

STATE OF ALASKA

SEAN PARNELL, GOVERNOR

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

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June 28, 2012

Ms. Kelly Sperbeck
Schlumberger Technology Group
2525 Gambell St, Suite 400
Anchorage, AK 99503

Re: Decision Document; Camco/Schlumberger Lease Tract 21
Cleanup Complete Determination

Dear Ms. Sperbeck:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with Camco/Schlumberger Lease Tract 21 located in Deadhorse, Alaska. 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 this site will be closed.

This decision is based on the Camco/Schlumberger Lease Tract 21, project file 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 determination.

Introduction

Site Name and Location

Camco/Schlumberger Lease Tract 21
Deadhorse, AK

Name and Mailing Address of Contact Party:

Ms. Kelly Sperbeck
Schlumberger
2525 Gambell St, Suite 400
Anchorage, AK 99503

ADEC Site Identifiers:

Hazard ID #886
CS file # 300.38.019

Regulatory authority under which the site is being cleaned up:
18 AAC 75

Background

Camco/Schlumberger Lease Tract 21 is a manmade gravel pad located in Deadhorse on the North Slope of Alaska. (Sites in the Arctic Zone are subject to site specific cleanup up standards as detailed in the "Cleanup Levels" section below). In 2010 hydrocarbon contamination was found in tundra troughs along the south side of the pad during the planning process for a potential pad expansion. DRO (in this new source area) was detected in tundra soil up to 119,000 mg/kg.

Another source area exists at this site separate from the new source area being discussed in this letter. That older source area was related to releases on the pad that occurred in the 1990's. A "Conditional Closure" was issued in 2006 after sampling indicated that excavation had removed the majority of contamination from the impacted area. This old source area (ID #71865) is tracked separately in the CSP database from the new source area (ID #79300).

Contaminants of Concern

During the various investigations at this site, soil samples were analyzed for diesel range organics (DRO), residual range organics (RRO), gasoline range organics (GRO), polynuclear aromatic hydrocarbons (PAHs) and benzene, toluene, ethylbenzene, and xylenes (BTEX). Based on the results of these investigations, DRO was the only contaminant of concern identified.

Cleanup Levels

The cleanup levels for petroleum hydrocarbon-contaminated soil on manmade gravel pads and roads in the Arctic Zone are established in 18 AAC 75.341 Method One, Table A2 and 18 AAC 75.341 Method Two Tables B1 and B2.

A number of factors are considered by ADEC when evaluating site specific cleanup levels in the Arctic Zone including:

- human health (ingestion/inhalation);
- ecological impacts (contamination impacting ecological species other than humans);
- groundwater and surface water quality;
- presence of free phase product; and
- any other factors that might cause a deleterious impact to the environment.

In the Arctic Zone, the migration to surface water pathway is evaluated as the primary migration pathway because the migration to groundwater pathway is not considered applicable due to the presence of continuous permafrost. Impacted surface water can adversely affect both human and ecological receptors, depending on the location of the contaminant source, its proximity to surface waters, and water usage in the impacted area. Therefore the migration to surface water pathway is evaluated as a possible risk to human health (drinking water source) and/or for compliance with Alaska Water Quality standards (18 AAC 70).

In addition, the migration to surface water is evaluated as a possible exposure pathway for ecological receptors because of the tundra wetland ecosystem that exists throughout the Arctic region. Potential future use of the property must also be taken into account when determining closure status. Differentiating between a “Cleanup Complete” and a “Cleanup Complete with Institutional Controls” determination will be based on site specific conditions and exposure pathways as determined by ADEC.

Site Characterization and Cleanup

Hydrocarbon contamination was first noted in 2010 during the collection of soil samples from a partially impounded area of tundra that was being considered for a potential pad expansion. DRO was detected up to 119,000 mg/kg. Additional delineation was conducted in 2011 in an effort to develop a remedial plan for the site, which recommended the removal of discrete areas of contamination from tundra troughs.

The remedial action was conducted in March, 2012 so that frozen conditions would limit the potential impact to the tundra. Approximately 820 cubic yards of contaminated tundra soil were excavated and transported to AIC for thermal treatment. Confirmation samples collected from the excavated areas contained DRO up to 360 mg/kg. The area was backfilled with gravel to approximately tundra grade, then capped with organic overburden to promote natural revegetation.

Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using ADEC’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 in Table 1.

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Direct Contact with Surface Soil	De Minimis Exposure	The remaining contamination is below direct contact cleanup levels and de minimis in volume; therefore risk via this pathway is considered insignificant.
Direct Contact with Sub-Surface Soil	Pathway Incomplete	Contaminated soil is not located in the subsurface, which is frozen much of the year.
Inhalation-Outdoor Air	De Minimis Exposure	The remaining contamination is below inhalation cleanup levels and de minimis in volume; therefore risk via this pathway is considered insignificant.
Inhalation-Indoor Air	Pathway Incomplete	Buildings are not present and are not planned for the site.
Groundwater Ingestion	Pathway Incomplete	Groundwater is not utilized as a drinking water source in this area.
Surface Water Ingestion	Pathway Incomplete	Surface water is not utilized as a drinking water source in this area.

Wild Foods Ingestion	Pathway Incomplete	Wild foods are not collected in this area.
Exposure to Ecological Receptors	De Minimis Exposure	The remaining contamination is de minimis in volume and covered by clean fill.

Notes to Table 1: “De minimis exposure” means that in ADEC’s judgment receptors are unlikely to be affected by the minimal volume of remaining contamination. “Pathway incomplete” means that in ADEC’s judgment contamination has no potential to contact receptors. “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.

ADEC Decision

Based on the information available, ADEC has determined no further assessment or cleanup action is required. There is no longer a risk to human health or the environment, and this site will be designated as closed on the Department’s database.

Although a Cleanup Complete determination has been granted, ADEC approval is required for off-site soil disposal in accordance with 18 AAC 75.325(i). It should be noted that movement or use of potentially contaminated soil in a manner that results in a violation of 18 AAC 70 water quality standards is unlawful.

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.

If you have questions about this closure decision, please contact ADEC Project Manager William O’Connell at (907) 269-3057.

Approved By,

Linda Nuechterlein
Environmental Manager

Recommended By,

William O’Connell
Environmental Program Specialist