UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2007 JAN 26 PM 1:10

RECEIVED
070 FARMINGTON NM

1a. Type of Work: DRILL

1b. Type of Well: GAS

5. Lease Number: SF-078138-A
Unit Reporting Number: NMNM-73426-MV

6. If Indian, All. or Tribe:

2. Operator: ConocoPhillips

7. Unit Agreement Name: Storey B LS

3. Address & Phone No. of Operator: PO Box 4289, Farmington, NM 87499
(505) 326-9700

8. Farm or Lease Name:

9. Well Number: #3F

RCVD FEB14'07
OIL CONS. DIV.
DIST. 3

4. Location of Well
Surface: Unit L(NWSW), 1600' FSL, 885' FWL
Bottom Hole: Unit N(SESW), 815 FSL, 1685' ~~BEL~~ FWL
Surface: Latitude 36° 50.30919' N, Longitude 108° 01.15714' W
Bottom Hole: Latitude 36° 50.17959' N, Longitude 108° 00.99155' W
Lot 8

10. Field, Pool, Wildcat: Blanco Mesaverde/Basin Dakota

11. Sec., Twn, Rge, Mer. (NMPM)
L Surface: Sec. 5, T30N, R11W
N BHL: Sec. 5, T30N, R11W

API # 30-045-34150

14. Distance in Miles from Nearest Town: 1.5 Miles, Aztec

12. County: San Juan

13. State: NM

15. Distance from Proposed Location to Nearest Property or Lease Line: 885'

16. Acres in Lease:

17. Acres Assigned to Well: 318.93 acres W/2 (MV/DK)
~~318~~ 319

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease:

19. Proposed Depth: 6841' TVD 7043' MD

20. Rotary or Cable Tools: Rotary

21. Elevations (DF, FT, GR, Etc.): 5747'GL

22. Approx. Date Work will Start:

23. Proposed Casing and Cementing Program
See Operations Plan attached

NOTIFY AZTEC OCD 24hrs
IN TIME TO WITNESS ccg cement

24. Authorized by: Juanita Farrell, Regulatory Specialist — Date: 1/25/07

PERMIT NO.

APPROVAL DATE

APPROVED BY D. Mankiewicz TITLE AFM DATE 2/13/07

Archaeological Report attached
Threatened and Endangered Species Report attached
HOLD C104 FOR Directional Survey

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes 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 presentations as to any matter within its jurisdiction.

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

NMOCD 2/15/07

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☐ AMENDED REPORT

2007 JAN 26 PM 1:10 RECEIVED

RCVD FEB14'07
OIL CONS. DIV.
DIST. 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹API Number	²Pool Code	³Pool Name
30-045- 34150	72319/71599	MESA VERDE/DAKOTA

⁴Property Code	⁵Property Name	⁶Well Number
31846	STOREY B LS	3F

⁷OGRID No.	⁸Operator Name	⁹Elevation
217817	CONOCO PHILLIPS, COMPANY	5747'

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	5	30N	11W	8	1600'	SOUTH	885'	WEST	SAN JUAN

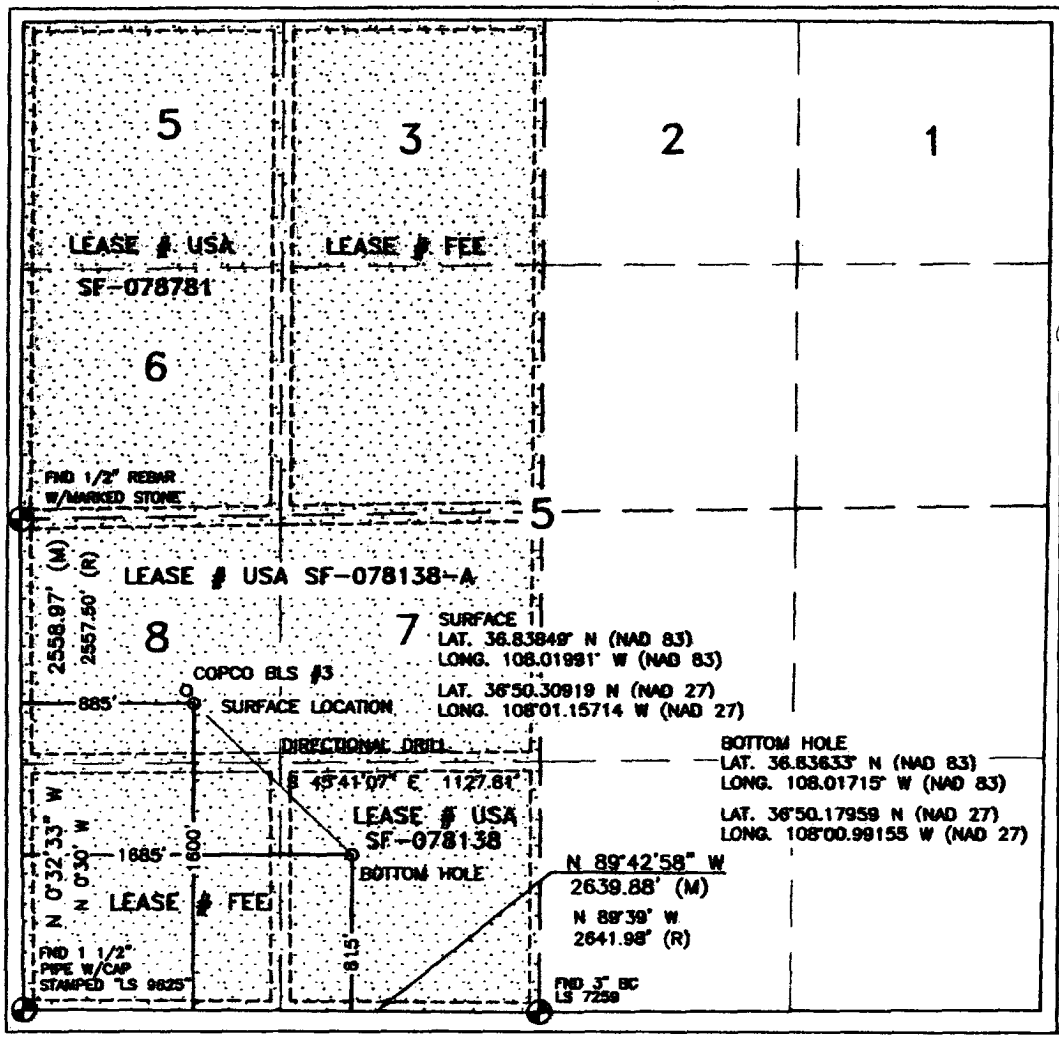
¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	5	30N	11W		815'	SOUTH	1685'	~~EAST~~ West	SAN JUAN

¹²Dedicated Acres	¹³Joint or Infill	¹⁴Consolidation Code	¹⁵Order No.
~~318.93~~ 319 acres W/2			

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



¹⁷OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner or a compulsory pooling order heretofore entered by the division.

Juanita Farrell 1/17/07
Signature Date

Juanita Farrell
Printed Name

¹⁸SURVEYOR 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.

DECEMBER 1, 2006
Date of Survey

Signature and Seal of Professional Surveyor:

David R Russell

DAVID R. RUSSELL
NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR

DAVID RUSSELL
Certificate Number 10201

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. 30-045- 34150
5. Indicate Type of Lease STATE ☐ FEE ☐
6. State Oil & Gas Lease No. SF-078138A

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: Storey B LS

1. Type of Well: Oil Well ☐ Gas Well ☒ Other
8. Well Number: #3F

2. Name of Operator: ConocoPhillips Company
9. OGRID Number: 217817

3. Address of Operator: 3401 E. 30TH STREET, FARMINGTON, NM 87402
10. Pool name or Wildcat: Basin Dakota

4. Well Location
Unit Letter L : 1600' feet from the South line and 885' feet from the West line
Section 5 Township 30N Rng 11W NMPM County San Juan

11. Elevation (*Show whether DR, RKB, RT, GR, etc.*) 5747' GL

Pit or Below-grade Tank Application ☐ or Closure ☐

Pit type New Drill Depth to Groundwater 50-100' Distance from nearest fresh water well >1000' Distance from nearest surface water 200-1000'
Pit Liner Thickness: 12 mil Below-Grade Tank: Volume _____ bbls; Construction Material Synthetic

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:	New Drill		☒	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.

New Drill, Unlined:

ConocoPhillips proposes to construct a new drilling pit, an associated vent/flare pit and a pre-set mud pit (if required). Based on ConocoPhillips' interpretation of the Ecosphere's risk ranking criteria, the new drilling pit and pre-set mud pit will be unlined pits as detailed in ConocoPhillips' General Plan dated June 2005 on file at the NMOCD office. A portion of the vent/flare pit will be designed to manage fluids and that portion will be unlined as per the risk ranking criteria. ConocoPhillips anticipates closing these pits according to the November 1, 2004 Guidelines.

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 Juanita Farrell TITLE Regulatory Specialist DATE 1/17/2007

Type or print name Juanita Farrell E-mail address: Telephone No. 505-326-9597

For State Use Only

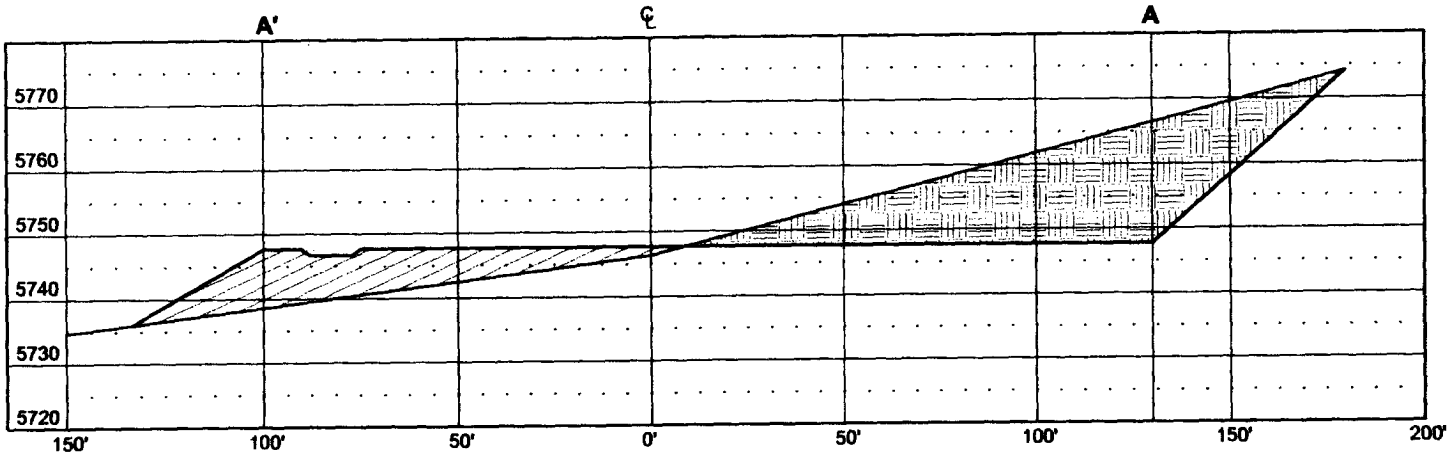
APPPROVED BY _____ TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE FEB 15 2007

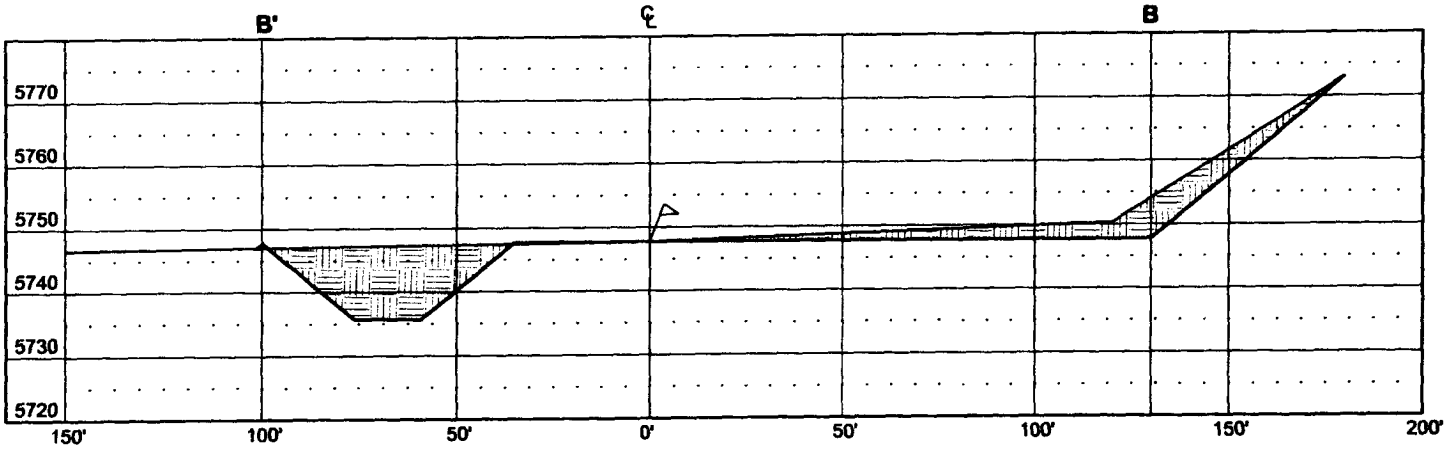
Conditions of Approval (if any):

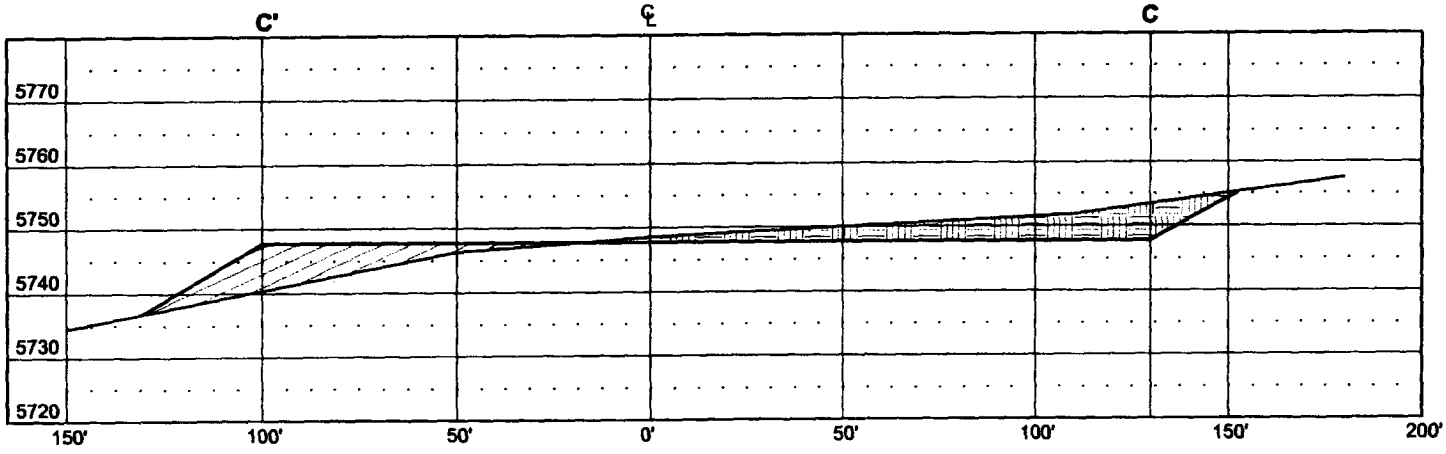
LATITUDE: 36.83849°N
LONGITUDE: 108.01991°W
DATUM: NAD 83

CONOCO PHILLIPS, COMPANY

STOREY B LS #3F
1600' FSL & 885' FWL
LOCATED IN THE NW/4 SW/4 OF
SECTION 5, T30N, R11W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 5747', NAVD 88
FINISHED PAD ELEVATION: 5747.0', NAVD 88







THIS DIAGRAM IS AN ESTIMATE OF DIRT BALANCE AND IS NOT INTENDED TO BE AN EXACT MEASURE OF VOLUME

VERT. SCALE: 1" = 30'
HORZ. SCALE: 1" = 50'
JOB No.: COPC039
DATE: 12/08/06

CUT
FILL

Russell Surveying
1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410
(505) 334-8637

ConocoPhillips

San Juan Business Unit

PROJECT PROPOSAL - New Drill / Sidetrack

STOREY B LS 3F

Lease:		AFE #: WAN.CNV.7104		AFE $:
Field Name: NEW MEXICO-WEST	Rig: Patterson Rig 749		State: NM County: SAN JUAN	API #:
Geoscientist: Head, Chip F	Phone: 505-326-9772	Prod. Engineer:		Phone: 486-2334
Res. Engineer: Prabowo, Wahyu	Phone: 832-486-2275	Proj. Field Lead: Fransen, Eric E.		Phone:

Primary Objective (Zones):

Zone	Zone Name
R20002	MESAVERDE(R20002)
R20076	DAKOTA(R20076)

Location: Surface	**Datum Code:** NAD 27				**Straight Hole**
Latitude: 36.838487	Longitude: -108.019286	X:	Y:	Section: 05	Range: 011W
Footage X: 885 FWL	Footage Y: 1600 FSL	Elevation: 5747 (FT)	Township: 030N		

Tolerance:

Location: Bottom Hole	**Datum Code:** NAD 27				**Straight Hole**
Latitude: 36.836326	Longitude: -108.016526	X:	Y:	Section: 05	Range: 011W
Footage X: 1685 FWL	Footage Y: 815 FSL	Elevation:	(FT) Township: 30N		

Tolerance:

Location Type: Year Round | Start Date (Est.): | Completion Date: | Date In Operation:

Formation Data: Assume KB = 5761 Units = FT

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
OJAM	709	5052	☐			Possible water flows.
KRLD	843	4918	☐			
FRLD	1749	4012	☐			Possible gas.
PCCF	2187	3574	☐			
LEWS	2294	3467	☐			
HUERFANITO BENTONITE	2926	2835	☐			
CHRA	3249	2512	☐			
UCLFH	3744	2017	☐			Gas; possibly wet
MASSIVE CLIFF HOUSE	3870	1891	☐			
MENF	3963	1798	☐			Gas.
PTLK	4513	1248	☐			Gas.
MANCOS	4835	926	☐			
GLLP	5755	6	☐			Gas. Possibly wet.
GRHN	6499	-738	☐			Gas possible, highly fractured
GRANEROS	6551	-790	☐			
TWLS	6608	-847	☐			Gas
PAGU	6679	-918	☐			Gas. Highly Fractured.
CBRL	6720	-959	☐			Gas
ENCINAL	6775	-1014	☐			Gas
TOTAL DEPTH DK	6841	-1080	☐			TD 70' below T/ENCN

Reference Wells:

Reference Type	Well Name	Comments
Intermediate	Storey 3B	SW 5-30N-11W
Production	Rhoda Adams #1	SE 5-30N-11W

Printed on: 1/18/2007 3:37:08 PM

Storey B LS #3F OPERATIONS PLAN

Well Name: Storey B LS #3F

Objective: Mesa Verde/Dakota

Location: San Juan NM

Elevation: 5747'

Surface Coordinates/Footages
T - 30 N R - 11 W Sec.: 5
1600' FSL 885' FWL
Latitude: 36° 50.3094' N
Longitute: 108° 1.1946' W

Bottom Hole Coordinates/Footages
T - 30 N R - 11 W Sec.: 5
815' FSL 1685' FWL
Latitude: 36° 50.1796' N
Longitute: 108° 0.9916' W

Formation	Top (TMD)	Top (TVD)	Contents
San Jose	0	0	
Ojo Alamo	717'	709'	aquifer
Kirtland	861'	843'	
Fruitland	1861'	1749'	
Pictured Cliffs	2345'	2187'	
Lewis	2463'	2294'	
Huerfanito Bentonite	3161'	2926'	
Chacra	6502'	3249'	
Massive Cliff House	4127'	3870'	
Menefee	4220'	3963'	gas
Massive Point Lookout	4770'	4513'	gas
Mancos Shale	5092'	4835'	
Gallup	6012'	5755'	gas
Greenhorn	6756'	6499'	gas
Graneros	6808'	6551'	
Two Wells	6865'	6608'	gas
Paguate	6936'	6679'	gas
Lower Cubero	6977'	6720'	gas
Encinal	7032'	6775'	gas
Total Depth:	***7098'***	***6841'***	

Logging Program: Cased Hole: CBL-GR
Open Hole: None

Mud Program:	Interval (TMD)	Type	Weight (ppg)	Vis. (s/qt)	Fluid Loss (cc/30min)
	0' - 200'	Spud	8.4-9.0	40-50	No control
	200' - 3957'	Non-dispersed	8.4-9.0	30-60	Less than 8
	3957' - 7098'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

Casing program:	Interval (TMD)	Hole Size	Casing Size	Weight	Grade
	0' - 200'	12 1/4"	9 5/8"	32.3#	H-40
	200' - 3957'	8 3/4"	7"	23.0#	L-80
	3957' - 7098'	6 1/4"	4 1/2"	11.6#	L-80

Tubing program:	Interval (TMD)	Hole Size	Casing Size	Weight	Grade
	0' - 7098'	Cased	2 3/8"	4.7#	J-55

Wellhead Equipment
9 5/8" x 7" X 4 1/2" x 2 3/8" – 11" (2000 psi) wellhead assembly

Drilling: *Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.*
Surface
Drill to surface casing point of 200' and set 9.625" casing.

Intermediate
Mud drill to kick off point of 250'. At this point the well will be directionally drilled by building 4 degrees per 100' with an azimuth of 128.62 degrees. The end of the build will be at a TVD of 857', a TMD of 876', a reach of 135', and an inclination of 25.05 degrees. This angle and azimuth will be held to a TVD of 2891', a TMD of 3122', and a reach of 1117'. At this point the well will be drilled with a drop of 3 degrees per 100'. The end of the drop will be at a TVD of 3700', a TMD of 3957', a reach of 1266', and an angle of 0.0 degrees. 7" casing will be set at this point.

Production
From the shoe of the intermediate string, the well will be drilled vertically with an air hammer to a TVD of 6841' (TMD of 7098'). 4.5" casing will be set at this point.

Cementing
9.625" surface casing conventionally drilled: **200%** excess cement to bring cement to surface.
Run 188 cu.ft. (147 sks) Type III cement with 3% CaCl2 and 1/4 pps celloflake (1.28 sks/ cu.ft.). Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60° F prior to nipple up of BOPE. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.

7" intermediate casing: **50%** excess cement to bring cement to surface.
Lead with 769 cu.ft. (361 sks) Premium Lite w/ 3% CaCl2, 0.25 pps Cello-Flake, 5 pps LCM-1, 0.4% FL-52 and 0.4% SMS (2.13 sks/ft3). Tail with 124 ft3 (90 sks) Type III cmt. w/ 1% CaCl2, 0.25 pps Cello-Flake and 0.2% FL-52 (1.38 sks/ft3). If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC.

4.5" production casing: **30%** excess cement to achieve 100' overlap with intermediate casing.
Run 431 cu.ft. (218 sks) Premium Lite HS FM + 0.25pps Cello-Flake, 0.3% CD-32, 6.25pps LCM-1, 1% FL-52 (1.98 sks/ft3.)

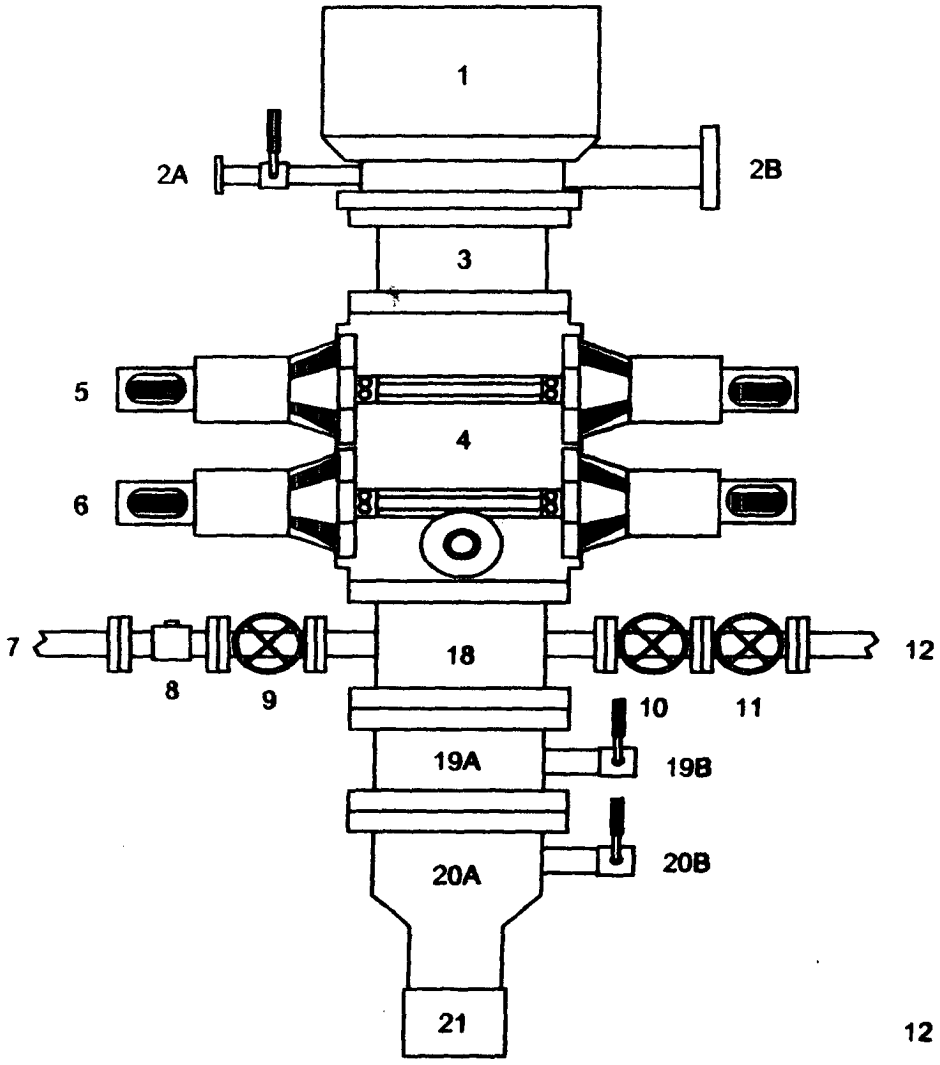
BOP and Tests
Surface to Total Depth – 11", 2000 psi double gate BOP stack (Reference Figure #1).
Surface to Total Depth – choke manifold (Reference Figure #2).
Prior to drilling out surface casing, test BOPE and casing to 600 psi for 30 minutes.
Pipe rams will be actuated at least once each day and blind rams will be actuated once each trip to test proper functioning. A Kelly cock valve and drill string safety valves to fit each drill string will be maintained and available on the rig floor.
BOPE tests will be performed using an appropriately sized test plug and test pump and will be recorded using calibrated test gauges and a properly calibrated strip or chart recorder. The test will be recorded in the driller's log and will include a low pressure test requirement of 250 psig held for five minutes and a high pressure test requirement held for ten minutes as described in Onshore Order No. 2 or otherwise noted in the APD. A successful BOPE test using a test plug is considered when no pressure drop occurs over the duration of the test. Test gauges and recorders must be of the proper range and resolution commensurate with the authorized test pressure. Where the intermediate casing strings are used, only one BOPE test will be necessary contingent upon the test being conducted to the highest approved test pressure to which BOPE will be exposed. Casing pressure tests must be held for 30 minutes with no more than 10 percent pressure drop during the duration of the test.

Additional Information:
- No gas dedication.
- New casing will be utilized.
- Pipe movement (reciprocation) will be done if hole conditions permit.
- No abnormal pressure zones are expected.
- BHP is expected to be 2000 psi.

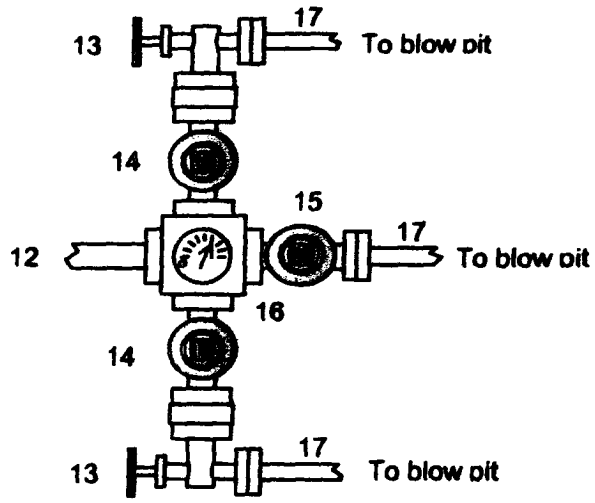
Drilling Engineer _____ **Date** 1/25/07

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to TD and Setting 4.5 inch Casing



1. Rotating Head
2A. Fill-up Line & valve
2B. Blooie Line (for Air Drilling)
3. Spacer Spool
4. Double Ram BOP (11", 3000 psi)
5. Pipe Rams
6. Blind Rams
7. Kill Line
8. Kill Line Check Valve
9. Kill Line Valve
10 Inner Choke Line Valve (3")
11. Outer Choke Line Valve (3")
12. Choke Line (3")
13. Variable Choke
14. Choke Line Valve (2")
15. Panic Line Valve (3")
16. Choke Manifold Pressure Gauge
17. Choke Line (2")
18. Mud Cross Spacer Spool
19A Csg Spool "B" Section (11", 3M)
19B "B" Section Csg Valve (2", 3M)
20A Csg Head "A" Section (11", 3M)
20B "A" Section Csg Valve (2", 3M)
21. 9 5/8" Casing Collar



After the 7" intermediate casing has been run and cemented, the Casing Spool ("B" Section) will be installed on the wellhead ("A" Section) and the BOP will be installed on the Casing Spool. A test plug will be set in the wellhead and the pipe rams, blind rams, and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 10 minutes and to 3000 psi (high pressure test) for 10 minutes. Then the test plug will be removed and the 7" casing will be pressure tested against closed blind rams to 200 psi to 300 psi for 10 minutes and to 1800 psi for 30 minutes - this test pressure is 48% of the minimum internal yield strength of 3740 psi for the 7", 20#, J-55, STC casing. Then we will air drill the 6-1/4" hole to TD and run and cement the 4-1/2" casing.

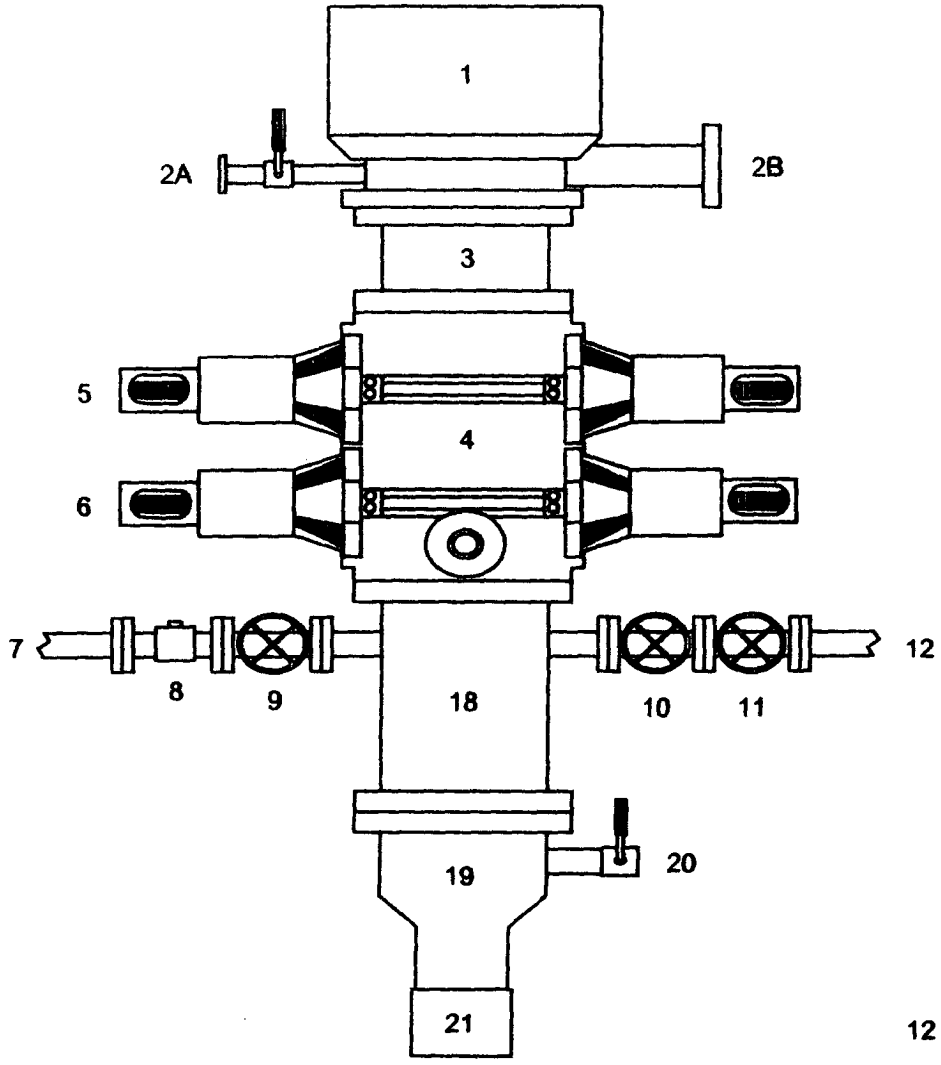
In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

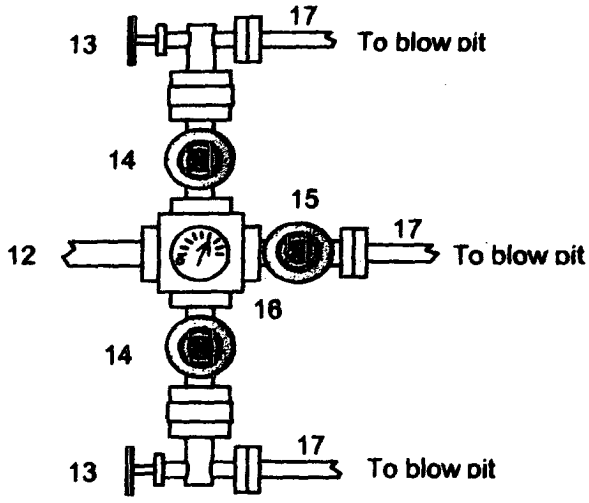
Revision Date: September 1, 2004

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to Intermediate Casing Point & Setting 7" Intermediate Casing



1. Rotating Head
2A. Fill-up Line & valve
2B. Flowline
3. Spacer Spool
4. Double Ram BOP (11", 3000 psi)
5. Pipe Rams
6. Blind Rams
7. Kill Line
8. Kill Line Check Valve
9. Kill Line Valve
10 Inner Choke Line Valve (3")
11. Outer Choke Line Valve (3")
12. Choke Line (3")
13. Variable Choke
14. Choke Line Valve (2")
15. Panic Line Valve (3")
16. Choke Manifold Pressure Gauge
17. Choke Line (2")
18. Mud Cross Spacer Spool
19. Casing Head "A" Section
20. Casing Head "A" Section 2" Valve
21. 9 5/8" Casing Collar



A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe rams and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 10 minutes and to 1000 psi (high pressure test) for 10 minutes. Then the test plug will be removed, and the **9-5/8" casing will be pressure tested** against closed blind rams to 200 psi to 300 psi for 10 minutes and **to 1000 psi for 30 minutes** (this value is one 44% of the minimum internal yield pressure of the 9-5/8" casing). (Note: per regulatory requirements we will wait on cement at least 8 hrs after placement before testing the 9-5/8" surface casing). Then an 8-3/4" hole will be drilled to intermediate casing point and 7" intermediate casing will be run and cemented.

In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

Revision Date: September 1, 2004