



THE STATE
of **ALASKA**
GOVERNOR SEAN PARNELL

Department of
Environmental Conservation

DIVISION OF SPILL PREVENTION & RESPONSE
Contaminated Sites Program

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File No: 2100.26.114

July 1, 2013

Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
Attn: Mr. Thomas Bauhs

Re: Closure Decision Document; Unocal #4581(former), 636 C Street,
Corrective Action Complete Determination

Dear Mr. Bauhs;

The Alaska Department of Environmental Conservation (ADEC), Contaminated Sites Program, has completed a review of the environmental records associated with the Unocal #4581(former), 636 C Street underground storage tank (UST) site. Based on the information provided to date, the ADEC has determined that the contaminant concentrations remaining on the 636 C Street property, and associated site soils treated off-site at 9760 Old Seward Highway do not pose an unacceptable risk to human health or the environment, and this site will be closed.

This decision is based on the administrative record which is located in the offices of the Alaska Department of Environmental Conservation 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 this Corrective Action Complete determination.

Introduction

Site Name and Location:

Unocal #4581(former)
636 C Street
Anchorage, Alaska 99501
Original Block 72, Lot 11A

Database Record Key and File Number:

ADEC Reckey: 1987210031602
File: 2100.26.114
Hazard ID: 23364

Name and Mailing Address of Contact Party:

Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
Attn: Mr. Thomas Bauhs

**Regulatory authority under which the site
is being cleaned up:**

18 AAC 78
18 AAC 75

Background

Petroleum contamination was identified in soil and groundwater in 1986 at this Unocal service station that operated from 1960 until 1987. In 1987, during the demolition of the service station building and removal of the used oil and gasoline underground storage tank systems, additional petroleum contamination was identified.

Contaminants of Concern

During the investigations at this site, soil and groundwater samples were analyzed for total petroleum hydrocarbons (TPH – which includes DRO and RRO), residual range organics (RRO), diesel range organics (DRO), gasoline range organics (GRO), and volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, and xylenes (BTEX). Based on these analyses and knowledge of the source area, the following Contaminants of Concern were identified:

- Benzene
- GRO
- DRO
- RRO

Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Tables B1 and B2, Migration to Groundwater.

<u>Contaminant</u>	<u>Site Cleanup Level (mg/kg)</u>
Benzene	0.025
GRO	300
DRO	250
RRO	11,000

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>
Benzene	0.005
GRO	2.2
DRO	1.5
RRO	1.1

Site Characterization and Cleanup Activities

Contamination was identified during the 1986 assessment in the 4 groundwater monitoring wells were installed to evaluate the presence of hydrocarbon contamination. Groundwater samples collected from the newly installed wells contained TPH up to 18 mg/l, and benzene up to 0.029 mg/l. Soil samples collected from boreholes during monitoring well installation contained benzene up to 0.297 mg/kg, and TPH up to 180 mg/kg.

In 1987 two gasoline and one used oil USTs and their associated piping were removed during the demolition of the service station building. Confirmation samples collected from the base of the excavation at the gasoline USTs contained benzene up to 0.031 mg/kg. Based on field observations (soils with petroleum staining and odors) contaminated soil remained at used oil UST excavation. The 152 cubic yards of petroleum contaminated soil that was generated during the tank removals was transported off-site for treatment in a landfarm cell at 9760 Old Seward Highway.

Three additional monitoring wells were installed in 1988 and groundwater samples contained TPH up to 10.2 mg/l, and benzene up to 1.3 mg/l. Soil samples collected from boreholes during monitoring well installation contained benzene up to 3.0 mg/kg.

Also 1988, 200 cubic yards of petroleum contaminated soil was excavated from the former location of the used oil UST and transported and disposed of at the Anchorage Regional Landfill. Confirmation samples collected from the base of the excavation contained up to 45 mg/kg TPH.

In an effort to reduce contaminant concentrations in soil and groundwater a soil vapor extraction and groundwater pump and treat remediation system was installed in 1990 and was operated until 2002. In 2003 the soil vapor extraction and groundwater pump and treat remediation system was decommissioned.

In 2007 four confirmation soil borings were advanced and soil samples were collected at various intervals based on field screening conducted with a photo-ionization detector (PID). All soil samples met default cleanup levels.

In 2011 confirmation soil samples were collected from the off-property treatment cell at 9760 Old Seward Highway. Confirmation samples indicated DRO up 4,000 mg/kg and RRO up to 12,000 mg/kg remained in the treatment cell. After the remaining contaminated areas were removed and thermally treated at Alaska Soil Recycling, all confirmation samples from the treatment cell met default cleanup levels. The remaining monitoring wells were decommissioned in accordance with an approved plan in 2011

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
Surface Soil Contact	De-Minimis Exposure	Contaminants in sub-surface soil confirmation samples were below most stringent cleanup levels and the remaining contaminated soil is considered De-Minimis in volume. Therefore risk via this pathway is considered insignificant.
Sub-Surface Soil Contact	De-Minimis Exposure	Contaminants in sub-surface soil confirmation samples were below most stringent cleanup levels and the remaining contaminated soil is considered De-Minimis in volume. Therefore risk via this pathway is considered insignificant.
Inhalation – Outdoor Air	De-Minimis Exposure	Remaining petroleum contamination is below the inhalation cleanup level for soil. Therefore risk via this pathway is considered insignificant.
Inhalation – Indoor Air (vapor intrusion)	De-Minimis Exposure	Remaining petroleum contamination is below the inhalation cleanup level for soil. Therefore risk via this pathway is considered insignificant.
Groundwater Ingestion	De-Minimis Exposure	Contaminants were detected in groundwater, but at concentrations below default cleanup levels and the property is served by city water. Therefore risk via this pathway is considered insignificant.
Surface Water Ingestion	Pathway Incomplete	The nearest surface water body, Ship Creek is located 2,800 feet from the site. Surface water is not used as a drinking water source in this area.

Wild Foods Ingestion	Pathway Incomplete	This area is not used for harvesting wild foods.
Exposure to Ecological Receptors	Pathway Incomplete	There are no complete exposure pathways to ecological receptors at the site.

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 Corrective Action Complete determination has been granted, ADEC approval is required for off-site soil disposal in accordance with 18 AAC 78.274(b). 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 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 decision document, please contact the ADEC Project Manager, Robert Weimer at (907) 269-7525.

Sincerely,



Robert Weimer
Environmental Engineering Associate

cc: John Riggi, CRA