



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of
Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

555 Cordova Street
Anchorage, AK 99501
Phone: 907-269-7691
Fax: 907-269-7687
www.dec.alaska.gov

File: 2265.38.041

March 8, 2017

Tony and Cheri Gumley
Gumley Excavation, Inc.
4621 East Palmer-Wasilla Highway
Wasilla, AK 99654

Re: Decision Document: Lawn Ranger Vehicle Leak Palmer-Wasilla Highway
Cleanup Complete Determination

Dear Mr. and Ms. Gumley:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Lawn Ranger Vehicle Leak Palmer-Wasilla Highway site located at 4621 East Palmer-Wasilla Highway in Wasilla. 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 unless new information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the Lawn Ranger Vehicle Leak Palmer-Wasilla Highway site, which is located in the ADEC office in Anchorage, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:

Lawn Ranger Vehicle Leak Palmer-Wasilla Highway
4621 East Palmer-Wasilla Highway
Wasilla, AK 99654

Name and Mailing Address of Contact Party:

Tony and Cheri Gumley
Gumley Excavation, Inc.
4621 East Palmer-Wasilla Highway
Wasilla, AK 99654

DEC Site Identifiers:

File No.: 2265.38.041
Hazard ID.: 26478

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

A diesel fuel release occurred in November 2015 at the commercial property located at 4621 East Palmer-Wasilla Highway. The release occurred on the east side of the property in a partially asphalt-paved area. The volume and timeframe of the release is unknown and is reportedly from a diesel pickup truck that was being staged at the property. A drinking water well is located roughly 30 feet from the release location.

The release was not originally reported to ADEC, rather contaminated soil was excavated and dumped on various properties at the end of a cul-de-sac on Eldorado Drive in Wasilla, Alaska. Confirmation soil samples were not collected from the excavation area prior to backfilling; however analytical sampling of the dumped soil confirmed the presence of diesel range organics (DRO) above applicable cleanup levels.

The area where soil was dumped is being managed under a separate record, under the file name Lawn Ranger Illegal Dumping - Eldorado Drive (see ADEC Hazard ID 26479, file number 2265.38.042).

Contaminants of Concern and Cleanup Levels

During the site characterization and cleanup activities at this site, soil and water samples were analyzed for one or more of the following: gasoline range organics (GRO), DRO, residual range organics (RRO), volatile organic compounds (VOCs), and polycyclic aromatic hydrocarbons (PAHs). DRO is considered the only contaminant of concern at this site.

The more restrictive of the ingestion, inhalation, and migration-to-groundwater (MTG) cleanup levels established in 18 AAC 75.341(d), Table B2 are applicable. The MTG cleanup level for DRO is 250 milligrams per kilogram (mg/kg).

Characterization and Cleanup Activities

Site characterization activities were completed on July 26, 2016 and consisted of re-excavating the source area and stockpiling the gravel fill from the previous removal at this location. After the former excavation boundary was demarcated, soil samples were collected from the base and sidewalls to show that the extent of soil contamination was fully removed. Analytical results for GRO, DRO, RRO, and VOCs were all below the most stringent MTG cleanup levels.

In addition to the soil samples, a water sample was collected from the onsite drinking water well to determine if petroleum contamination had impacted the drinking water. Petroleum contamination was not present in the sample, however trichloroethylene (TCE) was detected at 2.73 µg/l, which is slightly below ADECs groundwater cleanup level of 2.8 µg/l. To date the well has been sampled four times, as shown in the table below.

Table 1: Drinking Water Well Results for TCE

Sample Collection Date	Result (µg/l)
June 16, 2016	2.73
July 6, 2016	1.79
October 10, 2016	2.32
February 1, 2017	1.83

µg/l = micrograms per liter

The results for TCE are below the ADEC Table C groundwater cleanup level of 2.8 µg/l and the federal Maximum Contaminant Level (MCL) of 5 µg/l, which is also the current standard applicable to public water systems.

It is important to keep in mind that although this site does qualify for closure under state regulations, the Environmental Protection Agency (EPA) Region 10 developed additional guidance on the need to limit TCE exposure in women who may be pregnant because of the potential adverse health effects on developing embryos. Based on EPA's guidance, ADEC developed a fact sheet titled *Additional Information*

about *Exposure to TCE*, dated January 8, 2014 that recommended that the level of TCE should not exceed 2.5 µg/l, as averaged over a 21-day period, when women of child-bearing age may be exposed.

Given the unknown source of the TCE, ADEC is recommending that you install some form of a mitigation or treatment system, use an alternate drinking water source, or continue to voluntarily monitor TCE in water to ensure that concentrations are protective of human health and the environment.

Cumulative Risk Evaluation

Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index of one across all exposure pathways. Based on a review of the environmental record, ADEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use.

Exposure 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 either De-Minimis Exposure or Exposure Controlled. A summary of this pathway evaluation is included in Table 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Contamination is not present in surface soil 0 to 2 feet below ground surface (bgs).
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination remains in the sub-surface, but is below ingestion cleanup levels, as well as the more stringent MTG cleanup levels.
Inhalation – Outdoor Air	De-Minimis Exposure	Contamination remains in the sub-surface, but is below inhalation cleanup levels, as well as the more stringent MTG cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De-Minimis Exposure	Volatile contaminants are not present in the soil; however TCE was identified in the drinking water well between 1.79 and 2.73 µg/l. This concentration is below the vapor intrusion target level for groundwater of 5.2 µg/l.
Groundwater Ingestion	De-Minimis Exposure	Quarterly monitoring revealed TCE between 1.79 and 2.73 µg/l, which is below the ADEC Table C groundwater cleanup level as well as the federal MCL.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source in the vicinity of the site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	The site is not located in an area that is used or reasonably could be used for hunting, fishing, or harvesting of wild or farmed foods.
Exposure to Ecological Receptors	Pathway Incomplete	Terrestrial and aquatic exposure routes are not present.

Notes to Table 2: “De-Minimis Exposure” means that in ADEC’s judgment receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination. “Pathway Incomplete” means that in ADEC’s judgment contamination has no potential to contact receptors.

ADEC Decision

Soil and groundwater contamination at the site have been cleaned up to concentrations below the most conservative cleanup levels suitable for residential land use. This site will receive a "Cleanup Complete" designation on the Contaminated Sites Database, subject to the following standard conditions.

Standard Conditions

1. 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.
2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
3. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional testing and treatment may be required to ensure the water is suitable for its intended use.

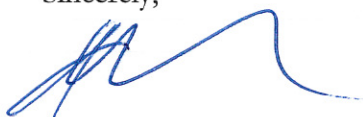
This determination is in accordance with 18 AAC 75.380 and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

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, 555 Cordova Street, Anchorage, Alaska 99501-2617, 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, P.O. Box 111800, Juneau, Alaska 99811-1800, 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 feel free to contact me at (907) 269-7691 or joshua.barsis@alaska.gov.

Sincerely,



Joshua Barsis
Project Manager

Note: This letter is being transmitted to you in electronic format only. If you require a paper copy, let us know and we will be happy to provide one to you. In the interest of reducing file space, the Division of SPAR/Contaminated Sites Program is transitioning to electronic transmission of project correspondence.

cc: Spill Prevention and Response, Cost Recovery Unit
Stephen Spikes, Lawn Ranger of Alaska