FORM 2A Rev 04/01

State of Colorado
Oil and Gas Conservation Commission

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

Oil and Gas Location Assessment

Document Number: 400265862

Date Received: 03/28/2012

☒ 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 standalone 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: **428571**

Expiration Date: **04/18/2015**

☒ 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: 10255

Name: QUICKSILVER RESOURCES INC

Address: 801 CHERRY ST - #3700 UNIT 19

City: FT WORTH State: TX Zip: 76102

3. Contact Information

Name: Pamela Osburn

Phone: (817) 665-4918

Fax: (817) 665-5009

email: posburn@qrinc.com

4. Location Identification:

Name: SIMOES Number: 12-30

County: MOFFAT

QuarterQuarter: LOT 9 Section: 30 Township: 6N Range: 90W Meridian: 6 Ground Elevation: 6688

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: 1985 feet FNL , from North or South section line, and 767 feet FWL , from East or West section line.

Latitude: 40.450750 Longitude: -107.541000 PDOP Reading: 1.2 Date of Measurement: 02/29/2012

Instrument Operator's Name: UINTAH ENGINEERING

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits:		Drilling Pits:		Wells:	1	Production Pits:		Dehydrator Units:	
Condensate Tanks:		Water Tanks:	1	Separators:	2	Electric Motors:		Multi-Well Pits:	
Gas or Diesel Motors:	1	Cavity Pumps:		LACT Unit:		Pump Jacks:	1	Pigging Station:	
Electric Generators:		Gas Pipeline:		Oil Pipeline		Water Pipeline:		Flare:	
Gas Compressors:				VOC Combustor:		Oil Tanks:	2	Fuel Tanks:	

Other: 1 HEATER TREATER

6. Construction:

Date planned to commence construction: 04/23/2012 Size of disturbed area during construction in acres: 4.40

Estimated date that interim reclamation will begin: 04/22/2013 Size of location after interim reclamation in acres: 1.00

Estimated post-construction ground elevation: 6679 Will a closed loop system be used for drilling fluids: Yes [X]

Will salt sections be encountered during drilling: Yes [ ] No [X] Is H2S anticipated? Yes [ ] No [X]

Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes [X] No [ ]

Mud disposal: Offsite [X] Onsite [ ] Method: Land Farming [ ] Land Spreading [ ] Disposal Facility [X]

Other:

7. Surface Owner:

Name: Phone:

Address: Fax:

Address: Email:

City: State: Zip: Date of Rule 306 surface owner consultation: 02/21/2012

Surface Owner: [X] Fee [ ] State [ ] Federal [ ] Indian

Mineral Owner: [X] Fee [ ] State [ ] Federal [ ] Indian

The surface owner is: [X] the mineral owner [X] committed to an oil and gas lease [X] is the executer of the oil and gas lease [ ] the applicant

The right to construct the location is granted by: [X] 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

8. Reclamation Financial Assurance:

[ ] Well Surety ID: 20080107 [ ] Gas Facility Surety ID: [ ] Waste Mgnt. Surety ID:

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes [ ] No [X]

Distance, in feet, to nearest building: 3202 , public road: 6200 , above ground utilit: 2950

, railroad: 10032 , property line: 767

10. Current Land Use (Check all that apply):

Crop Land: [ ] Irrigated [X] 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 [X] 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: 206. Usturthents, frigid-borolls complex, 25-75% slopes

NRCS Map Unit Name: 213. Winevida-Splitro complex, 3-5% slopes

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: sagebrush spp

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): grass/forb mixture, sagebrush communities, dryland agriculture

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: 1437 , water well: 3279 , depth to ground water: 117

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 Suppl 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:

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

Signed: Date: 03/28/2012 Email: posburn@qrinc.com

Print Name: Pamela S. Osburn Title: Sr. Regulatory Analyst

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: 4/19/2012

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.

Initiated/Completed OGLA Form 2A review on 04-10-12 by Dave Kubeczko; requested acknowledgement of fluid containment, spill/release BMPs, lined pits/closed loop, moisture content cuttings, cuttings management, flowback to tanks, and tank berming COAs from operator on 04-10-12; received acknowledgement of COAs from operator on 04-10-12; passed by CPW on 04-16-12 with operator agreed to BMPs acceptable; passed OGLA Form 2A review on 04-18-12 by Dave Kubeczko; fluid containment, spill/release BMPs, lined pits/closed loop, moisture content cuttings, cuttings management, flowback to tanks, and tank berming COAs.

SITE SPECIFIC COAs:

A closed loop system must be implemented during drilling (which operator has indicated on the Form 2A); or, if a drilling pit is constructed, it must be lined. All cuttings generated during drilling with oil based muds or high chloride/TDS mud must be kept in the lined drilling pit, or placed either in containers or on a lined/bermed portion of the well pad; prior to offsite disposal. 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.

Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface pipelines.

Reserve pit must be lined or a closed loop system must be implemented during drilling.

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.

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.

Flowback and stimulation fluids must be sent to tanks and/or filters before the fluids can be placed into any pipeline or pit. The flowback and stimulation fluid tanks 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.

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.

Attachment Check List

Att Doc Num	Name
2034308	CORRESPONDENCE
2034310	PROPOSED BMPs
400265862	FORM 2A SUBMITTED
400265897	LEGAL/LEASE DESCRIPTION
400265898	LEGAL/LEASE DESCRIPTION
400265903	LEGAL/LEASE DESCRIPTION
400265904	LEGAL/LEASE DESCRIPTION
400265905	SURFACE AGRMT/SURETY
400265906	LOCATION PICTURES
400265910	WELL LOCATION PLAT
400265914	CONST. LAYOUT DRAWINGS
400265916	LOCATION DRAWING
400265918	TOPO MAP
400265921	HYDROLOGY MAP
400265922	REFERENCE AREA MAP
400265924	REFERENCE AREA PICTURES
400265925	PROPOSED BMPs
400265927	NRCS MAP UNIT DESC
400265930	ACCESS ROAD MAP

Total Attach: 19 Files

General Comments

User Group	Comment	Comment Date
Permit	CPW passed w/ oper.'s BMP's; LGD & pub. comments waived. Final Review--passed.	4/18/2012 7:51:14 AM
DOW	Quicksilver has agreed to the following Best Managment Practices: 1)Conduct oil and gas development activities outside the time period from December 1 through April 15 to minimize disturbance to Elk in their winter concentration area. 2)Restrict post-development well site visitations to between the hours of 10:00 a.m. and 3:00 p.m. and reduce well site visitations between December 1 and April 15 in elk winter range. 3)Establish company guidelines (policies) to minimize wildlife mortality from vehicle collisions on roads (post speed limits on private roads, conduct safety training, etc). 4)Gate single-purpose roads and restrict general public access to reduce traffic disruptions to wildlife if applicable on private roads. 5)Close and immediately reclaim all roads that are redundant, not used regularly, or have been abandoned to the maximum extent possible to minimize disturbance and habitat fragmentation. 6)Avoid aggressive non-native grasses and shrubs in elk habitat restoration. 7)Reclaim elk habitats with native shrubs, grasses, and forbs appropriate to the ecological site disturbed. 8)Reclaim site (interim and final) to match existing vegetation. CPW can assist the landowner and operator in recommending a site appropriate seed mix. 9)Establish bank stabilization, erosion control, and storm water management techniques for susceptible well pad cut and fill slopes. Jacob Davidson 04-16-2012, 13:04	4/16/2012 1:06:03 PM

Total: 2 comment(s)

BMP

Type	Comment
Wildlife	1)Conduct oil and gas development activities outside the time period from December 1 through April 15 to minimize disturbance to Elk in their winter concentration area. 2)Restrict post-development well site visitations to between the hours of 10:00 a.m. and 3:00 p.m. and reduce well site visitations between December 1 and April 15 in elk winter range. 3)Establish company guidelines (policies) to minimize wildlife mortality from vehicle collisions on roads (post speed limits on private roads, conduct safety training, etc). 4)Gate single-purpose roads and restrict general public access to reduce traffic disruptions to wildlife if applicable on private roads. 5)Close and immediately reclaim all roads that are redundant, not used regularly, or have been abandoned to the maximum extent possible to minimize disturbance and habitat fragmentation. 6)Avoid aggressive non-native grasses and shrubs in elk habitat restoration. 7)Reclaim elk habitats with native shrubs, grasses, and forbs appropriate to the ecological site disturbed. 8)Reclaim site (interim and final) to match existing vegetation. CPW can assist the landowner and operator in recommending a site appropriate seed mix. 9)Establish bank stabilization, erosion control, and storm water management techniques for susceptible well pad cut and fill slopes.

Total: 1 comment(s)