Sb

Form 3160-3
(August 1999)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
SF-078996

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

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

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone

8. Lease Name and Well No.
SAN JUAN 32-7 UNIT 220A

2. Name of Operator
CONOCOPHILLIPS COMPANY
Contact: VICKI WESTBY
E-Mail: Vicki.R.Westby@conocophillips.com

9. API Well No.
30-045-32975

3a. Address
4001 PENBROOK
ODESSA, TX 79762

3b. Phone No. (include area code)
Ph: 915.368.1352

10. Field and Pool, or Exploratory
BASIN FRUITLAND COAL

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

At surface SWSW 680FSL 268FWL

At proposed prod. zone NWNW 700FNL 700FWL

11. Sec., T., R., M., or Blk. and Survey or Area
M Sec 31 T32N R7W Mer NMP

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

12. County or Parish
SAN JUAN 32-7

13. State
NM

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)

16. No. of Acres in Lease
2537.40

17. Spacing Unit dedicated to this well
R-9305 #6 319.16 AC

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.

19. Proposed Depth
4139 MD
3703 TVD

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KB, RT, GL, etc.
6720 GL

22. Approximate date work will start

23. Estimated duration

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)	Date
(Electronic Submission)	VICKI WESTBY Ph: 915.368.1352	03/18/2005

Title
AGENT

Approved by (Signature)	Name (Printed/Typed)	Date
Roland D. Adams	Roland D. Adams	08/01/05
Title Acting AFM	Office Farmington District Office	

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.

Additional Operator Remarks (see next page) HOLD C104 FOR directional survey

Electronic Submission #55186 verified by the BLM Well Information System
For CONOCOPHILLIPS COMPANY, sent to the Farmington

NMOCD

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

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 June 10, 2003
Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☐ AMMENDED REPORT

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

AUG 2005 RECEIVED OIL CONS. DIV. DIST. 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-32975	71629	BASIN FRUITLAND COAL (GAS)

[4] Property Code	[5] Property Name	[6] Well Number
31329	SAN JUAN 32-7 UNIT	220A

[7] OGRID No.	[8] Operator Name	[9] Elevation
217817	CONOCOPHILLIPS COMPANY	6720

[10] Surface Location

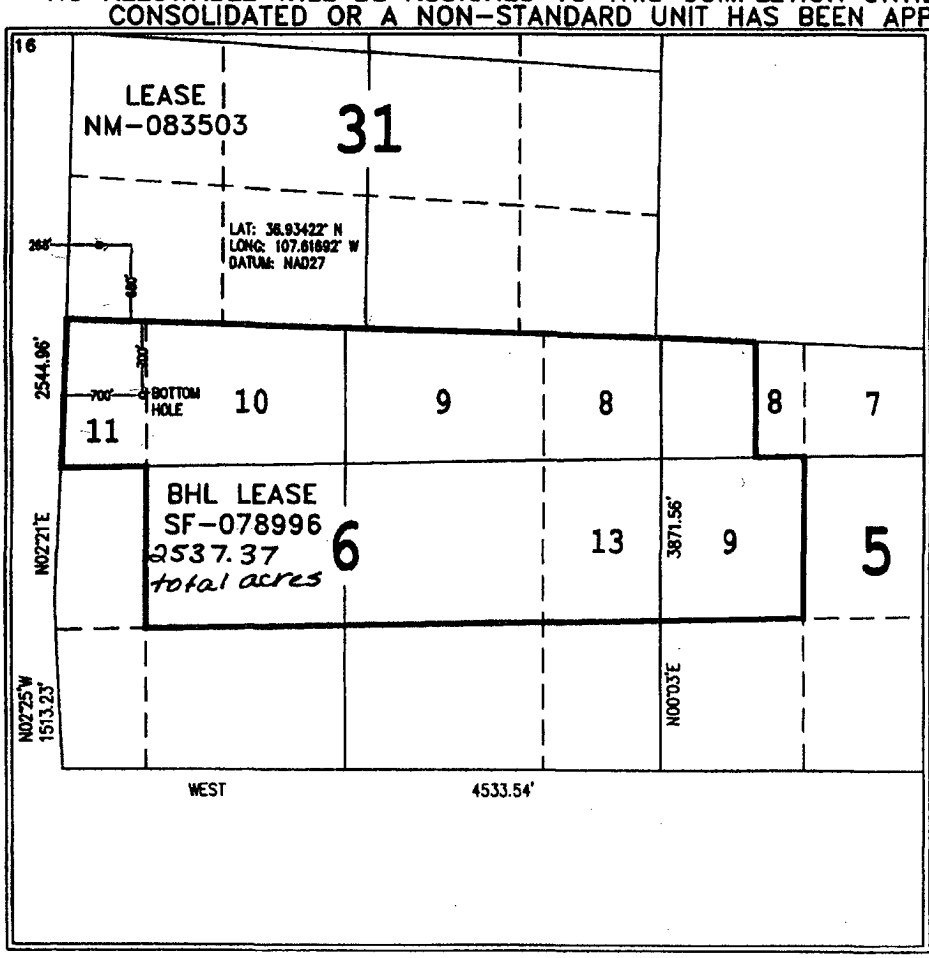
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	31	32N	07W		680	SOUTH	268	WEST	SAN JUAN

[11] 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
D	6	31N	07W		700	NORTH	700	WEST	SAN JUAN

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
319.16			R-9305 #6

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.

Vicki Westby
Signature

Vicki Westby
Printed Name

Staff Agent
Title and E-mail Address

3/16/05
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: 11/02/04
Signature and Seal of Professional Surveyor:

HENRY P. BROADHURST JR. NEW MEXICO 11393 12/9/04 REGISTERED PROFESSIONAL SURVEYOR

Certificate Number NM 11393

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 882 1 0
District III
1 000 Rio Brazos Rd., Aztec, NM 8741 0
District IV
1220 S. St. Francis Dr., Santa I e, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

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

Fonn C- 1 03
May 27, 2004

WELL API NO.	
5. Indicate Type of Lease	STATE ☐ FEE ☐
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name	SAN JUAN 32-7 UNIT
8. Well Number	220A
9. OGRID Number	217817
10. Pool name or Wildcat	Basin Fruitland Coal

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: 4001 Penbrook, Odessa, TX 79762

4. Well Location
Unit Letter M 680 feet from the South line and 268 feet from the West line
Section 31 Township 32N Range 7W NMPM SAN JUAN County

I 1. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 6720 GL

Pit or Below -grade Tank Application ☒ Closure ☐
Pit type DRILL Depth to Groundwater 40' Distance from nearest fresh water well >1 Mile Distance from nearest surface water 150'
Liner Thickness: 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: ☐		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 I 1 03. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

The pit will be constructed and closed in accordance with Rule 50 and as per the Nov. 1, 2004 Guidelines. See the attached diagram that details the location of the pit in reference to the proposed wellhead. The drill pit will be lined. The drill pit will be closed after the well has been completed.

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 Vicki Westby TITLE Staff Agent DATE 3/16/2005

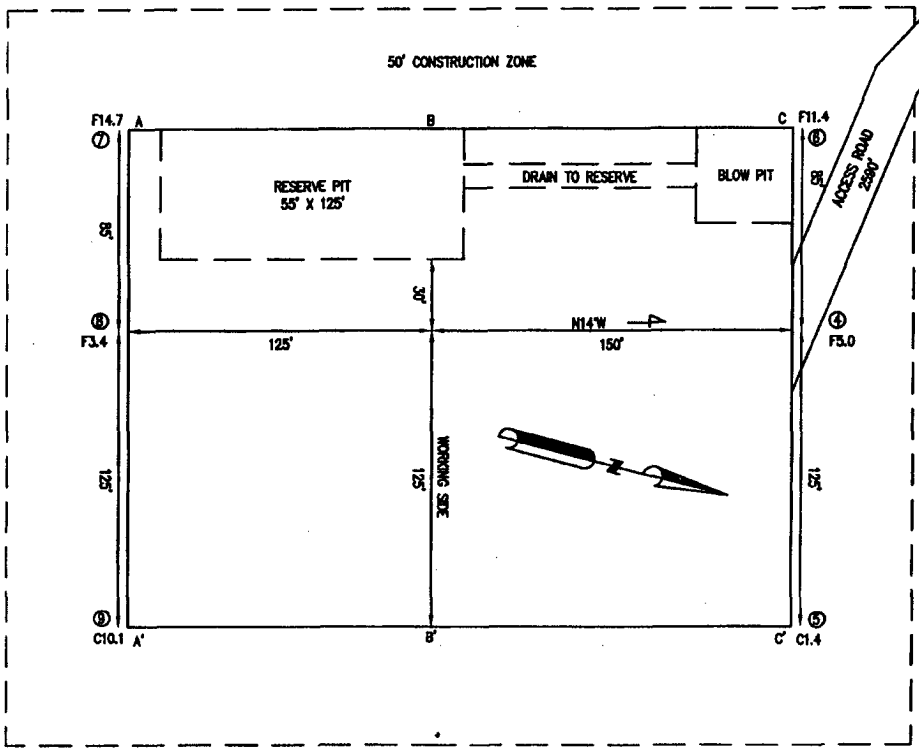
Type or print name E-mail address: Telephone No.

For State Use Only

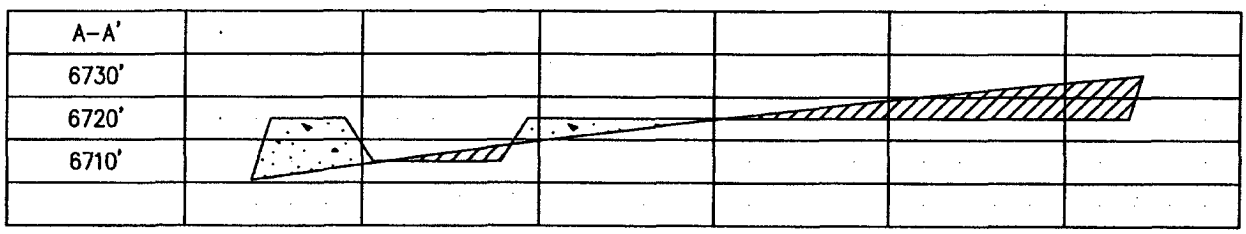
APPROVED BY: DEPUTY OIL & GAS INSPECTOR, DIST. #3 TITLE DATE AUG 0 3 2005
Conditions of Approval (if any):

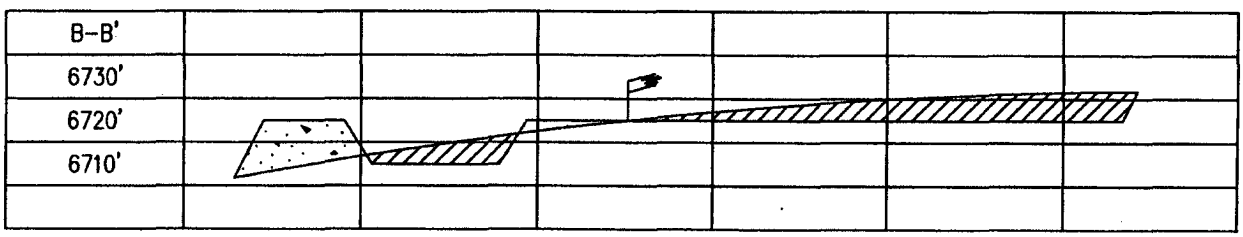
CONOCOPHILLIPS COMPANY SAN JUAN 32-7 UNIT #220A
680' FSL & 268' FWL, SECTION 31, T32N, R07W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6720'

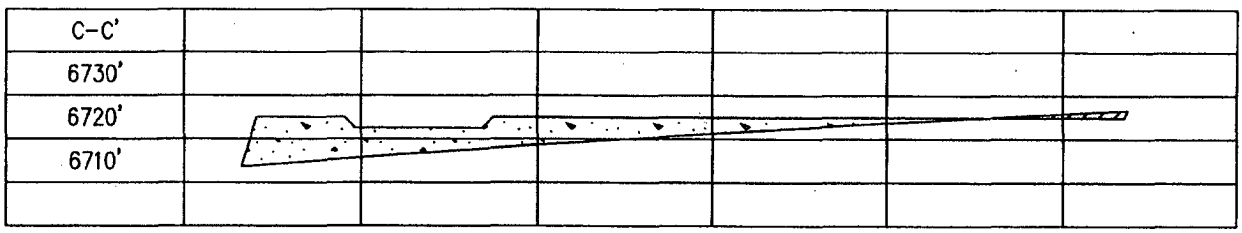
LATITUDE: 36.93422° N
LONGITUDE: 107.61691° W
DATUM: NAD27



PLAT NOTE:
SURFACE OWNER
BLM







FILENAME: SJ32-7 220A.dwg	SHEET 2 OF 6	CHENAULT CONSULTING INC.	DRAWN BY:T. RENTZ	CHECKED BY:J. FUNK

ConocoPhillips

San Juan Business Unit

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 32-7 220A

Lease:	AFE #:			AFE $:
Field Name: hPHILLIPS 32-7	Rig:	State: NM	County: SAN JUAN	API #:
Geoscientist: Cloud, Tom A	Phone: +1 832 486-2377	Prod. Engineer:		Phone:
Res. Engineer: Stasney, Janet F.	Phone: +832 486-2359	Proj. Field Lead:		Phone:

Primary Objective (Zones)

Zone	Zone Name
JCV	BASIN FRUITLAND COAL (GAS)

Location - Surface — Deviated

Latitude: 36.93	Longitude: -107.62	X:	Y:	Section: 31	Range: 7W
Footage X: 268 FWL	Footage Y: 680 FSL	Elevation: 6720 (FT)		Township: 32N	
Tolerance:					

Location - Bottom Hole — Deviated

Latitude:	Longitude:	X:	Y:	Section: 6	Range: 7W
Footage X: 700 FWL	Footage Y: 700 FNL	Elevation:	(FT)	Township: 31N	
Tolerance:					

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

Formation Data: Assume KB = 6733 Units = FT

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SAN JOSE	13	6720	☐			
Surface Casing	213	6520	☐			12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
NCMT	933	5800	☐			
OJAM	1403	5330	☐			Possible water flows.
KRLD	2523	4210	☐			
FRLD	3253	3480	☐			Possible gas.
Intermediate Casing	3283	3450	☐			8 3/4" Hole. 7", 20 ppf, J-55, STC Casing. Circulate cement to surface.
TOP COAL	3313	3420	☐			
BASE MAIN COAL	3433	3300	☐			
PC TONGUE	3523	3210	☐			
BASE LOWEST COAL	3623	3110	☐			
PCCF	3628	3105	☐			
Total Depth	3703	3030	☐			6-1/4" hole possibly underreamed to 9.5". Optional Liner: 5.5", 15.5#, J-55 LTC - left uncemented.

Reference Wells:

Reference Type	Well Name	Comments
Intermediate	CNG Grassy Canyon #4	
Intermediate	Aztec Albino Canyon #1	
Intermediate	COP 32-7 #218A	
Intermediate	COP 32-7 #220 Directional	

ConocoPhillips

San Juan Business Unit

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 32-7 220A

Logging Program

Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT

Additional Information: **TD includes 80 feet sump/rathole & COPC will comply with the BLM's Conditions of Approval for the proposed sump/rathole in this non-producing Pictured Cliffs formation**

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

Comments: Location/Tops/Logging - No PCCF PA or gas pool. Nearby well COP 32-7 #220 is directional.

General/Work Description - Drill and complete a directional Fruitland Coal well.

Mud Log from intermediate casing shoe to TD will be obtained.

Drilling Mud Program:
Surface: spud mud
Intermediate: fresh water mud with bentonite and polymer as needed
Below Intermediate: air/mist drilling media with foamer, polymer, & corrosion inhibitor as needed

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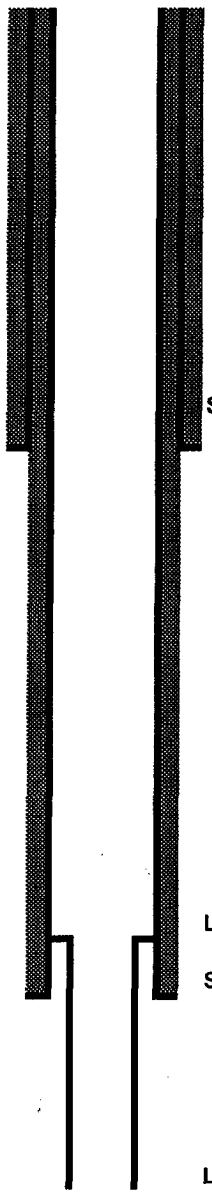
San Juan 32-7 #220A

Formation	TVD	MD
San Jose	13	13
Surface Casing	213	213
NCMT	933	950.26
OJAM	1403	1509.98
KRLD	2523	2939.76
FRLD	3253	3689.41
Intermediate Casing	3283	3719.41
TOP COAL	3313	3749.41
Base Main Coal	3433	3869.41
PC Tongue	3523	3959.41
Base Lowest Coal	3623	4059.41
PCCF	3628	4064.41
Total Depth	3703	4139.41

San Juan 32-7 # 220A



SURFACE CASING :

Drill Bit Diameter	12.25	"
Casing Outside Diameter	9.625	"
Casing Weight	32.3	ppf
Casing Grade	H-40	
Shoe Depth	230	'
Cement Yield	1.21	cuft/sk
Excess Cement	125	%
Cement Required	147	**sx**

Casing Inside Diam. 9.001 "

SHOE 230 ', 9.625 ", 32.3 ppf, H-40 STC

INTERMEDIATE CASING :

Drill Bit Diameter	8.75	"
Casing Outside Diameter	7	"
Casing Weight	20	ppf
Casing Grade	J-55	
Shoe Depth	3720	'
Lead Cement Yield	2.01	cuft/sk
Lead Cement Excess	160	%
Tail Cement Length	315	'
Tail Cement Yield	1.39	cuft/sk
Tail Cement Excess	160	%
Lead Cement Required	440	**sx**
Tail Cement Required	100	**sx**

Casing Inside Diam. 6.456 "

LINER TOP 3700 '

SHOE 3720 ', 7 ", 20 ppf, J-55

LINER BOTTOM 4140 ' (Uncemented)

SAN JUAN 32-7 #220A

HALLIBURTON OPTION

9-5/8 Surface Casing		
Cement Recipe	Class C Standard Cement	
	+ 3% Calcium Chloride	
	+0.25 lb/sx Flocele	
Cement Volume	147	sx
Cement Yield	1.21	cuft/sx
Slurry Volume	179.8	cuft
	32.0	bbls
Cement Density	15.6	ppg
Water Required	5.29	gal/sx

7" Intermediate Casing		
Lead Slurry		
Cement Recipe	Standard Cement	
	+ 3% Econolite (Lost Circulation Additive)	
	+ 10 lb/sx Gilsonite (Lost Circ. Additvie)	
	+ 0.25 lb/sx Flocele (Lost Circ. Additive)	
Cement Required	440	sx
Cement Yield	2.91	cuft/sx
Slurry Volume	1279.9	cuft
	228.0	bbls
Cement Density	11.5	ppg
Water Required	16.88	gal/sx

7" Intermediate Casing		
Tail Slurry		
Cement Slurry	50 / 50 POZ:Standard Cement	
	+ 2% Bentonite (Light Weight Additive)	
	+ 5 lbm/sk Gilsonite (Lost Circ. Additive)	
	+ 0.25 lbm/sk Flocele (lost Circ. Additive)	
	+ 2% Calcium Chloride (Accelerator)	
Cement Required	100	sx
Cement Yield	1.33	cuft/sx
Slurry Volume	132.7	cuft
	23.6	bbls
Cement Density	13.5	ppg
Water Required	5.36	gal/sx

SCHLUMBERGER OPTION

9-5/8" Surface Casing		
Cement Slurry	Class G	
	+ 2% S001 Calcium Chloride	
	+ 0.25 lb/sx D029 Cellophane Flakes	
Cement Volume	147	sx
Cement Yield	1.16	cuft/sx
Cement Volume	170.59	cuft
Cement Density	15.8	ppg
Water Required	4.983	gal/sx

7" Intermediate Casing		
Lead Slurry		
Cement Slurry	Class G	
	+ 3% D079 Extender	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 0.2% D046 Antifoam	
Cement Volume	493	sx
Cement Yield	2.61	cuft/sx
Cement Volume	1286.92	cuft
Cement Density	11.7	ppg
Water Required	15.876	gal/sx

7" Intermediate Casing		
Tail Slurry		
Cement Slurry	50% POZ / 50% Class G cement	
	+ 2% D020 Bentonite	
	+ 2% S001 Calcium Chloride	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 5 lb/sx Gilsonite Extender	
	+ 0.2% D046 Antifoam	
Cement Volume	100	sx
Cement Yield	1.27	cuft/sx
Cement Volume	126.80	cuft
Cement Density	13.5	ppg
Water Required	5.182	gal/sx

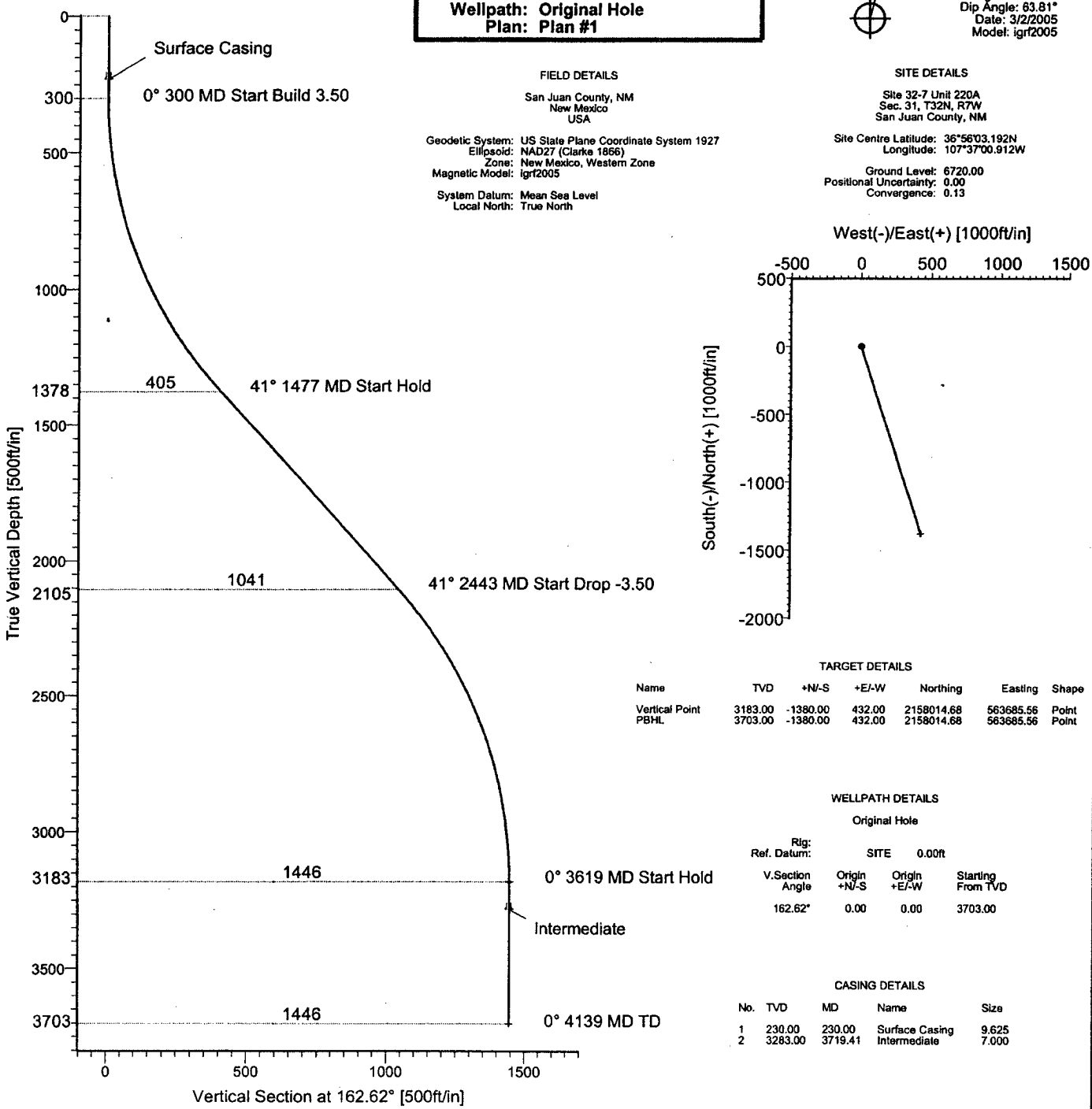
ConocoPhillips

ConocoPhillips

Field: San Juan County, NM
Site: Site 32-7 Unit 220A
Well: Well #220A
Wellpath: Original Hole
Plan: Plan #1

Azimuths to True North
Magnetic North: 10.62°

Magnetic Field
Strength: 51552nT
Dip Angle: 63.81°
Date: 3/2/2005
Model: igrf2005



FIELD DETAILS

San Juan County, NM
New Mexico
USA

Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Western Zone
Magnetic Model: igrf2005

System Datum: Mean Sea Level
Local North: True North

SITE DETAILS

Site 32-7 Unit 220A
Sec. 31, T32N, R7W
San Juan County, NM

Site Centre Latitude: 36°56'03.192N
Longitude: 107°37'00.912W

Ground Level: 6720.00
Positional Uncertainty: 0.00
Convergence: 0.13

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Vertical Point	3183.00	-1380.00	432.00	2158014.68	563685.56	Point
PBHL	3703.00	-1380.00	432.00	2158014.68	563685.56	Point

WELLPATH DETAILS

Original Hole

Rig:
Ref. Datum: SITE 0.00ft

V.Section Angle	Origin +N/-S	Origin +E/-W	Starting From TVD
162.62°	0.00	0.00	3703.00

CASING DETAILS

No.	TVD	MD	Name	Size
1	230.00	230.00	Surface Casing	9.625
2	3283.00	3719.41	Intermediate	7.000

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	162.62	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	162.62	300.00	0.00	0.00	0.00	0.00	0.00	
3	1476.50	41.18	162.62	1377.81	-386.39	120.96	3.50	162.62	404.88	
4	2442.91	41.18	162.62	2105.19	-993.61	311.04	0.00	0.00	1041.16	
5	3619.41	0.00	162.62	3183.00	-1380.00	432.00	3.50	180.00	1446.04	Vertical Point
6	4139.41	0.00	162.62	3703.00	-1380.00	432.00	0.00	162.62	1446.04	PBHL

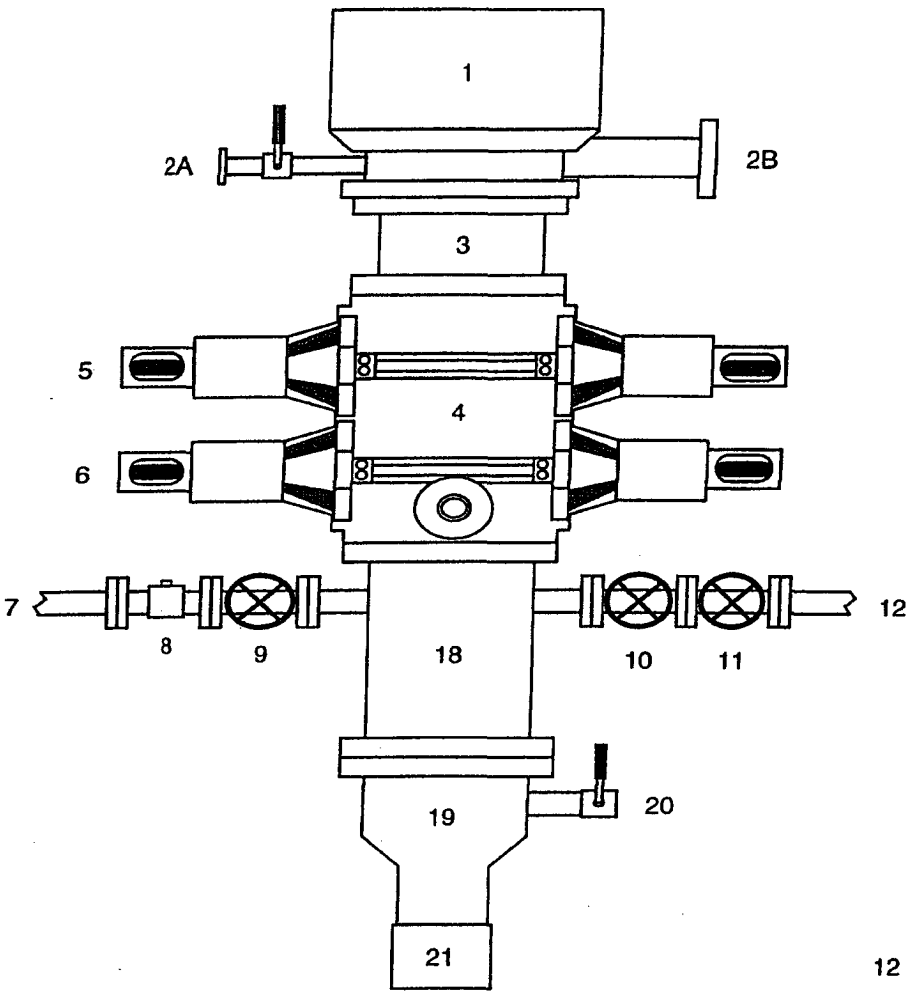
Ryan Energy Technology
19510 Oil Center Blvd
Houston, TX 77073
Ph: 281-443-1414
Fx: 281-443-1676

Ryan The leader in UNDERGROUND INTELLIGENCE™

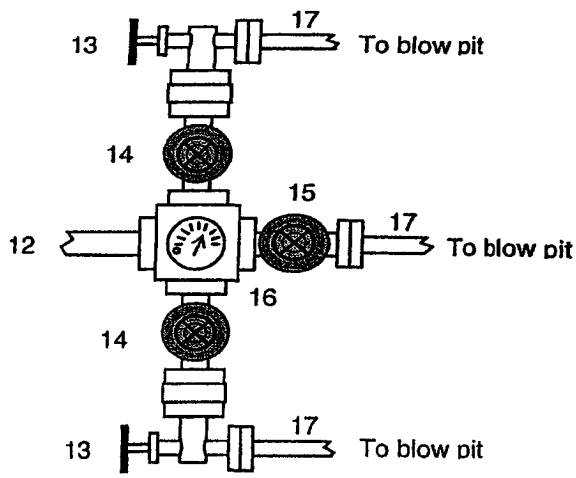
Plan: Plan #1 (Well #220A/Original Hole)
Created By: Troy Stoute Date: 3/2/2005
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: _____ Date: _____

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



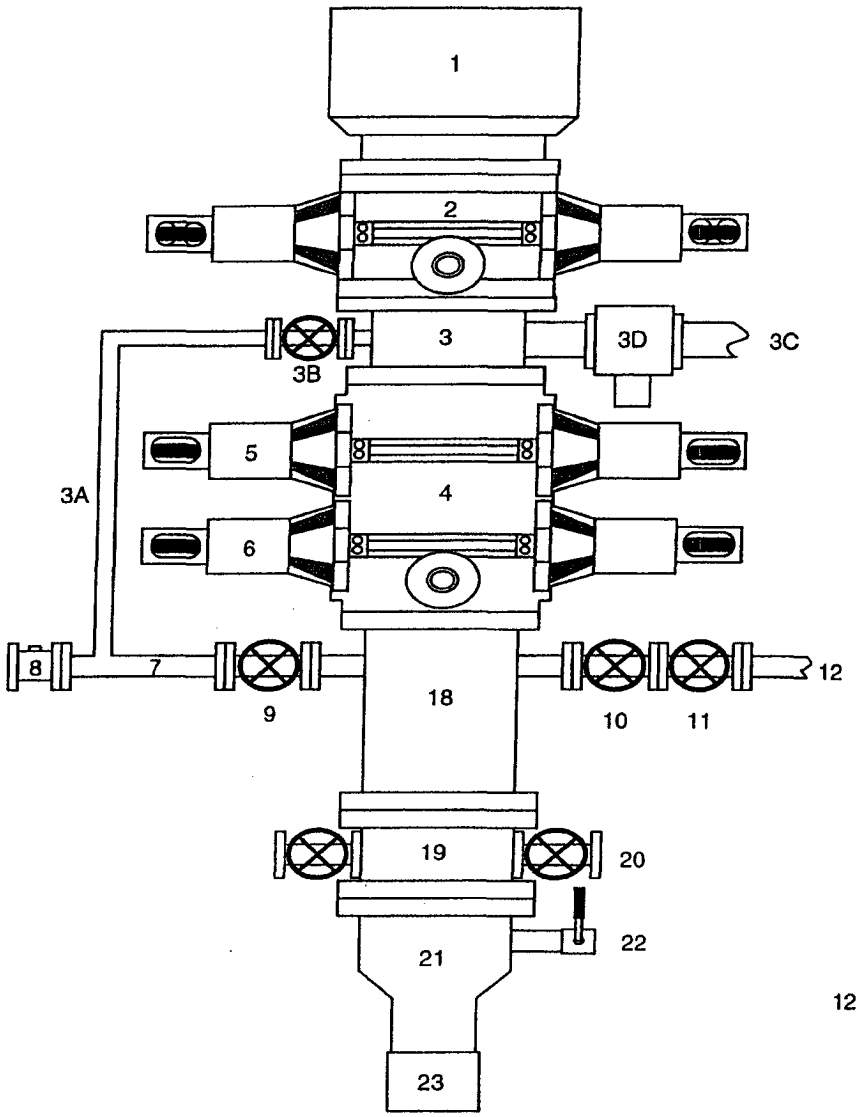
A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe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

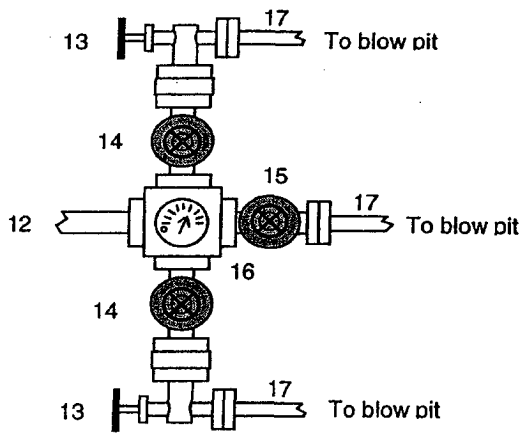
1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Cavitation Program



1. Stripping Head
2. Single Ram BOP (7-1/16", 3M)
3. Mud Cross
3A. Equalizing Line (2")
3B. Wing Valve (2-1/16", 3M)
3C. Blooie Line (2 ea, 5" OD)
3D. HCR Valve (1 ea per line, 4-1/16")
4. Double Ram BOP (7-1/16", 3M)
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. Vent Line (2")
18. Spacer Spool
19. Tubing Head
20. Tubing Head Valves (2- 9/16")
21. Casing Head "A" Section
22. Casing Head "A" Section 2" Valve
23. 9-5/8" Casing Collar



This BOP arrangement and test program is for the cavitation program. The BOP will be installed on the tubing head. 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. The pipe rams and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 10 minutes and to 1800 psi (high pressure test) for 10 minutes - This test will be done with a test plug or possibly without a test plug (ie against casing). If we conduct this test without a test plug we will ensure that we have sufficient drillstring weight in the hole to exceed the upward force generated by the test.

We use a power swivel and air/mist to drill the 6-1/4" hole in our cavitation program. We do not use a kelly. In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

1. String floats will be used inside the drillpipe
2. Stab-in TIW valve for all drillstrings in use
3. Each blooie line is equipped with a hydraulically controlled valve (HCR valve).

Revision Date: September 1, 2004

Property : SAN JUAN 32-7 UNIT **Well #:** 220A

Surface Location:

Unit: M **Section:** 31 **Township:** 32N Range: 7W

County: SAN JUAN **State: New Mexico**

Footage: 680 **from the** South line, 268 **from the** West **line.**

CATHODIC PROTECTION

ConocoPhillips (COP) proposes to drill a cathodic protection deep well groundbed for the subject well. COP will drill a hole vertically at the surface large enough to accommodate 20 feet of 8 inch diameter PVC pipe for surface casing to assist in further drilling and loading. Casing may be cemented in place for stability if needed. COP will drill a 6-7/8" hole to an anticipated minimum depth of 300' (maximum depth of 500'). Cement plugs will not be used unless more than one water zone is encountered. Prior drilling history for the area indicates only one zone to that depth. If more than one water zone is encountered, notification will be made and details of cement and casing will be provided.

All drilling activity will remain on the existing well pad and a Farmington based company will be doing the drilling for ConocoPhillips.