

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



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Document Number:

400040680

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 stand alone 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:

416157

Expiration Date:

03/14/2013
☒ 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: 53650

Name: MARATHON OIL COMPANY

Address: 5555 SAN FELIPE

City: HOUSTON State: TX Zip: 77056

3. Contact Information

Name: Anna Walls

Phone: (713) 296-3468

Fax: (713) 513-4394

email: avwalls@marathonoil.com

4. Location Identification:

Name: 697-26A Number: _____

County: GARFIELD

QuarterQuarter: NWNE Section: 26 Township: 6S Range: 97W Meridian: 6 Ground Elevation: 8411

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: 848 feet, from North or South section line: FNL and 1434 feet, from East or West section line: FEL

Latitude: 39.498910 Longitude: -108.183140 PDOP Reading: 1.8 Date of Measurement: 02/12/2010

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="2"/> | Wells: <input type="text" value="8"/> | Production Pits: <input type="text"/> | Dehydrator Units: <input type="text"/> |
| Condensate Tanks: <input type="text" value="1"/> | Water Tanks: <input type="text" value="2"/> | Separators: <input type="text" value="8"/> | Electric Motors: <input type="text"/> | Multi-Well Pits: <input type="text" value="1"/> |
| Gas or Diesel Motors: <input type="text" value="10"/> | Cavity Pumps: <input type="text" value="1"/> | LACT Unit: <input type="text" value="8"/> | Pump Jacks: <input type="text"/> | Pigging Station: <input type="text"/> |
| Electric Generators: <input type="text" value="1"/> | Gas Pipeline: <input type="text"/> | Oil Pipeline: <input type="text"/> | Water Pipeline: <input type="text" value="1"/> | Flare: <input type="text" value="1"/> |
| Gas Compressors: <input type="text"/> | VOC Combustor: <input type="text"/> | Oil Tanks: <input type="text" value="2"/> | Fuel Tanks: <input type="text" value="2"/> | |

Other: _____

6. Construction:

Date planned to commence construction: 04/23/2010 Size of disturbed area during construction in acres: 3.64
Estimated date that interim reclamation will begin: 05/01/2011 Size of location after interim reclamation in acres: 2.22
Estimated post-construction ground elevation: 8399 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: Puckett Land Company Phone: 303-763-1000
Address: 5460 S. Quebec St., Ste 250 Fax: 303-763-1040
Address: _____ Email: ray@puckettland.com
City: Englewood State: CO Zip: 80111-1928 Date of Rule 306 surface owner consultation: 02/12/2010
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 20070075

8. Reclamation Financial Assurance:

☒ Well Surety ID: 19880020 ☐ Gas Facility Surety ID: _____ ☐ Waste Mgmt. Surety ID: _____

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes ☐ No ☒
Distance, in feet, to nearest building: 883, public road: 12830, above ground utilit: 13200
, railroad: 401280, property line: 848

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 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: 57: Parachute-Rhone Loams, 5 to 30% slopes

NRCS Map Unit Name: _____

NRCS Map Unit Name: _____

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: _____

List individual species: Sage, Serviceberry

Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
☒ Native Grassland (Bluestern, 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: 895, water well: 4570, depth to ground water: 260

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:

This location assessment is included as part of permit application for 8 wells. There are no visible improvements w/in 400' of well location. Depth to ground water determined by DWR online: Receipt 9502666B, Permit 271290

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

Signed: _____ Date: 02/17/2010 Email: avwalls@marathonoil.com

Print Name: Anna Walls Title: Regulatory Compliance Rep

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

David S. Nesher

COGCC Approved: _____ Director of COGCC Date: 3/15/2010

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.

Pit Design, Construction, and Monitoring Requirements General Requirements for Pits: Pits shall not be constructed on springs, seeps, or other surface water features. If groundwater is encountered during pit construction activity, pit construction shall cease and the location shall be reclaimed. An alternate location or an alternate plan (e.g., use of a closed loop and/or semi-closed loop system) must be approved by the Director before resuming operations. All pits, including drilling pits, in the Area of Concern must be lined, as discussed below under "Pit Design and Construction" and in accordance with COGCC Rule 904. No portion of any pit 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. An as-built construction report is required for pits which are designed and certified by a Professional Engineer. The as-built construction report shall be submitted with a Form 4 (Sundry Notice – Report of Work Done) to COGCC's environmental staff for approval prior to using the pit. Produced water shall be treated in accordance with Rule 907. before being placed in a properly-permitted pit. Storage of produced water in drilling pits in anticipation of upcoming drilling or completion activities is not allowed for a period longer than seven (7) calendar days.

Pit Design and Construction: If site-specific conditions do not allow for compliance with these minimum requirements, then the operator must submit a pit design which is certified by a Professional Engineer, subject to review and approval by the Director prior to construction of the pit. The pit design shall be submitted with a Form 4, Sundry Notice. Liner systems for all pits, including drilling pits shall meet the minimum requirements of COGCC Rules 904.b. or 904.c. Drill cuttings may be used as an alternative liner foundation material (COGCC Rule 904.c.(3)), provided that a double synthetic liner system is used and the recycled drill cuttings meet the applicable standards of Table 910-1. It is the operator's responsibility to design and construct a liner system to contain fluids in the pit without compromising the integrity of the liner(s). Pit sidewall slopes shall not be steeper than 1 vertical to 2 horizontal to facilitate installation of the bedding materials and the synthetic liner(s). If sidewall slopes exceed 1 vertical to 2 horizontal, then the operator must submit a site-specific pit design that will minimize the likelihood of damage to the liner by sharp rock edges and any other material protruding from the sidewalls. The pit design must be certified by a Professional Engineer, subject to review and approval by the Director prior to construction of the pit. The pit design shall be submitted with a Form 4, Sundry Notice. As a Condition of Approval for pits requiring a Form 15, the Director may require other additional protective measures. These measures may include but are not limited to increased record-keeping requirements, monitoring systems, and leak detection systems. In making such a determination, the Director shall consider the surface and subsurface geology, the existence of ground water, the quality of the produced water, and the hydraulic conductivity of the surrounding soils and bedrock, the depth to ground water, and the distance to surface water and water wells.

Hydrotesting: After installation of the uppermost liner and prior to using any lined pit, the synthetic liner(s) shall be tested by filling the pit with at least eight (8) feet of fresh water, measured from the base of the pit (not to exceed the two (2) foot freeboard requirement). The operator shall monitor the pit for leaks for a period of seventy-two (72) hours prior to draining the pit and commencing operations. Hydrotest monitoring results must be maintained by the operator for the life of the pit and provided to the Director upon request. If leaks are observed, the operator must suspend operations and notify the Director within twenty-four (24) hours. The operator must fix any leaks and repeat hydrotests as described above. Operations shall not commence until a successful hydrotest is performed with no leaks observed.

Pit Monitoring (in addition to the requirements of COGCC Rule 902.b. the operator shall): Monitor pit fluid levels using a pit level indicator at least once every twelve (12) hours whenever fluid is present in the pit in quantities greater than de minimis amounts. The monitoring frequency shall increase to once every six (6) hours when the pit is being actively used for drilling, completion or production operations. Monitoring results must be documented and records maintained by the operator in accordance with COGCC Rule 205 and provided to the Director upon request. Stop using the pit as soon as practicable, if there is any observed loss of integrity from the pit liner or if the operator suspects a loss of more than five hundred (500) barrels of liquid from the pit, based on fluid level measurements or throughput measurements. The operator must notify the Director in accordance with COGCC Rule 906. The pit contents shall be removed as soon as practicable, the pit will be inspected and the extent of impact, if any determined and remediated, repairs to the pit liner system shall be made or a replacement liner system installed, and use of the pit shall not resume until a successful hydrotest is performed and the results have been submitted with a Form 4, Sundry Notice to the Director for approval.

Suspension of Use: If operations are suspended and the pit is not in use for more than seven (7) calendar days, then fluids in the pit must be removed such that only de minimis amounts of fluids are left in the pit to hold down the synthetic liner(s). After removing fluids, the operator shall continue to inspect the pit and record any observed leaks, punctures or tears at least once every twenty-four (24) hours while use of the pit is suspended. The pit shall be inspected by the operator prior to re-use. If any leaks, punctures or tears are observed, then the synthetic liner must be replaced and hydrotested prior to resuming operations. If operations are suspended for more than six (6) months, then the pit shall be closed, unless specifically approved by the Director.

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. At the time of closure, the drill cuttings must also meet the applicable standards of table 910-1.

Water Quality Monitoring: Operator will propose surface water quality monitoring program. Operator will perform sampling to establish water quality conditions prior to using pits at the subject location.

Operator must ensure 110 percent secondary containment for any volume of fluids contained at well site during drilling and completion operations. If fluids are conveyed via pipeline, operator must implement best management practices to contain any unintentional release of fluids.

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.

Additional Requirements: It is COGCC's understanding that Marathon intends to apply to Garfield County for a permit for an Individual Sewage Disposal System (ISDS) at the subject location. They plan to transfer the effluent from that ISDS to a pit and use it as makeup water (subject to COGCC approval of a request from Marathon via Sundry Notice). The following COAs will be applied to the Sundry Notice approving transfer of ISDS effluent to any pits; Provide a copy of the GARCO-ISDS permit to COGCC by Form 4. ISDS shall be operated in accordance with GARCO-ISDS Permit. ISDS effluent shall not be used for drilling or completing the surface-casing borehole. If ISDS effluent quality limits are exceeded, immediately cease using the effluent for O&G operations and notify the COGCC by Form 4. Notify COGCC by Form 4 if the ISDS is moved to a different man camp/well pad. Attach copy of new GARCO-ISDS permit and a list of wells in which the effluent may be used.

Attachment Check List

| Att Doc Num | Name | Doc Description |
|-------------|-------------------------|----------------------|
| 2032938 | CORRESPONDENCE | LF@2432409 2032938 |
| 400040700 | ACCESS ROAD MAP | LF@2420045 400040700 |
| 400040701 | HYDROLOGY MAP | LF@2420046 400040701 |
| 400040703 | LOCATION PICTURES | LF@2420047 400040703 |
| 400040704 | MULTI-WELL PLAN | LF@2420048 400040704 |
| 400040705 | REFERENCE AREA MAP | LF@2420049 400040705 |
| 400040706 | REFERENCE AREA PICTURES | LF@2420050 400040706 |
| 400040708 | NRCS MAP UNIT DESC | LF@2420051 400040708 |
| 400040709 | CONST. LAYOUT DRAWINGS | LF@2420052 400040709 |
| 400041014 | PROPOSED BMPs | LF@2420053 400041014 |
| 400041232 | LOCATION DRAWING | LF@2420054 400041232 |
| 400041241 | FORM 2A SUBMITTED | LF@2420055 400041241 |

Total Attach: 12 Files