

FORM  
2

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:

400558230

APPLICATION FOR PERMIT TO:

Drill  Deepen  Re-enter  Recomplete and Operate

Date Received:

02/24/2014

TYPE OF WELL OIL  GAS  COALBED  OTHER \_\_\_\_\_

Refilling

ZONE TYPE SINGLE ZONE  MULTIPLE ZONES  COMMINGLE ZONES

Sidetrack

Well Name: Cascade Creek Well Number: 697-15-41  
Name of Operator: OXY USA WTP LP COGCC Operator Number: 66571  
Address: 760 HORIZON DR #101  
City: GRAND JUNCTION State: CO Zip: 81506  
Contact Name: Joan Proulx Phone: (970)263-3641 Fax: (970)263-3694  
Email: joan\_proulx@oxy.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20060137

WELL LOCATION INFORMATION

QtrQtr: SWSE Sec: 15 Twp: 6S Rng: 97W Meridian: 6

Latitude: 39.519253 Longitude: -108.201619

Footage at Surface: 1281 feet <sup>FNL/FSL</sup> FSL 1372 feet <sup>FEL/FWL</sup> FEL

Field Name: GRAND VALLEY Field Number: 31290

Ground Elevation: 8625 County: GARFIELD

GPS Data:

Date of Measurement: 12/18/2013 PDOP Reading: 1.2 Instrument Operator's Name: R Bullen

If well is  Directional  Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: <sup>FNL/FSL</sup> 1571 <sup>FEL/FWL</sup> FSL 2063 <sup>FEL</sup> FEL Bottom Hole: <sup>FNL/FSL</sup> 1519 <sup>FEL/FWL</sup> FSL 2037 <sup>FEL</sup> FEL  
Sec: 15 Twp: 6S Rng: 97W Sec: 15 Twp: 6S Rng: 97W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership:  Fee  State  Federal  Indian

The Surface Owner is:  is the mineral owner beneath the location.  
(check all that apply)  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 by this Well: Yes

The right to construct the Oil and Gas Location is granted by: applicant is owner

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

**LEASE INFORMATION**

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

See attached Mineral Lease Description.

Total Acres in Described Lease: 9640 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # \_\_\_\_\_

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 1519 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 5280 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 5280 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 1378 Feet

**INSTRUCTIONS:**

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).

- 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: \_\_\_\_\_

**SPACING and UNIT INFORMATION**

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 331 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 1519 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

**SPACING & FORMATIONS COMMENTS**

\_\_\_\_\_

**OBJECTIVE FORMATIONS**

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
ILES	ILES	510-48		ALL
WILLIAMS FORK - CAMEO	WFCM	510-15		ALL

**DRILLING PROGRAM**

Proposed Total Measured Depth: 9233 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 331 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H<sub>2</sub>S Drilling Operations Plan)

Will salt sections be encountered during drilling?     No    

Will salt based (>15,000 ppm Cl) drilling fluids be used?     No    

Will oil based drilling fluids be used?     No    

BOP Equipment Type:  Annular Preventor     Double Ram     Rotating Head     None

### GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule     609    

### DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal:     OFFSITE          Drilling Fluids Disposal Methods:     Recycle/reuse    

Cuttings Disposal:     OFFSITE          Cuttings Disposal Method:     Other    

Other Disposal Description:

Drilling fluids may either be disposed of at the 629-1 SWD or sent to the Central Water Handling Facility for re-use. Cuttings may be disposed of at the 697-15-01 CDA (see approved Form 4 Sundry Notice document #400493031).

Beneficial reuse or land application plan submitted?                     

Reuse Facility ID:                           or Document Number:                     

### CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	20+0/0	16+0/0	65	0	90		90	0
SURF	14+3/4	9+5/8	36	0	3000	1347	3000	0
1ST	8+3/4	4+1/2	11.6	0	9233	1832	9233	2069

Conductor Casing is NOT planned

### 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)

### GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

### RULE 502.b VARIANCE REQUEST

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number                     

### OTHER LOCATION EXCEPTIONS

Check all that apply:

- Rule 318.c. Exception Location from Rule or Spacing Order Number
- Rule 603.a.(2) Exception Location (Property Line Setback).

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

OXY is proposing to drill 12 additional directional wells from the existing Cascade Creek 697-15-54 pad, location #335803. There is currently one producing well on this pad, the Cascade Creek 697-15-54, API 05-045-10687. All roads and pipelines are existing and there will be no changes to the current pad size. Access to the location is on existing roads across private land.

The pad is located on fee surface and the wells will reach fee minerals. OXY USA WTP LP is the surface and mineral owner. OXY will comply with Notice to Operators (NTO) Drilling Wells on the Roan Plateau (June 12, 2008). A closed-loop system will be utilized on this pad.

Per GarCo Vacation Ordinance dated 10/5/1987, CR 213 is now OXY's private property north of Sec 8 7S 97W 6 PM. Oxy will provide appropriate housing for essential personnel in order to conduct safe, efficient drilling operations at this site.

The location is in a Greater Sage Grouse and black bear area; appropriate BMPs are attached. The CPW consultation took place on 2/4/2014.

For 5 of the 12 proposed wells OXY will be re-filing a Form 2; a Form 4 Sundry Notice has been submitted and approved to designate these 5 wells as an Abandoned Location. The well numbers and API numbers are:

697-15-38, 05-045-18006  
 697-15-40A, 05-045-18003  
 697-15-40B, 05-045-18004  
 697-15-46, 05-045-18008  
 697-15-55A, 05-045-18005

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: 335803

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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

Signed: \_\_\_\_\_ Print Name: Joan Proulx

Title: Regulatory Date: 2/24/2014 Email: joan\_proulx@oxy.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

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: *Matthew Lee* Director of COGCC Date: 4/27/2014

Expiration Date: 04/26/2016

<b>API NUMBER</b>
05 045 22387 00

## Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

<u>COA Type</u>	<u>Description</u>
	<p>(1) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED. SEE ATTACHED NOTICE.</p> <p>(2) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE GARFIELD COUNTY RULISON FIELD NOTICE TO OPERATORS IS REQUIRED, WITH THE FOLLOWING EXCEPTION: ALL FIELD NOTICE REQUIREMENTS SPECIFIED IN THIS NOTICE TO OPERATORS ARE SUPERSEDED BY THE REQUIREMENTS OF THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY (SEE CONDITION OF APPROVAL #1). SEE ATTACHED NOTICE.</p> <p>(3) COMPLY WITH ALL PROVISIONS OF THE JUNE 12, 2008 NOTICE TO OPERATORS DRILLING WELLS WITHIN ¾ MILE OF THE RIM OF THE ROAN PLATEAU IN GARFIELD COUNTY -- PIT DESIGN, CONSTRUCTION, AND MONITORING REQUIREMENTS. SEE ATTACHED NOTICE.</p> <p>(4) CEMENT ON PRODUCTION CASING (4-1/2" FIRST STRING) MUST EXTEND INTO THE SURFACE CASING (MINIMUM 200' LAP ABOVE SURFACE CASING SHOE) TO PROVIDE ISOLATION OF THE MESAVERDE GROUP AND ANY PORTION OF THE WASATCH FORMATION THAT IS NOT OTHERWISE COVERED BY SURFACE CASING. VERIFY PRODUCTION CASING CEMENT WITH A CBL.</p>
	Open hole resistivity and gamma logs shall be run to describe the stratigraphy of the entire well bore and to adequately verify the setting depth of surface casing and aquifer coverage. On a multi-well pad, these open hole logs are only required on one of the first wells drilled on the pad and the Drilling Completion Report - Form 5 for every well on the pad shall identify which well was logged.

## Best Management Practices

<u>No BMP/COA Type</u>	<u>Description</u>

## Applicable Policies and Notices to Operators

Piceance Rulison Field - Notice to Operators.
NW Colorado Notification Policy.
Notice Concerning Operating Requirements for Wildlife Protection.
Pit Design, Construction and Monitoring Requirements Within 3/4 mile of the Rim of the Roan Plateau.

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400558230	FORM 2 SUBMITTED
400558299	DEVIATED DRILLING PLAN
400558300	WELL LOCATION PLAT
400558301	TOPO MAP
400558302	MINERAL LEASE MAP
400558303	DIRECTIONAL DATA

Total Attach: 6 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed. No LGD comments.	4/25/2014 10:36:36 AM
LGD	pass, gdb	3/14/2014 10:17:22 AM
Engineer	THE PROPOSED SURFACE CASING IS MORE THAN 50' BELOW THE DEPTH OF THE DEEPEST WATER WELL WITHIN 1-MILE OF THE SURFACE LOCATION WHEN CORRECTED FOR ELEVATION DIFFERENCES. THE DEEPEST WATER WELL WITHIN 1-MILE IS 36 FEET DEEP.	2/27/2014 10:27:59 AM
Permit	Passed completeness.	2/24/2014 2:21:02 PM

Total: 4 comment(s)