

FORM  
2A

Rev  
08/13

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:

400481874

Date Received:

11/05/2013

Oil and Gas Location Assessment

New Location     Refile     Amend Existing Location    Location#: 311924

Submit signed original form. This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location 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. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

**311924**

Expiration Date:

**01/02/2017**

This location assessment is included as part of a permit application.

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.

Operator

Operator Number: 26625

Name: ELM RIDGE EXPLORATION CO LLC

Address: 12225 GREENVILLE AVE STE 950

City: DALLAS    State: TX    Zip: 75243-9362

Contact Information

Name: Terry Lindeman

Phone: (505) 632-3476

Fax: (505) 632-8151

email: tlindeman@elmridge.net

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20100130

Gas Facility Surety ID: \_\_\_\_\_

Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: IGE

Number: 127

County: LA PLATA

Quarter: SE/SE    Section: 8    Township: 33N    Range: 8W    Meridian: N    Ground Elevation: 6678

Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 1243 feet FSL from North or South section line

990 feet FEL from East or West section line

Latitude: 37.114700    Longitude: -107.735340

PDOP Reading: 3.0    Date of Measurement: 05/09/2007

Instrument Operator's Name: Scott Weibe

## RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

**This proposed Oil and Gas Location is:**

**LOCATION ID #** 311924 **FORM 2A DOC #** \_\_\_\_\_

Well Site is served by Production Facilities

\_\_\_\_\_

## FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells 3 Oil Tanks \_\_\_\_\_ Condensate Tanks \_\_\_\_\_ Water Tanks 4 Buried Produced Water Vaults \_\_\_\_\_  
Drilling Pits \_\_\_\_\_ Production Pits \_\_\_\_\_ Special Purpose Pits \_\_\_\_\_ Multi-Well Pits \_\_\_\_\_ Temporary Large Volume  
Above Ground Tanks \_\_\_\_\_  
Pump Jacks \_\_\_\_\_ Separators 2 Injection Pumps \_\_\_\_\_ Cavity Pumps \_\_\_\_\_  
Gas or Diesel Motors \_\_\_\_\_ Electric Motors \_\_\_\_\_ Electric Generators \_\_\_\_\_ Fuel Tanks \_\_\_\_\_ Gas Compressors \_\_\_\_\_  
Dehydrator Units \_\_\_\_\_ Vapor Recovery Unit \_\_\_\_\_ VOC Combustor \_\_\_\_\_ Flare \_\_\_\_\_ LACT Unit \_\_\_\_\_  
Pigging Station \_\_\_\_\_

## OTHER FACILITIES

**Other Facility Type**

**Number**

Other Facility Type	Number
Meter House	2
Meter Run	2

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

Existing gas line location-tie-in on pad. No water lines. Electric motors will be used if electricity is available.

## CONSTRUCTION

Date planned to commence construction: 03/01/2014 Size of disturbed area during construction in acres: 1.29  
Estimated date that interim reclamation will begin: 06/01/2014 Size of location after interim reclamation in acres: 0.98  
Estimated post-construction ground elevation: 6678

## DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H<sub>2</sub>S anticipated? No

Will salt sections be encountered during drilling: No

Will salt based mud (>15,000 ppm Cl) be used? No

Will oil based drilling fluids be used? No

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Recycle/reuse

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

Centralized E&P Waste Management Facility ID, if applicable: \_\_\_\_\_

## SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: James Trent Burton Phone: 970-563-4351

Address: 1221 CR 311 Fax: none

Address: \_\_\_\_\_ Email: none

City: Ignacio State: CO Zip: 81137

Surface Owner:  Fee  State  Federal  Indian

Check all that apply. The Surface Owner:  is the mineral owner  
 is committed to an oil and Gas Lease  
 has signed the Oil and Gas Lease  
 is the applicant

The Mineral Owner beneath this Oil and Gas Location is:  Fee  State  Federal  Indian

The Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: Yes

The right to construct this Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: \_\_\_\_\_ Surface Surety ID: \_\_\_\_\_

Date of Rule 306 surface owner consultation 06/15/2007

### CURRENT AND FUTURE LAND USE

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

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

### CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 541 Feet  
Building Unit: 604 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 990 Feet  
Above Ground Utility: 331 Feet  
Railroad: 5280 Feet  
Property Line: 78 Feet

#### INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.  
- Enter 5280 for distance greater than 1 mile.  
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.  
- Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

### DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a:  Buffer Zone  
 Exception Zone  
 Urban Mitigation Area

- Buffer Zone - as described in Rule 604.a.(2), within 1,000' of a Building Unit.  
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.  
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: \_\_\_\_\_  
Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 09/23/2013

### SOIL

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.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> 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: 5. Arboles Clay, 3 to 12 percent slopes  
NRCS Map Unit Name: \_\_\_\_\_  
NRCS Map Unit Name: \_\_\_\_\_

### 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: Western wheatgrass, big sagebrush, blue gramma, bottleneck squirreltail, India ricegrass, muttongrass, prarie junegrass, Rocky Mountain Juniper, rubber rabbitbrush, twoneedle pinion

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): \_\_\_\_\_

**WATER RESOURCES**

Is this a sensitive area:  No  Yes

Distance to nearest

downgradient surface water feature: 1000 Feet

water well: 645 Feet

Estimated depth to ground water at Oil and Gas Location 76 Feet

Basis for depth to groundwater and sensitive area determination:

Distance to closest water well (on Burton property) measured from wellhead to nearest water well using measurement tools on La Plata County GIS website  
Downgradient surface water feature measured from wellhead to nearest drainage shown to lie to the Southwest of the well location as determined by using the topography feature and measurement tools on La Plata County GIS website.  
Ground water level determined by averaging the static water table data prior to test from wells in the vicinity as shown on DWR reports. Well #130623 located on parcel # 595308400155 owned by Susano Silva-static water levels = 17'; well #71249 located on Parcel #595308400157 owned by James Burton, static water level = 160'; well #15564 located on parcel #595308400152 owned by David Speelman, static water level = 60'; well # 115717 located on parcel #595308400090 owned by Roger P. Evans, static water level = 70'.

Is the location in a riparian area:  No  Yes

Was an Army Corps of Engineers Section 404 permit filed  No  Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer No 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: \_\_\_\_\_

**GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING**

Water well sampling required per Rule 608

**DESIGNATED SETBACK LOCATION EXCEPTIONS**

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

**RULE 502.b VARIANCE REQUEST**

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number \_\_\_\_\_

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

**OPERATOR COMMENTS AND SUBMITTAL**

Comments Please note that the proposed IGE 127 well is offsetting the existing Olson Smith Gas Unit #2 well which is a FRLDC well located 1190 FSL 990 FEL.

On both the COGCC GIS site and the La Plata County GIS site, the Olson Smith Gas Unit #2 is located where the Olson-Smith Gas Unit #1 should be shown and the Olson Smith Gas Unit #1 which is a MVRD well (990 FSL 990 FEL) is located where the Olson-Smith Gas Unit #2 is shown.

The location coordinates on the Scout cards verify this.

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

Signed: \_\_\_\_\_ Date: 11/05/2013 Email: jlr@animas.net

Print Name: Robert Joyce Title: 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: 1/3/2014

**Conditions Of Approval**

**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.**

<b>COA Type</b>	<b>Description</b>
	<p>Unchecked 604b2 exception since an exception is not being asked for and the operator has done and provided the proof of notifications. per operator 12/11/2013. Permit passed completeness 11/06/2013</p>
	<p>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.</p> <p>Operator must ensure 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 (at least every 14 days), and maintained in good condition.</p> <p>The access road will be maintained as to not allow any sediment to migrate from the access road to nearby surface water or any drainages leading to surface water.</p> <p>Strategically apply fugitive dust control measures, including enforcing established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.</p> <p>Berms or other containment devices shall be constructed to be sufficiently impervious (preferably corrugated steel with poly liner) to contain any spilled or released material around crude oil, condensate, and produced water storage tanks.</p>
	Operator shall comply with Buffer Zone Move-In, Rig-Up Notice Policy dated 12-16-2013.
	Notify the COGCC 48 hours prior to start of pad reconstruction/regarding (if necessary), rig mobilization, spud, and start of hydraulic stimulation operations using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).
	<p>The moisture content of any 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, if the drill cuttings are to be left onsite, they must also meet the applicable standards of table 910-1.</p> <p>Flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline, storage vessel, or lined pit (only if an amended Form 2A has been submitted/approved and a Form 15 Earthen Pit Permitted has been submitted/approved) 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.</p> <p>Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried pipelines and following any reconfiguration of the pipeline network. Operator shall notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) and the COGCC Field Inspection Supervisor for Southwest Colorado (Steve Labowskie; email steve.labowskie@state.co.us) 48 hours prior to testing surface poly/steel or buried poly/steel pipelines.</p>

### **Best Management Practices**

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Community Outreach and Notification	Rule 604.a (2)-Notices sent 9-24-13-Certified Mail/Return Receipt Requested. All notices were delivered and return receipts were signed by addressee and returned.

2	Pre-Construction	Rule 604.c.(2)W-Pre-construction consultation occurred at the time the Surface Damage Agreement was negotiated. In subsequent conversations with the surface owner, James Burton, no changes were requested and none are anticipated.
3	Traffic control	Rule 604.c.(2)D- Access is off County Road 311, approximately 1.2 miles North of its intersection with County Road 318. Access gate is on the West side of the County Road. Access is granted by existing Road Use agreement and in Surface Damage Agreement (both attached). Elm Ridge agrees to comply with any La Plata County traffic control measures required for this well.
4	General Housekeeping	Rule 604.c.(2)P- Trash containers will be maintained on site. Trash will be hauled to and disposed at a commercial landfill.
5	Storm Water/Erosion Control	Wattles will be placed, where necessary, around the perimeter of the site prior to, or at the beginning of construction. The size and quantity of the wattles used will vary according to the location to insure adequate protection of drainage areas.
6	Material Handling and Spill Prevention	<p>Rule 604.c.(2)F- Wells are monitored daily by the pumpers. Pressure monitoring is not necessary. Maximum reservoir pressure is approximately 1200 psig. These are low pressure gathering lines. All gathering lines are checked yearly for leaks.</p> <p>Per Rule 604.c.(2)G.- Berms will be constructed with corrugated metal sides and will be sufficient in height and area to contain 150% of the volume of the largest single tank. Synthetic liners are being and will be used under tanks on location.</p> <p>Rule 604.c.(2)N-Any materials not in use that might constitute a fire hazard will be removed a minimum distance of twenty five feet from the wellhead, tanks and separator. No electrical equipment installations are planned inside the bermed area.</p>
7	Construction	<p>Rule 604.c.(2)V.- the IGE 127 well will be located in the immediate vicinity of and partially within the footprint of the existing Olson Smith Gas Unit #2 well pad.</p> <p>Rule 604.c.(2)B.- no fresh water pits are planned.</p> <p>Rule 604.c.(2)E- The existing well access road will be used. No new disturbance is anticipated. Standard specifications for this access road include a driving surface constructed with with 6 inches of 3" minus gravel over a driving surface approximately 12 feet in width, crowned, with ditches and culverts where necessary for drainage.</p> <p>Rule 604.c.(2)M.- The tract of land where the well pad is located is perimeter fenced with a cattle guard at entrance to well access on CR 311.</p> <p>Rule 604.c.(2)V-The existing well pad for the Elm Ridge Olson-Smith #2 well is being used for this location.</p>
8	Noise mitigation	<p>Noise levels will be monitored by operator and if exceeds acceptable levels operator agrees to install sound walls or, if necessary, provide reasonable motel accommodations for the affected party.</p> <p>Post-production: No necessity for engines or motorized equipment is anticipated. If such equipment becomes necessary, Elm Ridge will first try to electrify the location if it is practical and feasible. If not, they will orient exhaust away from the affected party and will use hospital grade mufflers, buried, in series. Elm Ridge will install sound walls if necessary</p>

9	Drilling/Completion Operations	<p>Rule 604.c.(2)B.- A closed loop system will be used. No fresh water pits are planned. Fresh water will be stored in above ground tanks</p> <p>Per Rule 604.c.(2)C.)-i.- There are producing wells within one mile of the location of the proposed IGE 127 well. It is anticipated that this will be a producing well and, if so, Elm Ridge will comply with applicable requirements under Rule 805.</p> <p>ii- No uncontrolled venting is anticipated (based on 500 mcf)</p> <p>iii-aa., bb. cc.- Elm Ridge will use a system capable of handling 1.5 Mmcf. Anticipated flowback is 0.5 Mmcf or less. No necessity for flaring is anticipated.</p> <p>Rule 604.c.(2)H.- Elm Ridge will be using a 3M system per BLM specifications.</p> <p>Rule 604.c.(2)I.- BOPE pressure testing will be performed weekly.</p> <p>604.c.(2)K.- Pit level indicators will be used.</p> <p>604.c.(2)L- Drill stem tests are not typically done and none are anticipated.</p> <p>Rule 604.c.(2)O- Load lines will be bullplugged</p> <p>Rule 604.c.(2)Q- Guy line anchors will be identified per COGCC rules and are tested before each use.</p> <p>Rule 604.c.(2)S. – Existing well access road will be used and maintained for all weather use and will meet any safety requirements.</p>
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Total: 9 comment(s)

### **Attachment Check List**

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
2106808	WASTE MANAGEMENT PLAN
2106829	CORRESPONDENCE
2518785	PRE-APPLICATION NOTICE
2518786	PRE-APPLICATION NOTICE
2518787	PRE-APPLICATION NOTICE
400481874	FORM 2A SUBMITTED
400497125	NRCS MAP UNIT DESC
400497126	REFERENCE AREA MAP
400497127	MULTI-WELL PLAN
400497130	HYDROLOGY MAP
400506886	LOCATION DRAWING
400506909	OTHER
400506910	ACCESS ROAD MAP
400506911	LOCATION PICTURES
400506912	LOCATION DRAWING
400507017	SURFACE AGRMT/SURETY
400507743	CONST. LAYOUT DRAWINGS
400507747	WELL LOCATION PLAT
400507756	EXCEPTION LOC WAIVERS
400507758	EXCEPTION LOC REQUEST
400507785	OTHER

Total Attach: 21 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed; no LGD or public comment received.	1/2/2014 8:57:47 AM
DOW	CPW conducted an onsite of the location on November 25, 2013 with the operator and La Plata County. CPW recommended a wildlife seed mix be used at the site for interim and final reclamation. The operator indicated that they are willing to use the seed mix and are in the process of obtaining surface owner consent. Attached is the recommended seed mix.	12/17/2013 10:09:25 AM
OGLA	Initiated/Completed OGLA Form 2A review on 12-09-13 by Dave Kubeczko, requested acknowledgement of notification, GW monitoring, fluid containment, sediment control access road, dust control, spill/release BMPs, tank berming, flowback to tanks, cuttings low moisture content, and pipeline COAs from operator on 12-09-13; received acknowledgement of COAs from operator on 12-?-13; corrected to sensitive area due to close water well and shallow GW; conducted wildlife consultation on 11-21-13; passed by CPW on 12-17-13 with recommended seed mix proposed by CPW; passed OGLA Form 2A review on 12-27-13 by Dave Kubeczko; notification, GW monitoring, fluid containment, sediment control access road, dust control, lined pit/closed loop, stormwater BMPs, spill/release BMPs, tank berming, flowback to tanks, cuttings low moisture content, and pipeline COAs.	12/9/2013 1:38:50 PM
Permit	Operator submitted proof that building unit owners were notified.	12/3/2013 6:31:05 AM
Permit	Waiting on proof that building unit owners have received notification.	12/2/2013 11:37:24 AM
Permit	Returned to draft per operator's request	11/6/2013 6:40:38 AM

Total: 6 comment(s)