



May 9, 2017

Carl A. Cross  
12611 Gander Street  
Anchorage, AK 99516

Re: **Decision Document: Residence - Jelinek Place  
Cleanup Complete determination**

Dear Mr. Cross:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has reviewed the ADEC environmental records on file for the Residence - Jelinek Place site ("site") at 161 Jelinek Place in Anchorage. Based on the review ADEC finds that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and will require no further remedial action unless in the future previously undocumented contamination is identified or new information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on ADEC files that comprise the administrative record for the site, which is located in the ADEC office in Anchorage and is also available in part or in full in electronic form. The following summarizes the site history and cleanup actions and levels, and establishes the standard site closure conditions that apply to all contaminated sites for which the responsible person has received a written determination that cleanup is complete from ADEC under 18 AAC 75.380(d)(1).<sup>1</sup>

**Site Name and Location:**

Residence - Jelinek Place  
161 Jelinek Place  
Anchorage, Alaska 99504

**Name and Mailing Address of Contact Party:**

Carl A. Cross  
12611 Gander St.  
Anchorage, AK 99516

**DEC Site Identifiers:**

File No.: 2100.38.052  
Hazard ID.: 3156

**Regulatory Authority for Determination:**

18 AAC 75

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<sup>1</sup> 18 AAC 75.380(d)(1) states in full:

18 AAC 75.380 **Final reporting requirements and site closure.** (d) After reviewing the final cleanup report submitted under this section, if the department determines that

(1) a site has been adequately characterized under 18 AAC 75.335 and has achieved the applicable requirements under the site cleanup rules, the department will issue a written determination that the cleanup is complete, subject to a future department determination that the cleanup is not protective of human health, safety, or welfare, or of the environment

### Site Description and Background

Soil contamination was encountered during the July 1999 removal of a 500-gallon home heating oil underground storage tank (UST) at the 161 Jelinek Place residence. Characterization work in 2000 included advancing and collecting soil samples from four borings, excavating 28 tons of contaminated soil and sampling the base of the excavation, and installing and sampling a monitoring well within the former tank footprint. Elevated levels of DRO were identified in soil samples from depths of 7 to 12.5 ft bgs. The sample from the groundwater present at 12 feet bgs contained DRO below the applicable cleanup level.

After a lengthy hiatus, site work resumed in September 2016 with the installation of three borings completed as monitoring wells at the locations shown on **Figure 1**. Following completion of site work and monitoring in January 2017, no soil or groundwater samples exceeded cleanup levels for any petroleum hydrocarbon compounds.

### Contaminants of Concern

During the site characterization and cleanup activities at the site, soil and groundwater samples were analyzed for residual range organics (RRO), DRO, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs) and benzene, toluene, ethylbenzene and xylenes (BTEX). Based on these analyses, the following was the only compound detected above the applicable migration to groundwater cleanup levels and is the only Contaminant of Concern at the site:

- Diesel Range Organics (DRO)

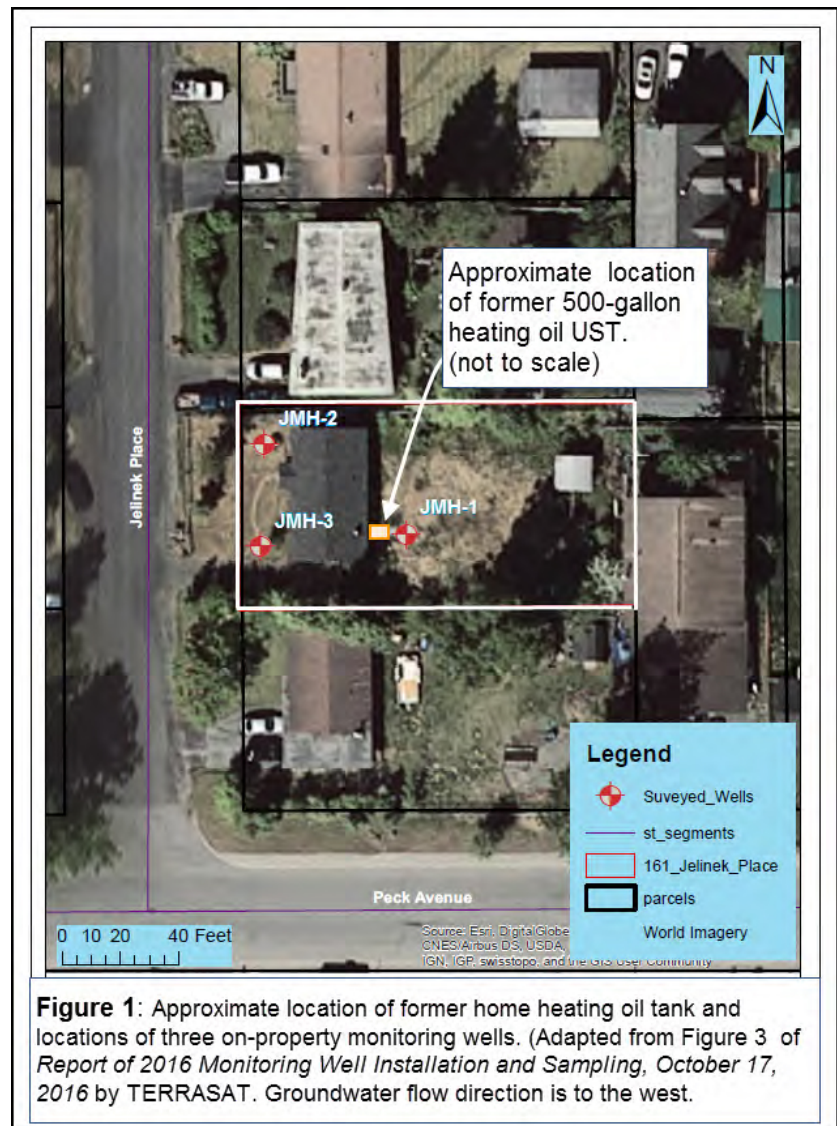
### Cleanup Levels

The 18 AAC 75.341 Table B2 Method Two, under 40-inch precipitation zone, migration to groundwater cleanup level applies to the DRO-contaminated soil at the site.

**Table 1 – Approved Cleanup Levels**

Contaminant	Soil, Migration to Groundwater (mg/kg)	Groundwater (mg/L)	Soil, Human Health (mg/L)
DRO	250	1.5	10,250

mg/kg = milligrams per kilogram; mg/L = milligrams per liter

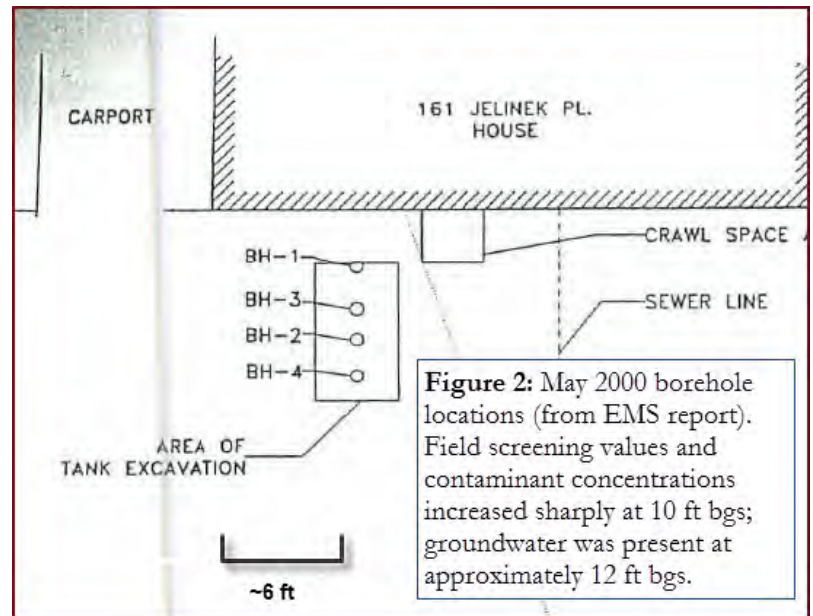


### Characterization and Cleanup Activities

The house at 161 Jelinek Place was built in 1960 at a time when heating oil was used to heat homes in Anchorage. Once natural gas became available by the early 1970s the 500-gallon underground heating oil storage tank (UST) on the east side of the house was taken out of use and left in place. In 1999 the then-homeowner placed the property on the market and agreed to split the cost of removing the tank with a prospective purchaser to determine if the tank had leaked and to investigate the possibility of contamination. During removal of the tank in July 1999 the bottom of the tank was observed to be oil-stained with a hole in the tank beneath the fill pipe end of the tank. (See **Figure 1**, tank location). No indication of contamination was observed on the sidewalls or in the soil removed from around the tank but stained soil was observed beneath the tank. There is no mention in file documents of whether or not the tank contained fuel at the time of removal. The contractor covered the stained soil with polyethylene plastic sheeting at a depth of six feet bgs and backfilled the tank excavation. No samples were collected for laboratory analysis.

The holder of the VA-guaranteed loan, Midfirst Bank, foreclosed in August 1999 and in September 1999 exercised its option to convey the property to the VA. The release was reported to ADEC in November 1999. The VA contracted with Environmental Management, Inc. (EMI) to conduct limited site characterization.

In May 2000 EMI advanced and sampled soil from four soil borings within the former tank location, with sampling beginning below the polyethylene sheeting present at six feet bgs. Samples were analyzed for RRO, DRO and BTEX. The small tracked drill rig used for the borings could not penetrate below 11 feet bgs due to the presence of coarse gravel and cobbles. Of the four borings, samples were only attainable below nine ft bgs in BH-3, with a sample at 10 ft bgs containing 2,780 mg/kg DRO and a sample at 11 ft bgs containing 799 mg/kg DRO. No other constituents detected in any samples exceeded one-tenth of the applicable cleanup level. Groundwater was not encountered.



In September 2000 ADEC determined that the VA was not liable for cleanup of the property under AS 46.04.020 and the "Site Cleanup Rules", 18 AAC 75 .325 - 18 AAC 75.390 or for damages, including response costs, under AS 46.03.822, since it fell within the lender "safe harbor" exemption of AS 46.03.826(8). The VA elected to further characterize the site for the purpose of selling the property.

A second phase of work took place in October 2000 and was reported in the *Site Characterization and Interim Cleanup Report, November 2000* prepared by EMI. Work included excavating soil to groundwater; installing a well point for groundwater monitoring; removing soil from the six to 14 ft bgs interval; and sampling undisturbed soil at the maximum depth of excavation. A total of 28.19 tons of soil was excavated and later transported off site for thermal remediation. A sample collected from undisturbed soil at the west end of the former tank location at 12.5 ft bgs contained 5,210 mg/kg DRO. A sample collected close to the east end of



the former tank location at 12 ft bgs contained 397 mg/kg DRO. Groundwater, present at 12 ft bgs, was sampled and analyzed for RRO, DRO and BTEX. Detected contaminants were DRO, 1.18 mg/L; xylene, 0.00275 mg/L; and toluene, 0.00222 mg/L; all below 18 AAC 75.345 Table C groundwater cleanup levels. EMI reported that the nearest drinking water well is a private well on the neighboring property to the north at 151 Jelinek Pl. an estimated 60-120 feet from the former location of the tank at 161 Jelinek Place. Static water level in the neighboring well was reportedly 16 ft bgs at the time it was constructed in 1962, with the total depth of the well 42 ft bgs.

Following completion of the work the VA sold the property 'as-is' and in a letter dated January 8, 2002 advised the new owner that additional monitoring was required and to contact ADEC for information on further requirements since the site was still open. Although the new owner contacted ADEC regarding Contaminated Site Program requirements, there is no record that additional environmental work, including groundwater monitoring, was done subsequent to the 2002 sale of the property. ADEC has incomplete information regarding the chain of title after 2002.

Site work resumed in September 2016 after ADEC notified the property owner of his status as a potentially responsible party. Work included the installation of three borings completed as monitoring wells at the locations shown on **Figure 1**. Soil and groundwater samples were collected on September 7, 2016 and analyzed for RRO, DRO and BTEX. Boring JMH-1, shown on **Figure 3** below, was placed as close as possible to the location of the most highly contaminated sample collected at 12.5 ft bgs in October 2000.



**Figure 3:** ADEC staff at monitoring well JMH-1, located within the former tank excavation on the east side of the house. Drill rig tower visible in background installing wells JMH-2 and JMH-3 in front yard of house. (ADEC site visit September 7, 2016).

Contaminants detected in soil in JMH-1 were DRO at 9 mg/Kg and RRO at 27.2 mg/kg at 11 ft bgs, over two orders of magnitude below the applicable migration to groundwater cleanup levels, with no other contaminants detected. Groundwater analytical results were non-detect for all compounds.

Additional work was conducted in January 2017. A second groundwater sample and duplicate were collected from monitoring well JMH-1 on January 13, 2017 with DRO the only analyte detected at a concentration of 0.197 mg/L in the duplicate sample. In addition to the RRO, DRO and BTEX sampling requested by ADEC, consultant TERRASAT directed the SGS laboratory to analyze the sample for the full suite of VOCs and PAHs to ensure compliance with new regulations not in effect during the first investigation in September 2016. RRO and BTEX were not detected at levels above the detection limit for either sample. Results for the 67 VOC analytes by method SW8260C and for the 18 PAH analytes by method 8270D SIM LV showed no analyte detected above the detection limit.

TERRASAT also conducted screening for VOCs with a photoionization detector (PID) in the crawl space beneath the house with no elevated readings or other evidence of contamination observed.

The approximate area of the site is shown on **Figure 4**.

No DRO exceeding migration to groundwater cleanup levels was documented in site soil during the 2016 work.

Site work was complete with the decommissioning of the three monitoring wells on May 6, 2017.

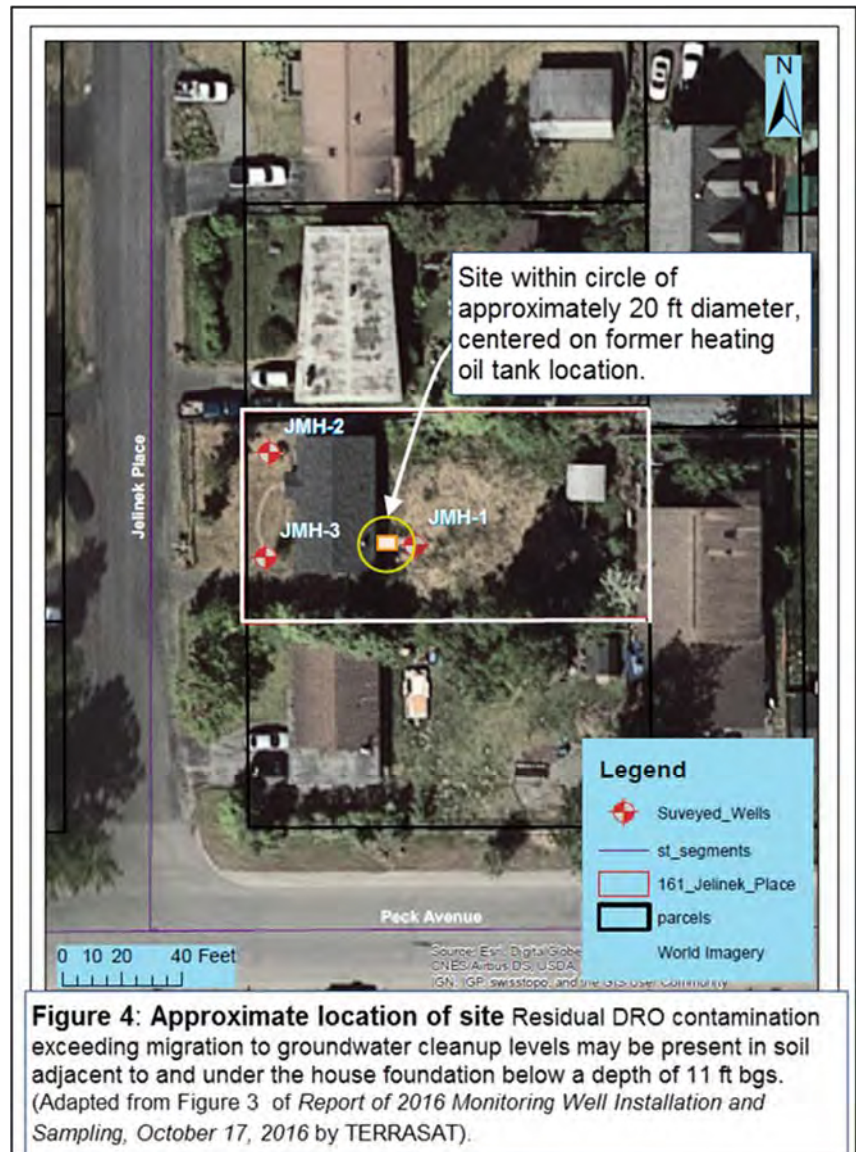
### Cumulative Risk Evaluation

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 one of the following: De-Minimis Exposure 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	Pathway Incomplete	No contaminated surface soil (0 to 2 feet below ground surface) identified at site.
Subsurface Soil Contact	De Minimis Exposure	Contamination may remain in subsurface soil adjacent to the house foundation at levels exceeding the migration to groundwater level but below the ingestion or human health levels.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination may remain in the subsurface, but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	No volatiles were identified above cleanup levels in soil or groundwater at the site.
Groundwater Ingestion	De Minimis Exposure	Contamination reached the shallow groundwater, present at about 12 ft below ground surface, but did not exceed groundwater cleanup levels for any compounds.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source in the vicinity of the site. There is no evidence or suspicion of surface water contamination resulting from this site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	There are no ecological receptors in the area and the contaminant type and location (at depth) does not pose a risk to potential receptors.

**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 contamination at the site has been cleaned up to concentrations below the approved human health cleanup levels suitable for residential land use. No groundwater contamination exceeded cleanup levels during three monitoring events. DRO in soil is the only contaminant of concern at the site. During the most recent site work in 2016, the deepest sample from the boring at the location of the former tank was collected at 11 ft bgs, while the most contaminated sample during work in 2000 was collected at 12.5 ft bgs and contained 5,210 mg/kg DRO. Therefore DRO concentrations in soil below approximately 11 ft bgs may exceed the migration to groundwater cleanup level of 250 mg/kg within the area of the site (shown on **Figure 4**) but groundwater monitoring results support ADEC’s determination that any contaminants that may remain in soil have achieved steady-state equilibrium and will not migrate to groundwater.

No further remedial action will be required at this site unless new information becomes available that indicates residual contaminants may pose an unacceptable risk. This site will receive a “Cleanup Complete” designation on the Contaminated Sites Database, subject to the standard conditions listed below.



**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. The approximate location of the site is shown on **Figure 4**.
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) 269-7527 or email at [Eileen.Olson@alaska.gov](mailto:Eileen.Olson@alaska.gov).

Sincerely,



Eileen Olson  
Project Manager

cc: Spill Prevention and Response, Cost Recovery Unit