# DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

## BOARD OF OIL AND GAS CONSERVATION

BRIAN SCHWEITZER, GOVERNOR

OIL AND GAS CONSERVATION DIVISION

STATE OF MONTANA


December 31, 2007


RECEIVED

JAN 0 3 2008

LEGISLATIVE ENVIRONMENTAL POLICY OFFICE


Mr. Todd Everts
Environmental Quality Council
Room 106, State Capitol
Helena, MT 59620

Re: Environmental Assessment Reports

Dear Todd:

Enclosed please find a copy of the environmental assessments completed by this office covering the period from October 1 through December 31, 2007 with regard to applications for permits to drill oil or gas wells on state and privately owned lands in the State of Montana.

Let us know if you require any further information.

Sincerely,

Thomas P. Richmond
Administrator

km

Encs. 150


DIVISION OFFICE
1625 ELEVENTH AVENUE
PO BOX 201601
HELENA, MONTANA 59620-1601
(406) 444-6675

TECHNICAL AND
SOUTHERN FIELD OFFICE
2535 ST. JOHNS AVENUE
BILLINGS, MONTANA 59102-4693
(406) 656-0040

NORTHERN FIELD OFFICE
201 MAIN STREET
PO BOX 690
SHELBY, MONTANA 59474-0690
(406) 434-2422

# Montana Board of Oil and Gas Conservation
# Environmental Assessment

**Operator:** Enerplus Resources (USA) Corporation
**Well Name/Number:** Burning Tree-Zoe No. 25-3-HID3
**Location:** NE NW Section 25 T25 R54E
**County:** Richland, **MT; Field (or Wildcat)** Wildcat

## Air Quality

(possible concerns)
Long drilling time: No, 40-50 days drilling time.
Unusually deep drilling (high horsepower rig): Triple derrick rig 900 HP, Bakken horizontal TVD 9,754' MD 14,123'
Possible H2S gas production: Slight
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:
X Air quality permit (AQB review)
X 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 intermediate string casing, invert, 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: Yes, nearest drainage is an unnamed ephemeral tributary drainage to East Charlie Creek, about 1/8 of a mile to the north of this location. Within this drainage is a stock pond, about ¼ of a mile to the northwest of this location.
Water well contamination: No, closest water wells are over 1 mile distance from this well. All water wells are shallower than 100' in depth within 1.5 mile radius of this well location. Surface hole will be drilled with freshwater. Surface casing will be set to 1500' and cemented to surface.

Porous/permeable soils No, sandy silty bentonitic soils
Class I stream drainage No, Class I stream drainages.

Mitigation:
X Lined reserve pit
X Adequate surface casing
__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other: _____
Comments: 1500'+/- surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent any problems.

## Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: _None___
High erosion potential: _Yes, location has a small cut of 8.9' and a moderate fell of 21.2', required._
Loss of soil productivity: _None, location to be restored after drilling well, if well is nonproductive. If well is productive, unused portion of drillsite will be reclaimed.
Unusually large wellsite: _No, large well site 450'X310'
Damage to improvements: _Slight, surface use appears to be cultivated fields.
Conflict with existing land use/values: Slight

Mitigation
__ Avoid improvements (topographic tolerance)
__ Exception location requested
_X_ Stockpile topsoil
__ Stream Crossing Permit (other agency review)
_X_ Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
__ Other _____

Comments: Oil based muds will be recycled, cuttings will be disposed of in a lined pit, completion fluids will be hauled to Class II disposal. Pit will be allowed to dry and then backfilled with subsoil. Access will be over existing county roads #326, existing road and a short access road of about 3192' will be built into this location from the existing road.

**Health Hazards/Noise**

(possible concerns)
Proximity to public facilities/residences : closest residence is 1 mile to the south, 1.25 mile to the south-southwest and 1.5 miles to the southwest of this location.
Possibility of H2S: _Slight__
Size of rig/length of drilling time: Triple drilling rig 40 to 50 days drilling time.

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

Comments: __1500+ is 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):_None identified.
Proximity to recreation sites: __None identified_____
Creation of new access to wildlife habitat: _None identified.____
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

**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 lands. No concerns.

**Social/Economic**

(possible concerns)
__ Substantial effect on tax base
__ Create demand for new governmental services
__ Population increase or relocation
Comments: No concerns. Development well in this spacing unit.

**Remarks or Special Concerns for this site**

Third well horizontal Bakken formation well in this spacing unit.

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

TVD 9,754' MD 14,123' Bakken Formation horizontal well. Third producing well in this spacing unit. 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: September 24, 2007

Other Persons Contacted:
Montana Bureau of Mines and Geology, Groundwater Information Center website
(Name and Agency)
Richland County water wells
(subject discussed)
September 24, 2007
(date)

If location was inspected before permit approval:
Inspection date:
Inspector:
Others present during inspection: