

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

Operator: Encore Operating, LP
Well Name/Number: Pine Unit 13-23A
Location: NW SW Section 23 T11N R57E
County: Wibaux, MT; **Field (or Wildcat)** Pine

Air Quality

(possible concerns)

Long drilling time 20-25 days drilling time
Unusually deep drilling (high horsepower rig) No, triple drilling rig for 8,000' TVD
Possible H2S gas production yes
In/near Class I air quality area no
Air quality permit for flaring/venting (if productive) Yes, if productive. DEQ for air quality permit.

Mitigation:

- Air quality permit (AQB review)
 - Gas plants/pipelines available for sour gas
 - Special equipment/procedures requirements
 - Other: _____
- Comments: no special concerns.

Water Quality

(possible concerns)

Salt/oil based mud use freshwater and freshwater mud system on surface and salt mud and oil based invert emulsion mud to TD.
High water table no
Surface drainage leads to live water No, 1/4 of a mile north of this location an unnamed ephemeral drainage starts. The unnamed drainage meets Cabin Creek about 3.0 miles to the southwest of this location.
Water well contamination no surface casing is below all known water wells in the area. Surface hole will be drilled with freshwater and freshwater muds. Surface casing will be set to 1700' and cemented back to surface.
Porous/permeable soils no, bentonite 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: 1700' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used on surface hole. Reserve pit liquids to be recycled or hauled to a commercial disposal. Solids will be left on site in the lined reserve pit after being allowed to dry, pit liner folded over the top of the solids, spoil dirt to fill pit.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings none.

High erosion potential no, moderate cut, up to 10.5' and small fill, up to 9.1', required.

Loss of soil productivity no, location will be restored after drilling

Unusually large wellsite Large, 270'X400' location size required.

Damage to improvements no

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: Most of the access will be over existing county roads. About 336' of new road will be constructed into this location. No special concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences buildings about ¼ mile to the northwest and southeast of this location. Unknown if they are residences or oil production facilities. Either way the drilling of this well should not pose any problems.

Possibility of H2S yes

Size of rig/length of drilling time Triple drilling rig 20 to 25 days drilling time

Mitigation:

Proper BOP equipment

Topographic sound barriers

H2S contingency and/or evacuation plan

Special equipment/procedures requirements

Other: _____

Comments: no special concerns. Proper BOP stack and surface casing should be able to control any problems that occurs.

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 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: _____

Social/Economic

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: no concerns, additional development within the Pine oil field.

Remarks or Special Concerns for this site

Well is a 8,000' vertical Mission Canyon formation water source well in the Pine oil field for enhanced recovery project.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts 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 9, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Wibaux County water wells

(subject discussed)

March 9, 2006

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____