

Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Devon Louisiana Corporation
Well Name/Number: State No. 21-16
Location: SE SE Section 21 T32N R15E
County: Hill, MT; Field (or Wildcat) Tiger Ridge Field

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
n/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'

Water Quality

(possible concerns)

Salt/oil based mud no, freshwater and freshwater mud system.
High water table Possible
Surface drainage leads to live water no, unnamed tributary drainage to Beaver Creek, close to location about 1/8 of a mile to the east.
Water well contamination no
Porous/permeable soils no, bentonite 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 may not be enough. Surface lands have been developed for residential use. Deepest water well found on the GWIC database is 207'. Appears many residences close by with no water wells listed. Recommend setting 240' of surface casing and cement to surface to adequately protect freshwater zones. Also, fresh water mud systems to be used. Production longstring will be cemented back to the surface casing.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings none

High erosion potential no, small cut, up to 1' and small fill, up to 3', required.

Loss of soil productivity no, location will be restored after drilling

Unusually large wellsite no, 175'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. A short access off existing county road is required, about 300'. Cuttings will be buried in the earthen pits. Drilling fluids will be offsite disposed of in a stock pond as sealant with surface owner approval. Drilling pits will be allowed to dry and then back filled. No concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences residential development close by, approximately 20 houses within 1/2 mile radius 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) n/a None identified.

Proximity to recreation sites Herron Park nearby

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

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites Fort Assiniboine site approximately 1 mile to the southwest of this location.

Mitigation

avoidance (topographic tolerance, location exception)

other agency review (SHPO, DSL, federal agencies)

Other: _____

Comments: on private land

Social/Economic

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: Development gas well in the Tiger Ridge Field. No concerns

Remarks or Special Concerns for this site

Well is a 2500' Eagle Formation test north side of Bear Paw Mountains

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts will occur. 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: April 27, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC Website.

(Name and Agency)

Water wells in Hill County

(subject discussed)

April 27, 2006

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____