STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

410 Willoughby Ave. Suite 302
Box 111800 Juneau AK 99801
PHONE: (907) 465-5210
FAX: (907) 465-5218
www.dec.state.ak.us

File: 1526.26.003

May 9, 2011

Via regular and electronic mail:
Carl and Darlene Hoover
Post Office Box 304
Skagway, AK 99840

Re: Decision Document; Chevron – Hoovers contaminated site
Corrective Action Complete Determination

Dear Carl and Darlene,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the former Hoovers Chevron located at 444 4th Avenue in Skagway. Based on the information provided to date, the DEC has 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 Chevron - Hoovers Contaminated Site administrative record, which is located in the offices of the Alaska Department of Environmental Conservation (DEC) in Juneau, 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 Corrective Action Complete Determination.

Introduction

Site Name and Location:
Chevron – Hoovers
444 4th Avenue
Skagway, Alaska 99840

Name and Mailing Address of Contact Party
Carl and Darlene Hoover
P.O. Box 304
Skagway, Alaska 99840

Database Record Key and File Number:
DEC Reckey: 1993110013401
File: 1526.26.003
Hazard ID: 24514

Regulatory Authority for cleanup determination
18 AAC 78

Legal Description of site properties
Parcel 1: Lots 7 and 8, Block 8, Townsite of Skagway and Lots 8, 9, 10, Block 8, Skagway according to Plat 1, Skagway Recording District, First Judicial District, State of Alaska.

Parcel 2: Lots 11 and 12, Block 8, Skagway Townsite, Skagway Recording District, First Judicial District, State of Alaska.

Background
On May 14, 1993, Petroleum Services Inc. (PSI) removed two 3,000-gallon regulated underground gasoline tanks (USTs), two 1,000-gallon diesel tanks, as well as three dispenser pumps and the associated piping at the Hoover's Chevron gas station in Skagway, Alaska. Site Assessment field screening by Smith Bayliss LeResche Inc. (SBL) at the time of the UST closures-by-removal found gasoline and diesel contamination beneath the dispenser pumps and a small amount of diesel contamination beneath the diesel UST formerly located near the 4th Avenue sidewalk. Soil samples at the site have been analyzed for benzene, ethylbenzene, toluene, total xylenes (BTEX) and polynuclear aromatic hydrocarbon (PAH) volatile organic compounds, gasoline (GRO), diesel (DRO) and residual (RRO) petroleum hydrocarbon fractions.

Release Investigation and Corrective Action
Subsequent release investigation (RI) by SBL revealed samples of residual soil under the gasoline dispenser island had maximum concentrations of GRO at 22,000 mg/kg, benzene at 49 mg/kg, toluene at 660 mg/kg, ethylbenzene at 170 mg/kg, and total xylenes at 1,600 mg/kg. Residual soil under the diesel dispenser island had maximum concentrations of DRO at 1,100 mg/kg. Residual soil under Tank 4, the diesel UST nearest the 4th Street sidewalk had maximum concentrations of DRO at 590 mg/kg. The samples were collected between five and seven feet below ground surface (BGS); the typical groundwater depth of ten feet BGS for the area was not reached in the RI and groundwater was not investigated for contamination. PSI removed 24 cubic yards of material from the Site and hauled it to the Skagway landfill, where it was successfully aerated, and later incorporated with material used to cap the City of Skagway Landfill.

Following release investigation, SBL reported that an unknown amount of petroleum contaminated soil was left in place along the Main Street side of the building in order to avoid undermining the sidewalk and the foundation of the building. DEC approved the release investigation and corrective action to leave this material in place, and requested additional corrective action to install aeration piping to aid in the remediation of the gasoline contaminated material. The 2011 soil sampling Report introduces current data regarding the condition of the unknown amount of petroleum contaminated soil left in place at the site.

The objective of the 2011 investigation was to collect soil samples from the areas that showed the highest levels of contamination found during the 1993 SBL release investigation. Three sample borings were made at the site, each from an area that displayed petroleum contamination in the 1993 SBL report. Samples for this project (3 plus field duplicate) were collected from the soil layers that had shown greatest contamination, under the dispenser islands and Tank 4. Soil samples were collected for field screening from 24 inch vertical sections throughout the depth of the boring, using a polyethylene sleeve inside the stainless steel sampling probe.

The greatest concentrations of hydrocarbons in the soil borings were found in sample 11-B03 as follows:
GRO at 3.39 mg/kg
DRO at 31.2 mg/kg
benzene at 0.0142 mg/kg
toluene at 0.110 mg/kg
ethylbenzene at 0.0209 mg/kg
total xylene compounds of 0.250 mg/kg

The maximum concentrations of the PAH compounds detected by the instrument in the same sample were as follows:

- Naphthalene at 0.0609 mg/Kg
- 2-Methylnaphthalene at 0.0741 mg/Kg
- 1-Methylnaphthalene at 0.0481 mg/Kg
- Acenaphthylene at 0.00794 mg/Kg
- Phenanthrene at 0.0129 mg/Kg
- Anthracene at 0.00642 mg/Kg
- Fluoranthene at 0.0135 mg/Kg
- Pyrene at 0.0180 mg/Kg
- Benzo(a)Anthracene at 0.0101 mg/Kg
- Chrysene at 0.0123 mg/Kg
- Benzo[b]Fluoranthene at 0.0128 mg/Kg
- Benzo[k]fluoranthene at 0.00401 mg/Kg
- Benzo[a]pyrene at 0.011mg/Kg
- Indeno[1,2,3-c,d] pyrene at 0.0116 mg/Kg
- Dibenzo[a,h]anthracene at 0.00276 mg/Kg
- Benzo[g,h,i]perylene at 0.0306 mg/Kg

The Report concludes that soil borings and samples taken from these borings by Nortech in 2011 did not contain contamination above DEC cleanup levels. Groundwater at the site was not encountered in the excavation to remove the USTs or in the 2011 soil borings at the site and was not investigated in the DEC approved release investigations. The Nortech Report requested "No Further Action" status be granted for the site.

Contaminants of Concern
During the investigations at this site, soil samples were analyzed for diesel range organics (DRO); gasoline range organics (GRO); benzene, toluene, ethylbenzene, and xylenes (BTEX) and polynuclear aromatic hydrocarbon (PAH) volatile organic compounds. Based on these analyses and knowledge of the source area, the following Contaminants of Concern was identified:

- Gasoline hydrocarbon fractions
- Diesel hydrocarbon fractions
- Benzene
- Toluene

- Ethylbenzene
- Total xylenes
- Acenaphthene
- Acenaphthylene
- Anthracene
- Benzo(a)Anthracene
- Benzo[a]pyrene
- Benzo[b]Fluoranthene
- Benzo[g,h,i]perylene
- Benzo[k]fluoranthene
- Chrysene
- Dibenzo[a,h]anthracene
- Fluoranthene
- Fluorene
- Indeno[1,2,3 –c, d] pyrene
- Naphthalene
- Phenanthrene

Cleanup Levels

The DEC has determined that the most conservative Method Two Migration to Groundwater cleanup levels for soil, found in 18 AAC 75.341, Tables B1 and B2, are applicable to this site and are as follows for the over 40-inch precipitation zone.

Contaminants of Concern	**Standards (ppm)**
Diesel Range Organics (DRO)	230
Gasoline Range Organics (GRO)	260
Benzene	0.025
Ethyl benzene	6.9
Toluene	6.5
Xylenes	63.0
Polynuclear Aromatic Hydrocarbons (PAH)	**Standards (ppm)**
Acenaphthene	180
Acenaphthylene	180
Anthracene	3000
Benzo(a)Anthracene	3.6
Benzo[a]pyrene	0.40
Benzo[b]Fluoranthene	0.40
Benzo[g,h,i]perylene	1100
Benzo[k]fluoranthene	40
Chrysene	360
Dibenzo[a,h]anthracene	0.40
Fluoranthene	1400
Fluorene	220
Indeno[1,2,3 –c, d] pyrene	4.0
Naphthalene	20

Phenanthrene	3000

Pathway Evaluation
Following investigation and cleanup 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 in Table 1 as an attachment

Cumulative Health Risk Calculation
Pursuant to 18 AAC 75.325 (g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be calculated. A chemical that is detected at one-tenth or more of the Table B1 inhalation or ingestion values set out in 18 AAC 75.341(c) or the Table B2 values set out in 18 AAC 75.341(d) must be included when calculating cumulative risk under 18 AAC 75.325(g). Cumulative risk from petroleum contamination of environmental media at the site is addressed using the BTEX and PAH analyte concentration data. With data currently available, the DEC has determined that petroleum compounds remaining at the referenced site following cleanup are in concentrations that do not present a cumulative risk to human health.

DEC Decision
The cleanup actions to date have served to excavate and adequately remove contaminated soil from the site. Based on the information available, DEC 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 Corrective Action Complete determination has been granted, DEC approval is required for off-site soil disposal in accordance with 18 AAC 78.600(h). However, since this site has met the most conservative soil cleanup levels, this letter will serve as your approval for future off-site movement and disposal of soil associated with this release. 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 78.276(f) and does not preclude DEC 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 DEC project manager, Bruce Wanstall at (907) 465-5210.

Approved By,

Sally Schlichting
Environmental Manager

Recommended By

Bruce Wanstall
Environmental Program Specialist

Attachment A: Table 1, Exposure Pathway Evaluation

cc: Mathew Smith, owner, Corner Station, via email
Larry Brinkerhoff, UST Program Manager, via email

Attachment A
Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	The soil stockpile has been transported to the landfill for aeration treatment and the site is covered with asphalt or concrete; there is no opportunity for surface soil contact.
Sub-Surface Soil Contact	De-minimis exposure	Contamination remains in the subsurface, but is below migration to groundwater (MTG) levels.
Inhalation – Outdoor Air	De-minimis exposure	The source area is covered with asphalt or concrete, soil is below MTG levels and ventilation piping directs vapors away from receptors therefore this pathway is deminimis.
Inhalation – Indoor Air (vapor intrusion)	De-minimis exposure	Contamination in the subsurface is below MTG levels. Ventilation piping was installed through the source area to direct vapors away from the building.
Groundwater Ingestion	De-Minimis	Groundwater was not encountered during the DEC approved release investigations. Remaining contamination is below MTG levels.
Surface Water Ingestion	Pathway Incomplete	There is no surface water located at the site or within one quarter mile of the site.
Wild Foods Ingestion	Pathway Incomplete	The soil stockpile was treated off-site by aeration to MTG levels and on-site soil is below MTG levels.
Exposure to Ecological Receptors	Pathway Incomplete	The soil stockpile has been transported and treated by aeration to migration to groundwater levels.

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.