



# Alaska Department of Environmental Conservation Spill Prevention and Response

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## PORT HEIDEN RADIO RELAY STATION


[View detailed information from database on this site.](#)
**Status:** Active

**Database Name:** Port Heiden or Port Moller

**Location:** Port Heiden, on the north side of the Alaska Peninsula

**Latitude/Longitude:** See database entries

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Contacts updated: March 27, 2014

Summary updated: February 2008

Public comment sought until March 20th, 2008, on the

### Proposed Plan for Cleanup Action at the Former Facility Area Port Heiden RRS, Alaska

Your comments and suggestions about the cleanup alternatives in this Proposed Plan are important to the Air Force, DEC and EPA. Comments that the public provides are valuable in helping the agencies select a final remedy for the Former Facility Area at Port Heiden RRS, Alaska. You can download a copy of the Proposed Plan here: **Port Heiden Proposed Plan**, February 15, 2008 ([PDF 683K](#))

You can download a comment card here ([DOC 65K](#)) to submit your comments. When you are finished, please fold and mail. A return address has been provided on the back of this page for your convenience. Comments must be postmarked by March 20, 2008. If you have any questions, please contact Tommie Baker at 907-552-4506 or 1-800-222-4137.

## DESCRIPTION

Port Heiden is located on the north side of the Alaska Peninsula, approximately 400 air miles southwest of Anchorage. The town has two former military installations:

- Fort Morrow was a WWII Army Air Corps base (now a formerly used defense site, or FUDS). Information on the fort is not included in this site summary.
- Port Heiden Radio Relay Site (RRS) or White Alice Communication System (WACS) site, a portion of which is still owned by the Air Force.



View of former site of the Port Heiden Radio Relay Station, with drawing indication locations of key features.

In 1942 the War Department acquired over a million acres for Fort Morrow. The old fort consisted of several hundred buildings, housed as many as 5,000 personnel, and had a footprint covering several square miles. The site was abandoned following WWII.

In the 1950s the Air Force acquired 172 acres within the former Fort Morrow and constructed the White Alice site. Port Heiden was also one of 12 Distant Early Warning (DEW) line radar stations constructed

throughout Alaska. From 1950 through 1959, 18 Aircraft Control and Warning and 12 Distant Early Warning (DEW) line radar stations were constructed throughout Alaska to detect possible attacks from the Soviet Union. These numbers include an Aleutian segment of DEW line stations consisting of the main station at Cold Bay and auxiliary stations at Port Heiden, Port Moller, Cape Sarichef, Driftwood Bay, and Nikolski. The White Alice sites formed a U.S. Air Force telecommunication link system in Alaska during the cold war for military and civilian purposes. Each site had large parabolic, tropospheric scatter antennas.

The Air Force operated the WACS in Port Heiden until 1969 when it was converted to a Radio Relay Site (RRS), which became obsolete in the 1970s and was abandoned in November 1978. The Village of Meshik was located along the shoreline, but residents have been moving from the old village site to higher ground near the airport and the former White Alice site. Approximately 100 people live at Port Heiden.

The site had consisted of the Former Facility Area, the Marine Terminal Area (a former location of a petroleum, oil, and lubricant [POL] tank farm and pump house), and a Former Pipeline Corridor connecting the Marine Terminal Area to the Former Facility Area. There are approximately 18 source areas at this site. No buildings or structures left at the site.

## PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS

Soil is contaminated with PCBs, chlorinated solvents, diesel and other petroleum constituents. Groundwater contains chlorinated solvents, diesel and other petroleum constituents. Multiple releases aboveground and below ground have occurred at the former facility.

People may be exposed to pollutants through dermal contact or accidental ingestion of contaminated soil or water. Contaminants that have bioaccumulated in fish and other wildlife may also pose a health threat to humans.

## CURRENT STATUS

**1981-1986:** Air Force 5099th Civil Engineering and Operations Squadron removed hazardous material and removed soil impacted by PCB contamination.

**1986-1988:** United States Army Corps of Engineers (USACE) conducted site investigations and prepared bid documents for the complete demolition and restoration of site.

**1990-1992:** USACE and various contractors conducted a complete demolition of the site; removal of hazardous wastes and PCB- and petroleum-impacted soil.

**1995:** 611th Air Support conducted a preliminary assessment and site inspection, including the collection of soil samples.

**2000:** 611th Air Support collected soil samples at those sites previously identified for further investigation.

**2003:** USACE under the Native American Lands Environmental Mitigation Program, all private drinking water supply wells in the community of Port Heiden were sampled.

**2004:** 611th Air Support initiates the RI/FS process to identify any remaining contamination and evaluate risks.

**2005:** 611th Air Support finalizes RI/FS for work performed on 18 sites at the Port Heiden Radio Relay Station (RRS) from May through September of 2004. The field investigation collected sufficient data to delineate the nature and extent of contamination present at the sites.

**2007:** 611th Air Support awards a performance-based contract (PBC) for cleanup of sites at Port Heiden RRS which includes the Proposed plan, Record of Decision and implementing remedial actions.

### OT001 - Former Composite Building and Antenna Arrays

IRP Site OT001, which encompasses the Former Facility Area gravel pad, contains the former composite building, four former White Alice Arrays, suspected debris burial sites, and four former underground storage tank (UST) locations around the former composite building. The composite building was constructed of reinforced concrete slabs and contained offices, dormitories, storage space, a garage, and a generator room. The White Alice Arrays consisted of feed horns and billboard antennas.

### Black Lagoon Outfall (WP002 - POL Waste Disposal Pit NO. 1)

POL and other waste fluids were poured into a floor drain in the garage at the composite building, piped approximately 500 feet downslope to the west, and discharged into a bermed ponding area named the Black Lagoon. Previous investigations (1987, 1988, and 1990) determined that up to 4,000 cy of soil contained total petroleum hydrocarbons (TPH) above the previous screening criteria of 5,000 mg/Kg, with analytical results as high as 67,000 mg/Kg. Contamination was thought to be confined to the upper 12 feet

of soil.

**LF008 - Debris Burial Sites (Suspected)**

Documents from previous work at the Port Heiden RRS indicate that several small Debris Burial Sites exist. Locations of the burial sites were not described in detail in most cases; however, general descriptions were given. One "L" shaped debris burial area is shown on a drawing from a previous Air Force clean-up project. The cell is labeled "Dump Debris from Building Non-Hazardous." The drawing also shows two small burial cells to the east of the Former Facility Area pad along the access road and shows a fourth possible burial cell to the south of the Former Facility Area pad.

A 1994 PA report (USAF, 1994) shows one burial site, "Burial Site I" located within the boundaries of the Drum Storage Area. The report also describes seven other burial sites, but does not describe locations. The report states that these sites were used to bury empty World War II-era drums. Other potential Debris Burial Sites were chosen for investigation based on features visible on aerial photos.

**Gray Lagoon Outfall (WP003 - POL Waste Disposal Pit NO. 2)**

The Gray Lagoon is located approximately 250 feet north of the former composite building. Previous investigations found the lagoon to be approximately 70 feet by 100 feet and suggested the presence of an underground cable leading into the lagoon. It was not determined where the cable originated, but it was suggested that it may have been associated with an underground corridor (similar to a culvert or drain) for product transport to the lagoon.

**Radio Relay Station Landfill (LF07)**

The Radio Relay Station Landfill is located approximately 1,000 feet north of the former composite building location. There has been no previous investigation of this landfill. An aerial photo of the Former Facility Area taken during operation of the facility in 1965 clearly shows the open area where debris was deposited.

**Septic Tank and Septic System Outfall (SS004)**

The septic tank piping ran west from the former composite building to the septic tank; the piping was approximately 200 feet in length. Piping from the septic tank branched off to the northwest, continued under a manmade dirt ridge for approximately 250 feet, and turned west into an outfall area. The septic tank was abandoned during the 1990 DERP activities. The piping was left in place.

**Former Pipeline Corridor (SS006)**

The Former Pipeline Corridor consisted of a two-inch fuel pipeline, approximately 5.8 miles in length, that extended southwest from the former composite building to the Marine Terminal Area. The pipeline was operated by the Air Force until the Former Facility Area was abandoned in 1978. At some point between when the Air Force abandoned the site in 1978 and when the Former Facility Area was demolished during DERP activities in 1990, Reeve Aleutian Airways reactivated the pipeline and used it to transport fuel from the Marine Terminal Area to the Airport. Reeve had installed a junction in the pipeline that extended the pipeline east under the road and to two large ASTs located at the Airport ramp. Ownership of the pipeline from the Marine Terminal Area to the Airport was reportedly transferred from the DOD to Reeve

**POL Tank Farm (Marine Terminal Area) (SS005)**

The Marine Terminal Area contained two aboveground 250,000-gallon fuel storage tanks, a fuel pumphouse, and fuel distribution pipes. Contaminant source areas were initially designated as Spills 21, 22, and 23. Spills 21 and 22 consisted of the tank ring sands below the former aboveground fuel storage tanks and the fill and native soils surrounding the former tank rings. Spill 23 was contiguous to Spills 21 and 22, and consisted of a former fuel pumphouse and supply line connected to the ASTs. Eventually, all three spill areas overlapped and soil removal became one large excavation. The entire area was eventually designated Spill 22.

**2003 Port Heiden Residential Drinking Water Well Sampling**

In 2003, 42 private drinking water wells in the community of Port Heiden were sampled due to concern that aquifer quality may have been affected by past Air Force and Army activities. The wells were sampled by the USACE through the Native American Lands Environmental Mitigation Program. Drinking water samples were analyzed for VOCs, polycyclic aromatic hydrocarbons (PAHs), GRO, DRO, PCBs, pesticides, and metals. North Creek Analytical Laboratory in Portland, Oregon analyzed samples. Results of this study are presented in *Limited Drinking Water Quality Assessment of Domestic Wells in the Native Village of Port Heiden*. Results indicate that organic chemicals were found in seven out of 42 samples, all of them at trace concentrations.

None of the chemicals were present in concentrations above drinking water standards. Several metals were also detected in samples. All were below drinking water standards except iron; which was found above the drinking water standard in 28 of 42 samples but determined to be naturally occurring. The report concluded that all other metals detected were naturally occurring. In addition, the report concluded that the quality of the aquifer section supplying drinking water wells was not adversely impacted by previous Air Force and Army activities.

[MORE INFORMATION](#)

- ▶ [Port Heiden Proposed Plan](#), February 15, 2008 ([PDF 683K](#))
- ▶ [Administrative record for most 611 CES sites in Alaska](#)

**Contaminated Sites Database reports** - There are a number of individual "contaminated sites" on the air station, and reports on the status of each is available on DEC's database. We have a glossary available to help you with any acronyms used in the reports.

- ▶ [Port Moller AFS Radio Relay Site](#)
- ▶ [Port Heiden SS06 POL Pipeline](#)
- ▶ [Port Heiden SS05 POL Tankfarm](#)
- ▶ [Port Heiden SS04 Septic Tank](#)
- ▶ [Port Heiden OT01 Composite Fac.](#)
- ▶ [Port Heiden WP02 Black Lagoon](#)

Port Heiden sites not discussed in this site summary:

- ▶ [Port Heiden - Fort Morrow FUDS](#)
- ▶ [Port Heiden AOC07 Landfill A \(FUDS\)](#)
- ▶ [Port Heiden AOC08 Landfill B \(FUDS\)](#)

[Glossary/Acronyms](#) [Site Map](#) [Commissioner](#) [Public Notices](#) [External Links](#)

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