

CHECKLIST ENVIRONMENTAL ASSESMENT

Proposed Action: Approve Drilling Permit (Form 22)

Project/Well Name: Unit 27-01

Operator: Denbury Onshore, LLC

Location: 8S-54E-27

County: Powder River, MT; **Field (or Wildcat):** Bell Creek

Proposed Project Date: 5-17-2017

I. DESCRIPTION OF ACTION

Denbury plans to re-enter this existing well and complete it as a CO2 injector. This well already has casing in it and a workover rig is going to be used instead of a drilling rig. The plugs will be drilled out with field saltwater. The objective formation is the Muddy. The TVD/MD is 4,510'.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED

Montana Bureau of Mines and Geology, GWIC website (Powder River County Wells).

US Fish and Wildlife, Region 6 website

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Powder River County

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T8S R54E

Montana Cadastral Website

Surface Ownership and surface use Section 27 T8S R54E

Montana Department of Natural Resources MEPA Submittal

2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed re-entry would not be drilled.

Action Alternative: Denbury would have permission to re-enter the well to complete as a CO2 injector.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

3. AIR QUALITY

Long drilling time: No, 10 days.

Unusually deep drilling (high horsepower rig): No, using workover rig.

Possible H2S gas production: None anticipated.

In/near Class I air quality area: No.

Air quality permit for flaring/venting (if productive): NA

Comments: No special concerns – using workover rig to drill to 4,510' TD/MD

4. WATER QUALITY

Salt/oil based mud: Using saltwater to drill out plugs.

High water table: No.

Surface drainage leads to live water: No, the nearest drainage is an unnamed ephemeral drainage about 300' north of the location. This ephemeral drainage leads to Belle Creek.

Water well contamination: No, the closest water well is about ½ a mile to the northwest from location. This well is a domestic well and is 281' deep.

Porous/permeable soils: No, sandy clay soils.

Class I stream drainage: None.

Groundwater vulnerability area: NA

Mitigation:

- Lined reserve pit
- Adequate surface casing
- Berms/dykes, re-routed drainage
- Closed mud system
- Off-site disposal of solids/liquids (in approved facility)

Comments: Steel surface casing has been run and cemented to surface to protect ground water. (Rule 36.22.1001).

5. SOILS/VEGETATION/LAND USE

Vegetation:

Steam crossings: None anticipated.

High erosion potential: The location has a medium cut of 15.5' and a medium fill of 13.4'.

Loss of soil productivity: No, the location will be restored when the well is plugged.

Unusually large wellsite (Describe dimensions): No, The location is 251' X 251'.

Damage to improvements: Slight, surface use is grass grazing land.

Conflict with existing land use/values:

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

Access Road: Off existing dirt road.

Drilling fluids/solids: The plugs will be drilled out with field saltwater.

6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: The nearest residence is about 4/5 of a mile to the east.

Possibility of H2S: None anticipated.

Size of rig/length of drilling time:

Mitigation:

- Proper BOP equipment
- Topographic sound barriers
- H2S contingency and/or evacuation plan
- Special equipment/procedures requirements
- Other:

7. WILDLIFE/RECREATION

Sage Grouse: In General Habitat. Sage Grouse program has been received.

Proximity to sensitive wildlife areas (DFWP identified): None

Proximity to recreation sites: None

Creation of new access to wildlife habitat: None

Conflict with game range/refuge management: None

Threatened or endangered Species: Species listed as endangered or threatened in Powder River County are the Whooping Crane, Pallid Sturgeon, and the Northern Long-eared bat. The Montana Natural Heritage Program lists two (2) species of concern, the Black-tailed Prairie Dog, and the Ferruginous Hawk.

Mitigation:

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

Comments: Private cultivated surface lands. There may be 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. No concerns.

IV. IMPACTS ON THE HUMAN POPULATION

8. HISTORICAL/CULTURAL/PALEONTOLOGICAL

Proximity to known sites:

Mitigation

- avoidance (topographic tolerance, location exception)
- other agency review (SHPO, DNRC Trust Lands, federal agencies)

Other:

9. SOCIAL/ECONOMIC

Substantial effect on tax base

- Create demand for new governmental services
- Population increase or relocation

Comments: No concerns.

IV. SUMMARY

No long term impacts expected. Some short term impacts will occur, but can be mitigated. 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.

EA Checklist Prepared By:	Name: John Gizicki Title: Compliance Specialist
Signature:	Date: 05/017/17