

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

Operator: Devon Energy Production Company, L.P.

Well Name/Number: State No. 20-10

Location: NW SE Section 20 T31N R16E

County: Hill, MT; **Field (or Wildcat)** (Bullhook Unit) Tiger Ridge Field

Air Quality

(possible concerns)

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

Unusually deep drilling (high horsepower rig): No, small single derrick drilling rig. Drill to 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, closest drainage is an unnamed ephemeral tributary to Squaw Coulee, about 1/16 of a mile to the northwest of this location.

Water well contamination: No, closest water well is over 1 mile away from this well location.

Porous/permeable soils: No, sandy bentonitic soils.

Class I stream drainage: None

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. Production casing if run will also be cemented back to surface.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None

High erosion potential: No, small cut, up to 4.0' and small fill, up to 3.0', 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 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. About 3/8 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 7/8 of a mile to the southeast and 1.25 miles to the southwest 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 about 3 miles to the southwest. Lower Lake 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: State of Montana, Trust lands. Trust Lands will do surface EA..

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: State of Montana, Trust lands. Trust Lands will do surface EA..

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

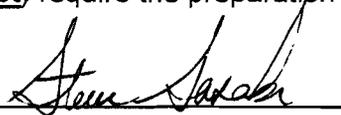
Remarks or Special Concerns for this site

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: _____