

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:

400705762

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Date Received:

10/22/2014

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:

440224

Expiration Date:

12/04/2017

☒ 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: 10459

Name: EXTRACTION OIL & GAS LLC

Address: 1888 SHERMAN ST #200

City: DENVER State: CO Zip: 80203

Contact Information

Name: NICK CURRAN

Phone: (720) 420-5745

Fax: (720) 420-5800

email: nick.curran@iptenergyservices.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20130028 ☐ Gas Facility Surety ID: _____

☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: BURROUGHS SOUTH SENE Number: PAD #1

County: WELD

QuarterQuarter: SENE Section: 14 Township: 7N Range: 65W Meridian: 6 Ground Elevation: 4943

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: 2191 feet FNL from North or South section line

230 feet FEL from East or West section line

Latitude: 40.574481 Longitude: -104.621094

PDOP Reading: 1.2 Date of Measurement: 06/04/2014

Instrument Operator's Name: DALLAS NIELSEN

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 #

Well Site is served by Production Facilities

439635

FACILITIES

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

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

OTHER FACILITIES*

Other Facility Type

Number

Those facilities indicated by an asterisk () shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

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

INTRA FLOWLINES ARE GENERALLY 3" (ALTHOUGH MAY BE 2") FUSION BONDED SCHEDULED 40 STEEL

CONSTRUCTION

Date planned to commence construction: 12/10/2014 Size of disturbed area during construction in acres: 4.70
Estimated date that interim reclamation will begin: 06/01/2015 Size of location after interim reclamation in acres: 1.57
Estimated post-construction ground elevation: 4943

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: ANTHONY & VIOLA BURROUGHS Phone: _____

Address: 39701 CR 47

Fax: _____

Address: _____

Email: _____

City: AULT State: CO Zip: 80610

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 10/07/2014

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

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

| | From WELL | From PRODUCTION FACILITY |
|-----------------------------------|-----------|--------------------------|
| Building: | 768 Feet | Feet |
| Building Unit: | 768 Feet | Feet |
| High Occupancy Building Unit: | 5280 Feet | Feet |
| Designated Outside Activity Area: | 5280 Feet | Feet |
| Public Road: | 217 Feet | Feet |
| Above Ground Utility: | 850 Feet | Feet |
| Railroad: | 5280 Feet | Feet |
| Property Line: | 230 Feet | 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.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

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: 10/07/2014

FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

- ☐ Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (onll or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*
- ☐ By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

THIS PAD IS A WELLS-ONLY LOCATION. THE BURROUGHS NORTH AND BURROUGHS SOUTH LOCATIONS WILL BOTH FLOWBACK TO THE BURROUGHS PRODUCTION FACILITY PAD (LOC ID #439635)

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: 73 VONA SANDY LOAM

NRCS Map Unit Name: 44 OLNEY FINE SANDY LOAM

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: 06/09/2014

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: 3750 Feet

water well: 882 Feet

Estimated depth to ground water at Oil and Gas Location 180 Feet

Basis for depth to groundwater and sensitive area determination:

USED PERMIT #91338-- AS NEAREST WELL FOR DATA FROM CDWR.

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

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 CERTIFICATION LETTER TO THE DIRECTOR IS ATTACHED AS "OTHER"

Surface owner waives the 30 day period. Signed waiver is attached.

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

Signed: _____ Date: 10/22/2014 Email: nick.curran@iptenergyservices.com

Print Name: NICK CURRAN Title: REG TECH

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: 12/5/2014

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

| | |
|--|--|
| | Operator shall provide notice to COGCC 48 hours prior to commencing construction of this Oil and Gas Location via Form 42. |
|--|--|

Best Management Practices

| No | BMP/COA Type | Description |
|----|--|---|
| 1 | Planning | Multi-well Pads. It is a multi-well pad located in a manner which allows for resource extraction while maintaining the highest distances possible from the offsetting residential areas. |
| 2 | Traffic control | Access roads. The access road will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times |
| 3 | General Housekeeping | Fencing requirements. A permanent fencing plan will be reviewed by the surface owner, & the applicant. |
| 4 | General Housekeeping | Removal of surface trash. All trash, debris and material not intrinsic to the operation of the oil and gas facility shall be removed and legally disposed of as is applicable |
| 5 | Material Handling and Spill Prevention | Load-lines. All load-lines shall be bull-plugged or capped |
| 6 | Material Handling and Spill Prevention | 8. Material Handling and Spill Prevention |
| 7 | Noise mitigation | Lighting abatement measures shall be implemented, including the installation lighting shield devices on all of the more conspicuous lights, low density sodium lighting where practicable; Operator will install temporary engineering controls consisting of perimeter sound walls that shall be used on location during drilling and completion activities. Permanent equipment on location shall be muffled to reduce noise, or shall be appropriately buffered. |
| 8 | Odor mitigation | Per Rule 805: Oil & gas facilities and equipment shall be operated in such a manner that odors and dust do not constitute a nuisance or hazard to public welfare. |
| 9 | Drilling/Completion Operations | Closed Loop Drilling Systems – Pit Restrictions. Not applicable; a closed-loop system will be used for drilling. |
| 10 | Drilling/Completion Operations | Blowout preventer equipment (“BOPE”). A double ram and annular preventer will be used during drilling. At least the drilling company shall have a valid well blowout prevention certifications. |
| 11 | Drilling/Completion Operations | BOPE for well servicing operations. Adequate BOP equipment shall be used. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high pressure fluid. |
| 12 | Drilling/Completion Operations | Pit level indicators. Not applicable; a closed-loop system will be used and no pits shall be dug |
| 13 | Drilling/Completion Operations | Drill stem tests. Not applicable; no Drill Stem tests are planned |
| 14 | Drilling/Completion Operations | Control of fire hazards. All materials which are considered fire hazards shall be a minimum of 25’ from the wellhead tanks or separators. Electrical equipment shall comply with API RP 500 and will comply with the current national electrical code. An emergency response plan has been generated for this site. |
| 15 | Drilling/Completion Operations | Guy line anchors. All guy line anchors shall be brightly marked pursuant to Rule 604.c (2)Q |
| 16 | Final Reclamation | Well site cleared. Within 90-day subsequent to the time of plugging and abandonment of the entire site, superfluous debris and equipment shall be removed from the site. |
| 17 | Final Reclamation | Identification of plugged and abandoned wells. P&A’d wells shall be identified pursuant to 319.a.(5). |

Total: 17 comment(s)

Attachment Check List

| <u>Att Doc Num</u> | <u>Name</u> |
|--------------------|-------------------------|
| 901160 | SURFACE AGRMT/SURETY |
| 2477434 | CORRESPONDENCE |
| 2477455 | RULE 306.E. WAIVER |
| 400705762 | FORM 2A SUBMITTED |
| 400705802 | ACCESS ROAD MAP |
| 400705804 | HYDROLOGY MAP |
| 400705807 | LOCATION PICTURES |
| 400705808 | MULTI-WELL PLAN |
| 400705809 | LOCATION DRAWING |
| 400705810 | WASTE MANAGEMENT PLAN |
| 400705815 | REFERENCE AREA MAP |
| 400705817 | REFERENCE AREA PICTURES |
| 400714298 | OTHER |
| 400719016 | NRCS MAP UNIT DESC |
| 400719311 | FACILITY LAYOUT DRAWING |
| 400722864 | 30 DAY NOTICE LETTER |

Total Attach: 16 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|-------------------|--|---------------------------|
| Permit | Final Review Completed. No LGD or public comment received. Changed date of planned construction per operator to 12/10/2014. | 12/3/2014 9:22:11 AM |
| OGLA | No Public Comments. Operator provided a Rule 306.e. Waiver. OGLA task passed. | 11/25/2014 10:12:24 AM |
| OGLA | IN PROCESS - Operator agreed to requested changes. OGLA review complete. Waiting on Public Comment period. | 11/14/2014 11:15:41 AM |
| OGLA | ON HOLD - Requested removing production facility BMPs as this is a well only location, revise distance to nearest downgradient surface water feature, correct Related Remote Locations. Due by 12/14/14. | 11/14/2014 10:25:40 AM |
| Permit | Operator corrected right to construct to oil and gas lease. Attached SUA with operator's signature. | 11/13/2014 8:37:19 AM |
| Permit | Passed Buffer Zone completeness review. Signed waiver letter is attached as 30 Day Notice Letter. Pre-Application Notification Evidence letter dated 9/8/14 and attached as OTHER certifies that all Building Unit owners recieved the notification. | 11/3/2014 4:41:24 PM |
| Permit | Resubmitted, my issues addressed, sending to OGLA for re-review. | 10/29/2014 7:42:31 AM |
| Permit | Returned to Draft: 1. For reason's outlined by OGLA review 2. SUA not attached 3. NRCS map only attached for 73, not 44 OLNEY FINE SANDY LOAM | 10/28/2014 1:35:20 PM |
| OGLA | Buffer Zone completeness review identified that a Facility Layout Drawing required by Rule 303.b.(3)J is not attached. The Noise Mitigation BMP states the operator is the landowner - this does not appear to be correct based on the pancel ownership on the Weld County Assessor website. Rule 305.a (2) Pre-Application Notification date is less than 30 days prior to form submittal. Return to DRAFT status | 10/28/2014 12:08:23 PM |
| Permit | Within buffer zone, sent to OGLA for further review. | 10/23/2014 7:47:52 AM |

Total: 10 comment(s)