THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION & RESPONSE
Contaminated Sites Program

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File No: 1513.38.075

April 11, 2014

Mr. Gareth Jones
Department of Administration
Division of General Services
PO Box 110210
Juneau, AK 99811-0210

RE: Decision Document: Juneau Community Building
Cleanup Complete with Institutional Controls Determination

Dear Gareth,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has reviewed the environmental records for the referenced site. This decision letter explains the site history, cleanup activity and specific conditions required to effectively manage any remaining contamination. No additional remedial action is required as long as compliance with these conditions is maintained.

Site Name and Location
Juneau Community Building
150 3rd Street
Juneau, Alaska 99801
Lots 6 & 7, Block 6, Juneau Townsite

Address of Contact Party
Mr. Gareth Jones
Department of Administration
Division of General Services
PO Box 110210, Juneau, AK, 99811-0210

DEC Site Identifiers
Hazard ID: 4461
File: 1513.38.075

Regulatory Authority for Determination
Title 18 Alaska Administrative Code 75

Site Description and Background
Downtown Juneau is made up of mixed residential and commercial property use. Bedrock on the property and on other lands sloping up from the marine shoreline is irregular and outcrops are common. As a result, native soil is inconsistent and groundwater is intermittently dependent upon the rate of rainfall and the paths of drainage from upland sources. Massive slope failure and snow avalanches have occurred on steep upland slopes that surround the downtown area. Juneau Public Works provides sewer,

stormwater and drinking water services to the property and the area. Stormwater and sewage is directed to the Thane Wastewater Treatment Plant for treatment. The source of potable drinking water is the Gold Creek well field in Last Chance Basin located one half mile northeast of the referenced property and several hundred feet in elevation above it.

In spring 2007, the front of the referenced actively-occupied four story office building located at 150 Third Street in Juneau was undergoing exterior renovation. The State of Alaska Department of Administration Division of General Services retained Admiralty Construction Inc. (ACI) to apply a waterproof membrane to the concrete foundation wall on the south side of the building. On May 23, 2007, ACI began to excavate soil from the east and west sides of an entranceway abutting the south-wall building foundation. In the west side trench ACI discovered a buried 1,500-gallon heating oil tank (UST) and in both trenches detected petroleum contaminated soil and groundwater. Construction contractor ACI retained the services of Carson Dorn Inc. (CDI) to report the release of heating oil and submit a site investigation and cleanup plan to the DEC Preparedness and Emergency Response Program (PERP).

South-side building foundation: June 2007 UST and heating oil impacted soil and groundwater

West Side Trench

East Side Trench

CDI submitted a cleanup work plan (Plan) to PERP for approval that proposed closing the UST by removal, collecting and disposing of free phase fuel oil product (free product) from contaminated groundwater and identifying contaminated soil for off-site disposal. PERP approved the Plan to perform field screen sampling to identify and segregate contaminated soil for transfer directly into on-site shipping containers for barge transport to the Regional Landfill in Roosevelt, WA for remedial treatment. The Plan estimated that the accessible soil contamination requiring removal ranged in volume from eighty to one hundred sixty cubic yards (CYs). If contamination extended under the building foundation,

CDI would consult PERP for an appropriate course of action. The Plan proposed Method Two Migration to Groundwater cleanup levels for soil in the over 40-inch rainfall zone for the site.

CDI found no leaks from the UST or the associated supply piping but observed contaminated soil and free product oil floating on water entering the excavation. A fluid-removal pump system dewatered the east and west trenches into a catch basin where sorbent pads collected free product before releasing the water into the municipal storm water system. CDI collected a characterization analytical soil sample from the east trench and from the west trench along the south side of the building foundation. The soil sample from the east trench had a diesel range (DRO) hydrocarbon concentration of 13,000 milligrams per kilogram (mg/kg) and the soil sample from the west trench had a DRO concentration of 298 mg/kg.

In June 2007, according the approved Plan, ACI expanded the trenches into a single excavation to expose the walls of the entranceway and the east and west sides of the south-wall of the building foundation. The expanded trench excavation reached an average depth of eight feet below grade and a width of ten feet distance from the concrete walls. Contaminated soil removal halted to protect the structural integrity of permanent structures and a utility corridor. ACI cleaned, dismantled and removed the UST and piping from the site. CDI directed the transfer of contaminated soil directly into shipping containers and clean soil was stockpiled on-site. In accordance with the Plan, a total of six shipping containers were filled and transferred for barge transport to the soil remediation facility in WA. In June 2007, CDI collected a composite of backfill soil and four soil confirmation analytical samples from the bottom and sidewalls of east side trench. In July 2007, CDI collected six soil confirmation analytical samples from the bottom and sidewalls of the west side trench. Samples depths below grade in the trenches were not provided in the CDI final report. Confirmation samples were analyzed for DRO and residual range (RRO) hydrocarbons analysis. Soil sample data is displayed in Table 1 with results above soil cleanup levels in bold print.

Table 1 displays the results for soil confirmation analytical samples and cleanup levels

Soil Sample ID	DRO (mg/kg)	RRO (mg/kg)
June 26, 2007 Samples East Side		
BQG0216-07 (duplicate)	**4,000**	110
1-Clean Composite	**301**	59.4
2-Sidewall East	**1,680**	59.4
3-Bottom East	**1,330**	<147
4-Sidewall West	**13,300**	<587
5-Bottom West	**8,490**	<571
July 10, 2007 Samples West Side		
West Corner S	**1,200**	170
West Corner B	**1,680**	<58
West Half S	230	<54
West Half B	**610**	<56
Entry Stairs S	**8,100**	280
Entry Stairs B	**1,200**	35
Approved soil cleanup levels	230	8250

Milligrams per kilogram = mg/kg

After discussing the soil analytical results with CDI in September 2007, PERP elected to transfer cleanup oversight to the Contaminated Sites Program (CSP) for additional site investigation. Based on the data for soil remaining at the site, CSP requested that ACI install a groundwater monitoring well at each end of the excavation to investigate for groundwater contamination. CDI installed the wells as ACI backfilled the site with clean soil and returned the site to normal grade. In late-September 2007, CDI submitted a final letter report to PERP concerning implementation of the Plan with the bills of lading for shipment of the contaminated soil by ACI to the soil remediation facility in WA. A location for the field duplicate and evaluation of relative percent difference for sample variability for the June sampling event was not provided in the report. A soil sample duplicate was not collected in the July sampling event. The depth of soil confirmation sample collection below ground surface was not reported but appears to have been eight feet below surface grade. Confirmation sampling locations in relation to permanent features are displayed in Drawings 1 and 2 as Attachment 2 to this decision document.

Contaminants of Concern

The following petroleum contaminants of concern are those above cleanup levels that were identified during the course of the site investigations summarized in the Characterization and Cleanup Activities section of this decision letter.

- Diesel Range Hydrocarbons (DRO)

Cleanup Levels

The cleanup level requirements for hazardous substances in soil, groundwater, and surface water at this site are those established in 18 AAC 75.341(d) Method Two for soil with chemicals listed on 18 AAC 75.341(c) Table B1 and petroleum hydrocarbon ranges listed on 18 AAC 75.341(d) Table B2 in the over 40 inch zone and criteria listed in Table C at 18 AAC 75.345(b)(1) apply for groundwater. The following table displays the contaminants of concern cleanup levels for completed pathways at this site:

Table 1 – Approved Cleanup Levels

Chemical	Soil (mg/kg)	Groundwater (mg/L)
DRO	230	1.5

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

Site Characterization and Cleanup Activities

Site Investigation and Cleanup activities conducted under the regulatory authority of the Contaminated Sites Program (CSP) began in 2006. These activities are described below.

An 18 AAC 75.335 site characterization in 2007 under PERP oversight detected DRO concentrations above soil cleanup levels in ten out of eleven confirmation samples collected from remaining soil at the vertical and horizontal extents of subsurface excavation at the site. The confirmation samples were analyzed for DRO and RRO. At the request of CSP, CDI installed two monitor wells as ACI backfilled the site with clean soil to normal surface grade.

In 2010, 2012 and 2013 CSP retained Shannon & Wilson (S&W) to collect analytical water samples from each of two monitor well located on south side of the referenced building. The objective was to investigate groundwater at the site for contamination and to gauge the mobility of DRO contaminated

soil that remained trapped under the utility corridor and sidewalk in front of the building. S&W designated the well at the west end as MW-2W and the well located at the east end of the building MW-2E. In the 2010 and 2013 sampling events, samples from each well were analyzed for GRO, DRO, RRO and benzene, ethylbenzene, toluene, and total xylenes (BTEX). In the 2012 sampling event a sample from each well was analyzed for DRO and RRO only with and without silica gel treatment. The analytical data in 2012 was flawed due contamination of the analytical blank. The effect on the data was the appearance of RRO in the sample result when the samples in previous and the following years detected little or no RRO. Results of laboratory analysis of samples from the new wells are displayed in Table 2. The initial and final characterization results indicate that groundwater contamination at the site is present in concentrations below the respective 18 AAC 75.345 Table C regulatory levels for each analyte.

Table 2 Results of 2010, 2012, and 2013 groundwater sampling events

Chemical	2010 MW-2W mg/L	2010 MW-2E mg/L	2012 MW-2W mg/L	2012 MW-2E mg/L	2013 MW-2W mg/L	2013 MW-2E mg/L	Table C cleanup level mg/L
GRO	<0.062	<0.062	NT	NT	<0.062	<0.062	1.3
DRO	1.01	0.536	<1.25	1.52 B	<0.340	0.639	1.5
RRO	0.869	0.543	<1.04	2.79 B	0.173	0.521	1.1
Benzene	<0.0003	<0.0003	NT	NT	<0.0002	<0.0006	0.005
Toluene	<0.0012	<0.0012	NT	NT	<0.0006	<0.0002	1.0
Ethylbenzene	<0.0012	<0.0012	NT	NT	<0.0006	<0.0006	0.70
Total Xylenes	<0.0012	<0.0012	NT	NT	<0.0019	<0.0019	10

Milligrams per liter= mg/L
B indicates contamination was detected in the analytical blank
NT= not tested
<= less than this concentration

Site investigation of groundwater contamination at the site has provided an evaluation of potential petroleum volatile compounds that was not provided in the soil characterization under PERP. Volatile hydrocarbon compounds are indicators of potential carcinogenic exposure effects from indoor and ambient air exposure pathways to occupants of the building and transients at the site, from the ingestion of groundwater and from ecological pathways to aquatic life through groundwater and surface water. The BTEX volatile hydrocarbon compounds are consistently not present in groundwater at the site despite the elevated DRO concentrations in soil above the applicable migration to groundwater cleanup levels. As a result, residual soil contamination is unlikely to migrate in groundwater at levels that will affect the occupants of the building, transients at the site or the quality of off-site surface water.

Due to the contribution of surface water of poor quality, shallow groundwater is not considered potable and dissipates quickly enough to be considered intermittent and not a potable water source.

Cumulative Health Risk Calculation

Pursuant to 18 AAC 75.325 (g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be calculated. The risk from hazardous substances must 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. A

chemical that is detected at one-tenth or more of the Table B1 inhalation or ingestion values set out in 18 AAC 75.341(c) or the Table B2 values set out in 18 AAC 75.341(d) must be included when calculating cumulative risk under 18 AAC 75.325(g). Cumulative risk from petroleum contamination of environmental media at the site is addressed using the BTEX analyte concentration data. Based on a review of the environmental record, DEC 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 DEC'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 1 as Attachment A to this letter.

DEC Decision

Although DRO concentrations in soil at the site were documented above the migration to groundwater and human health cleanup levels in 2007, volatile hydrocarbon compounds are not present in groundwater. Further, in accordance with Title 18 Alaska Administrative Code 75.345 (h), several years of monitoring show DRO levels to have consistently decreased and are now below Table C values, confirming that DRO is stable and not migrating from soil remaining at the site and thereforedoes not pose a risk to the occupants of the building, visitors at the site, or the quality of off-site surface water. Remaining concentrations in soil are isolated and impracticable to remove from their locations adjacent and beneath the building foundations and infiltration of surface water as a transport mechanism is restricted due to concrete features capping the area. Based on these factors, DEC has determined there is no unacceptable risk to human health or the environment as long as the contamination is properly managed.

A Notice of Environmental Contamination (deed notice) shall be recorded in the State Recorder's Office as an institutional control (IC) that identifies the nature and extent of contamination at the property and the conditions that the owners and operators are subject to in accordance with this decision document. These conditions are as follows:

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, these management conditions may not be protective and DEC may require additional remediation and revised conditions. Therefore the Department of Administration Division of General Services (DGS) shall report to DEC every five years to document land use is unchanged, or report as soon as DGS becomes aware of any change in land ownership and/or use, if earlier. The report can be sent to the local DEC office or electronically to DEC.ICUnit@alaska.gov.

2. Installation of new groundwater wells requires DEC approval.

3. Sub-surface soil contamination is located at the foundation on south side (front) of the building and under the utility corridor. When the building or utilities are removed and/or the soil becomes accessible, the soil must be evaluated and contamination addressed in accordance with a DEC approved work plan.

4. The two existing groundwater monitoring wells must be decommissioned in accordance with DEC guidance. Submit well decommissioning documentation to DEC within 90 days.

5. Any proposal to transport soil or groundwater off-site requires DEC approval in accordance with 18 AAC 7.325(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.)

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

The DEC 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. Management conditions 5-6 remain in effect after ICs are removed.

This determination is in accordance with 18 AAC 75.380 and does not preclude DEC 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.

Please sign and return *Attachment B* to DEC <u>within 30 days of receipt of this letter</u>. If you have questions about this closure decision, please contact the DEC project manager, Bruce Wanstall at (907) 465-5210.

Sincerely,

Bruce Wanstall

Bruce Wanstall
Remedial Project Manager
State & Private Contaminated Sites Program

Attachment A: Table 1 – Exposure Pathway Evaluation
Attachment B: Cleanup Complete-ICs Agreement and Signature Page*
Attachment C: Site Map

cc: Sally Schlichting, DEC Project Manager, via email
Carol Russell, Response Fund Administration, via email

Attachment A: Exposure Pathway Evaluation

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Surface soil contamination has been removed and remediated off-site. There is no soil contamination remaining at the surface on the site above the direct contact cleanup levels.
Sub-Surface Soil Contact	De-minimis exposure	Soil contamination remains not accessible in the subsurface above Method Two human health ingestion levels. Future excavation is not planned and DRO and BTEX are below Table C groundwater cleanup levels.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remains in the subsurface, but no volatile compounds are present at levels above outdoor inhalation screening levels
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Buildings are present but any remaining volatile petroleum levels are either below laboratory reporting limits and/or the inhalation and migration to groundwater screening levels.
Groundwater Ingestion	De minimis exposure	Petroleum levels in groundwater are below Table C cleanup levels and groundwater does not influence a current or future drinking water source. Juneau Public Works supplies potable water to the site and the general area.
Surface Water Ingestion	Pathway Incomplete	Surface water hydraulically connected to the site is not of sufficient quality or quantity for a potable water source.
Wild Foods Ingestion	Pathway Incomplete	The site and the urban area are not a wild foods harvest area and none of the contaminants have potential to bioaccumulate in flora or fauna.
Exposure to Ecological Receptors	Pathway Incomplete	BTEX indicator compounds in groundwater are below Method Two Table B1 MTG levels.

Notes to Table 1: "De-minimis exposure" means that in DEC's judgment receptors are unlikely to be affected by the minimal volume of remaining contamination. "Pathway incomplete" means that in DEC'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.

Mr. Gareth Jones
Juneau Community Building

April 11, 2014

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

Department of Administration Division of General Services (DGS) agrees to the terms and conditions of this Cleanup Complete Determination, as stated in decision letter for the Juneau Community Building, dated April 15, 2014. Failure to comply with the terms and conditions of the determination may result in ADEC reopening this site and requiring further remedial action in accordance with18 AAC 75.380.

6-16-2016

Signature of Authorized Representative, Title
Department of Administration Division of General Services

Date

GARETH JONES

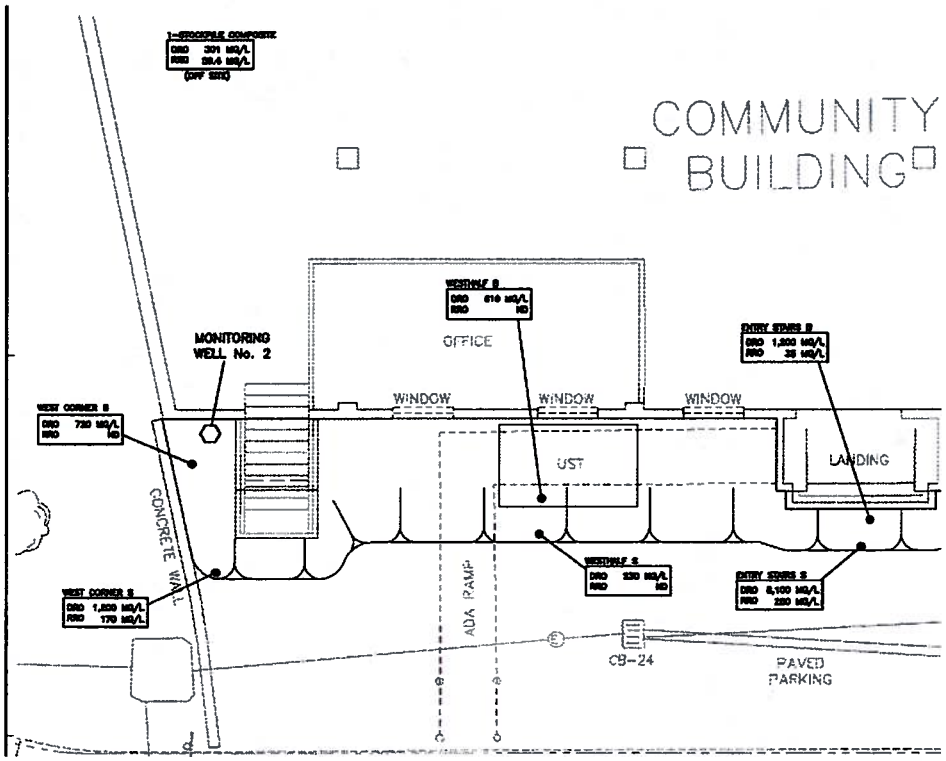
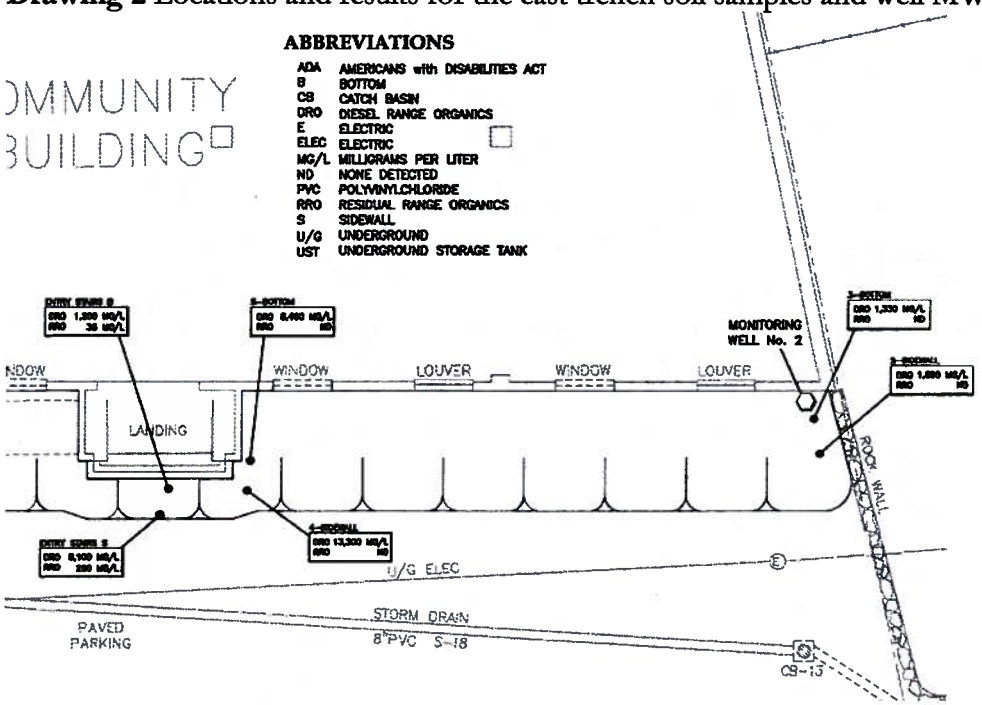
Printed Name of Authorized Representative, Title
Department of Administration Division of General Services

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.

Attachment C: Site Map

Drawing 1 Locations and results for the west trench soil samples and well MW-2W



Drawing 2 Locations and results for the east trench soil samples and well MW-2E