Form 3160-3

FORM APPROVED OMB No. 1004-0136

August 1999) UNITED ST		Expires November	r 30, 2000	
DEPARTMENT OF T BUREAU OF LAND N	MANAGEMENT OF SOS	5. Lease Serial No. NMSF	-08060	
APPLICATION FOR PERMIT	TO DRILL OR REENTER	6. If Indian, Allottee or Tribe	Name	
la. Type of Work: 💆 DRILL 🔲 REENTER		7. If Unit or CA Agreement, N	Name and No.	
1b. Type of Well: ☐ Oil Well   ☐ Gas Well ☐ Oth	ner Single Zone Multiple Zone	8. Lease Name and Well No. FEDERAL GAS COM #	1	
	CHERRY HLAVA E-Mail: hlavacl@bp.com	9. API.Well No. 30-045-32	87Le	
3a. Address HOUSTON, TX 77253-3092	3b. Phone No. (include area code) Ph: 281-366-4081	10. Field and Pool, or Explora BASIN FRUITLAND C		
4. Location of Well (Report location clearly and in accordance	nce with any State requirements.*)	11. Sec., T., R., M., or Blk. an	d Survey or Area	
	36.81694 N Lat, 107.96250 W Lon	Sec 14 T30N R11W M	ler NMP	
At proposed prod. zone NENW 845FNL 2090FWL 3	36.81694 N Lat, 107.96250 W Lon			
14. Distance in miles and direction from nearest town or post of 1.8 MILES E. FROM AZTEC, NM (INSIDE CITY	office* LIMITS)	12. County or Parish SAN JUAN	13. State NM	
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any)	16. No. of Acres in Lease	17. Spacing Unit dedicated to this well		
845	315.55	315.55 N	2	
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file		
completed, applied for, on this lease, it.	2483 MD	WY2924		
21. Elevations (Show whether DF, KB, RT, GL, etc. 5869 GL	22. Approximate date work will start 03/04/2005	23. Estimated duration 6		
	24. Attachments			
The following, completed in accordance with the requirements of	f Onshore Oil and Gas Order No. 1, shall be attached to	o this form:		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Systes SUPO shall be filed with the appropriate Forest Service Off</li> </ol>	Item 20 above).  Solution 20 above (1) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	tions unless covered by an existing information and/or plans as may be	. `	
25. Signature (Electronic Submission)	Name (Printed/Typed) CHERRY HLAVA Ph: 281-366-4081		Date 02/03/2005	
Title REGULATORY ANALYST				
Approved by Signatury	Name (Printed/Typed)		Date 7-5-0	
Title AFM	Office FFO		<del></del>	
Application approval does not warrant or certify the applicant hosperations thereon.  Conditions of approval, if any, are attached.	lds legal or equitable title to those rights in the subject	lease which would entitle the appli	cant to conduct	

Additional Operator Remarks (see next page)

Electronic Submission #53745 verified by the BLM Well Information System For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

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

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

District 1 ' PO Box 1980, Hobbs NM 88241-1980

District II PO Drawer KK, Artesia, NM 87211-0719 District III

1000 Rio Brazos Rd., Aziec. NM 87410 Districi IV

PO Box 2088, Saura 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

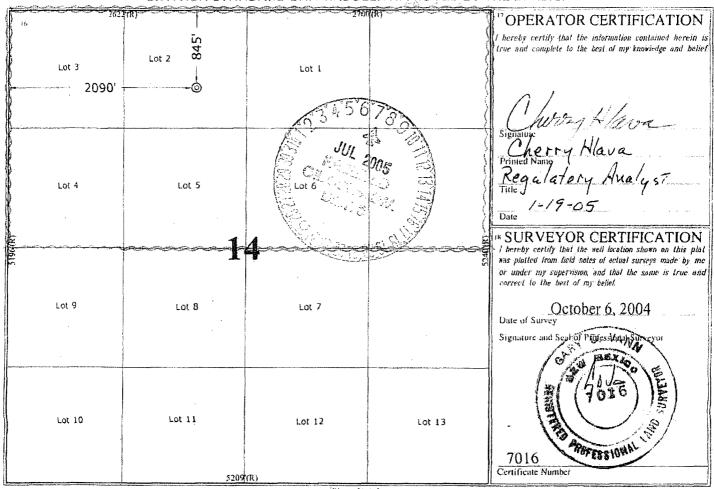
AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

30-045-32876 71629		Basin Fruitland Coal		
Property Code	Federal Gas Com	Property Name	Well Number	
OGRID No.		Operator Name	Elevation	
000 778	BP AMERICA PROD	UCTION COMPANY	5869	

Surface Location Feet from the North/South had Feet from the Ensi/West line County Range UL or Lot No. Township Las lifei Section SAN JUAI Lot 2 (C) 14 30 N 11 W 845 NORTH 2090 WEST Bottom Hole Location If Different From Surface East/West fine 2. UL or lot no Section Township Lot ldn Feet from the North/South Inc Feet from the County " Dedicated Acres " Joint or Infall Consolidation Code 315.55

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

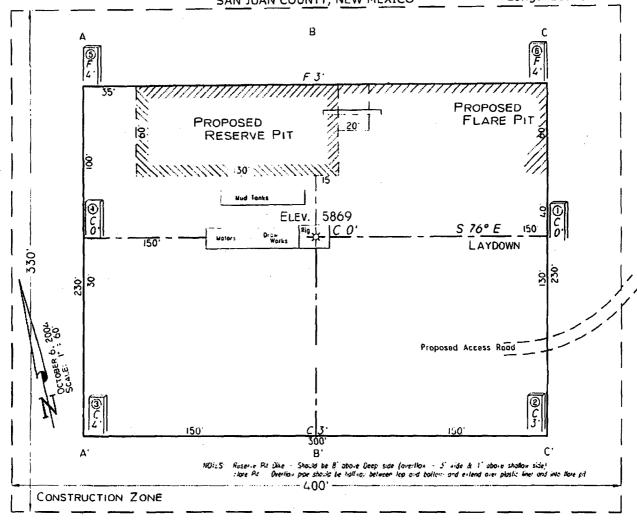


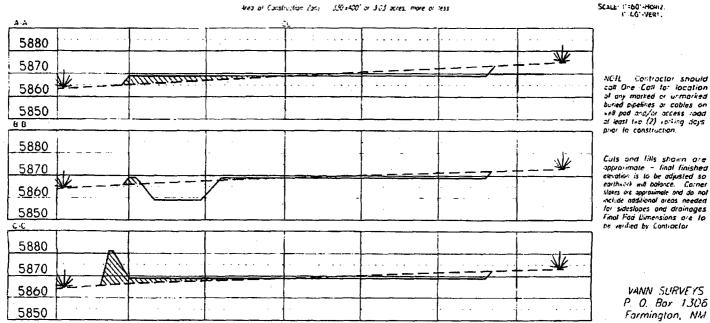
Submit 3 Copies To Appropriate District	State of New Mexico	Form C-103		
Office District I	Energy, Minerals and Natural Resources	May 27, 2004		
1625 N. French Dr., Hobbs, NM 88240	•	WELL API NO.		
District II	OIL CONSERVATION DIVISION	New Well		
1301 W. Grand Ave., Artesia, NM 88210 District III	1220 South St. Francis Dr.	5. Indicate Type of Lease		
1000 Rio Brazos Rd., Aztec, NM 87410		STATE FEE		
District IV	Santa Fe, NM 87505	6. State Oil & Gas Lease No.		
1220 S. St. Francis Dr., Santa Fe, NM				
87505 SLINDRY NOTI	CES AND REPORTS ON WELLS	7. Lease Name or Unit Agreement Name		
	SALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A	Federal Gas Com		
	CATION FOR PERMIT" (FORM C-101) FOR SUCH	(BLM NM 06105)		
PROPOSALS.)	· · · · · · · · · · · · · · · · · · ·	8. Well Number		
1. Type of Well: Oil Well	Gas Well Other	1		
2. Name of Operator		9. OGRID Number		
BP AMERICA PRODUCTION O	COMPANY	000778		
3. Address of Operator	70	10. Pool name or Wildcat		
P.O. BOX 3092 HOUSTON, TX	77079-2064	Basin Fruitland Coal		
4. Well Location				
	0.45 C (C (1 NT 4) 1' 1.000	N C (C 41 1997 4 12		
		efeet from the West line		
Section 14	Township 30N Range 11W	NMPM SAN JUAN County		
	11. Elevation (Show whether DR, RKB, RT, GR, etc.			
12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5869' GR			
Pit or Below-grade Tank Application 🛛 o	r Closure			
Pit type_DRILLINGDepth to Ground	water ≥100' Distance from nearest fresh water well ≥ 1000'	Distance from nearest surface water_> 1000'		
Pit Liner Thickness: 12 mil I	selow-Grade Tank: Volume95bbls; Construct	ion Material IMPERVIOUS		
12 Charle A	preprieta Pay to Indicate Nature of Natice	Panart or Other Data		
12. Check F	Appropriate Box to Indicate Nature of Notice,	Report of Other Data		
NOTICE OF IN	TENTION TO: SUB	SEQUENT REPORT OF:		
PERFORM REMEDIAL WORK	PLUG AND ABANDON ☐ REMEDIAL WOR			
TEMPORARILY ABANDON	CHANGE PLANS   COMMENCE DR			
PULL OR ALTER CASING	MULTIPLE COMPL CASING/CEMEN	· · · · · · · · · · · · · · · · · · ·		
TOLE OF METER ONOR G	MOETH LE COMM E	1000		
OTHER: LINED DRILLING PIT	OTHER:	П		
	leted operations. (Clearly state all pertinent details, an	d give pertinent dates, including estimated date		
	rk). SEE RULE 1103. For Multiple Completions: At			
or recompletion.	,	G. T.		
•				
Construct a lined drilling pit per B	P America – San Juan Basin Drilling/ Workover P	it Construction Plan issued date of		
11/17/2004. Pit will be closed acco	rding to closure plan on file.			
I hereby certify that the information	above is true and complete to the best of my knowledg	e and belief. I further certify that any pit or below-		
I hereby certify that the information grade tank has been/will be constructed or	above is true and complete to the best of my knowledg closed according to NMOCD guidelines ⊠, a general permit □	e and belief. I further certify that any pit or below- or an (attached) alternative OCD-approved plan □.		
grade tank has been/will be constructed or	closed according to NMOCD guidelines ⊠, a general permit □	e and belief. I further certify that any pit or belowor an (attached) alternative OCD-approved plan □.		
I hereby certify that the information grade tank has been/will be constructed or SIGNATURECherry Hlan	closed according to NMOCD guidelines ⊠, a general permit □	or an (attached) alternative OCD-approved plan .		
grade tank has been/will be constructed or	closed according to NMOCD guidelines ⊠, a general permit □	or an (attached) alternative OCD-approved plan .		
grade tank has been/will be constructed or	closed according to NMOCD guidelines ⊠, a general permit □	or an (attached) alternative OCD-approved plan .		
grade tank has been/will be constructed or  SIGNATURE Cherry Hlan	closed according to NMOCD guidelines ⊠, a general permit ☐  TITLE Regulatory Analy  E-mail address: hlavacl@bp.com	or an (attached) alternative OCD-approved plan  stDATE02/03/05  Telephone No. 281-366-4081		
grade tank has been/will be constructed or  SIGNATURE Cherry Hlave  Type or print name Cherry Hlave	closed according to NMOCD guidelines ⊠, a general permit ☐  TITLE Regulatory Analy  E-mail address: hlavacl@bp.com	or an (attached) alternative OCD-approved plan  stDATE02/03/05  Telephone No. 281-366-4081		
grade tank has been/will be constructed or  SIGNATURE Cherry Hlave  Type or print name Cherry Hlave	closed according to NMOCD guidelines 🖾, a general permit 🗌	or an (attached) alternative OCD-approved plan  stDATE02/03/05  Telephone No. 281-366-4081		

# PAD LAYOUT PLAN & PROFILE BP AMERICA PRODUCTION COMPANY Federal Gas Com \*\*/

845' F/NL 2090' F/WL SEC. 14, T30N, R11W, N.M.P.M. SAN JUAN COUNTY, NEW MEXICO 36. 816 94 107.9625

> Lat: 36°49'01" Long: 107°57'45"





# Additional Operator Remarks Federal Gas Com #1 APD

BP America Production Company respectfully requests permission to drill the subject well to a total MD of approximately 2483' and complete in the Basin Fruitland Coal.

If terrain allows it is still our intent to pre-set the 8 5/8" casing on the above mentioned well by drilling a surface hole with air/air mist in lieu of drilling mud and the surface casing be cemented with 94.5 cu/ft type I-II, 20% FLYASH, 14.5 PPG, 7.41 gal/sk, 1.61 cf/sk Yield, 80 DEG BHST ready mix cement. If the area will not allow for pre-set the approved cement program will be followed.

#### SUPPLEMENTAL TO SURFACE USE PLAN

#### New Facilities:

A 4.5" diameter buried steel pipeline that is +/- 400 feet in length will be constructed. The pipe wall thickness is .156 and the pipe wall strength is 42,000#. It will be adjacent to the access road and tie the well into an existing gas meter operated by BP America Production Company. The pipeline will not be used to transport gas to drill the well. After the well is spud the pipeline will be authorized by a right-of-way issued by El Paso Field Services.

APD/ROW

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

Prospect Name: Federal GC

Well No: 1

Surface Location: Section 14C, T30N, R11W; 845' FNL, 2090' FWL

County: San Juan

Lease:

State: New Mexico

Date: January 20, 2005

Field: Basin Fruitland Coal

OBJECTIVE: Drill to a TD of 24	33' kb. set 5.5" cas	ing and perf and frac	the Fru	uitland Coal in	nterval.			
	OF DRILLING					HS OF (	SEOLOGIC	AL MARKER
TYPE OF TOOLS	DEPTH OF		^	Estimated				KB: 5880
Rotary	0 – TD	Ditteliito	-	MARKER			UBSEA	MEAS. DEPTH
	PROGRAM		$\dashv$	ojo Alamo	`		4960	920
[	HOGHAM	•		irtland			4850	1030
				ruitland			3960	1920
TYPE	DEPTH INVE	ERAL	F	ruitland Coa	al *#		3815	2065
Cased-hole			P	ictured Cliff	s *		3547	2333
			1			Ì		
GR/CCL & RST	Min charge d	iepth - TD			ļ			
				•	1			
			İ			İ		
<b>REMARKS:</b> Primary presentatio	n is RST Coal In	terpretation				İ		
(5"=100') with coal shaded. Carl	bon-oxygen/Inela	astic Capture pass				}		Ì
across the Fruitland interval only						l		
Hilkewich in Houston. Customer	LAS file to Denr	nis Hilkewich in				-	•	
Houston – hilkewdn@bp.com					-			
	•		-	OTAL DEP	тн		3397	2483
·					ompletion in	terval	* Possible	
SPECI	AL TESTS				TTING SAN		DRIL	LING TIME
TYPE				REQUENC			FREQUE	
PRESSURE DATA IN EACH	COAL AND PO	PRIOR TO	n	one	none		Geolograph	n 0-TD
FRAC			l				Į	
REMARKS:								
	·							· 
MUD PROGRAM:								<del></del>
Approx. Interval	Type Mud	Weight, #	/ga \	Vis, sec/qt	W/L cc	's/30 mi	n Other	Specification
0 - 120	Spud	8.6-9.2						
120 - TD (1)	Water/LSI	ND 8.6-9.2			<6			
REMARKS:						· · · · · · · · · · · · · · · · · · ·		
(1) The hole will require swee								
CASING PROGRAM: (Normal			es casi	ing sizes to b				
	mated Depth	Casing Size	Gra		Weight	Hole S		ing Pt, Cmt, Etc.
Surface/Conductor	120	8-5/8"		0, 8 RND	20.0	1	2.5"   1	
Intermediate	TD	5-1/2"	J-55	5, 8 RND	15.5	8.	.75"   1	
REMARKS:								
(1) Circulate Cement to Surfa	ice							
CORING PROGRAM:								
None								· · · · · · · · · · · · · · · · · · ·
COMPLETION PROGRAM:				•				
Rigless, Limited Entry Hydrau	iic Frac					<u> </u>	· · · · · · · · · · · · · · · · · · ·	
GENERAL REMARKS:	prior to Chud	DOD tooting and	Oi-				•	•
Notify BLM/NMOCD 24 hours Form 46 Reviewed by:	prior to Spud,					N1//		
PREPARED BY:	ADDD	OVED:	yying	DATE:	eviewed by:	N/A	<del>1</del>	
FREFARED DI:	APPR	OVED:		DAIE:				
Form 46 12-00 MNP		<del></del>						

### **BP America Production Company BOP Pressure Testing Requirements**

Well Name: Federal GC 1

County: San Juan

State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	920		
Kirtland	1030		
Fruitland Fm	1920		
Fruitland Coal	2065	400	0
PC	2333		
i . )			·
}			
,	•	•	
1	,		

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

Requested BOP Pressure Test Exception: | 850 psi

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

#### 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 Fruitland Coal. No abnormal temperature, pressure, or H2S anticipated.

#### **Equipment Specification**

#### <u>Interval</u>

#### **BOP Equipment**

Below conductor casing to total depth 11" nominal or 7 1/16", 2000 psi single ram preventer with 3000 psi annular preventer and rotating head.

All ram type and annular preventers as well as related control equipment will be hydraulically tested to 250 psi (low pressure) and 1500 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.

### **Cementing Program**

Federal GC IM Per Cherry Hava 2/14/05 Field: Basin Fruitland Coal Well Name: Section 14C, T30N, R11W; 845' FNL, 2090' FWL API No. Location: San Juan Well Flac County: State: New Mexico Formation: Fruitland Coal KB Elev (est) 5880 5869 GL Elev. (est) Casing Program: Casing String Est. Depth Hole Size Casing Size Thread TOC (ft.) (in.) (in.) (ft.) Surface Surface 120 12.5 8 5/8 8rd Production -2483 8.75 5 1/2 8rd Surface **Casing Properties:** (No Safety Factor Included) Casing String Size Weight Grade (in.) (lb/ft) Surface 8 5/8 20 40 كالمسلم Production -15.5 J-55 5 1/2 Mud Program Apx. Interval Mud Type Mud Weight Recommended Mud Properties Prio Cementing: PV (ft.) <20 YΡ <10 0 - SCP Water/Spud 8.6-9.2 Fluid Loss <6 SCP - TD Water/LSND 8.6-9.2 Cementing Program: Surface Production Excess %, Lead 100 40 Excess %, Tail NA 40 BHST (est deg. F) 75 120 Special Instructions 1,6 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 Surface: Preflush 20 bbl. FreshWater 84 sx Class C Cement Slurry 1 107 cuft TOC@Surface + 2% CaCl2 (accelerator) 0.4465 cuft/ft OH Slurry Properties: Density Yield Water (lb/gal) (ft3/sk) (gal/sk) Slurry 1 15.2 1.27 5.8 Casing Equipment: 8-5/8", 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	C	CW100		
	Lead		262 s	sx Class "G" Cement		683 cuft
	Slurry 1		4	3% D79 extender		
	TOC@Surface		+	2% S1 Calcium Chloride		
			4	1/4 #/sk. Cellophane Flake		
			+	+ 0.1% D46 antifoam'		
	Tail		139 s	sx 50/50 Class "G"/Poz		177 cuft
	Slurry 2		4	⊦ 2% gel (extender)		
	500 f	t fill	_	0.1% D46 antifoam		0.2526 cuft/ft OH
			4	-1/4 #/sk. Cellophane Flake		0.2009 cuft/ft csg ann
			4	2% CaCl2 (accelerator)		
Slurry Properties:	[	Density	١	Yield	Water	
	(	lb/gal)	(	ft3/sk)	(gal/sk)	
Slurry 1		11.4		2.61	17.77	
Slurry 2		13.5		1.27	5.72	•
Oi Fi		1/01 OD OTOO				840 fr 3
Casing Equipment		5 1/2", 8R, ST&C				040 //
		Float Shoe (autofill wi		•		
		Float Collar (autofill w		nal LCM in mud)		
	_	Centralizers as needed				
		Top Rubber Plug				
	1	Thread Lock Compou	ınd			

## **BP American Production Company**

Well Control Equipment Schematic



