

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION Division of Snill Prevention and Response Prudhoe Bay

Division of Spill Prevention and Response Prevention Preparedness and Response Program

SITUATION REPORT (SITREP)

CHANGES FROM PREVIOUS SITREPS ARE DENOTED IN RED

FS3 4941 Produced Water Release

SITREP # 2

SPILL #: 19399929401

TIME/DATE OF DISTRIBUTION: 12:00 p.m. October 24, 2019

POTENTIAL RESPONSIBLE PARTY (PRP): BP EXPLORATION (ALASKA), INC. (BPXA)

INCIDENT LOCATION: Module 4941 at Flow Station 3 (FS3), Eastern Operating Area in Prudhoe Bay, approximately 1 mile east of Pump Station 1 and approximately 4.5 miles northwest of Deadhorse. Lat/long: 70.255049, -148.572570.

TIME/DATE OF SPILL: October 21, 2019, 07:35 AK Standard Time.

HOW/WHEN SPILL WAS DISCOVERED AND REPORTED: BPXA employees discovered the spill inside Module 4941 at Flow Station 3 at 7:35 a.m. on October 21, 2019. BPXA reported the spill to ADEC at 9:39 a.m. October 21, 2019, after personnel was allowed access to the spill area and confirmed that the released product had escaped the module.

TYPE/AMOUNT OF PRODUCT SPILLED: The spilled product is produced water, which is a byproduct of oil production and normally contains small amount of crude oil (<1%), any chemicals added during the production/treatment process, and brine. BPXA currently estimates that 25,200 gallons (600 bbls) of produced water were released from the system to the module, gravel pad, and tundra. The produced water contained an estimated 0.00156% crude oil, equaling approximately 39 gallons.

CAUSE OF SPILL: Preliminary reports indicate that the cause of the release was due to the separation of expansion joints on a suction header that connects to two produced water injection pumps within module 4941. The expansion joints on the header are believed to have parted due to a "water hammer" that was created when the two pumps shut down during a power outage. BPXA expects to conduct an investigation to determine the cause of the release.

SOURCE CONTROL: The source of the release has been controlled at this time.

RESPONSE ACTION: BPXA and Alaska Clean Seas (ACS) responders have been on site conducting containment and recovery actions since approx. 9:00 a.m. on October 21, 2019. Initial focus for response actions during the first 48 hours of the response was to conduct containment tactics to minimize further migration of released product, then recovery of pooled product on and off pad as well as removal of accessible contaminated gravel on pad. Yesterday responders started recovery of released product off pad using "flush and recover" tactics where hot water is applied at low pressure to flush the released product out of vegetated areas (and other areas inaccessible to the vacuum trucks) and then recovered. To date, 322 cubic yards of gravel and 21,420 gal (510 bbls) of water have been recovered. The quantity of water recovered includes both the produced water spilled and some melted snow and ice from the troughs of the tundra. The Tundra Treatment Manual is being consulted for tundra recovery tactics. ADEC has four responders in Deadhorse, both as part of the Incident Management Team and out in the field.

RESOURCES AT RISK OR AFFECTED: The release occurred in Module 4941 and then leaked out of the module to two adjoining modules as well as the underlying and adjacent gravel pad, then migrated east across the pad and onto the snow covered tundra. The product that migrated off pad appears to be contained on already existing ice within the polygonal troughs and ponds of the tundra. There have been no reports of impact to wildlife, and fencing has been erected around the affected area to minimize the risk of wildlife accidentally traveling on to contaminated materials.

FUTURE PLANS AND RECOMMENDATIONS: Response crews will continue removing released product on and off pad, the remaining affected gravel on pad, and continue "flush and recover" tactics to remove the produced water on and off pad. ADEC will continue to monitor the response actions and review documents being developed to manage the response effort. FS3 has been restarted as of yesterday to prevent potential freeze related impacts to infrastructure.

WEATHER: Today: considerable cloudiness; highs 17°F; winds southwest at 5 to 10 mph. Tomorrow: cloudy; highs 16°F; winds southwest at 10 to 20 mph.

UNIFIED COMMAND AND PERSONNEL:

Incident Commander: Wendy Bosmans, BPXA FOSC: Matt Carr, USEPA SOSC: Tom DeRuyter, ADEC LOSC: Allyson Atos, NSB Field SOSC: John Ebel, ADEC

TIME/DATE OF THE NEXT REPORT DISTRIBUTION: As the situation warrants.

FOR ADDITIONAL INFORMATION CONTACT: Laura Achee, PIO, ADEC (907) 465-5009 Tom DeRuyter, ADEC (907) 451-2145 <u>https://dec.alaska.gov/spar/ppr/spill-information/response/2019/10-fs3-4941-produced-water/</u>

AGENCY/STAKEHOLDER NOTIFICATION LIST: Please refer to the first SITREP, distributed October 22, 2019, for the agency/stakeholder notification list. The first SITREP can be found by following the link in the **Additional Information** box above.



Image collected during an UAV overflight on October 21, 2019, showing the affected area (dark colored fluids on gravel pad and within tundra polygonal troughs). Image collected by ACS and provided by APSC.



Image collected during an UAV overflight on October 22, 2019, before off pad flush and recovery tactics were initiated but after wildlife fencing had been put up, containment boom deployed, and gravel removal conducted. Image collected by ACS and provided by APSC.