

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:

400506962

Date Received:

11/19/2013

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: _____

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:

435635

Expiration Date:

12/27/2016

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: 10110

Name: GREAT WESTERN OPERATING COMPANY LLC

Address: 1801 BROADWAY #500

City: DENVER State: CO Zip: 80202

Contact Information

Name: Shannon Hartnett

Phone: (303) 398-0351

Fax: ()

email: regulatorypermitting@gwogco.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20090080

Gas Facility Surety ID: _____

Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Spaur Brothers North Pad

Number: 31-219HN

County: WELD

Quarter: NESE Section: 31 Township: 7N Range: 63W Meridian: 6 Ground Elevation: 4765

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: 2496 feet FSL from North or South section line

221 feet FEL from East or West section line

Latitude: 40.529683 Longitude: -104.471103

PDOP Reading: 1.7 Date of Measurement: 10/24/2013

Instrument Operator's Name: R. Kay

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	<u>4</u>	Oil Tanks	<u>9</u>	Condensate Tanks	<u> </u>	Water Tanks	<u>2</u>	Buried Produced Water Vaults	<u> </u>
Drilling Pits	<u> </u>	Production Pits	<u> </u>	Special Purpose Pits	<u> </u>	Multi-Well Pits	<u> </u>	Temporary Large Volume Above Ground Tanks	<u>1</u>
Pump Jacks	<u> </u>	Separators	<u>5</u>	Injection Pumps	<u> </u>	Cavity Pumps	<u> </u>		
Gas or Diesel Motors	<u> </u>	Electric Motors	<u> </u>	Electric Generators	<u> </u>	Fuel Tanks	<u> </u>	Gas Compressors	<u> </u>
Dehydrator Units	<u> </u>	Vapor Recovery Unit	<u> </u>	VOC Combustor	<u> </u>	Flare	<u> </u>	LACT Unit	<u> </u>
								Pigging Station	<u> </u>

OTHER FACILITIES

Other Facility Type

Number

ECD	<u>1</u>
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Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

CONSTRUCTION

Date planned to commence construction: 03/02/2014 Size of disturbed area during construction in acres: 3.47
Estimated date that interim reclamation will begin: 10/02/2014 Size of location after interim reclamation in acres: 1.56
Estimated post-construction ground elevation: 4762

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: Land application

Cutting Disposal: OFFSITE Cuttings Disposal Method: Other

Other Disposal Description:

Land application

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: Spaur Brothers Farms, LLC Phone:

Address: 36701 County Road 61

Fax: _____

Address: _____

Email: _____

City: Eaton State: CO Zip: 80290

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 09/09/2013

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: 324 Feet
Building Unit: 462 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 214 Feet
Above Ground Utility: 255 Feet
Railroad: 5280 Feet
Property Line: 177 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: 09/12/2013

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: #72 - Vona loamy sand, 3 to 9 percent slopes

NRCS Map Unit Name: #44 - Olney sandy loam, 1 to 3 percent slopes

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: _____

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: 6605 Feet

water well: 392 Feet

Estimated depth to ground water at Oil and Gas Location 100 Feet

Basis for depth to groundwater and sensitive area determination:

Colorado Division of Water Resources - nearest water well is approximately 392.84' receipt # 0427798D Permit # 209267 total Depth 300' casing top 259' casing bottom 290'

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 318A

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

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

Signed: _____ Date: 11/19/2013 Email: regulatorypermitting@gwogco.com

Print Name: Shannon Hartnett Title: Reg. Compl. Spec.

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: 12/28/2013

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
	TLVSTs shall not be located on non-engineered fill material. If areas are to be graded and disturbed, the operator shall conduct such activity in accordance with COGCC Rules 1002.b. and 1002.c.
	Operator shall develop a Contingency Plan for any TLVST leak or catastrophic failure of the tank integrity and resulting loss of fluid. The plan should included a notification process to the COGCC and local Emergency authority (municipality, county or both) for any failure and resulting loss of fluid. The Contingency Plan shall be made available to the COGCC upon request.
	COGCC Rules 604.a. and 605.a.(2,3,5,6,7, and 8), as applicable to tank setbacks at the time of installation shall apply to the siting of TLVSTs.
	TLVSTs will be brought into service incrementally, by loading to 25%, 50%, 75%, and 100% capacity (subject to freeboard) and held at each level without leaks for 24-hours prior to increasing load.
	Operator will comply with all applicable mitigation measures as listed in COGCC Rule 604.c.
	All liner seams shall be welded at the liner manufacturers facility; field welded liners shall not be used. If liners are re-used, liner installation shall be noticed on a Form 42 to COGCC 48-hours prior to installation. If liners are re-used, liner installation shall be noticed on a Form 42 to the COGCC 48-hours prior to installation.
	TLVSTs may only be utilized for the storage of freshwater obtained legally from an adjudicated consumable water supply. E&P wastes, including treated E&P wastes and flowback during hydraulic fracturing operations, are not allowed.
	Operator will submit to the COGCC by February 1, 2014, via a Form 4 Sundry, the manufacturer of the the Temporary Large Volume Above Ground Tank (TLVST), the size of the TLVST, the anticipated time frame the TLVST will be onsite, a Facility Drawing indicating where the TLVST will be located with respect to other facility equipment, and a Colorado Licensed Professional Engineer stamped set of TLVST design drawings.
	Site preparation and installation oversight will be provided by a Professional Engineer or their designated representative.
	Should a failure of TLVST integrity occur, operator shall notify COGCC upon discovery, report the incident to COGCC on a Form 22-Accident Report within 10 days and shall conduct a "root cause analysis" and provide it to COGCC on a Form 4-Sundry Notice within 30 days of the failure.
	Operators or their designated representatives shall conduct regular visual inspections of the exterior wall and general area of the TLVST for any integrity deficiencies. These inspections will be recorded and maintained for a period of at least 5 years per Rule 205. Inspection records shall be provided to the COGCC upon request.
	TLVSTs will be operated with a minimum of 1 foot freeboard.
	Signs shall be posted on each TLVST to indicate contents are freshwater and that no E&P waste fluids are allowed. Location and additional signage shall conform to Rule 210.
	TLVSTs shall be re-certified by the manufacturer and/or certifying Professional Engineer at least every 100 set-ups. Length of tank service and tank re-certification records from the TLVST contractor shall be provided to the COGCC upon request.
	Access to the tanks shall be limited to operational personnel.

Best Management Practices

No	BMP/COA Type	Description
1	General Housekeeping	General 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 is required to minimize any commingling of waste materials with storm water 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 and promptly.
2	Storm Water/Erosion Control	Storm Water Management Plans (SWMP) are in place to address construction, drilling and operations associated with Oil and 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. BMP's used will vary according to the location, and will remain in place until the pad reaches final reclamation.
3	Material Handling and Spill Prevention	Spill Prevention Control and Countermeasures (SPCC) plans are in place to address any possible spills associated with Oil and Gas operations throughout the state of Colorado in accordance with CFR 112. In accordance with COGCC Rule 1002.f.(2)A. & B., shall provide a designated storage area for dry bulk chemicals and miscellaneous fluids. The storage area shall be covered to prevent contact of precipitation with chemicals, shall be elevated above storm- or standing water, and shall provide sufficient containment to prevent release of spilled fluids or chemicals from impacting soil, surface water or groundwater and will prevent the co-mingling of spilled fluids or chemicals with other E & P Waste.
4	Noise mitigation	Noise levels will be maintained at levels not to exceed COGCC specifications currently in existence, measured at a point 350' from the noise source, or as defined by current COGCC regulations. Where possible, drilling rig engine exhaust will be vented away from occupied buildings. Light sources will likewise be directed downwards, and away from occupied structures where possible. No special noise mitigation efforts should be required at this site. Once the drilling and completion rigs leave the site, there will be no permanently installed lighting on site.

Total: 4 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1667998	CORRESPONDENCE
1667999	NRCS MAP UNIT DESC
2167608	COMPLIANCE LETTER
400506962	FORM 2A SUBMITTED
400507002	NRCS MAP UNIT DESC
400507531	ACCESS ROAD MAP
400507532	CONST. LAYOUT DRAWINGS
400507533	TOPO MAP
400507536	LOCATION DRAWING
400507538	LOCATION PICTURES
400507542	FACILITY LAYOUT DRAWING
400507543	REFERENCE AREA MAP
400507544	REFERENCE AREA PICTURES
400507545	MULTI-WELL PLAN
400510245	SURFACE AGRMT/SURETY
400510248	WASTE MANAGEMENT PLAN
400510253	HYDROLOGY MAP

Total Attach: 17 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	12/23/2013 8:56:19 AM
OGLA	IN PROCESS - Operator provided additional NRCS Description attachment. No public comments. OGLA task passed.	12/20/2013 8:18:48 AM
OGLA	ON HOLD - Following site visit with operator on 12/12/13, change of distance to nearest building and building unit, location is now within an Exception Zone. Requested additional NRCS attachment, change Sensitive Area determination and estimated depth to groundwater. Add COA on complying with COGCC Rule 604.c. mitigation measures. Requested several COAs concerning use of temporary large volume storage tanks and additional info about the tanks. Due by 1/13/14.	12/13/2013 9:23:31 AM
Permit	Attached Compliance letter to the director as per opr. Ready to pass pending public comment 12/11/13.	12/10/2013 11:21:50 AM
Permit	Form passes completeness.	11/20/2013 10:39:12 AM

Total: 5 comment(s)