

## CHECKLIST ENVIRONMENTAL ASSESMENT

**Proposed Action:** Approve Drilling Permit (Form 22)

**Project/Well Name:** Baseline 1

**Operator:** Briscoe Petroleum, LLC

**Location:** NW NW Section 28 1N-34E

**County:** Big Horn MT; **Field (or Wildcat):** Wildcat

**Proposed Project Date:** 06/01/2019

### I. DESCRIPTION OF ACTION

Briscoe Petroleum, LLC plans to drill a 4,600' MD/ 4,500' TVD well with the objective formation being the Amsden.

### II. PROJECT DEVELOPMENT

#### 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED

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

US Fish and Wildlife, Region 6 website

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Big Horn County

Montana Natural Heritage Program Website (FWP)  
Heritage State Rank= S1, S2, S3, T1N R34E

Montana Cadastral Website  
Surface Ownership and surface use Section 28 T1N R34E

Montana Department of Natural Resources MEPA Submittal

#### 2. ALTERNATIVES CONSIDERED

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

Action Alternative: Briscoe Petroleum, LLC would have permission to drill the well.

### III. IMPACTS ON THE PHYSICAL ENVIRONMENT

#### 3. AIR QUALITY

Long drilling time: No, 4-5 days.

Unusually deep drilling (high horsepower rig): No.

Possible H<sub>2</sub>S gas production: No H<sub>2</sub>S anticipated.

In/near Class I air quality area: The Crow Reservation is about 3 miles to the south,

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 4,600' MD / 4,500' 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 1/10<sup>th</sup> of a mile to the northeast and another 1/10<sup>th</sup> of a mile to the southwest. Ninemile Creek with is about 7/10<sup>ths</sup> of a mile to the northeast and Little Ninemile Creek is about 1 mile to the southwest. Ninemile Creek feeds into the Bighorn River which is about 4 miles to the west.

Water well contamination: No water wells within a ½ mile radius.

Porous/permeable soils: No, Shaly soils.

Class I stream drainage: The Bighorn River is located about 4 miles to the west.

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 will be run to 400' and cemented to surface to protect ground water. (Rule 36.22.1001).

#### 5. SOILS/VEGETATION/LAND USE

Vegetation: Grassland

Steam crossings: None anticipated.

High erosion potential: No, small cut of 6.6' and small fill of 1.3' required.

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

Unusually large wellsite (Describe dimensions): No, 210' X 175' location.

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: Existing access road.

Drilling fluids/solids: Reserve pits will be dewatered, allowed to evaporate and backfilled according to MBOGC rules.

## 6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: The town of Hardin is about 6 miles to the southwest. There are no residences within a ½ mile radius.

Possibility of H2S: No H2S anticipated.

Size of rig/length of drilling time: 4-5 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 general habitat. Program analysis received 5-10-2019.

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 Black-footed Ferret. The Montana Natural Heritage Program lists five (5) species of concern: Merriam's Shrew, Preble's Shrew, Great Blue Heron, Pains Hog-nosed Snake, and the 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:**

**Name:** John Gizicki

**Date:** 05/13/19

**Title:** Compliance Specialist