

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:  
400583446

APPLICATION FOR PERMIT TO:

Drill       Deepen       Re-enter       Recomplete and Operate

Date Received:  
04/16/2014

TYPE OF WELL    OIL     GAS     COALBED     OTHER \_\_\_\_\_  
ZONE TYPE      SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES

Refilling   
Sidetrack

Well Name: 697-26A      Well Number: 16  
Name of Operator: MARATHON OIL COMPANY      COGCC Operator Number: 53650  
Address: 1501 STAMPEDE AVENUE  
City: CODY      State: WY      Zip: 82414  
Contact Name: Tiffany Stebbins      Phone: (307)527-2223      Fax: (307)527-3280  
Email: tastebbins@marathonoil.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 19880020

WELL LOCATION INFORMATION

QtrQtr: NWNE      Sec: 26      Twp: 6S      Rng: 97W      Meridian: 6  
Latitude: 39.498800      Longitude: -108.183020

Footage at Surface: 888 feet      FNL/FSL FNL 1400 feet FEL/FWL FEL

Field Name: GRAND VALLEY      Field Number: 31290  
Ground Elevation: 8415.3      County: GARFIELD

GPS Data:  
Date of Measurement: 02/12/2010    PDOP Reading: 2.0    Instrument Operator's Name: William H. Dolinar

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

Footage at Top of Prod Zone: FNL/FSL      FEL/FWL      Bottom Hole: FNL/FSL      FEL/FWL  
1796    FNL    1978    FEL      1796    FNL    1978    FEL  
Sec: 26    Twp: 6S    Rng: 97W      Sec: 26    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: oil and gas lease

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.)

Please see map submitted with previous filing

Total Acres in Described Lease: 7393 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: 1796 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 1360 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: 888 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: 638 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary \_\_\_\_\_ 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.)
WILLIAMS FORK	WMFK	510-21		

**DRILLING PROGRAM**

Proposed Total Measured Depth: 9200 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 631 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: ONSITE Drilling Fluids Disposal Methods: Recycle/reuse

Cuttings Disposal: ONSITE Cuttings Disposal Method: Drilling pit

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

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	16	53	0	100	100	100	0
SURF	14+3/4	9+5/8	36	0	2000	1000	2000	0
1ST	8+3/4	4+1/2	11.6	0	9200	675	9200	5500

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 Surface is owned by Puckett. Minerals are owned by Puckett. The pad has been built. The pits have been constructed. Existing pad has four producing gas wells. No visible improvements w/in 400' of wellhead. The refilled well will not require any expansion / additional surface disturbance of the pad. The location does not require a variance from any of the rules listed in Rule 306.d.(1).(A).(ii). The surface location is 346' SW of a sensitive wildlife habitat area for Greater Sage-Grouse Preliminary Priority Habitat adopted 11/14/2013. SHL is not in RSO area. SHL is within Roan Rim area of concern.  
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 500' deep.

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

Location ID: 416157

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: \_\_\_\_\_ Print Name: Tiffany Stebbins

Title: Sr. Regulatory Compliance Date: 4/16/2014 Email: tastebbins@marathonoil.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: 8/16/2014

Expiration Date: 08/15/2016

<b>API NUMBER</b>
05 045 19230 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 MUST BE A MINIMUM OF 200' ABOVE THE TOP OF THE MESA VERDE FORMATION (OR 200' ABOVE THE OHIO CREEK FORMATION IF PRESENT). CEMENT TOP VERIFICATION BY CBL IS REQUIRED.</p>
	<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.</p>

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Wildlife	<p>Marathon has established an evaluation process for operations within the Piceance Basin that addresses wildlife concerns. This listing of Items 1-6 represents our specific actions that are considered avoidance and minimization actions by the Colorado Parks and Wildlife (CPW). Marathon has developed these BMPs as part of our Standard Operating Procedures (SOP) to provide operational and wildlife management for the Piceance Basin.</p> <p>1. Riparian Area Protection for Wildlife</p> <ul style="list-style-type: none"> <li>• Marathon will locate roads as far from riparian areas and bottoms of drainages as possible and outside of riparian habitat. However, Marathon is limited in areas where landowners dictate utilization of roads.</li> </ul> <p>2. Company Vehicle Guidelines and Traffic Reductions for Wildlife Protection</p> <ul style="list-style-type: none"> <li>• Marathon has 25 mph limit for all roads (speed limit signs are posted); additionally it is Marathon's policy to prohibit the use of radios/cell phones while driving to enhance driving awareness. Car pooling for major projects is encouraged for all Marathon contractors to reduce traffic; carpooling is evaluated and used where practical for major projects.</li> <li>• Marathon utilizes SCADA/Automation system to better understand and operate wellsite operations. The SCADA/Automation system provides a real-time view of the site with the ability to remotely start-up and shut-down certain operations. The system can be used to eliminate unnecessary trips to the production pad. Marathon currently has twenty-two pads in production and all pads are monitored by the SCADA/Automation system. The SCADA/Automation is a key component to safe, efficient, and environmentally friendly operations.</li> <li>• When actively drilling, Marathon utilizes one Temporary Living camp to house the resources needed to support the drilling operations within the Piceance Basin. The site supports approximately 50 personnel that function on 12-hour shifts. The shift work schedule is 2-weeks on and 2-weeks off. This is a traffic reduction of 25 vehicles per</li> </ul>

day, 7-days per week. There is an understanding that the reduction of traffic as a whole reduces the opportunity for wildlife impacts.

### 3. Infrastructure Layout for Wildlife Protection

- Marathon has installed consolidated and centralized fluid collection facilities and water pipelines to manage fluids in the field. Through 2011, Marathon has installed approximately 50 miles of pipelines to manage existing production as well as future developments. The majority of the water pipelines are located adjacent to existing roads and within existing ROWs. The installation of most of the water pipelines was performed in conjunction with the installation of gas gathering lines performed by Enterprise. During the installation, both Marathon and Enterprise utilized the same contractor to reduce the overall disturbance and traffic by making one ground disturbance; thereby, reducing manpower, pieces of equipment and installation schedule.
- From 2008 through 2011, Marathon has utilized the fluid infrastructure to move approximately 2.2 million barrels of water throughout the field. The use of the pipelines and central facilities has saved approximately 22,000 truck loads and over 330,000 trucking miles. As Marathon continues to produce from this field, there will be continued utilization of this infrastructure to manage fluids which will continue to reduce disturbances and traffic. Produced water can be pumped via pipeline to Pad 18A for storage and offsite disposal. Produced water can be pumped via pipeline to Pad 32C for storage and enhanced evaporation. The use of Pads 18A and 32C for managing produced water effectively minimize truck traffic within the field.
- Based on development to date, future development of the field will utilize the infrastructure that has been installed. Each future well requires approximately 25,000 barrels of water to drill and complete. The water trucks used for transport carry approximately 100 barrels per load. As a result, continuing to utilize the infrastructure will save up to 250 truck loads per well during future development. Total development will require an average of eight wells per pad to achieve 20 acre spacing. This equates to 2,000 truck loads per pad and would increase with more aggressive development. As stated earlier, the traffic reduction will continue as long as the wells are producing and the water pipelines and facilities are utilized to manage fluids.

### 4. Drilling and Completions Operations for the Protection of Wildlife

- Marathon will review annually the scheduled civil construction, drilling and completion activities (Plan of Development [POD]) to avoid portions of SWH, specifically for the GrSG. Additionally, Marathon through the POD will schedule our activities in an effort to avoid and/or minimize operations near and within lek sites, elk production areas and active raptor nests.

The POD will be submitted to the CPW by the end of January for each calendar year. This component of the WMP will be a living document. Marathon will utilize C-K Associates, LLC (C-K) as our third party review team jointly with our regulatory compliance group to balance developments and ecological concerns within the Piceance Basin.

Marathon's goal during the annual POD scheduling is to avoid at a minimum 66% of the GrSG SWH.

- If for some reason an area cannot be avoided, Marathon will attempt to avoid the timing period associated with the wildlife category of concern. - Lek avoidance is from March 1 through May 15 for major activities; - Elk Production is rotation of production areas on a seasonal basis; - 4-mile buffer for GrSG March 1-June 30 (4-months)

Note: there is an overlap of geographical areas between the elk production areas and the 4-mile GrSG buffer area (SWH). In Marathon's effort to meet the timing for an elk production area, we also achieve avoidance for a portion of the 4-mile buffer area.

- Marathon has agreed to seasonal rotation development activities for the elk production areas.
- As of January 2012, Marathon has closed all drilling reserve pits.
- No drilling has occurred since June 2010; no completions have occurred since December 2010.

### 5. Additional Minimizations for Wildlife Protection

- Marathon is following the rule requirements for noise. Regarding raptor perch deterrents, Marathon will provide deterrents in areas where surrounding habitats do not provide natural perches.
- Marathon joint ownership properties can utilize approved seed mixes and restore disturbed sagebrush. In lease areas the land owner dictates the decision on seed mix and restoration of sagebrush. There are discussions with land owners on decisions regarding high priority habitat (lek areas and adjacent lands) where sagebrush can be restored. In other areas the approved land owner seed mix would be applied.

	<ul style="list-style-type: none"> <li>• Marathon conducts raptor surveys and utilizes the CPW's approach to evaluate survey data protocols.</li> <li>6. Additional Awareness for Wildlife Protection</li> <li>• Marathon requires that each individual (company and contractor) go through orientation prior to working on locations and annually thereafter. Wildlife awareness is discussed.</li> <li>• Marathon shares a general site map that includes Marathon locations, roads, personnel contacts, etc. In addition, the map highlights Wildlife Timing Periods and the two lek sites within Marathon's acreage. The map is shared with company employees, contractors, and other operators.</li> <li>• Marathon conducts monthly HES mtgs (1/yr on wildlife issues)</li> </ul>
2	<p><b>Drilling/Completion Operations</b></p> <p><b>Well Surveying &amp; Anti-Collision Policy</b>  Scope - An anti-collision risk assessment will be performed during the planning of all directional wells or vertical wells drilled in a field with directional wells. Wellbore anti-collision evaluation is part of WWD&amp;C's risk assessment policy. An anti-collision report will be included in the well plan utilizing both existing wells and planned wells as offset wells.</p> <p>Policy - to obtain accurate directional surveys of its wellbores in order to 1) fulfill the requirements of applicable governmental regulations, 2) intersect geologic targets within established tolerances, and 3) provide survey data in order to maintain the minimum allowable separation between wells.</p> <p>During the well planning phase, the directional plan will be designed to have a separation factor greater than or equal to 1.75 (S.F. = 1.75) in order to allow some deviation from the planned path when the well is drilled. If the directional path cannot be planned greater than or equal to 1.75 then the drilling manager's approval is required for the directional plan. If the planned well path has a separation factor less than or equal to 1.0 (S.F. = 1.0) then the approval from the WWD&amp;C General Manager is required.</p> <p>During drilling operations, wellbore anti-collision will be monitored by calculating a separation factor of the projected well path ahead of the bit and applying the actions listed below.  Separation Factor = 1.5 Drill ahead  1.0 &lt; Separation Factor = 1.5 Drilling manager approval required. Implement precautions and procedures developed in the risk assessment  Separation Factor = 1.0 Stop drilling. Drilling may not proceed without the WWD&amp;C General Manager approval or until the separation factor has been increased above a 1.0</p>

Total: 2 comment(s)

**Applicable Policies and Notices to Operators**

Piceance Rulison Field - Notice to Operators.

NW Colorado Notification Policy.

Pit Design, Construction and Monitoring Requirements  
Within 3/4 mile of the Rim of the Roan Plateau.

**Attachment Check List**

<b>Att Doc Num</b>	<b>Name</b>
400583446	FORM 2 SUBMITTED
400583495	OffsetWellEvaluations Data
400590545	30 DAY NOTICE LETTER
400590565	CONSULT NOTICE

Total Attach: 4 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Passes final review. No LGD comments.	8/14/2014 9:57:23 AM
Permit	Passes Permitting.  Building at 1360' is unmanned compressor station. Road at 468' is a private road.	3/9/2014 9:43:42 AM
LGD	pass, gdb	4/28/2014 3:41:51 PM
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 500 FEET DEEP.  Evaluated existing offset wells within 1,500 feet of this wellbore. No mitigation required.	4/18/2014 3:35:52 PM
Permit	This form has passed completeness.	4/17/2014 8:53:24 AM

Total: 5 comment(s)