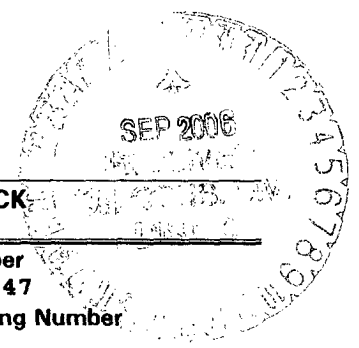


UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number NMSF NM-079947 Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator ConocoPhillips	7. Unit Agreement Name	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Helen Jackson 9. Well Number #2M	
4. Location of Well Unit P (SESE), 1188' FSL & 218' FEL, Latitude 36° 40' 43.07653 N Longitude 107° 46' 43.32387 W	10. Field, Pool, Wildcat Basin DK/Blanco MV 11. Sec., Twn, Rge, Mer. (NMPM) p Sec. 33, T29N, R09W API # 30-045- 33919	
14. Distance in Miles from Nearest Town 6 mile/Blanco	12. County San Juan Co.	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 218'		
16. Acres in Lease	17. Acres Assigned to Well DK & MV - 320.0 - (E/2)	
18. Distance from Proposed Location to Nearest Well, Drlg. Compl, or Applied for on this Lease		
19. Proposed Depth 6777'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 5851.5' GL 5852	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>Shonda Rogers</u> Regulatory Assistant	<u>8-28-06</u> Date	

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

Archaeological Report attached

Threatened and Endangered Species Report attached

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".

NMOCB

This action is subject to technical and
procedural review pursuant to 43 CFR 3166.9
and appeal pursuant to 43 CFR 3166.4

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Fee Lease - 3 Copies
State Lease - 7 Copies
Submit to Appropriate District Office
Revised June 10, 2003
Form C-102

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045- 33919	² Pool Code 71599 / 72319	³ Pool Name DAKOTA / Mesaverde
⁴ Property Code 31809	⁵ Property Name HELEN JACKSON	⁶ Well Number 2M
⁷ OGRID No. 217817	⁸ Operator Name CONOCOPHILLIPS COMPANY	⁹ Elevation 5851.5

¹⁰ SURFACE LOCATION

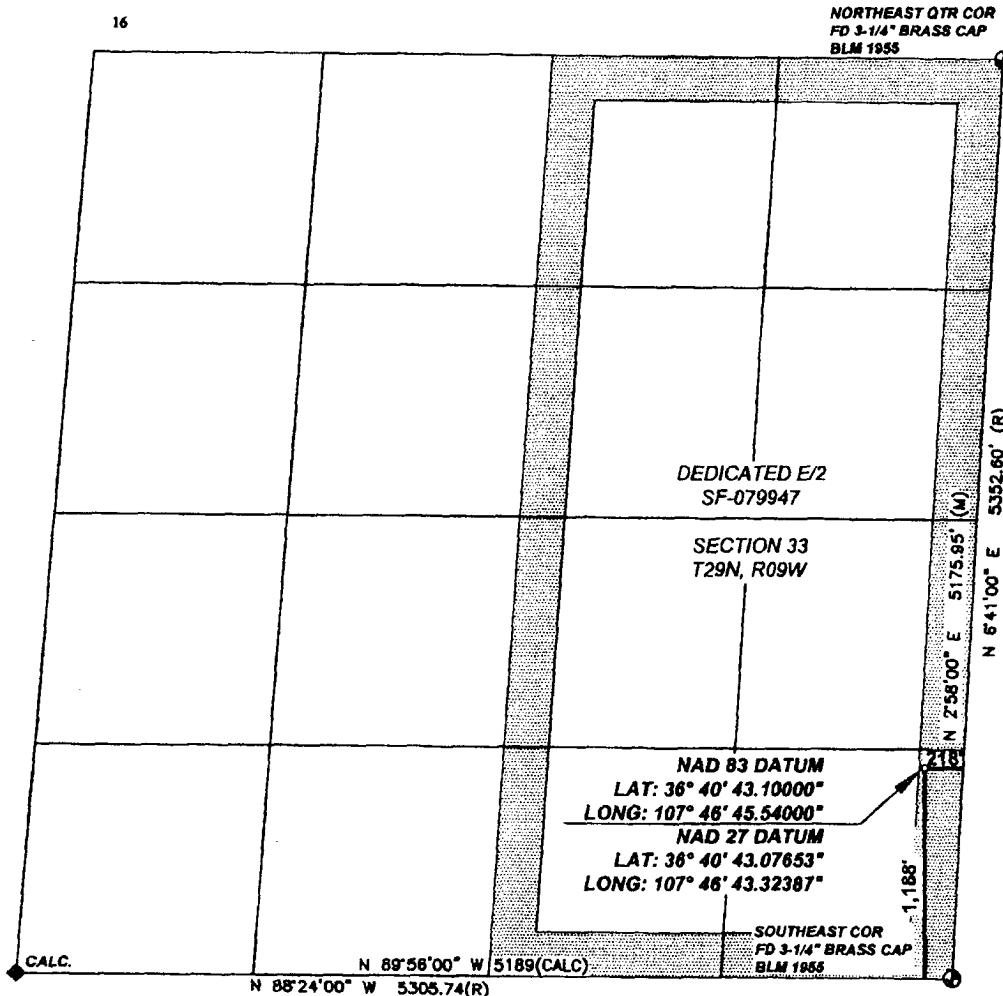
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
P	33	29-N	09-W		1188	SOUTH	218	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 320.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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



¹⁷ OPERATOR 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 of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature
Patsy Clugston

Printed Name
Sr. Regulatory Specialist

Title and E-mail Address

Date

¹⁸ 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.

Date of Survey: 06/08/06
Signature and Seal of Professional Surveyor:

Certificate Number: NM-11398

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- 33919	
5. Indicate Type of Lease STATE ☐ FEE ☐	
6. State Oil & Gas Lease No. Federal Lease - NM-079947	
7. Lease Name or Unit Agreement Name Helen Jackson	
8. Well Number #2M	
9. OGRID Number 217817	
10. Pool name or Wildcat Blanco Mesaverde / Basin Dakota	
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 ☐ Gas Well ☒ Other	
2. Name of Operator ConocoPhillips Company	
3. Address of Operator 3401 E. 30TH STREET, FARMINGTON, NM 87402	
4. Well Location Unit Letter <u>P</u> <u>1188'</u> feet from the <u>South</u> line and <u>218'</u> feet from the <u>East</u> line Section <u>33</u> Township <u>29N</u> Rng <u>9W</u> NMPM County <u>San Juan</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 5852' GL	
Pit or Below-grade Tank Application ☐ or Closure ☐	
Pit type <u>New Drill</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 <u> </u> bbls; Construction Material <u> </u>	

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐

PLUG AND ABANDON ☐
CHANGE PLANS ☐
MULTIPLE COMPL ☐

OTHER:

New Drill ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐
COMMENCE DRILLING OPNS. ☐
CASING/CEMENT JOB ☐

ALTERING CASING ☐
P AND A ☐

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.

We are constructing Drilling and workover pits as per our General plan on file with the OCD dated June 2005 and we are closing all pits as per 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 ☐.

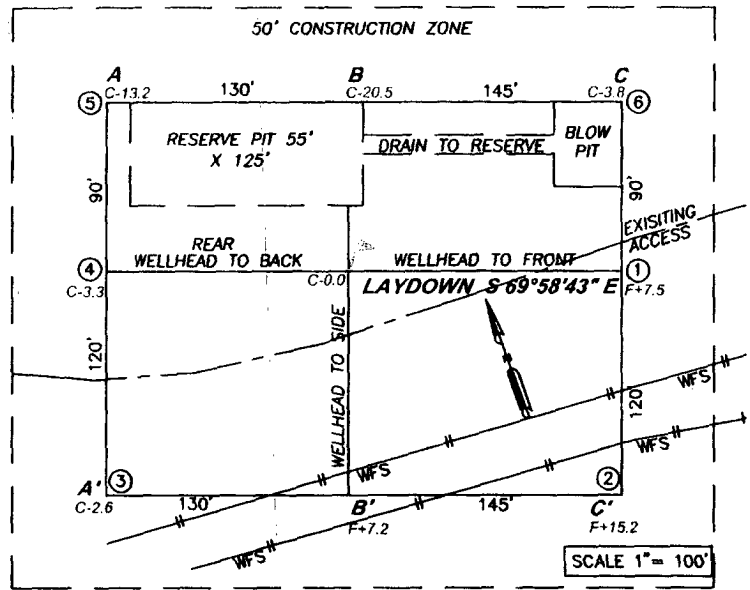
SIGNATURE Rhonda Rogers TITLE Regulatory Assistant DATE 8/22/2006

Type or print name Rhonda Rogers E-mail address: rrogers@br-inc.com Telephone No. 505-559-4018
For State Use Only

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #1 DATE SEP 28 2006
Conditions of Approval (if any):

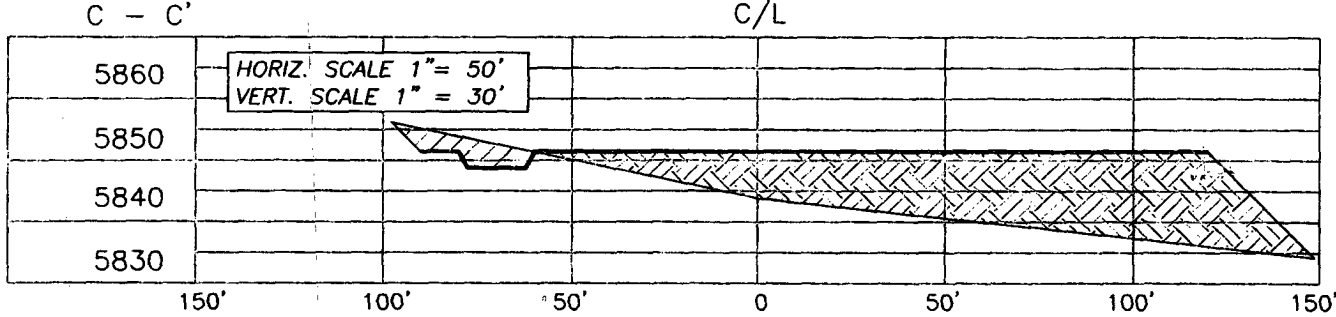
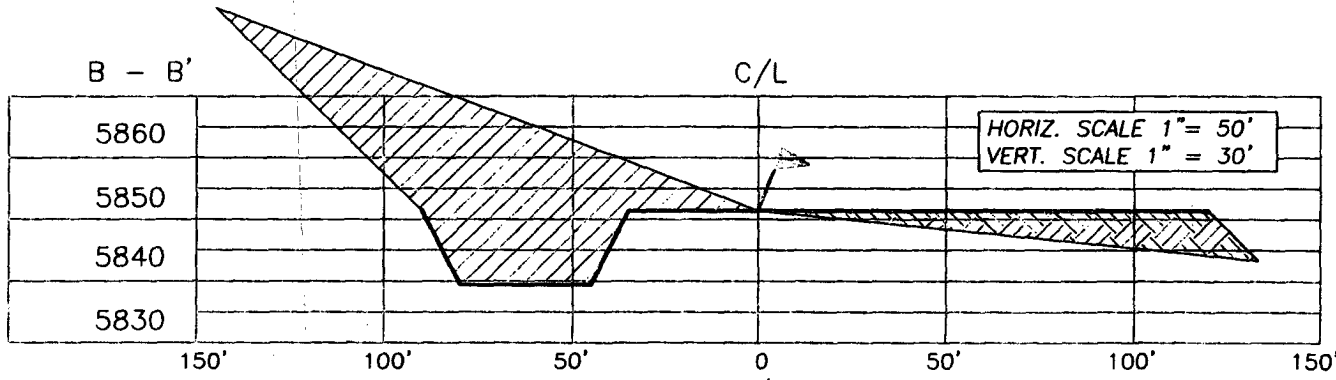
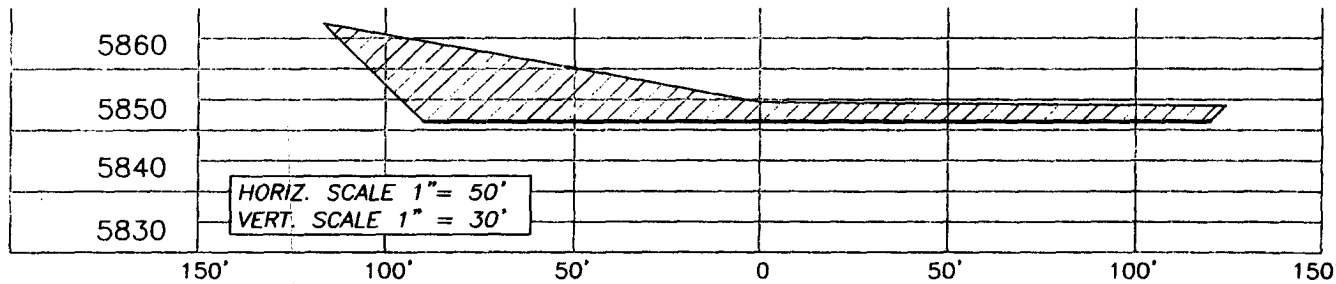
NAD 27 DATUM
LAT: 36° 40' 43.07653"
LONG: 107° 46' 43.32387"

NAD 83 DATUM
LAT: 36° 40' 43.10000"
LONG: 107° 46' 45.54000"



CONOCOPHILLIPS COMPANY

HELEN JACKSON #2M
1,188' FSL, 218' FEL
SECTION 33, T29N, R09W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
ELEV.: 5851.5' NADV88



NOTE: CCI IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD PRIOR TO CONSTRUCTION.

REVISIONS			
NO.	DESCRIPTION	REVISED BY	DATE

CCI
1300 W. BROADWAY
BLOOMFIELD, NM, 87413
PHONE: (505) 832-7777

CHENAULT CONSULTING INC.

PROJECT PROPOSAL - New Drill / Sidetrack

HELEN JACKSON 2M

Lease:		AFE #: WAN.CNV.7181		AFE \$:	
Field Name: NEW MEXICO-WEST	Rig: H&P 281	State: NM	County: SAN JUAN	API #:	
Geoscientist: Brain, Ted H.	Phone: 832-486-2592	Prod. Engineer:		Phone: 486-2334	
Res. Engineer: Harrington, Tim R.	Phone: 832-486-2207	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			
Latitude: 36.678600	Longitude: -107.778700	X:	Y:	Section: 33	Range: 9W
Footage X: 218 FEL	Footage Y: 1188 FSL	Elevation: 5852 (FT)	Township: 29N		
Tolerance:					

Location Type: Year Round	Start Date (Est.):	Completion Date:	Date In Operation:
Formation Data: Assume KB = 5867 Units = FT			

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	216	5651	☐			12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
OJAM	1097	4770	☐			Possible water flows.
KRLD	1222	4645	☐			
FRLD	1927	3940	☐			Possible gas.
PCCF	2187	3680	☐			
LEWS	2387	3480	☐			
Intermediate Casing	2487	3380	☐			8 3/4" Hole. 7", 20 ppf, J-55, STC Casing. Circulate cement to surface.
CLFH	3817	2050	☐			Gas; possibly wet
MENF	3842	2025	☐			Gas.
PTLK	4417	1450	☐			Gas.
GLLP	5602	265	☐			Gas. Possibly wet.
GRHN	6427	-560	☐			Gas possible, highly fractured
PAGU	6582	-715	☐			Gas. Highly Fractured.
CBBO	6602	-735	☐			Gas
TOTAL DEPTH DK	6777	-910	☐			6-1/4" Hole. 4-1/2", 11.6 ppf, N-80, LTC casing. Circulate cement a minimum of 100' inside the previous casing string. No open hole logs. Cased hole TDT with GR to surface.
Total Depth	6777	-910	☐			

Reference Wells:

Reference Type	Well Name	Comments
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PROJECT PROPOSAL - New Drill / Sidetrack

HELEN JACKSON 2M

Logging Program:Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple ComboTD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☒ TDT**Additional Information:**

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
----------	-------	-----------	---------	----------------	---------

Comments:

Helen Jackson #2M

APD Cement Calculations

HOLE: 12.25"
CSG OD: 9.625"
WGT: 32.3 ppf
GRADE: H-40
EXCESS: 125 %
DEPTH: 235'

SURFACE:
Option 1
148 sx
30.8 bbls
172.9 cuft
1.17 ft³/sx
15.8 ppg
4.973 gal/sx
Class G Cement
+ 3% S001 Calcium Chloride
+ 0.25 lb/sx D029 Cellophane Flakes

Option 2
143 sx
30.8 bbls
172.9 cuft
1.21 ft³/sx
15.6 ppg
5.29 gal/sx
Standard Cement
+ 3% Calcium Chloride
+ 0.25 lb/sx Floccle

Comp. Strength
6 hrs 250 psi
8 hrs 500 psi

Option 3
65 sx
18.6 bbls
104.3 cuft
1.61 ft³/sx
14.5 ppg
7.41 gal/sx
Type I-II Ready Mix
+ 20% Fly Ash

Comp. Strength
8 hrs 475 psi
24 hrs 1375 psi

INTERMEDIATE LEAD:

Option 1
258 sx
124.8 bbls
700.7 cuft
2.72 ft³/sx
11.7 ppg
15.74 gal/sx
Class G Cement
+ 3% D079 Extender
+ 0.20% D046 Antifoam
+ 10 lb/sx Phenoseal

HOLE: 8.75"
CSG OD: 7"
WGT: 6.456"
GRADE: J-55
EXCESS: 150 %
TAIL: 497.4'

Option 2
270 sx
124.8 bbls
700.7 cuft
2.60 ft³/sx
11.5 ppg
14.62 gal/sx
Type III Ashgrove Cement
+ 30 lb/sx San Juan Poz
+ 3% Bentonite
+ 5.0 lb/sx Phenoseal

Comp. Strength
1.47 hrs 50 psi
12 hrs 350 psi
24 hrs 450 psi

Option 3
266 sx
124.8 bbls
700.7 cuft
2.63 ft³/sx
11.7 ppg
15.92 gal/sx
Class G Cement
+ 3% D079 Extender
+ 0.20% D046 Antifoam
+ 1.0 lb/bbl CemNet

Comp. Strength
3 hrs 100 psi
24 hrs 443 psi

INTERMEDIATE TAIL:

Option 1
150 sx
35.0 bbls
196.6 cuft
1.31 ft³/sx
13.5 ppg
5.317 gal/sx
50/50 Poz: Class G Cement
+ 0.25 lb/sx D029 Cellophane Flakes
+ 3% S001 Calcium Chloride
+ 2% D020 Bentonite
+ 1.5 lb/sx D024 Gilsomite Extender
+ 0.1% D046 Antifoamer
+ 6 lb/sx Phenoseal

HOLE: 6.25"
CSG OD: 4.5"
WGT: 4"
GRADE: N-80
EXCESS: 50 %
DEPTH: 677'

Option 2
148 sx
35.0 bbls
196.6 cuft
1.33 ft³/sx
13.5 ppg
5.52 gal/sx
50/50 Poz: Standard Cement
+ 2% Bentonite
+ 6.0 lb/sx Phenoseal

Comp. Strength
2.05 50 psi
4.06 500 psi
12 hrs 1250 psi
24 hrs 1819 psi

Option 3
154 sx
35.0 bbls
196.6 cuft
1.28 ft³/sx
13.5 ppg
5.255 gal/sx
50/50 Poz: Class G Cement
+ 2% D020 Bentonite
+ 5.0 lb/sx D024 Gilsomite Extender
+ 2% S001 Calcium Chloride
+ 0.1% D046 Antifoamer
+ 0.15% D065 Dispersant
+ 1.0 lb/bbl CemNet

Comp. Strength
24 hrs 1850 psi
48 hrs 3411 psi

PRODUCTION:

Option 1
475 sx
121.8 bbls
683.9 cuft
1.44 ft³/sx
13.0 ppg
6.47 gal/sx
50/50 Poz: Class G Cement
+ 0.25 lb/sx D029 Cellophane Flakes
+ 3% D020 Bentonite
+ 1.0 lb/sx D024 Gilsomite Extender
+ 0.25% D167 Fluid Loss
+ 0.25% D065 Dispersant
+ 0.1% D800 Retarder
+ 0.1% D046 Antifoamer
+ 3.5 lb/sx Phenoseal

Option 2
472 sx
121.8 bbls
683.9 cuft
1.45 ft³/sx
13.1 ppg
6.55 gal/sx
50/50 Poz: Standard Cement
+ 3% Bentonite
+ 0.2% CFR-3 Friction Reducer
+ 0.1% HR-5 Retarder
+ 0.8% Hialad-9 Fluid Loss Additive
+ 3.5 lb/sx Phenoseal

Comp. Strength
9.32 50 psi
12 hrs 500 psi
13.29 1028 psi
24 hrs 2300 psi

Handwritten signature

Helen Jackson #2M

HOLE: 12.25 "
CSG OD: 9.625 "
CSG ID: 9.001 "
WGT: 32.3 ppf
GRADE: H-40
EXCESS: 125 %
DEPTH: 235'

SURFACE:

INTERMEDIATE LEAD:

Option 4

243 sx
124.8 bbls
700.7 cuft
2.88 ft³/sx
11.5 ppg
16.85 gal/sx
Standard Cement
+ 3% Econolite (Extender)
+ 10 lb/sx Phenoseal

Comp. Strength
1.47 50 psi
12 hrs 350 psi
24 hrs 450 psi

HOLE: 8.75 "
7 "
CSG OD: 6.456 "
CSG ID: 20 ppf
WGT: J-55
GRADE: 150 %
EXCESS:
TAIL: 497.4'
DEPTH: 2487'

Option 5

334 sx
124.8 bbls
700.7 cuft
2.10 ft³/sx
11.7 ppg
11,724 gal/sx
75% Type XI / 25% Class G Cement
+ 0.25 lb/sx D029 Cellophane Flakes
+ 3% D079 Extender
+ 0.20% D046 Antifoam

Comp. Strength
10:56 500 psi
42 hrs 1012 psi

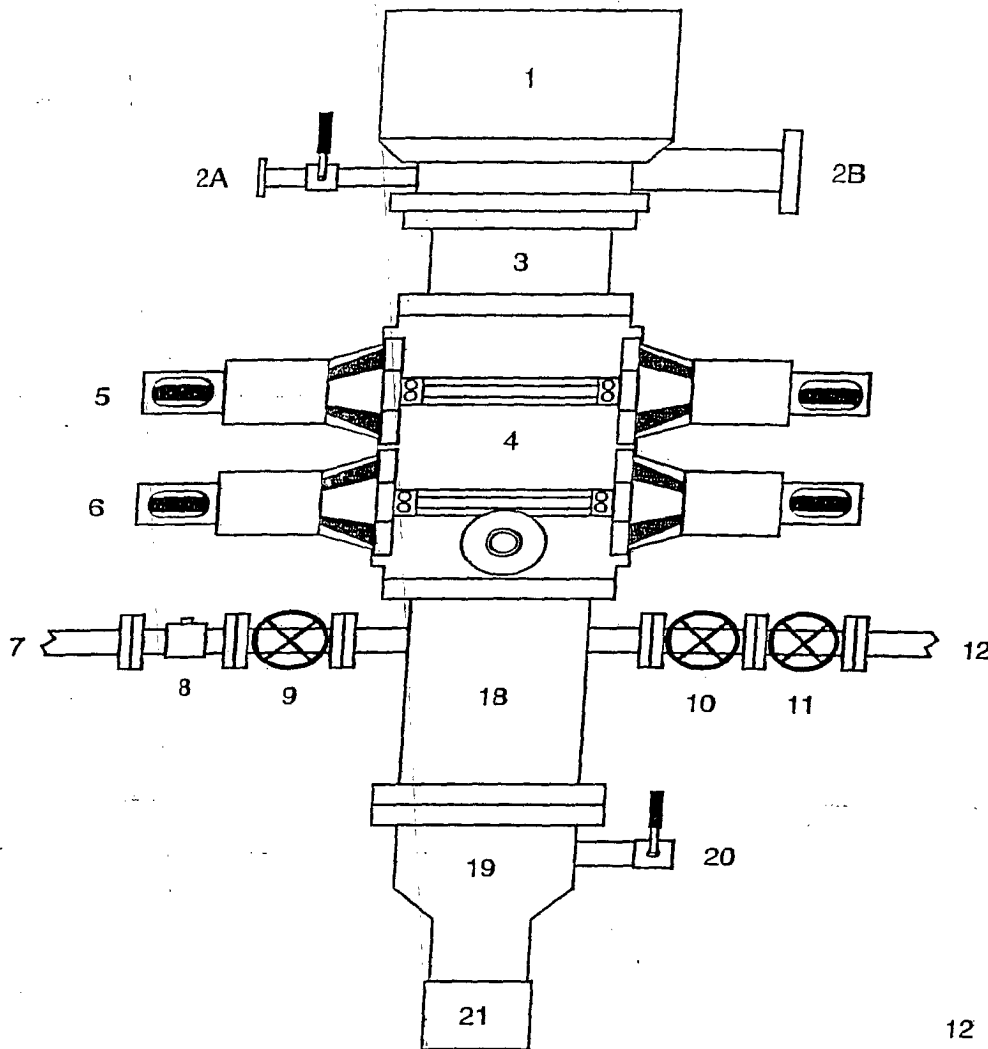
INTERMEDIATE TAIL:

HOLE: 6.25 "
4.5 "
CSG OD: 4 "
CSG ID: 11.6 ppf
WGT: N-80
GRADE: 50 %
EXCESS:
DEPTH: 6777'

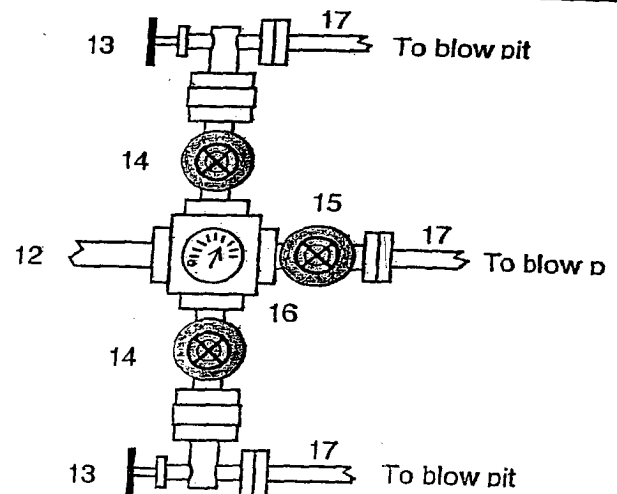
PRODUCTION:

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

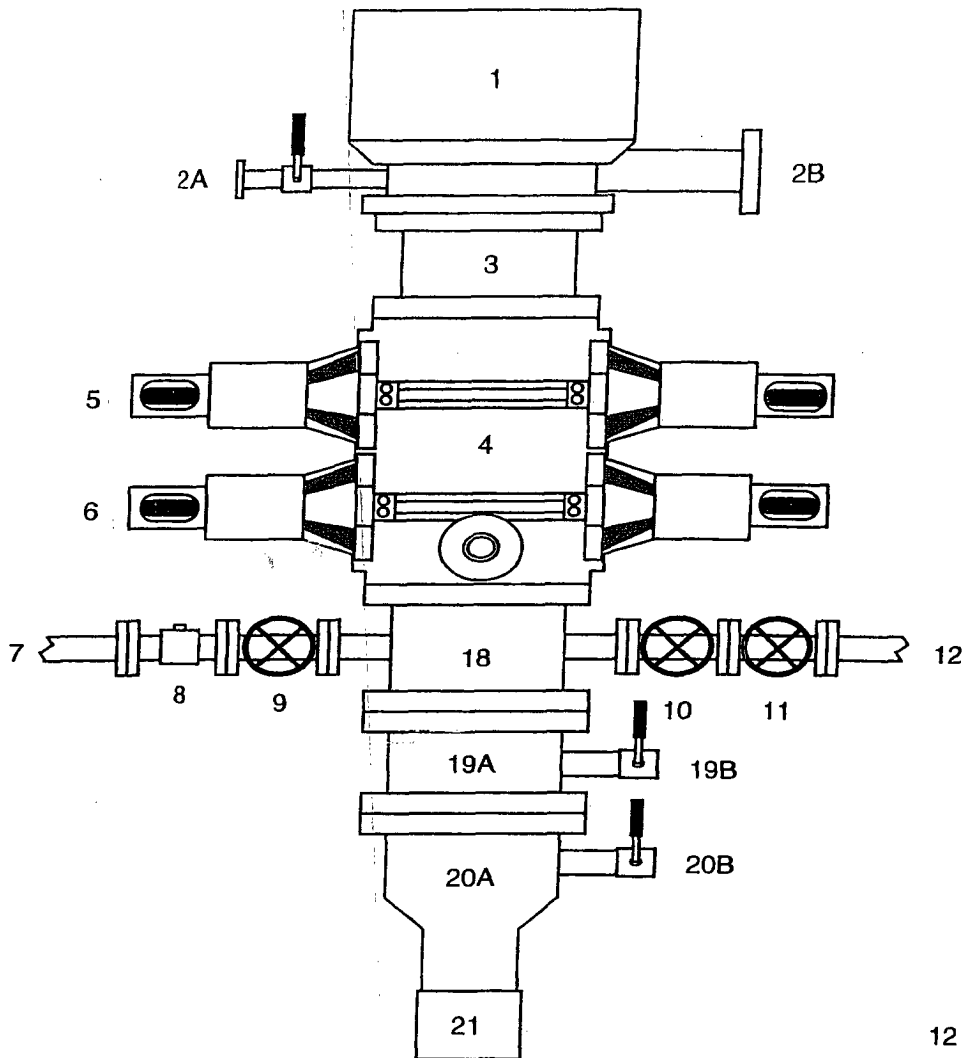


12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe rams 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.

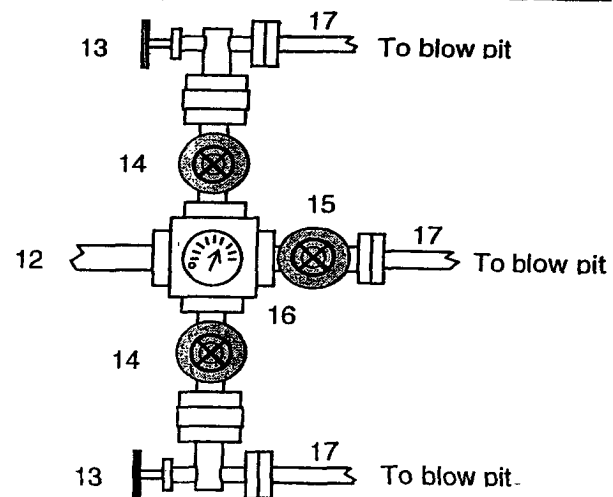
In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to TD and Setting 4.5 inch Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Bleeed 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