

# STATE OF ALASKA

**DEPT. OF ENVIRONMENTAL CONSERVATION**  
**DIVISION OF SPILL PREVENTION AND RESPONSE**  
**CONTAMINATED SITES PROGRAM**

**SEAN PARNELL, GOVERNOR**

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File: 330.38.070  
Certified Receipt Requested  
Article No: 7008 1830 0002 6349 4159

February 24, 2010

Jan Shifflet  
Alyeska Pipeline Service Company  
Mail Stop 507 PO Box 196660  
Anchorage, AK 99519-6660

Re: Closure Decision Document; Alyeska PS 06 Jet Stand  
Cleanup Complete Determination-Institutional Controls

Dear Mr. Shifflet:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Alyeska Pump Station (PS) 06 Jet Stand located at approximately Mile 55 of the Dalton Highway. 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 as long as the site is in compliance with established institutional controls.

This decision is based on the administrative record for the Alyeska PS 06 Jet Stand site which is located in the offices of the ADEC in Anchorage, Alaska. This letter summarizes the decision process used to determine the environmental status of this site and provides a summary of the regulatory issues considered in the Cleanup Complete with ICs determination.

## **Introduction**

### Site Name and Location

Alyeska PS 06 Jet Stand  
Mile 55 Dalton Highway  
Near Minto, Alaska

### Name and Mailing Address of Contact Party:

Jan Shifflet  
Alyeska Pipeline Service Company  
Mail Stop 507  
PO Box 196660  
Anchorage, AK 99519-6660

Database Record Key and CS file number:

CS file # 330.38.070

Hazard ID: 3115

Regulatory authority under which the site is being cleaned up:

18 AAC 75

**Background**

A release of Jet Propellant (JP) 4 fuel occurred south of the JP-4 dispensing building near the eastern edge of Pump Station (PS) 06 on December 10, 1998. After fueling the dispenser building, an employee unhooked the coupling for a hose leading from the tanker to the building but did not close the truck valve, resulting in a release of approximately 20 gallons of JP-4. The impacted snow was picked up and bagged for disposal, but excavation of impacted soil was postponed until the summer of 1999.

**Contaminants of Concern**

During the investigations at this site, soil samples were analyzed for diesel range organics (DRO) and benzene, toluene, ethylbenzene, and xylenes (BTEX). Based on these analyses and knowledge of the source area, the following Contaminants of Concern were identified:

- Benzene
- Diesel Range Organics (DRO)

**Cleanup Levels**

The default soil cleanup levels for this site are established in 18 AAC 75.341 Tables B1 and B2, Under 40 inch Zone, Migration to Groundwater.

<u>Contaminant</u>	<u>Site Cleanup Level (mg/kg)</u>
Benzene	0.025
DRO	250

**Site Characterization and Cleanup Actions**

In July 1999, approximately 25 cubic yards of impacted soil were excavated from the former spill area down to a depth of 4 to 5 feet below ground surface (bgs). Impacted soil was left in place under the fuel dispensing building to ensure integrity of the building foundation. Excavation confirmation samples contained concentrations up to 0.15 mg/kg benzene and 950 mg/kg diesel range organics (DRO) immediately adjacent to the fuel dispenser building.

Groundwater monitoring was not conducted for this site specifically, but is ongoing in relation to the PS 06 Leach Field/Fuel Island site.

**Pathway Evaluation**

The exposure pathways for human health that were evaluated include the following: ingestion of soil and groundwater, indoor and outdoor inhalation of vapors, and direct contact with soil. Exposure pathways are the conduits by which contamination may reach human or ecological receptors. Potential exposure pathways, presented in Table 1, were evaluated using ADEC's Exposure Tracking Model (ETM).

All potential exposure pathways are either de minimis, incomplete, or controlled. "De minimis exposure" means that in ADEC's judgment humans or wildlife will be minimally affected by the small volume of remaining contamination. "Pathway incomplete" means that in ADEC's judgment contamination has no potential to contact humans or wildlife. "Exposure controlled" means there is an administrative mechanism in place limiting land or groundwater use, or a physical barrier in place that deters contact with residual contamination.

DRO and benzene concentrations remaining in the soil were confirmed to be above cleanup levels for migration to groundwater. However the exposure risk for this pathway is considered acceptable, primarily because the amount of contaminated soil was determined to be de minimis in extent. The groundwater ingestion exposure pathway is further protected by the use of drinking water from a source several miles away. A previous drinking water well located at PS 06 was installed below permafrost and was reported to have a static water level of 606 feet bgs.

The exposure pathway analysis was supported by the most recent ADEC Exposure Tracking Model (ETM) ranking. The ETM results showed all pathways to be one of the following: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete.

**Table 1 – Exposure Tracking Model Results**

Pathway	Result	Explanation
Surface Soil Contact	De minimis exposure	Soil contamination remaining is below surface and below former building. Any remaining soil contamination at the surface is de minimis in volume.
Sub-Surface Soil Contact	De minimis exposure	The original volume estimated to be 20 gallons and 25 cubic yards of soil was removed. Confirmation samples showed levels below direct contact. Extent of contamination above direct contact levels is de minimis.
Inhalation – Outdoor Air	De minimis exposure	Benzene levels below preliminary action levels, and considered to be de minimis.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	This is a pump station and no occupied buildings are present or expected to be constructed in the future. Furthermore remaining contaminant concentrations are below inhalation cleanup levels, and de minimis in volume.
Groundwater Ingestion	De minimis exposure	Amount of remaining contaminated soil is considered to be de minimis in extent. Further, the area is reported to be underlain by permafrost, and previous on-site DW well had static water level several hundred feet bgs.
Surface Water Ingestion	Pathway Incomplete	No evidence of offsite migration therefore this pathway is considered

		incomplete
Wild Foods Ingestion	Pathway Incomplete	Site is a gravel pad in a fenced, secure area; contaminants of concern do not have the potential to bioaccumulate in plants or animals; and wild foods are not harvested in this area. Therefore this pathway is incomplete.
Exposure to Ecological Receptors	Pathway Incomplete	Site is a gravel pad in a fenced, secure area; no evidence of off-site migration; and wild foods are not harvested. Therefore this pathway is considered incomplete.

### ADEC Decision

There is contamination remaining above established cleanup levels at the Alyeska PS 06 Jet Stand but ADEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup Complete- ICs determination subject to the following.

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, current ICs may not be protective and ADEC may require additional remediation and/or ICs. Therefore the Alyeska Pipeline Services Company shall report to ADEC every five years to document land use, or report as soon as Alyeska Pipeline Services Company becomes aware of any change in land ownership and/or use, if earlier. **The report can be sent to the local ADEC office or electronically to [DEC.ICUnit@alaska.gov](mailto:DEC.ICUnit@alaska.gov).**
2. Any proposal to transport soil or groundwater off site requires ADEC 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.)
3. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
4. Soil contamination is located in the area of the Jet Shed (see attachment B). When the soil in this area becomes accessible, the soil must be evaluated and contamination addressed in accordance with an ADEC approved work plan.

The ADEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above, and will include a description of the contamination remaining at the site. When the site meets the requirements for a Cleanup Complete determination, then the Institutional Controls will be terminated.

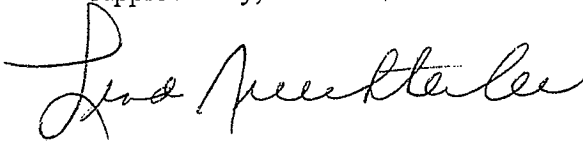
This determination is in accordance with 18 AAC 75.380(d) and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

**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, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, 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, Juneau, Alaska 99801, 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.

**Please sign and return *Attachment A* to ADEC within 30 days of receipt of this letter.** If you have questions about this closure decision, please contact the ADEC project manager, Keather McLoone at (907) 269-7526.

Approved By,



Linda Nuechterlein  
Environmental Manager

Recommended By,



Keather McLoone  
Environmental Specialist

Attachment A: Cleanup Complete-ICs Agreement Signature Page

Attachment B: Site Figure.

Cc: Scott Rose, SLR  
Jerry Brossia, JPO  
Gary Schultz, ADNR

**Attachment A: Cleanup Complete-ICs Agreement and Signature Page\***

Alyeska Pipeline Service Company agrees to the terms of this Corrective Action Complete with Institutional Controls determination as stated in this Closure Decision Document dated **February 24, 2010**. Failure to comply with the terms of this agreement may result in ADEC reopening this site and requiring further remedial action in accordance with 18 AAC 75.380(d).

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Signature of Authorized Representative, Title  
Jan Shifflet/ Alyeska Pipeline Service Company

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Printed Name of Authorized Representative, Title  
Jan Shifflet/ Alyeska Pipeline Service Company

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**For Internal Use Only**

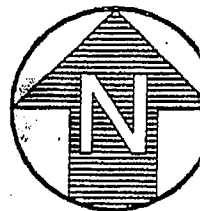
CS file # 330.38.070

Hazard ID: 3115

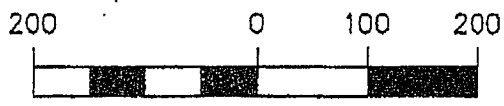
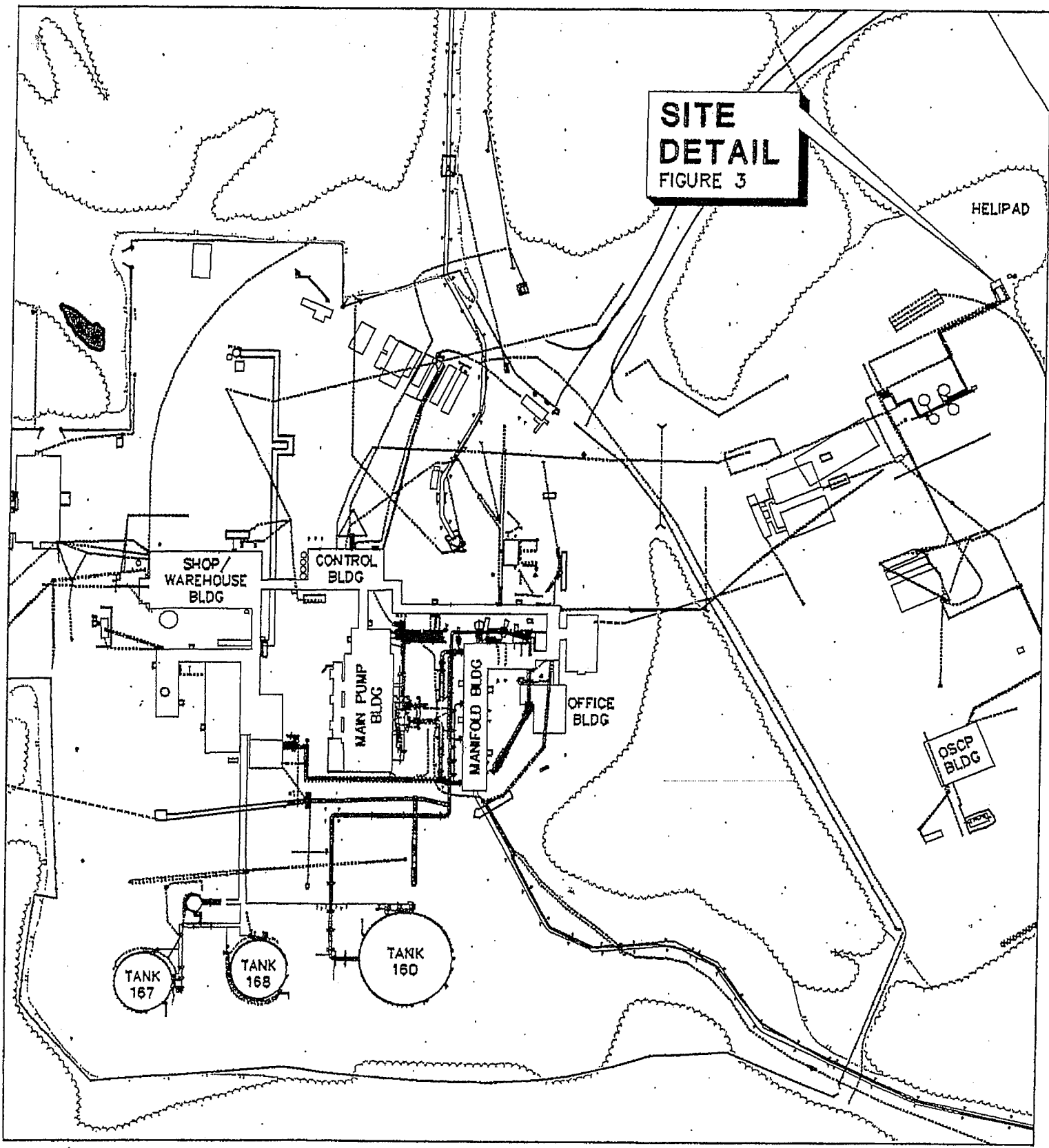
ADEC Project Manager: Keather McLoone

**\*Attention ADEC Administration Staff:** Please follow the procedure below after Attachment A is signed/returned to ADEC.

1. Log-in and Date Stamp *Attachment A*
2. Scan and Save to the appropriate electronic folder on the network Drive
3. File the hard copy in the appropriate project/site file Correspondence Folder (blue in Anchorage).
4. Provide the Correspondence folder (with the filed *Attachment A* hard copy) to the ADEC Project Manager so that the PM can update the CS database.

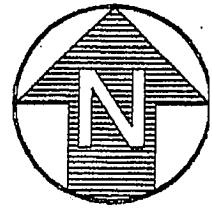


**SITE  
DETAIL  
FIGURE 3**



SCALE IN FEET

SOURCE: EXISTING BASE MAP FEATURES, PROVIDED BY;  
OCEAN TECHNOLOGY  
DRAWING No. P06MF, 04/09/94



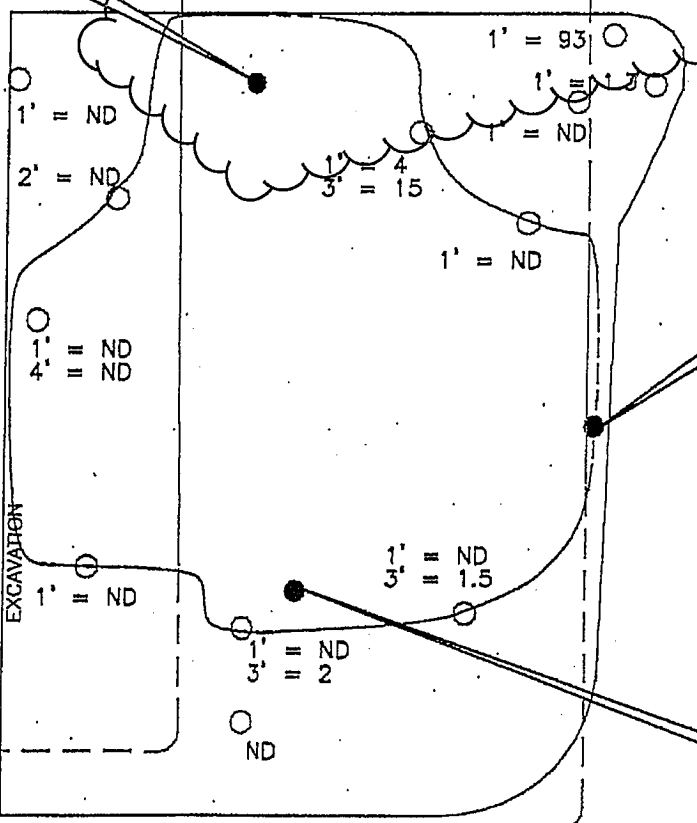
PS6-0805A  
 PID 871  
 B 0.15  
 T <0.28  
 E 2.1  
 X 21.2  
 DRO 950

JET B SHED

estimated area of contamination remaining

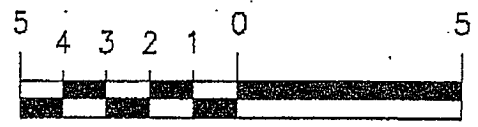
PS6-0805C  
 PID 18.1  
 B 0.05  
 T 0.63  
 E 0.14  
 X 1.03  
 DRO 22

PS6-0805D  
 PID 1.5  
 B ND  
 T <0.054  
 E <0.054  
 X <0.11  
 DRO <4.3



**LEGEND**

○	PID SCREENING LOCATIONS
1' = 93	DEPTH OF PID READING AND RESULT IN PART PER MILLION
●	SOIL SAMPLE LOCATIONS
---	EXISTING PIPELINES
ND	NON-DETECT
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
DRO	DIESEL-RANGE ORGANICS
ALL DATA IN mg/kg	



APPROX. SCALE: 1" = 5'-0"