

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION **Division of Spill Prevention and Response Prevention and Emergency Response Program**

Qugruk #2 Pad

SITUATION REPORT

Repsol Q2 Pad Gas and Mud Release

SITREP # 24 and Final

SPILL NUMBER: 12399904601

TIME/DATE OF SPILL: Repsol reported the incident to ADEC at 10:29 a.m. on February 15, 2012.

TIME/DATE OF SITUATION REPORT: 1:00 p.m. on April 10, 2012

TYPE/AMOUNT OF PRODUCT SPILLED: Repsol estimates that approximately 42,000 gallons (1,000 barrels) of fresh-water-based drilling mud were released to the ice drilling pad and adjacent snow-covered tundra. An unknown amount of gas was also released. Drilling mud is used to lubricate the drill, control formation pressure, and remove cuttings from the bore. No oil was spilled during the release event.

INCIDENT LOCATION: Qugruk #2 pad (Q2 pad), on the Colville River Delta, approximately 18 miles northeast of Nuiqsut and approximately 150 miles southeast of Barrow (70° 27' 19" N, 150° 44' 52" W).

CAUSE OF SPILL: Repsol contractor Nabors Drilling was drilling an exploratory well when the drill penetrated a shallow gas pocket at a depth of 2,523 feet, resulting in a gas kick. The gas kick drove drilling mud, down-hole materials and water out of the well and through the gas diverter onto the ice pad and adjacent snow-covered tundra. The gas diverter is a pipe that extended approximately 75 feet from the drilling rig toward the south edge of the pad. Additional mud was pumped into the well in an attempt to control it, but that mud was also forced out by the gas.

POTENTIAL RESPONSIBLE PARTY (PRP): Repsol E&P USA

RESPONSE ACTION: Spill responders from Alaska Clean Seas (ACS), Penco and CCI used heavy equipment, such as loaders, excavators, trimmers, skid-steers, hydraulic hammers and snow machines with trailers, to remove the spill material from the heaviest contaminated zones. Hand tools were used to recover drilling mud from the areas of lightest contamination. Cleanup crews removed approximately 6,286 cubic yards of spilled material from the snow-covered tundra. In addition, 2,402 cubic yards of down-hole material and 116,928 gallons of water-based mud and freshwater from the steam units were recovered from the drilling pad during the initial response.

Repsol hired a surveying contractor to assist in calculating the off-pad impacted area and the volume of the material released to the tundra. The contractor estimated that 21,114 bbls of down-hole material were released to the tundra during the initial blow-out. In addition, they calculated the total impacted area as 23.75 acres. An area of 16.76 acres of lightly-misted material was determined to be unrecoverable, and no cleanup occurred in this zone.

On April 1, 2012, a group from the Kuukpikmiut Subsistence Oversight Panel, Inc. (KSOP) and from the village of Nuiqsut visited the site to see how the cleanup had progressed. The group was satisfied with the work that had been done and said that they did not believe that any further cleanup needed to be performed.

On April 5, 2012, the final site inspection team, composed of representatives from the North Slope Borough, KSOP, ADEC, ADNR and Repsol, made the final site inspection. The team agreed that no further cleanup actions were required.

ADEC's field monitors were demobilized from the site on April 6, 2012.

SOURCE CONTROL: Mechanical well control was achieved on March 16, 2012.

RESOURCES AFFECTED: Snow-covered tundra and ice pad. Drilling mud can affect tundra plants by changing soil pH and salinity. Brackish water produced by the well may also increase soil salinity.

FUTURE PLANS AND RECOMMENDATIONS: ADEC will require a site monitoring plan and possibly a restoration plan. The site will be revisited later in the summer to evaluate the need for restoration: final samples will be taken at that time to confirm the area is clear of residual contamination.

UNIFIED COMMAND AND PERSONNEL:

Incident Commander: Jeremy Michels, O'Brien's Response Management

S.O.S.C.: Tom DeRuyter, ADEC F.O.S.C.: Matt Carr, EPA L.O.S.C.: Gordon Brower, North Slope Borough Field SOSC: Bob Mattson, ADEC

WEATHER FORCAST: Today: Mostly cloudy with areas of blowing snow and fog, with temperature highs between 8 to 15 degrees above zero. East winds around 20 mph.

TIME/DATE OF THE NEXT SITUATION REPORT: This is the final situation report.

FOR ADDITIONAL INFORMATION CONTACT: Ty Keltner, Public Information Officer, ADEC (907) 465-5009

Photographs and other spill information will be available for viewing at: <u>http://www.state.ak.us/dec/spar/perp/index.htm</u>

AGENCY/STAKEHOLDER NOTIFICATION LIST: See previous sitrep.



During cleanup operations on March 3 an excavator removes material ejected from the well.



Representatives from ADEC, KSOP, and Repsol inspect the site on April 1. This photo was taken in approximately the same location as the photograph above of the excavator. ADEC