

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

**Operator:** Wave USA, Inc.  
**Well Name/Number:** Walker 13B-21  
**Location:** SW SW Section 21 T27N R2W  
**County:** Pondera MT; Field (or Wildcat) Wildcat

**Air Quality**

(possible concerns)

Long drilling time: No, 3 to 4 days drilling time.

Unusually deep drilling (high horsepower rig): No, single derrick drilling rig, to drill to 1845' TD.

Possible H<sub>2</sub>S 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 1845' TD.

**Water Quality**

(possible concerns)

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

High water table: No

Surface drainage leads to live water: No live water nearby, nearest drainage is South Pondera Coulee, about 1/4 of a mile to the northeast of this location.

Water well contamination: No, closest water wells are 3/4 of a mile to the northwest of this location. All water wells nearby are less than 150' in depth.

Porous/permeable soils: No, sandy bentonitic 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: 250' 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 0.7' and small fill, up to 2.3', 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, small location, 150'X150' 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 #91 and an existing ranch road. About 1/8 of a mile of new access off existing ranch road 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

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### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residence/ buildings 1.25 miles to the south and the town of Brady, MT is 2.5 miles to the southeast 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 Brady 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.

### Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites: None identified, private surface

Mitigation

   avoidance (topographic tolerance, location exception)

  X other agency review (SHPO, DSL, federal agencies)

   Other: \_\_\_\_\_

Comments: Private surface. 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 1845' 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: December 21, 2007

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Pondera County water wells

(subject discussed)

December 21, 2007

(date)

If location was inspected before permit approval:

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

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

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