



THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

Department of Environmental  
Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE  
Contaminated sites Program

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ADEC File: 2319.26.002

August 3, 2017

Joe Browning  
Kasilof Riverview Lodge  
P.O. Box 254  
Kasilof, Alaska 99610

Re: Kasilof Riverview Lodge  
ADEC Hazard ID #384  
ADEC Report Review Comments  
Corrective Action Plan Required

Dear Mr. Browning:

One January 9, 2017, the Kenai Area Office of the Alaska Department of Environmental Conservation (ADEC), received Alaska Consulting and Environmental Engineering's January 5, 2017, **Final Stockpile Soil Spread Former Stockpile Location Soil Sampling, Monitoring Well Sampling** report for the Kasilof Riverview Lodge "site". Thank you for ensuring this work was completed and the report was provided for ADEC's review and records.

The soil sampling and analyses from the landspread soils, and from the base of the original soil stockpile location, indicate that gasoline range organics (GRO), diesel range organics (DRO), and benzene, ethylbenzene, toluene, and xylenes (BTEX) concentrations met the ADEC's current "migration to groundwater" soil cleanup levels for those compounds. No further cleanup work or sampling of soil from either location is required at this time.

The groundwater sampling and analyses identified a problematic concentration of benzene in MW-1. The current and applicable ADEC groundwater cleanup level for benzene is 4.6 ug/L, and the reported concentration of benzene in MW-1 was 53.6 ug/L.

ADEC records include three groundwater sampling events on the groundwater monitoring wells at your site over the past 14 years. The dates of the three sampling events, and the associated benzene concentration reported in MW-1 for each of the three groundwater samples is presented as follows:

April 27, 2003	6.3 ug/L benzene
February 2, 2005	2.3 ug/L benzene
October 19, 2016	53.6 ug/L benzene

The fuel releases at your site were originally reported to ADEC twenty four years ago, in 1993. It is abnormal for groundwater contaminant concentrations to increase this many years after cleanup work, similar to the work completed at your facility in the 1990s. Fuel releases after the 1990s cleanup work could cause the increasing benzene concentration, however we don't know whether or not another release(s) of fuel have occurred at your facility. MW-1 needs to be sampled again at this time in order to reaffirm the October 2016 benzene concentration, and to help monitor any trend in groundwater quality.

We are requiring that you provide our office with a corrective action plan, under the regulatory authority within 18 AAC 78.250 (Corrective action plan). This corrective action plan must be prepared and signed by a qualified environmental professional, and be provided to our office *by no later than August 31, 2017*. The corrective action plan must include the following corrective action work elements:

- 1) The sampling and analysis of a water sample from MW-1, and an additional blind field duplicate sample from MW-1, by no later than September 15, 2017. The two water samples are to be analyzed by an ADEC approved laboratory using EPA analytical methods 8260C (volatiles) and 8270D (PAHs). The 8260C analysis must include analysis and reporting on these petroleum compounds:
  - a. Benzene
  - b. n-Butylbenzene
  - c. sec-Butylbenzene
  - d. tert-Butylbenzene
  - e. Ethylbenzene
  - f. Isopropylbenzene (cumene)
  - g. Naphthalene
  - h. Toluene
  - i. 1,2,4-Trimethylbenzene
  - j. 1,3,5-Trimethylbenzene
  - k. m,p-Xylene
  - l. o-Xylene
- 2) The measurement and determination of the groundwater elevation in each of the three groundwater monitoring wells;
- 3) The presentation of the water quality data and the presentation of the inferred groundwater flow direction in a written report, following the completion of the field work.

Your corrective action plan must be approved by ADEC, prior to implementation. Additional corrective action work may be necessary following this groundwater sampling event. Further groundwater sampling will be necessary, at the minimum.

If you have any questions about this letter or the requirements being imposed at this time, or desire further assistance or direction, you may contact me at (907) 262-3422, or via e-mail at [paul.horwath@alaska.gov](mailto:paul.horwath@alaska.gov)

Sincerely,



Paul Horwath  
Engineer I, DEC

Cc: Arne Tikka, Alaska Consulting and Environmental Engineering, Soldotna