

Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: St. Mary Land + Exploration Co.
~~Nance Petroleum Corporation.~~
Well Name/Number: Remington 10-43-01-05CK
Location: SW NW Section 1 T10S R43E
County: Big Horn, MT; Field (or Wildcat) Wildcat

Air Quality

(possible concerns)

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

Unusually deep drilling (high horsepower rig): No, 1000' TD

Possible H2S gas production: No

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:

Air quality permit (AQB review)

Gas plants/pipelines available for sour gas

Special equipment/procedures requirements

Other: _____

Comments: No concerns.

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater and freshwater mud system.

High water table: No

Surface drainage leads to live water: Yes, unnamed ephemeral tributary drainage to Hanging Woman Creek, about 1/32 of a mile to the south of this location.

Water well contamination: No, closest water well is about 1/2 of a mile to the northwest of this location. Depth of this well is 302'. This exploratory well will have 130' of surface hole drilled with freshwater, cased with steel casing and cemented back to surface. The production hole will be drilled with freshwater and freshwater mud to a depth of 1000'.

Production casing will be set to 990' and cemented back to surface.

Porous/permeable soils: Localized

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: Will use fresh water, native clay mud. Water/mud be allowed to evaporate in the reserve pit and then backfilled.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: No

High erosion potential: No, no cut or fill required. Rig is self leveling.

Loss of soil productivity: Slight

Unusually large wellsite: No, 120'X80' location size required.

Damage to improvements: No

Conflict with existing land use/values: No

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 and existing dirt trails. A short access will be built off existing trail into this location. No special concerns for this site. Very small location and pit area. Truck mounted rig does not require much location preparation. Pits will be allowed to dry. Cuttings will be buried in the pit. No concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residence is about 1/2 of a mile to the northwest of this location.

Possibility of H2S: None

Size of rig/length of drilling time: Small drilling rig/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: Diverter to be used instead of a BOP.

Comments: No special concerns

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None in the immediate area.

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.

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: Test well targeted Anderson, Canyon and Cook coal beds at 1000'. Development well related to project in Wyoming.

Remarks or Special Concerns for this site

Well is a shallow coal bed methane test. Wells are drilled with a small rig and casing set to total depth and the target coals perforated and stimulated with water. Seven inch casing is cemented surface. Partial de-watering is expected to reduce pressure and release methane gas to the cleat system; this partial de-watering is expected to reduce, but not eliminate water in the coal aquifer. The water quality in the coal bed aquifer wells is variable—this test well will provide water quality data for the tested interval.

Summary: Evaluation of Impacts and Cumulative effects

Relatively minor impacts associated with this well, Well is an development coalbed methane test well. No impacts are expected.

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: March 18, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, Groundwater Information Center

(Name and Agency)

Water wells in Big Horn County

(subject discussed)

March 18, 2008 _____
(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____