

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

Operator: Encore Operating, L.P.
Well Name/Number: Jensen 3-9
Location: SE NW Section 9 T24R57E
County: Richland, MT; Field (or Wildcat) Lonetree Creek

Air Quality

(possible concerns)

Long drilling time: No, 25-35 days drilling time.
Unusually deep drilling (high horsepower rig): Triple derrick rig 1000 HP drilling rig to drill a vertical Red River Formation test to 12,630'.
Possible H2S gas production: Yes
In/near Class I air quality area: No
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under rule 75-2-211.

Mitigation:

- Air quality permit (AQB review)
 - Gas plants/pipelines available for sour gas
 - Special equipment/procedures requirements
 - Other: _____
- Comments: Existing pipeline for gas in the area. _____
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Water Quality

(possible concerns)

Salt/oil based mud: Yes to long string salt based drilling fluids. Surface casing hole to be drilled with freshwater and freshwater mud.
High water table: No
Surface drainage leads to live water: No, closest drainage is First Hay Creek an ephemeral drainage about 1/4 of a mile to the west, northwest and southwest of this location at its closest point. Stock pond within this drainage, about 1/2 mile to the south of this location.
Water well contamination: No, all water wells close by are shallower than 1800'. Closest water well is about 1/2 of a mile to the southeast of this location.
Porous/permeable soils: No, sandy clay soils.
Class I stream drainage: No, Class I stream drainages.

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: 1800'+/- surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment adequate to prevent problems. Surface hole will be drilled with freshwater and steel casing run to 1800'. This surface casing will be cemented to surface.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: None

High erosion potential: No, location has a moderate cut of up to 11.2' and a small fill of up to 8.0', required.

Loss of soil productivity: None, location to be restored after drilling well, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, large well site 400'X300' dimensions.

Damage to improvements: Slight, surface use is a 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 highways, 201 and existing county road. About 1600' of new road access will be built. Saltwater based muds will be hauled to a commercial disposal, cuttings will be disposed of in the lined pit. Pit will be solidified with subsoil in the lined pit and clean cover and top soil put over the solidified pit contents. No concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residences about ¼ of a mile to the north and at Girard are ½ of a miles to the northwest of this location.

Possibility of H2S: Yes

Size of rig/length of drilling time: Triple drilling rig 25 to 35 days drilling time.

Mitigation:

Proper BOP equipment

Topographic sound barriers

H2S contingency and/or evacuation plan

Special equipment/procedures requirements

Other: _____

Comments: Adequate surface casing cemented to surface with working BOP stack should mitigate any problems. Distance sufficient to mitigate noise.

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: 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: 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: 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. Existing oil field, Lonetree Creek Oil Field.

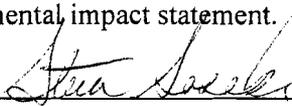
Remarks or Special Concerns for this site

No long term impacts expected. Some short term impacts will occur, but will be mitigated in time. Second well in this spacing unit. Existing oil production in Lonetree Creek Oil Field.

Summary: Evaluation of Impacts and Cumulative effects

Vertical Red River Formation development well. Well is within the Lonetree Creek Oil field. No long term impacts expected. Some short term 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: February 27, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, Groundwater Information Center website

(Name and Agency)

Richland County water wells

(subject discussed)

February 27, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____