

**United States Environmental Protection Agency**  
**Region X**  
**POLLUTION REPORT**

**Date:** Monday, April 10, 2006

**From:** Carl Lautenberger

**Subject:** Progress Report

BP Alaska GC1-GC2 Transmission Pipeline Discharge

BP Explortion 900 E Benson Blvd, Deadhorse, AK

Latitude: 70.3074300

Longitude: -148.8157100

<b>POLREP No.:</b>	14	<b>Site #:</b>	AKOil012006
<b>Reporting Period:</b>		<b>D.O. #:</b>	
<b>Start Date:</b>	3/2/2006	<b>Response Authority:</b>	OPA
<b>Mob Date:</b>	3/2/2006	<b>Response Type:</b>	Emergency
<b>Demob Date:</b>		<b>NPL Status:</b>	Non NPL
<b>Completion Date:</b>		<b>Incident Category:</b>	Removal Action
<b>CERCLIS ID #:</b>		<b>Contract #</b>	
<b>RCRIS ID #:</b>		<b>Reimbursable Account #</b>	
<b>FPN#</b>	E06005		

**Site Description**

As reported in previous POLREPs.

The aerial photo at left shows the status of contaminated snow removal operations on March 13.

Current weather conditions: daytime highs are ranging between 0 to 5 degrees F, with northeast winds 15 to 20 mph. Mostly cloudy with scattered snow showers. Lows tonight expected between -5 to -10 degrees F with east winds 10 to 15 mph. Several-day forecast shows continued mostly cloudy conditions with scattered snow showers and east winds to 10 mph, with highs ranging between 0 to 10 degrees F and lows falling near -5 to -10 degrees F.

**Current Activities**

RESPONSE ACTION: Incident response priorities and objectives are:

- Ensure all personnel are safe
- Remove contamination from the area
- Remediate and restore affected tundra
- Manage and dispose of wastes appropriately

Current remediation efforts consist of contaminated ice and vegetation trimming (began on March 19, 2006), lakeshore contaminated ice trimming/removal and bottom sediment removal (began on April 6, 2006), completion of contaminated gravel removal from underneath the leaking pipeline corridor, and the melting of contaminated snow nearby at CC2A pad.

Residual contamination removal through trimming, or grinding away of the top layer of contaminated ice and tundra, has now been completed over the majority of the spill area. Minor, localized areas of concentrated oil on land are still being found, though less frequently, and are being cleaned by hand or machinery when found. Removal of contaminated lake ice and lake bottom sediment is also in progress.

The caribou crossing gravel has been excavated down below the pipe elevation to allow examination of the pipeline and removal of contaminated gravel. Contaminated gravel continues to be excavated and collected by supersucker. Some recoverable, free-product oil is still being encountered within the crossing as excavation occurs. Respiratory protection will be used by workers as required due to VOC levels. Scaffolding, pipeline cribbing, and tenting installed at the caribou crossing remain in place, although strong winds have twice destroyed the tenting. The leaking pipeline has been repaired via a welded sleeve but is not in use yet.

Tundra specialists are on-scene to advise the cleanup team in tundra impact minimization, vegetation restoration concerns, and cleanup attainment sampling procedures. Residual contamination removal through trimming has caused greater adverse impact to the tundra vegetative mat than anticipated. An

amendment to the Tundra Treatment Plan has been drafted to outline restoration of the spill area's natural tundra environment via backfilling with organic material and replacement tundra.

A GC-2 Transit Line Spill Confirmation Sampling Plan, dated March 22, 2006, outlines the field screening and confirmation sampling procedures in support of cleanup attainment. On-site field screening to determine gross cleaning success continues as areas are cleaned up, and the collection of confirmation samples from cleaned areas and submittal of those samples for off-site laboratory analysis is in progress. Results from twenty-one confirmation samples collected in the interior portion of the cleanup area were received on April 8, 2006. The results were all below State of Alaska tundra cleanup standards for the primary contaminant (diesel-range organics) but exceeded the standard for gasoline-range organics in one sample.

Two snow melters are currently in operation at pad CC2A near the spill site. A third melter previously in use is down for repairs. The snowmelt is being transferred from the melters to a holding tank at nearby Flow Station 2. Some of this snowmelt has been introduced into facility process systems designed to treat oily water.

A wildlife fence has been constructed around the spill site to exclude wildlife, such as arctic fox. Some fencing has been improved with plastic sheeting to prevent potential off-site movement of finer trimming-generated particles.

The cleanup operation is still occurring 24-hours. Day shift is currently staffed with 41 workers and 11 during night shift. Spill site cleanup activities are confined to daylight hours only. Night operations primarily consist of snow melting and equipment maintenance.

### **Planned Removal Actions**

Residual oil removal by hand, trimmers, or excavators at localized, land-based contamination concentration areas, or "hot spots", continues. Removal of contaminated lake ice continues. Oil has been observed on the lakeshore bottom, underneath the ice (lake is frozen). The extent of lakeshore bottom oiling has not been determined and a contaminated sediment removal approach has not been finalized. Oil-contaminated gravel is being encountered as workers continue to excavate underneath the pipeline. The cleanup of all currently-known areas of contamination is anticipated to be completed within about 1 week, providing pending confirmation sampling results are supportive. Results from six more confirmation samples already collected are expected on April 10, 2006. Confirmation sampling will continue to take place on an as-needed basis over the next week as additional areas are cleaned of contamination and pass field screening tests.

The melting of contaminated snow is anticipated to last for an additional 2-3 weeks. Some of the contaminated snowmelt has been released into facility process equipment designed to handle contaminated water. Definitive measurement of the amount of directly-recovered crude oil currently stored in a holding tank is scheduled to occur on April 11, 2006. Disposal of this oil via re-introduction into facility oil processing systems is expected to follow. Contaminated gravel and trimmings from the cleanup are being introduced into Drill Site 4's grind and inject facility for processing with other oilfield solids per standard operating procedures.

Re-sodding is being planned for to restore the damaged tundra in areas of deeper tundra trimming. A nearby source of replacement/supplemental tundra and organic matter has been located. An amendment was made to the Tundra Treatment Plan to address the tundra restoration work. Tundra specialist subcontractors involved in this activity estimate that approximately 3,000 cubic yards of tundra mat and organic matter are needed for spill area restoration. A tentative start date for re-sodding is April 14, 2006. The tundra restoration work will take an estimated 7-10 days and is intended to occur before spring-time breakup occurs. Team personnel are also considering whether drainage controls to divert or reduce surface runoff away from the spill area will be necessary to protect the re-sodded spill area from the expected spring-melt flooding.

### **Next Steps**

Primary cleanup activities are forecast to be completed on or around April 14, 2006. Re-sodding of damaged tundra areas is expected to begin at that time and last for 10-14 days. Passive residual oil collection methods, such as using sorbent materials, are anticipated to be used once spring-time breakup begins. Measures for protecting the eventually-restored area from wildlife once springtime melting occurs are being reviewed by the U.S. Fish and Wildlife Service, and team personnel are also considering options for oil monitoring of the spill area after breakup and the control or collection of any residual oil found then.

Disposal of cleanup-derived wastestreams will continue. ADEC will be closely involved with waste

disposal activities and related oil volume determinations.

EPA and START have demobilized from the site. EPA will continue to monitor the cleanup progress from their office in Anchorage, and EPA or START may return to the site to view continuing cleanup operations. One ADEC responder is expected to remain on the North Slope to monitor the spill progress.

Demobilization of response equipment no longer required will continue.

### Key Issues

Extreme cold and blowing snow continue to hamper cleanup operations by posing safety hazards to site workers and by causing equipment difficulties. Additional effort is required under these conditions to assure worker safety and to perform equipment maintenance and safekeeping activities. Site workers are working outside shifts as short as 30-60 minutes between warm-up periods, depending on the wind chill. Frostbite is a major worker concern along with slick walking surfaces and dehydration.

Air monitoring for vapors such as VOCs and benzene will continue particularly during caribou crossing gravel excavation, where heavy oil contamination could still be encountered.

A BP Business Resumption team, operating separate from the cleanup operation, has resumed the operation of the GC2 facility and that facility's output flow of oil to the Trans Alaska Pipeline. A temporary, 24" bypass transit line was prepared to handle the flow of oil until the damaged 34" line is fully operational again. Gradual re-start of the GC2 facility began in late March 2006 and oil began flowing in the bypass pipeline on April 2, 2006.

### Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
Recovered crude oil free-product, collected from the ground by vacuum truck or pump.	1,538 bbl		Bulked into tank #1934 at Flow Station 2. Final volume determination is pending, with oilfield processing to follow.
Oil-contaminated snow, collected directly off the spill area or generated through the addition of clean snow as an absorbent	5,660 cubic yards		Being stockpiled at CC-2A pad and fed into snow melters there (see snowmelt wastestream for volumes generated through the melting operation)
Snowmelt created through the melting of oil-contaminated snow	11,898 bbl		Taken from melters at CC-2A to tank #1934 at FS2 (also holds recovered oil). Some water has been decanted and released into facility treatment system
Oil-contaminated caribou-crossing gravel and contaminated ice and tundra trimmings removed from the impacted tundra and lake.	4622 cubic yards		Is stockpiled at Drill Site 4's grind and inject facility and is being processed/disposed of there. 840 cubic yards processed so far.