

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:

400673696

Date Received:

09/19/2014

Oil and Gas Location Assessment

☐ New Location ☐ Refile ☒ Amend Existing Location Location#: 430226

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:

430226

Expiration Date:

11/15/2017

☒ 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: 77330
Name: SG INTERESTS I LTD
Address: 1485 FLORIDA RD #C202
City: DURANGO State: CO Zip: 81301

Contact Information

Name: Catherine Dickert
Phone: (970) 3850696
Fax: (970) 3850636
email: cdickert@sginterests.com

RECLAMATION FINANCIAL ASSURANCE

☐ Plugging and Abandonment Bond Surety ID: 20030098 ☐ Gas Facility Surety ID: _____
☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Henderson-611S90W#9 SWNW Number: 383447
County: GUNNISON
QuarterQuarter: SWNW Section: 9 Township: 11S Range: 90W Meridian: 6 Ground Elevation: 7679
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: 1764 feet FNL from North or South section line
1027 feet FWL from East or West section line
Latitude: 39.116830 Longitude: -107.458250
PDOP Reading: 1.5 Date of Measurement: 10/31/2011
Instrument Operator's Name: David Nicewicz

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 # FORM 2A DOC #

FACILITIES

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

Wells	3	Oil Tanks		Condensate Tanks	1	Water Tanks	6	Buried Produced Water Vaults	
Drilling Pits	0	Production Pits		Special Purpose Pits		Multi-Well Pits		Temporary Large Volume Above Ground Tanks	
Pump Jacks		Separators	3	Injection Pumps		Cavity Pumps			
Gas or Diesel Motors		Electric Motors		Electric Generators		Fuel Tanks		Gas Compressors	
Dehydrator Units		Vapor Recovery Unit		VOC Combustor		Flare	3	LACT Unit	
								Pigging Station	

OTHER FACILITIES

Other Facility Type

Number

Metering Facility	3
Water Transfer Pump	1

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

One (1) buried 2-4-inch water pipeline and one (1) buried 3-6-inch gas pipeline will be installed on the pad and tied into existing gathering pipelines off the well pad location. Temporary poly pipeline may be used on the surface at times. These temporary poly pipelines would be located on the pad and along the access road where possible. Maps of poly routes will be submitted to COGCC prior to use.

CONSTRUCTION

Date planned to commence construction: 07/13/2015 Size of disturbed area during construction in acres: 3.00

Estimated date that interim reclamation will begin: 08/13/2015 Size of location after interim reclamation in acres: 2.00

Estimated post-construction ground elevation: 7680

DRILLING PROGRAM

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

Is H₂S 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: Commercial Disposal

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: USDA Forest Service

Phone: 970-527-4131

Address: PO Box 1030

Fax: _____

Address: 403 N Rio Grande Ave

Email: degray@fs.fed.us

City: Paonia State: CO Zip: 81428

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: oil and gas lease

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

Date of Rule 306 surface owner consultation 10/12/2011

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: 5050 Feet
Building Unit: 5050 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 970 Feet
Above Ground Utility: 5120 Feet
Railroad: 5280 Feet
Property Line: 1450 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: _____

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 be 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: 195. Weed-Herm complex, 0-25% 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: 08/17/2011

List individual species: Musk thistle, Canada thistle, big sagebrush, yarrow, serviceberry, snowberry, grasses, asters

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: 761 Feet

water well: 5175 Feet

Estimated depth to ground water at Oil and Gas Location 30 Feet

Basis for depth to groundwater and sensitive area determination:

Per the SEO, the closest domestic water well is approximately 5175' from the proposed location and has a depth of 30-foot (permit #66084). There are no other domestic water wells within a mile of the proposed location. Based on the surrounding soils, topography and vegetation, the presence of shallow ground water is not likely.

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 609

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

The location is being amended to include a total of three gas wells: Federal 11-90-9 #3, Federal 11-90-9 #4 and Federal 11-90-9 #5. Please reference attached multi well plat. We will apply the BMPs as included on the previous 2A, Doc #400256030 (as well as those attached as conditions to this approved amendment).

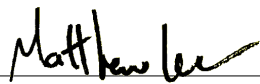
I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 09/19/2014 Email: cdickert@sginterests.com

Print Name: Catherine Dickert Title: Env & Permit Manager

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: 11/16/2014

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.

COA Type

Description

	Potential odors associated with the completions process and/or with long term production operations must be controlled/mitigated.
	Berms or other containment devices shall be constructed to be sufficiently impervious (corrugated steel with poly liner) to contain any spilled or released material around crude oil, condensate, and produced water storage tanks.
	Notify the COGCC 48 hours prior to start of pad construction, rig mobilization, spud, pipeline testing, start of hydraulic stimulation operations, and start of flowback operations using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

	<p>PREVIOUS FORM 2A#400256030 SITE SPECIFIC COAs:</p> <p>Water Testing: Prior to drilling, operator shall sample the two (2) closest domestic water wells, springs, or surface water features within a one (1) mile radius of the proposed oil and gas location. Testing preference shall be given to domestic water wells and springs over surface water. Testing of surface water features shall only be conducted if two (2) water wells or springs do not exist within a one (1) mile radius of the selected oil and gas location. If possible, the water wells or springs selected should be on opposite sides of the oil and gas location not exceeding a one (1) mile radius. If water wells or springs on opposite sides of the oil and gas location cannot be identified, then the two (2) closest wells or springs within a one (1) mile radius of the oil and gas location shall be sampled. The sample location shall be surveyed in accordance with Rule 215.</p> <p>Based on COGCC's review of nearby water wells and surface water; COGCC suggests that a water well located approximately 6472 feet to the west-southwest of the proposed well pad (Permit No. 266485 - - Hachenberry, James R, domestic/stock well; with a total depth of 6 feet bgs and a pumping rate of 15 gpm) and Henderson Creek immediately to the south, be the two locations for this sampling. If sampling of this water well is not feasible or possible, the operator may suggest other wells/locations as appropriate.</p> <p>Initial baseline testing shall include laboratory analysis of, at a minimum, all major cations and anions, total dissolved solids, iron and manganese, nutrients (nitrates, nitrites, selenium), dissolved methane, pH, specific conductance, and benzene, toluene, ethylbenzene, and xylenes ("BTEX"). Sampling shall be performed by qualified individuals using methods consistent with commonly accepted environmental sampling procedures. Field observations such as pH, temperature, specific conductance, odor, water color, sediment, bubbles, and effervescence shall also be included. The operator may also analyze for all constituents in Table 910-1 for consistency of previous sampling events.</p> <p>After 90 days, but less than 180 days of completion of the first proposed well a "post-completion" test shall be performed for the same analytical parameters listed above and repeated one (1), three (3) and six (6) years thereafter. If no significant changes from the baseline have been identified after the third test (i.e. the six-year test), no further testing shall be required. Additional "post-completion" test(s) may be required if changes in water quality are identified during follow-up testing. The Director may require further water well sampling at any time in response to complaints from water well owners.</p> <p>If free gas or a methane concentration level greater than 1 mg/l is detected in a water quality testing well, gas compositional analysis, and stable isotopes of both the carbon and hydrogen isotopes of methane shall be performed to determine gas type (thermogenic, biogenic or a mixture).</p> <p>Copies of all test results described above shall be provided to COGCC and the landowner where the water quality testing well is located within three (3) months of collecting the samples used for the test. The analytical data and surveyed well locations shall also be submitted to the COGCC in an electronic data deliverable format.</p>
	<p>PREVIOUS FORM 2A#400256030 SITE SPECIFIC COAs:</p> <p>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</p>

nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals, and maintained in good condition.

The surface soils and materials are fine-grained and highly unconsolidated; therefore appropriate BMPs need to be in place 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.

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.

There is the potential for shallow groundwater; therefore either a lined drilling pit or closed loop system must be implemented.

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.

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 drilling (reserve) pit must be fenced and netted. The operator must maintain the fencing and netting until the pit is closed in accordance with Rule 905. Closure of Pits, and Buried or Partially Buried Produced Water Vessels.

Notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us), the COGCC Field Inspection Supervisor for Northwest Colorado (Shaun Kellerby; email shaun.kellerby@state.co.us), and the COGCC Field Inspector for Mesa Delta, and Gunnison Counties (Chuck Browning; email chuck.browning@state.co.us) 48 hours prior to start of pad construction, pit liner installation, 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).

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 constructed to be sufficiently impervious to contain any spilled or released material.

Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface pipelines or reconfiguration of the permanent pipeline network.

Berms or other containment devices shall be constructed to be sufficiently impervious to contain any spilled or released material around crude oil, condensate, and produced water storage tanks.

The access road will be constructed to prevent sediment migration from the access road to nearby surface water or any drainages leading to other nearby surface waters.

Best Management Practices

No BMP/COA Type

Description

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Attachment Check List

Att Doc Num

Name

2107144	CORRESPONDENCE
400673696	FORM 2A SUBMITTED
400685009	MULTI-WELL PLAN

Total Attach: 3 Files

General Comments

User Group

Comment

Comment Date

Permit	Final review complete.	11/10/2014 10:41:07 AM
DOW	<p>As stated in CPW' 5/4/2012 comments, the BMPs submitted by the operator do not address the cumulative impacts of increasing well pad density and ancillary facilities (roads, pipelines, compressors, etc.) on the effectiveness of wildlife habitats in the area, nor does the proposed location avoid or minimize impacts to wildlife resources (see discussion on alternative locations in our 5/4/2012 comments).</p> <p>The BMPs submitted by the operator are not definitive to the extent needed to determine if or when they will, in fact, be implemented in order to minimize impacts to wildlife. CPW has recommended that the operator commit to a landscape-scale wildlife mitigation plan (WMP) to address impacts from this development activity. The operator has indicated that they are not interested in a WMP for well development in this area at this time.</p> <p>The surface owner (USFS) has consulted with CPW on this proposed location and has agreed to require the following Conditions of Approval (COAs) to minimize impacts to wildlife resources (see the USFS, Paonia Ranger District, GMUG National Forest, Gunnison County, Colorado Decision Memo dated 9/4/2013):</p> <p>1) Surveys for raptors shall be conducted in forest habitats within the appropriate buffers around proposed surface operations to determine locations of individuals or populations, prior to disturbance.</p> <p>2) Prior to pad construction, a USFS Wildlife Biologist, or their representative will work with the operator to identify any aspen trees that which contain active purple martin nests. No cutting or removal of these trees will be authorized.</p> <p>3) If nesting goshawks are found within a quarter mile radius of proposed operations, the Operator will consult the Forest Service to determine when operations may occur so as not to disrupt nesting birds. Operations will not be allowed until the young have fledged.</p> <p>4) If nesting flammulated owls are found within a quarter mile radius of the proposed operations, the Operator will consult with the Forest Service to determine when operations may occur so as not to disrupt the nesting birds. Operations will not be allowed until the young have fledged.</p> <p>5) New oil and gas roads on public lands will be closed to the public.</p> <p>6) To minimize effects to big game winter range, no heavy construction or drilling operations will be allowed from March 1-April 30, unless specifically authorized by</p>	10/22/2014 1:09:05 PM

	<p>the Paonia District Ranger after consultation with Colorado Parks Wildlife regarding the presence/absence of big game in that area.</p> <p>7)To avoid conflicts with hunter use in the area, mobilization or demobilization of heavy equipment, drilling equipment, and fracking units will not be allowed March 1-April 30 or on Thursday, Friday, Saturday or Sunday of the opening weekends of muzzleloader season, and the first and second big game rifle seasons unless specifically authorized by the Paonia District Ranger after consultation with Colorado Parks Wildlife regarding the presence/absence of big game in that area.</p> <p>In addition, the surface owner has agreed to require compensatory mitigation from the operator as described in the following Conditions of Approval (COAs) to address the unavoidable adverse impacts to wildlife from development of this pad location.</p> <p>8)To mitigate for increases in road mileage and density within the HUC6 watershed in which the project is proposed, the proponent will physically decommission 1.5 miles of closed low-use — motorized routes by ripping with a dozer or other implement and construct water bars, dips, or other erosion control or access control structures as designed by USFS personnel, provided:</p> <p>a. The Forest Service, not the proponent, conduct appropriate required environmental analysis prior to the mitigation work being conducted.</p> <p>b. The Forest Service identifies the route(s) to be decommissioned.</p> <p>c. The Forest Service identifies on the ground the location and type of work needed onsite prior to or in conjunction with the work being conducted.</p> <p>d. If such work is not found to be needed within the watershed, as determined by the analysis, such work may occur in other nearby watersheds, if suitable routes are located.</p> <p>9)To mitigate for losses of available wildlife forage within the HUC6 watershed in which the project is proposed, the proponent will seed the above decommissioned routes with the Paonia district approved mountain shrub seed mix in conjunction with or after ground work on the decommissioning, under the same provisions as stated above.</p>	
OGLA	Initiated/Completed OGLA Form 2A review on 10-21-14 by Dave Kubeczko; previously submitted Form 2A#400256030 and approved (09-20-12), OGCC#430226; same COAs apply - fluid containment, spill/release BMPs, lined pits/closed loop, flowback to tanks, tank berming, no pit in fill, cuttings low moisture content, fenced/netted pits, sediment control pad and access road, water quality sampling, and pipeline testing; acknowledgement of notification, tank berming, and odor control COAs from operator on 10-21-14; received acknowledgement of COAs from operator on 10-?-14; passed by CPW on 11-?-14 with recommendation for a WMP to be discussed; passed OGLA Form 2A review on (TBD: 11-?-14) by Dave Kubeczko; fluid containment, spill/release BMPs, lined pits/closed loop, flowback to tanks, tank berming, no pit in fill, cuttings low moisture content, fenced/netted pits, sensitive area, sediment control pad and access road, water quality sampling, notification, tank berming, odor control, and pipeline testing COAs.	10/21/2014 4:56:57 PM
Permit	Passed Completeness	9/22/2014 11:51:42 AM

Total: 4 comment(s)