

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

Operator: Lyco Energy Corporation
Well Name/Number: Coyote-Nevins 9-15-H
Location: SW SE Section 9 T23N R57E
County: Richland, MT; Field (or Wildcat) Wildcat

Air Quality

(possible concerns)

Long drilling time No, 30-40 days drilling time.

Unusually deep drilling (high horsepower rig) Triple derrick rig 900 HP, Bakken single horizontal lateral MD 14,456'

Possible H₂S gas production slight

In/near Class I air quality area No

Air quality permit for flaring/venting (if productive) Yes, if productive. DEQ air quality permit required.

Mitigation:

Air quality permit (AQB review)

Gas plants/pipelines available for sour gas

Special equipment/procedures requirements

Other: _____

Comments: Existing pipeline for gas in the area.

Water Quality

(possible concerns)

Salt/oil based mud yes to long string salt based and oil based drilling fluids. Surface casing hole to be drilled with freshwater and freshwater mud.

High water table No

Surface drainage leads to live water No, closest drainage is Lone Tree Creek and ephemeral drainage, about 1/8 of a mile to the north of this location.

Water well contamination No, all water wells close by are shallower than 1900'. Deepest well within 1 mile is 110' in depth. Surface casing will be drilled with freshwater and surface casing cemented back to surface from 1900'.

Porous/permeable soils No, gumbo 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: Require 1900'+/- surface casing well below freshwater zones in adjacent water wells.

Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems in and around freshwater slough.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings None

High erosion potential No, location has a small cut, up to 7.4' and small fill, up to 3.2' 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 430'X310'

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: Existing county roads, #128 and #338 will be utilized to reach this location. A short access road of up to about 183' of new road will be constructed from the existing county road into this location. Cuttings will be buried in the lined reserve pit. Pit fluids will be recycled and/or hauled to a commercial disposal.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences closest residence is 1 mile to the northwest of this location and 1.3 miles to the west of this location.

Possibility of H2S Slight

Size of rig/length of drilling time Triple drilling rig 30 to 40 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 working BOP stack should mitigate any problems. Distance sufficient to mitigate noise.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified) n/a 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 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 None identified
Mitigation
 avoidance (topographic tolerance, location exception)
 other agency review (SHPO, DSL, federal agencies)
 Other:
Comments: Private surface

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

TVD 10,374' MD 14,456' Bakken Formation horizontal well. Second horizontal Bakken well in this spacing unit.

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): Steven Sasaki

(title): Chief Field Inspector

Date: January 31, 2006

Other Persons Contacted:

(Name and Agency)

Montana Bureau of Mines and Geology, Groundwater Information Center website, Richland County water wells

(subject discussed)

January 31, 2006

(date)

If location was inspected before permit approval:

Inspection date: 1/31/06

Inspector: Hystad

Others present during inspection: _____