

**Montana Board of Oil and Gas Conservation  
Environmental Assessment**

Operator: Noble Energy Inc.  
Well Name/Number: Fee No. 0460 No.4  
Location: Lot 1 Section 4 T36N R30E  
County: Phillips, MT; Field (or Wildcat) Loring

**Air Quality**

(possible concerns)

Long drilling time: No, 2 to 3 days drilling time.

Unusually deep drilling (high horsepower rig): No, small single derrick drilling rig, to drill to 2400' TD.

Possible H2S gas production: None

In/near Class I air quality area: No

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

Air quality permit (AQB review)

Gas plants/pipelines available for sour gas

Special equipment/procedures requirements

Other: \_\_\_\_\_

Comments: No special concerns – using small rig to drill to 2400' TD.

**Water Quality**

(possible concerns)

Salt/oil based mud: No, freshwater and freshwater mud system.

High water table: No

Surface drainage leads to live water: No, surface drainage does not lead to live water.

Closest drainage is an unnamed ephemeral tributary drainage to Whitewater Creek, about 1/2 of a mile to the southwest and northwest from this location.

Water well contamination: No, no water wells within 1 mile of this location.

Porous/permeable soils: No, gravelly sandy clay soils.

Class I stream drainage: No

Mitigation:

Lined reserve pit

Adequate surface casing

Berms/dykes, re-routed drainage

Closed mud system

Off-site disposal of solids/liquids (in approved facility)

Other: \_\_\_\_\_

Comments: 150' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used. Production casing will be cemented to surface.

**Soils/Vegetation/Land Use**

(possible concerns)

Stream crossings: No, crossing intermittent dry drainages.

High erosion potential: No, small cut, up to 4.4' and small fill, up to 3.1', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, 145'X200' location size required.

Damage to improvements: Slight

Conflict with existing land use/values: Slight, surface use is prairie grassland.

Mitigation

Avoid improvements (topographic tolerance)

Exception location requested

Stockpile topsoil

Stream Crossing Permit (other agency review)

Reclaim unused part of wellsite if productive

Special construction methods to enhance reclamation

Other \_\_\_\_\_

Comments: Access will be over existing state highway, #191, existing county road and existing well access road. About 2356' of new access will be built in this location. Drilling fluids will be disposed of in either a private reservoir, with surface owner approval or allowed to dry in the pits. Drill cutting will be buried in the unlined pits. Pits will be backfilled when dry. No special concerns

### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: None nearby, the town of Loring, 10 miles to the southwest and the Morgan Port of Entry, about 7 miles to the northwest of this location.

Possibility of H2S: None

Size of rig/length of drilling time: Small drilling rig/short 2 to 3 days drilling time.

Mitigation:

Proper BOP equipment

Topographic sound barriers

H2S contingency and/or evacuation plan

Special equipment/procedures requirements

Other: \_\_\_\_\_

Comments: No concerns.

### Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: No

Mitigation:

Avoidance (topographic tolerance/exception)

Other agency review (DFWP, federal agencies, DSL)

Screening/fencing of pits, drillsite

Other: \_\_\_\_\_

Comments: Private surface lands. No concerns

**Historical/Cultural/Paleontological**

(possible concerns)

Proximity to known sites: None identified

Mitigation

avoidance (topographic tolerance, location exception)

other agency review (SHPO, DSL, federal agencies)

Other: \_\_\_\_\_

Comments: No Concerns. Private surface lands.

**Social/Economic**

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: Wells are in an existing gas field, Loring field. No concerns

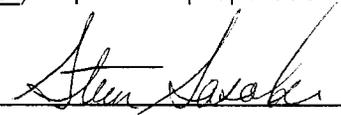
**Remarks or Special Concerns for this site**

Well is a 2400' Phillips Formation test.

**Summary: Evaluation of Impacts and Cumulative effects**

No long term impact expected. Some short term surface impacts will occur, but will be mitigated in time.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): Steven Sasaki 

(title:) Chief Field Inspector

Date: May 9, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, Groundwater Information Center website.

(Name and Agency)

Water wells in Phillips County

(subject discussed)

May 9, 2008

(date)

If location was inspected before permit approval:

Inspection date: \_\_\_\_\_

Inspector: \_\_\_\_\_

Others present during inspection: \_\_\_\_\_