THE STATE of ALASKA
GOVERNOR MICHAEL J. DUNLEAVY

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File: 380.38.002

7 January 2019

Ron Broyles
CEPOA-PM-ESP, Room 220
PO Box 6898
JBER, AK 99506-0898

Re: Decision Document: Collinson Point Former Distant Early Warning Line Station - Cleanup Complete Determination (Four Sites)

Dear Mr. Broyles:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with multiple sites associated with Collinson Point Former Distant Early Warning Station, located at Collinson Point, Alaska. The following sites are currently 'Active' in the Contaminated Sites database at the Station:

1. Collinson Point DEW Line AST (Aboveground Storage Tank) Pad and AST Pond
2. Collinson Point DEW Line Composite Building Area
3. Collinson Point DEW Line Quonset Hut #3
4. Collinson Point DEW Line Shop Building Area

Based on the information provided to date, it has been determined that the contaminant concentrations remaining at each of the referenced sites located at the Collinson Point Station 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 Collinson Point Station records located in the DEC office in Fairbanks, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Names DEC Hazard ID No. (File No. 380.38.002)	
1. Collinson Point DEW Line AST Pad and AST Pond	Haz ID No: 25329
2. Collinson Point DEW Line Composite Building Area	Haz ID No: 25332
3. Collinson Point DEW Line Quonset Hut #3	Haz ID No: 25330
4. Collinson Point DEW Line Shop Building Area	Haz ID No: 25331
Facility Name and Location:	
Collinson Point Former Distant Early Warning Site Simpson Cove, Camden Bay, Alaska Near Kaktovik, Alaska 99747	
Name and Mailing Address of Contact Party:	
Ron Broyles CEPOA-PM-ESP, Room 220 PO Box 6898 JBER, AK 99506-0898	
Regulatory Authority for Determination: 18 AAC 75	

Site Description and Background

The Collinson Point DEW Line Station is located approximately 40 miles southwest of Kaktovik, Alaska, on the shore of Simpson Cove at Camden Bay on the Beaufort Sea (Figure 1). The facility is located within the Arctic National Wildlife Refuge (ANWR) at 69.974692 latitude and -144.835815 longitude. Ownership of Collinson Point was transferred to the United States Air Force (USAF) in 1957, when the entire DEW Line became active. Following deactivation in 1962, site ownership was transferred to the U.S. Navy in 1965. In 1970, ownership was transferred to the United States Bureau of Land Management (BLM). When ANWR was created in 1980, ownership was transferred to the United States Fish and Wildlife Service. Most site structures have been removed. The gravel pads remain as does the concrete foundations for the former Composite Building, Shop Building and Warehouse Building.

There were five areas of concern with 'Active' status on the Contaminated Sites Database at the facility. This letter does not address the Collinson Point DEW Line POL Pipeline Corridor project (Hazard ID No. 25328) for which the status is currently under evaluation. The site description and backgrounds for the remaining four sites are provided below.

<u>AST Pad and AST Pond</u>

The proposed remedial actions were described in a 2013 Decision Document recommending cleanup due to the presence of diesel range organic (DRO) contamination in soil and the adjacent pond. This resulted from general use of the area as a fuel storage area. The AST Pad included the former fuel pumphouse and AST filling stands, and a 6.5-inch diameter pipeline. The ASTs were removed in 1985, and natural tundra ponds remained adjacent to the both sides of the pad, with the pond on the east side referred to as the Adjacent AST Pond. DRO concentrations were detected in pond water to the east of the pad.

<u>Composite Building</u>

The recommended remedial actions were described in a 2013 Decision Document that included cleanup due to the presence of polychlorinated biphenyls (PCBs) in soil and concrete. The structure was a 30 feet (ft.) by 130-ft. structure with a garage on a concrete slab-on-grade floor on its west end. The remainder of the building sat on wooden pilings and housed generators and electronic equipment. Petroleum, oil and lubricant (POL) piping entered the east end of the building where the generators were located.

Quonset Hut #3
The 2013 Decision Document recommended cleanup at this site due to the presence of PCBs in soil. The building was situated on a small gravel pad about 100 yards east of the main station pad and connected to the main pad by a gravel road. A tundra pond is located to the south. Quonset Hut #3 was likely used for housing personnel.

Shop Area
At the Shop Area, the 2013 Decision Document recommended cleanup due to DRO- and PCB-contaminated soil in two separate areas. The 30-ft. by 40-ft. Shop Area was south of the Warehouse Building and built on an elevated concrete slab positioned on treated wood pilings. Reports identified the open sump in the shop floor as a source of contamination to the gravel pad below, which was confirmed through subsequent sampling.

Contaminants of Concern
Various POL and solvent contaminants were evaluated as Potential Contaminants of Concern (PCOCs) in soil, sediment and surface water. PCOCs included fuels, fuel components, solvents, semi-volatile organic compounds, PCBs, pesticides, and metals. Only two contaminants were identified above CULs: DRO and PCBs (in soil and concrete).

Cleanup Levels
Cleanup levels identified for this site and documented in the 2013 Decision Document are based on applicable state requirements promulgated in Alaska Administrative Code, 18 AAC 75.341(c,d) - Tables B1 and B2 apply to this site.

Table 1: Comparison of Cleanup Levels by Site (DEC Method 2)

Site or Area of Concern	Contaminant of Concern	Highest Detected Concentration	Cleanup Level by Exposure Pathway
AST Pad and AST Pond	DRO	25,200 mg/kg	12,500 mg/kg (inhalation/ingestion)
Composite Building, Garage Area Soil/Slab	PCBs	4.4/30.7 mg/kg	1 mg/kg (direct contact)
Quonset Hut #3 Area Soil	PCBs	1.3 mg/kg	1 mg/kg (direct contact)
Shop Building Area Soil	DRO	22,200 mg/kg	12,500 mg/kg (inhalation/ingestion)
	PCBs	2.87 mg/kg	1 mg/kg (direct contact)

Note: the DEC cleanup level for PCBs in soil was applied to concrete.

Characterization and Cleanup Activities

Remedial actions were initiated in June 2000 which included demolishing and removing multiple buildings, fuel pipelines, and a fallen tower. Abatement and debris removal were coupled with environmental sampling, remediation and site restoration. Contaminated soil excavation was conducted in subsequent years, and most recently in 2016 to address PCB and/or DRO soil contamination above the cleanup level at the AST Pad, Composite Building, Quonset Hut #3, and Shop Area. At PCB excavation areas, a 15-ft. by 15-ft. excavation and sampling grid was marked out through a survey whereby contaminated soil excavation was conducted by removing approximately 1 foot of soil in each grid cell before collecting discrete excavation confirmation soil samples from the floor and each sidewall. POL-contaminated soil excavation was guided on visual and olfactory evidence as well as a photoionization detector (PID) field screening results. Contaminated soil excavation continued until the field screening results indicated soils were either below the cleanup levels, or pore water and/or permafrost was encountered. Confirmation samples were collected from locations with the highest PID field screening results except for the AST Pad floor confirmation sample, which was collected as a multi-incremental (MI) soil sample. The following summarizes site-specific activities at each location.

AST Pad and AST Pond

After test pitting activities were completed, petroleum contaminated soil was first segregated based on visual and olfactory evidence and PID field screening results. Contaminated material was transported to the landspread treatment cells. Soil was excavated down to pore water level of highly organic peat layer of the original ground surface. The Pumphouse concrete pad was removed and buried against the north side of the Warehouse Building foundation pad, while wood and metal debris was buried against the southern side of the pad.

The excavation area was about 7,700 square feet and 925 tons of petroleum contaminated soil were removed. The bottom of the excavation area was tilled prior to employing incremental sampling methods. Although ponded water infiltrated the excavation floor and a sheen was visible, no further removal was required as all confirmation samples were below cleanup levels.

Composite Building

PCBs were identified as the primary COC at this location, and all excavated material was to be removed from the site. Excavations targeted areas with historical sample exceedances. Following an initial round of excavation, confirmation samples exceeded cleanup objectives, and a second round of soil excavation was conducted that advanced to the top of a concrete pad. Approximately 59 tons of PCB-contaminated soil was excavated from this site and packaged in 5-cy bulk bags.

Following soil removal the garage concrete pad was demolished and inadvertently placed in a trench along south side of Warehouse Building, and covered with clean material. This slab was slated for removal from the site, and in 2017, field activities unearthed the material, removed it from the site, and resampled the trench into which it had been placed to ensure no cross contamination occurred.

Quonset Hut #3

Previous investigations identified PCBs in soil in two locations that were targeted for removal in 2016. Two grid cells were established and approximately 18 tons of soil were removed in 3 bulk bags. The excavation was advanced to just above the water table of the adjacent pond and varied in depth from 4 to 12 inches below grade. The area of extent was estimated at 471 sq. feet.

Shop Area

Cleanup was determined necessary due to the presence of DRO- and PCB-contaminated soil in two separate areas. Excavation was initiated on the east side of the concrete pad where PCB contamination

was present. Approximately 44 tons of PCB-contaminated material were removed between the pad and a marsh to the east. Sampling was completed in accordance with the DEC-approved work plan verifying that remaining PCB impacts were < 1 mg/kg. The area of excavation was estimated at 336 square feet. Further excavation to remove DRO contamination was completed on the south side of the concrete pad, where 4.5 tons of material were removed for landspreading. The excavation was estimated at 158 square feet. A final area along the southern edge of the shop building resulted in the removal of 18 tons of RRO-contaminated soil in 2017.

Cumulative Risk Evaluation
Pursuant to 18 AAC 75.325(g) and 18 AAC 78.600(d)], 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 non-carcinogenic risk standard at a hazard index of one across all exposure pathways.

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

Exposure Pathway Evaluation
Following investigation at the site, exposure to the remaining contaminants was evaluated using DEC'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, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included as an attachment in Table 1, Exposure Pathway Evaluation.

DEC Decision
Soil contaminants remaining at the site are below the approved cleanup levels suitable for residential land use or are considered 'naturally occurring' at the site. 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 off-site requires DEC approval in accordance with 18 AAC 75.325(i) and 18 AAC 78.600(h). A "site" as defined by 18 AAC 75.990 (115) and 18 AAC 78.995(134) 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.

This determination is in accordance with 18 AAC 75.380 and 18 AAC 78.276(f) and does not preclude DEC 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 15 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 me at (907) 451-2166, or email at john.carnahan@alaska.gov.

Sincerely,

Digitally signed by John Carnahan
DN: cn=John Carnahan, o=Contaminated Sites Program, ou=DEC Division of SPAR, email=john.carnahan@alaska.gov, c=US
Date: 2019.01.07 07:47:59 -09'00'

John Carnahan
Project Manager

Attach: Table 1
Site Figures

cc: Spill Prevention and Response, Cost Recovery Unit

Table 1 – Exposure Pathway Evaluation
Multiple Sites – Collinson Point Former Distant Early Warning Line Station

Pathway - Explanation	AST Pad and Pond	Composite Building	Quonset Hut #3	Shop Area
Surface Soil Contact - Concentrations of petroleum contaminants remain in surface soil below cleanup levels.	De minimis Exposure	De minimis Exposure	De minimis Exposure	De minimis Exposure
Subsurface Soil Contact - Concentrations of petroleum contaminants remain in subsurface soil below cleanup levels.	De minimis Exposure	Pathway Incomplete	Pathway Incomplete	Pathway Incomplete
Inhalation (Outdoor Air) - Concentrations of petroleum contaminants were below inhalation cleanup levels.	Pathway Incomplete	Pathway Incomplete	Pathway Incomplete	Pathway Incomplete
Groundwater Ingestion – Supra-permafrost groundwater is not a potential drinking water source and concentrations of metals are naturally occurring.	Pathway Incomplete	Pathway Incomplete	Pathway Incomplete	Pathway Incomplete
Surface Water Ingestion - No contamination identified in surface water, and is not used as a drinking water source in the vicinity of the site.	Pathway Incomplete	Pathway Incomplete	Pathway Incomplete	Pathway Incomplete
Wild and Farmed Foods Ingestion - Concentrations of metals in soils are naturally occurring.	Pathway Incomplete	De minimis Exposure	De minimis Exposure	De minimis Exposure
Inhalation – Indoor Air (vapor intrusion) No structures are present nor anticipated to be constructed at site. Concentrations below residential target levels.	Pathway Incomplete	Pathway Incomplete	Pathway Incomplete	Pathway Incomplete
Other Human Health – None applicable	Pathway Incomplete	Pathway Incomplete	Pathway Incomplete	Pathway Incomplete
Exposure to Ecological Receptors - Concentrations of metals in soils are naturally occurring.	De minimis Exposure	De minimis Exposure	De minimis Exposure	De minimis Exposure

Notes to Table 2: "De minimis Exposure" means that in DEC's judgment receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination. "Pathway Incomplete" means that in DEC's judgment contamination has no potential to contact receptors. "Exposure Controlled" means there is an institutional control in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

Date: 15 Nov 2016 Created by: SJ K:\PROJECTS\Army\Collinson_Nuvagapak\MXDs\2016\2016_Collinson_RA-01.mxd

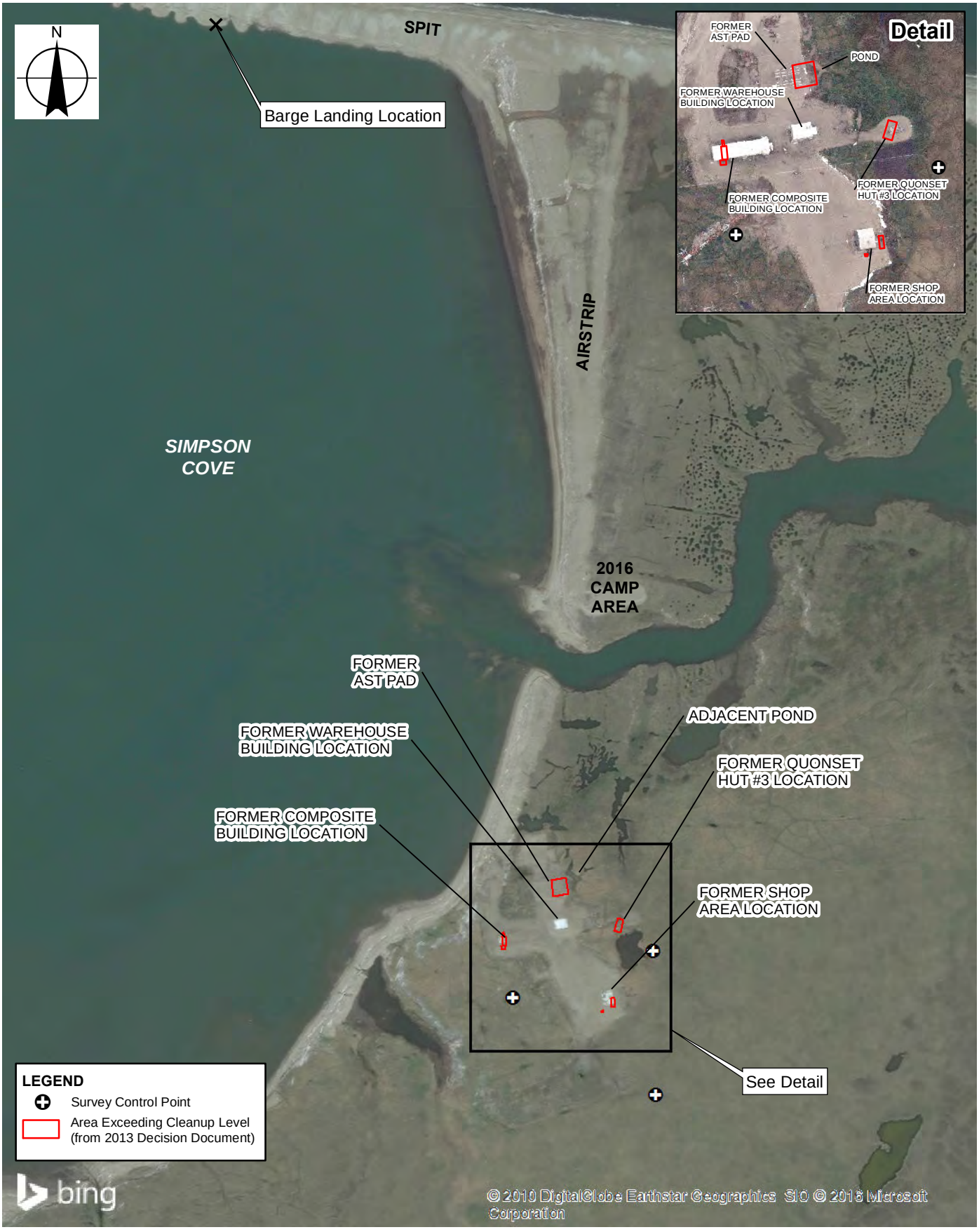
COLLINSON POINT LOCATION AND VICINITY MAP

U.S. Army Corps of Engineers
Collinson Point, Alaska

FIGURE

1

DATE:
15 NOV 2016



0 100 200 400 600 Feet

COLLINSON POINT SITE MAP

U.S. Army Corps of Engineers
Collinson Point, Alaska

FIGURE 2

DATE: 21 NOV 2016

Date: 21 Nov 2016 Drawn by: SJ K:\PROJECTS\Army\Collinson_Nuvagapak\MXDs\2016\2016_Collinson_RA-02.mxd