

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



Table with columns DE, ET, OE, ES

Document Number: 400157324

Oil and Gas Location Assessment

[X] New Location [ ] Amend Existing Location Location#: \_\_\_\_\_

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.

Location ID: 423283 Expiration Date: 05/18/2014

[X] 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: 10328 Name: SOUTHWESTERN ENERGY VENTURES COMPANY LLC Address: PO BOX 1056 City: BAYFIELD State: CO Zip: 81122

3. Contact Information

Name: Will Vaughan Phone: (970) 946-2494 Fax: ( ) email: will@pinnacleland.biz

4. Location Identification:

Name: Thomas Number: 5 County: MESA Quarter: 20 Section: 4 Township: 9S Range: 104W Meridian: 6 Ground Elevation: 4938 Define a single point as a location reference for the facility location. Footage at surface: 3173 feet FSL, from North or South section line, and 847 feet FEL, from East or West section line. Latitude: 39.305440 Longitude: -108.997950 PDOP Reading: 2.6 Date of Measurement: 11/05/2010 Instrument Operator's Name: David Alexander Johnson

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits: [ ] Drilling Pits: [ 1 ] Wells: [ 1 ] Production Pits: [ ] Dehydrator Units: [ ] Condensate Tanks: [ 1 ] Water Tanks: [ 1 ] Separators: [ 1 ] Electric Motors: [ ] Multi-Well Pits: [ ] Gas or Diesel Motors: [ ] Cavity Pumps: [ ] LACT Unit: [ ] Pump Jacks: [ ] Pigging Station: [ ] Electric Generators: [ ] Gas Pipeline: [ 1 ] Oil Pipeline: [ ] Water Pipeline: [ ] Flare: [ ] Gas Compressors: [ ] VOC Combustor: [ ] Oil Tanks: [ ] Fuel Tanks: [ ] Other: \_\_\_\_\_

6. Construction:

Date planned to commence construction: 08/01/2011 Size of disturbed area during construction in acres: 1.52  
Estimated date that interim reclamation will begin: 09/01/2011 Size of location after interim reclamation in acres: 0.56  
Estimated post-construction ground elevation: 4942 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: Air drilling w/misting

7. Surface Owner:

Name: BLM Phone: 970-244-3000  
Address: 2815 H Road Fax: 970-244-3083  
Address: \_\_\_\_\_ Email: gjfo\_webmail@blm.gov  
City: Grand Junction State: CO Zip: 81506 Date of Rule 306 surface owner consultation: 02/24/2011  
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: \_\_\_\_\_  Gas Facility Surety ID: \_\_\_\_\_  Waste Mgmt. Surety ID: \_\_\_\_\_

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes  No   
Distance, in feet, to nearest building: 5280, public road: 700, above ground utilit: 5280  
, railroad: 5280, property line: 5280

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 used when segregating topsoil.

**IMPORTANT: SOME DATA FIELDS HAVE BEEN MODIFIED.**

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: 69 Leebench, warm-Avalon complex, 3 to 12 percent slopes

NRCS Map Unit Name: 87 Persayo-Blackston complex, 6 to 45 percent slopes

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: 05/04/2010

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: 330, water well: 11600, depth to ground water: 23

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 Suppl 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:**

Depth to groundwater as measured at nearest water well, Permit #29372-M.

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

Signed: \_\_\_\_\_ Date: 04/25/2011 Email: will@pinnacleland.biz

Print Name: Will Title: Vaughan

**IMPORTANT: SOME DATA FIELDS HAVE BEEN MODIFIED.**

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. Nesline*

Director of COGCC

Date: 5/19/2011

**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.**

**WATER RESOURCES (SURFACE WATER AND GROUNDWATER) PROTECTION COAs:**

Operator must ensure 110 percent secondary containment for any volume of fluids contained at well site during drilling and completion operations; including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals, and maintained in good condition.

Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface pipelines or buried permanent pipelines.

Location may be in a sensitive area due to shallow groundwater; therefore, any pit constructed to contain/hold fluids, must be lined.

**GENERAL SITE COAs:**

No portion of any pit that will be used to hold liquids shall be constructed on fill material, unless the pit and fill slope are designed and certified by a professional engineer, subject to review and approval by the director prior to construction of the pit. The construction and lining of the pit shall be supervised by a professional engineer or their agent. The entire base of the pit must be in cut.

The moisture content of any drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. At the time of closure, the drill cuttings must also meet the applicable standards of table 910-1.

Flowback and stimulation fluids must be sent to tanks to allow the sand to settle out before the fluids can be placed into any pipeline or pit located on the well pad. The flowback and stimulation fluid tanks must be placed on the well pad in an area with additional downgradient perimeter berming. The area where flowback fluids will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material (per Rule 604.a.(4)).

The surface soils and materials are fine-grained and highly unconsolidated; therefore the pad shall be constructed as quickly as possible and appropriate BMPs need to be in place both during, after well pad construction completion, as well as during all drilling and well completion operations. Standard stormwater BMPs must be implemented at this location to insure compliance with CDPHE and COGCC requirements and to prevent any stormwater run-on and /or stormwater runoff.

Berms or other containment devices shall be constructed in compliance with Rule 604.a.(4) around crude oil, condensate, and produced water storage tanks.

**Attachment Check List**

Att Doc Num	Name
2033813	LOCATION PICTURES
2033814	NRCS MAP UNIT DESC
2033815	WELL LOCATION PLAT
2033826	CORRESPONDENCE
400157324	FORM 2A SUBMITTED
400157339	LOCATION PICTURES
400157347	ACCESS ROAD MAP
400157350	CONST. LAYOUT DRAWINGS
400157351	ACCESS ROAD MAP
400157352	LOCATION DRAWING
400157354	OTHER
400157356	REFERENCE AREA PICTURES
400157357	TOPO MAP
400159720	NRCS MAP UNIT DESC
400160115	HYDROLOGY MAP

Total Attach: 15 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
OGLA	Initiated/Completed OGLA Form 2A review on 05-11-11 by Dave Kubeczko; requested clarifications and acknowledgement of fluid containment, spill/release BMPs, lined pits/closed loop, no pit in fill, flowback to tanks, tank berming, and cuttings low moisture COAs from operator on 05-11-11; received acknowledgement of COAs from operator on 05-12-11; no CDOW; passed OGLA Form 2A review on 05-19-11 by Dave Kubeczko; fluid containment, spill/release BMPs, lined pits/closed loop, no pit in fill, flowback to tanks, tank berming, sediment control, and cuttings low moisture COAs.	5/11/2011 5:24:52 PM
Permit	Corrected latitude	4/29/2011 2:55:42 PM
Permit	Back to draft for plugging bond removal, plat won't open, reference area pictures have verbage only. sf	4/26/2011 8:57:30 AM

Total: 3 comment(s)

**BMP**

<b><u>Type</u></b>	<b><u>Comment</u></b>

Total: 0 comment(s)