

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

**Operator:** Fidelity Exploration and Production Company  
**Well Name/Number:** Fee No. 1211  
**Location:** SE SW Section 27 T32N R33E  
**County:** Phillips, MT; **Field (or Wildcat)** Bowdoin Dome

**Air Quality**

(possible concerns)  
Long drilling time no, 3 to 4 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) n/a

Mitigation:

- Air quality permit (AQB review)
- Gas plants/pipelines available for sour gas
- Special equipment/procedures requirements
- Other: Gas gathering lines and compressors exist within the Bowdoin Gas Field.

Comments: no special concerns – using small rig to drill to 1800'

**Water Quality**

(possible concerns)  
Salt/oil based mud no, freshwater and freshwater mud system.  
High water table Possible  
Surface drainage leads to live water yes, surface drainage does lead to live water, closest live water is the Beaver Creek just off this location to the south.  
Water well contamination no, all water wells nearby shallower than 100'. Surface hole will be drilled to 150' with freshwater and freshwater muds. Steel surface casing will be set and cemented to surface. If productive production casing will be set and cemented back to surface.  
Porous/permeable soils no, 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. Production casing will be cemented to surface.

**Soils/Vegetation/Land Use**

(possible concerns)

Steam crossings no, stream crossing.  
High erosion potential no, small cut, up to 2.8' and no fill, 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: Access will be over existing county roads and existing well access roads. A short access road will be built into this location. Cuttings and mud solids will be buried in the unlined drilling pits. Fluids will either be hauled to a nearby stock pond or allowed to dry in the unlined pits. Pits will be backfilled after being allowed to dry. No special concerns

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### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences residences and buildings about 1/2 mile to the southeast, 1 mile to the northwest, and 1 mile to the north 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) Hewitt Lake National Wildlife Refuge about 7.5 miles to the northwest of this location.

Proximity to recreation sites Nelson State recreational area about 4 miles to the southwest, Sleeping Buffalo resort about 5 miles to the southwest, and Nelson Reservoir about 4 miles to the west, Cole Ponds State Fishing area about 3.5 miles to the northwest 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: no concerns distance is far enough away and won't create a disturbance.

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### 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: No concerns private land.

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### Social/Economic

(possible concerns)

- Substantial effect on tax base
- Create demand for new governmental services
- Population increase or relocation

Comments: no concerns, development well in an existing gas field,

Bowdoin Gas Field.

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### Remarks or Special Concerns for this site

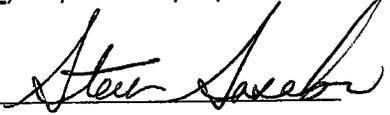
Well is a 1800' Mowry Formation test.

### Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur, but will mitigate in time.

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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 2, 2006

Other Persons Contacted: \_\_\_\_\_

Montana Bureau of Mines and Geology, Groundwater Information Center

\_\_\_\_\_  
(Name and Agency)

Water wells in Phillips County

\_\_\_\_\_  
(subject discussed)

March 2, 2006

\_\_\_\_\_  
(date)

If location was inspected before permit approval:

Inspection date: \_\_\_\_\_

Inspector: \_\_\_\_\_

Others present during inspection: \_\_\_\_\_