

CHECKLIST ENVIRONMENTAL ASSESMENT

Proposed Action: Approve Drilling Permit (Form 22)

Project/Well Name: Dry Creek 2-13

Operator: Big Sky Energy, LLC

Location: SW SW Section 2 7S-21E

County: Carbon **MT; Field (or Wildcat):** Dry Creek

Proposed Project Date: 08/01/2019

I. DESCRIPTION OF ACTION

Big Sky Energy, LLC plans to re-enter this well and drill to 5,725' MD/TVD with the objective formation being the Lakota.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED

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

US Fish and Wildlife, Region 6 website

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Carbon County

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T7S R21E

Montana Cadastral Website

Surface Ownership and surface use Section 2 T7S R21E

Montana Department of Natural Resources MEPA Submittal

2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not be drilled.

Action Alternative: Big Sky Energy, LLC would have permission to drill the well.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

3. AIR QUALITY

Long drilling time: No, 3-4 days.
Unusually deep drilling (high horsepower rig): No.

Possible H₂S gas production: No H₂S anticipated.
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. AQB review.

Comments: No special concerns – using small rig to drill to 5,725' MD/TVD. If there are no gas gathering systems nearby, associated gas can be flared under Board Rule 36.22.1220.

4. WATER QUALITY

Salt/oil based mud: Fresh water based drilling fluids system will be utilized.
High water table: No.
Surface drainage leads to live water: No, the nearest drainage is an unnamed ephemeral drainage 3/10 of a mile to the northeast. North Fork Dry Creek is 1/2 of a mile to the south.

Water well contamination: No, there is a domestic water well 3/5 of a mile to the northeast and it is 37' deep. Another domestic water well is located 3/5 of a mile to the northeast and is 35' deep.

Porous/permeable soils: slightly, sandy clay.
Class I stream drainage: None.
Groundwater vulnerability area: 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)

Comments: Steel surface casing is set to 440' and cemented to surface to protect ground water. (Rule 36.22.1001).

5. SOILS/VEGETATION/LAND USE

Vegetation: Grassland
Stream crossings: Only ephemeral drainages.
High erosion potential: No.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive.

Unusually large wellsite (Describe dimensions): No, 305' X 165' original location size.

Damage to improvements: Slight, surface use is 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

Access Road: North Dry Creek Road and existing access road.

Drilling fluids/solids: This is a re-entry.

6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: The nearest residence is 7/10 of a mile to the southeast. The nearest town is Red Lodge about 7 miles to the southwest.

Possibility of H2S: No H2S anticipated.

Size of rig/length of drilling time: 3-4 days.

Mitigation:

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

7. WILDLIFE/RECREATION

Sage Grouse: In core habitat. Program analysis received 5-21-2019.

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: None identified.

Threatened or endangered Species: Only species identified as threatened or endangered is the Canada Lynx, Grizzly Bear, Wolverine, and Western Glacier Stonefly. The Montana Natural Heritage Program lists seven (7) species of concern: Hoary Bat, Golden Eagle, Great Blue Heron, Greater Sage-Grouse, Clark's Nutcracker, Long-billed Curlew, Western Milksnake.

Mitigation:

Avoidance (topographic tolerance/exception)

Other agency review (DFWP, federal agencies, DNRC Trust Lands, **Montana Sage Grouse Habitat Conservation Program**)

Screening/fencing of pits, drillsite

Other: Sage Grouse Habitat Conservation Program to limit work times.

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:**

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Date: 05/28/19