

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

Operator: Fidelity Exploration and Production Company
Well Name/Number: Fee No. 1451
Location: NW SE Section 31 T32N R35E
County: Valley, **MT;** **Field (or Wildcat)** Bowdoin Dome

Air Quality

(possible concerns)

Long drilling time: No, 2 to 3 days drilling time.

Unusually deep drilling (high horsepower rig): No, 1800' 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 1800' 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 live water is the Milk River, about 2.5 miles to east of this location.

Water well contamination: None, closest water wells are about 1/4 of a mile to the northeast and 7/8 of a mile to the southwest of this location. Depth of these water wells are all less than 100'. Surface hole will be drilled with freshwater and steel casing cemented back to surface from 150'. Production casing if set will be cemented back to surface to protect groundwater.

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: Also, fresh water mud systems to be used. Production casing will be cemented to surface.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, crossings.

High erosion potential: No, small cut, up to 2.3' and small fill, up to 1.7', 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, 120'X190' 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: Using existing county roads and ranch/well access roads. Building a short amount of new access into this location off well access road. Cuttings will be buried in the earthen reserve pit. Drilling fluids will be hauled to a nearby stock pond for disposal with surface owner approval or allowed to dry in the pits. Drilling pits will be allowed to dry before being backfilled. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residence, about 7/8 of a mile to the southwest and 1 1/8 of a mile to the southeast of this location.

Possibility of H2S: None

Size of rig/length of drilling time: Small drilling rig/short 2 to 3 days drilling time

Mitigation:

- Proper BOP equipment
- Topographic sound barriers
- H2S contingency and/or evacuation plan
- Special equipment/procedures requirements
- Other: _____

Comments: No concerns, distance is sufficient to not create a problem with 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. Well is a development well within the Bowdoin Dome Gas Field.

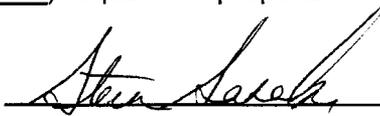
Remarks or Special Concerns for this site

Well is a 1800' Mowery Formation development well.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Only 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: June 30, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, Groundwater Information Center

(Name and Agency)

Water wells in Valley County

(subject discussed)

June 30, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____

