

**APPLICATION FOR PERMIT TO:**

**Drill**       Deepen       Re-enter       Recomplete and Operate

TYPE OF WELL    OIL <input type="checkbox"/> GAS <input type="checkbox"/> COALBED <input checked="" type="checkbox"/> OTHER _____ ZONE TYPE       SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Refiling <input type="checkbox"/> Sidetrack <input type="checkbox"/>
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Date Received:  
12/30/2016

Well Name: East Sauls Creek 35      Well Number: 4-2

Name of Operator: BP AMERICA PRODUCTION COMPANY      COGCC Operator Number: 10000

Address: 380 AIRPORT RD  
 City: DURANGO      State: CO      Zip: 81303

Contact Name: Naomi Azulai      Phone: (970)3757511      Fax: ( )  
 Email: naomi.azulai@bp.com

**RECLAMATION FINANCIAL ASSURANCE**  
 Plugging and Abandonment Bond Surety ID: 20010158

**WELL LOCATION INFORMATION**

QtrQtr: NESE      Sec: 34      Twp: 35N      Rng: 6W      Meridian: N  
 Latitude: 37.254223      Longitude: -107.509493

Footage at Surface: <u>1426</u> Feet	FNL/FSL	FEL/FWL
<u>FSL</u> <u>972</u> Feet	<u>FEL</u>	

Field Name: IGNACIO BLANCO      Field Number: 38300  
 Ground Elevation: 7398      County: LA PLATA

GPS Data:  
 Date of Measurement: 10/10/2016    PDOP Reading: 2.2    Instrument Operator's Name: KENNETH E. REA

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
<u>1426</u> <u>FSL</u> <u>972</u> <u>FEL</u>		<u>1407</u> <u>FSL</u> <u>710</u> <u>FEL</u>	
Sec: <u>34</u> Twp: <u>35N</u> Rng: <u>6W</u>		Sec: <u>35</u> Twp: <u>35N</u> Rng: <u>6W</u>	

**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.)

See attached mineral lease map.

Total Acres in Described Lease: 2480 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # COC17340

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 1407 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 4864 Feet

Building Unit: 4864 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 896 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 4082 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 proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 0 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 710 Feet (Enter 5280 for distance greater than 1 mile.)

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

**SPACING & FORMATIONS COMMENTS**

Application to modify the spacing has been filed with the COGCC for the January 2017 hearing.

**OBJECTIVE FORMATIONS**

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
FRUITLAND COAL	FRLDC	112-267	480	SE/4 S.34 & S/2 S.35

## DRILLING PROGRAM

Proposed Total Measured Depth: 8648 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: \_\_\_\_\_ Feet  No well belonging to another operator within 1,500 feet

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? Yes

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 608

## DRILLING WASTE MANAGEMENT PROGRAM

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

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

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
SURF	16	13+3/8	54	0	350	251	350	0
1ST	12+1/4	9+5/8	36	0	2800	510	2800	0
2ND	8+3/4	5+1/2	17	0	8647	1048	8647	0

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 Although the East Sauls Creek 35 4-2 well will produce some gas from the Fruitland Coal, it is intended primarily as a dewatering well for East Sauls Creek 35 4-1 well. As a result, the goal is for these two wells to intersect near their toes either directly or indirectly. Since intersection of these two wells is an acceptable outcome, we have proposed a 0' distance between these well completions. Anti-collision evaluations will be conducted on all other portions of the wellbores to prevent unintended intersections or collisions.  
  
The distance of 0 ft noted in the Spacing & Formations tab was calculated from the multi-well plan looking at the plan view distance from the completed portion of this well to the East Sauls Creek 35 4-1 well.

This application is in a Comprehensive Drilling Plan No CDP #: \_\_\_\_\_

Location ID: 325891

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: Naomi Azulai

Title: Well Permitting Analyst Date: 12/30/2016 Email: naomi.azulai@bp.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: 4/28/2017

Expiration Date: 04/27/2019

**API NUMBER**  
05 067 09994 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) If borehole problems occur while drilling and an unplanned sidetrack is required, the following shall apply:</p> <p>a.) Before proceeding, contact the COGCC Regional Engineer for SW Colorado for verbal approval and provide an explanation as to what happened to the original borehole and what the plan is for the sidetrack.</p> <p>Contact Information:            Mark Weems – Regional Engineer-SW Colorado            970-259-4587 off            970-749-0624 cell            mark.weems@state.co.us</p> <p>b.) Adhere to the instructions provided in the “UNPLANNED Sidetrack While Drilling: Approval and Reporting Process – Southwestern Colorado San Juan Basing ONLY” that can be found on the COGCC website at:</p> <p>Go to COGCC Web Site for more details if necessary            Forms            Form 2-Permit to Drill            Instructions</p> <p>2) Contact COGCC Regional Engineer – Mark Weems when encountering a well control issue, unexpected water flows, and unexpected Hydrogen Sulfide.</p> <p>3) The two closest water wells within 1/4 mile radius of the proposed lateral shall be sampled &amp; analyzed (Cause 112 Orders 156-157 and rule 608) if not done previously.</p>

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	An open-hole resistivity/gamma ray log was already run on the first well drilled on this pad (Yankee Federal B 1 – API 05-067-07127 – Doc ID 960790). The intermediate string for this well on the multi-well location will be logged with a cement bond log with cased-hole gamma-ray log from intermediate TD or the deepest depth possible using conventional wireline conveyance into the surface casing.
2	Drilling/Completion Operations	Anti-collision evaluation was performed. Offset wells are operated by BP.

Total: 2 comment(s)

## Applicable Policies and Notices to Operators

Policy
Notice Concerning Operating Requirements for Wildlife Protection. <a href="http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf">http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf</a>

## Attachment Check List

<b>Att Doc Num</b>	<b>Name</b>
401173809	FORM 2 SUBMITTED
401175699	WELL LOCATION PLAT
401175700	OTHER
401175701	DEVIATED DRILLING PLAN
401175702	MINERAL LEASE MAP
401175703	WELLBORE DIAGRAM
401175705	DIRECTIONAL DATA
401196446	SELECTED ITEMS REPORT

Total Attach: 8 Files

### **General Comments**

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
Permit	Final Review Completed. No LGD or public comment received.	04/27/2017
Permit	Added drilling and spacing unit order, unit acreage, and unit configuration.	04/27/2017
Engineer	<p>The proposed gas well is located within an area where unconfined fresh water aquifers are mostly developed in bedrock formations consisting mainly of shale with intermittent sandstone stringers with limited areal extent or having pockets of isolated water reservoirs. Water wells found in these locations can vary in depth from 100' to 800'. These aquifers are commonly identified as the Animas formation.</p> <p>There are no fresh water wells within a one mile radius of this proposed well to assist in determining in the setting depth of the surface casing. Based on the surrounding elevations and topography in conjunction with water wells slightly beyond a one mile radius indicate that operator's recommended setting depth of 350' is adequate (see attached SELECTED ITEMS REPORT).</p> <p>All logs run shallow enough in offset gas wells within a 1500' radius to assist in determining the deepest fresh water aquifers do not indicate any fresh water zones below 300'</p> <p>All gas wells existing or planned within 1500' of this proposed well have sufficient casing and cement to support fracture stimulation (see attached SELECTED ITEMS REPORT)</p>	01/27/2017
Permit	Waiting on drilling and spacing unit designation.	01/17/2017
Permit	Passes completeness.	01/06/2017

Total: 5 comment(s)