

# STATE OF ALASKA

## DEPT. OF ENVIRONMENTAL CONSERVATION

### DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM

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File:1526.38.008

Return Receipt Requested  
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October 13, 2010

Tim Gladden  
City of Skagway  
P.O. Box 415  
Skagway, Alaska 99840

Re: Decision Document; Skagway Diesel Spill Well #2  
Cleanup Complete Determination

Dear Mr. Gladden:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with Skagway Diesel Spill Well #2 located at the City of Skagway P.O. Box 415 Skagway, Alaska 99840. 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.

This decision is based on the administrative record for the Skagway Diesel Spill Well #2 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:

Skagway Diesel Spill Well #2  
City of Skagway P.O. Box 415  
Skagway, Alaska 99840  
Lot 6, Block 91 Skagway Recording District

##### Name and Mailing Address of Contact Party:

Tim Gladden  
Skagway Waste Water Treatment Manager  
City of Skagway P.O. Box 415  
Skagway, Alaska 99840



ADEC Site Identifiers

File: 1526.38.008

Hazard ID: 2690

Regulatory authority under which the site is being cleaned up:

18 AAC 75

**Background**

This subject site has historically operated as a well house providing drinking water for the town of Skagway. This well draws water from 40 to 50 feet below ground surface (bgs). On Friday, January 3, 1997, the fuel line of a 300 gallon above ground storage tank that supplied fuel to an emergency generator inside of the well house of municipal water well number 2 was broken by a child who accidentally ran into the fuel line which created a leak. The AST was located outside and along the building's west facing wall. The fuel line rupture occurred between the AST and the outside of the building. Approximately 300 gallons of diesel fuel spilled onto the ground adjacent to the outside of the foundation of the well house on the west, north and south sides of the well house building. On January 4 and 5, the City of Skagway conducted an emergency cleanup of the spill outside the well house building. Approximately 40 gallons of fuel was recovered with absorbent materials and placed in dumpsters for disposal at the local landfill. Soil and groundwater samples collected at this site have been tested for: diesel range organics (DRO); and benzene, toluene, ethylbenzene and xylene (BTEX)

**Site Characterization and Cleanup Actions**

In January 1997, Golder Associates Inc. (GAI) conducted an assessment of the spill site a few weeks after the spill. Nine test pits were excavated from a depth of 5.5 to 10 feet below ground surface (bgs). Three of the test pits were in the spill area (two on the west side of the well house, and one on the south side of the well house), three were located southwest of the building which is the direction groundwater flows, and three test pits were excavated through the concrete slab of the well house. Six soil samples were collected from the test pits and tested for DRO and one soil sample was analyzed for DRO and BTEX. Sample locations were chosen based on field screening results utilizing a photo ionizing detector (PID). The levels of DRO ranged from nondetect to 2,200 mg/kg. BTEX was not detected at levels that exceeded ADEC's most stringent 18 AAC 75.341 cleanup values (i.e., migration to groundwater pathway). Groundwater samples were also collected from municipal water well #2 and adjacent municipal water wells #1 and #3 and analyzed for DRO and BTEX. No contaminants of concern were detected in these samples. At this time, GAI documented that significant quantities of contaminated soil still remained at the spill site in the north, south, and west sides of the well house as well as within the well house.

In March 1997, GAI implemented an ADEC approved corrective action plan. Approximately 217 cubic yards of soil were removed from under and adjacent to the well house, and eventually placed in a geosynthetic lined stockpile. The city manager of Skagway at this time (Mr. Robert Ward) received approval from ADEC to place the stockpile of contaminated soil in Skagway's former landfill. The excavation reached a depth of 8.5 feet bgs where groundwater was encountered. Ten confirmation soil samples were collected from the base and sidewalls of the excavation pit and analyzed for DRO. DRO levels ranged from nondetect to 580 mg/kg and

only one sample (i.e., at 580 mg/kg) exceeded the DRO cleanup level of 250 mg/kg. All other DRO sample results were less than 16 mg/kg. GAI also installed two groundwater monitoring wells one of which was completed within the footprint of the former spill and the other installed downgradient of the spill. Groundwater samples were collected from two municipal water wells (#1 and #3) and the two newly installed groundwater monitoring wells (MW1 and MW2), and were analyzed for DRO and BTEX. DRO was detected in one well (i.e. MW2) at a maximum value of 0.92 mg/L. MW 2 is the only well located within the footprint of the spill area. BTEX constituents were not detected.

In March 1998, personnel from the City of Skagway collected groundwater samples from municipal water well #2 and monitoring well MW2 – DRO and BTEX constituents were not detected in these samples.

In 2002, GAI sampled stockpiled contaminated soil which was located at the old municipal landfill. Seven soil samples were collected based on 21 field screening readings and analyzed for DRO and BTEX constituents. BTEX was not detected in these samples, while DRO levels ranged from 62.3 to 3,420 mg/kg.

In 2004, ADEC approved of the transport of the contaminated soil stockpile to Skagway's old landfill. Per communication with Grant Lawson ( Public Works Department Director) the City of Skagway approved of the transport of the stockpile to the Skagway landfarm during the summer of 2004. The stockpile was treated by venting, nutrient addition, and moisture conditioning for roughly 5 years and then the city's Public Works Department approved for the soil to be spread out in the new ADEC permitted class III landfill (solid waste permit no. SW3A070-14) in July 2009 (per communication with Tim Gladden). The soil is currently interspersed with the city's garbage. In June 2010, ADEC staff visited Skagway and confirmed that the soil stockpile had been moved from the prior landfill and placed in the new ADEC permitted landfill area as cover.

### **Contaminants of Concern**

During the investigations at this site, soil and water 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:

- Diesel Range Organics (DRO)

### **Cleanup Levels**

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

<u>Contaminant</u>	<u>Site Cleanup Level (mg/kg)</u>
• Diesel Range Organics	250

The default groundwater cleanup levels for this site are established in 18 AAC 75.345 Table C Groundwater Cleanup Levels.

<u>Contaminant</u>	<u>Site Cleanup Level (mg/L)</u>
• Diesel Range Organics	1.5

### Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants were 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: DeMinimis Exposure and Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Contaminants were not detected in surface soil.
Sub-Surface Soil Contact	De-minimis exposure	Contaminants were not detected in subsurface soil above 18 AAC 75.341 Table B1 or B2 values for direct contact.
Inhalation – Outdoor Air	De-minimis exposure	Contaminants left in place do not exceed 18 AAC 75.341 Table B1 or B2 values for outdoor inhalation.
Inhalation – Indoor Air (vapor intrusion)	De-minimis exposure	The levels of volatile organic compounds detected in groundwater do not exceed ADEC vapor intrusion target levels and the mass of these compounds in soil is believed to be de minimis; thus, volatile organic compounds are not believed to pose a potential vapor intrusion risk.
Groundwater Ingestion	Pathway Incomplete	Contaminants have not impacted groundwater above 18 AAC 75.345 Table C values.
Surface Water Ingestion	Pathway Incomplete	There is no surface water located within ¼ mile of the site and groundwater is not contaminated.
Wild Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	No terrestrial or aquatic exposure routes are present.

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 a review of the administrative file for Skagway Diesel Spill Well #2, only one soil sample collected following the excavation of contaminated soils from the spill site exceeded the most stringent 18 AAC 75.341 migration to groundwater cleanup levels, (i.e., for DRO). This result does not reflect the current migration to groundwater risk since three separate groundwater monitoring events have documented that groundwater has not been impacted from the diesel spill. The testing of soil left in place in and around the spill site has not documented the

presence of DRO above direct contact or outdoor inhalation levels suggesting these pathways pose a De-minimis exposure. Other exposure pathways are also either De-minimus or incomplete. Contaminated soil that was removed from the spill site was disposed at Skagway's new lined landfill during the summer of 1997 and will be utilized as cover in the landfill area (per communication with Skagway's Public Works Director).

Consequently, the cleanup actions to date have served to excavate and adequately remove contaminated soil from the site. 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 the ADEC project manager, Todd Blessing at (907) 269-7699.

Approved By,



Rich Sundet  
Environmental Program Manager

Recommended By,



Todd Blessing  
Environmental Program Specialist