THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION & RESPONSE
Contaminated Sites Program

555 Cordova Street
Anchorage, Alaska 99501
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dec.alaska.gov

File No: 2100.38.414

September 25, 2014

Steve Connelly
Resource Development Mgr.
Granite Construction Company
11471 Lang Street
Anchorage, AK 99515

Re: Revised Decision Document: Central Paving – West Dowling
Cleanup Complete – Institutional Controls Determination

Dear Mr. Connelly;

This decision document revises and replaces the decision document for this site dated September 5, 2014. The Alaska Department of Environmental Conservation (ADEC) reviewed the environmental records for the referenced site and has determined that no further remedial action is required. This decision memorializes the site history, cleanup actions, and specific conditions required to effectively manage remaining contamination. No further remedial action will be required as long as compliance with these conditions is maintained.

Site Name and Location:
Central Paving – West Dowling
6060 Electron Drive
Anchorage, AK 99518
Legal description: Denali Industrial Park, Block 3, Lot A-1

Name and Mailing Address of Contact Party:
Steve Connelly
Granite Construction Company
11471 Lang Street
Anchorage AK 99515

DEC Site Identifiers:
File No: 2100.38.414
Hazard ID: 3303

Regulatory Authority for Determination:
18 AAC 75

Background

The site is within a 37.34-acre industrial-zoned parcel, west of Minnesota Avenue and south of Electron Drive in south Anchorage. The parcel address was changed to 6060 Electron Drive from the former address of 1300 West Dowling Road by the Municipality of Anchorage (MOA). The property was developed in the 1970s and by 1983 was fully operational and remained in continuous use as an asphalt production and recycling plant until fall of 2011, when operations were moved to another property. Contamination of soil and groundwater by petroleum hydrocarbons was reportedly associated with the past practice through the mid-1980s of spraying truck beds with diesel to keep asphalt from sticking, then washing down the trucks in an unpaved area. Impacts to soil and groundwater by petroleum hydrocarbons were primarily limited to the former asphalt plant area in the northwest corner of the property, shown on **Figure 1** below, comprising an estimated area of under one acre of the property. A monitoring well installed in March 1999 within the area shown in the southwest corner of the property on **Figure 1** exceeded the cleanup level for residual range organics (RRO) during the first of two monitoring events conducted prior to decommissioning the well.

Figure 1: Approximate areas of petroleum hydrocarbon impacts to groundwater circled; areas are located within the northwestern portion and the southwestern corner of the Central Paving site property and occupy an estimated combined total of less than one acre. (Aerial photograph and property boundary from www.anchoragelive.com).

Contaminants of Concern

During the investigations at the site, soil and groundwater samples were analyzed for the following: gasoline range organics (GRO); diesel range organics (DRO); residual range organics (RRO); and the volatile organic compounds (VOCs) benzene, toluene, ethylbenzene, and xylenes (BTEX). Based on these analyses and knowledge of the source area, the following contaminants of concern (COC) were identified in soil and/or groundwater as indicated:

- DRO in soil
- DRO and RRO in groundwater

Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Table B2, *Under 40 Inch Zone*. The default groundwater cleanup levels for this site are established in 18 AAC 75.345 Table C, Groundwater Cleanup Levels.

Table 1 – Soil and Groundwater Cleanup Levels

Contaminants of Concern	Soil - Method Two, Direct Contact /Ingestion (mg/kg*)	Soil - Method Two, Inhalation (mg/kg)	Soil - Migration to Groundwater (mg/kg)	Groundwater (mg/L**)
DRO	10,250	12,500	250	1.5
RRO	10,000	22,000	11,000	1.1

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

Characterization and Cleanup Activities

A Phase I[1] environmental site assessment (ESA) was performed by DOWL Engineers and Alaska Test Lab (DOWL) in fall 1998. DOWL noted soil staining in localized areas and confirmed that diesel contaminated soil had been excavated in the northwest area of the site, east of the former asphalt batch plant at a truck spray and wash down area. The former practice, until the mid-1980s, was to coat the inside bed of a dump truck with diesel fuel prior to loading the truck with hot asphalt. When the practice was halted a large amount of soil was excavated from the area and replaced with imported material, with the excavated material crushed and processed into asphalt. The removal activity was not documented.

A Phase II[2] ESA performed by DOWL in March 1999 included placement of six borings and two temporary monitoring wells. Soil contamination above site cleanup levels was encountered in two of four borings placed at the truck spray rack area, with DRO concentrations above the site cleanup level of 250 mg/kg with a maximum concentration of 3,620 mg/kg in a sample collected at approximately 6 feet below the ground surface (bgs). DRO concentrations in deeper samples collected from 10-11 feet bgs were below cleanup levels. Temporary monitoring wells TMW-I and TMW-2 were placed in the northeast comer and the southwest comer of the property, respectively. Well TMW-2 exceeded the 1.1 mg/L cleanup level for RRO with a result of 1.18 mg/L; TMW-1 results did not exceed cleanup levels for any compound but was sampled using an inline 0.45 micron filter to remove particulates, a filter size ADEC noted was smaller than that allowed when filtration is approved, because it may remove colloidal solids that transport contamination.[3]

The Phase II found no evidence of environmental impact at areas other than at the truck spray rack and the RRO in groundwater in well TMWS-2 in the southwest corner of the property. DOWL recommended additional investigation to further define the extent and the impact to the soil and to the groundwater at the spray rack location.

Impacted soil was excavated during site work in 2000, 2001 and 2002, with an additional small volume of impacted soil was excavated in 2014. In April 2000 the then-owner of the site, Wilder Construction (Wilder), applied for and was accepted into ADEC's Voluntary Cleanup Program (VCP). At an unspecified later date the site was found not to qualify for the VCP program based on the presence of groundwater contamination. The VCP approved excavation and transport of 1,699 tons of DRO-contaminated soil excavated in late April and early May 2000. The soil was thermally treated at Alaska Soil Recycling (ASR).

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[1] See *Phase I Environmental Site Assessment, Central Paving Products, Dowling Facility…December 1998* prepared by DOWL Engineers.

[2] See *Phase II Environmental Site Assessment, Dowling Road Central Paving Products Facility Property* dated December 9, 1999 and prepared by DOWL Engineers.

[3] See February 1, 2002 email from ADEC to Wilder, on file.

In 2001 Wilder excavated approximately 50 cubic yards of DRO-contaminated soil at the spray rack area and proposed reuse of the material by mixing it with recycled asphalt. ADEC's letter dated July 5, 2001 approved Wilder's reuse of DRO-contaminated by incorporating the soils into a recycled asphalt mix for paving in accordance with the cold asphalt recycling section of the contaminated sites guidance then in effect.[4] Based on the soil quantity and level of contamination, ADEC did not require a formal design process or submittals.

Excavation of impacted soil resumed during the 2002 field season with oversight by consultant TELLUS and was reported in the *Site Closure Report for Central Paving Products Facility* dated January 22, 2014. During May and June 2003 ADEC approved replacement of damaged TMW-2, the well that previously exceeded the cleanup level for RRO, and approved sampling of TMW-1 and TMW-2 for DRO and RRO. Results were non-detect for both compounds and ADEC approved decommissioning of the wells.

ADEC staff requested a report for the work done from 2000 through 2002 on two or three occasions in 2003 without a response. In 2013 ADEC renewed the request for a report for the work done in the early 2000s and in December 2013 met with Granite Construction and its consultant to discuss completion of the report of past environmental work.

Granite provided a report in January 2014[5] for the work done from 2000 to 2002. Field notes included in the report noted the presence of free product on groundwater during excavation of contaminated soil. ADEC's review letter dated February 11, 2014 requested a work plan for installation of three borings completed as long-term groundwater monitoring wells and documentation that the area where contaminated soil was excavated was accurately relocated for future work. ADEC conditionally approved a work plan dated April 17, 2014 for borings and monitoring well installation and soil and groundwater sampling.

Work done under the approved plan was documented in a report dated March 20, 2014.[6] The report documented the March 2014 installation and groundwater sampling of three borings completed as groundwater monitoring wells, shown on **Figure 2** below. DRO, GRO and ethylbenzene were detected in groundwater but did not exceed cleanup standards. Depth to groundwater ranged from 9.8 to 11.25 feet below the ground surface (bgs) in the three wells. Groundwater flow direction was determined to be to the southwest. A soil sample from one of the borings (boring and monitoring well A) exceeded the cleanup level for DRO at 4,450 mg/kg from the 7-9 foot interval. ADEC's letter requested a plan for additional characterization of soil contamination by placing borings around the boring containing the high DRO concentrations and continued groundwater monitoring for a total of four quarterly events including the initial sampling event. ADEC approved a plan submitted by Granite in a letter dated April 18, 2014.

Granite documented the work completed in April 2014 in a report dated May 2, 2014.[7] The submittal was both a report that documented the drilling and sampling of four soil borings, TB1 through TB4, and a plan that proposed sampling groundwater from the three wells at the site, designated A, B and C, all shown on **Figure 2** below. ADEC conditionally approved the plan in a letter dated May 8, 2014.

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[4] See ADEC *Guidance for Storage, Remediation, and Disposal of Non-UST Petroleum Contaminated Soils, July 29, 1991*. This guidance was withdrawn and replaced by comprehensively reorganized and revised 18 AAC 75 regulations effective January 22, 1999.

[5] See first of five reports having the same title but different dates: "Site Closure Report for Central Paving Products Facility" dated January 22, 2014 and prepared by TELLUS, Ltd.

[6] See second of five reports having the same title but different dates: "Site Closure Report for Central Paving Products Facility" dated March 20, 2014 and prepared by TELLUS, Ltd.

[7] See third of five reports having the same title but different dates: "Site Closure Report for Central Paving Products Facility" dated May 2, 2014 and prepared by TELLUS, Ltd.

Groundwater monitoring conducted on May 14, 2014 was documented in a report dated May 22, 2014.[8] While none of the groundwater samples from the three wells exceeded groundwater cleanup levels during the first event, monitoring well B exceeded the cleanup level 1.5 mg/L cleanup level for DRO with a result of 4.1 mg/L. Groundwater flow direction for the second event was approximately to the west, a change of approximately 70 degrees from the southwest flow direction determined for the first event on March 6, 2014. The depth to groundwater in well B dropped approximately two feet between the first and second monitoring events. On June 4, 2014 ADEC approved a plan to remove well A and to excavate the contaminated soil associated with that location, and to sample wells B and C.

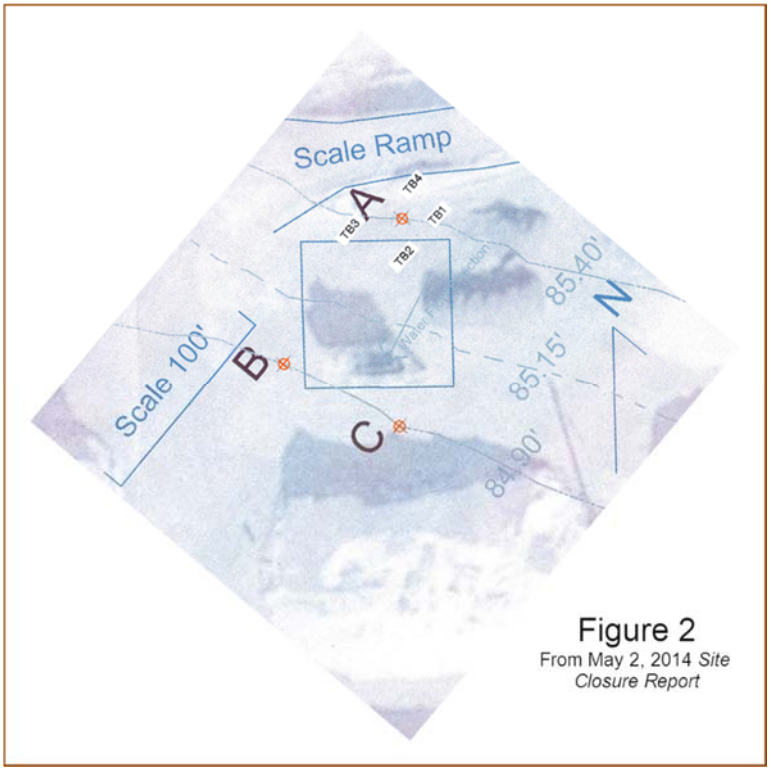

Figure 2
From May 2, 2014 *Site Closure Report*

Granite submitted a final report dated July 24, 2014[9] that reported the excavation of contaminated soil at the well A location and the results of sampling monitoring wells B and C. Analytical results for groundwater samples from each well were below cleanup levels, and soil confirmation samples for the excavation at the former well A location were non-detect, with approximately three cubic yards of contaminated soil removed from the well A location and transported to Granite's new location for incorporation into asphalt mix. The depth to groundwater in well B was 7.9 feet below the ground surface, essentially unchanged from the second monitoring event. ADEC approved decommissioning of monitoring wells B and C.

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 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 one of the following: De-Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

[8] See fourth of five reports having the same title but different dates: "Site Closure Report for Central Paving Products Facility" dated May 22, 2014 and prepared by TELLUS, Ltd.

[9] See fifth of five reports having the same title but different dates: "Site Closure Report for Central Paving Products Facility" dated July 24, 2014 and prepared by TELLUS, Ltd.

Table 2

Pathway	Result	Explanation
Direct Contact with Surface Soil	De Minimis	Contaminated soil was excavated and analytical results from soil samples taken from borings and at the limits of the excavations did not exceed the most stringent ADEC cleanup levels.
Direct Contact with Subsurface Soil	De Minimis	Contaminated soil was excavated and contaminants were not detected above the most stringent ADEC cleanup levels for this pathway based on analytical results from the soil samples taken from borings and at the limits of the excavations.
Outdoor Air Inhalation	Pathway Incomplete	The remaining subsurface contamination (documented in groundwater only) is below inhalation cleanup levels.
Groundwater Ingestion	De Minimis	DRO documented in groundwater exceeded cleanup levels during the second of three monitoring events. The shallow groundwater is not used as a drinking water source and the impacted area is more than 150 feet from either of the two wells on the property that tap into a deeper drinking water aquifer. In addition, a NEC will be filed on the property deed notifying future property owners of the presence of contaminated groundwater.
Surface Water Ingestion	Pathway Incomplete	Surface water contamination was not documented at the site.
Wild or Farmed Foods Ingestion	Pathway Incomplete	Wild foods are not collected in this area.
Indoor Air Inhalation (Vapor Intrusion)	Pathway Incomplete	Contaminants were not documented above the applicable cleanup level for this pathway.
Ecological	Pathway Incomplete	There are no complete exposure pathways to ecological receptors at the site.

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 administrative mechanism in place limiting land or groundwater use, or a physical barrier in place that deters contact with residual contamination.

ADEC Decision

Petroleum contamination remains in groundwater above the default groundwater cleanup levels established in 18 AAC 75.345 Groundwater Cleanup Levels, Table C. This site will receive a "Cleanup Complete with Institutional Controls" designation on the Contaminated Sites Database, subject to the following conditions:

Conditions

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use changes, current institutional controls may not be protective and ADEC may require additional remediation and/or institutional controls. Therefore, Granite or any successor owner will report to ADEC every five years to document land use, or as soon as Granite or its successor owner becomes aware of any change in land ownership and/or use. **The report can be sent to the local ADEC office or electronically to DEC.ICUnit@alaska.gov**

2. A *Notice of Environmental Contamination* (NEC) will be recorded by ADEC at the State Recorder's Office that identifies the nature and extent of contamination at the property, and any conditions the owners and operators are subject to in accordance with this decision document. (See Attachment B.)

3. The site comprises those areas circled on Figure 1 of this decision document. 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.

4. Installation of groundwater wells, dewatering or otherwise using or moving the groundwater at the site requires approval from ADEC.

5. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

Note that conditions 3 and 5 are standard for all contaminated sites and will remain in effect after ICs are removed.

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.

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 99801, 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 99801, 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.

Sincerely,

Eileen Olson
Project Manager

Attachment A: Cleanup Complete-ICs Agreement Signature Page
Attachment B: NEC

cc: Scott Erdmann, TELLUS, Anchorage
RFA via email at **dec.spar.cr@alaska.gov**

DEC***Attachment A: Cleanup Complete-ICs Agreement and Signature Page****

Granite Construction agrees to the terms of this Corrective Action Complete with Institutional Controls determination as stated in this closure decision document dated **September 25, 2014** for the *Central Paving – West Dowling Road* site. Failure to comply with the terms of this agreement may result in ADEC reopening this site and requiring further remedial action in accordance with 18 AAC 75.380.

[signature], REGION MANAGER, V.P.
Signature of Authorized Representative of Granite Construction, Title

DEREK BETTS, REGION MANAGER, V.P.
Printed name of Authorized Representative of Granite Construction, Title

10/2/2014

Note to Responsible Person (RP):
After making a copy for your records, please return a signed copy of this form to the ADEC project manager at the address on this correspondence within 30 days of receipt of this letter.

ADEC File No.: 2100.38.414
Hazard ID: 3303
ADEC Project Manager: Eileen Olson

For Internal Use Only

***Attention ADEC Administration Staff:** Please follow the procedure below after Attachment A is signed/returned to ADEC.

1. Log-in and Date Stamp *Attachment A*
2. Scan *and* Save to the appropriate electronic folder on the network Drive
3. File the hard copy in the appropriate project/site file Correspondence Folder (blue in Anchorage).
4. Provide the Correspondence folder (with the filed *Attachment A* hard copy) to the ADEC Project Manager

Attachment B
Notice of Environmental Contamination
(To be filed by DEC)

Grantor: Alaska Department of Environmental Conservation-Contaminated Sites Program

Grantee: Granite Construction, Inc.

Legal Description: Denali Industrial Park, Block 3, Lot A-1

Recording District: Anchorage

Return to: Eileen Olson
ADEC Contaminated Sites Program
555 Cordova Street
Anchorage, AK 99501

State Business- No Charge

NOTICE OF ENVIRONMENTAL CONTAMINATION

This Notice of Environmental Contamination (NEC) revises and supercedes the NEC filed on September 11, 2014 at the Anchorage, Alaska Recorder's Office. As required by the Alaska Department of Environmental Conservation (ADEC); Grantor; pursuant to 18 AAC 75.375 Granite Construction, Inc. - Grantee; as the owner and operator of the subject property, hereby provides public notice that the certain areas of the property located at 6060 Electron Drive, Anchorage, Alaska, 99518 and more particularly described as follows:

Denali Industrial Park, Block 3, Lot A-1, Anchorage, AK 99518;
Anchorage Recording District, Third Judicial District, State of Alaska

have been subject to discharges or releases of oil or other hazardous substances, regulated under 18 AAC 75, Oil and Other Hazardous Substances Pollution Control, revised as of April 8, 2012. The releases are documented in the ADEC contaminated sites database under Hazard ID number 3303 at http://dec.alaska.gov/Applications/SPAR/CCReports/Site_Report.aspx?Hazard_ID=3303 and in ADEC files under ADEC Contaminated Sites Program file number 2100.38.414 for the site named Central Paving – West Dowling.

Petroleum contamination remains in groundwater above the default groundwater cleanup levels established in 18 AAC 75.345 Groundwater Cleanup Levels, Table C. Conditional Closure with Institutional Controls was granted in ADEC's revised decision document for the site dated September 25, 2014. This status will remain in effect subject to the following conditions:

1. Any future change in land use may impact the exposure assumptions cited in the decision document. If land use changes, current institutional controls may not be protective and ADEC may require additional remediation and/or institutional controls. Therefore, Granite or any successor owner will report to ADEC every five years to document land use, or as soon as Granite or the successor owner becomes aware of any change in land ownership and/or use. **The report can be sent to the local ADEC office or electronically to DEC.ICUnit@alaska.gov**

2. The site comprises those areas circled on Figure 1 below. 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.

3. Installation of groundwater wells, dewatering or otherwise using or moving the groundwater at the site requires approval from ADEC.

4. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

Note that conditions 2 and 4 are standard for all contaminated sites and remain in effect after ICs are removed.

Site Figure 1 – Groundwater Contamination

Figure 1: Approximate areas of petroleum hydrocarbon impacts to groundwater circled; areas are located within the northwestern portion and the southwestern corner of the Central Paving site property and occupy an estimated combined total of less than one acre. (Aerial photograph and property boundary from www.anchoragelive.com).

This NEC remains in effect until a written determination from ADEC is recorded that states the groundwater at this site has been shown to meet the cleanup levels in Table C 18 AAC 75.345 and that accessing or off-site transportation of groundwater is not a concern.

For more information on the contaminated site in this NEC, please see ADEC Contaminated Sites Program file number 2100.38.414 for the site named Central Paving – West Dowling.

Signature of ADEC Representative: _____ Date: _____
Printed Name: Eileen Olson