



File: 300.38.264

March 28, 2020

Mike McAnulty
BP Exploration (Alaska), Inc.
900 East Benson Boulevard, 223B
Anchorage, AK 99519

Re: Decision Document: BPX Put River 19-10-15
Cleanup Complete Determination

Dear Mr. McAnulty:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the BPX Put River 19-10-15 site located in Prudhoe Bay, Alaska. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and no further remedial action will be required unless new information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the BPX Put River 19-10-15 site, which is located in the ADEC office in Anchorage, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:

BPX Put River 19-10-15
Latitude: 70.211666
Longitude: -148.415955

Name and Mailing Address of Contact Party:

Mike McAnulty
BP Exploration (Alaska), Inc.
900 East Benson Boulevard, 223B
Anchorage, AK 99519

DEC Site Identifiers:

File No.: 300.38.264
Hazard ID.: 4422

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

The BPX Put River 19-10-15 site is located in Deadhorse in the NE ¼ of Section 19, Township 10N, Range 15E, and in the Umian Meridian, Alaska. The site sits on a 5-acre pad, formerly

bordered by two reserve pits (south and west). Both reserve pits have been assessed, excavated, and closed under the jurisdiction of the Solid Waste Program; although revegetation efforts are expected to continue in the future.

The pad has historically been used as a storage yard for oil field support equipment; and was added to the contaminated sites database following receipt of the 2007 Phase II Environmental Site Assessment (further described below in the Characterization and Cleanup Activities section).

Contaminants of Concern

During the site characterization and cleanup activities at this site, samples were collected from soil, groundwater, and surface water and were tested for one or more of the following: gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO), metals, volatile organic compounds (VOCs), and polycyclic aromatic hydrocarbons (PAHs). Based on these analyses, DRO is considered the sole contaminant of concern at this site.

Cleanup Levels

The cleanup levels for petroleum hydrocarbon-contaminated soil on manmade gravel pads and roads in the Arctic Zone are established in 18 AAC 75.341 Method One, Table A2, and 18 AAC 75.341 Method Two Tables B1 and B2.

A number of factors are considered by ADEC when evaluating site specific cleanup levels in the Arctic Zone including:

- human health (ingestion/inhalation);
- ecological impacts (contamination impacting ecological species other than humans);
- groundwater and surface water quality;
- presence of free phase product; and
- any other factors that might cause a deleterious impact to the environment.

Seasonal groundwater (porewater) in the Arctic Zone is not considered a reasonably expected current or future source of drinking water. However, the groundwater can act as a transport medium to the surrounding soil; to sediment or surface water where it may pose a risk to ecological receptors; or to a subpermafrost aquifer or other zones of saturation that may have a current or reasonably expected potential future use as drinking water. These potential transport pathways and potential risks to ecological receptors in receiving waters must be taken into consideration when evaluating sites in the Arctic zone.

The migration to surface water pathway is evaluated as the primary migration pathway and as a possible risk to human health (via drinking water) and for compliance with Alaska Water Quality standards (18 AAC 70). The migration to surface water is evaluated as a possible exposure pathway for ecological receptors because of the tundra wetland ecosystem that exists throughout the Arctic region.

Potential future use of the property must also be taken into account when determining closure status. Differentiating between a "Cleanup Complete" and a "Cleanup Complete with Institutional Controls" determination will be based on site specific conditions and exposure pathways as determined by ADEC.

For the purposes of this Cleanup Complete Determination, the following cleanup levels from 18 AAC 75 were used and are applicable:

Table 1 – ADEC Soil Cleanup Levels

Contaminant	Method Two Table B2 Ingestion (mg/kg)
DRO	12,500

Legend

DRO = diesel range organics

mg/kg = milligrams per kilogram

Characterization and Cleanup Activities

A Phase II Environmental Sites Assessment was performed in April of 2007 as part of the western reserve pit closure. A total of 27 soil borings were advanced into the gravel pad and underlying soils, and an additional 5 boring were advanced in the tundra surrounding the pad. Soil samples were collected from each borings and were analyzed for DRO, RRO, GRO, PAHs, BTEX, and barium. Analytical results revealed concentrations of DRO up to 3,060 mg/kg in the pad material and 263 mg/kg in the surrounding tundra.

Evaluation of offsite impacts was completed in August 2016. The assessment included a visual inspection of surface water, as well as analytical sampling completed at six surface water locations and five surface soil locations. The soil samples were generally co-located with the surface water samples, however, one planned surface soil location could not be sampled because the area was completely submerged. All soil and water samples were submitted for laboratory analysis of GRO, DRO, PAHs, and BTEX. None of the results for soil or water exceeded applicable state cleanup levels or Alaska Water Quality Standards (AWQS) for total aromatic hydrocarbons (TAH) or total aqueous hydrocarbons (TAqH). However, it should be noted that petroleum sheening was observed at two sample locations, SW-18 and SW-19 following soil disturbance, which is considered an exceedance of the AWQS.

Additional assessment was completed in August 2018. The completed 2018 field effort included a visual inspection of surface water, followed by shovel sheen testing in 25 feet intervals. Petroleum sheens were observed at seven locations after physical disturbance; two of which (Samples SW-23 and SW-24) surface water samples were collected. Samples were submitted for laboratory analysis of polycyclic PAHs and BTEX. None of the results exceeded the AWQS for TAH or TAqH.

In summary, low-level petroleum impacts exist within the gravel pad below the Method Two risk-based cleanup levels. Contamination is also present in the sediments abutting surface water, but are not causing ambient sheen. Analytical results from the surface water samples are not in excess of AWQS. The pad continues to be used for storage.

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 meet the human health cumulative risk criteria for residential land use.

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 or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De-Minimis Exposure	Contamination remains in the surface, but is below human health levels.
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination remains in the sub-surface, but is below human health cleanup levels.
Inhalation – Outdoor Air	De-Minimis Exposure	Contamination remains in the sub-surface, but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Volatile contamination is not present.
Groundwater Ingestion	Pathway Incomplete	Supra-permafrost groundwater is not a potential drinking water source. Sub-permafrost groundwater is found at depths greater than 250 feet and is not impacted by site contamination.
Surface Water Ingestion	De-Minimis Exposure	Surface water analytical results are below AWQS for TAH and TaqH.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	Contamination is not impacting surface waters above AQWS and the pad is too compact to allow for terrestrial habitation or burrowing.

Notes to Table 2: “De-Minimis Exposure” means that in ADEC’s judgment receptors are unlikely to be adversely 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.

ADEC Decision

Soil and groundwater contamination at the site have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. This site will receive a “Cleanup Complete” designation on 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.
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 20 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) 269-7691 or email at joshua.barsis@alaska.gov.

Sincerely,



Joshua Barsis
Project Manager

cc: Spill Prevention and Response, Cost Recovery Unit