


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 border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">DE</td> <td style="width: 25%;">ET</td> <td style="width: 25%;">OE</td> <td style="width: 25%;">ES</td> </tr> </table> <p style="text-align: center;">Document Number: 1638090</p>	DE	ET	OE	ES																					
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Oil and Gas Location Assessment			<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Location ID: 392134 </div> <div style="border: 1px solid black; padding: 5px;"> Expiration Date: 08/01/2014 </div>																									
<input type="checkbox"/> New Location <input checked="" type="checkbox"/> Amend Existing Location Location#: <u>392134</u>																												
<p>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.</p>																												
<input checked="" type="checkbox"/> This location assessment is included as part of a permit application.																												
1. CONSULTATION <input type="checkbox"/> This location is included in a Comprehensive Drilling Plan. CDP # _____ <input checked="" type="checkbox"/> This location is in a sensitive wildlife habitat area. <input type="checkbox"/> This location is in a wildlife restricted surface occupancy area. <input type="checkbox"/> This location includes a Rule 306.d.(1)A.ii. variance request.																												
2. Operator Operator Number: <u>78110</u> Name: <u>SWEPI LP</u> Address: <u>4582 S ULSTER ST PKWY #1400</u> City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80237</u>		3. Contact Information Name: <u>MICHAEL L BERGSTROM</u> Phone: <u>(303) 222-6347</u> Fax: <u>(303) 222-6358</u> email: <u>MICHAEL.BERGSTROM@SHELL.COM</u>																										
4. Location Identification: Name: <u>HERRING DRAW</u> Number: <u>1-9</u> County: <u>MOFFAT</u> QuarterQuarter: <u>NWSE</u> Section: <u>9</u> Township: <u>4N</u> Range: <u>90W</u> Meridian: <u>6</u> Ground Elevation: <u>6926</u> <p>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.</p> Footage at surface: <u>2042</u> feet <u>FSL</u> , from North or South section line, and <u>2238</u> feet <u>FEL</u> , from East or West section line. Latitude: <u>40.327958</u> Longitude: <u>-107.507844</u> PDOP Reading: <u>2.5</u> Date of Measurement: <u>03/01/2011</u> Instrument Operator's Name: <u>A. FLOYD</u>																												
5. Facilities (Indicate the number of each type of oil and gas facility planned on location): <table style="width: 100%; border: none;"> <tr> <td>Special Purpose Pits: <input type="text"/></td> <td>Drilling Pits: <input type="text" value="1"/></td> <td>Wells: <input type="text" value="2"/></td> <td>Production Pits: <input type="text"/></td> <td>Dehydrator Units: <input type="text"/></td> </tr> <tr> <td>Condensate Tanks: <input type="text" value="1"/></td> <td>Water Tanks: <input type="text" value="3"/></td> <td>Separators: <input type="text" value="2"/></td> <td>Electric Motors: <input type="text"/></td> <td>Multi-Well Pits: <input type="text"/></td> </tr> <tr> <td>Gas or Diesel Motors: <input type="text" value="1"/></td> <td>Cavity Pumps: <input type="text" value="2"/></td> <td>LACT Unit: <input type="text"/></td> <td>Pump Jacks: <input type="text" value="1"/></td> <td>Pigging Station: <input type="text"/></td> </tr> <tr> <td>Electric Generators: <input type="text" value="3"/></td> <td>Gas Pipeline: <input type="text"/></td> <td>Oil Pipeline: <input type="text"/></td> <td>Water Pipeline: <input type="text"/></td> <td>Flare: <input type="text"/></td> </tr> <tr> <td>Gas Compressors: <input type="text" value="2"/></td> <td>VOC Combustor: <input type="text" value="1"/></td> <td>Oil Tanks: <input type="text" value="2"/></td> <td>Fuel Tanks: <input type="text" value="2"/></td> <td></td> </tr> </table> Other: _____				Special Purpose Pits: <input type="text"/>	Drilling Pits: <input type="text" value="1"/>	Wells: <input type="text" value="2"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>	Condensate Tanks: <input type="text" value="1"/>	Water Tanks: <input type="text" value="3"/>	Separators: <input type="text" value="2"/>	Electric Motors: <input type="text"/>	Multi-Well Pits: <input type="text"/>	Gas or Diesel Motors: <input type="text" value="1"/>	Cavity Pumps: <input type="text" value="2"/>	LACT Unit: <input type="text"/>	Pump Jacks: <input type="text" value="1"/>	Pigging Station: <input type="text"/>	Electric Generators: <input type="text" value="3"/>	Gas Pipeline: <input type="text"/>	Oil Pipeline: <input type="text"/>	Water Pipeline: <input type="text"/>	Flare: <input type="text"/>	Gas Compressors: <input type="text" value="2"/>	VOC Combustor: <input type="text" value="1"/>	Oil Tanks: <input type="text" value="2"/>	Fuel Tanks: <input type="text" value="2"/>	
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6. Construction:

Date planned to commence construction: 05/15/2011 Size of disturbed area during construction in acres: 8.46
 Estimated date that interim reclamation will begin: 09/15/2011 Size of location after interim reclamation in acres: 1.20
 Estimated post-construction ground elevation: 6929 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: 03/01/2011
 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 20030020

8. Reclamation Financial Assurance:

☒ Well Surety ID: 20010034 ☐ 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: 5466, public road: 4530, above ground utilit: 5613
 , railroad: 52272, property line: 2042

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: 10 BATTLEMENT FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES

NRCS Map Unit Name: 197 TORRIORTHETS-ROCK OUTCROP, SANDSTONE COMPLEX, 25 TO 75 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: _____

List individual species: PLEASE SEE ATTACHED RANGELAND PRODUCTIVITY, PLANT COMPOSTION, AND MAP UNIT DESCRIPTION

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: 542, water well: 7960, depth to ground water: 20

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:

REFERENCE AREA PICTURES SHOW THE SITE SNOW COVERED. ADDITIONAL PHOTOS WILL BE TAKEN AND SUBMITTED DURING THE GROWING SEASON OF VEGETATION. PROPOSED BMP'S SHOWN ON CONSTRUCTION AND LAYOUT DRAWINGS. SITE BEING EVALUATED TO DETERMINE THE NEED FOR A SECTION 404 PERMIT. FORM 15 # 1638089

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

Signed: _____ Date: 04/06/2011 Email: MICHAEL.BERGSTROM@SHELL.COM

Print Name: MICHAEL L BERGSTROM Title: _____

SR REGULATORY
ADVISOR

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: 8/2/2011

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.

GENERAL SITE COAs:

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 access road will be constructed as to not allow any sediment to migrate from the access road to nearby surface water or any drainages leading to surface water.

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.

WATER RESOURCE (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.

A closed loop system (which has been indicated by operator on the Form 2A) must be implemented during drilling.

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

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.

Attachment Check List

Att Doc Num	Name
1638090	FORM 2A
1638093	LOCATION PICTURES
1638094	LOCATION PICTURES
1638095	LOCATION PICTURES
1638096	ACCESS ROAD MAP
1638097	ACCESS ROAD MAP
1638098	TOPO MAP
1638099	REFERENCE AREA MAP
1638100	NRCS MAP UNIT DESC
1638101	LOCATION DRAWING
1638102	CONST. LAYOUT DRAWINGS
1638103	PROPOSED BMPs
1638104	REFERENCE AREA PICTURES
1638105	REFERENCE AREA PICTURES
2033697	HYDROLOGY MAP
2033698	WELL LOCATION PLAT
2033716	PROPOSED BMPs
2033717	CORRESPONDENCE
2089433	MULTI-WELL PLAN

Total Attach: 19 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Confirmed with OGLA, task has passed, on hold until Form 2 have completed permitting task	5/4/2011 8:52:37 AM
Permit	Added bmp to BMP tab Application has met all permitting requirements	5/3/2011 4:26:45 PM
Permit	Attached multi-well plan	4/29/2011 4:21:46 PM
DOW	CDOW has consulted with the operator and landowner representative for this location. CDOW affirms that the operator supplied best management practices for the protection of wildlife are satisfactory and are conditions of approval for this location. Ed Winters, Land USe Specialist 29 April 2011 @ 07:41	4/29/2011 7:46:42 AM
Permit	Distance to road changed to 4,530' per Aleta Brown	4/26/2011 10:52:28 AM
Permit	Operator clarified information and corrections were made to application	4/25/2011 11:30:44 AM
Permit	Completed initial review, operator notified of deficiencies Corrected plugging bond information and changed right to construct to oil and gas lease	4/15/2011 1:28:21 PM
OGLA	Initiated/Completed OGLA Form 2A review on 04-14-11 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, access road and pad sediment control, and cuttings low moisture COAs from operator on 04-14-11; received acknowledgement of COAs from operator on 04-22-11; passed by CDOW on 04-29-11 with BMPs submitted by operator (with permit application) acceptable; passed OGLA Form 2A review on 05-06-11 by Dave Kubeczko; fluid containment, spill/release BMPs, lined pits/closed loop, no pit in fill, flowback to tanks, tank berming, access road and pad sediment control, and cuttings low moisture COAs.	4/14/2011 11:34:38 AM
Permit	Ck on amending a loction, missing hydrology map. sf	4/11/2011 1:39:20 PM

Total: 9 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Construction	<ul style="list-style-type: none">• Construction diversion ditch• Sediment reservoirs• Check dams• Level spreaders• Stabilized construction entrance• Slash• Sediment trap• Wattle• Terrace• Secondary containment berms• Detention ponds
General Housekeeping	Spill Prevention Plans (SPCC) are in place to address material releases and to prescribe materials handling BMPs for the facility. "Good house-keeping" measures will be taken to ensure proper waste disposal.
Storm Water/Erosion Control	Stormwater Management Plans (SWMP) are in place to comply with both Colorado Department of Public Health and Environment (CDPHE) and Colorado Oil and Gas Control Commission (COGCC) stormwater discharge permits.
Construction	The construction layout for Herring Draw #1-9 details Best Management Practices (BMP) to be installed during initial construction.

Total: 4 comment(s)