

Montana Board of Oil and Gas Conservation Environmental Assessment

Operator: Slawson Exploration Company, Inc.
Well Name/Number: Python #3-4MLH
Location: SW SW Section 4 T23N R53E
County: Richland, MT; Field (or Wildcat) Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 25-35 days drilling time.

Unusually deep drilling (high horsepower rig): Triple derrick rig to drill a dual lateral horizontal Bakken Formation test, 14,027'MD/9,313TVD and 14,022'MD/9277'TVD.

Possible H₂S gas production: Slight chance H₂S gas from Mississippian Formations.

In/near Class I air quality area: No Class I air quality area in the area of review.

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: Triple derrick drilling rig to drill a dual lateral horizontal Bakken Formation test, 14,027'MD/9,313TVD and 14,022'MD/9277'TVD. If there is an existing pipeline for associated gas/H₂S gas in the area and gas can be gathered or if no gathering system nearby associated gas/H₂S gas can be flared under Board Rule 36.22.1220.

Water Quality

(possible concerns)

Salt/oil based mud: Yes to intermediate string hole to be drilled with oil based invert (80/20) drilling fluids. Horizontal lateral will be drilled with oil based invert (80/20) drilling fluids. Surface casing hole will use freshwater and freshwater mud system, Rule 36.22.1001.

High water table: Possible high water table at this location.

Surface drainage leads to live water: Yes surface drainage leads to live water, closest drainage is East Redwater Creek, about 1/4 of a mile to the west from this location.

Water well contamination: None, closest water well is about 1 mile to the northwest and all other water wells are 1 mile and further away from this location. Depth of this stock water well is 60'. This well will drill surface casing hole with freshwater and freshwater drilling fluids to 1760' (Rule 36.22.1001) and will run 1760' of steel surface casing and cement it back to surface.

Porous/permeable soils: No, sandy clay soils.

Class I stream drainage: No, Class I stream drainages in the area of review.

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: Lined cuttings pit for cutting disposal on wellsite.

Comments: 1760' surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer, Rule 36.22.1001. Adequate surface casing and BOP equipment to prevent any problems (BOP's 5,000 psig annular, pipe and blind rams) rule 36.22.1014.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: None anticipated, crossing only ephemeral drainages.
High erosion potential: No this location does not have a high erosion. The location will require a small cut, up to 4.3' and a small fill, up to 1.0', required.
Loss of soil productivity: None, location to be restored after drilling well, if nonproductive. If productive unused portion of drillsite will be reclaimed.
Unusually large wellsite: No, large well site 360'X350', single well location for the Python 3-4MLH.
Damage to improvements: Slight, surface use is cultivated land.
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: Requires DEQ General Permit for Storm Water Discharge Associated with Construction Activity, under ARM 17.30.1102(28).

Comments: Access will be over existing county road, #128 and existing lease roads. Operator will construct about 300' of new access road into this location from the existing lease road. Oil based invert drilling fluids will be recycled. Completion fluids will be trucked to a Class II disposal. Operator will utilize a closed loop mud system. Cuttings and mud solids will be disposed of in the lined cuttings pit and solidified. No concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residences are about 3 miles to the southeast from this location. The town of Richy, Montana is about 11.1 miles to the southwest and the town of Lambert, Montana is about 18 miles to the southeast from this location.
Possibility of H2S: Slight chance H2S gas from Mississippian Formations.
Size of rig/length of drilling time: Triple drilling rig 25 to 35 days drilling time.

Mitigation:

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

Comments: Adequate surface casing cemented to surface with a working BOP stack should mitigate any problems, (BOP's 5,000psig annular, pipe and blind rams) rule 36.22.1014.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): Closest Game Management Area is Fox Lake State Game Management Area, about 17 miles to the southeast from this location.
Proximity to recreation sites: None identified.
Creation of new access to wildlife habitat: No, none.
Conflict with game range/refuge management: No, none.
Threatened or endangered Species: Species identified as threatened or endangered are the Pallid Sturgeon, Interior Least Tern, Whooping Crane and Piping Plover. Candidate species are

the Sprague's Pipit and the Greater Sage Grouse. NH tracker website indicates zero (0) species of concern in this area,

Mitigation:

- Avoidance (topographic tolerance/exception)
- Other agency review (DFWP, federal agencies, DSL)
- Screening/fencing of pits, drillsite
- Other: _____

Comments: This is private cultivated surface lands. There maybe species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern are discovered at this location.

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: This is private cultivated surface lands. There maybe possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite.

Social/Economic

(possible concerns)

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

Comments: No concerns.

Remarks or Special Concerns for this site

A dual lateral horizontal Bakken Formation test, 14,027'MD/9,313TVD and 14,022'MD/9277'TVD.

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): /s/ Steven Sasaki
(title:) Chief Field Inspector

Date: February 15, 2013

Other Persons Contacted:

Bureau of Mines and Geology, GWIC website

(Name and Agency)

Water wells in Richland County, Montana

(subject discussed)

February 15, 2013

(date)

US Fish and Wildlife, Region 6 website

(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA
COUNTIES, Richland County

(subject discussed)

February 15, 2013

(date)

Montana Natural Heritage Program Website

(Name and Agency)

Heritage State Rank= S1, S2, S3 T23N R53E

(subject discussed)

February 15, 2013

(date)

Montana Cadastral Website

(Name and Agency)

Surface Ownership and surface use Section 4T23N R53E

(subject discussed)

February 15, 2013

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____