

FORM  
2A

Rev  
04/01

State of Colorado  
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

400256080

Date Received:

03/26/2012

Oil and Gas Location Assessment

☒ 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. 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:

**428755**

Expiration Date:

**05/01/2015**

☒ 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: 10402

Name: MATRIX OIL CORPORATION

Address: 104 W ANAPAMU STREET #C

City: SANTA BARBARA State: CA Zip: 93101

3. Contact Information

Name: Terry Hoffman

Phone: (720) 5428287

Fax: ( )

email: terry@rockymountainpermitting.com

4. Location Identification:

Name: Sheridan Number: 11-2

County: RIO BLANCO

Quarter: TR 47A Section: 11 Township: 1N Range: 94W Meridian: 6 Ground Elevation: 6384

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: 1151 feet FSL, from North or South section line, and 2071 feet FWL, from East or West section line.

Latitude: 40.066008 Longitude: -107.908008 PDOP Reading: 1.7 Date of Measurement: 02/24/2012

Instrument Operator's Name: Shay Young

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

Special Purpose Pits: <input type="text"/>	Drilling Pits: <input type="text" value="1"/>	Wells: <input type="text" value="1"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>
Condensate Tanks: <input type="text"/>	Water Tanks: <input type="text" value="1"/>	Separators: <input type="text" value="1"/>	Electric Motors: <input type="text" value="1"/>	Multi-Well Pits: <input type="text"/>
Gas or Diesel Motors: <input type="text"/>	Cavity Pumps: <input type="text"/>	LACT Unit: <input type="text"/>	Pump Jacks: <input type="text" value="1"/>	Pigging Station: <input type="text"/>
Electric Generators: <input type="text"/>	Gas Pipeline: <input type="text"/>	Oil Pipeline: <input type="text"/>	Water Pipeline: <input type="text"/>	Flare: <input type="text"/>
Gas Compressors: <input type="text"/>	VOC Combustor: <input type="text"/>	Oil Tanks: <input type="text" value="2"/>	Fuel Tanks: <input type="text"/>	

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

6. Construction:

Date planned to commence construction: 05/01/2012 Size of disturbed area during construction in acres: 3.12  
Estimated date that interim reclamation will begin: 06/22/2013 Size of location after interim reclamation in acres: 2.50  
Estimated post-construction ground elevation: 6382 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: 02/24/2012  
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: 20120013 ☐ 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: 5280, public road: 169, above ground utilit: 426  
, railroad: 5280, property line: 290

## 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: 61 Patent loam, 3 to 8 percent slopes

NRCS Map Unit Name: 45 Jerry-Thornburgh-Rhone complex, 8 to 65 percent slopes

NRCS Map Unit Name: 48 Kobar silty clay loam, 3 to 8 percent slopes

### 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: 02/24/2012

List individual species: Sagebrush and Native Grasses

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: 272, water well: 5212, depth to ground water: 15

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:

Footages listed as 5280' are more than 1 mile. Closest water well is Permit # 148290. No Reference Area Photos do to snow coverage on the ground. Pictures to follow when snow has cleared. Drilling mud will be Synthetic Amodrill 14-10, a BT Product - approved for Land Farming.

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

Signed: \_\_\_\_\_ Date: 03/26/2012 Email: terry@rockymountainpermitting.com

Print Name: Terry L. Hoffman Title: Permit Agent

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: \_\_\_\_\_ Director of COGCC Date: 5/2/2012

**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.**

**SITE SPECIFIC COAs:**

A closed loop system must be implemented during drilling (which operator has indicated on the Form 2A); or, if a drilling pit is constructed, it must be lined. All cuttings generated during drilling with oil based muds or high chloride/TDS mud must be kept in the lined drilling pit, or placed either in containers or on a lined/bermed portion of the well pad; prior to offsite disposal. 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.

Operator must ensure 110 percent secondary containment for any volume of fluids (excluding freshwater) 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 (at least every 14 days), 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 or buried pipelines.

Location is in a sensitive area due to very shallow groundwater; therefore, either a closed loop system must be used (which operator has indicated on the Form 2A), or the drilling pit must be lined and constructed above the top of groundwater.

If the wells are to be hydraulically stimulated, flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or pit located on the well pad or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment 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.

Operator will implement sufficient public notification of proposed oil and gas activities, including: (1) provide 7-day notice and community awareness to the neighborhood regarding schedule and activities, include local emergency response agencies (Fire/Police); (2) posting schedule changes at a location convenient to residents, as well as notifying local emergency response agencies (Fire/Police) of schedule changes; and (3) notify all homes within two (2) blocks on either side of the proposed access road through the Town of Meeker and local emergency responders (Fire/Police) 7 days prior to mobilization in, rig up (MIRU).

Operator will review local governmental requirements for access from public roads (which operator has already done). In addition, the following traffic requirements will apply: (1) a traffic control plan will be in place; (2) additional signage on major and/or local roads will be employed to warn the public of increased truck traffic; (3) all oil and gas related construction, drilling, and operational traffic shall access the location from a single point (as indicated on the revised Access Road Map); (4) designate haul routes to avoid school zones (as indicated on the revised Access Road Map); (5) schedule work to avoid peak traffic flow; (6) schedule heavy equipment movement and drilling/completion operations traffic to avoid local school and school bus operation hours (for example, high student traffic times are 7:00 am to 9:00 am and 2:00 pm to 6:00 pm); (7) when using residential/neighborhood roads, reduced speed limits should be established; and (8) Matrix Oil Corporation will contract with licensed personnel and give priority to contractors who employ safe driving training/practices.

Fugitive dust emissions from the graveled portion of the County maintained access road from the edge of paving to the well pad access entrance will be controlled during drilling and completion operations. Such practices shall include but are not limited to the use of speed restrictions and dust suppression using water or other materials.

Surface water samples from Sulphur Creek at two locations, one upstream and one downstream of the proposed well pad location, will be collected (if water is present) prior to pad construction and after the well has been completed, to evaluate potential impacts from drilling/completion operations. At a minimum, the surface water samples will be analyzed for the following parameters: major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); and BTEX/DRO. The data will be sent electronically to the COGCC and Rio Blanco County.

### Attachment Check List

Att Doc Num	Name
1638173	CORRESPONDENCE
2034318	ACCESS ROAD MAP
2034320	PROPOSED BMPs
2034321	CORRESPONDENCE
400256080	FORM 2A SUBMITTED
400263222	LOCATION DRAWING
400263223	REFERENCE AREA MAP
400263225	LOCATION PICTURES
400263226	HYDROLOGY MAP
400263230	ACCESS ROAD MAP
400263238	NRCS MAP UNIT DESC
400263247	OTHER
400263856	PROPOSED BMPs

Total Attach: 13 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	LGD and CPW concerns addressed by oper. BMP's and COA's LGD passed; pub. comments waived. Final Review--passed.	5/1/2012 1:29:23 PM

OGLA	<p>Response to LGD commenets dated April 19, 2012:</p> <p>LGD Comment No. 1: Adjacent homeowners have asked that Matrix treat the portion of the County Road which is gravel to keep down the dust.</p> <p>COA R11 - Fugitive dust emissions from the graveled portion of the County maintained access road from the edge of paving to the well pad access entrance will be controlled during drilling and completion operations. Such practices shall include but are not limited to the use of speed restrictions and dust suppression using water or other materials.</p> <p>LGD Comment No. 2: School District has asked for timing limitations for heavy truck traffic within town. Please have Matrix meet with School officials to work out mutually acceptable times.</p> <p>COA R3 - Operator will review local governmental requirements for access from public roads (which operator has already done). In addition, the following traffic requirements will apply: (1) a traffic control plan will be in place; (2) additional signage on major and/or local roads will be employed to warn the public of increased truck traffic; (3) all oil and gas related construction, drilling, and operational traffic shall access the location from a single point (as indicated on the revised Access Road Map); (4) designate haul routes to avoid school zones (as indicated on the revised Access Road Map); (5) schedule work to avoid peak traffic flow; (6) schedule heavy equipment movement and drilling/completion operations traffic to avoid local school and school bus operation hours (for example, high student traffic times are 7:00 am to 9:00 am and 2:00 pm to 6:00 pm); (7) when using residential/neighborhood roads, reduced speed limits should be established; and (8) Matrix Oil Corporation will contract with licensed personnel and give priority to contractors who employ safe driving training/practices.</p> <p>LGD Comment No. 3: Because of the proximity to Sulphur Cr., the County would like a requirement to do surface water samples, pre and post drilling to the same standards as the voluntary water testing program, with results to the County.</p> <p>COA 20 - Surface water samples from Sulphur Creek at two locations, one upstream and one downstream of the proposed well pad location, will be collected (if water is present) prior to pad construction and after the well has been completed, to evaluate potential impacts from drilling/completion operations. At a minimum, the surface water samples will be analyzed for the following parameters: major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); and BTEX/DRO. The data will be sent electronically to the COGCC and Rio Blanco County.</p>	<p>4/30/2012 5:28:01 PM</p>
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DOW	<p>Matrix Oil Corporation has agreed to the following BMPs for Sheridan 11-2:</p> <ol style="list-style-type: none"> <li>1. Where oil and gas activities must occur in mule deer critical winter range, conduct these activities outside the time period from December 1 through April 15 if all possible.</li> <li>2. Muffle sound from compressors, pump jacks or other motors necessary to run operations at the site.(If mufflers are used, point upward to dissipate sound and vibration.)</li> <li>3. Construct a 4:1 escape ramp for the freshwater pit with an appropriate surface to give the ramp traction.</li> </ol> <p>Matrix has provided these bulleted responses to CPWs other recommended BMP's:</p> <ol style="list-style-type: none"> <li>4. Restrict post-development well site visitations to between the hours of 10:00 a.m. and 3:00 p.m. and reduce well site visitations between December 1 and April 15 in mule deer winter range.</li> <li>• Sulphur Creek Road is a county road frequented by the locals and the electric station personnel.The proposed location is also within a very close proximity to the Town of Meeker (less than 1 mile).Therefore, the operations of the Sheridan #11-2 will not be the cause of any new type of disturbance to the mule deer winter range or any other wildlife habiting the area.</li> <li>5. Restrict general public access to reduce traffic disruptions to wildlife.</li> <li>• Site is already fenced.</li> <li>6. Avoid aggressive non-native grasses and shrubs in mule deer habitat restoration.</li> <li>• Will utilize owner specified seed mix.</li> <li>7.Reclaim site (interim and final) to match existing vegetation. CPW can provide assistance with the development of a seed mix for the site if desired.</li> <li>• Will utilize owner specified seed mix.</li> <li>8. Fence fresh water pits to exclude wildlife (3 sides fenced with active side open).An 8 foot tall chain link fence would be acceptable, similar to fencing around power sub-station adjacent to pad location, but without the barbed wire. • Removed by DOW.</li> <li>9. CPW requests that Matrix establish company guidelines (policies) to minimize wildlife mortality from vehicle collisions on roads (post speed limits on private roads, conduct safety training, etc.).We can provide an outline of these if requested by the operator.</li> <li>• Part of COGCC rules.</li> <li>10.Install and utilize bear-proof dumpsters and trash receptacles for all food-related trash on location following COGCC Rule 1204 a-1.</li> <li>• Part of COGCC rules.</li> </ol> <p>Jacob Davidson, 4-30-2012, 16:57</p>	<p>4/30/2012 5:00:53 PM</p>
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LGD	<p>Adjacent homeowners have asked that Matrix treat the portion of the County Road which is gravel to keep down the dust.</p> <p>School District has asked for timing limitations for heavy truck traffic within town. Please have Matrix meet with School officials to work out mutually acceptable times.</p> <p>Because of the proximity to Sulphur Cr., the County would like a requirement to do surface water samples, pre and post drilling to the same standards as the voluntary water testing program, with results to the County.</p>	4/19/2012 2:41:24 PM
Permit	Comment Period extended 10 days to April 26 per request by Jeff Madison, Rio Blanco County LGD	4/10/2012 7:45:45 AM
OGLA	Initiated/Completed OGLA Form 2A review on 04-05-12 by Dave Kubeczko; requested acknowledgement of fluid containment, spill/release BMPs, moisture content/containment cuttings, lined pit/closed loop, flowback to tanks, traffic control, dust control, Sulphur Creek Sampling, and neighborhood notification COAs from operator on 04-05-12; received acknowledgement of COAs from operator on 04-?-12; changed to sensitive area due to close SW and shallow GW; location was onsited with COGCC/CPW/operator representative on 04-12-12; passed by CPW on 04-30-12 with operator agreed to BMPs acceptable; passed OGLA Form 2A review on 05-01-12 by Dave Kubeczko; fluid containment, spill/release BMPs, moisture content/containment cuttings, lined pit/closed loop, flowback to tanks, traffic control, dust control, Sulphur Creek Sampling, and neighborhood notification COAs.	4/5/2012 3:25:20 PM

Total: 6 comment(s)

## BMP

<u>Type</u>	<u>Comment</u>
Wildlife	<p>1. Where oil and gas activities must occur in mule deer critical winter range, conduct these activities outside the time period from December 1 through April 15 if all possible.</p> <p>2. Muffle sound from compressors, pump jacks or other motors necessary to run operations at the site.(If mufflers are used, point upward to dissipate sound and vibration.)</p> <p>3. Construct a 4:1 escape ramp for the freshwater pit with an appropriate surface to give the ramp traction.</p>
Storm Water/Erosion Control	<p>Matrix Oil Corporation Sheridan #11-2 Lot 26 Section 11-T1N-R94W Rio Blanco Co., Colorado</p> <p>Best Management Practices Summary</p> <p>Stormwater Management Plans (SWMP) will be in place to address construction, drilling and operations associated with Oil &amp; Gas development throughout the state of Colorado in accordance with Colorado Department of Public Health and Environment (CDPHE). BMP's will be constructed around the perimeter of the site prior to, or at the beginning of construction. The BMP's used will vary according to the location, and will remain in place until the pad reaches final reclamation.</p> <p>Spill Prevention Control and Counter measures (SPCC) plans will be in place to address any possible spills associated with Oil &amp; Gas operations throughout the state of Colorado in accordance with CFR12.</p> <p>Housekeeping will consist of neat and orderly storage of materials and fluids. Wastes will be temporarily stored in sealed containers and regularly collected and disposed of at offsite, suitable facilities. If spills occur prompt cleanup will be required to minimize any commingling of waste materials with stormwater runoff. Routine maintenance will be limited to fueling and lubrication of equipment. Drip pans will be used during routine fueling and maintenance to contain spills or leaks. Any waste product from maintenance will be containerized and transported offsite for disposal or recycling. There will be no major equipment overhauls conducted onsite. Equipment will be transported offsite for major overhauls. Cleanup will consist of patrolling the roadways, access areas, and other work areas to pick up trash, scrap debris, other discarded materials, and any contaminated soil. These materials will be disposed of properly.</p> <p>The above BMP's will be provided to all Matrix Oil Corporation, contractors and will be posted in the company trailer located on location during drilling, completion and production operations.</p>

Total: 2 comment(s)