

RECEIVED

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
APPLICATION FOR PERMIT TO DRILL OR REENTER

703 OCT 10 AM 1:06  
070 Farmington, NM

5. Lease Serial No.

SF - 078509

6. If Indian, Allottee or tribe Name

7. If Unit or CA Agreement, Name and No

8. Lease Name and Well No.

Isabel A 1S

9. API Well No.

3004531960

10. Field and Pool, or Exploratory

Basin Fruitland Coal

11. Sec., T., R., M., or Blk. and survey or Area

Sec. 30 T32N R9W I

12. County or Parish

San Juan

13. State

NM

1a. Type of Work: ☒ DRILL

☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well Gas ☐ Other

☐ Single Zone ☐ Multiple Zone

2. Name of Operator

BP America Production Company

Attn: Cherry Hlava

3a. Address

P.O. Box 3092 Houston, Tx 77253-3092

3b. Phone No. (include area code)

281-366-4081

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface NESE (Lot 13) 1585' FSL & 800' FEL

At proposed prod. Zone same

14. Distance in miles and direction from nearest town or post office\*

17.5 miles N/E from Aztec, NM

15. Distance from proposed\*

Location to nearest  
Property or lease line, ft.

(Also to nearest drig. Ujnit line, if any) 800'

16. No. of Acres in lease

311.61

17. Spacing Unit dedicated to this well

311.61

E/P

18. Distance from proposed location\*

to nearest well, drilling, completed,  
applied for, on this lease, ft.

200'

19. Proposed Depth

3570'

20. BLM/BIA Bond No. on file

WY2924

21. Elevations (show whether DF, KDB., RT, GL, etc.)

6636' GL

22. Approximate date work will start\*

11/15/03

23. Estimated duration

3 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

Cherry Hlava

Name (Printed/typed)

Cherry Hlava

Date

10/06/2003

Title

Regulatory Analyst

Approved by (Signature)

Name (Printed/Typed)

Date

Title

Office

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct Operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

This application is subject to technical and regulatory review pursuant to 43 CFR 31.155.3 and appeal pursuant to 43 CFR 31.155.4

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

NMOCD

In reference to Order No. R-8768-F dated July 17, 2003 BP America Production Co. has notified offset operator: Burlington Resources of our intent to drill above mentioned well. Notification was sent 10/08/2003 by certified mail, return receipt requested.

District I  
PO Box 1980, Hobbs NM 88241-1980  
District II  
PO Drawer KK, Artesia, NM 87211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number <b>30-045-31960</b>		<sup>2</sup> Pool Code <b>71629</b>		<sup>3</sup> Pool Name <b>Basin Fruitland Coal</b>	
<sup>4</sup> Property Code <b>000 710</b>		<sup>5</sup> Property Name <b>Isabel A</b>			<sup>6</sup> Well Number <b># 1S</b>
<sup>7</sup> OGRID No. <b>000 778</b>		<sup>8</sup> Operator Name <b>BP AMERICA PRODUCTION COMPANY</b>			<sup>9</sup> Elevation <b>6636</b>

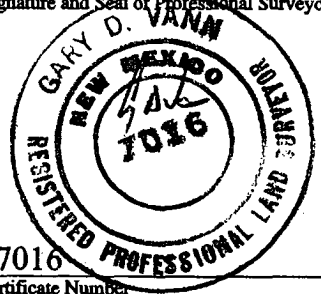
<sup>10</sup> Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>I (Lot 13)</b>	<b>30</b>	<b>32 N</b>	<b>9 W</b>		<b>1585</b>	<b>SOUTH</b>	<b>800</b>	<b>EAST</b>	<b>SAN JUAN</b>

<sup>11</sup> Bottom Hole Location If Different From Surface

<sup>7</sup> UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres <b>311.61</b>		<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16	405'(R)	1311'(R)	2622'(R)		17	<b>OPERATOR CERTIFICATION</b>	
	Lot 8	Lot 7	Lot 6	Lot 5		I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
	2485'(R)					Signature <b>Cherry Hlava</b>	
	Lot 9	Lot 10	Lot 11	Lot 12		Printed Name <b>Cherry Hlava</b>	
					Title <b>Regulatory Analyst</b>		
					Date <b>9-17-03</b>		
					<b>18 SURVEYOR CERTIFICATION</b>		
					I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.		
					Date of Survey <b>August 26, 2003</b>		
					Signature and Seal of Professional Surveyor		
							
					Certificate Number <b>7016</b>		

30

800'

1585'

2622'(R)

2485'(R)

2606'(R)

367'(R)

1287'(R)

2574'(R)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an  
Abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease, Serial No. SF - 078509

6. If Indian, Allottee or tribe Name

7. If Unit or CA/Agreement, Name and/or No.

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well

☐ Oil Well

☒ Gas Well

☐ Other

8. Well Name and No.

ISABEL A 1S

2. Name of Operator

BP AMERICA PRODUCTION COMPANY

ATTN: Cherry Hlava

9. API Well No.

30045 31960

3a. Address

501 WestLake Park Blvd Houston, Tx  
77079

3b. Phone No. (include area code)

281-366-4081

10. Field and Pool, or Exploratory Area

BASIN FRUITLAND COAL

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Section 30 T32N & R9W 1585' FSL & 800' FWL

11. County or Parish, State

SAN JUAN, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OR NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize

☐ Deepen

☐ Production (Start/Resume)

☐ Water shut-Off

☐ Alter Casing

☐ Fracture Treat

☐ Reclamation

☐ Well Integrity

☐ Casing Repair

☐ New Construction

☐ Recomplete

☒ Other

☐ Change Plans

☐ Plug and Abandon

☐ Water Disposal

☐ Convert to Injection

☐ Plug Back

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.

On 10/6/03 BP America Production Company submitted, for BLM approval, Application for Permit Drill above mentioned well. On said application it was stated that Williams Field Services would be the transporting pipeline. This sundry is filed to revise that statement to Duke Energy will be the transporter.

If you have any questions please call me at 281-366-4081.

14. I hereby certify that the foregoing is true and correct  
Name (Printed/typed)

Cherry Hlava

Title Regulatory Analyst

Signature

*Cherry Hlava*

Date 10/10/03

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

/s/ Charlie Beecham

Title

Date

NOV - 5 2003

Conditions of approval, if any, are attached. Approval of this notice does not warrant or Certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOC

**BP AMERICA PRODUCTION COMPANY  
DRILLING AND COMPLETION PROGRAM**

**Prospect Name:** Isabel A #1S

**Lease:**

**County:** San Juan

**State:** New Mexico

**Date:** September 30, 2003

**Well No:** 1S

**Surface Location:** Section 30, T32N, R9W;

**Field:** Basin Fruitland Coal

**OBJECTIVE:** Drill to a TD of 3570' kb - topset FT with 7" casing and air drill the Fruitland Coal interval, run a 5 1/2" liner and perforate liner.

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS	DEPTH OF DRILLING	Estimated GL: 6636		Estimated KB: 6649	
Rotary	0 – 3557' MD, 3570' KB	MARKER		SUBSEA	MEAS. DEPTH
LOG PROGRAM		Ojo Alamo		4546	2090
		Kirtland		4428	2208
		Fruitland		3521	3115
		Fruitland Coal	*#	3436	3200
		Pictured Cliffs	*	3175	3461
TYPE	DEPTH INVERAL				
<u>Mud log &amp; gas chromatograph</u>	<u>3180 - 3570</u>				
REMARKS: At TD and prior to completion of the Fruitland coal interval, the operator will FAX or email a copy of the mud log covering the lower basal Fruitland coal seam and Pictured Cliffs Formation to the FFO-PMT geologist (Chip Harraden @ 505-599- 8997 or chip_harraden@nm.blm.gov).		TOTAL DEPTH		3066	3570
		# Probable completion interval		* Possible Pay	
SPECIAL TESTS		DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE		FREQUENCY	DEPTH	FREQUENCY	DEPTH
None		none	none	Geolograph	0-3570
REMARKS:					

**MUD PROGRAM:**

Approx. Interval	Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification
0 - 120	Spud	8.6-9.2			
120 - 3180 (1)	Water/LSND	8.6-9.2		<6	
3180 - 3570	Gas/Air/N2/Mist	Volume sufficient to maintain a stable and clean wellbore			

**REMARKS:**

(1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.

**CASING PROGRAM:** (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract)

Casing String	Estimated Depth	Casing Size	Grade	Weight	Hole Size	Landing Pt, Cmt, Etc.
Surface/Conductor	120	9 5/8"	H-40, 8 RND	32.3	12.5"	1
Intermediate	3180	7"	J-55, 8 RND	20.0	8.75"	1
Production Liner	2620 3130	5 1/2"	J-55, 8 RND	15.5	11.0"	2

**REMARKS:**

(1) Circulate Cement to Surface

**(2) under-ream hole from 6.25" to 11.0" before running 5 1/2" liner.**

**CORING PROGRAM:**

None

**COMPLETION PROGRAM:****No frac, perforated liner completion. Run 2-3/8" reduced collar tubing to a depth of 3400' kb.****GENERAL REMARKS:**

Notify BLM/NMOCD 24 hours prior to Spud, BOP testing, and Casing and Cementing.

Form 46 Reviewed by:

Logging program reviewed by:

N/A

**PREPARED BY:****APPROVED:****DATE:**

Daniel Crosby

9/30/03

Form 46 12-00 MNP

**SAN JUAN BASIN  
Fruitland Formation  
Pressure Control Equipment**

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**Background**

The objective Fruitland Coal formation maximum surface pressure is anticipated to be less than 1000 psi, based on shut-in surface pressures from adjacent wells. Pressure control equipment working pressure minimum requirements are therefore 2000 psi. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 psi system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 psi rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rights to be utilized have substructure height limitations which exclude the use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below conductor to total depth in the Basin ~~Dakota~~. No abnormal temperature, pressure, or H<sub>2</sub>S anticipated.

*Fruitland Coal*

**Equipment Specification**

**Interval**

**BOP Equipment**

Below conductor casing to total depth

11" nominal or 7 1/16", 3000 psi  
double ram preventer with rotating  
head.

All ram type preventers and related control equipment will be hydraulically tested to 250 psi (low pressure) and 2000 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, upper kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure.

**FEDERAL CEMENTING REQUIREMENTS**

1. All permeable zones containing fresh water and other usable water containing 10,000 PPM or less total dissolved solids will be isolated and protected from contamination by cement circulated in place for the protection of permeable zones per the NTL-FRA 90-1 Section III A.
2. The hole size will be no smaller than 1 1/2" larger diameter than the casing O.D. across all water zones.
3. An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement.
4. An adequate number of casing centralizers will be run through usable water zones to ensure that the casing is centralized through these zones. The adequate number of centralizers to use will be determined by API SPEC 10D.
5. Centralizers will impart a swirling action around the casing and will be used just below and into the base of the lowest usable water zone.

## BOP Test Pressure

### BP America Production Company BOP Pressure Testing Requirements

Well Name: Isabel  
County: San Juan

1S  
State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	2090		
Kirtland	2208		
Fruitland Coal	3200	600	0
PC	3461	800	0
Lewis Shale			
Cliff House			
Menefee Shale			
Point Lookout			
Mancos			
Dakota			

\*\* Note: Determined using the following formula:  $ABHP - (.22 * TVD) = ASP$

Requested BOP Pressure Test Exception: 850 psi



# Cementing Program

Well Name: **Isabel A #1S**  
 Location: **Sec 30 - 32N - 9W**  
 County: **San Juan**  
 State: **New Mexico**

Field: **Basin Fruitland Coal**  
 API No.   
 Well Flac   
 Formation: **Fruitland Coal**  
 KB Elev (est) **6649**  
 GL Elev. (est) **6636**

## Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Or TOL (ft.)	Cmt Cir. Out (bbl.)
Surface	120	12.5	9.625	ST&C	Surface	NA	
Production -	3180	8.75	7	LT&C	Surface	NA	

## Casing Properties:

(No Safety Factor Included)

Casing String	Size (in.)	Weight (lb/ft)	Grade	Burst (psi.)	Collapse (psi.)	Joint St. (1000 lbs.)	Capacity (bbl/ft.)	Drift (in.)
Surface		9.625	32 H-40	3370	1400	254	0.0787	8.845
Production -		7	20 K-55	3740	2270	234	0.0405	6.456

## Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight	<u>Recommended Mud Properties Prio Cementing:</u>	
			PV	<20
			YP	<10
			Fluid Loss	<6
0 - SCP	Water/Spud	8.6-9.2		
SCP - TD	Water/LSND	8.6-9.2		
SCP - TD	Gas/Air/N2/Mist	NA		

## Cementing Program:

	Surface	Production
Excess %, Lead	100	40
Excess %, Tail	NA	40
BHST (est deg. F)	75	120
Special Instructions	1,6,7	2,4,6

1. Do not wash pumps and lines.
2. Wash pumps and lines.
3. Reverse out
4. Run Blend Test on Cement
5. Record Rate, Pressure, and Density on 3.5" disk
6. Confirm densitometer with pressurized mud scales
7. 1" cement to surface if cement is not circulated.
8. If cement is not circulated to surface, run temp. survey 10-12 hr. after landing plug.

## Notes:

\*Do not wash up on top of plug. Wash lines before displacing production cement job to minimize drillout.

## Surface:

Preflush	20 bbl.	FreshWater	
Slurry 1	110 sx Class G Cement		117 cuft
TOC@Surface	+ 2% CaCl2 (accelerator)		
	0.25 #/sk Cellophane Flake (lost circulation additive)		0.4887 cuft/ft OH
	0.1% D46 antifoam		
Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	15.8	1.16	4.95

## Casing Equipment:

- 9-5/8", 8R, ST&C
- 1 Guide Shoe
- 1 Top Wooden Plug
- 1 Autofill insert float valve
- Centralizers, 1 per joint except top joint
- 1 Stop Ring
- 1 Thread Lock Compound

# Cementing Program

## Production:

Fresh Water	10 bbl	CW100	
Lead		220 sx Class "G" Cement	560 cuft
Slurry 1		+ 3% D79 extender	
TOC@Surface		+ 2% S1 Calcium Chloride	
		+ 1/4 #/sk. Cellophane Flake	
		+ 0.1% D46 antifoam	
Tail		90 sx 50/50 Class "G"/Poz	105 cuft
Slurry 2		+ 2% gel (extender)	
500 ft fill		0.1% D46 antifoam	0.1503 cuft/ft OH
		+ 1/4 #/sk. Cellophane Flake	0.1746 cuft/ft csg ann
		+ 2% CaCl2 (accelerator)	

## Slurry Properties:

	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water (gal/sk)
Slurry 1	11.4	2.61	17.77
Slurry 2	13.5	1.27	5.72

## Casing Equipment:

7", 8R, ST&C

1 Float Shoe (autofill with minimal LCM in mud)

1 Float Collar (autofill with minimal LCM in mud)

1 Top Rubber Plug

1 Thread Lock Compound