

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

Operator: B.W.O.C., Inc.
Well Name/Number: State of Montana/Big Bear No. 1
Location: SW NW NE Section 16 T11N R26E
County: Musselshell, MT; **Field (or Wildcat) W/C**

Air Quality

(possible concerns)
Long drilling time no, 10 to 14 days drilling time.
Unusually deep drilling (high horsepower rig) no, 4000'TVD
Possible H2S gas production slight
in/near Class I air quality area no
Air quality permit for flaring/venting (if productive) Yes, if productive. DEQ required permit.

Mitigation:

- Air quality permit (AQB review)
- Gas plants/pipelines available for sour gas
- Special equipment/procedures requirements
- Other: _____

Comments: no special concerns – using double rig to drill to 4000' TVD

Water Quality

(possible concerns)
Salt/oil based mud No, freshwater and freshwater mud system on surface hole and mainhole.
High water table no
Surface drainage leads to live water No, closest drainage is an unnamed ephemeral tributary drainage to Little Wall Cree to the south of this location, about 1/2 mile.
Water well contamination no, deepest well nearby is 161' deep and 3/4 of a mile to the northeast of this location. Surface casing will be set at 165'. Drilled with freshwater and freshwater muds. Surface casing will be run and cemented to surface from 165'.
Porous/permeable soils no, bentonitic sandy soils. Gravel pit nearby indicates location could be underlain with gravel.
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: 165' of surface casing cemented to surface adequate to protect freshwater zones. If gravel is encountered 12 mil drilling pit liner will be used in the reserve pit.

Soils/Vegetation/Land Use

(possible concerns)
Stream crossings no, stream crossing.
High erosion potential No small cut, up to 3.05' and small fill, up to 1.85', 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, 270'X190' location size required.

Damage to improvements slight

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: Will use existing county road, Colony Road, north of location.

About 1000' of new access road will be to access this location. Cuttings will be buried in the reserve pit. Drilling fluids will be allowed to dry in the pit. No special concern.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences Closest building is 1.25 miles to the west of this location.

Possibility of H2S slight

Size of rig/length of drilling time double drilling rig/short 10 to 14 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) n/a 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: On State of Montana Trust Lands surface and minerals.

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: On State of Montana Trust Lands surface and minerals

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 4000' TVD Tyler Formation test.

Summary: Evaluation of Impacts and Cumulative effects

No long term impact expected, some short term impacts will occur.

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: March 6, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Musselshell County water wells

(subject discussed)

March 6, 2006

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____