THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Environmental Conservation
DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

610 University Avenue
Fairbanks, AK 99709-3643
Phone: 907-451-2143
Fax: 907-451-2155
www.dec.alaska.gov

File: 102.38.171

August 14, 2018

Lance Wilson
Alaska Aerofuel, Inc.
PO Box 60669
Fairbanks, AK, 99706

Re: Decision Document: Alaska Aerofuel Vehicle Rollover – Easy Street Cleanup Complete Determination

Dear Mr. Wilson:

The Alaska Department of Environmental Conservation (DEC) Contaminated Sites Program has completed a review of the environmental records associated with the Alaska Aerofuel Vehicle Rollover which occurred at the corner of Lakeview Terrace and Easy Street in Fairbanks, 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 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 Alaska Aerofuel Vehicle Rollover, which is located in the DEC office in Fairbanks, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:
Alaska Aerofuel Vehicle Rollover – Easy Street
Corner of Lakeview Terrace and Easy Street
Fairbanks, Alaska 99701

Name and Mailing Address of Contact Party:
Lance Wilson
Alaska Aerofuel, Inc.
P.O. Box 60669
Fairbanks, AK 99706

DEC Site Identifiers:
File No.:102.38.171
Hazard ID.: 25891

Regulatory Authority for Determination:
18 AAC 75

Site Description and Background

On October 19, 2011, a petroleum release occurred when a 4,500-gallon heating oil tanker truck owned and operated by Alaska Aerofuel, Inc. overturned at the intersection of Easy Street and Lakeview Terrace in Fairbanks, Alaska.

The crash caused the tank to fail and approximately 2,551 gallons of heating oil was released to the ground surface. Free product flowed in a generally northern direction and pooled in four separate ditches on the east and west sides of Easy Street where it was recovered. Excavation activities began the next day to remove impacted soils. Due to constraints from the road surfaces and utilities, contamination was left in place in the Alaska Department of Transportation and Public Facilities (DOT&PF) right-of-way and surrounding an electric pole. Groundwater investigation in 2017 indicated that groundwater at this site had not been impacted by petroleum contamination.

Contaminants of Concern

During site characterization and cleanup activities at this site, samples were collected from soil and groundwater and were analyzed for gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), and polycyclic aromatic hydrocarbons (PAHs). Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at this site:

- DRO
- benzene
- toluene
- ethylbenzene
- xylenes
- naphthalene
- 1-methylnaphthalene
- 2-methylnaphthalene

Cleanup Levels

The most stringent method 2 migration to groundwater cleanup levels apply to all contaminants of concern. Method 2 soil cleanup levels are found in 18 AAC 75.341 Tables B1 & B2. Groundwater cleanup levels found in 18 AAC 75.345 Table C apply at this site.

Table 1 – Approved Cleanup Levels

Contaminant	Soil[1] (mg/kg)	Groundwater (ug/L)
DRO	250	1,500
benzene	0.022	4.6
toluene	6.7	1,100
ethylbenzene	0.13	15
xylenes	1.5	190
naphthalene	0.038	1.7
1-methylnaphthalene	0.41	11
2-methylnaphthalene	1.3	36

mg/kg = milligrams per kilogram
ug/L = micrograms per liter
1 – Method 2 migration to groundwater cleanup levels

Characterization and Cleanup Activities

On October 19, 2011, a 4,500-gallon heating oil tanker truck owned and operated by Alaska Aerofuel overturned at the intersection of Easy Street and the Lakeview Terrace trailer park. The rear bulkhead seam failed causing #1/#2 blend arctic grade heating oil to be released to the road surface where it flowed into the surrounding ditches. Emergency responders from the Fairbanks fire department, DEC and Alaska Aerofuel arrived on the scene soon after the spill. Response personnel used sorbent materials to control the flow of free product and some fuel was manually pushed into surrounding ditches for recovery. Fairbanks pumping and thawing deployed a vacuum truck to the scene to recover free product from the ditches. An excavator was used to scrape surface soils which had been impacted and a propane torch was used to burn off oil remaining on the road surface.

On October 20, 2011, Central Environmental, Inc. (CEI) was mobilized to the site to excavate contaminated soils from locations where heating oil had pooled during recovery efforts. Nortech Engineering conducted field screening and sample collection during these efforts. Excavation occurred in four ditches surrounding the location of the release. During cleanup over 720 cubic yards (cy) of contaminated soils were removed from the site for thermal remediation at Organic Incineration Technologies in North Pole, Alaska. Field screening results from soil borings advanced through the road surface indicated fuel did not extend horizontally or vertically more than a few feet under the road surface.

Contamination was left in place in the excavation sidewalls in the the west, east, southwest and southeast ditch excavations. During characterization of the final excavation limits, analytical samples were collected from the locations with the highest field screening results in each excavation (see attached figures for excavation locations). In November 2017, soil borings were installed in each area to evaluate soil conditions near residual contamination and were completed as temporary well points to assess possible impacts to groundwater.

After initial cleanup soil contamination remained in the following locations:

- The west ditch excavation was located between the sun-air sheet metal business and the DOT&PF roadway; 340 cy of contaminated soil were removed from this excavation and an estimated 12 to 15 cy were left in place under the roadway. The soil boring advanced in 2017 indicated that soil contamination in the right-of-way had attenuated to below the soil cleanup levels.
- The east ditch excavation was located between the DOT&PF roadway and the Alaska Club Fairbanks tennis courts; 180cy of contaminated soil were removed and an estimated 52 cy were left in place due to a natural gas line at 3 feet below ground surface (ft bgs). The soil boring sample collected near the tennis courts in the northern extent of the former excavation in 2017 did not contain detectable levels of any contaminants.
- The southwest ditch excavation was located on the Golden Valley Electric Association (GVEA) substation and Easy Street Mini Storage properties; 150 cy of contaminated soils were removed and an estimated 15 cy were left in place surrounding the utility pole. The soil boring west of the utility pole found DRO contamination still exceeded the soil cleanup levels in 2017.
- The southeast ditch excavation was located on the corner of Easy Street and the Lakeview Terrace Trailer Court where the truck rolled over; 50 cy of contaminated soils were removed and approximately 3 to 4 cy were left in place due to the adjacent roads and buried natural gas line. The soil boring near the former excavation in 2017 indicated contamination in the right-of-way may have attenuated to below the soil cleanup levels.

Soil samples collected in 2017 indicate that remaining contamination is limited to the DOT&PF right-of-way and the GVEA substation land. DEC calculated a mean soil concentration for DRO in the areas of remaining contamination at 9,999 mg/kg, below DEC's ingestion and inhalation soil cleanup levels found in 18 AAC 75.341 Tables B1 & B2. Mean soil concentrations were calculated at a 95% upper confidence limit (UCL) as described in 18 AAC 75.380(c)(1) using the most conservative data collected from the contaminated excavation limits in 2011.

Though soil contamination remains above the migration to groundwater cleanup at this site, groundwater samples collected in 2017 from temporary well points in the four contaminated areas indicate that petroleum contamination is not migrating to groundwater at concentrations exceeding the groundwater cleanup levels. Vapor intrusion is an incomplete pathway as a limited amount of soil contamination remains, primarily in right-of-ways where future construction will be limited, and no buildings exist within 30 ft of any of the excavated areas.

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 non-carcinogenic risk standard at a hazard index of one across all exposure pathways.

Based on a review of the environmental record, DEC 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 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 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	Contamination remaining in surface soils is below the human health and ingestion cleanup levels.
Sub-Surface Soil Contact	De Minimis Exposure	Contamination remaining in subsurface soils is below the human health and ingestion cleanup levels.
Inhalation – Outdoor Air	De Minimis Exposure	Contamination remaining in surface and subsurface soils is below the human health and outdoor inhalation cleanup levels at this site.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	There are no buildings in the vicinity of the contaminated areas. Areas of residual contamination are limited and mostly in right-of-ways where future construction is not likely to occur.
Groundwater Ingestion	De Minimis Exposure	All groundwater samples collected at this site are below the human health groundwater cleanup levels.

Surface Water Ingestion	Pathway Incomplete	Surface water exists 300 ft northeast of the site. Contamination is not expected to migrate to surface water.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contamination has not impacted an area used for collection of wild or farmed food.
Exposure to Ecological Receptors	Pathway Incomplete	Contamination has not impacted an area where ecological receptors could be impacted.

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

DEC Decision

Soil and groundwater contamination at the site have been cleaned up to concentrations below the approved 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 DEC 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. (See attached site figure.)
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 DEC 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 20 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.

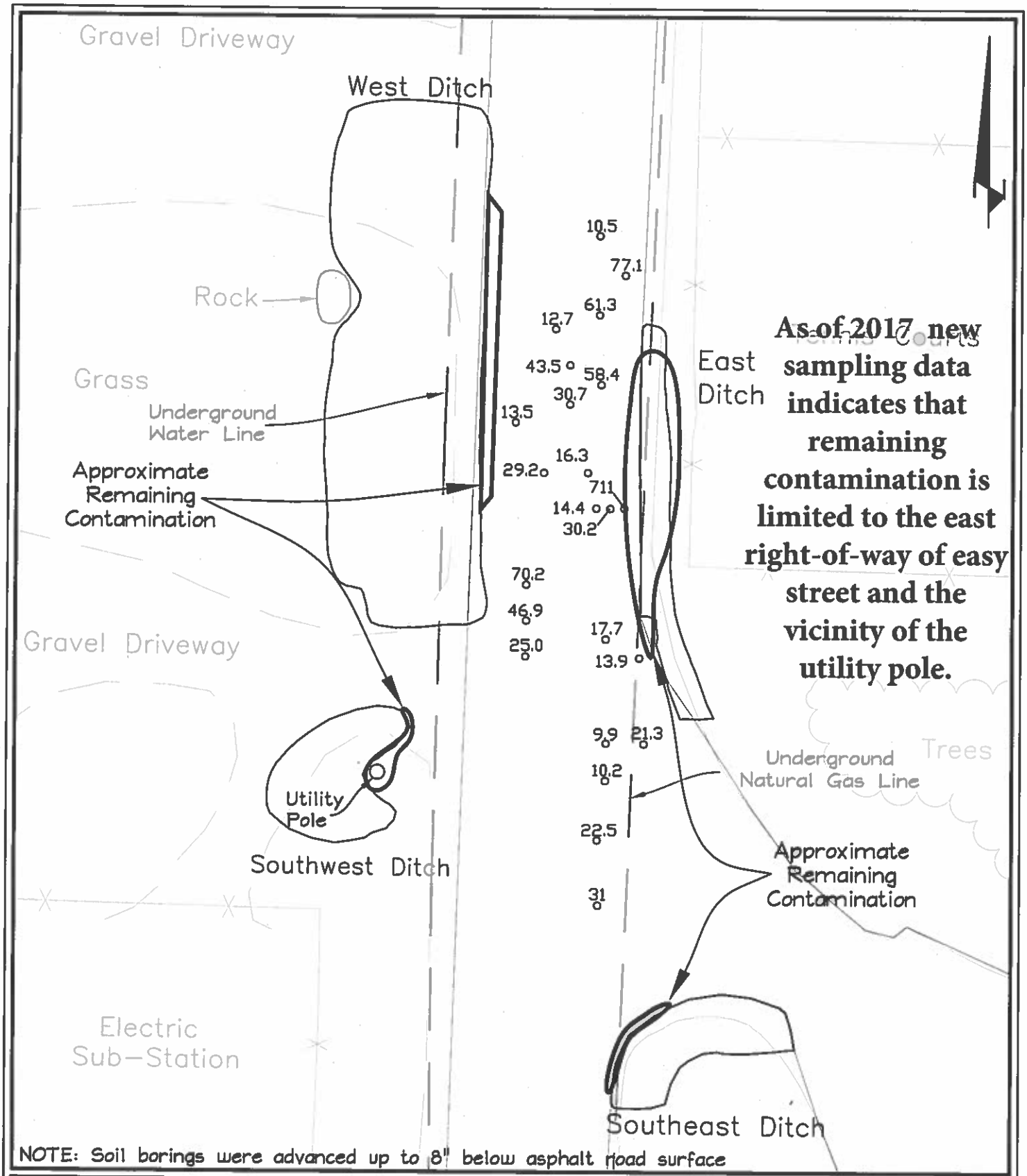
If you have questions about this closure decision, please feel free to contact me at (907) 451-5174, or email at michael.hooper@alaska.gov.

Sincerely,

Michael Hooper
Project Manager

Attachments: Remaining Contamination Site Figure

cc: Craig Chausse, Lakeview Enterprises Inc.
Donna and Brady Robertson, Sun Air Sheet Metal Inc.
Bonnie Brooks, Alaska Club Fairbanks South
Naomi Knight, Golden Valley Electric Association
Michael Wehmeyer, Easy Street Mini Storage
Sam Meyers, DOT&PF (via email)
Dustin Stahl, Alaska Resources and Environmental Services (via email)



NOTE: Soil borings were advanced up to 8" below asphalt road surface

NORTECH
ENVIRONMENTAL ENGINEERING HEALTH & SAFETY
2400 College Road, Fairbanks, Alaska 99709 Ph: 907-452-5688
3105 Lakeshore Dr. Anch, Alaska 99517, Ph: 907-222-2445
4402 Thane Road, Juneau, Alaska 99801 Ph: 907-586-6813

Asphalt Boring Field Screening Results
and Estimated Remaining Contaminated Areas
Easy Street Fuel Spill
Fairbanks, Alaska

SCALE: 1" = 40'	FIGURE: 8
DESIGN: PLB	
DRAWN: BPC	
PROJECT NO: 11-1108	
DWG: 111108a(08)	
DATE: 12/21/2011	