

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

Operator: Noble Energy Inc.
Well Name/Number: Fee 2033 No. 4
Location: NW SW Section 20 T33N R33E
County: Phillips, **MT;** **Field (or Wildcat)** Whitewater

Air Quality

(possible concerns)

Long drilling time: No, 2 to 3 days drilling time.
Unusually deep drilling (high horsepower rig): No, 2400' TD.
Possible H2S gas production: No
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 unnamed ephemeral tributary drainage to Stinky Creek, an ephemeral drainage, about 1/4 of a mile to the east of this location
Water well contamination: No, closest water wells are about 5/8 of a mile to the south and 3/4 of a mile to the north or further. These wells are less than 50' in depth. This permitted well will have surface hole drilled with freshwater to 150' and steel surface casing will be run and cemented to surface from 150'.
Porous/permeable soils: No, sandy silty 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)

Steam crossings: No, crossing.

High erosion potential: No, small cut, up to 0.6' and small fill, up to 0.6', 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, 200'X145' location size required.
Damage to improvements: Slight, surface use is cultivated field.
Conflict with existing land use/values: Slight.

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 county gravel road, Forks Road. New access, about 755' will be built into this location, off an existing county road. Drilling fluids will be disposed of in 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: No, residences within 1 mile 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): 8 miles to Hewitt Lake National Wildlife Refuge.
Proximity to recreation sites: 5 miles southwest to Cole Ponds State Fishing Area and 7.5 miles to Nelson Reservoir
Creation of new access to wildlife habitat: No
Conflict with game range/refuge management: No
Threatened or endangered Species: None identified.

Mitigation:

- Avoidance (topographic tolerance/exception)
- Other agency review (DFWP, federal agencies, DSL)
- Screening/fencing of pits, drillsite
- Other: _____

Comments: No concerns. Private surface lands.

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: Well is a development well in an existing gas field, Whitewater Gas Field. No concerns

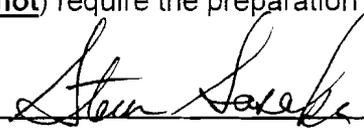
Remarks or Special Concerns for this site

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: June 10, 2008

Other Persons Contacted:

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

(Name and Agency)
Water wells in Phillips County

(subject discussed)
June 10, 2008
(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____