

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

Operator: Devon Energy Production Company, LP
Well Name/Number: Hillbrandt 34-9
Location: NE SE Section 34 T31N R15E
County: Hill, MT; **Field (or Wildcat):** Tiger Ridge

Air Quality

(possible concerns)

Long drilling time: No, 3 to 4 days drilling time.
Unusually deep drilling (high horsepower rig): No, 2500' TD.
Possible H2S gas production: No
In/near Class I air quality area: No
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

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 about 1/32 of a mile to the west and east of this location, an unnamed ephemeral tributary drainage to Spring Coulee, also and ephemeral drainage.
Water well contamination: No, closest water wells are about 3/16 of a mile to the west northwest from this location and is 15' in depth and 1/2 of a mile to the northeast from this location and is 115' and 397' in depth. Surface hole will be drilled with freshwater, steel surface casing set to 150' and cemented to surface. A hole will be drilled with freshwater drilling muds to TD. If productive 4 1/2" production casing will be set and cemented to surface.
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. No concerns.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: None
High erosion potential: No, no cut, up to 0.0' and moderate fill, up to 10', 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, 250'X200' 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 1/16 of a mile of new access will be built into this location. Cuttings will be disposed of in the unlined earthen pits. Drilling fluids will be trucked to nearby stock pond and disposed of with surface owner approval. Pit will be allowed to dry then backfilled. No special concerns.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: Building about 1/4 of a mile to the north and 3/4 of a mile to the southwest of this location. No other residences or building within 1 mile of this 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: No concerns.

Wildlife/recreation

(possible concerns)
Proximity to sensitive wildlife areas (DFWP identified): None identified.
Proximity to recreation sites: Beaver Creek County Park about 1.25 miles to the northeast of this location.

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: On 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: Development well within an existing gas field, Tiger Ridge Gas Field. No concerns.

Remarks or Special Concerns for this site

Well is a 2500' TD Eagle Formation test.

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: May 15, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Hill County water wells

(subject discussed)

May 15, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____