



THE STATE  
of **ALASKA**  
GOVERNOR MICHAEL J. DUNLEAVY

Department of Environmental Conservation  
SPILL PREVENTION & RESPONSE  
Contaminated Sites Program

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File No: 860.38.048

December 31, 2019

**Electronic Delivery Only**

Christiana Hewitt  
AFCEC/CIBE  
2261 Hughes Ave., Suite 155  
JBSA Lackland, TX 78236-9853

Subject: **DECISION DOCUMENT: CLEANUP COMPLETE DETERMINATION**  
Galena AFS / Airport - Building 1833 (OWS 1833 / OW024) Oil Water Separator

Dear Ms. Hewitt,

The Alaska Department of Environmental Conservation (ADEC) has completed a review of the environmental records associated with the site, Galena AFS / Airport – Building 1833 (OWS 1833 / OW024) Oil Water Separator, located in Galena, Alaska. Based on the information provided to date, it has been determined that the contaminant concentrations remaining at Site OW024 do not pose an unacceptable risk to human health or the environment. No further remedial action will be required at Site OW024 unless information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the Former Galena Forward Operating Location (FOL), which is located in the ADEC offices in Fairbanks, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

**Site Name and Location:**

Building 1833 (OWS 1833 / OW024)  
Oil Water Separator  
Cantonment Triangle  
West of POL Tank Farm  
Galena, Alaska 99741

**DEC Site Identifiers:**

File No.: 860.38.048  
Hazard ID: 25910

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

Christiana Hewitt  
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2261 Hughes Ave., Suite 155  
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**Regulatory Authority for Determination:**

18 AAC 75

**Site Description and Background:**

Site OW024 is located on the eastern side of the cantonment “triangle” and encompasses the former Building 1833, which served as the Morale, Welfare, and Recreation (MWR) storage shed (Figure 1). The 1996 *Environmental Baseline Survey* identified an oil-water separator (OWS) associated with Building 1833, which consisted of a 55-gallon drum. Building 1833 became inactive in 1993 and was demolished in 2008. In 2009, the site property was transferred from the Alaska Department of Transportation and Public Facilities (ADOT&PF) to the City of Galena. Based on the presumed historical use of Building 1833 for storage and the investigation analytical results indicating an absence of petroleum-related constituents, it is assumed that the partially buried drum was used as a drywell and not as an OWS.

A geophysical survey conducted during the 2013 Supplemental Remedial Investigation (RI) confirmed that the drywell was no longer present. Although a record of the drywell removal is not available, it is assumed that the drywell was removed when the building was demolished. The former drywell was closed in accordance with the substantive requirements of the USEPA Region 10 UIC procedures for Class V injection wells on September 27, 2019.

**Contaminants of Concern**

During the 2011 Remedial Investigation (RI) and 2013 Supplemental RI field, samples were collected from soil and groundwater. Soil samples were analyzed for gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO), volatile organic compounds (VOCs), and polycyclic aromatic hydrocarbons (PAHs). Groundwater grab samples were collected and analyzed for GRO and VOCs. Based on these analyses, the following contaminant was detected above the applicable cleanup levels and is considered a contaminant of concern (COC) in soil at the site. Sampling determined that groundwater has not been impacted by contamination at Site OW024.

- Trichloroethylene (TCE)

**Cleanup Levels**

Method Three alternative Migration to Groundwater cleanup levels (CULs) developed in accordance with 18 AAC 75.340(e) apply to this site. No contaminants have been identified in groundwater.

The proposed soil CUL for TCE at Site OW024 initially established in the *Record of Decision for OWS 1833 MWR Storage OWS* (Parsons, May 2017) was based on Table B1 Method Two CULs per 18 AAC 75.341. CULs established under 18 AAC 75.341 were updated in November 2016 and again in October 2018.

The *Final Explanation of Significant Differences (ESD) for OWS 1833 MWR Storage OWS* (Parsons, January 2019) updated the CUL for TCE in soil at Site OW024 for protection for migration to groundwater (applicable to soil at all depths) to 0.17 mg/kg based on Method Three in accordance with 18 AAC 75.340(e)(1). The ESD also updated the CUL for TCE in soil at Site OW024 for protection of human health (applicable for soil from 0 to 15 feet bgs) to 4.9 mg/kg based on the current Method Two CUL in 18 AAC 75.341.

**Table 1 – Approved Soil Cleanup Levels**

Contaminant	Soil Method Three Migration to Groundwater alternative cleanup level (mg/kg)	Soil Human Health (mg/kg)
TCE	0.17	4.9

mg/kg = milligrams per kilogram

### Characterization and Cleanup Activities

Based on the 2011 Remedial Investigation (RI), and 2013 Supplemental RI, TCE contamination in soil was found to extend to a depth of approximately 14 to 16 feet below ground surface (bgs). The area of TCE contamination was approximately 4,500 square feet. In 2015, a soil vapor extraction (SVE) pilot test was conducted to verify the effective treatment area for SVE. Additional soil samples were also collected to address data gaps and further delineate the southeastern extent of TCE contamination.

The selected remedy for Site OW024 included SVE followed by performance monitoring to verify the removal of contaminants. Land use controls (LUCs) were also used to mitigate potential exposures until Cleanup Complete was achieved. The SVE system operated from October 2015 to October 2018, for approximately nine months of the year during seasonally low groundwater events (typically August through April). Post-treatment soil confirmation samples were collected in September 2018. The approved soil cleanup levels and remaining soil concentrations on site are presented in Table 2 below:

**Table 2 – Approved Soil Cleanup Levels and Remaining Contaminant Concentrations**

Contaminant	Method Three Migration to Groundwater (mg/kg)	Maximum Remaining Soil Concentration (mg/kg)
TCE	0.17	0.13

mg/kg = milligrams per kilogram

µg/L = micrograms per liter

A permanent groundwater monitoring well was installed in the Site OW024 source area. Groundwater samples were collected from the well in September 2017, May 2018, and August 2018 to verify that groundwater has not been impacted by any remaining TCE in soil. The concentration of TCE was below the limit of detection and below Table C CULs for all sampling events in 2017 and 2018. Groundwater monitoring has confirmed that groundwater beneath Site OW024 has not been impacted by site-related activities.

### Cumulative Risk Evaluation

Pursuant to 18 AAC 75.325(g), when detectable contamination remains onsite, 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. Cumulative risk is calculated using all contaminant concentrations remaining on site at concentrations above 1/10th the cleanup level, per 18 AAC 75.340(k).

None of the constituents sampled during the September 2018 confirmation soil sampling event exceeded 1/10<sup>th</sup> of 2018 ADEC Method Two human health CULs and no groundwater COCs were identified for Site OW024. Cumulative risk is, by definition, within acceptable levels, and therefore a cumulative risk analysis was not necessary and was not performed.

### Exposure Pathway Evaluation

Following investigation 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 3.

**Table 3 – Exposure Tracking Evaluation**

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	Contamination is present in surface soil (0 to 2 feet below ground surface), but is below Human Health cleanup levels.
Sub-Surface Soil Contact	De Minimis Exposure	Contamination remains in sub-surface soil, but is below Human Health cleanup levels.
Inhalation – Outdoor Air	De Minimis Exposure	Contamination remains in sub-surface soil, but is below Human Health cleanup levels.
Inhalation – Indoor Air (Vapor Intrusion)	Pathway Incomplete	Former building 1833 was demolished in 2008 and there are currently no other structures at Site OW024. There are no volatile organic compounds present in groundwater above ADEC’s Vapor Intrusion Guidance, Appendix F ADEC Groundwater Target Levels.
Groundwater Ingestion	Pathway Incomplete	Groundwater contamination has not been detected at Site OW024.
Surface Water Ingestion	Pathway Incomplete	There is no surface water at Site OW024 and groundwater is not impacted.
Wild and Farmed Foods Ingestion	Pathway Incomplete	The site is a gravel pad and is not expected to be used for wild or farmed foods.
Exposure to Ecological Receptors	Pathway Incomplete	There are no concerns regarding direct ecological impacts at this site. The site is very small (about 1/10 <sup>th</sup> of an acre) and gravel covered.

**Notes to Table 3:** “De Minimis Exposure” means that in ADEC’s judgement receptors are unlikely to be affected by the minimum volume or concentration of remaining contamination. “Pathway Incomplete” means that in ADEC’s judgement contamination has no potential to contact receptors.

### ADEC Decision

Soil contamination at the site has been cleaned up to concentrations below the approved levels suitable for residential land use. The site will receive a Cleanup Complete designation in the Contaminated Sites Database, subject to the following standard conditions.

### Standard Conditions

1. Any proposal to transport soil or groundwater from a site that is subject to the site cleanup rules or for which a written determination from the department has been made under 18 AAC 75.380(d)(1) that allows contamination to remain at the site above method two soil cleanup levels or groundwater cleanup levels listed in Table C requires DEC 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 Figure 1)
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) 451-5175, or via email at [jamie.mckellar@alaska.gov](mailto:jamie.mckellar@alaska.gov).

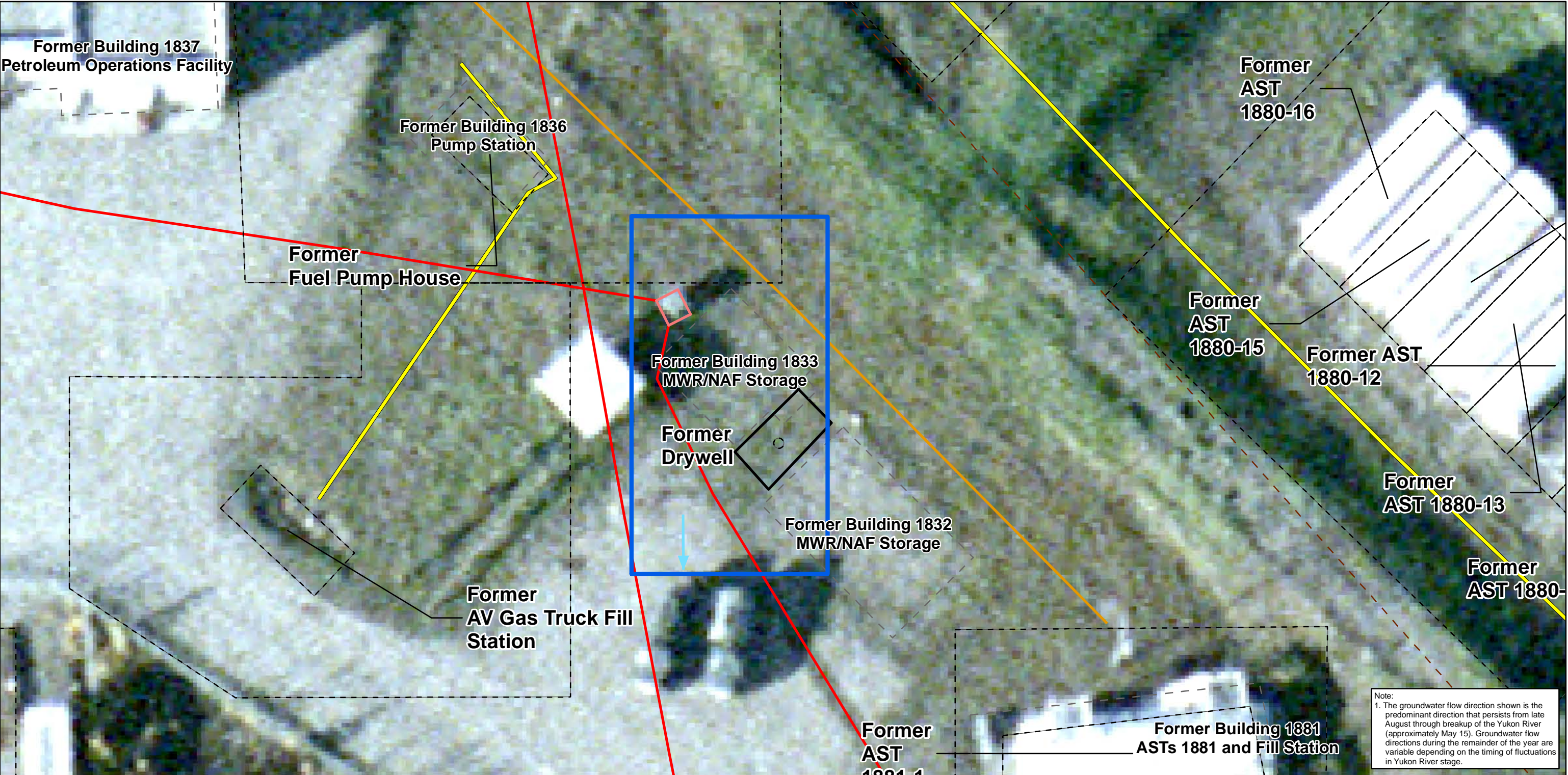
Sincerely,

Jamie McKellar  
Environmental Program Specialist

Enclosure: Site Figure – Figure 1

cc, via email: Donna Kozak, BAH  
Angela Sederquist, BAH  
Ed Heyse, Parsons  
Bruce Henry, Parsons  
Andrea Finlay, Parsons  
Shanda Huntington, City of Galena  
Eric Breitenberger, DEC  
Spill Prevention and Response, Cost Recovery Unit





Legend

OW024

Approximate Location of Former Feature

Approximate Groundwater Flow Direction

Abandoned Fuel Line (1952)

Abandoned Fuel Line (1962)

Underground Utility Locations - 2010

Communications

Electrical

Fuel/Gas

Transformer Box

Human Health Risk Assessment Exposure Area

**FIGURE 1**  
**Site OW024 Layout**

Remedial Action Completion Report for Site OW024  
Former Galena Forward Operating Location  
Galena Airport, Galena, Alaska

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