

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

**Operator:** Pete & Maxine Woods  
**Well Name/Number:** McQuigg 2-19  
**Location:** NW NW Section 19 T37N R6E  
**County:** Liberty **MT; Field (or Wildcat)** WC

**Air Quality**

(possible concerns)

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

Unusually deep drilling (high horsepower rig): No, 1960' TD Single drilling rig need.

Possible H2S gas production: No, none from the Spike Zone.

In/near Class I air quality area: No, Class I air quality area nearby.

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: \_\_\_\_\_

**Water Quality**

(possible concerns)

Salt/oil based mud: No, freshwater, freshwater mud system and/or air/mist to be used.

High water table: No, should not encounter a high water table area here.

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to Laird Creek, about 3/8 of a mile to the southeast from this location.

Water well contamination: No contamination, closest water well is about 1/4 of a mile to the east of this drillsite. Well depth is 828' domestic water well. Surface hole to be drilled with air or freshwater. Surface/production casing to be set at 1960' and cemented to surface.

Porous/permeable soils: No, sandy bentonitic soils.

Class I stream drainage: No Class I stream drainages.

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: Adequate well control and surface casing, 1960' of 4 1/2" casing should mitigate any problems. Surface/production casing set at 1960' should mitigate any problem with the water wells.

**Soils/Vegetation/Land Use**

(possible concerns)

Steam crossings: None

High erosion potential: No, small cut, up to 2.3' and small fill, up to 2.9', required.

Loss of soil productivity: None, location will be reclaimed after drilling of well, if well is nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, small 200'X200'

Damage to improvements: Slight, surface use cultivation .

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 off existing county gravel road, Laird Road, will utilize exiting farm trail and well access road for the McQuigg 1-19 well. Drilling fluids will be allowed to evaporate in the earthen pits. Cuttings will be allowed to dry in the earthen pits. Pits will be backfilled when dry. No special concerns

### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Residence about 1/2 mile to the northeast, Laird School about 1 mile to the southeast, and Sage Creek Hutterite Colony, about 2 miles to the southeast of this drillsite.

Possibility of H2S: None

Size of rig/length of drilling time: 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: Noise should not be a problem . Adequate BOP and surface casing should mitigate H2S 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: Private surface lands. No concerns

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**Historical/Cultural/Paleontological**

(possible concerns)

Proximity to known sites None identified. Location in a cultivated field.

Mitigation

avoidance (topographic tolerance, location exception)

other agency review (SHPO, DSL, federal agencies)

Other: \_\_\_\_\_

Comments: Private surface lands. No concerns.

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**Social/Economic**

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: Should not impact tax base or create a demand for new services.

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**Remarks or Special Concerns for this site**

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**Summary: Evaluation of Impacts and Cumulative effects**

No long term impacts expected. Some short term impacts will occur from the drilling of this well, but can be mitigated in a short 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: January 16, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website.

(Name and Agency)

Water wells in Liberty County, Montana

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(subject discussed)

January 16, 2008

(date)

If location was inspected before permit approval:

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

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

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