

RCVD MAR22'07

OIL CONS. DIV.

DIST. 3

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000Form 3160-3
(August 1999)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER5. Lease Serial No. **SF-078566**

6. If Indian, Allottee or tribe Name

7. If Unit or CA Agreement, Name and No

8. Lease Name and Well No.

STOREY D IN

9. API Well No.

30-045-34126

10. Field and Pool, or Exploratory

Basin Dakota & Blanco Mesaverde

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

SECTION 26 T28N & R08W

12. County or Parish

SAN JUAN

13. State

NEW MEXICO1a. Type of Work: ☒ DRILL☐ REENTER1b. Type of Well: ☐ Oil Well ☒ Gas Well Gas ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator

BP AMERICA PRODUCTION COMPANY

3a. Address

P.O. BOX 3092 HOUSTON, TX 77079-2064

3b. Phone No. (include area code)

281-366-3866

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

At surface **1080' FSL & 2505' FEL SWSE**At proposed prod. Zone **SAME**

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

28.1 MILES SOUTHEAST FROM AZTEC, NM

15. Distance from proposed*

Location to nearest
Property or lease line, ft.(Also to nearest drig. Ujnit line, if any) **1080'**

16. No. of Acres in lease

320.18

17. Spacing Unit dedicated to this well

320.18**320 5/2**

18. Distance from proposed location*

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

19. Proposed Depth

7195' MD

20. BLM/BIA Bond No. on file

WY2924

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

6107' GL

22. Approximate date work will start*

05/08/07

23. Estimated duration

7 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

Name (Printed/typed)

Kristina Hurts

Date

12/19/06

Title

Regulatory Analyst

Approved by (Signature)

Name (Printed/Typed)

Office

FFO

Date

3/19/07

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)

NOTIFY AZTEC OCD **24hrs**
IN TIME TO WITNESS **659 cementing**DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

NMOCD

3/27/07

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

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

206 DEC 20 PM 2:21

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-34126	Pool Code 210	Pool Name Basin 1 Dakota & Blanco Mesquite
Property Code 001141	Property Name Storey D	Well Number # 1N
OGRID No. 778	Operator Name BP AMERICA PRODUCTION COMPANY	Elevation 6107

Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	26	28 N	8 W		1080	SOUTH	2505	EAST	SAN JUAN

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
Dedicated Acres 320.78	Joint or Infill	Consolidation Code	Order No.	OIL CONS. DIV. DIST. 3					

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	5269(R)	26	5280(R)	5280(R)	5280(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 Christina Harts Printed Name KRISTINA Harts Title Regulatory Analyst Date 12-19-06

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

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

Form C-103
May 27, 2004

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.)		WELL API NO. <u>30-045-34124</u> New Well
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator BP AMERICA PRODUCTION COMPANY		6. State Oil & Gas Lease No.
3. Address of Operator P.O. BOX 3092 HOUSTON, TX 77079-2064		7. Lease Name or Unit Agreement Name STOREY D
4. Well Location Unit Letter <u>O</u> : <u>1080</u> feet from the <u>SOUTH</u> line and <u>2505</u> feet from the <u>EAST</u> line Section <u>26</u> Township <u>28N</u> Range <u>08W</u> NMPM <u>SAN JUAN</u> County		8. Well Number <u>1N</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) <u>6107'</u>		9. OGRID Number <u>000778</u>
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>		10. Pool name or Wildcat Basin Dakota & Blanco Mesaverde
Pit type <u>DRILLING</u> Depth to Groundwater <u>>100'</u> Distance from nearest fresh water well <u>>1000'</u> Distance from nearest surface water <u>>200'</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 ☐.

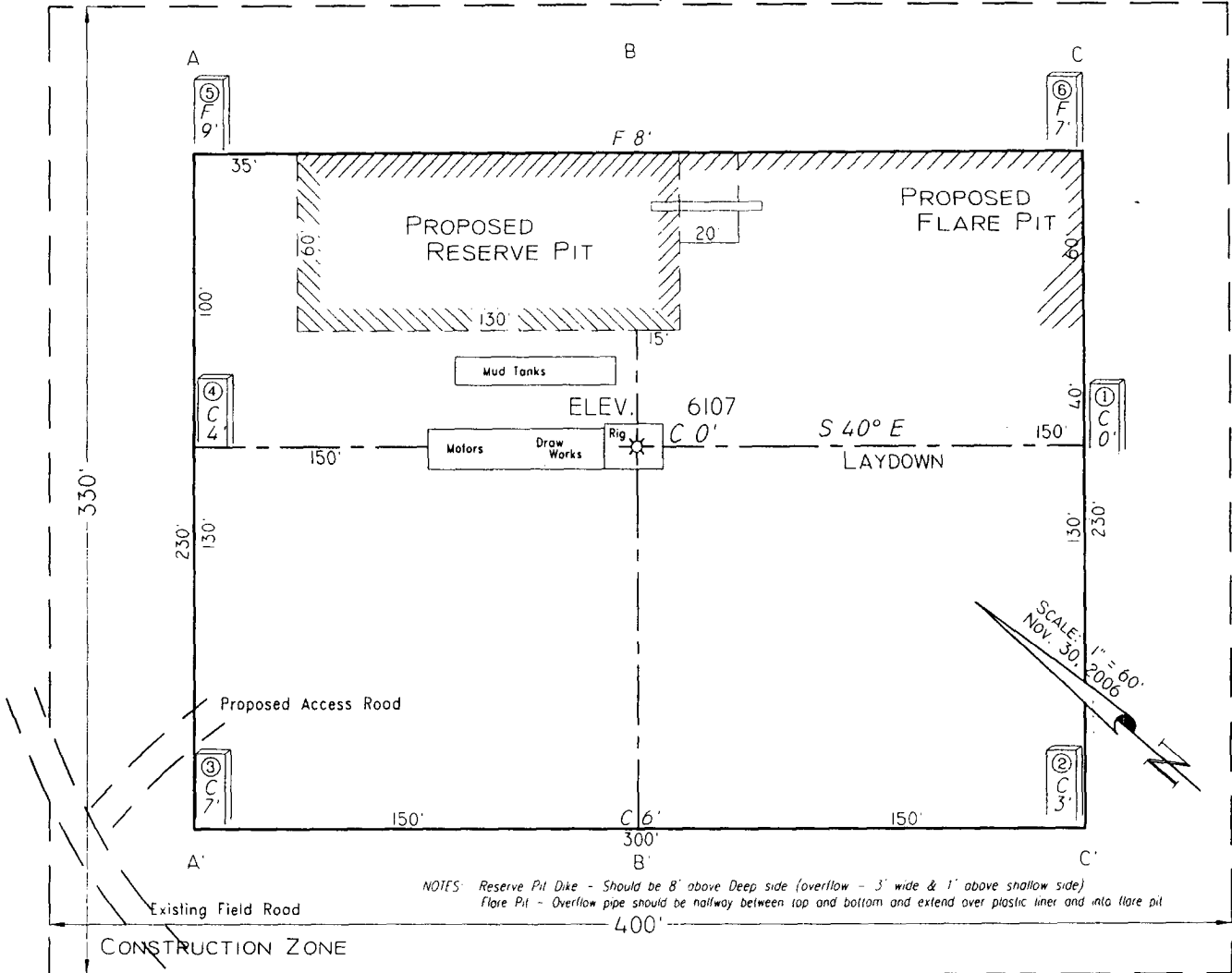
SIGNATURE Kristina Hurts TITLE Regulatory Analyst DATE 12/19/06

Type or print name Kristina Hurts E-mail address: hurtk0@bp.com Telephone No. 281-366-3866
For State Use Only

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #1 DATE MAR 27 2007
Conditions of Approval (if any):

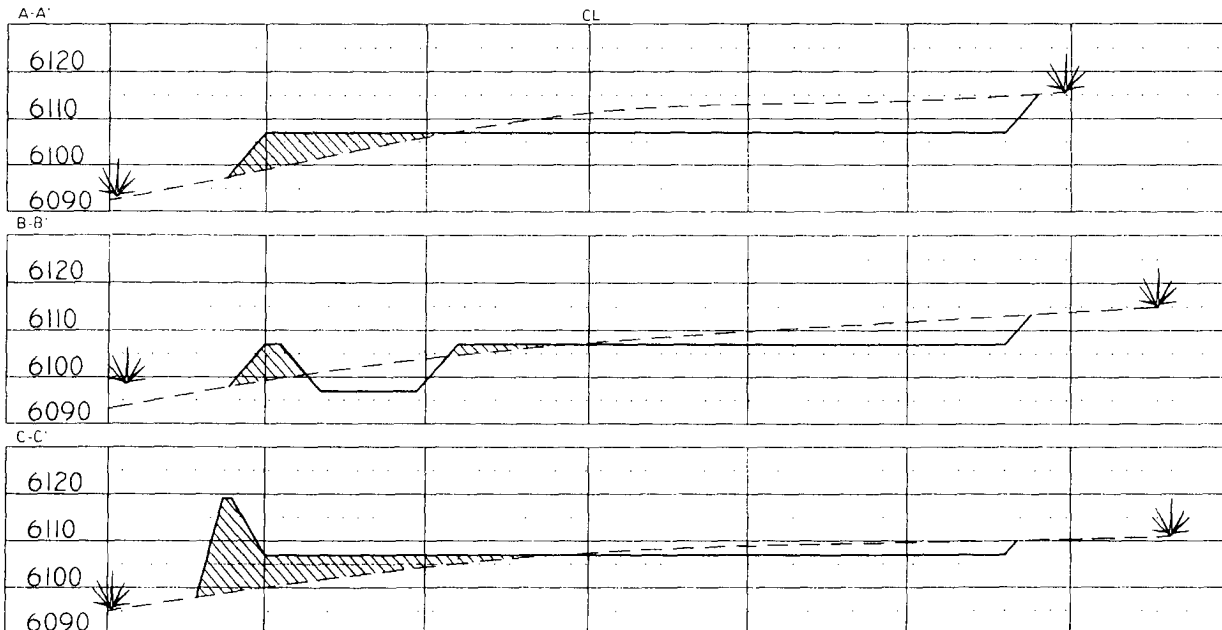
PAD LAYOUT PLAN & PROFILE
BP AMERICA PRODUCTION COMPANY
 Storey D # 1N
 1080' F/SL 2505' F/EL
 SEC. 26, T28N, R8W, N.M.P.M.
 SAN JUAN COUNTY, NEW MEXICO

Lat: 36.62815°
 Long: 107.64987°(83)



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

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



NOTE Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction.

Cuts and fills shown are approximate - final finished elevation is to be adjusted so earthwork will balance. Corner stakes are approximate and do not include additional areas needed for sideslopes and drainages. Final Pad Dimensions are to be verified by Contractor.

VANN SURVEYS
 P. O. Box 1306
 Farmington, NM

BP AMERICA PRODUCTION COMPANY

DRILLING AND COMPLETION PROGRAM

12/12/2006

Lease: Storey	Well Name & No. Storey D #1N	Field: Blanco Mesaverde/Basin Dakota
County: San Juan, New Mexico	Surface Location: 26-28N-8W: 1080' FSL, 2505' FEL	
Minerals: State	Surface: Lat: 36.6280090 deg; Long: -107.6493471 deg	
Rig : H & P 292	BH Location: same	

OBJECTIVE: Drill 370' below the top of the Two Wells Mbr, set 5-1/2" production liner, Stimulate DK, MF, and PL intervals.

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS	DEPTH OF DRILLING	Actual GL: 6107	Estimated KB: 6,121.0'		
Rotary	0 - TD	Marker	SUBSEA	TVD	APPROX. MD
LOG PROGRAM		Ojo Alamo	4,502'	1,619'	1,619'
Type	Depth Interval	Kirtland	4,388'	1,733'	1,733'
Single Run		Fruitland	4,001'	2,120'	2,120'
		Fruitland Coal	3,797'	2,324'	2,324'
		Pictured Cliffs	3,564'	2,557'	2,557'
		Lewis	3,375'	2,746'	2,746'
		Cliff House	2,015'	4,106'	4,106'
Cased Hole	TD to 7" shoe Identify 4 1/2" cement top	Menefee	1,816'	4,305'	4,305'
RST- CBL		Point Lookout	1,313'	4,808'	4,808'
		Mancos	936'	5,185'	5,185'

REMARKS:

The recommended TD is intended to penetrate the entire BRCN (~80') in order to collect petrophysical data to help normalize the 3D seismic data, and possibly produce the entire DKOT. Offsetting wells encountered no water flow in the BRCN. See attached cross-section.

Intermediate casing should be set 100 ft. into the Lwis to minimize the risks encountered drilling through the possibly water productive FRLD coal intervals

Greenhorn		-607'	6,728'	6,728'
Graneros (bent,mkr)		-668'	6,789'	6,789'
Two Wells	#	-704'	6,825'	6,825'
Paguate	#	-803'	6,924'	6,924'
Cubero	#	-836'	6,957'	6,957'
L. Cubero	#	-873'	6,994'	6,994'
Encinal Cyn	#	-918'	7,039'	7,039'
Morrison		-1,019'	7,140'	7,140'
TOTAL DEPTH:		-1,074'	7,195'	7,195'
# Probable completion interval			* Possible Pay	

SPECIAL TESTS

TYPE	DRILL CUTTING SAMPLES		DRILLING TIME	
	FREQUENCY	DEPTH	FREQUENCY	DEPTH
None	30'/10' intervals	2,846' to TD	Geograph	0 - TD

REMARKS:

MUD PROGRAM:

Interval	TypeMud	#/gal	Vis, sec/qt	/30 min	Other Specification
200'	Spud	8.8 - 9.0	Sufficient to clean hole.		
2,846'	Water/LSND	8.4 - 9.0		<9	Sweep hole while whilst water drilling, LCM onsite
7,195'	Air	1	1000 cfm for hammer		Volume sufficient to maintain a stable and clean wellbore

CASING PROGRAM:

CasingString	Depth	Size	Casing Size	Grade, Thread	Weight	Landing Point	Cement
Surface/Conductor	200'	13 1/2"	9-5/8"	H-40 ST&C	32#		cmt to surface
Intermediate 1	2,846'	8-3/4"	7"	J/K-55 ST&C	20#	100' below LWIS	cmt to surface
Production	7,195'	6-1/4"	4-1/2"	P-110	11.6#	DKOT	150' inside Intermediate - TOC survey required

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	4,106'	500	0
Point Lookout	4,808'	600	0
Dakota	6,825'	2600	1098.5

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:	DATE:	APPROVED:	DATE:
HGJ	JMP/GGZ	12-Dec-06		
Form 46 7-84bw	For Drilling Dept.		For Production Dept.	

Cementing Program

Well Name: Storey D #1N
 Location: 26-28N-8W: 1080' FSL, 2505' FEL
 County: San Juan
 State: New Mexico

Well Flac
 Formation: Blanco Mesaverde/Basin Dakota
 KB Elev (est) 6121
 GL Elev. (est) 6107

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)
Surface	200	13.5	9.625	ST&C	Surface
Intermediate	2846	8.75	7	ST&C	Surface
Production -	7195	6.25	4.5	ST&C	2696

Casing Properties:

(No Safety Factor Included)					
Casing String	Size (in.)	Weight (lb/ft)	Grade	Burst (psi.)	Collapse (psi.)
Surface		9.625	32 H-40	2270	1400
Intermediate		7	20 K-55	3740	2270
Intermediate		7	23 N80	6340	3830
Production -		4.5	11.6 J-55	5350	4960

Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight	<u>Recommended Mud Properties Prio Cementing:</u>	
			PV	<20
			YP	<10
			Fluid Lost	<15
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		

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	154 sx Class C Cement		195 cuft
TOC@Surface	+ 2% CaCl2 (accelerator)		
			0.4887 cuft/ft OH
Slurry Properties:	Density (lb/gal)	Yield (ft ³ /sk)	Water (gal/sk)
Slurry 1	15.2	1.27	5.8
Casing Equipment:	9-5/8", 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		

Cementing Program

Intermediate:

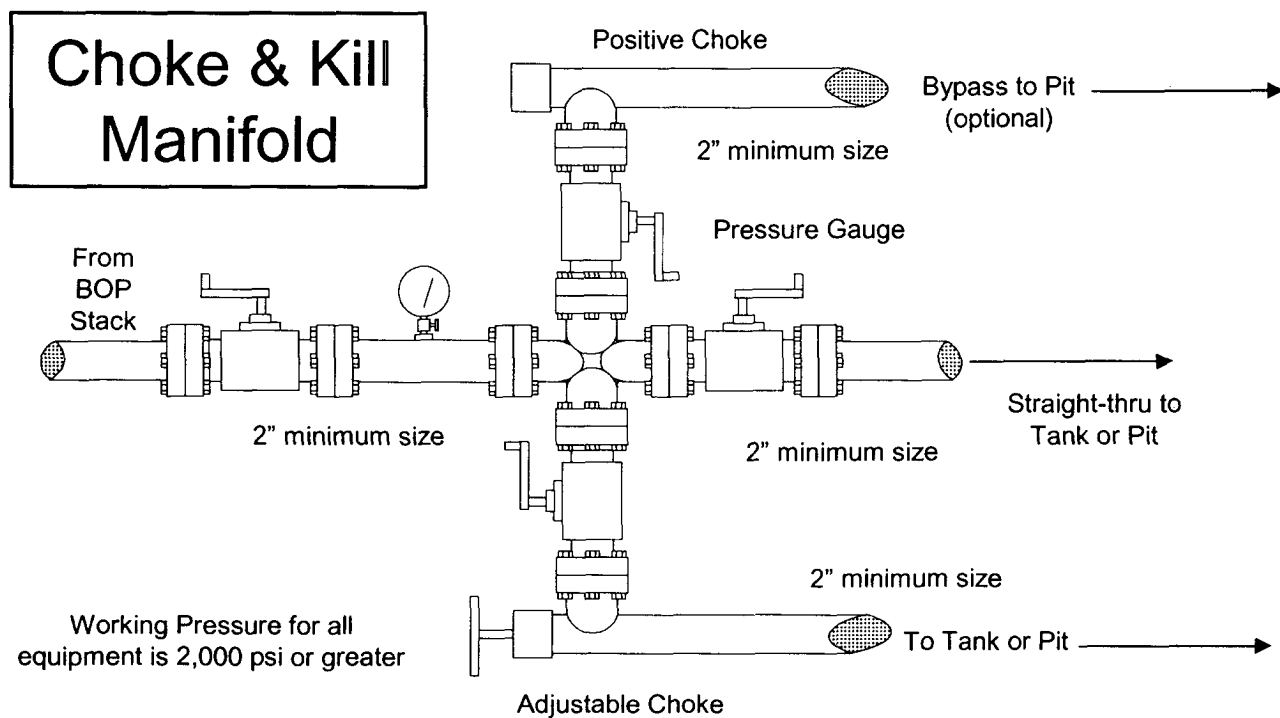
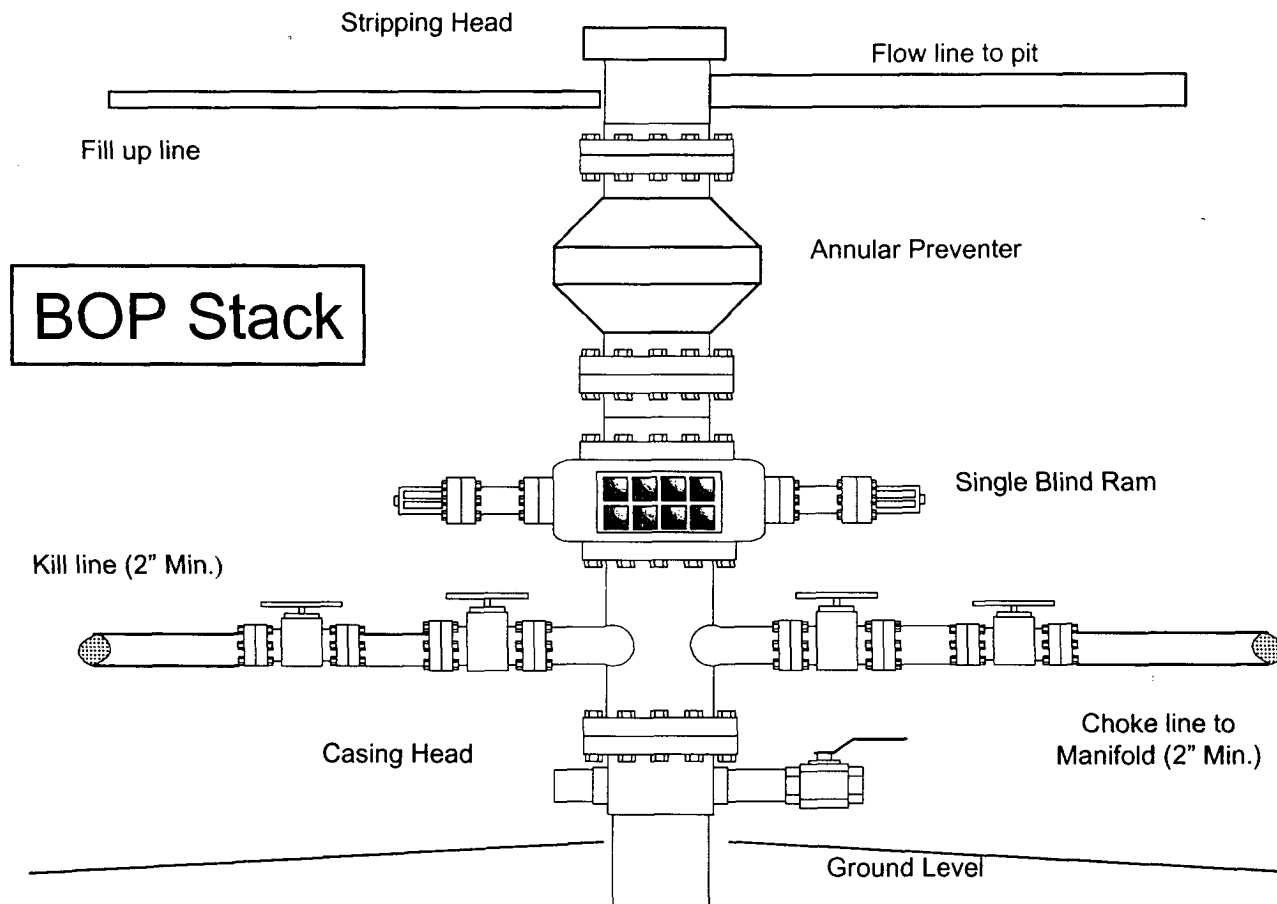
Fresh Water	20 bbl	fresh water	
Lead		228 sx Class "G" Cement	599 cuft
Slurry 1		+ 3% D79 extender	
TOC@Surface		+1/4 #/sk. Cellophane Flake	
		+ 5 lb/sk Gilsonite	
Tail		59 sx 50/50 Class "G"/Poz	75 cuft
Slurry 2		+ 2% gel (extender)	
500 ft fill		+1/4 #/sk. Cellophane Flake	0.1503 cuft/ft OH
		+ 2% CaCl2 (accelerator)	0.1746 cuft/ft csg ann
		+ 5 lb/sk Gilsonite	
Slurry Properties:	Density	Yield	Water
	(lb/gal)	(ft3/sk)	(gal/sk)
Slurry 1	11.4	2.63	15.8
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 Stop Ring		
	Centralizers as needed		
	1 Top Rubber Plug		
	1 Thread Lock Compound		

Production:

Fresh Water	10 bbl	CW100	
Lead		188 LiteCrete D961 / D124 / D154	473 cuft
Slurry 1		+ 0.03 gps D47 antifoam	
TOC, 400' above 7" shoe		+ 0.5% D112 fluid loss	
		+ 0.11% D65 TIC	
Tail		151 sx 50/50 Class "G"/Poz	217 cuft
Slurry 2		+ 5% D20 gel (extender)	
1510 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	
			0.1026 cuft/ft OH
Slurry Properties:	Density	Yield	Water
	(lb/gal)	(ft3/sk)	(gal/sk)
Slurry 1	9.5	2.52	6.38
Slurry 2	13	1.44	6.5
			Top of Mancos
			5185
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



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 ½" 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.**
 - 6. A chronological log will be kept recording the pump and slurry information and will be sent to the BLM with the subsequent sundry.**
-

Additional Operator Remarks
Storey D 1N
APD

NOTICE OF STAKING WAS SUBMITTED ON 12/14/06

BP America Production Company respectfully requests permission to drill the subject well to a total depth of approximately 7195' MD. Complete in the Basin Dakota Pool, isolate the Dakota; complete into the Blanco Mesaverde, establish a production rate; drill out the bridge plug and commingle production downhole.

Application for Downhole Commingling authority (NMOCD order R-11363) will be submitted to all appropriate for approval after Permit to Drill has been approved.

If terrain allows it is our intent to pre-set the 9 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 +/- 2000 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