

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

Operator: Devon Energy Production Company, L.P.
Well Name/Number: Manuel No. 12-15
Location: SW SE Section 12 T31N R15E
County: Hill, **MT;** **Field (or Wildcat)** (Bullhook Unit) Tiger Ridge Field

Air Quality

(possible concerns)

Long drilling time: No, short time 3 to 4 days drilling time
Unusually deep drilling (high horsepower rig) : No, 2500' TD.
Possible H2S gas production: No, these formations are sweet gas producing.
In/near Class I air quality area: No
Air quality permit for flaring/venting (if productive): Yes, if productive. DEQ air quality permit required.

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 2500'TD.

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater and freshwater mud system.
High water table: No
Surface drainage leads to live water: No, unnamed ephemeral tributary drainage to Squaw Creek, very close to the edge of this location.
Water well contamination: No, closest water wells are 3/8 of a mile to the northeast of this location, across Squaw Coulee.
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: 150' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None
High erosion potential: No, small cut, up to 7.0' and moderate fill, up to 10.0', 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, 250'X250' 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: Access will be over existing county roads and two track farm trails. About 1/8 of a mile of new access road will be built into this location. Cutting will be buried in the unlined pits. Drilling fluids will be offsite disposed of in a stock pond for sealant, with surface owner approval. Pits will be allowed to dry before being backfilled. No special concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: about 1/2 of a mile to the southeast, 3/4 of a mile to the south southeast and 7/8 of a mile to the northeast of location.

Possibility of H2S: None

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: Working BOP should mitigate any problems. No concerns.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: Beaver Creek County Park 2.25 miles to the southwest and Lower Lake, about 2.5 miles to the southwest.

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: Existing gas field, Tiger Ridge Field. This would be a development well within this gas field. No concerns

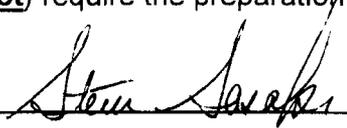
Remarks or Special Concerns for this site

Well is a 2500' Eagle Formation development well test within the Tiger Ridge Gas Field.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur, but can 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: March 11, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website.
(Name and Agency)

Hill County water wells.

(subject discussed)

March 11, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____