

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

Operator: Wave USA, Inc.
Well Name/Number: Campbell 13-4
Location: SW SW Section 4 T27N R5W
County: Teton MT; Field (or Wildcat) Pondera Coulee

Air Quality

(possible concerns)

Long drilling time: No, 3 to 4 days drilling time.
Unusually deep drilling (high horsepower rig): No, 2600' TD.
Possible H2S gas production: Yes, slight amount.
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 2600' TD.

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater, freshwater mud system.
High water table: No
Surface drainage leads to live water: Nearest drainage is an unnamed ephemeral drainage to Pondera Coulee, ¼ of a mile to the northwest of this location. Within Pondera Coulee drainage there are a number of stock ponds.
Water well contamination: No, closest water wells are about 5/8 of a mile to the south of this location. nearby are 80' in depth.
Porous/permeable soils: No, silty 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: 350' of surface casing will be set and cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, stream crossings.
High erosion potential: No, small cut, up to 1.4' and small fill, up to 1.1, 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, 200'X200' location size required.

Damage to improvements: Slight, surface use is cultivated fields, dry land farmed.

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 is via State Highway #219. About 300' of new access off existing highway #219 will have to be constructed into this location. Drill cuttings will be buried in the existing earthen reserve pit. Drilling fluids will be allowed to evaporate. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residence/ buildings 5/8 of a mile to the south and the town of Pendroy, MT is about 4.5 miles to the southwest of this location.

Possibility of H2S: Slight

Size of rig/length of drilling time: Small drilling rig/short 3 to 4 days drilling time

Mitigation:

Proper BOP equipment

Topographic sound barriers

H2S contingency and/or evacuation plan

Special equipment/procedures requirements

Other: _____

Comments: No concerns. Distance from well to residences and the town of Pendroy is sufficient to mitigate noise concerns and any other issues.

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: None identified.

Conflict with game range/refuge management: None identified.

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, private surface

Mitigation

avoidance (topographic tolerance, location exception)

other agency review (SHPO, DSL, federal agencies)

Other: _____

Comments: Private surface. Lands. No concerns.

Social/Economic

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: No concerns.

Remarks or Special Concerns for this site

Well is a 2600' Madison Formation wildcat test.

Summary: Evaluation of Impacts and Cumulative effects

No, significant impacts expected, some short term impacts are expected, but should be able to mitigate these short term impacts.

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 02, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Pondera County water wells

(subject discussed)

May 02, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____