

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

Operator: Big Snowy Resources, LP
Well Name/Number: Altman/Dakota 24-2
Location: SW NW SE Section 24 T2S R24E
County: Yellowstone, MT; **Field (or Wildcat)** Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 2 to 3 days drilling time.
Unusually deep drilling (high horsepower rig): No, single derrick drilling rig, 1150' 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 1150' TD.

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater or freshwater mud system and/or air.
High water table: No
Surface drainage leads to live water: Yes, closest drainage is an unnamed ephemeral tributary drainage to the Yellowstone River, about 1/8 of a mile to the northeast of this location.
Water well contamination: No, closest water well is about 3/8 of a mile to the northwest of this location and is only 120' in depth. Mainhole will be drilled with air and/or air/mist. If productive 4 1/2" production casing will be cemented to surface.
Porous/permeable soils: No, silty sandy clay 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: 70' of surface casing cemented to surface adequate to protect freshwater zones. Also, air and/or fresh water mud systems to be used. 4 1/2" production casing will be cemented to surface.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: No, crossings.
High erosion potential: No, no cut and no fill required. Small self leveling drilling rig.
Loss of soil productivity: No, location will be restored after drilling in nonproductive and if productive unused portion of the drillsite will be reclaimed.
Unusually large wellsite: No, 100'X100' location size required.
Damage to improvements: Slight, surface use grassland.
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: Surface access will be over existing county road, River Road. About 2400' of new access will be built off River Road into this location. Cuttings will be buried in the earthen pit. Fluids will be allowed to evaporate. Pit will be backfilled when dry. No special concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Yes, within 1/2 of a mile north, 1/2 of a mile to the north and 5/8 of a mile to the northeast of this wellsite.

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: Production casing will be set above the Graybull and cemented in.

Then the operator will drill into the Graybull Formation with air.

Comments: Wahinton Rotating control Diverter head Model 3022 Diverter will be used instead of a BOP. No concerns.

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: No concerns. Private surface lands.

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. On private land

Social/Economic

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: No concerns. Shallow Greybull Formation oil test.

Remarks or Special Concerns for this site

Well is a 1150' Greybull Formation test

Summary: Evaluation of Impacts and Cumulative effects

No long term impact expected. Some short term surface impacts will occur, but will 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 24, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC
website

(Name and Agency)

Water wells in Yellowstone County

(subject discussed)

March 24, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____