

DRILLING WASTE MANAGEMENT PLAN

NORTH SLOPE NATIONAL PETROLEUM RESERVE ALASKA 2008/2009 EXPLORATION DRILLING PROGRAM

GRANDVIEW #1 (EAST)



**ConocoPhillips Alaska, Inc.
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November 2008

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PLAN OF EXPLORATION/OPERATIONAL OVERVIEW

NORTH SLOPE EXPLORATION PROGRAM

Grandview #1 (East) Exploration Site

ConocoPhillips Alaska, Inc.

1.0 PROJECT DESCRIPTION

ConocoPhillips Alaska Inc. (CPAI) plans to drill at Grandview 1 East during the 2008/2009 winter exploration season. The project is located approximately 22 miles west of Nuiqsut. Wastes from the project may be disposed through re-injection and/or backhauled to DS-2P.

This Drilling Waste Management Plan has been prepared in compliance with Title 18 Alaska Administrative Code (AAC) 60.430 to address temporary storage of drilling waste resulting from exploration drilling during the winter 2008/2009 season.

1.2 Operator Information

The following list contains names, titles, company affiliation, and phone numbers of people responsible for conducting drilling activity:

Table 1: Contact List

Name	Title	Company	Phone	Mobile
Chip Alvord	Drilling Team Leader	CPAI - Anch	907.265.6120	907.244.5966
Tom Brassfield	Senior Drilling Engineer	CPAI - Anch	907.265.6377	907.244.5684
Bruce St. Pierre	Sr. Environmental Coordinator	CPAI - Anch	907.265.6417	907.223.3648
Chris Brown	Environmental Compliance	CPAI - Kuparuk	907.659.7217	907.448.1976
Moose Cunningham	Drilling Supervisor	CPAI - Kuparuk	907.659.7154	907.448.1975

2.0 DRILLING WASTE MANAGEMENT

Drill cuttings and drilling muds from the wells will be disposed by annular disposal or hauled to Prudhoe Bay, Kuparuk or Alpine where they will be disposed at an approved facility. Prior to hauling, the cuttings will be temporarily stored in an ice-bermed drilling storage cell on each ice pad. The volume of wastes placed in each storage cell will be minimized as will snow accumulation in the cell. Upon completion of activities at the well sites, the ice-bermed drilling waste storage cells will be broken up and hauled to Alpine, Prudhoe Bay or Kuparuk for disposal at an injection well. Drilling waste liquids also will be annular injected or hauled to Alpine, Kuparuk or Prudhoe for injection in an approved Class II disposal well.

2.2 Description of Storage Facility

Figure 1 illustrates a typical drillsite layout and location of the proposed temporary drilling waste ice-bermed storage area. The temporary drilling ice-bermed waste storage dimensions will be approximately 400 feet (ft) by 100 ft by 4 ft high. At the end of the drilling activities, the storage area will be completely emptied, cleaned, and removed from the drillsite in compliance with ADEC requirements for closure. Disposal of each waste type will be at facilities that are approved to receive the drilling wastes.

2.3 Inspection of Temporary Storage Facility

The ice-bermed storage area for drilling waste will be periodically inspected to ensure compliance with 18 AAC 60.430 regulations. Field observations will be recorded to document that the cuttings and fluid are properly contained within the waste storage area. Observations regarding the integrity of the ice-bermed storage area will be recorded and any problems will be noted and reported to the drilling supervisor. Corrective action will be immediately implemented if any damage is observed.

2.4 Disposal of Produced Fluids

Production tests will be performed as needed after production casing is set and cemented. Testing may include extended flow periods to determine the productivity of the well. Produced fluids will pass through an adequately sized separator system to prevent oil carryover into the gas stream. Oil from testing will be held in tanks until the testing is completed. After testing, the oil will either be injected back into the formation from which it was produced or hauled to Kuparuk or Alpine and processed through their facilities. Produced gas will be flared in accordance with ADEC air permit requirements.

2.5 Closure Plan Activities

Upon completion of drilling and evaluation operations, all debris will be hauled to an approved disposal site outside of NPR-A. The dirty or stained areas of each ice pad will be cleaned up

and the dirty ice will be melted for disposal. The scrapings will be hauled to an approved disposal well. Depending on the results of each well they may be temporarily suspended if all testing is not completed by the end of tundra travel. The well will be plugged and abandoned or temporarily suspended according to BLM and AOGCC regulations. Final site closure will be approved by all appropriate agencies. After the ice road and ice pads melt in the summer, CPAI will perform an inspection of each location to pick up any remaining debris and to look for potential tundra damage. If tundra damage exists, CPAI will work with the BLM and the North Slope Borough to re-vegetate or otherwise repair the damage.

3.0 Drilling Support Package

This section describes the equipment and procedures for storage and handling of drilling-support fluids, material, and cuttings processing planned for the CPAI Northwest NPR-A exploration drilling project.

Used drilling muds will be temporarily stored in heated tanks within secondary containment until an annulus is available for annular disposal. Cuttings will be temporarily stored within impermeable ice-bermed containment cells at each ice drill pad. Storage and disposals will comply with state and federal regulations and the North Slope Borough policies. Containment will be a minimum of 110 percent of the largest tank.

A support package used for the drilling project will include liquid storage, bulk cement storage, liquid mud mixing and treating, cementing, and cuttings processing. Components of the drilling support package and an overview of materials management during drilling is provided below.

3.1 Liquid Storage

Any liquids needed for the drilling project will be stored in containment with an impermeable liner.

3.2 Cuttings Processing

The cuttings processing unit will include shakers that will separate the liquids and solids. This drilling waste liquid will be stored in heated tanks, within secondary containment, until suitable annulus is available for annular disposal. Waste solids will be placed into the ice-bermed containment cells, and then transported to the Kuparuk grind and Inject Facility.