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: 2100.38.556

January 19, 2016

Russell Grandel
Alaska Railroad Corporation (ARRC)
P.O. Box 107500
Anchorage, AK 99510-7500

Kelly Sperbeck
M-I L.L.C
6411 A Street
Anchorage, AK 99518

Re: Decision Document; ARRC M-I Swaco Lease Property
Cleanup Complete – Institutional Controls Determination

Dear Mr. Grandel and Ms. Sperbeck:

The Alaska Department of Environmental Conservation (ADEC) Contaminated Sites Program (CSP) has reviewed the environmental records for the ARRC M-I Swaco Lease Property. Based on the information provided to date and the administrative record, the ADEC has determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment. No further remedial action will be required as long as the site is in compliance with institutional controls.

Site Name and Location:
ARRC M-I Swaco Lease Property
721 West 1st Avenue
Anchorage, Alaska 99501

Name and Mailing Address of Contact Parties:

Russell Grandel (Property Owner Representative)
Alaska Railroad Corporation (ARRC)
PO Box 107500
Anchorage, Alaska 99510

Kelly Sperbeck (Leaseholder Representative)
M-I L.L.C
6411 A Street
Anchorage, Alaska 99518

ADEC Site Identifiers:
File: 2100.38.556
Hazard ID: 262426

Regulatory Authority for Determination:
18 AAC 75

Background
The property is owned by ARRC. M-I Swaco constructed the property in 1978 and has served as a district office and dry product storage facility since opening. The current leaseholder M-I L.L.C has recently discontinued using this property for storage and plans to discontinue the lease.

In 2000 during a historic baseline assessment, contamination was encountered at a former above ground storage tank (AST). Thirteen cubic yards of contaminated soil was excavated and thermally treated at Alaska Soil Recycling (ASR) leaving an excavation 9 feet long, 6 feet wide, and 5.5 to 6.5 feet below ground surface (bgs). Four confirmation soil samples collected contained detectable concentrations of contaminants, but below ADEC method two soil migration to groundwater (MTG) cleanup levels. The excavation was back filled with clean fill. Based off this information, the spill event was closed by the ADEC Prevention Preparedness and Response Program (PPRP). This PPRP historic spill event is known as "721 W. 1st AVE MI DRILLING Spill #: 01239919901".

In 2015 during an environmental assessment, diesel range organic (DRO) contamination was encountered at three areas on the property to the west, south, and east. The east location was the area of the former AST evaluated in 2000. The source for the other two areas is unknown. This decision letter pertains to the site characterization and cleanup actions conducted in 2015.

Contaminants of Concern

During the investigations at the site, soil and groundwater samples were analyzed for gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO), polyaromatic hydrocarbons (PAHs), metals, and volatile organic compounds (VOCs). Based on these analyses and knowledge of the source area, the following contaminant of concern (COC) was identified in soil:

- DRO

ADEC Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Table B1 and 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*	Soil- Method Two, Inhalation*	Soil- Migration to Groundwater(MTG)*	Groundwater#
DRO	10,250	12,500	250	1.5

Notes to Table 1. *All soil contaminant concentrations are presented in mg/kg.
#All groundwater contaminant concentrations are presented in mg/L.

Site Characterization and Cleanup Actions

In 2015, three field efforts were conducted to determine the extent of DRO contamination and remove contaminated soil to the best extent practicable. The first investigation was conducted in April and consisted of advancing 17 soil borings and collecting eight subsurface soil samples. The second investigation was conducted in June and consisted of advancing 18 soil borings and collecting eight surface and subsurface soil samples stepping out from contaminated areas identified in April. The third investigation conducted in September involved removal of contaminated soil and advancement of two monitoring wells. Based off these investigations, three areas of DRO contamination were identified at the site. These locations include: to the west at borehole MI-BH-11, to the east at the former AST and borehole MI-BH-17, and to the south at borehole MI-BH-33 (see attachment C).

Soil samples collected from the west location borehole MI-BH-11 at the groundwater interface 6 to 6.5 feet bgs contained DRO at 473 mg/kg; surface soil samples did not contain detectable concentrations of DRO. To determine extent of contamination, a monitoring well was advanced at this location. Soil and groundwater samples collected did not contain DRO concentrations above clean up levels.

Soil samples collected from the former AST east location borehole MI-BH-17 at the groundwater interface 5 to 7.5 feet bgs contained DRO at 1,270 mg/kg; surface soil samples collected did not contain detectable concentrations of DRO. Thirty two cubic yards of contaminated soil were removed to a depth of 2 to 5.5 feet bgs and transported to ASR. The excavation was limited by a utility pole and a paved parking area. Two out of five confirmation soil samples collected from the sidewalls and bottom contained DRO up to 3,940 mg/kg. These two soil samples were collected from the east side of the excavation adjacent to the utility pole. The excavation was backfilled with clean fill. To determine extent of contamination, a downgradient soil boring was advanced and completed as a monitoring well. Soil and groundwater samples collected from the monitoring well did not contain DRO concentrations above clean up levels.

Soil samples collected from the south location bore hole MI-BH-33 at the surface 1 to 2 feet bgs contained DRO up to 3,700 mg/kg; subsurface analytical soil samples were not collected from this location. Sixty four cubic yards of soil were removed to the groundwater interface at a depth of 2.5 feet bgs and transported to ASR. The excavation was limited by a fence to the south and phone and sewer line to the north. Collection of confirmation soil samples were limited to the sidewalls due to standing water in the excavation, which contained a hydrocarbon sheen when the soil was disturbed. Three out of six soil samples collected from the sidewall contained DRO above cleanup levels up to 3,250 mg/kg. The standing water in the excavations was treated with a carbon activated filter and the excavation was backfilled with clean fill. Soil samples collected from downgradient boreholes MI-BH-06 and MI-BH-07 at the groundwater interface did not contain DRO concentrations above clean up levels.

On December 15, 2015, monitoring wells MW-1 and MW-2 were decommissioned in accordance with ADEC guidance.

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 this site, exposure to remaining contaminants was evaluated using ADEC's Exposure Tracking Model (ETM). Exposure pathways are conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to one of the following: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 1.

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	Contaminated surface soil at the source area has been removed. Surface soil samples collected were below ingestion cleanup levels. Exposure through this pathway is considered insignificant.
Sub-Surface Soil Contact	De Minimis Exposure	Sub-Surface soil samples collected were below ingestion cleanup levels. Exposure through this pathway is considered insignificant.
Inhalation – Outdoor Air	De Minimis Exposure	Soil samples collected were below outdoor inhalation cleanup levels. Exposure through this pathway is considered insignificant.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	DRO, the only contaminant of concern, is not regulated for indoor air. Therefore, exposure through this pathway is incomplete.
Ground-water Ingestion	De Minimis Exposure	The soil data indicates the remaining DRO contamination above MTG cleanup levels is confined to the property. Groundwater samples collected were below cleanup levels. Groundwater is not used as a drinking water source in this area.
Surface Water Ingestion	Pathway Incomplete	Surface water is not utilized as a drinking water source in this area
Wild Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals. This area is not used for harvesting wild foods.
Exposure to Ecological Receptors	Pathway Incomplete	There are no complete exposure pathways to ecological receptors at the site.

Notes to Table 1: "De minimis exposure" means that in ADEC's judgment receptors are unlikely to be affected by the minimal volume 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 ground water use, or a physical barrier in place that deters contact with residual contamination.

ADEC Decision

There is DRO contamination remaining above established cleanup levels at the ARRC M-I Swaco Lease Property, but ADEC has determined there is no unacceptable risk to human health or the environment. DRO contaminated soil was removed to the best extent practicable. The extent of remaining contamination appears confined to the property and is well below ingestion and inhalation cleanup levels. This site will be granted a Cleanup Complete- Institutional Controls Determination subject to the following:

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, current institutional controls may not be protective and ADEC may require additional remediation and/or institutional controls. Therefore, the Owner(s) will report to ADEC every five years to document land use, or as soon as the Owner(s) 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. Movement or use of potentially contaminated soil in a manner that results in a violation of 18 AAC 70 water quality standards is unlawful.

3. 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. (See Attachment B).

4. Installation of groundwater wells at this site will require approval from ADEC.

5. **Attachments A & B must be signed and dated by an authorized representatives of ARRC and M-I L.L.C respectively. These signed attachments need to be returned to ADEC**

The ADEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above, and will include a description of the contamination remaining at the site. Institutional controls will be removed in the future if documentation can be provided that shows cleanup levels have been met. Note: management conditions 2 and 3 will remain in effect after ICs are removed.

This determination is in accordance with 18 AAC 75.380(d) 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, 555 Cordova Street, Anchorage, AK 99501, 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, AK 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.

Please sign and return *Attachment A & B* by an authorized representatives of ARRC and M-I L.L.C respectively to ADEC within 30 days of receipt of this letter. If you have questions about this closure decision, please feel free to contact Grant Lidren at (907) 269-8685 or grant.lidren@alaska.gov

Sincerely,

Grant Lidren
Environmental Specialist

Attachment A & B: Cleanup Complete-ICs Agreement Signature Page
Attachment C: Site Figure

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

ARRC agrees to the terms of this Cleanup Complete with Institutional Controls determination as stated in this closure decision document dated **January 19, 2016** for the *ARRC M-I Swaco Lease Property* 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 15.380(d)

Russell Grandel Env Eng
Signature of Russell Grandel or Authorized Representative, Title
ARRC

Russell Grandel Environmental Engineer
Printed name of Russell Grandel or Authorized Representative, Title
ARRC

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.: 2100.38.556
Hazard ID: 26426
ADEC Project Manager: Grant Lidren

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: Cleanup Complete-ICs Agreement and Signature Page*

M-I L.L.C agrees to the terms of this Cleanup Complete with Institutional Controls determination as stated in this closure decision document dated **January 19, 2016** for the *ARRC M-I Swaco Lease Property* 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 15.380(d)

Signature of Kelly Sperbeck or Authorized Representative, Title
M-I L.L.C

RAYMOND FIGUEROA
Printed name of Kelly Sperbeck or Authorized Representative, Title
M-I L.L.C

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ADEC File No.: 2100.38.556
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***Attention ADEC Administration Staff:** Please follow the procedure below after Attachment A is signed/returned to ADEC.

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

Attachment C: Site Figure