



THE STATE
of **ALASKA**
GOVERNOR MICHAEL J. DUNLEAVY

**Department of
Environmental Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File: 100.38.219

March 22, 2019

James and Caroline Dzimitrowicz
3359 Lineman Avenue
North Pole, Alaska 99705

Re: Decision Document: Residence – 3359 Lineman Avenue
Cleanup Complete Determination

Dear Mr. and Mrs. Dzimitrowicz:

The Alaska Department of Environmental Conservation (ADEC), Contaminated Sites Program has completed a review of the environmental records associated with the Residence – 3359 Lineman Avenue located at 3359 Lineman Avenue, North Pole, Alaska 99705. 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 Residence – 3359 Lineman Avenue, which is located in the ADEC 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:

Residence – 3359 Lineman Avenue
3359 Lineman Avenue
North Pole, Alaska 99705

Name and Mailing Address of Contact Party:

James and Caroline Dzimitrowicz
3359 Lineman Avenue
North Pole, Alaska 99705

ADEC Site Identifiers:

File No.: 100.38.219
Hazard ID.: 4681

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

After purchase of the property in 1995, the current owners cleared a wooded area and large amounts of solid waste left on the ground to create a backyard lawn. In 2008, the family dog dug a hole in the southwest corner of the property uncovering a buried steel 55-gallon drum. The drum had Eielson Air Force Base markings on the exterior and the contents were labeled as lube oil. The ADEC Prevention, Preparedness, and Response Program was notified and involved the Air Force in sampling the soils underneath the drum during a preliminary investigation. One drinking water sample was collected from the property's drinking water well prior to the filtration system. Soil sample results contained arsenic, polychlorinated biphenyls (PCBs as Aroclor 1254), pentachlorophenol (PCP) and methylene chloride above ADEC cleanup levels. Contaminants were not detected in the drinking water sample. Based on these results, the site was administratively transferred to the ADEC Contaminated Sites Program.

Contaminants of Concern

During the site investigation and cleanup activities at this site, samples were collected from soil and groundwater and analyzed for gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO), volatile organics carbons (VOCs), semi-volatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs), metals, polychlorinated biphenyls (PCBs), pesticides, and mercury. Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at this site:

- Aroclor 1254 (PCB)
- PCP
- Methylene chloride
- Trichloroethylene (TCE)

Cleanup Levels

The Method 2 migration to groundwater soil cleanup levels established in 18 AAC 75.341(c), Table B1 apply to this site. Aroclor 1254, PCP, methylene chloride, and TCE were detected above these levels in soil at the site. Contaminants were not detected above the groundwater cleanup levels.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)	Groundwater (µg/L)
Aroclor 1254	1.0	0.44
PCP	0.0043	0.41
Methylene chloride	0.33	110
Trichloroethylene	0.011	2.8

mg/kg = milligrams per kilogram

µg/L = micrograms per liter

Characterization and Cleanup Activities

Contaminants found in soil in 2008 included Aroclor 1254 at 2.21 mg/kg, methylene chloride at 93 mg/kg, and PCP at 0.67 mg/kg from a composite sample collected from immediately beneath the drum and 18 inches below ground surface at the drum location. Further site characterization was conducted in 2018 to identify possible sources of contamination, evaluate the extent of the contaminants found in 2008, and determine if contamination had migrated to the groundwater. A ground penetrating radar (GPR) survey was conducted across the site, but did not find other buried drums or metal debris. GPR results suggested an abandoned trench or french drain was historically connected to the drum location. Site characterization included installation of four soil borings and one temporary monitoring well within 6 to 13 feet from the area where the drum was found. The soil and groundwater samples were analyzed for GRO, DRO, RRO, VOCs, SVOCs, PAHs, metals, PCBs, pesticides, and mercury. Arsenic was detected in soil samples from each of the soil borings, but was attributed to background concentrations that are naturally occurring. TCE was detected in one of the four soil borings at a concentration of 0.0571 mg/kg, above the soil cleanup level. The TCE was found at 9 to 10 feet below ground surface. Groundwater samples collected from the temporary monitoring well had either no detections of contaminants or were below groundwater cleanup levels. No PCBs, methylene chloride, or PCP were detected in the soil and groundwater samples collected in 2018.

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, 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 one of the following: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 3.

Table 3 – 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).
Sub-Surface Soil Contact	De Minimis Exposure	Contamination remains in the sub-surface, but is below cleanup levels for direct contact with contamination.
Inhalation – Outdoor Air	De Minimis Exposure	Contamination remains in the sub-surface, but is below cleanup levels based on outdoor inhalation of contamination.

Inhalation – Indoor Air (vapor intrusion)	De Minimis Exposure	Contamination is of limited extent and is not likely to affect current or future buildings on the property.
Groundwater Ingestion	Pathway Incomplete	A drinking water sample was well-below groundwater cleanup levels. Groundwater samples taken from the source area did not contain contaminant levels above groundwater cleanup levels.
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	De Minimis Exposure	Contaminants of concern have the potential to bioaccumulate in plants or animals, but were not found during the most recent site characterization efforts.
Exposure to Ecological Receptors	Pathway Incomplete	Contamination was only found in the sub-surface soil.

Notes to Table 2: “De Minimis Exposure” means that in ADEC’s judgment receptors are unlikely to be 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. “Exposure Controlled” means there is an institutional control in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

ADEC Decision

Contaminants remain in soil; however, ADEC has determined the extent of contamination is limited and concentrations are acceptable 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 from a site that is subject to the site cleanup rules or for which a written determination from the department has been made under 18 AAC 75.380(d)(1) that allows contamination to remain at the site above method two soil cleanup levels or groundwater cleanup levels listed in Table C 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 which is labeled as Figure 1.)
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 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) 451-2911, or email at Laura.Jacobs@alaska.gov.

Sincerely,



Laura Jacobs
Project Manager

cc: Spill Prevention and Response, Cost Recovery Unit

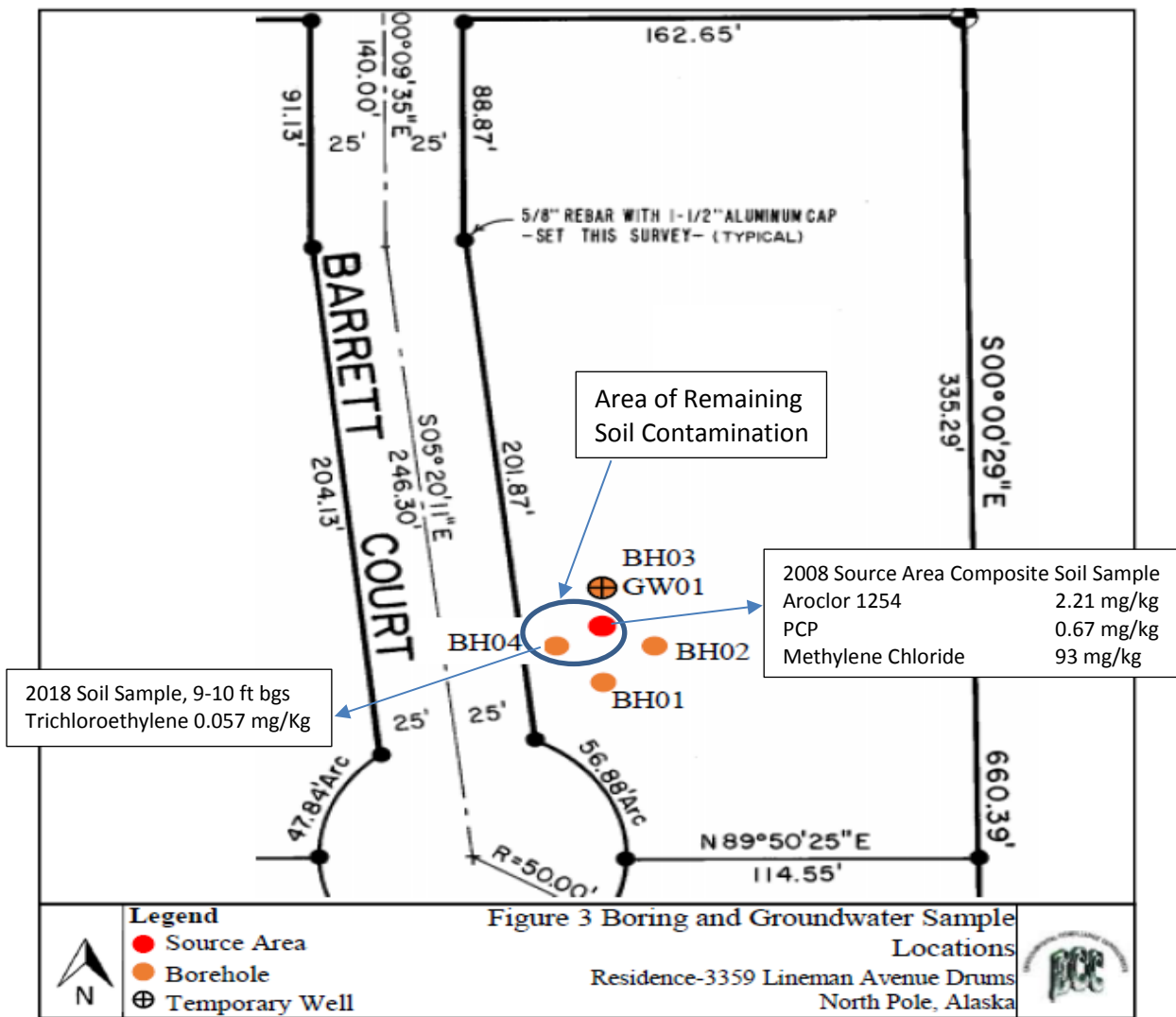


Figure 1. Area of remaining contamination at 3359 Lineman Avenue, North Pole, Alaska.