

**FORM  
2A**Rev  
04/01**State of Colorado  
Oil and Gas Conservation Commission**

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



DE ET OE ES

Document Number:

400194717

**Oil and Gas Location Assessment**☐ New Location☒ Amend Existing Location Location#: 336191

Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations. This Assessment may be approved as a standalone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this Assessment will allow for the construction of the below specified location; however, it does not supersede any land use rules applied by the local land use authority. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at <http://colorado.gov/cogcc/> for all accompanying information pertinent to this Oil and Gas Location Assessment.

Location ID:

**336191**

Expiration Date:

**09/24/2014**☒ This location assessment is included as part of a permit application.**1. CONSULTATION**

- ☐ This location is included in a Comprehensive Drilling Plan. CDP # \_\_\_\_\_
- ☐ This location is in a sensitive wildlife habitat area.
- ☐ This location is in a wildlife restricted surface occupancy area.
- ☐ This location includes a Rule 306.d.(1)A.ii. variance request.

**2. Operator**Operator Number: 10340Name: SUNDANCE ENERGY INCAddress: 380 INTERLOCKEN CRESCENT - STE #601City: BROOMFIELD State: CO Zip: 80021**3. Contact Information**Name: Kallasandra MoranPhone: (303) 928-7128Fax: (303) 962-6237email: kmoran@petro-fs.com**4. Location Identification:**Name: May JonNumber: Multi-well PadCounty: WELDQuarterQuarter: SWSW Section: 5 Township: 2N Range: 68W Meridian: 6 Ground Elevation: 4932

Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 521 feet FSL, from North or South section line, and 634 feet FWL, from East or West section line.Latitude: 40.162090 Longitude: -105.034380 PDOP Reading: 1.9 Date of Measurement: 05/25/2011Instrument Operator's Name: Owen McKee/PFS**5. Facilities (Indicate the number of each type of oil and gas facility planned on location):**

Special Purpose Pits:	<input type="text" value="0"/>	Drilling Pits:	<input type="text" value="0"/>	Wells:	<input type="text" value="8"/>	Production Pits:	<input type="text" value="0"/>	Dehydrator Units:	<input type="text" value="0"/>
Condensate Tanks:	<input type="text" value="0"/>	Water Tanks:	<input type="text" value="1"/>	Separators:	<input type="text" value="6"/>	Electric Motors:	<input type="text" value="0"/>	Multi-Well Pits:	<input type="text" value="0"/>
Gas or Diesel Motors:	<input type="text" value="0"/>	Cavity Pumps:	<input type="text" value="0"/>	LACT Unit:	<input type="text" value="0"/>	Pump Jacks:	<input type="text" value="0"/>	Pigging Station:	<input type="text" value="0"/>
Electric Generators:	<input type="text" value="0"/>	Gas Pipeline:	<input type="text" value="1"/>	Oil Pipeline:	<input type="text" value="0"/>	Water Pipeline:	<input type="text" value="1"/>	Flare:	<input type="text" value="4"/>
Gas Compressors:	<input type="text" value="0"/>	VOC Combustor:	<input type="text" value="1"/>	Oil Tanks:	<input type="text" value="6"/>	Fuel Tanks:	<input type="text" value="0"/>		

Other: \_\_\_\_\_

**6. Construction:**

Date planned to commence construction: 11/02/2011 Size of disturbed area during construction in acres: 3.73  
Estimated date that interim reclamation will begin: 06/15/2012 Size of location after interim reclamation in acres: 1.50  
Estimated post-construction ground elevation: 4932 Will a closed loop system be used for drilling fluids: Yes ☒  
Will salt sections be encountered during drilling: Yes ☐ No ☒ Is H2S anticipated? Yes ☐ No ☒  
Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes ☐ No ☒  
Mud disposal: Offsite ☒ Onsite ☐ Method: Land Farming ☒ Land Spreading ☐ Disposal Facility ☐  
Other: \_\_\_\_\_

## 7. Surface Owner:

Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_ Fax: \_\_\_\_\_  
Address: \_\_\_\_\_ Email: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Date of Rule 306 surface owner consultation: 08/21/2011  
Surface Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian  
Mineral Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian  
The surface owner is: ☒ the mineral owner ☒ committed to an oil and gas lease  
☒ is the executer of the oil and gas lease ☐ the applicant  
The right to construct the location is granted by: ☒ oil and gas lease ☐ Surface Use Agreement ☐ Right of Way  
☐ applicant is owner  
Surface damage assurance if no agreement is in place: ☐ \$2000 ☐ \$5000 ☐ Blanket Surety ID \_\_\_\_\_

## 8. Reclamation Financial Assurance:

☒ Well Surety ID: 20100117 ☐ Gas Facility Surety ID: \_\_\_\_\_ ☐ Waste Mgnt. Surety ID: \_\_\_\_\_

## 9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes ☒ No ☐  
Distance, in feet, to nearest building: 577, public road: 497, above ground utilit: 661  
, railroad: 2235, property line: 521

## 10. Current Land Use (Check all that apply):

Crop Land: ☒ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP  
Non-Crop Land: ☐ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): \_\_\_\_\_  
Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

## 11. Future Land Use (Check all that apply):

Crop Land: ☒ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP  
Non-Crop Land: ☐ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): \_\_\_\_\_  
Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

## 12. Soils:

List all soil map units that occur within the proposed location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.gov/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 41- Nunn clay loam, 0-6% slopes

NRCS Map Unit Name: \_\_\_\_\_  
NRCS Map Unit Name: \_\_\_\_\_

### 13. Plant Community:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes ☐ No ☒  
Plant species from: ☐ NRCS or, ☐ field observation Date of observation: \_\_\_\_\_  
List individual species: \_\_\_\_\_

Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)  
☐ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)  
☐ Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)  
☐ Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)  
☐ Mountain Riparian (Cottonwood, Willow, Blue Spruce)  
☐ Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)  
☐ Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)  
☐ Alpine (above timberline)  
☐ Other (describe): \_\_\_\_\_

### 14. Water Resources:

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area: ☒ No ☐ Yes Was a Rule 901.e. Sensitive Areas Determination performed: ☐ No ☒ Yes  
Distance (in feet) to nearest surface water: 420, water well: 2089, depth to ground water: 14  
Is the location in a riparian area: ☒ No ☐ Yes Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes  
Is the location within a Rule 317B Surface Water Supply Area buffer zone:  
☒ No ☐ 0-300 ft. zone ☐ 301-500 ft. zone ☐ 501-2640 ft. zone

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: ☐ No ☐ Yes

### 15. Comments:

Reference well is the previously permitted 3-5D #5. This is an existing/producing location. I certify that there have been no changes on land use, lease description. Pad has been built. Wells have been drilled. No conductors will be set. No rig on site. The APD will require expansion / additional surface disturbance of pad. The closest water well is an Unnamed well (Permit # 17084/Receipt #0017084), no depth to ground water data available for this well. The closest well with depth to ground water data available is 2,839' NW from proposed well and is an Unnamed well (Permit # 134176/Receipt # 0241689). The operator will utilize whatever tanks are available at the time facilities are built. Approximately 12', 300 bbls capacity tanks.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: \_\_\_\_\_ Date: 08/21/2011 Email: kmoran@petro-fs.com

Print Name: Kallasandra M. Moran Title: Regulatory Analyst

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: David S. Neslin Director of COGCC Date: 9/25/2011

**CONDITIONS OF APPROVAL, IF ANY:**  
\_\_\_\_\_

**All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.**

Wells and production facilities must be fenced to conform with 603 e (7).

### **Attachment Check List**

Att Doc Num	Name
400194717	FORM 2A SUBMITTED
400198302	NRCS MAP UNIT DESC
400198303	OTHER
400198304	MULTI-WELL PLAN
400198305	30 DAY NOTICE LETTER
400198306	LOCATION DRAWING
400198307	LOCATION PICTURES
400198308	HYDROLOGY MAP
400198309	ACCESS ROAD MAP

Total Attach: 9 Files

### **General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Received and processed Change of Operator.	9/14/2011 9:22:46 AM
OGLA	OK to pass.	8/29/2011 11:58:41 AM
Permit	no change of operator in system.	8/29/2011 10:04:04 AM

Total: 3 comment(s)

## BMP

<u>Type</u>	<u>Comment</u>
Construction	<p>Remove only the minimum amount of vegetation necessary for the construction of roads and facilities.</p> <p>Conserve topsoil during excavation and reuse as cover on disturbed areas to facilitate regrowth of vegetation.</p> <p>No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment.</p>
Interim Reclamation	<p>Utilize only such area around each producing well as is reasonably necessary.</p> <p>Restore the remainder of the well site location to its original condition within a reasonable time after the completion of operations.</p> <p>All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner.</p>
Planning	<p>When feasible develop multiple well sites by using directional drilling to reduce cumulative impacts and adverse impacts on wildlife resources.</p>
Storm Water/Erosion Control	<p>Use water bars, and other measures to prevent erosion and non-source pollution.</p> <p>Implement and maintain BMPs to control stormwater runoff in a manner that minimizes erosion, transport of sediment offsite, and site degradation.</p> <p>Co-locate gas and water gathering lines whenever feasible, and mitigate any erosion problems that arise due to the construction of any pipeline(s).</p>
Drilling/Completion Operations	<p>Use a closed-loop drilling mud system to preclude the use of an earthen reserve pits when available.</p>
Final Reclamation	<p>All surface restoration shall be accomplished to the satisfaction of Owner.</p> <p>All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner.</p> <p>Final reclamation shall be completed to the reasonable satisfaction of the Owner as soon as practical after installation (weather permitting) and in accordance with regulatory agency standards (BLM/COGCC).</p>
Site Specific	<p>Fence the well site after drilling to restrict public and wildlife access.</p> <p>Keep well site location, the road, and the pipeline easement free of noxious weeds, litter and debris.</p> <p>Spray for noxious weeds, and implement dust control, as needed.</p> <p>Sundance Energy, Inc. will not permit the release or discharge of any toxic or hazardous chemicals or wastes on Owner's Land.</p> <p>Construct and maintain gates where any roads used by Sundance Energy, Inc. cross through fences on the leased premises.</p>

Total: 7 comment(s)