Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANGEMENT

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

APPLICATION OFOR PERMIT TO DRILL OR REENETER

2006 APR 10 AM 11 23

RECEIVED
070 FARMINGTON NM

MAY 2006
RECEIVED
OIL CONS. DIV.
DIST. 3

1a. Type of Work: ■ DRILL ☐ REENTER	5. Lease Serial No. **SF - 078095**
	6. If Indian, Allottee or tribe Name
	7. If Unit or CA Agreement, Name and No
1b. Type of Well: ☐ Oil Well ■ Gas Well Gas ☐ Other ☐ Single Zone ☐ Multiple Zone	8. Lease Name and Well No. **Case A 3N**
2. Name of Operator **BP AMERICA PRODUCTION COMPANY**	9. API Well No. 30-045-33695
3a. Address **P.O. BOX 3092 HOUSTON, TX 77079-2064** / 3b. Phone No. *(include area code)* **281-366-4081**	10. Field and Pool, or Exploratory **Basin Dakota & Blanco Mesaverde**
4. Loction of Well ***(Report location clearly and in accordance with any State requirements.*)*** At surface **2190' FNL & 680' FWL SWNW** At proposed prod. Zone **2589' FSL & 720' FWL NWSW - UL K**	11. Sec., T., R., M., or Blk, and survey or Area **SECTION 5 T31N & R11W** E
14. Distance in miles and direction from nearest town or post office* **14 MILES NORTH FROM AZTEC, NM**	12. County or Parish **SAN JUAN** / 13. State **NEW MEXICO**
15. Distance from proposed* Location to nearest Property or lease line, ft. (Also to nearest drig. Ujnit line, if any) **680'** / 16. No. of Acres in lease **310.22** / 17. Spacing Unit dedicated to this well 310.22 W/2	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. / 19. Proposed Depth **7878' MD** / 20. BLM/BIA Bond No. on file **WY2924**	
21. Elevations (show whether DF, KDB., RT, GL, etc. **6550' GL** / 22. Approximate date work will start* **11/15/06** / 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 suthorized officer.

25. Signature	Name *(Printed/typed)*	Date
Cherry Hlava	**Cherry Hlava**	**04/06/2006**

Title
Regulatory Analyst

Approved by (Signature)	Name *(Printed/Typed)*	Date
/s/ Manuel Montoya		5/4/06
Title AFM	Office FFO	

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)*

HOLD C104 FOR directional survey

NMOCD

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

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-10
Revised February 21, 199
Instructions on bac
Submit to Appropriate District Offic
State Lease - 4 Copie
Fee Lease - 3 Copie

☐ AMENDED REPOR

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-045-33695	71599 / 72319	Basin Dakota / Blanco Mesaverde

Property Code	Property Name	Well Number
361	Case A	# 3N

OGRID No.	Operator Name	Elevation
778	BP AMERICA PRODUCTION COMPANY	6550

Surface Location

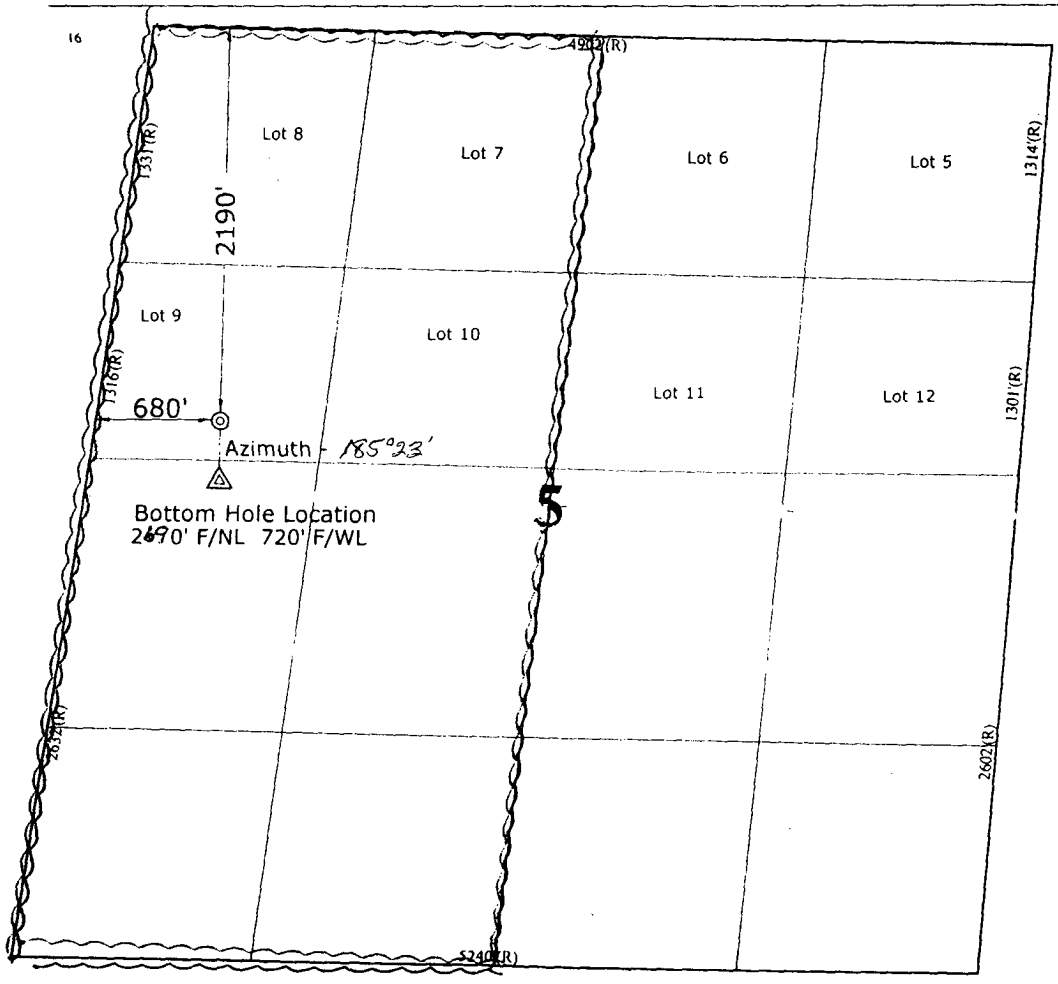
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E (Lot 9)	5	31 N	11 W		2190	NORTH	680	WEST	SAN JUAN

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
L	5	31 N	11 W		2690	NORTH	720	WEST	SAN JUAN

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
310.22			

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



(R) BLM Record

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Cherry Hlava
Signature
Cherry Hlava
Printed Name
Regulatory Analyst
Title
4-6-06
Date

SURVEYOR CERTIFICATION

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.

Restaked: November 17, 2005
August 10, 2005
Date of Survey

Signature and Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7016 REGISTERED PROFESSIONAL LAND SURVEYOR

7016
Certificate Number

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

WELL API NO. ~~NEW WELL~~ 30-045-33695

5. Indicate Type of Lease STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

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.)

7. Lease Name or Unit Agreement Name: Case A

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

8. Well Number: 3 N

2. Name of Operator: BP AMERICA PRODUCTION COMPANY

9. OGRID Number: 000778

3. Address of Operator: P.O. BOX 3092 HOUSTON, TX 77079-2064

10. Pool name or Wildcat: Basin Dakota & Blanco Mesaverde

4. Well Location
Unit Letter E : 2190 feet from the North line and 680 feet from the West line
Section 5 Township 31N Range 11W NMPM SAN JUAN County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*: 6550'

Pit or Below-grade Tank Application ☒ or Closure ☐ 1200'

Pit type DRILLING Depth to Groundwater ≥100' Distance from nearest fresh water well ≥ 1000' Distance from nearest surface water ≤1000'

Pit Liner Thickness: 12 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	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
OTHER: LINED DRILLING PIT	☒			OTHER:	☐		

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 04/06/2006

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

For State Use Only

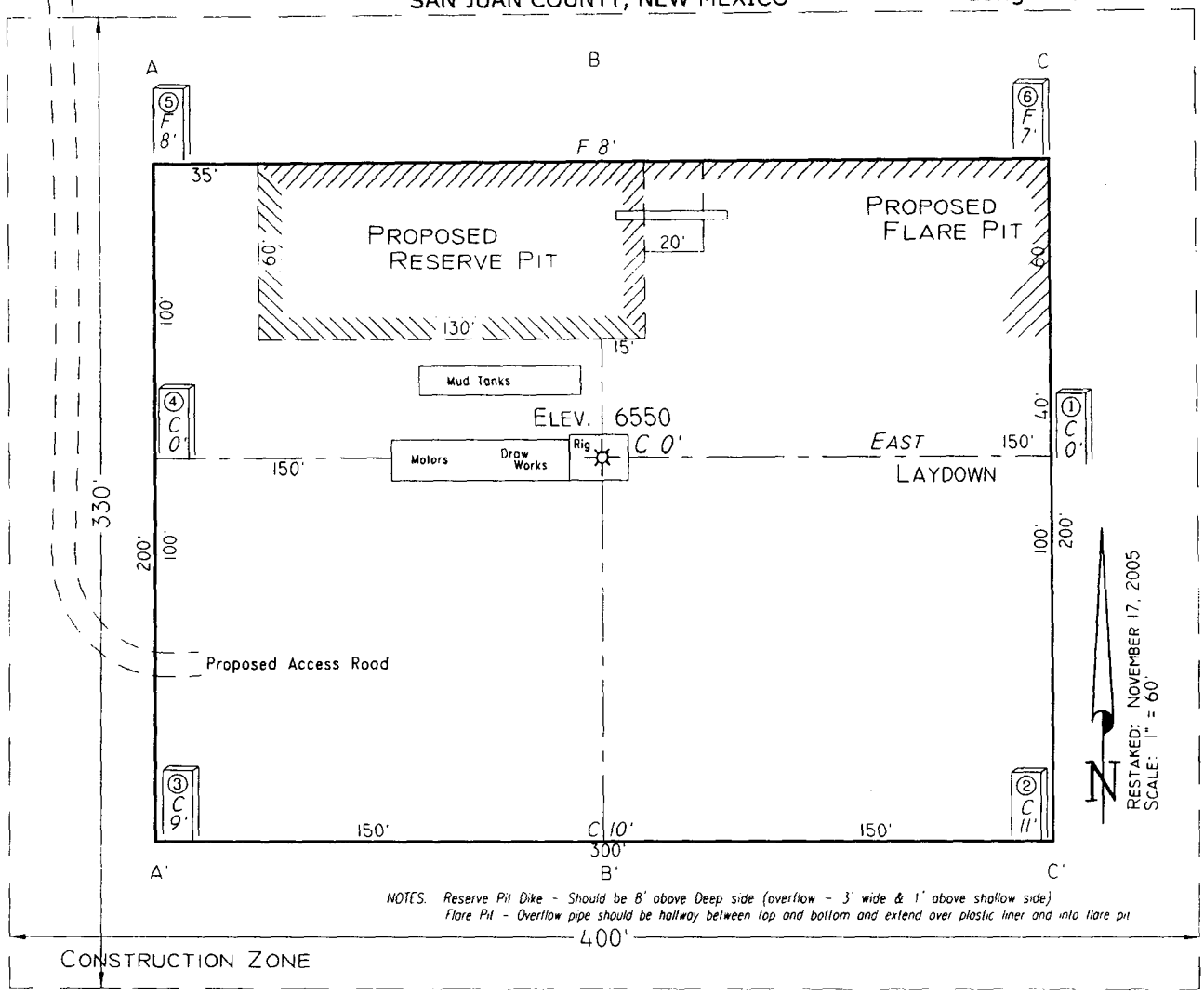
APPROVED BY: _____ TITLE DEPUTY OIL & GAS INSPECTOR, DIST. ☐ DATE MAY 04 2006

Conditions of Approval (if any):

PAD LAYOUT PLAN & PROFILE
BP AMERICA PRODUCTION COMPANY
Case A # 3N
2190' F/NL 680' F/WL
SEC. 5, T31N, R11W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

Lat: 36.9286°
Long: 108.0189°

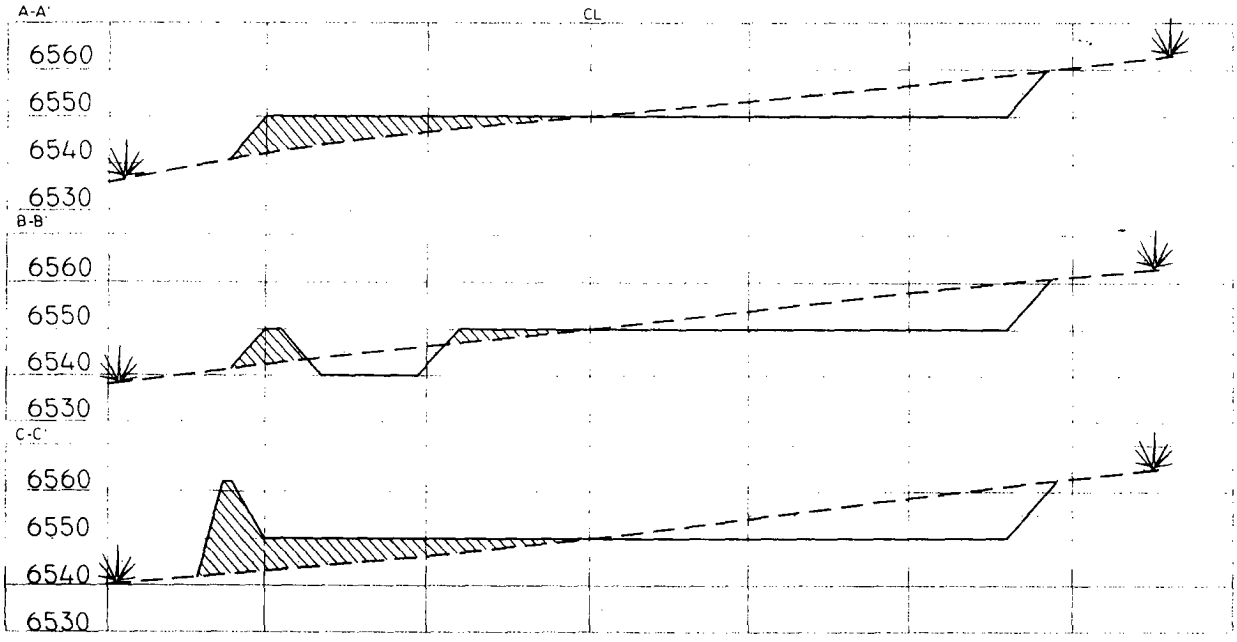
Lat: 36°55'43"
Long: 108°01'08"



NOTES. Reserve Pit Dike - Should be 8' above Deep side (overflow - 3' wide & 1' above shallow side)
Flare Pit - Overflow pipe should be halfway between top and bottom and extend over plastic liner and into flare pit

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

9/6/2005 Revised 12/05/2005

Lease:	Case A	**Well Name & No.**	Case A #3N	**Field:**	Blanco Mesaverde/Basin Dakota
County:	San Juan, New Mexico	**Surface Location:**	5-31N-11W: 2190' FNL, 680' FWL		
Minerals:	State	**Surface:**	Lat: 36.9293259 deg; Long: -108.0182025 deg		
Rig :	Aztec 184	**BH Location:**	5-31N-11W: 2690' FNL, 720' FWL, Lat: 36.9269677 deg, Long: -108.0183086 deg		
OBJECTIVE:	Drill 350' below the top of the Two Wells Mbr, set 4-1/2" production casing, Stimulate DK, MF, and PL intervals.				

METHOD OF DRILLING

TYPE OF TOOLS	DEPTH OF DRILLING
Rotary	0 - TD

LOG PROGRAM

Type	Depth Interval
Single Run	
Cased Hole	
RST- CBL	TD to 7" shoe
	Identify 4 ½" cement top

REMARKS:

This is an unconventional location, with a surface location in the NW/4 and BHL in the SW/4. BHL should be no further west than the footage requested (720 FWL). See attached map.

The recommended TD is intended to penetrate the uppermost BRCN (~10') so that the entire ENCN can be produced. Offsetting wells encountered no water flow at this depth. See attached cross-section.

The intermediate casing should be set 100 ft into the MENF to minimize the risks encountered drilling through the possibly water productive CLFH.

APPROXIMATE DEPTHS OF GEOLOGICAL MARKER

Actual GL: 6550 Estimated KB: 6,564.0'

Marker		SUBSEA	TVD	APPROX. MD
Ojo Alamo		4,545'	2,019'	2,029'
Kirtland		4,472'	2,092'	2,102'
Fruitland	*	4,021'	2,543'	2,556'
Fruitland Coal	*	3,755'	2,809'	2,823'
Pictured Cliffs	*	3,349'	3,215'	3,232'
Lewis	*	3,106'	3,458'	3,476'
Cliff House	#	1,877'	4,687'	4,713'
Menefee	#	1,567'	4,997'	5,024'
Point Lookout	#	1,114'	5,450'	5,477'
Mancos		798'	5,766'	5,793'
Greenhorn		-928'	7,492'	7,519'
Graneros (bent,mkr)		-980'	7,544'	7,471'
Two Wells	#	-1,037'	7,601'	7,628'
Paguate	#	-1,121'	7,685'	7,712'
Cubero	#	-1,150'	7,714'	7,741'
L. Cubero	#	-1,172'	7,736'	7,763'
Encinal Cyn	#	-1,196'	7,760'	7,787'
TOTAL DEPTH:		-1,287'	7,851'	7,878'

Probable completion interval * Possible Pay

SPECIAL TESTS

TYPE
None

REMARKS:

DRILL CUTTING SAMPLES			DRILLING TIME	
FREQUENCY	DEPTH		FREQUENCY	DEPTH
30'/10' intervals	5,124'	to TD	Geolograph	0 - TD

MUD PROGRAM:

Interval	TypeMud	#/gal	Vis, sec/qt	/30 min	Other Specification
200'	Spud	8.8 - 9.0	Sufficient to clean hole.		
5,124'	Water/LSND	8.4 - 9.0		<9	Sweep hole while whilst water drilling, LCM onsite
7,878'	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	0' - 4000'	8-3/4"	7"	J/K-55 ST&C	20#	100' below MENF	cmt to surface
	4000' - 5124'	8-3/4"	7"	N-80 ST&C	23#	100' below MENF	150' inside Intermediate -
Production	7,878'	6-1/4"	4-1/2"	P-110	11.6#	DKOT	TOC survey required

CORING PROGRAM:

None

COMPLETION PROGRAM:

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

GENERAL REMARKS:

Notify BLM/NMOCD 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	4,687'	500	0
Point Lookout	5,450'	600	0
Dakota	7,601'	2600	927.78

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/GGZ		9/6/2005 Revised 12/05/200		

Cementing Program

Well Name:	Case A #3N		
Location:	5-31N-11W:	2190' FNL, 680' FWL	
County:	San Juan	Well Flac	
State:	New Mexico	Formation:	Blanco Mesaverde/Basin Dakota
		KB Elev (est)	6564
		GL Elev. (est)	6550

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	13.5	9.625	ST&C	Surface	NA	
Intermediate	5124	8.75	7	LT&C	Surface	NA	
Production -	7878	6.25	4.5	ST&C	5024	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	2270	1400	254	0.0787	8.845
Intermediate	7	20	K-55	3740	2270	234	0.0405	6.456
Production -	4.5	11.6	J-55	5350	4960	154	0.0155	3.875

Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight
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

Recommended Mud Properties Prio Cementing:

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 minmize 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 (ft3/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		456 sx Class "G" Cement		1199 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 (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", 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		93 LiteCrete D961 / D124 / D154		234 cuft
Slurry 1		+ 0.03 gps D47 antifoam		
TOC, 400' above 7" shoe		+ 0.5% D112 fluid loss		
		+ 0.11% D65 TIC		
Tail		158 sx 50/50 Class "G"/Poz		227 cuft
Slurry 2		+ 5% D20 gel (extender)		
1582 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

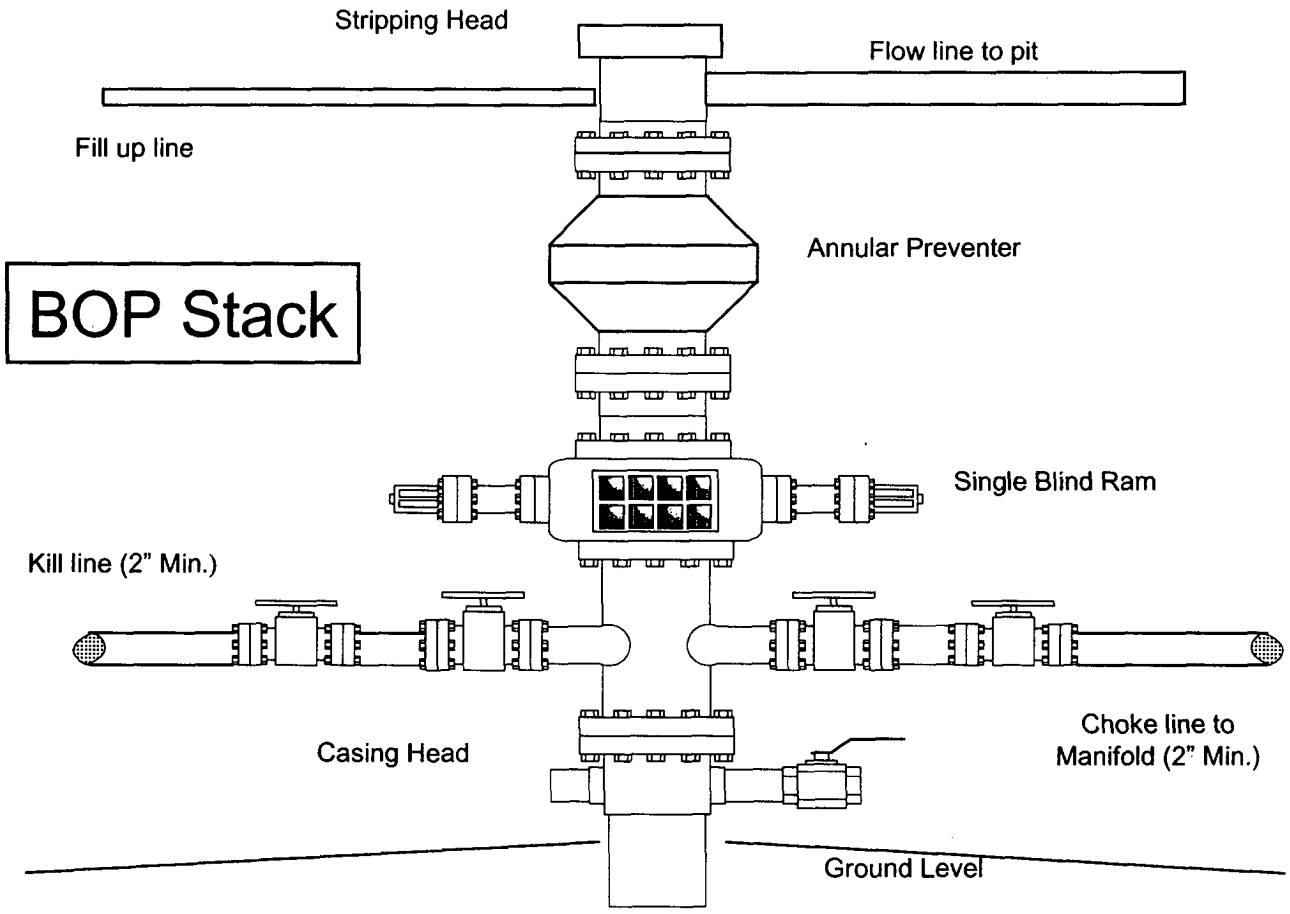
Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)	
				0.1169 cuft/ft csg ann
Slurry 1	9.5	2.52	6.38	
Slurry 2	13	1.44	6.5	Top of Mancos
				- 5796

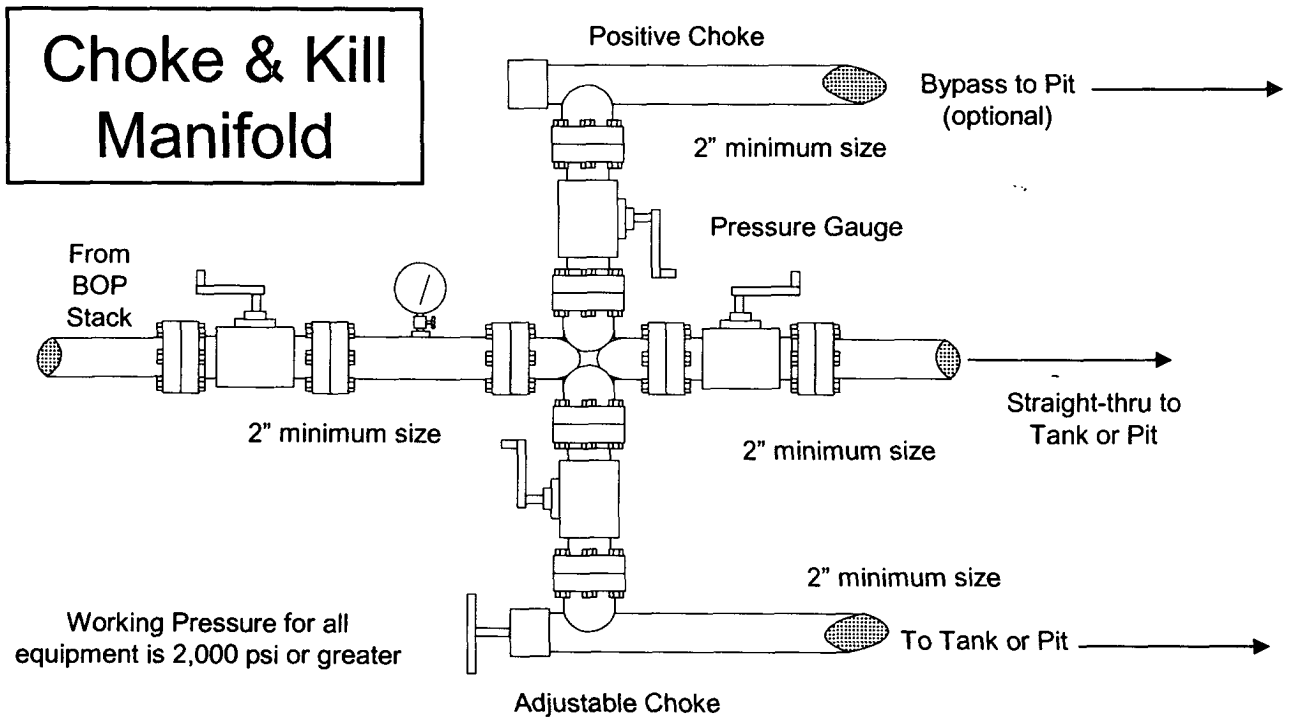
Casing Equipment: 4-1/2", 8R, ST&C

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





Additional Operator Remarks
Case A 3N
APD

THE NOTICE OF STAKING THAT WAS SUBMITTED ON 12/15/05 HAD A BOTTOM HOLE LOCATION OF 2530' FNL. THE NORTH LINE IS CHANGED TO: 2690' FNL

BP America Production Company respectfully requests permission to directional drill the subject well to a total depth of approximately 7878' MD & 7851' TVD. 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 drill a 12 ¼" hole instead of the 13 1/2" hole & 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 +/- 600 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

Scientific Drilling
Directional Drilling Operations

Field: SAN JUAN, New Mexico
Site: SEC 5-T31N-R11W
Well: Case A #3N
Wellpath: OH
Plan: Plan #2

bp

SECTION DETAILS

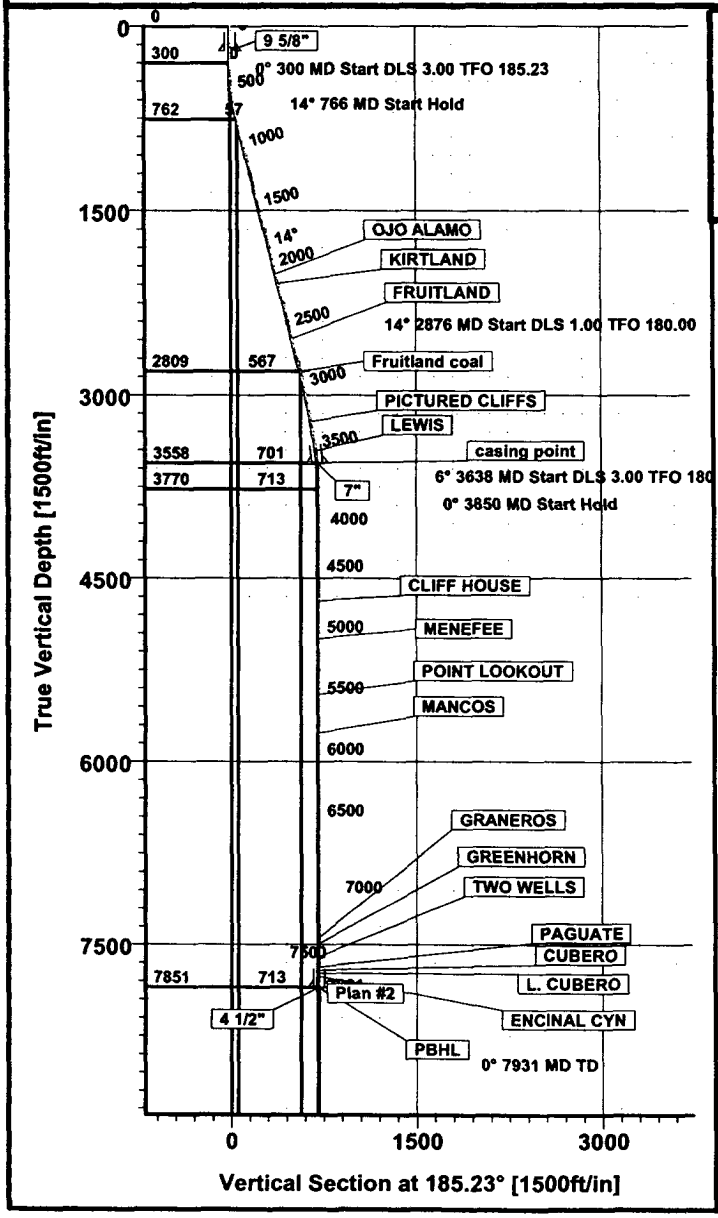
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	766.32	13.99	185.23	761.70	-56.41	-5.16	3.00	185.23	56.65	
4	2876.20	13.99	185.23	2809.00	-564.34	-51.66	0.00	0.00	566.70	Fruitland coal
5	3637.74	6.37	185.23	3558.00	-698.30	-63.92	1.00	180.00	701.22	casing point
6	3850.22	0.00	0.00	3770.03	-710.06	-65.00	3.00	180.00	713.03	
7	7931.18	0.00	0.00	7851.00	-710.06	-65.00	0.00	0.00	713.03	PBHL

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Fruitland coal	2809.00	-564.30	-51.66	2157276.11	2669225.17	Point
casing point	3558.00	-698.30	-63.92	2157142.12	2669212.91	Point
PBHL	7851.00	-710.00	-65.00	2157130.43	2669211.83	Circle (Radius: 100)

WELL DETAILS

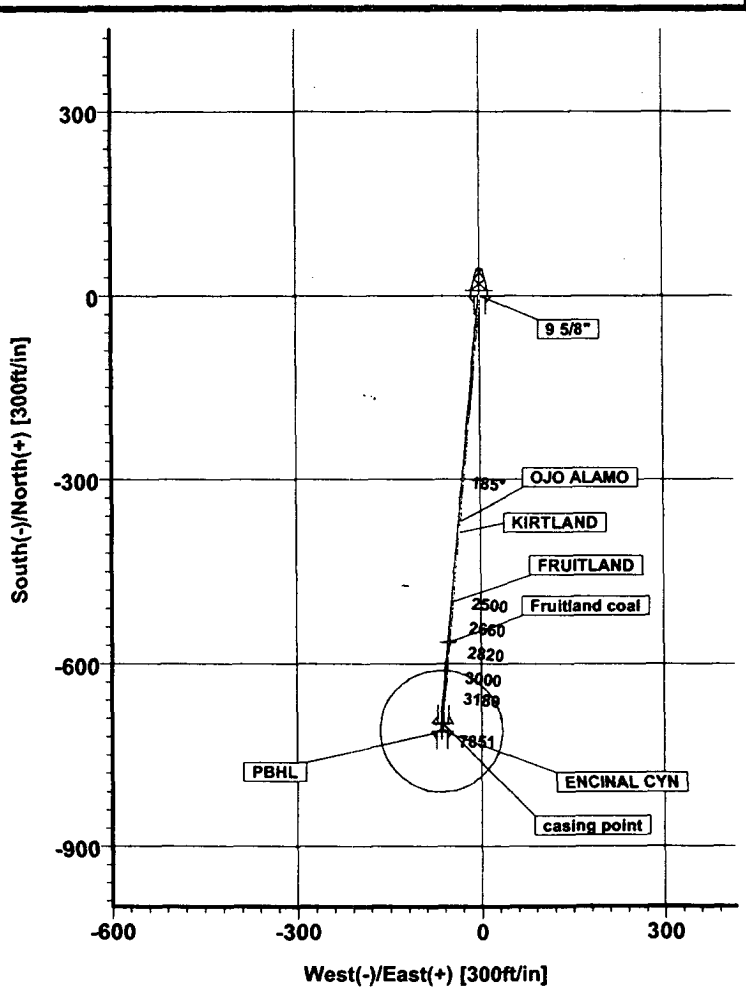
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Case A #3N	0.00	0.00	2157840.37	2669276.82	36°55'47.366N	108°01'02.909W	N/A



SITE DETAILS

SEC 5-T31N-R11W
SAN JUAN NEW MEXICO

Ground Level: 6538.00
Positional Uncertainty: 0.00
Convergence: -0.11



Scientific Drilling
Planning Report

Company:	BP	**Date:** 8/18/2005	**Time:** 12:55:04	**Page:**	1
Field:	SAN JUAN, New Mexico	**Co-ordinate(NE) Reference:**	Well: Case A #3N, Grid North		
Site:	SEC 5-T31N-R11W	**Vertical (TVD) Reference:**	SITE 6552.0		
Well:	Case A #3N	**Section (VS) Reference:**	Well (0.00N,0.00E,185.23Azi)		
Wellpath:	OH	**Plan:**	Plan #2		

Field: SAN JUAN, New Mexico
SAN JUAN COUNTY, NEW MEXICO
USA

Map System:	US State Plane Coordinate System 1983	**Map Zone:**	New Mexico, Western Zone
Geo Datum:	GRS 1980	**Coordinate System:**	Well Centre
Sys Datum:	Mean Sea Level	**Geomagnetic Model:**	bggm2005

Site: SEC 5-T31N-R11W

SAN JUAN NEW MEXICO

Site Position:		**Northing:**	ft	**Latitude:**	
From:	Lease Line	**Easting:**	ft	**Longitude:**	
Position Uncertainty:	0.00 ft			**North Reference:**	Grid
Ground Level:	6538.00 ft			**Grid Convergence:**	-0.11 deg

Well: Case A #3N **Slot Name:**

Well Position:	+N/-S	0.00 ft	**Northing:**	2157840.37 ft	**Latitude:**	36 55 47.366 N
	+E/-W	0.00 ft	**Easting:**	2669276.82 ft	**Longitude:**	108 1 2.909 W
Position Uncertainty:		0.00 ft				

Wellpath: OH

Drilled From:	Surface				
Tie-on Depth:	0.00 ft				
Current Datum:	SITE	**Height**	6552.00 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	8/16/2005			**Declination:**	10.77 deg
Field Strength:	51457 nT			**Mag Dip Angle:**	63.75 deg

Vertical Section:	**Depth From (TVD)** ft	**+N/-S** ft	**+E/-W** ft	**Direction** deg
	0.00	0.00	0.00	185.23

Plan: Plan #2 **Date Composed:** 8/16/2005
Version: 5
Principal: Yes **Tied-to:** From Surface

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
766.32	13.99	185.23	761.70	-56.41	-5.16	3.00	3.00	0.00	185.23	
2876.20	13.99	185.23	2809.00	-564.34	-51.66	0.00	0.00	0.00	0.00	Fruitland coal
3637.74	6.37	185.23	3558.00	-698.30	-63.92	1.00	-1.00	0.00	180.00	casing point
3850.22	0.00	0.00	3770.03	-710.06	-65.00	3.00	-3.00	82.26	180.00	
7931.18	0.00	0.00	7851.00	-710.06	-65.00	0.00	0.00	0.00	0.00	PBHL

Section 1 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Section 2 : Start DLS 3.00 TFO 185.23

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
400.00	3.00	185.23	399.95	-2.61	-0.24	2.62	3.00	3.00	0.00	0.00
500.00	6.00	185.23	499.63	-10.42	-0.95	10.46	3.00	3.00	0.00	0.00
600.00	9.00	185.23	598.77	-23.42	-2.14	23.51	3.00	3.00	0.00	0.00
700.00	12.00	185.23	697.08	-41.56	-3.80	41.74	3.00	3.00	0.00	0.00
766.32	13.99	185.23	761.70	-56.41	-5.16	56.65	3.00	3.00	0.00	0.00

SAN JUAN BASIN
Dakota Formation
Pressure Control Equipment

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 H2S 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.