

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

Operator: WESCO Operating, Inc.
Well Name/Number: Hickerson 22-9R
Location: SE NW Section 9 T9N R59E
County: Fallon, **MT;** **Field (or Wildcat)** Cupton

Air Quality

(possible concerns)

Long drilling time: No, 15 to 20 days drilling time.

Unusually deep drilling (high horsepower rig): No triple derrick drilling rig to drill a 9,650' TD vertical Red River Formation replacement well.

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: No special concerns – using triple rig to drill a 9,650' TD a vertical Red River Formation replacement well for the Hickerson 22X-9 well which has collapsed casing.

Water Quality

(possible concerns)

Salt/oil based mud: Yes, oil based invert drilling fluid system on the mainhole to total depth. Freshwater and freshwater mud system on surface hole.

High water table: No high water table anticipated at this surface location.

Surface drainage leads to live water: Yes, closest drainages are unnamed ephemeral tributary drainages to Cabin Creek, also an ephemeral drainage, about 1/16 of a mile to the north and 3/8 of a mile to the south from this location. Within these unnamed ephemeral drainages are stock ponds.

Water well contamination: No, nearest water well is about 3/4 of a mile to the southwest from this location, all other wells are 1 mile and further from this location. Depth of this water well 80'. Surface hole must be drilled with freshwater and freshwater mud.

Surface casing will be set at 1000' and cemented to surface.

Porous/permeable soils: No, silty 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:

Comments: 1000' of surface casing cemented to surface adequate to protect freshwater zones. Solids will be buried in the lined cuttings pit on site and solidified. Oil based invert drilling fluids will be recycled to the next drill location or back

to the mud company. Completion fluids will be trucked to an authorized Class II SWD facility for disposal.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No stream crossings anticipated. Access will utilize existing county roads and lease roads.

High erosion potential: Yes, small cut, up to 8.1' and moderate fill, up to 27.3', required. Moderate fill slopes will be subject to erosion, unless vegetated.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: Yes, a large wellsite, 300'X400'.

Damage to improvements: Slight, surface use prairie sage and grassland.

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: Will use existing county road, 610 and existing lease roads. About 321' of new access road will be constructed into this location, from the lease road. Drill cutting will be disposed of in the lined cuttings pit and solidified. Oil based invert drilling fluids will be recycled. Reserve pit fluids will be recycled and/or haul to a commercial disposal.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residences are about 1 mile and further from this location in any direction from this location.

Possibility of H2S: Slight chance of H2S.

Size of rig/length of drilling time: Triple drilling rig/short 15 to 20 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 and operational BOP should mitigate any problems. No 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: Species identified as threatened by the USFWS is the Whooping Crane. Species listed as candidate species are the Greater Sage Grouse and Sprague's Pipit. NH tracker website for this Township and Range lists one (1) species of concern. It is the Greater Sage Grouse.

Mitigation:

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

Comments: Private surface prairie grazing land. 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 is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands.

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: On private surface prairie grazing land. 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. The Board of Oil & Gas has no jurisdiction over private surface lands.

Social/Economic

(possible concerns)

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

Comments: Replacement well in an existing oil field, Cupton Oil Field. No concerns.

Remarks or Special Concerns for this site

Well is a 9,650' TD a vertical Red River Formation replacement well.

Summary: Evaluation of Impacts and Cumulative effects

No long term impact 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: March 21, 2012

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)
Fallon County water wells
(subject discussed)
February 16, 2012
(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES
MONTANA COUNTIES, Fallon County
(subject discussed)

February 16, 2012
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T9N R59E
(subject discussed)

February 16, 2012
(date)

If location was inspected before permit approval:

Inspection date:

Inspector:

Others present during inspection: