coordinates represent the location of sample ST4SS01, which is the approximate center of ST004. The Oliktok LRRS is not listed on the National Priorities List (NPL).

STATEMENT OF BASIS AND PURPOSE: This Decision Document presents the Air Force's decision that no action is necessary at ST004 under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). No CERCLA action is being proposed or selected. This Decision Document was developed in accordance with the Defense Environmental Restoration Program, 10 United States Code (USC) 2701, consistent with CERCLA, 42 USC 9601 (*et seq.*); Executive Order 12580, 52 Federal Register 2923, and to the extent practicable, with Title 40, part 300 of the Code of Federal Regulations (CFR): National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Under CERCLA section 101(14): "petroleum, including crude oil or any fraction thereof," are substances excluded from CERCLA. At ST004, petroleum (or fuel-related) compounds are the sole contaminants; therefore, the cleanup, and closure of the site is being addressed in accordance with State of Alaska laws and regulations.

This decision is based on the Administrative Record file for this site. The Administrative Record can be assessed by the public by contacting the Community Relations Coordinator at (907) 552-8166 or (800) 222-4137. A website with the Administrative Record current through 2003 is also available at:
<http://www.adminrec.com/PACAF.asp?Location=Alaska>

The United States Air Force (USAF) and the State of Alaska, through the ADEC, agree with the decision of no further action under CERCLA. The United States Environmental Protection Agency (USEPA) has deferred regulatory authority at Oliktok LRRS to the ADEC.

DESCRIPTION OF THE SELECTED REMEDY UNDER CERCLA: No remedy has been proposed or selected under CERCLA, as releases at the site are excluded from the CERCLA definitions of hazardous substances, pollutants, or contaminants.

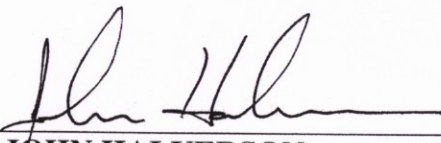
STATUTORY DETERMINATIONS: Because only fuel and related substances are associated with this site, no action is required under CERCLA. Petroleum is excluded from the definition of hazardous substances and pollutants and contaminants under 42 USC § 9601 (14) and (33). Releases of petroleum and related substances identified at ST004 are being addressed in accordance with State of Alaska laws and regulations.

DESCRIPTION OF THE SELECTED REMEDY UNDER STATE LAW: The selected remedy for this site is No Further Action (NFA) and closure under CERCLA and State of Alaska laws and regulations. Under the NFA alternative, no further investigations, sampling or CERCLA remedial actions are necessary at ST004. The risk attributed to the concentrations of petroleum and related substances detected at ST004 has been determined to be insignificant to human health and the environment, including surface water, in its present location. The detected substances were all below risk thresholds established by ADEC.

Site ST004 does not pose an unacceptable risk to human health and the environment because no contaminants remain at this site above ADEC Method One or Method Two Soil cleanup levels for the Arctic Zone (18 AAC 75.341, Tables A2, B1 and B2). These cleanup levels meet the risk management standards of 18 AAC 75.325(h), (i.e., the risk from hazardous substances does not exceed a cumulative carcinogenic risk of 1 in 100,000 and a cumulative non-carcinogenic hazard index of 1.0). The site conditions are protective of human health under all current and projected site uses, including unrestricted residential land use.

AUTHORIZING SIGNATURE: These signatures document the USAF and ADEC approval of the remedy selected in this Record of Decision for site ST004 at the Oliktok LRRS.

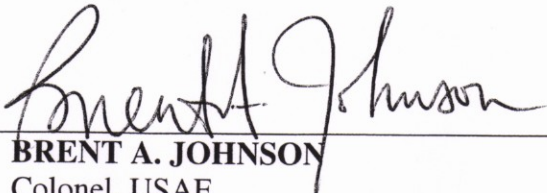
This decision may be reviewed and modified in the future if new information becomes available which indicates the presence of contamination or exposure that may cause a risk to human health or the environment.



JOHN HALVERSON
DoD Cleanup Unit Lead
Federal Facilities Environmental Restoration
Alaska Department of Environmental Conservation

6/2/08

Date



BRENT A. JOHNSON
Colonel, USAF
Commander, 611th Air Support Group

30 MAY 2008

Date

PART 2: THE DECISION SUMMARY

SITE NAME, LOCATION, AND DESCRIPTION: The POL Storage site is designated as ST004. ST004 is part of the Oliktok LRRS, which is located on the shore of the Beaufort Sea and east of the Colville River (Figure 2-1). ST004 is located northeast of the hangar and south of the installation airstrip (Figure 2-2). The main Oliktok LRRS installation is located to the north of the POL Storage site (ST004). It is bordered on the south by a gravel road leading to the hangar. The primary site feature at ST004 is a 100 foot x 200 foot gravel pad surrounded by tundra to the north, east, and west (Figure 2-3). Previous reports stated that this site was used as a storage area for drummed POL products until 1987 (WCC 1987). The gravel pad surface is currently heavily rutted and mounded with a maximum relief of approximately two feet. The lack of defined drainage pathways indicates that surface drainage is primarily overland sheet flow.

The Oliktok facility presently consists of a 22-unit module train containing living quarters, a power generation plant, sewage and water systems, and an incinerator. The radome tower is attached to the module train. The radome tower houses the rotating radar and is supported on a steel-framed platform straddling the modular train. A 4,020-foot long lighted gravel runway is also part of the facility. The CERCLA lead agency addressing ST004 is the United States Air Force (USAF), and the support agency is the State of Alaska Department of Environmental Conservation.

SITE HISTORY AND ENFORCEMENT ACTIVITIES: Oliktok LRRS was operated as an auxiliary Distant Early Warning Line Station between 1954 and 1955. It has been operated by contractors since 1957. In the mid-1980s, a Minimally Attended Radar was installed, which reduced the number of workers required to operate the facility. Generally, two contractor personnel are stationed at the Oliktok LRRS installation year-round. The contract personnel are responsible for the maintenance and management of real property facilities, which include the buildings, roads, grounds, aircraft facilities, antenna structures, and utility plants. Building demolition under the Clean Sweep Program was accomplished in June 2007.

Some of the contaminants encountered during investigations at Oliktok LRRS are gasoline range organics (GRO); polynuclear aromatic hydrocarbons (PAHs); polychlorinated biphenyls (PCBs); POL; diesel range organics (DRO); residual range organics (RRO); semivolatile organic compounds (SVOCs); metals; and volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene and xylene (BTEX). These contaminants are the result of fuel or oil spills.

Past activities potentially resulting in contaminant release at the Oliktok LRRS include:

- Spills during the transfer of fuels in and out of storage tanks;
- Leaks from fuel lines, tanks, and drums;

- Spills or leaks of fuel, lubricants, or solvents during vehicle and equipment maintenance activities;
- Spills or leaks from transformers or other electrical equipment containing PCBs; and
- Disposal of wastes and other discarded material containing hazardous substances.

Investigations were conducted at ST004 in 1993 and 2004. There are no contaminant concentrations exceeding ADEC Method One or Two soil cleanup levels for the Arctic Zone, and as a result no COCs were identified at the site. The 1993 risk assessment concluded that risks posed to human and ecological receptors by site contaminants were minimal given current and future site uses (ICF 1996b). The 1993 RI/FS recommended the site for NFA (ICF 1996a). The site was further investigated during the 2004 RI to confirm previous findings and recommendations. As a result of the 2004 investigation, ST004 is recommended for closure. All ST004 investigations and actions from 1993 to 2004 are summarized or documented in the *Oliktok, Remedial Investigation/Feasibility Study Report for Eight Sites, Final, October 2005* (HCG 2005).

COMMUNITY PARTICIPATION: A Proposed Plan that presented the cleanup alternatives proposed by the USAF for Oliktok LRRS was submitted for public review at a public meeting in Nuiqsut on June 25, 2007. The public comment period for the Proposed Plan was June 25, 2007 to July 24, 2007. The USAF received no requests to extend the public comment period, and no written or verbal comments were received regarding the Proposed Plan.

Additional community involvement activities for Oliktok LRRS include Restoration Advisory Board (RAB) meetings. The Oliktok LRRS is part of the Nuiqsut RAB; it typically meets annually, and occasionally semiannually. A mailing list of interested parties is maintained and updated regularly by the Air Force Community Relations Coordinator. The administrative record for the Oliktok LRRS contains the information used to support this decision and is accessible to the public. A website with the administrative record current up to 2003 is also available to the public at: <http://www.adminrec.com/PACAF.asp?Location=Alaska>. Four information repositories are located in Nuiqsut: the city manager's office, the Nuiqsut High School library, the Native Village of Nuiqsut, and with the RAB community co-chair. The most recent Management Action Plan was published in 2002 (USAF 2002).

SCOPE AND ROLE OF OPERABLE UNIT OR RESPONSE ACTION: This site is not part of an operable unit. There are 10 sites at the Oliktok LRRS being addressed under the Air Force Environmental Restoration Program; however, there is no anticipated migration of contaminants or chemical interaction between this site and the other sites. There is no potential for a response action at this site to affect response actions at any other sites.

SITE CHARACTERISTICS: Site inspections of in 1993 and 2004 found no obvious areas of contamination at the site (ICF 1996b and HCG 2005). However, drums of POL products were stored on the gravel pad until 1987 (WCC 1987). Results of the 1993 and 2004 RI indicated low levels of petroleum hydrocarbon contamination and the

concentrations of detected contaminants were below ADEC cleanup levels under 18 AAC 75.341(c) (Table 2-1) for soil (ICF 1996b and HCG 2005). There are no COCs at the site; therefore, there are no contaminants present that represent a significant risk to human health or the environment. Therefore, risk calculations were not completed for the site. The maximum concentration of DRO detected in the soil was 11 mg/Kg, which is below the ADEC Method One soil cleanup level. ST004 does not appear to be a source of petroleum contamination. In addition, the flat topography at the site suggests that the hydraulic gradient is low such that the active zone water flow should be slow and intermittent. Therefore, contaminant migration and potential impacts to surface water are unlikely.

The ADEC has indicated that the remedial investigation report has met the requirements of State regulation with regards to the investigation of ST004. The site was recommended for NFA and closure (HCG 2005) and ADEC concurred with this recommendation. Details may be found in the Administrative Record File or the Information Repository.

STATUTORY AUTHORITY FINDING: Because only fuel and related substances are associated with this site, no action is necessary under CERCLA. Petroleum contamination has been addressed in accordance with State of Alaska laws and regulations.

REFERENCES:

ICF. 1996a. *Remedial Investigation and Feasibility Study, Oliktok Point Radar Installation, Alaska*. April.

ICF. 1996b. *Final Risk Assessment, Oliktok Point Radar Installation, Alaska*. April.

HCG. 2005. *Remedial Investigation/Feasibility Study for Eight Sites, Final, Oliktok LRRS, Alaska*. October

Woodward-Clyde Consultants (WCC). 1987. *Technical Support Document for Records of Decision, POW-2 Dewline Site*. Final Report.

USAF. 2002. *Final Management Action Plan Oliktok Point Long Range Radar Station, Alaska*. Prepared for the USAF and the U.S. Army. May.

Table 2-1 - ST004 Summary of Detected Contaminants in Soil

| Media | Analyte | Screening Criteria | 1993 RI/FS Maximum Concentration (ICF 1996a) ^{2,3} | 2004 RI/FS Maximum Concentration (HCG 2005) ^{2,3} | 2004 RI/FS Frequency of Detection (HCG 2005) ³ |
|-----------------|-------------------------------|---|--|---|--|
| | | 18 AAC 75 Cleanup Level (Arctic Zone) for Soil ¹ | | | |
| Soil (mg/Kg) | Fuels | | | | |
| | GRO (AK101)/GRPH ^a | 1,400 (100) | 1.03 | 9.26 | 2/2 |
| | DRO (AK102)/DRPH ^a | 12,500 (200/500) | ND (<4.0) | 11 | 2/2 |
| | RRO (AK103)/RRPH ^a | 13,700 (2,000) | NS | 39 | 2/2 |
| | VOCs | | | | |
| | Benzene | 13 | ND (<0.025) | 0.00968 F | 1/2 |
| | Ethylbenzene | 89 | ND (<0.025) | 0.0344 F | 1/2 |
| | total Xylenes | 81 | 0.097 | 0.0688 | 1/2 |
| | Toluene | 180 | 0.054 | 0.0442 F | 1/2 |
| | PAHs | | | | |
| | Fluorene | 5,500 | NS | 6.78 | 1/1 |
| | Naphthalene | 180 | NS | 5.32 F | 1/1 |
| | Phenanthrene | -- | NS | 4.2 F | 1/1 |

1- Lowest value of ingestion or inhalation shown from 18 AAC 75, Tables B1 and B2, referred to as "Method Two Cleanup Levels" for the Arctic Zone.

Method Two cleanup levels are considered protective of surface water. Method One Cleanup Levels for GRO, DRO and RRO are in parenthesis.

The cleanup level for DRO may be 500 mg/Kg for diesel spills to gravel pads if total BTEX concentrations are less than 15 mg/Kg and benzene is less than 0.5 mg/Kg.

2- All detections shown. Only the highest historically detected values shown, if multiple detections.

3- 1993 data taken from *RI/FS, Oliktok Point Radar Installation* (ICF 1996a).

2004 data from *RI/FS Report for Eight Sites* (HCG 2005).

a - Methods used in 1993 were GRPH, DRPH and RRPB, which are comparable to current AK Methods for GRO, DRO and RRO.

Abbreviations

" -- " Screening criteria did not exist for this compound.

" = " A detected compound.

F Estimated quantity below the PQL.

ND Compound not detected (with PQL in adjacent parentheses).

NS Not sampled

PQL Practical Quantitation Limit

MDL Method Detection Limit

Shaded result indicates an exceedance of the corresponding media-specific screening criteria (soil =Method Two Cleanup Levels)

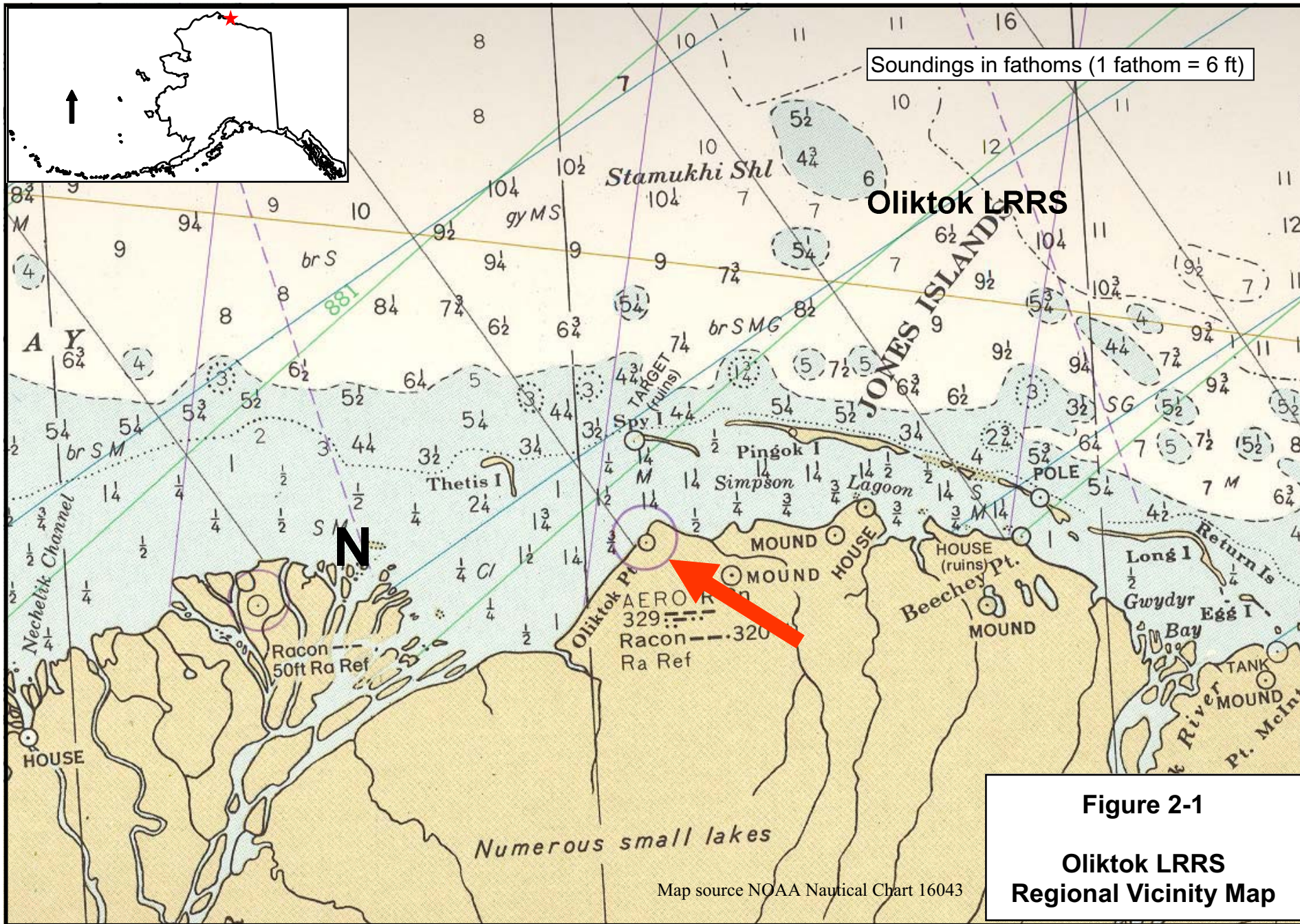


Figure 2-1
Oliktok LRRS
Regional Vicinity Map





OLIKTOK LRRS
SITE PLAN OF POL STORAGE (ST004)
SUMMARY OF SAMPLE LOCATIONS
 OLIKTOK LRRS, ALASKA

| | |
|-------------|----------|
| PROJECT NO: | 9702-042 |
| DATE: | 1-16-08 |
| FIGURE NO: | 2-3 |

