



APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB NO. 1004-0137  
Expires: March 31, 2007

2005 DEC 20 AM 11:14  
RECEIVED  
070 FARMINGTON NM

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>NMSF - 078604-A</b>
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator <b>BP AMERICA PRODUCTION COMPANY</b>		7. If Unit or CA Agreement, Name and No.
3a. Address <b>P.O. BOX 3092 HOUSTON, TX 77253</b>		8. Lease Name and Well No. <b>EALUM GAS COM 1 M</b>
3b. Phone No. (include area code) <b>281-366-4081</b>		9. API Well No. <b>30-045-33486</b>
4. Location of well (Report location clearly and in accordance with any State requirements. *) At surface <b>1890 FNL 2260 FEL SW NE Lat. 36.9439 Long. 107.8861</b> At proposed prod. zone		10. Field and Pool, or Exploratory <b>Basin DAKOTA &amp; BLANCO MV</b>
14. Distance in miles and direction from the nearest town or post office* <b>10.3 MILES N/E FROM AZTEC</b>		11. Sec., T., R., M., or Blk. and Survey or Area <b>G 33 T 32N R 10W</b>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any) <b>708'</b>		12. County or Parish <b>SAN JUAN</b>
16. No. of acres in lease <b>320</b>		13. State <b>NM</b>
17. Spacing Unit dedicated to this well <b>320 N/A</b>		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		20. BLM/ BIA Bond No. on file <b>WY2924</b>
19. Proposed Depth <b>7478'</b>		
21. Elevations (Show whether DF, RT, GR, etc.) <b>5986 GR</b>		22. Aproximate date work will start* <b>5/15/2006</b>
		23. Estimated duration <b>7 days</b>

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.  | 4. Bond to cover the operations unless covered by existing bond on file (see item 20 above).        |
| 2. A Drilling Plan.   | 5. Operator certification.  |
| 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). | 6. Such other site specific information and/ or plans as may be required by the authorized officer. |

25. Signature <i>Cherry Hlava</i>	Name (Printed/ Typed) <b>Cherry Hlava</b>	Date <b>12/12/2005</b>
Title <b>Regulatory Analyst</b>		
Approved By (Signature) <i>D. Manbeck</i>	Name (Printed/ Typed)	Date <b>7/28/06</b>
Title <b>AFM</b>	Office <b>FPO</b>	

Application approval 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.

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 page 2)

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

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

NMOC

8

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

2005 DEC 20 AM 11 14 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION

API Number <b>30-045-33486</b>	Pool Code <b>71599; 72319</b>	Property Name <b>Basin Dakota; Blanco Mosaverde</b>
Property Code <b>436</b>	Property Name <b>Ealum Gas Com</b>	Well Number <b># 1M</b>
OGRID No. <b>000778</b>	Operator Name <b>BP AMERICA PRODUCTION COMPANY</b>	Elevation <b>5986</b>

Surface Location

UL or Lot No. <b>G</b>	Section <b>33</b>	Township <b>32 N</b>	Range <b>10 W</b>	Lot Idn	Feet from the <b>1890</b>	North/South line <b>NORTH</b>	Feet from the <b>2260</b>	East/West line <b>EAST</b>	County <b>SAN JUAN</b>
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Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>320</b>									
Dedicated Acres <b>320</b>	Joint or Infill	Consolidation Code	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	2643(R)	1890'	2260'	33	2638(R)	2672(R)	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature <b>Cherry Hlava</b> Printed Name <b>Cherry Hlava</b> Title <b>Regulatory Analyst</b> Date <b>7-14-05</b>

Submit 3 Copies To Appropriate District  
Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO. <u>30-045-33486</u> New Well NMSF - 078604-A
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Ealum Gas Com
8. Well Number 1 M
9. OGRID Number 000778
10. Pool name or Wildcat Basin Dakota & Blanco Mesaverde

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other	7. Lease Name or Unit Agreement Name Ealum Gas Com
2. Name of Operator BP AMERICA PRODUCTION COMPANY	8. Well Number 1 M
3. Address of Operator P.O. BOX 3092 HOUSTON, TX 77079-2064	9. OGRID Number 000778
4. Well Location Unit Letter <u>G</u> : <u>1890</u> feet from the <u>North</u> line and <u>2260</u> feet from the <u>East</u> line Section <u>33</u> Township <u>32N</u> Range <u>10W</u> NMPM SAN JUAN County	10. Pool name or Wildcat Basin Dakota & Blanco Mesaverde
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 5986' GR	
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>	
Pit type <u>DRILLING</u> Depth to Groundwater <u>&gt;100'</u> Distance from nearest fresh water well <u>&gt;1000'</u> Distance from nearest surface water <u>&gt;1000'</u>	
Pit Liner Thickness: <u>12</u> mil Below-Grade Tank: Volume _____ bbls; Construction Material _____	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>
OTHER: LINED DRILLING PIT <input checked="" type="checkbox"/>	OTHER: <input type="checkbox"/>

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Construct a lined drilling pit per BP America - San Juan Basin Drilling/ Workover Pit Construction Plan issued date of 11/17/2004. Pit will be closed according to closure plan on file.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Cherry Hlava TITLE Regulatory Analyst DATE 12/14/05

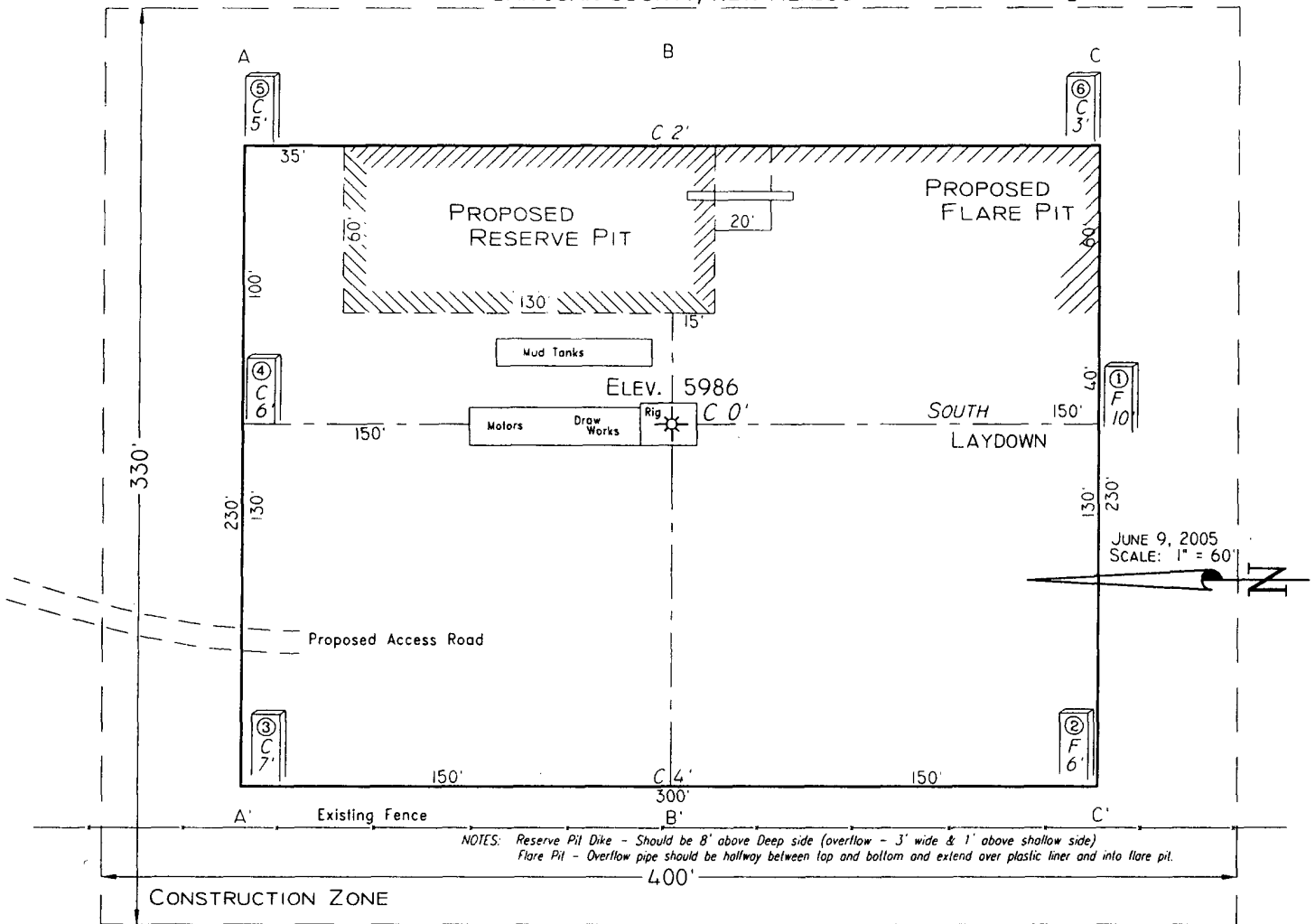
Type or print name Cherry Hlava E-mail address: hlavacl@bp.com Telephone No. 281-366-4081  
For State Use Only

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 3 DATE JUL 31 2006  
Conditions of Approval (if any):

PAD LAYOUT PLAN & PROFILE  
 BP AMERICA PRODUCTION COMPANY  
 Ealum Gas Com # 1M  
 1890' F/NL 2260' F/EL  
 SEC. 33, T32N, R10W, N.M.P.M.  
 SAN JUAN COUNTY, NEW MEXICO

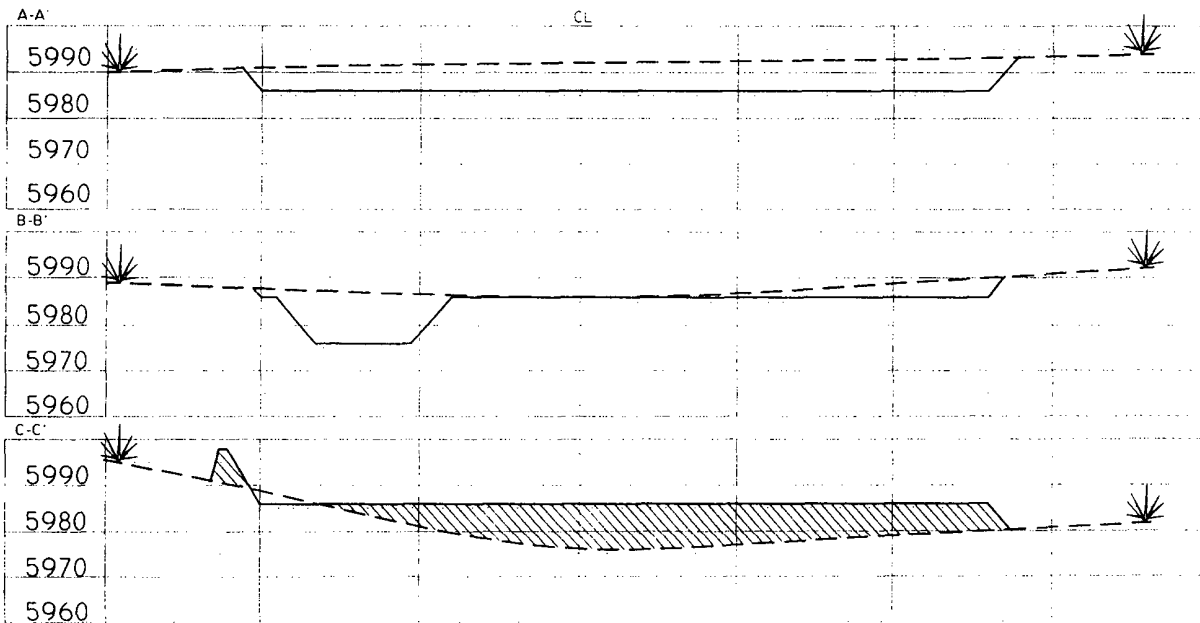
Lat: 36.9439°  
 Long: 107.8861°

Lat: 36°56'38"  
 Long: 107°53'10"



Area of Construction Zone - 330'x400' or 3.03 acres, more or less.

SCALE: 1"=60'-HORIZ.  
 1"=40'-VERT.



VANN SURVEYS  
 P. O. Box 1306  
 Farmington, NM

# BP AMERICA PRODUCTION COMPANY

## DRILLING AND COMPLETION PROGRAM

Revised 6/22/2006

<b>Lease:</b>	Ealum Gas Com	<b>Well Name &amp; No.</b>	Ealum Gas Com # 1M	<b>Field:</b>	Blanco Mesaverde/Basin Dakota
<b>County:</b>	San Juan, New Mexico	<b>Surface Location:</b>	33-32N-10W : 1890' FNL, 2260' FEL		
<b>Minerals:</b>	State	<b>Surface:</b>	Lat: 36.9437570 Long: -107.8855331		
<b>Rig :</b>	Aztec 184	<b>BH Location:</b>	same		

**OBJECTIVE:** Drill 230' below top of the Two Wells member of Dakota, set 4-1/2" production casing. Stimulate DK, MF, and PL intervals.

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER				
TYPE OF TOOLS	DEPTH OF DRILLING	Actual GL:	5986	Estimated KB: 6,000.0'		
Rotary	0 - TD	Marker		SUBSEA	TVD	APPROX. MD
<b>LOG PROGRAM</b>		Ojo Alamo		4,620'	1,380'	1,380'
<b>Type</b>	<b>Depth Interval</b>	Kirtland		4,531'	1,469'	1,469'
Single Run		Fruitland	*	3,826'	2,174'	2,174'
		Fruitland Coal	*	3,552'	2,448'	2,448'
		Pictured Cliffs	*	3,199'	2,801'	2,801'
		Lewis	*	2,959'	3,041'	3,041'
Cased Hole		Cliff House	#	1,662'	4,338'	4,338'
TDT- CBL		Menefee	#	1,289'	4,711'	4,711'
	Identify 4 1/2" cement top	Point Lookout	#	942'	5,058'	5,058'

### REMARKS:

- Please report any flares (magnitude & duration).

	Mancos		578'	5,422'	5,422'
	Greenhorn Lime		-1,107'	7,107'	7,107'
	Graneros (Bent marker)		-1,163'	7,163'	7,163'
	Two Wells (DKOT)	#	-1,238'	7,238'	7,238'
	Paguate	#	-1,309'	7,309'	7,309'
	Upper Cubero	#	-1,345'	7,345'	7,345'
	Lower Cubero	#	-1,376'	7,376'	7,376'
	Encinal Canyon	#	-1,414'	7,414'	7,414'
	<b>TOTAL DEPTH:</b>		-1,468'	7,468'	7,468'
	# Probable completion interval				* Possible Pay

### SPECIAL TESTS:

**TYPE** Post fracture stimulation and clean-up, set pressure bomb within DKC interval for extended build-up. Retrieve when ready for production.

**REMARKS:** FTLD COAL CAHN Member 2750-2800' High Risk for Depletion (Low Pressure) & perhaps water.

DRILL CUTTING SAMPLES		DRILLING TIME	
FREQUENCY	DEPTH	FREQUENCY	DEPTH
none	2,398' to TD	Geolograph	0 - TD

### MUD PROGRAM:

Approx.	TypeMud	Weight,	Vis, sec/qt	W/L cc's	Other Specification
200'	Spud	8.8 - 9.0	Sufficient to clean hole.		
2,398'	Water/LSND	8.4 - 9.0		<9	Sweep hole while whilst water drilling, LCM onsite
7,468'	Air	1	1000 cfm for bit		Volume sufficient to maintain a stable and clean wellbore

### CASING PROGRAM:

CasingString	Estimated	Hole	Casing Size	Grade, Thread	Weight	Landing Point	Cement
Surface/Conductor	200'	14.5"	10.75"	J-55 ST&C	40.5#		cmt to surface
Intermediate 1	2,398'	9.875"	7.625"	K-55 LT&C	26.4#	50' above FC	cmt to surface
Production	7,468'	6.75"	4.5"	P-110	11.6#	TD	150' inside Intermediate

*Alternative 2*

Production	5,372'	6.75"	5.5"	P110 J-55 LT&C	17 18.5#	100' into MNCS	150' into overlap
Production Liner	7,468'	4.75"	3.5"	N-80, HYD 511	9.2#	TD	150' into overlap

### CORING PROGRAM:

None

### COMPLETION PROGRAM:

Rigless, 2-3 Stage Limited Entry Hydraulic Frac, FMC Unihead

### GENERAL REMARKS:

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

### BOP Pressure Testing Requirements

Formation	Depth	Anticipated bottom hole pressure	Max anticipated surface pressure**
Cliffhouse	4,338'	500	0
Point Lookout	5,058'	600	0
Dakota	7,238'	2600	1007.64

Requested BOP Pressure Test Exception = 1500 psi

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

Form 46 Reviewed by:

Logging program reviewed by:

PREPARED BY:

APPROVED:

DATE:

APPROVED:

DATE:

HGJ JMP

Revised 6/22/2006

# Cementing Program

Well Name: **Ealum Gas Com # 1M**  
 Location: **33-32N-10W : 1890' FNL, 2260' FEL**  
 County: **San Juan**  
 State: **New Mexico**

Well Flac  
 Formation: **Blanco Mesaverde/Basin Dakota**  
 KB Elev (est) **6000**  
 GL Elev. (est) **5986**

## 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	200	14.5	10.75	ST&C	Surface	NA	
Intermediate	2398	9.875	7.625	LT&C	Surface	NA	
Production -	<del>7446</del>	6.75	4.5	ST&C	2248	NA	

## Casing Properties:

(No Safety Factor Included)			
Casing String	Size (in.)	Weight (lb/ft)	Grade
Surface	10.75	40.5	H-40
Intermediate	7.625	26.4	K-55
Production -	4.5	11.6	<del>L-55</del>

P110

## Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight
------------------------	----------	------------

## Recommended Mud Properties Prio Cementing:

0 - SCP	Water/Spud	8.6-9.2
SCP - ICP	Water/LSND	8.6-9.2
ICP - ICP2	Gas/Air Mist	NA
ICP2 - TD	LSND	8.6 - 9.2

PV <20  
 YP <10  
 Fluid Loss <15

## Cementing Program:

	Surface	Intermediate	Production
Excess %, Lead	100	75	40
Excess %, Tail	NA	0	40
BHST (est deg. F)	75	120	183
Special Instructions	1,6,7	1,6,8	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 1 163 sx Class C Cement 207 cuft  
 TOC@Surface + 2% CaCl2 (accelerator)  
 0.5164 cuft/ft OH

## Slurry Properties:

	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water (gal/sk)
Slurry 1	15.2	1.27	5.8

## Casing Equipment:

10 3/4", 8R, ST&C  
 1 Guide Shoe  
 1 Top Wooden Plug  
 1 Autofill insert float valve  
 Centralizers, as needed  
 1 Stop Ring  
 1 Thread Lock Compound

## Intermediate:

# Cementing Program

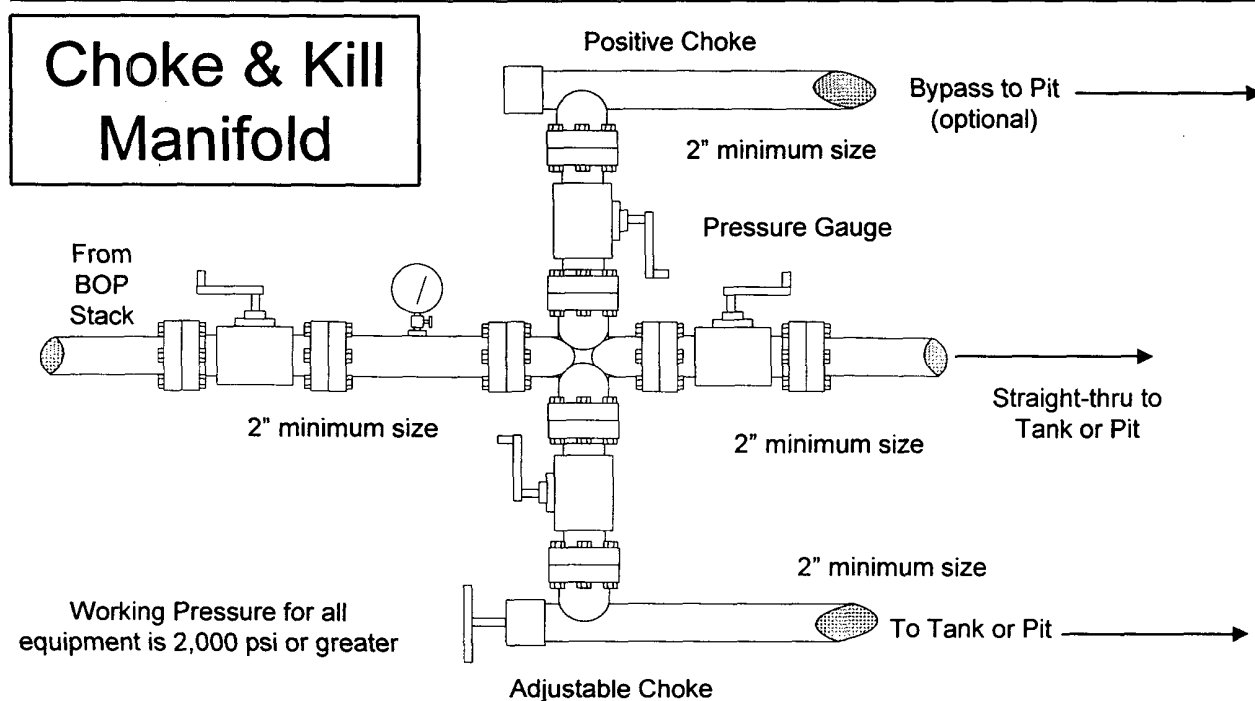
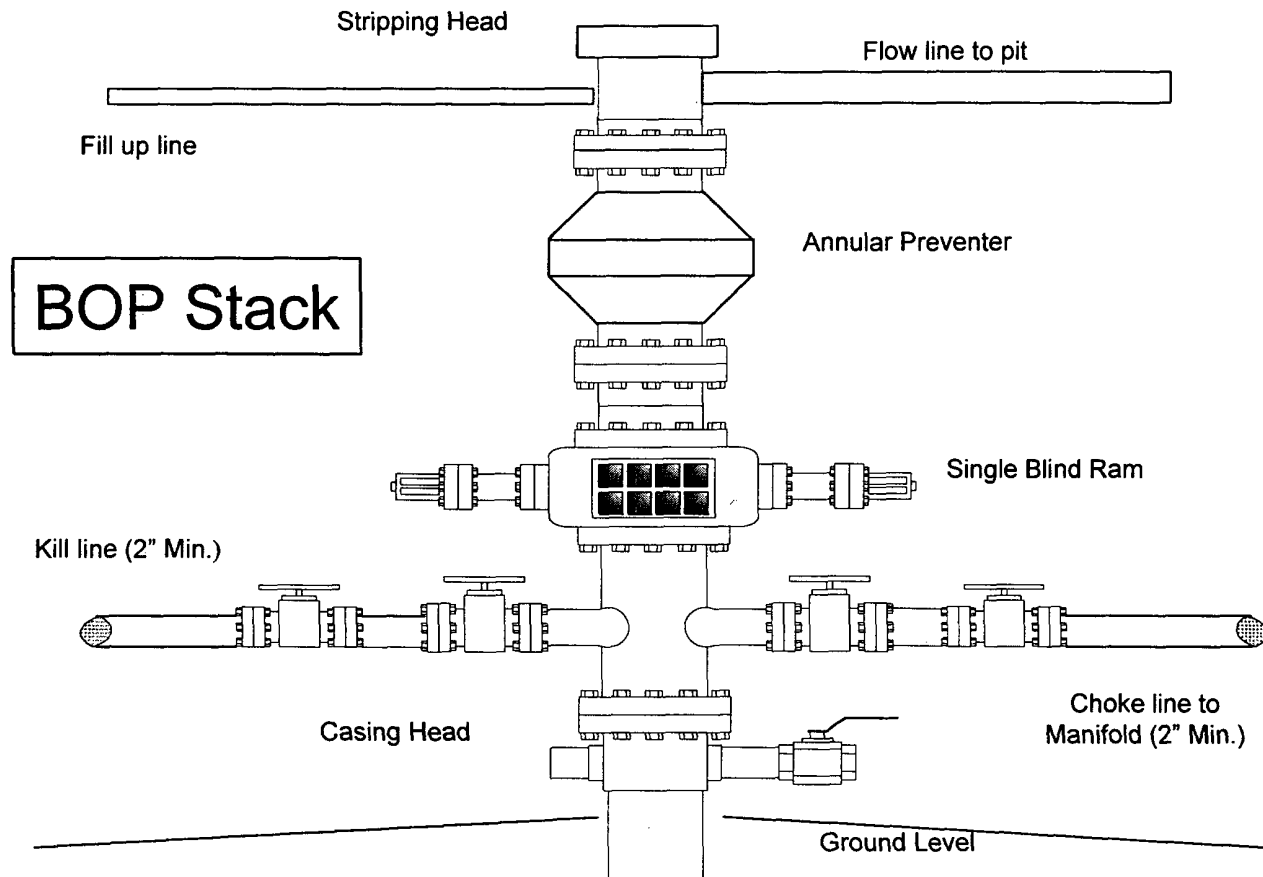
Fresh Water	20 bbl	fresh water		
Lead		260 sx Class "G" Cement	685 cuft	
Slurry 1		+ 3% D79 extender		
TOC@Surface		+1/4 #/sk. Cellophane Flake		
		+ 5 lb/sk Gilsonite		
Tail		85 sx 50/50 Class "G"/Poz	107 cuft.	
Slurry 2		+ 2% gel (extender)		
500 ft fill		+1/4 #/sk. Cellophane Flake	0.2148 cuft/ft OH	
		+ 2% CaCl2 (accelerator)	0.2338 cuft/ft csg anr	
		+ 5 lb/sk Gilsonite		
Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)	
Slurry 1	11.4	2.63	15.8	
Slurry 2	13.5	1.27	5.72	
Casing Equipment:	7 5/8", 8R, ST&C 1 Float Shoe (autofill with minimal LCM in mud) 1 Float Collar (autofill with minimal LCM in mud) 1 Stop Ring Centralizers as needed 1 Top Rubber Plug 1 Thread Lock Compound			
Production:				
Fresh Water	10 bbl	CW100		
Lead		305 LiteCrete D961 / D124 / D154	768 cuft	
Slurry 1	7 5/8	+ 0.03 gps D47 antifoam		
TOC, 400' above shoe		+ 0.5% D112 fluid loss		
		+ 0.11% D65 TIC		
Tail		209 sx 50/50 Class "G"/Poz	301 cuft	
Slurry 2		+ 5% D20 gel (extender)		
1556 ft fill		+ 0.1% D46 antifoam		
		+ 1/4 #/sk. Cellophane Flake		
		+ 0.25% D167 Fluid Loss		
		+ 5 lb/sk Gilsonite		
		+0.1% d800, retarder		
		+0.15% D65, dispersant		
			0.1381 cuft/ft OH	
Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)	
Slurry 1	9.5	2.52	6.38	
Slurry 2	13	1.44	6.5	Top of Mancos
			5422	
Casing Equipment:	4-1/2", 8R, ST&C 1 Float Shoe (autofill with minimal LCM in mud) 1 Float Collar (autofill with minimal LCM in mud) 1 Stop Ring Centralizers, as needed 1 Top Rubber Plug 1 Thread Lock Compound			





# BP American Production Company

## Well Control Equipment Schematic



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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.

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

5. Lease Serial No.

NMSF - 078604-A

6. If Indian, Allottee or tribe Name

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

8. Well Name and No.

EALUM GAS COM 1M

9. API Well No.

New Well 3004533486

10. Field and Pool, or Exploratory Area

BASIN DAKOTA & BLANCO MV

11. County or Parish, State

SAN JUAN, NM

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well



Oil Well



Gas Well



Other

2. Name of Operator

BP AMERICA PRODUCTION COMPANY

3a. Address

PO BOX 3092 HOUSTON, TX 77253

3b. Phone No. (include area code)

281-366-4081

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

1890' FNL & 2260' FEL; SEC 33 T32N R10W SWNE

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 Casing Sizes



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 recomplete 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 12/12/2005 BP submitted application for permit to drill.

To the best of my knowledge that application has not been approved as of 7/10/06 due to waiting on Surface Use Agreement. It is now our intent to change the casing sizes. The design changes are to better manage the lost circulation issues while drilling through the Fruitland Coal. Instead of setting the Intermediate csg into the Lewis we are planning to topset the coal with an upsized intermediate string & thus include the possibility of running a contingency drilling liner in case we encounter wtr influx from the FC or PC while drilling to the DK. In that case alternative #2 (see attached spread sheet) will apply. Should we not encounter any fluid influx the design alternative #1 as shown on Revised Form 46 will apply. Please see attached Revised Form 46, cement program and a spread sheet showing the alternative #2 which is not expected to be used.

14. I hereby certify that the foregoing is true and correct

Name (Printed/typed)

Cherry Hlava

Title Regulatory Analyst

Signature

*Cherry Hlava*

Date 07/10/2006

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

*D. Mankiewicz*

Title

AFM

Date

7/28/06

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

FPO

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.

NMOCD

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

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**Background**

The objective Dakota 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 single 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.

**Equipment Specification**

**Interval**

**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.