

**NORTH SLOPE  
SUBAREA CONTINGENCY PLAN**

**SCENARIOS  
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# SCENARIOS: PART ONE – COASTAL OIL

## A. WORST CASE SCENARIO

1. **Situation:** An exploratory well experiences a blowout and begins releasing 5,000 barrels of oil per day (BOPD) from the blowout preventer on the sea floor. Winter is fast approaching. The ice edge has already passed the platform and is continuing to advance rapidly. Ice coverage exceeds 60% at the time of the spill. Estimates indicate ice coverage will exceed 75% in 30 days and approach 100% within 60 days of the initial spill date.

2. **Location:** Approximately 26 miles NE of Cape Halkett  
71° 10.0' N 155° 07' W

3. **Spill Information:** The blowout is releasing crude oil at the rate of 5,000 BOPD. Rough trajectory is based on circulation patterns, oil type and quantity, and weather. Trajectory assumes flow through low ice concentrations and should only be used for the purposes of this scenario. (Note: Trajectory information taken out of context with this scenario should not be relied upon as a forecast for actual conditions or spill events). Currents, weather and product spilled will combine to limit the spread of the slick and also keep it from traveling a great distance over this time period.

**Date:** September 15

**On-Scene Weather:** Winds: Easterly at 5 knots  
Sea State: Calm  
Temperature: -1° C (30° F)

4. **Cargo Salvage:** Not Applicable

5. **Sensitive Areas at Risk:** See the *Sensitive Areas Section* of this plan.

6. **Initial Actions:**

- a. **Notification:** (Assume the Responsible Party (RP) has notified the required agencies in accordance with the vessel response plan)

FOSC (USCG will notify the following):

\*\*\* ADEC (also notified by the RP)  
\*\*\* MMS  
\* ADNR  
\* ADF&G  
\* ADMVA/DHSEM  
\*\*\* CGD17 OPCEN, which includes  
District  
DRG  
DRAT  
PIAT

\*\*\* ARRT  
\*\*\* NRC  
\*\*\* NOAA Scientific Support Coordinator  
\*\* NSF  
\*\* NPFC

*** = Notification by FOSC ** = Message notification * = Notification by State
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\*\*\* North Slope Borough  
\*\*\* Local Emergency Managers of directly impacted communities

- b. **Response Activation:** Commence with notification of all potentially involved parties and provide initial situation assessment. Be brief but concise and provide specific spill information: exact location, quantity spilled, potential immediate threats, source is/is not controlled, etc. Establish contact with the responsible party as quickly as possible, preferably an individual on scene. Begin recall of local in-house personnel (USCG, ADEC, ADNRR, etc.) as needed to support 24-hour operations for a spill of this magnitude.
- c. **Initial On-Scene Investigation/Inspection, Evaluation and Recommendations:**
- Dispatch representatives to the scene at the first opportunity
  - FOSC/SOSC/RP Representatives establish direct communications
  - Ensure health and safety of platform crew
  - Ensure stability of platform
  - Attempt to make initial determination of cause of blowout
  - Ensure contact with MMS personnel to draw on expertise in offshore platforms
  - Establish Safe Zone around platform until proper safety evaluation completed
  - Evaluate slick size, direction, area of coverage, proximity to shore, wildlife impacts, wildlife observed in area, on scene weather, etc.
  - Determine what response actions have occurred or are underway
  - Issue Notice of Federal Interest and State Interest to RP
- d. **Initial Response Actions:**
- Stabilize the platform if required
  - Evacuate personnel if required
  - Complete notification process
  - Activate the response structure to the level deemed necessary (This scenario would not appear to be considered a Spill of National Significance (SONS) and would likely be handled at the local FOSC's level. Although a 60-day discharge of 5,000 BOPD would equate to a 300,000 bbl spill, the timeframe of the spill and the fact that the trajectory shows the oil traveling along the coastline and not seriously impacting the shoreline are factors which would not lead to declaring this a SONS).
  - Ensure notification of resource trustees using the Emergency Notification Checklist
  - Establish local (Anchorage) command post while individuals are en route to the field command post
  - Evaluate the capability of the RP to carry out an appropriate response given the situation
  - Issue Notice to Mariners
  - Prepare Initial POLREP (USCG)
  - Prepare Initial SITREP (State)
  - Instruct RP to develop *in situ* burning plan for consideration and to begin marshaling resources for burning activity if actions are not already underway
  - Instruct RP to determine his/her ability to mechanically recover spilled product before 100% ice cover
  - Evaluate capability to contain and recover oil after 100% ice cover using innovative techniques appropriate to arctic conditions
  - Evaluate RP's plan for securing the source
  - Ensure preparation of the Site Safety Plan
  - Determine feasibility of removal actions based on:

- 1) Will removal actions cause more damage to the environment than allowing the pollutant to naturally dissipate?
  - 2) Can cleanup be initiated before the pollutant disperses, making cleanup impractical?
  - 3) Can equipment be deployed without excessive risk to the life and health of personnel?
7. **Spill Response Organization:** Establish the command structure as described in the Unified Plan, Annex B. Include the FOSC, SOSC, RP's Incident Commander, and local community liaison. The group will always strive to reach consensus decisions. Only when the group has reached an impasse and the timeliness of the situation requires action will the FOSC make unilateral decisions.
8. **Containment, Countermeasures and Cleanup Strategies:** The highest concern is securing the source, either through drilling a relief well or allowing the blowout to naturally seal. The FOSC, SOSC, and RP discuss the advantages and disadvantages of both options. Well flow stabilization and decline depends upon geology and reservoir characteristics and, because of the complexity, cannot usually be predicted. As a result, the RP would initiate a relief well.

Following an initial inspection, the RP indicates that flow may be halted via surface intervention in approximately 2 weeks. However, a contingency plan for drilling a relief well is developed and the RP requested to brief the Unified Command on the aspects and timeframe for this plan. Adequate time remains to drill a relief well during this season. After review of plan, RP instructed to initiate actions required to drill relief well.

FOSC authorizes burning as a response option in accordance with the ARRT-approved *In situ* Burning Guidelines. The RP's *in situ* burn application is reviewed and approved by the FOSC and SOSC; the RP makes preparations to begin collecting and burning oil in accordance with the proposed burn plan.

Mechanical recovery continues.

Limited bird impacts due to time of year and resources in area. Potential impacts to marine mammals are evaluated.

Capability exists to contain and recover oil that is trapped beneath the ice.

FOSC requests support from the University of Alaska Fairbanks, Synthetic Aperture Radar facility in tracking the oil slick. Daylight is decreasing rapidly and periods of low cloud cover make visual airborne reporting sporadic.

If shoreline impact appears imminent, the FOSC will direct the RP to implement shoreline protection measures/cleanup techniques in accordance with the RP's contingency plan.

Resource trustees coordinate with the RP planning staff to ensure that wildlife concerns are properly addressed.

Agency and organization concerns that can't be resolved at the lower levels of the command structure are elevated to the Unified Command for resolution.

## 9. Response Requirements:

- a. **Equipment:** The RP in this scenario has access to significant equipment resources through membership in Alaska Clean Seas, a spill response organization. The RP is operating with an approved spill response plan that demonstrates capability to respond to a spill of this magnitude.
- b. **Personnel:** Initial response personnel on the North Slope would likely have to be augmented by call-up personnel from Fairbanks, Anchorage, and Kenai, as well as other statewide locations. The RP's plan addresses personnel requirements. Federal and State personnel would have to relocate to the spill location from the same major cities within the State. Due to the anticipated low shoreline and wildlife impact and the oil trajectory and characteristics, it is not expected that large numbers of federal/State personnel would be required on scene. Likewise, the predicted low shoreline impact would decrease the expected numbers of personnel required.

**10. Resource Availability and Resource Procurement.** The RP provides all spill response related equipment. Vast equipment resources are maintained on the North Slope and controlled by Alaska Clean Seas. These resources would be assumed to be available in this scenario, given that the RP is a member company. Any FOSC or State expenses not directly covered by the RP would be paid through the Federal Oil Spill Liability Trust Fund or the State 470 Fund, and reimbursement would be sought at a later date.

## 11. Shortfalls

- a. **Equipment:** Mechanical response equipment on scene should be adequate to respond to this scenario. Very few vessels of opportunity exist in the region that are of significant size. Any long term or expanded area response that requires additional vessels could result in delays in spill response. Federal/State/Local agencies tasked with spill response management or oversight must ensure their preparedness and equipment availability/condition. Personal protective equipment and proper clothing for arctic operations are a primary concern. Burning efforts conducted over a 60-day period could exhaust the stock of fire boom on scene, requiring the re-supply from outside the region. Other spill response co-ops have fire boom but the release of their equipment would be subject to mutual aid agreements between the co-ops and possibly some release of liability from the federal or State agencies regulating industry response plans. Ice can act as somewhat of a fire booming mechanism and could possibly be used to advantage in this situation.
- b. **Personnel:** Personnel shortfalls are not anticipated.
- c. **Funding:** Funds availability and access are not anticipated to be a problem.
- d. **Minimum Response Times:** RP response times must meet the times required in their approved response plans. These plans, having been approved by federal and/or State agencies, will not be reevaluated here.
- e. **Planning:** Natural Resource Damage Assessment regulations provide guidance to the Trustee Agencies on performing assessments. The Trustees should ensure that they are prepared to initiate damage assessments from a logistical and financial standpoint.

## 12. Spill Cleanup Timetable:

- a. **Mechanical Cleanup Only:** Mechanical cleanup time will depend on the duration of the discharge but will likely require a return during the spring to recover oil that is intentionally collected under the ice. Responders returning in the spring can operate on the ice, recovering the oil below, before the ice begins to break up. Monitors will have to be employed to patrol the area during and after breakup to report observed oil for collection and recovery.
- b. **Mechanical in Conjunction with Non-Mechanical:** Burning will significantly reduce, but not eliminate the required time for mechanical recovery. Controlled burning of the source should eliminate the majority of the escaping product. The majority of mechanical recovery will be directed at the oil that initially was released and any oil that escapes burning. Burning will continue as long as discharge is sufficient to support burning and potential impacts to population centers and personnel are not encountered. Recovery of escaping product and burn residue will likely extend for several weeks after burning ceases, possibly into the next season depending on freeze up.

13. **Disposal Options:** Debris disposal is the responsibility of the RP. Recovered oil would be the largest volume of debris, although burning would significantly reduce the volume of oil collected. Oil contaminated response equipment will require cleaning in an area capable of collecting and treating the runoff. Disposal options are further discussed in the Unified Plan, Annex E, Appendix II. A Waste Management Plan also will be developed and approved by the Unified Command.

14. **Cleanup Termination.** Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:

- a. There is no longer any detectable oil present on the water, adjoining shorelines, or places where it is likely to reach the water again; or
- b. Further removal operations would cause more environmental harm than the oil to be removed; or
- c. Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health and welfare; and
- d. Activities required to repair unavoidable damage resulting from removal actions have been performed.

## B. MAXIMUM MOST PROBABLE SCENARIO

1. **Situation:** The fuel barge planning to refuel the Barter Island Long Range Radar Site (LRRS) strikes a partially submerged object en route to the anchoring location. The object is suspected to be ice. The vessel continues to the anchoring location having no direct indication of damage since no product is seen escaping. Apparently, as long as the vessel is underway, fuel does not escape from the damaged tanks. But after the vessel anchors up, awaiting fuel transfer, free product is detected on the water.
2. **Location:** Barter Island has numerous above ground storage tanks that have a combined capacity of over 40,000 bbls of fuel, mostly arctic diesel and JP-4. Fuel barges re-supply the site only once a year. Site of the discharge is approximately 70° 10' N 143° 35' W.

3. **Spill Information:** Approximately 500 bbls of arctic diesel are released over a one hour period.

**Date:** August 1

**On-Scene Weather:** Winds E @ 10 kts  
Temperature 10° C (50° F)  
Sea State Calm  
No surface ice present

4. **Cargo Salvage:** Crew begins transferring fuel as necessary to maintain stability and attempt to hydrostatically load the damaged tanks. Salvage of the remaining cargo is successful.

5. **Sensitive Areas at Risk:** See *Sensitive Areas Section* of this plan.

6. **Initial Actions:**

- a. **Notification:** (Assume the Responsible Party (RP) has notified the required agencies in accordance with the vessel response plan)

FOSC (USCG will notify the following):

\*\*\* ADEC (also notified by the RP)

\*\*\* MMS

\* ADNR

\* ADF&G

\* ADMVA/DHSEM

\*\*\* CGD17 OPCEN, which includes

District

DRG

DRAT

PIAT

\*\*\* ARRT

\*\*\* NRC

\*\*\* NOAA Scientific Support Coordinator

\*\* NSF

\*\* NPFC

\*\*\* North Slope Borough

\*\*\* Local Emergency Managers of directly impacted communities

*** = Notification by FOSC
** = Message notification
* = Notification by State

- b. **Response Activation:** Commence with notification of all potentially involved parties and provide initial situation assessment. Be brief but concise and provide specific spill information: exact location, quantity spilled, potential immediate threats, source is/is not controlled, etc. Establish contact with the responsible party as quickly as possible, preferably an individual on scene. Begin recall of local in-house personnel (USCG, ADEC, ADNR, etc.) as needed to support 24-hour operations for a spill of this magnitude.
- c. **Initial On-Scene Investigation/Inspection, Evaluation and Recommendations:** Dispatch pollution investigators (MSO Anchorage and DEC NART) to the scene at the earliest opportunity. Aircraft schedules may not allow arrival until the following day depending upon time of spill and time of notification. All information must come from individuals on scene that may or may not be knowledgeable of emergency procedures or



pollution response. Conflicting reports can be expected during the early phases of gathering information.

d. **Initial Response Actions:**

- Dispatch rep from SECTOR Anchorage and DEC NART (Fairbanks) as needed
- Stabilize the vessel
- Secure the source of discharge through fuel transfer
- Ensure health and safety of personnel
- Complete notification procedures
- Activate the response structure to the level deemed necessary
- Through SSC interaction, determine spill path, resources at risk and wildlife impacts
- Prepare Initial POLREP (USCG)
- Prepare Initial SITREP (State)
- Establish Anchorage-based command post for FOSC/SOSC and Staff
- FOSC/SOSC will operate from offices and will not travel to the scene
- Determine feasibility of removal actions based on:

- 1) Will removal actions cause more damage to the environment than allowing the pollutant to naturally dissipate?
- 2) Can cleanup be initiated before the pollutant disperses, making cleanup impractical?
- 3) Can equipment be deployed without excessive risk to the life and health of personnel?

7. **Spill Response Organization:** Establish the command structure as described in the Unified Plan, Annex B. Include the FOSC, SOSC, RP's Incident Commander, and local community liaison. The group will always strive to reach consensus decisions. Only when the group has reached an impasse and the timeliness of the situation requires action will the FOSC make unilateral decisions.

8. **Containment, Countermeasures and Cleanup Strategies:** Immediate containment is required to mount an effective recovery operation. Vessel crew deploys response equipment carried aboard as required by the Vessel Response Plan. Containment boom is deployed and approximately 40% of the released product is contained and skimming begun.

Natural dispersion and evaporation will act to remove the product from the water surface. A spill of this volume will spread, disperse, and evaporate making recovery, if not initially contained, very difficult.

*In situ* burning and dispersant strategies will not be employed.

A spill of this volume that is not contained immediately but is allowed to spread will likely not be recoverable under these conditions. The time required to mount an effective response added to the extraordinary travel time and logistical difficulties may make "chasing" this oil spill infeasible.

9. **Response Requirements:**

a. **Equipment:** The equipment required in the State and Coast Guard vessel response plans should adequately address this spill. It is unlikely that additional equipment can be brought

to bear in a timely manner and at a reasonable cost to respond to this spill volume. Natural processes will drastically reduce the spill volume in a matter of hours rather than days.

- b. **Personnel:** Expect to use only on board personnel for this response. The crew should be capable of deploying equipment and recovering product without assistance. Trustees and other agencies should not require augmentation or additional manpower to deal with this spill.

- 10. **Resource Availability and Resource Procurement:** Resources should be on hand to deal with this spill. The volume of product that can be expected to be recovered will be relatively small and additional resources will probably be unnecessary by the time they arrive on scene.

#### 11. Shortfalls

- a. **Equipment:** None anticipated.
- b. **Personnel:** None anticipated.
- c. **Funding:** No funding problems anticipated.
- d. **Minimum Response Times:** Vessel owner should comply with the approved vessel response plan. If these response times are met, response should be adequate assuming the crew acts quickly to contain the product being released as soon as it's detected.

#### 12. Spill Cleanup Timetable:

- a. **Mechanical Cleanup Only:** Two days.
- b. **Mechanical in Conjunction with Non-Mechanical:** Not applicable.

- 13. **Disposal Options:** Debris disposal is the responsibility of the RP. A small volume of oil contaminated debris will likely be produced. The RP must dispose of contaminated debris according to existing laws. The RP will typically be knowledgeable in the methods and requirements for disposing of small quantities of oiled debris.

- 14. **Cleanup Termination.** Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:

- a. There is no longer any detectable oil present on the water, adjoining shorelines, or places where it is likely to reach the water again; or
- b. Further removal operations would cause more environmental harm than the oil to be removed; or
- c. Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health and welfare; and
- d. Activities required to repair unavoidable damage resulting from removal actions have been performed.

**C. AVERAGE MOST PROBABLE SCENARIO**

1. **Situation:** A lightering vessel is transferring fuel to the Wainwright bulk fuel storage facility when the 4 inch transfer hose ruptures near the marine header.
2. **Location:** The coastal village of Wainwright is located at a position of 70 ° 37' North latitude, 160 ° 04' West longitude, approximately 80 miles southwest of Barrow.
3. **Spill Information:** Approximately 50 gallons of No. 1 diesel fuel is discharged into the Chukchi Sea.

**Date:** August 15

<b>On-Scene Weather:</b>	Winds:	W @ 10 kts
	Temperature:	10° C (50° F)
	Sea State:	Calm

4. **Cargo Salvage:** Upon discovery of the rupture, the transfer pump is secured and the valves at the marine header and aboard the lightering vessel are closed, preventing the loss of additional cargo.
5. **Sensitive Areas at Risk:** See the *Sensitive Areas Section* of this plan.
6. **Initial Actions:**

- a. **Notification:** (Assume the Responsible Party (RP) has notified the required agencies in accordance with the facility response plan)

FOSC (USCG will notify the following):

- \*\*\* ADEC (also notified by the RP)
- \* ADNR
- \* ADF&G
- \* ADMVA/DHSEM
- \*\*\* CGD17 COMMCEN
- \*\*\* NOAA Scientific Support Coordinator
- \*\* NPFC
- \*\*\* North Slope Borough (also notified by RP)
- \*\*\* DOI

*** = Notification by FOSC
** = Message notification
* = Notification by State

- b. **Response Activation:** Commence with notification of all potentially involved parties and provide initial situation assessment. Be brief but concise and provide specific spill information: exact location, quantity spilled, potential immediate threats, source is/is not controlled, etc. Establish contact with the responsible party as quickly as possible, preferably an individual on scene. Begin recall of local in-house personnel (USCG, ADEC, ADNR, etc.) as needed to support a spill of this magnitude.
- c. **Initial Response Actions On-Scene:**
  - Alert vessel tankerman to secure pumping
  - Secure electrical power and sources of ignition
  - Close valves to prevent the flow of fuel through the ruptured hose
  - Maintain a safety zone due to health hazards; evacuate personnel as necessary

- Ensure proper PPE is available and used by responders
- Alert the North Slope Borough to activate the initial ICS
- Contain and recover the charged product
- Properly dispose of recovered oil and oily waste
- Properly decontaminate all oiled response equipment

**d. Initial Agency Evaluation and Recommendations:**

- FOSC/SOSC/RP establish direct communications
- Evaluate the RP's response capabilities
- As required, dispatch representatives to the scene at the earliest opportunity
- Ensure health and safety of all individuals
- Coordinate with local emergency response personnel to establish a Safety Zone, as necessary
- Determine feasibility of removal actions based on the following considerations:
  - 1) Will removal actions cause more damage to the environment than allowing the pollutant to naturally dissipate?
  - 2) Can cleanup be initiated before the pollutant disperses, making cleanup impractical?
  - 3) Can equipment be deployed without excessive risk to the life and health of personnel?
- Ensure development of a Site Safety Plan
- Prepare initial POLREP (USCG)
- Prepare initial SITREP (State)

**7. Spill Response Organization:** Establish the command structure as described in the Unified Plan, Annex B. Include the FOSC, SOSC, RP's Incident Commander, and local community liaison. The group will always strive to reach consensus decisions. Only when the group has reached an impasse and the timeliness of the situation requires action will the FOSC make unilateral decisions.

**8. Containment, Countermeasures and Cleanup Strategies:** Due to the small amount of discharged product, nature of diesel fuel, and weather conditions, the product will likely weather quickly through evaporation and emulsification. Safety of response personnel is of primary importance, as is early detection of the rupture and quick action to secure flow of product through the hose and contain the spill.

**9. Response Requirements:**

- a. **Equipment:** Personal Protective Equipment for response personnel required to approach the vicinity of the spill is mandatory.
- b. **Personnel:** Facility personnel and other emergency response personnel will likely be the most crucial individuals in this scenario.

**10. Resource Availability and Resource Procurement.** The RP is required to have resources on hand to respond to spills. It is anticipated that adequate resources would be available from the RP to respond to this event. In the event the RP does not have adequate equipment, the North Slope

Borough maintains some response equipment that may be available, through appropriate agreements, for this scenario. Out-of-region resources are not considered necessary for this response.

**11. Shortfalls**

- a. **Equipment:** No shortfall of cleanup equipment is anticipated.
- b. **Personnel:** No shortfalls in personnel are anticipated.
- c. **Funding:** Funds availability and access are not anticipated to be a problem due to identification of a responsible party. Federal and State could access their respective spill funds if necessary.
- d. **Minimum Response Times:** Response times in excess of one hour may prove futile with regard to recovering any free product or containment to control the migration and areas impacted by the spill. Emergency response personnel should respond immediately to the spill site to maintain safety.

**12. Spill Cleanup Timetable:**

- a. **Mechanical Cleanup Only:** One day.
- b. **Mechanical in Conjunction with Non-Mechanical:** Not applicable.

**13. Disposal Options:** Debris disposal is the responsibility of the RP. Limited amount of contaminated debris will likely be produced. Disposal procedures must meet federal and State requirements. The RP will typically be well versed in these procedures due to the nature of their fuel handling operations.

**14. Cleanup Termination:** Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:

- a. There is no longer any detectable oil present on the water, adjoining shorelines, or places where it is likely to reach the water again; or
- b. Further removal operations would cause more environmental harm than the oil to be removed; or
- c. Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health and welfare; and
- d. Activities required to repair unavoidable damage resulting from removal actions have been performed.

## SCENARIOS: PART TWO – HAZMAT

1. **Situation:** At approximately 10:00 am on June 1, a tanker truck transporting hydrochloric acid (37% concentration) overturns on the Dalton Highway while en-route to Prudhoe Bay (Deadhorse). The MC 312 liquid cargo tank contains approximately 4,500 gallons of hydrochloric acid. The driver of the tanker truck swerved to avoid a head-on collision with another vehicle, driven by a tourist. The tires on the right side of the truck caught the soft shoulder of the road and the truck rolled over and came to rest on its right side in a shallow embankment. The driver escaped serious injury and notified his dispatch center in Fairbanks before evacuating the cab of the truck. The tourist stops to render assistance, other vehicles are flagged down, and traffic is restricted from passing through the area. The truck driver observed liquid leaking from the rear portion of the tanker. There is no evidence of fire at this time.
2. **Location:** The incident occurred near milepost 280 on the Dalton Highway, approximately 10 miles due North of Pump Station 4 along the TransAlaska Pipeline System (TAPS). The pipeline is located approximately ¼ mile away from the accident site.
3. **Release Information:** Over a period of approximately 30 minutes, approximately 700 gallons of hydrochloric acid has been released into the shallow ditch next to the road. The volume released begins to slow after 30 minutes, as the leak appears to be from the upper half of the tank, near the manhole assembly and outlet shutoff valve.

**Date of Incident:** June 1

**On-scene Weather:** Winds: Westerly at 5 mph  
Temperature: 45°F  
Sunny and clear, with no rain forecasted

4. **Cargo Salvage:** The trucking company's representative will survey the situation and determine when it is safe to transfer the remaining liquid cargo from the overturned truck to another tanker truck or suitable tanker.
5. **Sensitive Areas at Risk:** Several creeks (Terry Creek, Mack Creek, and Ed Creek) are approximately one mile away from the accident site. All three creeks are known to contain arctic grayling, and possibly arctic char. The accident is also in a known subsistence use area, and two wildlife migratory routes are known to exist approximately two miles to the west and approximately five miles to the east of the accident location. Primary sources for determining resources at risk include the federal and state resource agencies and the TAPS Environmental Atlas, the North Slope Subarea Contingency Plan.
6. **Initial Actions:**
  - a. **Notification:**

The truck driver contacts his dispatch center and informs them of the accident. A worker assigned to Pump Station 4 also noticed the accident and notified Alyeska Pipeline Service Company through their emergency communications system.

The truck company's dispatch center staff notifies the National Response Center (NRC) and the ADEC's Northern Alaska Response Team in Fairbanks. The NRC notifies EPA of the

incident and the FOSC is notified through normal communication channels. The Alaska State Troopers are also notified of the accident.

Alyeska Pipeline Service Company emergency dispatch also notifies the National Response Center and the ADEC office in Fairbanks.

The ADEC State On-Scene Coordinator (SOSC) notifies the Fairbanks North Star Borough (FNSB) Emergency Manager of the incident and requests that the FNSB Hazardous Materials (Hazmat) Team be placed on alert for possible mobilization.

b. **Response Activation:**

The driver consults with the dispatch center staff and they direct him to establish an isolation perimeter of at least one-half mile around the accident site (in accordance with the Emergency Response Guidebook, Guide 157). Traffic on either side of the highway is halted by passersby who have been put to work by the truck driver. Alyeska Pump Station 4 Security personnel are also helping with traffic control pending the arrival of law enforcement officials.

The FOSC and SOSC confer via teleconference with the truck company and confirm the contents and quantity of the tanker vehicle, and receive an update on the situation.

The FOSC and SOSC also confer with the FNSB Hazmat Team and inform them of the situation and discuss possible options.

The primary objective is to ensure health and safety of all responders and the general public.

c. **Initial Response Actions:**

Evacuate personnel from the immediate vicinity of the accident, using the Emergency Response Guidebook data for hydrochloric acid (Guide 157).

Complete the notification process.

Activate the response structure to the level deemed necessary. For an incident of this nature, a full-scale incident management team is not envisioned.

Ensure notification of resource trustees and land owners/managers using Emergency Notification Checklist. A preliminary review of the land management maps in the North Slope Subarea Contingency Plan indicates that the land is categorized as State-selected, while the federal land manager is the Bureau of Land Management.

Activation of an Emergency Operations Center is not deemed necessary. The truck company's dispatch center in Fairbanks will coordinate all activities related to the response (at the direction of the on-scene, RP Incident Commander).

The spill occurs in the ditch very close to or over the APSC fuel gas line running to Pump Station 4. Responders should also determine any potential impacts to the gas line and initiate actions to protect the line, if necessary.

Evaluate the Responsible Party's plan for securing the source.

Ensure preparation of a Site Safety Plan prior to any entry into the area.

7. **Spill Response Organization:** Establish a basic command structure as described in the Unified Plan, Annex B. Include FOSC representative, SOSC representative, and RP's Incident Commander. The response group agrees to convene on scene and manage the situation. The Unified Command (FOSC, SOSC, and RP IC) agree to establish a general staging area at Galbraith Airport (in coordination with Alyeska Pipeline Service Company).

8. **Containment, Countermeasures, and Cleanup Strategies:**

Determine the location and extent of the leak and secure the source.

Remove as much of the tanker's remaining liquid cargo as possible by pumping it into another tanker truck. A serviceable, MC312 tanker is not immediately available to offload the remaining liquid. Alaska West Express (Fairbanks) does have an MC312 tanker, but it does not meet DOT regulations due to a bottom discharge configuration. A waiver from DOT will be required to use this tanker truck. Another option is to use a vacuum truck, but additional safety precautions must be taken. The receiving tank must be rubber-lined, and the tank must not contain any residual chemicals that could react with the hydrochloric acid solution.

After the State Trooper completes his/her on-scene investigation, the overturned truck will be carefully raised into an upright position and towed back onto the highway.

Determine whether neutralizing the acid-soil mixture will be an effective countermeasure. Neutralization of the spill *in situ*, if possible, should be the priority cleanup option rather than excavation and removal of soil. This would minimize vegetation/organic soil disruption and permafrost degradation in the immediate area. The minimization of permafrost degradation is particularly important if the fuel gas line is next to or underlies the spill area, as there have been problems in the past with erosion along the fuel gas line ditch.

Minimize any removal and excavation of contaminated soil.

9. **Response Requirements:**

- a. **Equipment:** Any action to contain, plug or prevent additional release will require the use of appropriate personal protective equipment (PPE).
- b. **Personnel:** Personnel responding to this incident (State Troopers, firefighters, and other responders) will be required to be trained to at least the first responder awareness level. Those entering the scene to secure the leak source and initiate cleanup and containment will require training to the technician level.

10. **Resource Availability and Resource Procurement:** The Alaska State Troopers will respond to this incident upon notification. Additional resources, outside of those provided by the first responders will be the responsibility of the Responsible Party. An incident of this size will require evacuation of the immediate area around the accident site, and an isolation perimeter of at least one-half mile is required.



**11. Shortfalls:**

- a. **Equipment:** Firefighting equipment and law enforcement vehicles will be needed as a precautionary measure in the event the tanker truck and product ignites, and to control traffic/limit access to the incident; the Fairbanks Hazmat team will most likely not be deployed unless the situation deteriorates further. The trucking company, serving as the Responsible Party, will be coordinating with Alaska West Express in Fairbanks, who maintains a trained Hazmat response team. The team will be dispatched to secure the source and initiate cleanup.
- b. **Personnel:** Due to the location of the accident and the localized hazard (i.e., liquid hydrochloric acid on the ground), additional emergency response personnel are not deemed necessary. Alyeska Pipeline Service Company, acting as a Good Samaritan, offers to provide assistance with the overall response under the direction of the Responsible Party or the SOSC/FOSC.
- c. **Funding:** Funding of response and clean-up actions will be the responsibility of the Responsible Party.
- d. **Minimum Response Times:** Response should be initiated immediately. Based on the location of the incident, the State Trooper, SOSC, and the RP's designated Incident Commander will arrive at the scene via helicopter by early afternoon (a few hours after the incident.) The FOSC, deploying from Anchorage, is expected to arrive at the scene sometime in the evening.

**12. Spill Cleanup Timetable:** This response should last no more than several days. Cleanup of the immediate area will be required, and contaminated soil will need to be collected and transported. The RP indicates that he will transfer the remaining liquid to another tanker (or suitable container) and remove the vehicle from the culvert (using a heavy-duty tow truck). The cleanup crew will then attempt to neutralize the acid-saturated soil, and minimize excavation and removal of the remaining contaminated soil as necessary.

**13. Disposal Options:** Some waste material will be generated during this response; however, there are no facilities in Alaska that are licensed to accept hazardous materials. All wastes generated in this response will have to be contained and transported to a facility in the continental US in an EPA, ADEC and DOT-approved manner.

**14. Cleanup Termination:** The FOSC and SOSC will determine the appropriate time to terminate cleanup operations based on the RP's ability to return the accident site to an acceptable condition.

## SCENARIOS: PART THREE – INLAND OIL

### A. WORST CASE SCENARIO

1. **Situation:** Crude oil pipeline rupture over Kuparuk River to open water. The spilled oil moves downstream under the influence of the current and impacts the shoreline.
2. **Location:** Kuparuk River, approximately 70° 12.75' N 149° 01.5' W.
3. **Spill Information:** At 10:00 AM on August 10, the Kuparuk 24-inch sales pipeline ruptures at the Kuparuk river crossing and instantaneously releases 10,516 barrels of crude oil into open water. The winds at the time of the spill are approximately 20 knots from the southwest. On the second day of the spill the winds shift and are from the northeast. The air temperature is approximately 50 degrees F and the river speed is approximately 2 knots. The spilled oil moves downstream under the influence of the current and impacts the shoreline.
4. **Cargo Salvage:** Not applicable.
5. **Sensitive Areas at Risk:** See the *Sensitive Areas Section* of this plan.
6. **Initial Actions:**
  - a. **Notification:** The Kuparuk operations center detects the spill from the pipeline leak detection system and notifies ConocoPhillips spill response personnel who call for mutual aid from North Slope mutual aid partners including Alaska Clean Seas. ConocoPhillips personnel immediately notify the NRC and the ADEC. NRC notifies EPA Region 10 Alaska Operation's Office personnel who then notify appropriate federal agencies including Natural Resource Trustees.

FOSC (EPA will notify the following):

    - \*\*\* ADEC (also notified by the responsible party)
    - \* ADNR
    - \* ADF&G
    - \* ADMVA/DHSEM
    - \*\*\* ARRT
    - \*\*\* NRC
    - \*\*\* NOAA Scientific Support Coordinator
    - \*\* NSF
    - \*\* NPFC
    - \*\*\* North Slope Borough
    - \*\*\* NSB Local Emergency Manager

\*\*\* = Notification by FOSC  
\*\* = Message notification  
\* = Notification by State
  - b. **Response Activation:** Commence with notification of all potentially involved parties and provide initial situation assessment. Be brief but concise and provide specific spill information: exact location, quantity spilled, potential immediate threats, source is/is not controlled, etc. Establish contact with the responsible party as quickly as possible, preferably an individual on scene. Begin recall of local in-house personnel (EPA, ADEC, ADNR, etc.) as needed to support 24-hour operations for a spill of this magnitude.

- c. **Initial On-Scene Investigation/Inspection, Evaluation and Recommendations:** Dispatch pollution investigators (EPA Anchorage and DEC NART) to the scene at the earliest opportunity. Aircraft schedules may not allow arrival until the following day depending upon time of spill and time of notification. All information must come from individuals on scene that may or may not be knowledgeable of emergency procedures or pollution response. Conflicting reports can be expected during the early phases of gathering information.
- d. **Initial Response Actions:** The pipeline is immediately shutdown and spill response team personnel mobilize with equipment to locations preplanned in ConocoPhillips' contingency plan, (see following tables and maps contained in the emergency mobilization and deployment table below)

An EPA Federal On-Scene Coordinator (FOSC) and an ADEC State On-Scene Coordinator (SOSC) contact ConocoPhillips' Incident Commander and establish a Unified Command. By 5:00 PM that night a Unified Command and incident management team composed of industry, federal, State and local government personnel arrive at ConocoPhillips emergency operations center at the Kuparuk base camp.

The ADEC SOSC initiates a statewide callout for a Type 1 incident. Additional ADEC spill responders from other response areas are mobilized, and the SOSC requests mobilization of other State agency support personnel. The Federal/State Unified Plan and North Slope Subarea Contingency Plan are put into implementation.

The ADEC SOSC and EPA FOSC also activate the ADEC term contractors and EPA START contractors, respectively. The contractors are notified for possible mobilization to assist with the federal and State oversight operation.

Both federal and State field observers are deployed to the initial control sites to monitor clean up operations and advise the FOSC and SOSC of the status of on-going operations.

- 7. **Spill Response Organization:** Establish the command structure as described in the Unified Plan, Annex B. Include the FOSC, SOSC, RP's Incident Commander, and local community liaison. The group will always strive to reach consensus decisions. Only when the group has reached an impasse and the timeliness of the situation requires action will the FOSC make unilateral decisions.

## 8. **Containment, Countermeasures and Cleanup Strategies:**

Immediate containment is required to mount an effective recovery operation.

A spill of this volume that is not contained immediately but is allowed to spread will likely not be recoverable under these conditions. The time required to mount an effective response added to the extraordinary travel time and logistical difficulties will make this operation a challenge.

<b>Emergency Mobilization and Deployment Response Strategy</b>																	
<b>Response Objective</b>	<b>Response Strategy</b>	<b>ACS Tech. Manual Tactic</b>															
<b>(i) Stopping Discharge at Source</b>	<p>The Kuparuk Transportation Company leak detection system sounds an alarm to the CPF-1 Control Room Operator. The Operator notifies Security, Milne Point Operations, CPF-2 Control Room Operator, CPF-3 Control Room Operator, TAPS PS-1, and CPF-1 Facility Supervisor that a pipeline leak is indicated and the line is being shut down (Figure 1-3E).</p> <p>The CPF-1 Control Room Operator diverts flow from the pipeline to the divert tanks at CPF-1 and CPF-2. The remote pipeline valves are shut automatically when the system detects the pressure loss. Milne Point and Kuparuk production lines also are diverted to divert tanks.</p>	A-1															
<b>(ii) Preventing or Controlling Fire Hazards</b>	<p>Throughout the first few hours of the spill, the Site Safety Officer verifies that all sources of ignition are shut down or removed from the area. The Site Safety Officer provides access zone information and determines PPE requirements. Access to the spill site is carefully controlled and the scene is secured by Security. Monitoring protocol is established by the Site Safety Officer for all work areas to ensure personnel protection.</p> <p>The Kuparuk Fire Department provides fire suppression at the rupture point and at Control Site #1, and assists Safety with air monitoring.</p>	S-2 to S-6															
<b>(iii) Well Control Plan</b>	Not applicable	Not applicable															
<b>(iv) Surveillance and Tracking of Oil; Forecasting Shoreline Contact Points</b>	<p>Aerial observation tracks the leading edge of the oil. Situation Status Unit reports the following (see Figures 1-3E through 1-3H):</p> <p><b>Oil Movement</b></p> <table> <tr> <th><u>Control Site</u></th><th><u>Nautical Miles</u></th><th><u>Oil Arrival (hr)</u></th></tr> <tr> <td>1</td><td>2.7</td><td>1.3</td></tr> <tr> <td>2</td><td>2.8</td><td>1.3</td></tr> <tr> <td>3</td><td>5.3</td><td>4</td></tr> <tr> <td>4</td><td>5.5</td><td>4</td></tr> </table> <ul style="list-style-type: none"> <li>■ Leading edge moves with current, 2 knots for 3 miles then 1 knot.</li> <li>■ Tracking buoys are staged at the mouth of the river in the event they are needed to track oil entering Gwydyr Bay.</li> </ul>	<u>Control Site</u>	<u>Nautical Miles</u>	<u>Oil Arrival (hr)</u>	1	2.7	1.3	2	2.8	1.3	3	5.3	4	4	5.5	4	T-4
<u>Control Site</u>	<u>Nautical Miles</u>	<u>Oil Arrival (hr)</u>															
1	2.7	1.3															
2	2.8	1.3															
3	5.3	4															
4	5.5	4															
<b>(v) Exclusion Procedures</b>	Resource agencies identify no areas of major concern upstream of the Kuparuk River Delta.	W-6															
<b>(vi) Spill Containment and Control Actions</b>	<b>Staging Area and Forward Command Post.</b> On the northwest side of the Kuparuk River Bridge, the SRT sets up a staging area (see Figure 1-3F).	L-2															

Emergency Mobilization and Deployment Response Strategy		
Response Objective	Response Strategy	ACS Tech. Manual Tactic
(vi) Spill Containment and Control Actions, (vii) Spill Recovery Procedures, (viii) Lightering Procedures and (ix) Transfer and Storage of Recovered Oil/Water; Volume Estimating Procedure	<b>Control Site #1.</b> Southwest of the Kuparuk River bridge, responders maintain the 750-foot pre-deployed harbor boom. The boom directs oil to a gate weir for recovery and into a pre-constructed 400- by 30- by 4-foot, 8,556-bbl, lined deadarm trench for immediate storage (Figure 1-3G). Two trash pumps are installed with the capacity to transfer 80 percent of the free water from the bottom of the trench through 300 feet of hose into the collection area upstream. However, all the collected water enters an oil-water emulsion, and free water does not become available for decanting. Vacuum trucks pump liquid from the trench while it is filling and transit to Prudhoe Bay's CC2.	C-8, R-6, R-10, D-1
	<b>Control Site #2.</b> To back up the first boom, 3,300 feet of secondary and tertiary river boom north of the bridge direct oil to vacuum trucks. Vacuum trucks remove liquids from the containment booms and transfer the liquids to CC2 (Figure 1-3G).	R-6, D-1
	<b>Control Site #3.</b> The responders maintain the 2,000-foot pre-deployed harbor boom, which deflects oil toward skimmers on the east side of the river (Figure 1-3H). The teams deploy long-skirt, high-flotation harbor-type containment/deflection boom immediately downstream and recover oil with skimmers into Fastanks. A fuel tanker vehicle hauls liquids from Fastanks to a frac tank and a vacuum truck on the north side of R pad. The vacuum truck carries the liquids 2 miles to CC2.	C-8, R-8, R-22, R-23, D-1
	<b>Control Site #4.</b> The responders deploy a boom to deflect oil into a deadarm. Skimmers in the deadarm recover the immobile oil into Fastanks. A fuel tanker vehicle hauls liquids from Fastanks to a frac tank and a vacuum truck on the north side of R pad. The vacuum truck carries the liquids 2 miles to CC2 (Figure 1-3H).	C-8, R-7, R-8, R-22 R-23, D-1
	<b>Offshore.</b> As a contingency, ACS technicians transport boom and skimmer equipment to Simpson Lagoon adjacent to the Kuparuk River (see Figure 1-3F). The task force patrols the delta area and stands by to recover oil. However, the task force encounters none.	R-17
(x) Plans, Procedures, and Locations for Temporary Storage and Disposal	<ul style="list-style-type: none"> <li>■ Recovered oil is transferred to Kuparuk's Hydrocarbon Recycle Facility at CPF-1, CC2, and PS-1 for recycling.</li> <li>■ Non-liquid oily wastes are classified and disposed of according to classification. Sorbent material, Visqueen, and other materials are contained in poly bags and hauled to the North Slope Borough Incineration Facility at Deadhorse</li> <li>■ Non-oily wastes are classified and disposed of accordingly.</li> <li>■ Oiled gravel and oiled tundra mat are hauled to Kuparuk DS-1H and to EOA Pad 3 oily waste treatment and disposal sites. Synthetic pit liner and timbers at DS-1H form temporary storage pits for oiled gravel that exceeds the available capacity.</li> </ul>	D-1  D-2  D-3 D-4

Emergency Mobilization and Deployment Response Strategy		
Response Objective	Response Strategy	ACS Tech. Manual Tactic
(xi) <b>Wildlife Protection Plan</b>	<ul style="list-style-type: none"> <li>■ A Wildlife Task Force excludes birds and mammals from entering oiled areas onshore and on water. The wildlife stabilization and treatment center at U8 is made operational on Day 1, and staffed by International Bird Rescue and Research Center by Hour 24. No oiled animals are encountered.</li> <li>■ The wildlife protection strategy is implemented.</li> <li>■ Wildlife hazing teams are deployed.</li> <li>■ The wildlife stabilization center is made operational.</li> <li>■ As oiled wildlife are identified, capture teams are deployed to the spill area.</li> </ul>	<p>W-1 W-2A, W-2B W-5 W-3</p>
(xii) <b>Shoreline Cleanup Plan</b>	<p>Shoreline cleanup operations are initiated once the source of the oil has been stopped based on a plan approved by Unified Command. A shoreline assessment is conducted to understand the nature and extent of oiling. Based on shoreline assessment, priorities are established for cleanup. Cleanup techniques chosen are based on shoreline type and degree of oiling.</p> <p><i>The following discussion is based on a purely speculative prediction of shoreline impact, and is presented for illustrative purposes only. Prior to shoreline cleanup operation, the affected areas are surveyed to determine the appropriate response. Specific cleanup techniques are based on field data obtained at the time on shoreline habitats, type and degree of shoreline contamination, and spill-specific physical processes. It is not possible to presuppose the outcome of the SCAT process and/or the decisions of the Unified Command.</i></p> <ul style="list-style-type: none"> <li>■ Primary shoreline cleanup includes the following techniques:</li> <li>■ Passive recovery with sorbents and cutting oiled vegetation.</li> </ul> <p>Natural recovery for those areas where residual staining remains, but where further recovery would cause more harm than good.</p> <p>Oiled areas are cleaned up to the satisfaction of the Unified Command. Freighter airboats recover free oil into tanks on deck. Low-pressure flooding lifts oil for recovery. Shoreline gravel is approached over land and treated in place. They are monitored for the rest of the summer and the following summer under a plan approved by ADEC.</p>	<p>SH-1</p> <p>SH-2 through SH-11</p> <p>SH-7 SH-2 SH-3</p>

<b>Trajectory and Distribution of Oil at Control Sites Crude Oil Pipeline Rupture Over the Kuparuk River to Open Water</b>	
<b>Location</b>	<b>Oil (bbl)</b>
<b>Stranded:</b>	
Pipeline to CS#1	1,000
CS#2 to CS#3	1,000
<b>Encountered:</b>	
CS#1	9,516
CS#2	4,758
CS#3	1,379
CS#4	690

Liquid Recovery Capability Crude Oil Pipeline Rupture Over the Kuparuk River to Open Water						
A	B	C	D	E	F	G
Spill Recovery TACTIC, ACS Tech Manual Tactics Description	Number of Systems	Recovery System/Skimmer Name And Model	Derated Oil Recovery Rate Per System (boph)	Mobilization, Deployment And Transit Time To Site (hrs)	Operating Time (hours per 24-hour shift)	Liquid Recovery Capacity (bbl Per Day) (B X D X F)
CS#1: R-6, - R-10	1	Gate Weir	514	1.3	20	10,280
CS#2: R-6	6	Vac truck with Manta Ray	10.3 <sup>1</sup>	1.3	20	1,236
CS#3: R-8	3	Vikoma 30K disc	10	4	20	600
CS#4: R-8	3	MI 30 disc	10	4	20	600
Offshore: R-17	1	LORI LSC 3 brush	217	6	20	4,340

<sup>1</sup> Oil recovery rate is adjusted as follows: (34 boph) / (3.3 hours round trip and offloading) = 10.3 boph during operating period

Liquid Handling Capability Crude Oil Pipeline Rupture Over the Kuparuk River to Open Water										
A	H	I	J	K	L	M	N	O	P	Q
Spill Recovery TACTIC, ACS Tech Manual Tactics Description	Number of storage Systems	Storage Capacity Description	Storage capacity Volume (bbl)	Max. Oil / emulsion available (bph) <sup>1</sup>	Time on Location prior to needing to offload (hrs) (J/K)	Off-loading MECHANIS M	Off-loading Rate (bph)	Transit Time - both ways (hrs)	Offloading Time (hrs) (j/N)	Offload and transit time (hrs) (O+P)
CS#1: R-6, R-10	7	Vac trucks	2,100	858	2.4	Vac Trucks	1,400	0.3	1.5	1.8
CS#2: R-6	6	Vac trucks	1800	62	29	Vac Trucks	600	0.3	1.5	1.8
CS#3: R-8	6	Fastanks	714	50	14	Tank Trailer	485	0.6	1.2	2.7
CS#4: R-8	6	Fastanks	714	50	14	Tank Trailer	485	0.6	1.2	2.7
Offshore: R-17	1	Mini barge	237	0	NA	Lightering R-28	628	NA	NA	NA

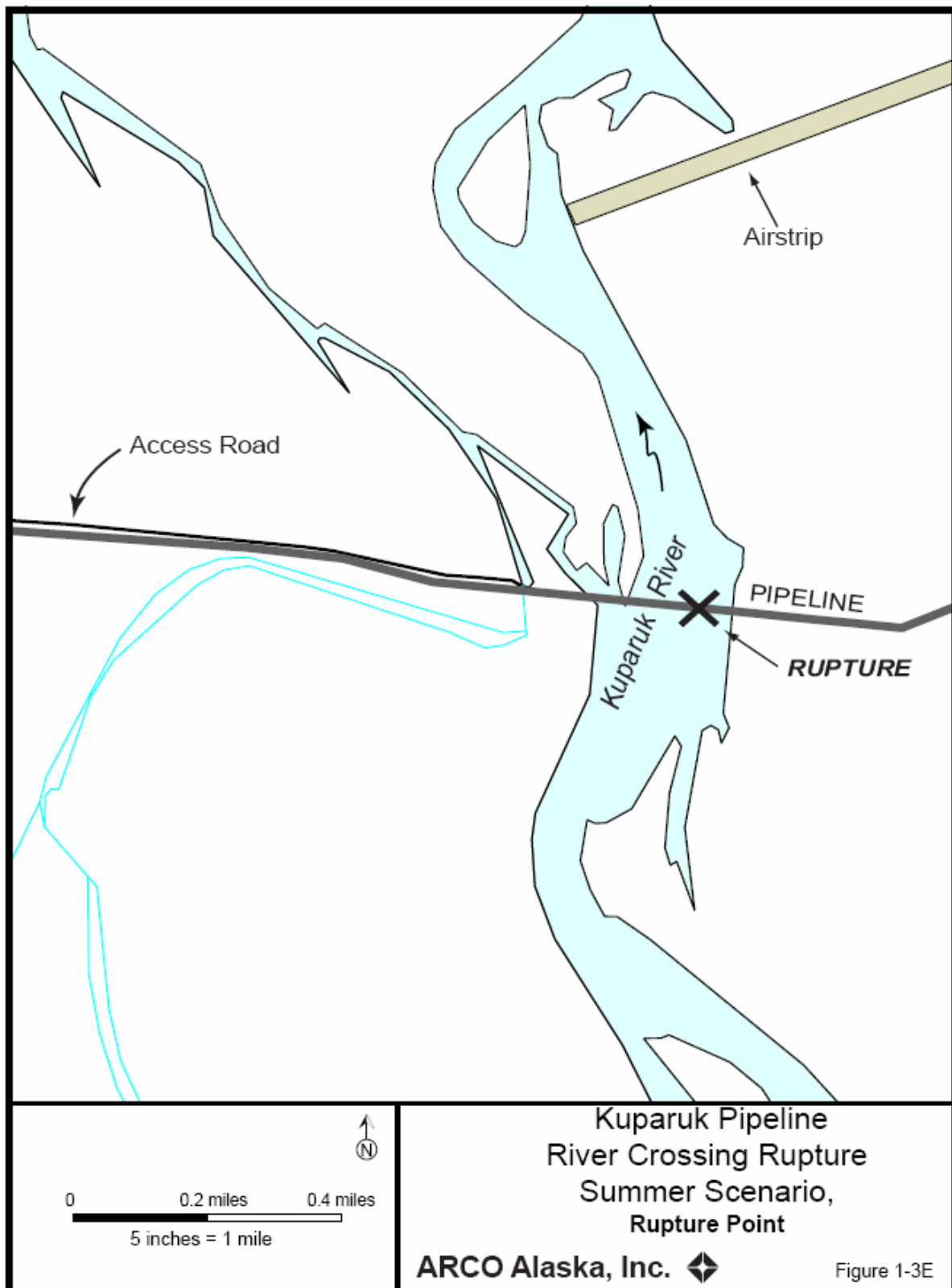
<sup>1</sup> The maximum volume of oil/emulsion available for storage is the recovered oil that discharges to water x 1.67 (emulsion factor). Stranding is ignored in this column.



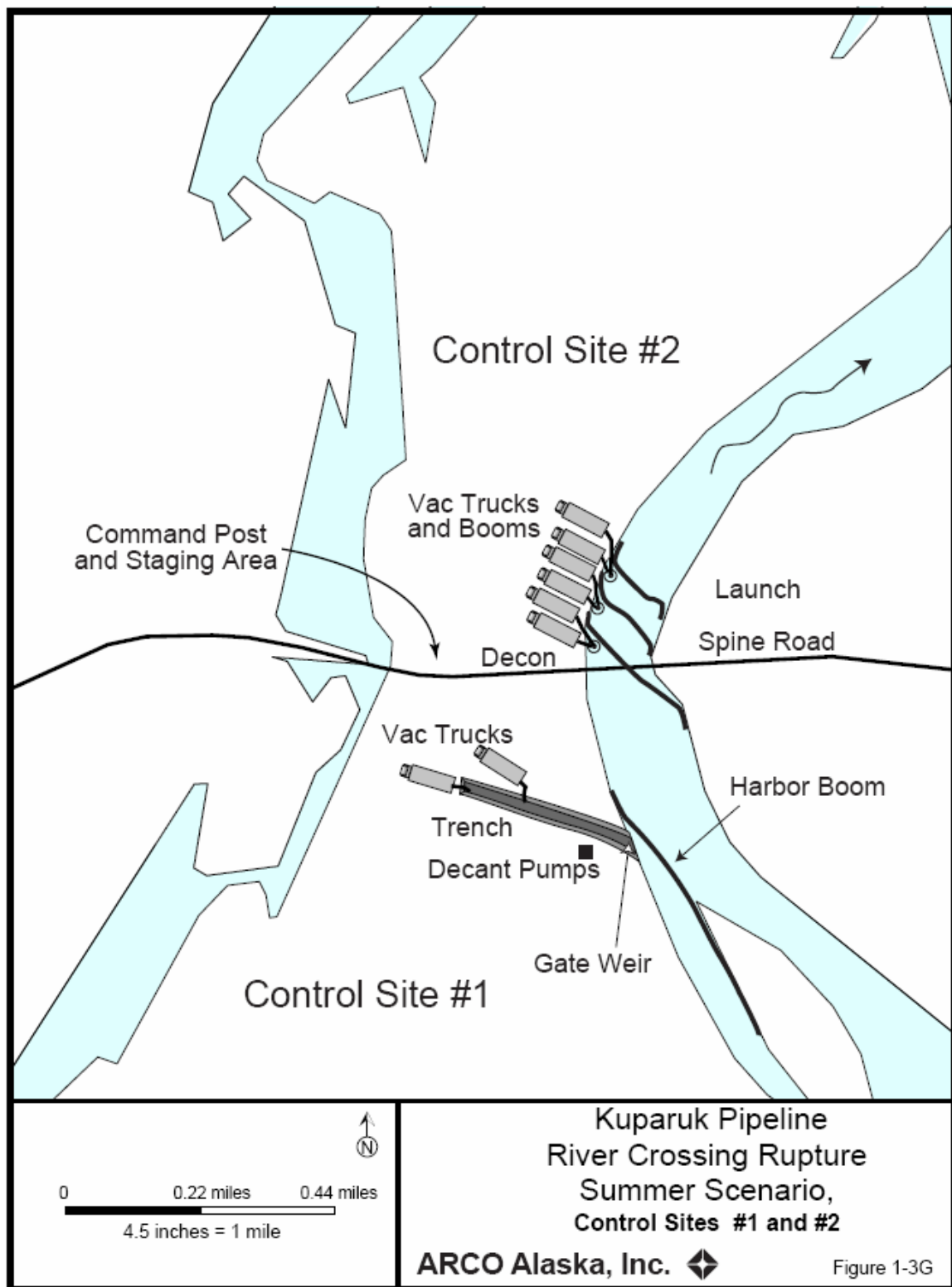
**Figure 1: Kuparuk Pipeline River Crossing Rupture, Summer Scenario**



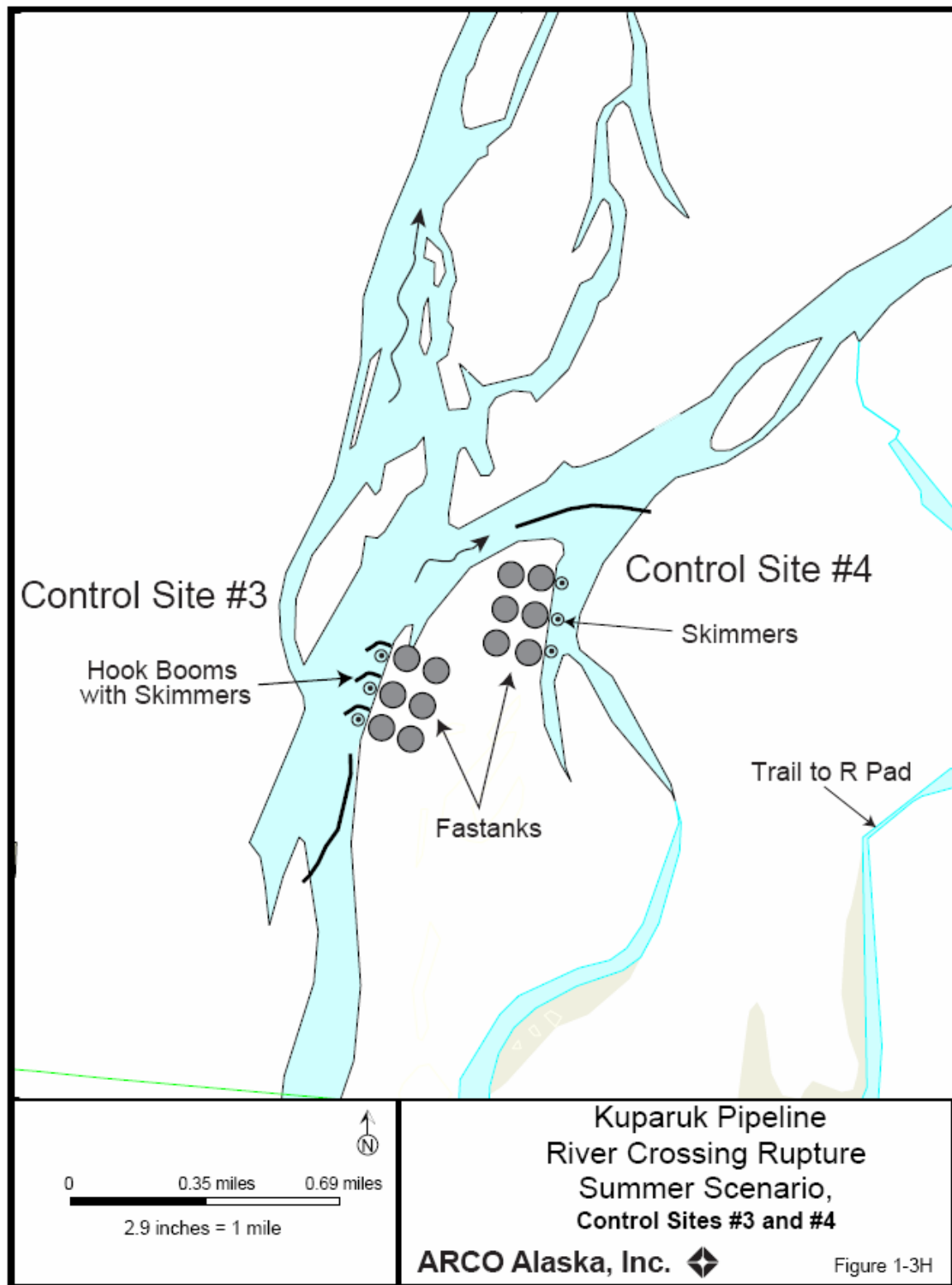
**Figure 2: Kuparuk Pipeline River Crossing Rupture,  
Summer Scenario - Rupture Point**



**Figure 3: Kuparuk Pipeline River Crossing Rupture,  
Summer Scenario - Control Sites #1 and #2**



**Figure 4: Kuparuk Pipeline River Crossing Rupture,  
Summer Scenario - Control Sites #3 and #4**



## 9. Response Requirements:

- a. **Equipment:** The equipment staged at Kuparuk may need to be augmented with vacuum units, super suckers, and possibly other oil recovery equipment to insure timely recovery. It is possible that additional equipment can be brought in a timely manner from other North Slope mutual aid partners to respond to this spill volume. Cold weather could complicate recovery operations by disrupting the effective use of the various pieces of equipment.
- b. **Personnel:** Initial ConocoPhillips response personnel would likely have to be augmented by their contractors (ACS) on call for oil spill response and recovery. The ConocoPhillips crew should be capable of deploying equipment and recovering product with assistance of their contractors.
- c. **Additional Mobilization of Government Personnel:** This scenario contemplates an adequate response by ConocoPhillips. In such an instance, the Federal On-Scene Coordinator and State On-Scene Coordinator will provide oversight of the response through the Unified Command. Additional federal and State agencies with roles and responsibilities in the federal and state response systems as detailed in the National Contingency Plan and the Alaska Unified Plan will be integrated into appropriate sections within the incident command system. The following provides examples of such integration but is not meant to be totally inclusive of all-possible roles and responsibilities for assisting agencies.

Operations oversight of field teams will be accomplished by placing government monitors from EPA, US Coast Guard's Pacific Strike Team, and ADEC personnel with industry task forces.

Shoreline Clean up Assessment Teams utilized to survey spill impacted areas and recommend treatment methods will be composed of EPA, ADEC, state land managers, cultural resource specialists and industry representatives. Composition of teams will follow general guidance found in NOAA HAZMAT publications, the North Slope Shoreline Oil Spill Countermeasures manual, and other pertinent documents.

Individuals from USFWS and ADF&G will monitor wildlife teams involved in hazing and capture.

The Incident Management Team's Planning Section will be supplemented with technical specialists from the following government agencies;

- Waste Management - EPA / ADEC / NSB
- Pipeline Repair – US DOT OPS / ADEC
- Wildlife Protection – USFWS / ADF&G
- Cultural Resource Protection – Federal & State Cultural Resource Contract Specialists
- Land Management – ADNR & NSB

These personnel will facilitate the overall response operation by assisting the FOSC and SOSC in authorizing and permitting activities under their jurisdiction when appropriate. This is not an all-inclusive list.

10. **Resource Availability and Resource Procurement.** The RP provides all spill response related equipment with their contractors supplementing any shortages. Any FOSC or State expenses not

directly covered by the RP would be paid through the Federal Oil Spill Liability Trust Fund or the State 470 Fund, and reimbursement would be sought at a later date.

**11. Shortfalls**

- a. **Equipment:** Oil recovery equipment, personal protective equipment, and proper clothing for cold weather operations are a primary concern.
- b. **Personnel:** None anticipated.
- c. **Funding:** Funds availability and access are not anticipated to be a problem due to federal and State capability to access their respective spill funds if necessary.
- d. **Minimum Response Times:** Emergency response personnel should respond as soon as possible to the spill site with safety parameters in mind.

**12. Spill Cleanup Timetable:**

- a. **Mechanical Cleanup Only:** Mechanical cleanup time will depend on the duration of the discharge.
- b. **Mechanical in Conjunction with Non-Mechanical:** Not applicable.

**13. Disposal Options:** Debris disposal is the responsibility of the RP. Oil contaminated debris will likely be produced. The RP must dispose of contaminated debris according to existing laws. The RP will typically be knowledgeable in the methods and requirements for disposing of oiled debris. A Waste Management Plan will also be developed and approved by the Unified Command.

**14. Cleanup Termination.** Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:

- a. There is no longer any detectable oil present on the water, adjoining shorelines, or places where it is likely to reach the water again; or
- b. Further removal operations would cause more environmental harm than the oil to be removed; or
- c. Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health and welfare; and
- d. Activities required to repair unavoidable damage resulting from removal actions have been performed.

## B. MAXIMUM MOST PROBABLE SCENARIO

1. **Situation:** An oil transit pipeline between Gathering Centers (GCs) leaks as a result of corrosion of the pipeline wall. The gathering centers are located within an oilfield operated by BP Exploration Alaska, Inc. (BPXA). The transit pipeline, which is positioned on a support rack several feet above the tundra, carries processed crude oil. The small diameter leak is not detected for several days. The oil migrates under snow cover to adjacent tundra until it is detected by odor by passing oilfield employees.
2. **Location:** Between GC2 and GC1 at a location where the pipeline passes through a caribou crossing. The site is at latitude 70.307° N and longitude 148.816°W
3. **Spill Information:** On March 2 at approximately 6:00 AM, BPXA employees discover a release of crude oil from a 34-inch diameter pipeline. Approximately 200,000 gallons of crude oil is released to adjacent tundra, impacting an area of about 2 acres. The oil migrated along the frozen tundra surface, under snow, to the edge of a frozen lake. Winter weather conditions exist.

**Date:** March 2

**On-Scene Weather:** Winds            N @ 20 kts  
Temperature    -32° C (-25° F) with wind chills to -51° C (-60° F)  
Daylight        Approximately 9 hours per day

**Ground conditions:** Snow-covered frozen tundra with ongoing drifting snow throughout the response

4. **Cargo Salvage:** Not applicable.
5. **Sensitive Areas at Risk:** See the *Sensitive Areas Section* of this plan.
6. **Initial Actions:**

- a. **Notification:** BPXA personnel immediately notify the NRC and the ADEC. The NRC notifies EPA Region 10 Alaska Operation's Office personnel who then notify appropriate federal agencies including Natural Resource Trustees.

FOSC (EPA will notify the following):

\*\*\* ADEC (also notified by the responsible party)  
\* ADNR  
\* ADF&G  
\* ADMVA/DHSEM  
\*\*\* ARRT  
\*\*\* NRC  
\*\*\* NOAA Scientific Support Coordinator  
\*\* NSF  
\*\* NPFC  
\*\*\* Local Emergency Managers of directly impacted communities

*** = Notification by FOSC ** = Message notification * = Notification by State
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- b. **Response Activation:** Commence with notification of all potentially involved parties and provide initial situation assessment. Be brief but concise and provide specific spill information: exact location, quantity spilled, potential immediate threats, source is/is not controlled, etc. Establish contact with the responsible party as quickly as possible,

preferably an individual on scene. Begin recall of local in-house personnel (EPA, ADEC, ADNR, etc.) as needed to support 24-hour operations for a spill of this magnitude.

- c. **Initial On-Scene Investigation/Inspection, Evaluation and Recommendations:** Dispatch pollution investigators (EPA Anchorage and DEC NART) to the scene at the earliest opportunity. Aircraft schedules may not allow arrival until the following day depending upon time of spill and time of notification. All information must come from individuals on-scene that may or may not be knowledgeable of emergency procedures or pollution response. Conflicting reports can be expected during the early phases of gathering information.
- d. **Initial Response Actions:** BPXA immediately takes steps to shutdown the pipeline and mobilize spill response team personnel and equipment to the incident site. Within hours of the leak discovery, BPXA activates their Incident Management Team (IMT), establishes an emergency operations center at the Prudhoe Bay Operations Center (PBOC) housing/operating facility, and activates their primary oil spill response contractor, Alaska Clean Seas (ACS).

By 1100 hours ACS personnel have mobilized to the site and confirmed the presence of oil on the ground around the GC2 oil transit pipeline. Overflights of the site by aircraft equipped with forward-looking infrared radar (FLIR) are initiated to assess the extent of contamination.

An EPA FOSC and an ADEC SOSC travel to the North Slope and establish a Unified Command with BPXA's Incident Commander and a representative of the North Slope Borough by the evening of March 2. BPXA and its contractors continue ramp up activities to support 24-hour operations.

The ADEC SOSC initiates a statewide callout for a Type 1 incident. Additional ADEC spill responders from other response areas are mobilized, and the SOSC also requests mobilization of other State agency support personnel. The Federal/State Unified Plan and North Slope Subarea Contingency Plan are implemented.

The ADEC SOSC and EPA FOSC also activate the ADEC term contractors and EPA START contractors, respectively. The contractors are mobilized to assist with the federal and State oversight operations.

State field observers are deployed to the release site to monitor clean up operations and advise the FOSC and SOSC of the status of on-going operations.

Initial response actions and objectives include:

- Ensure health and safety of personnel
- Activate the response structure to the level deemed necessary
- Complete notification procedures
- Mobilize resources to the North Slope
- Establish source control
- Determine spill path, resources at risk and wildlife impacts
- Prepare Initial POLREP (EPA)
- Prepare Initial SITREP (State)
- Determine feasibility of removal actions based on:



- 1) Will removal actions cause more damage to the environment than allowing the pollutant to naturally dissipate?
- 2) Can cleanup be initiated before the pollutant disperses, making cleanup impractical?
- 3) Can equipment be deployed without excessive risk to the life and health of personnel?

7. **Spill Response Organization:** Establish the command structure as described in the Unified Plan, Annex B. Include the FOSC, SOSC, RP's Incident Commander, and local community liaison. The group will always strive to reach consensus decisions. Only when the group has reached an impasse and the timeliness of the situation requires action will the FOSC make unilateral decisions.

8. **Containment, Countermeasures and Cleanup Strategies:** The initial assessment of the area by spill responders and FLIR indicates oil migrated under snow away from the transit pipeline. Sufficient mobile oil is pooled adjacent to the pipeline to allow for recovery by vacuum truck or supersucker.

Initial response operations include operation of multiple vacuum trucks to recover mobile oil. Recovered oil is transported to a storage tank at Flow Station 2 for storage and subsequent measurement. Assessment teams are deployed to determine the limits of the impacted area. Equipment is utilized to create snow berms around the area to limit additional migration of oil and create a visual demarcation of the impacted area. Ice-auguring conducted at the lake determines that the lake is completely frozen.

Teams are established to assess the pipeline and locate the leak. Exposed segments of the 3 mile pipeline are covered with insulation. The pipeline also transverses several caribou crossings, which makes it difficult to determine the exact location of the leak.

Removal of contaminated snow is employed for areas where recovery by vacuum truck is not feasible. Contaminated snow was transported offsite to a nearby pad for melting and recovery of oil. Once free-product recovery efforts slow, cleanup work transitioned into a surface remediation effort consisting of the removal of contaminated ice and tundra vegetation by trimming.

The weather conditions and logistical difficulties in mobilizing necessary equipment to the site will make this operation a challenge. The RP also must take actions to protect wellheads and other facilities that had to be shutdown in order to stop the flow of oil within the transit pipe.

## 9. **Response Requirements:**

- a. **Equipment:** The equipment maintained by ACS and BPXA may need to be augmented with vacuum units, supersuckers, and possibly other oil recovery equipment from mutual aid partners to insure timely recovery. It is possible that additional equipment can be brought in a timely manner from Fairbanks to respond to this spill volume. Cold weather could complicate recovery operations by disrupting the effective use of the various pieces of equipment.
- b. **Personnel:** Initial BPXA response personnel would likely have to be augmented by their contractors on call for oil spill response and recovery. The BPXA crew should be capable of deploying equipment and recovering product with assistance of their contractors. It is expected that moderate numbers of federal/State personnel would be required on scene.

Trustees and other agencies may require augmentation or additional manpower to deal with this spill. ACS (the oil spill response organization under contract with BPXA) may need to augment its personnel with responders from other organizations within the state.

10. **Resource Availability and Resource Procurement.** The RP provides all spill response related equipment with their contractors supplementing any shortages. Any FOSC or State expenses not directly covered by the RP would be paid through the Federal Oil Spill Liability Trust Fund or the State 470 Fund, and reimbursement would be sought at a later date.
11. **Shortfalls**
  - a. **Equipment:** Oil recovery equipment, personal protective equipment, and proper clothing for cold weather operations are a primary concern.
  - b. **Personnel:** None anticipated.
  - c. **Funding:** Funds availability and access are not anticipated to be a problem due to federal and State capability to access their respective spill funds if necessary.
  - d. **Minimum Response Times:** Emergency response personnel should respond as soon as possible to the spill site with safety parameters in mind.
12. **Spill Cleanup Timetable:**
  - a. **Mechanical Cleanup Only:** Mechanical cleanup time will depend on weather conditions, which severely hamper site operations. Follow up operations may be needed following breakup to address any areas missed during winter operations. Monitors will have to be employed to patrol the area during and after breakup to report observed oil for collection and recovery.
  - b. **Mechanical in Conjunction with Non-Mechanical:** Not applicable.
13. **Disposal Options:** Debris disposal is the responsibility of the RP. Oil contaminated debris will likely be produced. The RP must dispose of contaminated debris according to existing laws. The RP will typically be knowledgeable in the methods and requirements for disposing of oiled debris. A Waste Management Plan will also be developed and approved by the Unified Command.
14. **Cleanup Termination.** Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:
  - a. There is no longer any detectable oil present on the tundra, adjoining shorelines, or places where it is likely to reach the water again; or
  - b. Further removal operations would cause more environmental harm than the oil to be removed; or
  - c. Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health and welfare; and
  - d. Activities required to repair unavoidable damage resulting from removal actions have been performed.

C. **AVERAGE MOST PROBABLE SCENARIO**

1. **Situation:** A dump truck departs Fairbanks en route to Deadhorse, leaves the roadway and overturns on the Dalton Highway.
2. **Location:** The truck overturns at Dalton Highway milepost 318, which is approximately 100 miles south of Deadhorse near Pump Station 3. Polygon Creek is adjacent to the highway at this location.
3. **Spill Information:** The truck was hauling rock to the North Slope. Multiple vehicle fluids were released when the truck overturned including 200 gallons of diesel fuel (from the saddle tanks), 30 gallons of hydraulic oil, and 15 gallons of motor oil. The fluids impacted snow, tundra and the frozen bed of Polygon Creek.

**Date:** November 21

**On-Scene Weather:** Winds: Light winds, variable  
Temperature: -5° C (23° F)

4. **Cargo Salvage:** Most of the fuel in the saddle tanks was lost when the truck overturned. A small amount of residual fuel was lightered from the tanks when the truck was uprighted.
5. **Sensitive Areas at Risk:** See the *Sensitive Areas Section* of this plan.
6. **Initial Actions:**

- a. **Notification:** The truck driver contacts his dispatch center and informs them of the accident. Trucking company personnel notify the NRC and the ADEC. The NRC notifies EPA Region 10 Alaska Operation's Office personnel who then notify appropriate federal agencies including Natural Resource Trustees.

FOSC (EPA will notify the following):

\*\*\* ADEC (also notified by the responsible party)  
\* ADNR  
\* ADF&G  
\* ADMVA/DHSEM  
\*\*\* ARRT  
\*\*\* NRC  
\*\*\* NOAA Scientific Support Coordinator  
\*\* NSF  
\*\* NPFC  
\*\*\* Fairbanks North Star Borough  
\*\*\* NSB Local Emergency Manager

*** = Notification by FOSC
** = Message notification
* = Notification by State

- b. **Response Activation:** Commence with notification of all potentially involved parties and provide initial situation assessment. Be brief but concise and provide specific spill information: exact location, quantity spilled, potential immediate threats, source is/is not controlled, etc. Establish contact with the responsible party as quickly as possible, preferably an individual on scene. Begin recall of local in-house personnel (EPA, ADEC, ADNR, etc.) as needed to support a spill of this magnitude.

- c. **Initial On-Scene Investigation/Inspection, Evaluation and Recommendations:**
    - Dispatch representatives to the scene at the earliest opportunity.
    - FOSC/SOSC/RP establish direct communications
    - Ensure health and safety of all individuals
    - Coordinate with local emergency response personnel to establish a Safety Zone
  - d. **Initial Response Actions:**
    - Stop any discharge from the truck, if possible
    - Maintain a safety zone
    - Ensure proper PPE is available and used by responders
    - Activate the response structure to the level deemed necessary
    - Establish a command post
    - Evaluate RP's initial actions and evaluate capability to carry out response
    - Prepare Initial POLREP (EPA)
    - Prepare Initial SITREP (State)
    - Ensure development of a Site Safety Plan
    - Determine feasibility of removal actions based on:
      - 1) Will removal actions cause more damage to the environment than allowing the pollutant to naturally dissipate?
      - 2) Can cleanup be initiated before the pollutant disperses, making cleanup impractical?
      - 3) Can equipment be deployed without excessive risk to the life and health of personnel?
7. **Spill Response Organization:** Establish the command structure as described in the Unified Plan, Annex B. Include the FOSC, SOSC, RP's Incident Commander, and local community liaison. The group will always strive to reach consensus decisions. Only when the group has reached an impasse and the timeliness of the situation requires action will the FOSC make unilateral decisions.
8. **Containment, Countermeasures and Cleanup Strategies:** The utmost concern in this scenario is safety due to physical hazards at the site from winter weather conditions. Initial response includes removing grossly contaminated snow and soil by hand. Contaminated willow vegetation is cut and removed. There is now running water in Polygon Creek at the time of the incident. Remediation of contaminated soil will likely be a follow-on project but is not considered part of the response.
9. **Response Requirements:**
- a. **Equipment:** Personal Protective Equipment for response personnel required to approach the vicinity of the spill is mandatory.
  - b. **Personnel:** Personnel will be provided by the RP and/or their contractors. One responder from the ADEC NART mobilized to the site to oversee response operations. The EPA FOSC will maintain communications with the ADEC to monitor the release.
10. **Resource Availability and Resource Procurement:** The RP is required to have resources on hand to respond to spills. It is anticipated that adequate resources would be available from the RP to respond to this event. Out of region resources are not considered viable for this response. However, out of region resources could be used in the remediation phase if the soil is deemed contaminated and the regulatory agencies require remediation.

**11. Shortfalls**

- a. **Equipment:** No shortfall of cleanup equipment anticipated. Personal Protective Equipment for individuals requiring immediate access to the spill site could be a potential shortfall.
- b. **Personnel:** No shortfalls in personnel anticipated.
- c. **Funding:** Funds availability and access are not anticipated to be a problem due to federal and State capability to access their respective spill funds if necessary.
- d. **Minimum Response Times:** Response times in excess of one hour may prove futile with regard to recovering any free product or containment to control the migration and areas impacted by the spill. Emergency response personnel should respond immediately to the spill site to maintain safety.

**12. Spill Cleanup Timetable:**

- a. **Mechanical Cleanup Only:** Cleanup unlikely by mechanical means.
- b. **Mechanical in Conjunction with Non-Mechanical:** Non-mechanical options are not considered viable for response to this scenario.

**13. Disposal Options:** Debris disposal is the responsibility of the RP. Limited amount of contaminated debris will likely be produced. Disposal procedures must meet federal and State requirements. The RP will prepare a cleanup/waste disposal plan and submit to ADEC for approval.

**14. Cleanup Termination.** Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:

- a. There is no longer any detectable oil present on the water, adjoining shorelines, or places where it is likely to reach the water again; or
- b. Further removal operations would cause more environmental harm than the oil to be removed; or
- c. Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health and welfare; and
- d. Activities required to repair unavoidable damage resulting from removal actions have been performed.

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