THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File No: 2245.38.038

January 26, 2016

Granite Construction
Attn: Mr. David Laster
11471 Lang St.
Anchorage, AK 99515

Re: Decision Document, Central Paving Products Gravel Pit
Cleanup Complete Determination

Dear Mr. Laster:

The Alaska Department of Environmental Conservation (ADEC) has reviewed the environmental records for the Central Paving Products Gravel Pit contaminated site known as the Granite Palmer Facility at 3623 South Sky Ranch Loop in Palmer Alaska. This decision letter memorializes the site history, cleanup actions, and standard conditions for long-term site management. No further remedial action is required.

Site Name and Location:
Central Paving Products Palmer Pit
3623 South Sky Ranch Loop
Palmer, AK 99645

Name and Mailing Address of Contact Party:
Granite Construction
11471 Lang St.
Anchorage, AK 99515

DEC Site Identifiers:
File No: 2245.38.038
Hazard ID: 25273

Regulatory Authority for Determination:
18 AAC 75

Site Description and Background

In 2008, Granite Construction's consultant identified 158 soil-stained areas at the gravel pit operation on Lots A1 and B5 of Section 19, Township 17N, Range 02E. The releases were most likely related to the operation of heavy equipment. Petroleum contamination up to 20,700 mg/kg diesel range organics (DRO) and 71,100 mg/kg residual range organics (RRO) was detected in soil during the initial investigation.

Contaminants of Concern

During the course of the site investigations, summarized below in the Characterization and Cleanup Activities section of this decision letter, soil and groundwater samples were analyzed for DRO, RRO, gasoline range organics (GRO), polynuclear aromatic hydrocarbons (PAH), and benzene, toluene, ethylbenzene, total xylenes (BTEX). The following contaminants of concern were identified:

- DRO
- RRO

Cleanup Levels

The approved cleanup levels for DRO and RRO in soil are the Method 2 for the under 40-inch precipitation zone migration to groundwater and ingestion cleanup levels established in 18 AAC 75.341(c), Table B2. The groundwater cleanup levels for DRO and RRO are found in 18 AAC 75.345 Table C.

Table 1 – Approved Cleanup Levels

Contaminant	Soil- Migration to Groundwater (mg/kg)	Soil- Ingestion (mg/kg)	Groundwater (mg/L)
DRO	250	10,250	1.5
RRO	11,000	10,000	1.1

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

Characterization and Cleanup Activities

In August 2009 158 locations of soil staining were identified at the site. Most of the soil staining was shallow and the material was excavated and stockpiled on site. Some of the stained areas extended to subsurface soil and the shallow groundwater (as little as 0.5 feet below ground surface in some areas). Field-screening was conducted in all of the excavations.

Confirmation samples at some of the smaller stained areas (stains that were smaller than 16 square feet) were composited for analysis. Samples contained DRO up to 841 mg/kg and RRO at 3,700 mg/kg.

The larger stained areas were sampled for cleanup confirmation individually. Field-screening and sampling indicated that DRO contamination was still present at some of the individually sampled locations up to 1,690 mg/kg. Shallow groundwater that accumulated in some of the excavations exhibited petroleum sheen.

Between August 2009 and October 2009, twelve small stained areas where contamination remained were further excavated. The excavated material was stockpiled with the August 2009 stockpiles. No additional confirmation samples were documented.

In November 2009, additional excavation and investigation was conducted at the larger stained areas. Thirty-four analytical samples were collected and analyzed for DRO, RRO, BTEX, and two of the samples were also analyzed for PAH. The highest levels of DRO and RRO detected during this investigation were 107 mg/kg and 186 mg/kg respectively and none of the analytes exceeded cleanup levels.

Four groundwater monitoring wells were installed at the site in September 2010. Groundwater was encountered at approximately 2 feet below ground surface. Samples collected from each well were analyzed for DRO, RRO, BTEX, and one sample was analyzed for PAH. All analytes were either not detected or were detected below groundwater cleanup levels.

In 2015 the groundwater monitoring wells were decommissioned and the stockpile of 684 cubic yards of material from the excavations in 2009 and 2010 was processed into asphalt and a portion of the facility was paved as a laydown yard.

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 are de minimis do not pose a cumulative human health risk.

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 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	Contaminated surface soil was removed during the 2009 and 2010 excavations.
Sub-Surface Soil Contact	De-Minimis Exposure	Remnant soil with DRO and RRO contamination may exist in small isolated areas and is considered de minimis.
Inhalation – Outdoor Air	Pathway Incomplete	Contaminants were not detected above outdoor inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	The site is a material mining site and no structures are present or likely to be constructed in the future. No volatile contaminants were detected in the groundwater.
Groundwater Ingestion	Pathway Incomplete	Contaminants were not detected above cleanup levels in the shallow groundwater monitoring wells.
Surface Water Ingestion	Pathway Incomplete	Water from the Matanuska River and from the active gravel pit are not used for drinking water. Contaminated surface soil that could contribute to runoff has been excavated and there were no detections of COC in the shallow groundwater.
Wild Foods Ingestion	Pathway Incomplete	The facility is an actively mined gravel pit, it is not used for farming or subsistence.
Exposure to Ecological Receptors	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.

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.

ADEC Decision

Remaining petroleum contamination in soil is below approved cleanup levels. 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 (the site is shown in the attached figure) requires ADEC approval in accordance with 18 AAC 75.325. 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.

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 this site may pose an unacceptable risk to human health or the environment

The site, as well as the surrounding facility, is bound by spill reporting requirements of 18 AAC 75.300.

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 99811-1800, 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 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.

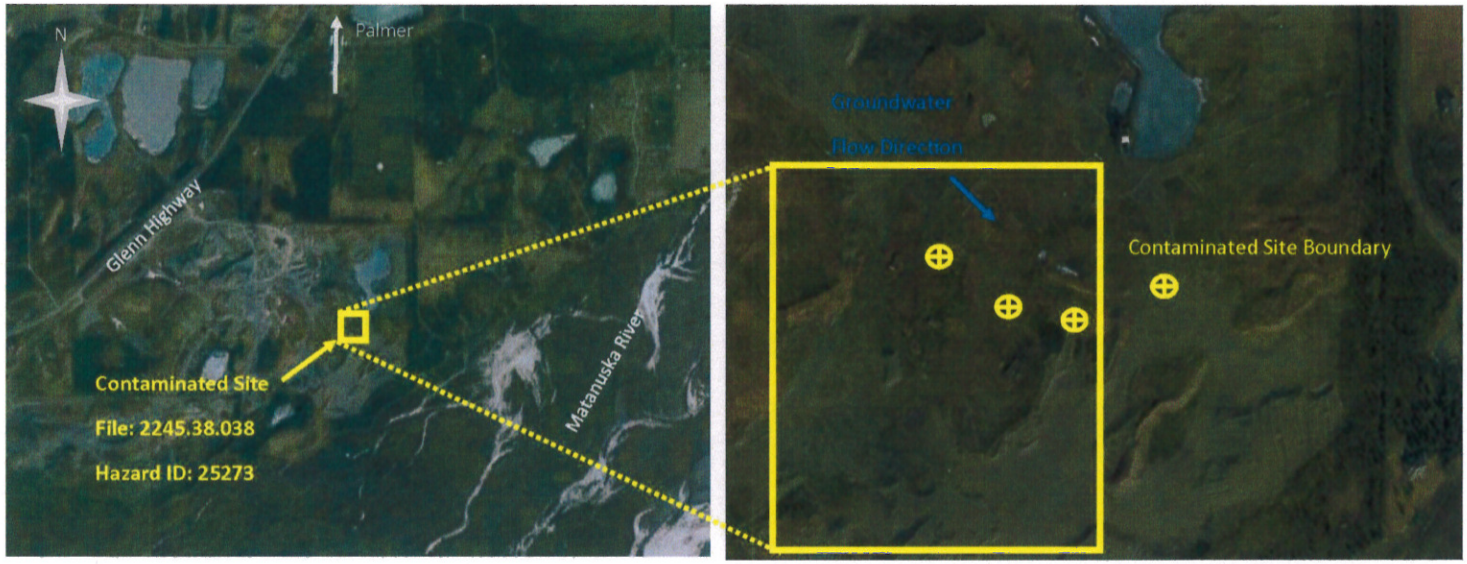
Sincerely,

Lisa Krebs-Barsis
Environmental Program Specialist

Attachment: Site Figure

January 26, 2016

CENTRAL PAVING PRODUCTS GRAVEL PIT
Contaminated Sites File Number: 2245.38.038
Hazard ID: 25273



The area bounded in yellow is the "site" and is subject to standard conditions described in the Cleanup Complete letter and the regular discharge or release reporting requirements in 18 AAC 75.300. The rest of the facility is subject to regular discharge or release to land or water reporting requirements described in 18 AAC 75.300.