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-079380

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 32-8 UNIT 213A

2. Name of Operator
CONOCOPHILLIPS COMPANY
Contact: VICKI WESTBY
E-Mail: VICKI.R.WESTBY@CONOCOPHILLIPS.COM

9. API Well No.
30-045-32899

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 SWNW 2426FNL 1169FWL

At proposed prod. zone SWNW 2426FNL 1169FWL

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 22 T32N R8W Mer NMP

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

12. County or Parish
SAN JUAN

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
1760.00

17. Spacing Unit dedicated to this well
320 W/2

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

19. Proposed Depth
3803 MD

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KB, RT, GL, etc.
6820 GL

22. Approximate date work will start

23. Estimated duration

MAR 2005
RECEIVED
OIL CONS. DIV.
DIST. 3

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	01/07/2005

Title
AGENT

Approved by (Signature)	Name (Printed/Typed)	Date
/s/ Manuel Gallegos		3-17-05
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.

Additional Operator Remarks (see next page)

Electronic Submission #52717 verified by the BLM Well Information System
For CONOCOPHILLIPS COMPANY, sent to the Farmington

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

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

NMOCD

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-045-32899	71629	BASIN FRUITLAND COAL (GAS)

4 Property Code	5 Property Name	6 Well Number
31330	SAN JUAN 32-8 UNIT	213A

7 OGRID No.	8 Operator Name	9 Elevation
217817	CONOCOPHILLIPS COMPANY	6820

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
E	22	32N	08W		2426'	NORTH	1169'	WEST	SAN JUAN

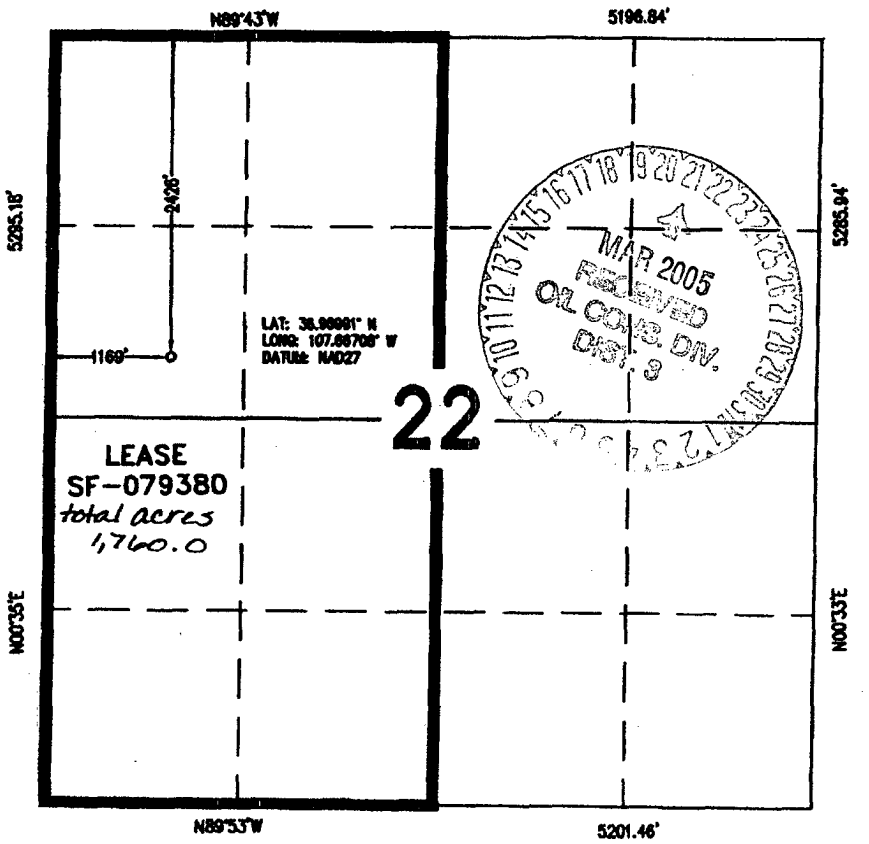
11 Bottom Hole Location If Different From Surface

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

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
W/2 320.0			

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



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 (pf)
Signature

Vicki Westby
Printed Name

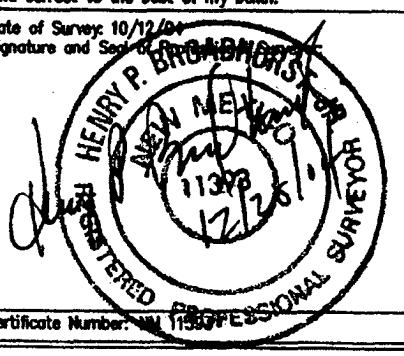
Staff Agent
Title and E-mail Address

1/7/05
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: 10/12/04
Signature and Seal of 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 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.

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: SAN JUAN 32-8

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

8. Well Number: 213A

2. Name of Operator: ConocoPhillips Company

9. OGRID Number: 217817

3. Address of Operator: 4001 Penbrook, Odessa, TX 79762

10. Pool name or Wildcat: Basin Fruitland Coal

4. Well Location

Unit Letter E 2426 feet from the North line and 1169 feet from the West line

Section 22 Township 32N Range 8W NMPM SAN JUAN County

11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6820 GL

Pit or Below-grade Tank Application ☒ Closure ☐

Pit type DRILL Depth to Groundwater 245' Distance from nearest fresh water well 1 MILE Distance from nearest surface water 120'

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 1103. 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. The solids left after the water has been disposed of will be sampled and NMOCD approval will be obtained prior to closure of this pit.

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 1/07/05

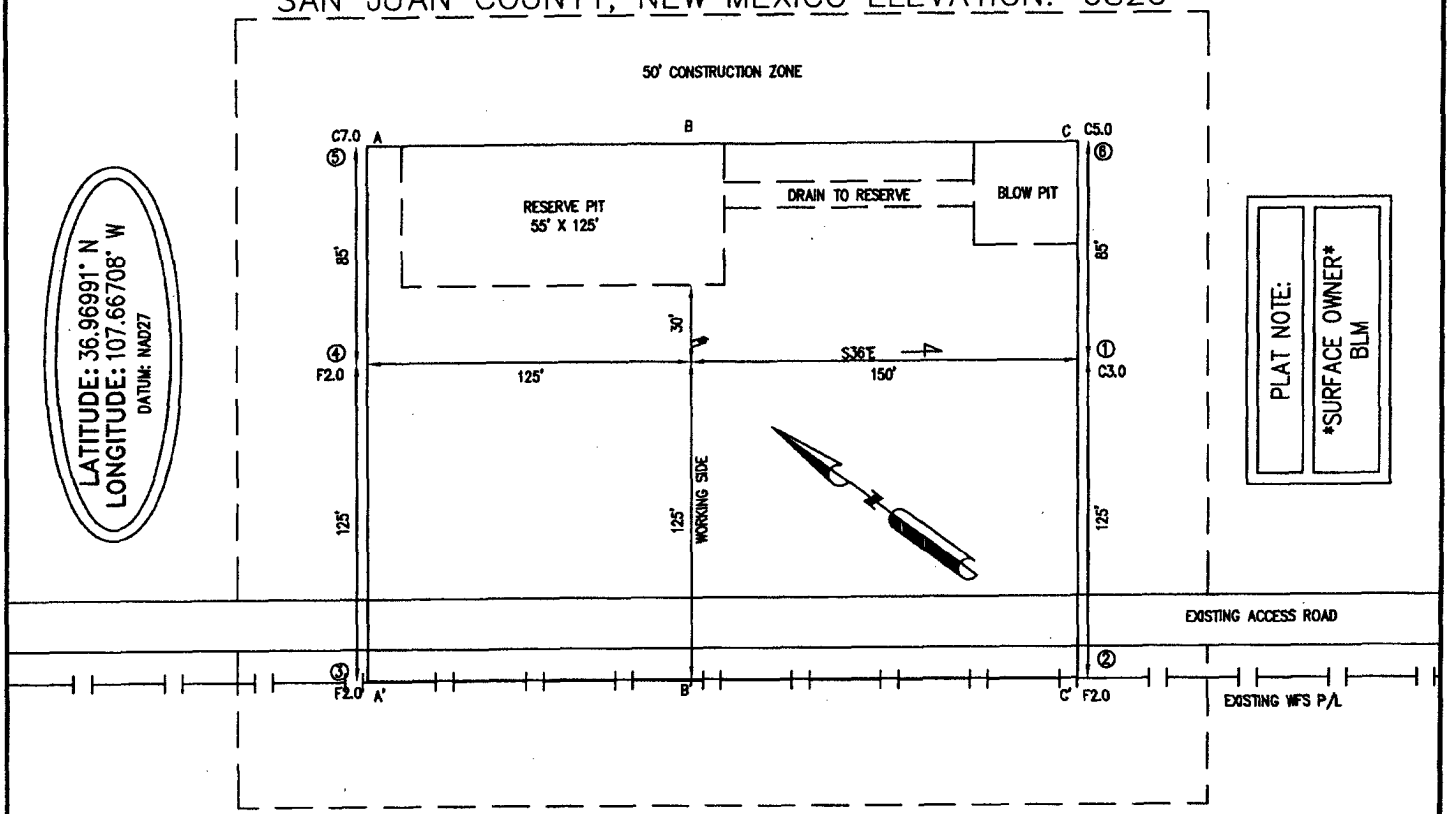
Type or print name E-mail address: Telephone No.

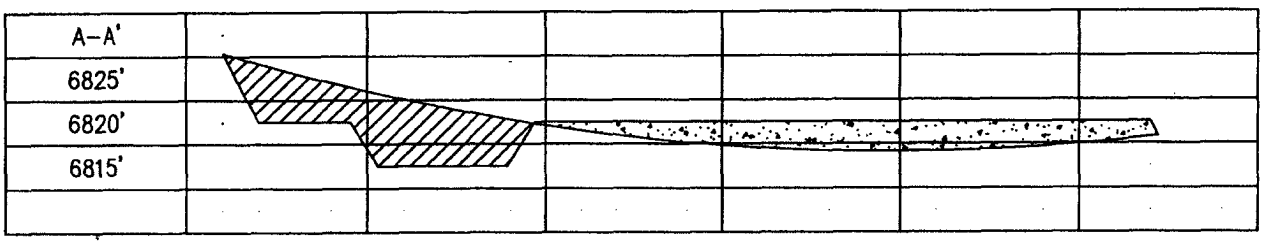
For State Use Only

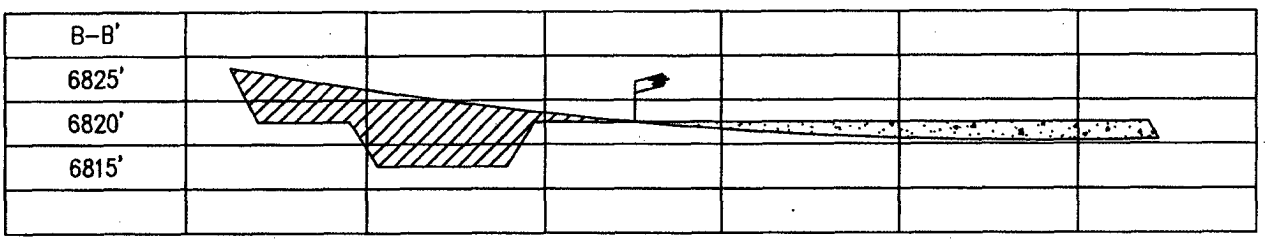
APPROVED BY: TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE MAR 21 2005

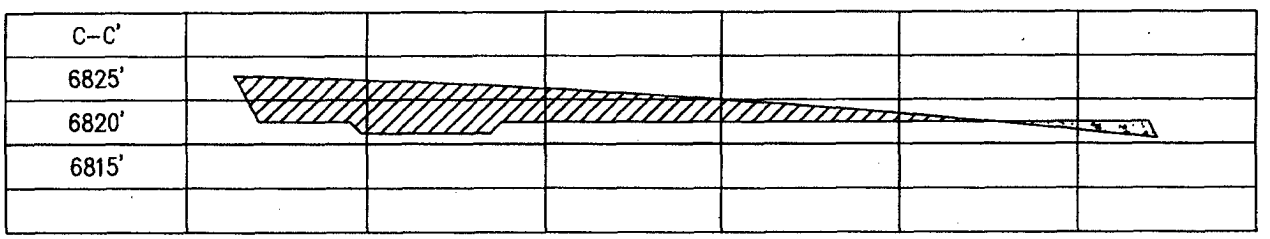
Conditions of Approval (if any):

CONOCOPHILLIPS COMPANY SAN JUAN 32-8 UNIT #213A
2426' FNL & 1169' FWL, SECTION 22, T32N, R08W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6820'









FILENAME: SJ32-8 213A.DWG	SHEET 2 OF 6	CHENAULT CONSULTING INC.	DRAWN BY:D.DELARUE	CHECKED BY:J.FUNK

ConocoPhillips

San Juan Business Unit

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 32-8 213A

Lease:	AFE #:			AFE $:
Field Name: hPHILLIPS 32-8	Rig:	State: NM	County: SAN JUAN	API #:
Geoscientist: Cloud, Tom A	Phone: +1 832 486-2377	Prod. Engineer:		Phone: 832-486-2254
Res. Engineer: Peterson, Brad T	Phone: 486-2055	Proj. Field Lead:		Phone:

Primary Objective (Zones):

Zone	Zone Name
JCV	BASIN FRUITLAND COAL (GAS)

Location: Surface — **Straight Hole**

Latitude: 36.97	Longitude: -107.67	X:	Y:	Section: 22	Range: 8W
Footage X: 1169 FWL	Footage Y: 2426 FNL	Elevation: 6820 (FT)	Township: 32N		
Tolerance:					

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

Formation Data: Assume KB = 6833 Units = FT

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SAN JOSE	13	6820	☐			
Surface Casing	213	6620	☐			12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
NCMT	973	5860	☐			
OJAM	2603	4230	☐			Possible water flows.
KRLD	3123	3710	☐			
FRLD	3263	3570	☐			Possible gas.
Intermediate Casing	3378	3455	☐			8 3/4" Hole. 7", 20 ppf, J-55, STC Casing. Circulate cement to surface.
TOP COAL	3408	3425	☐			
BASE MAIN COAL	3533	3300	☐	1100		
PC TONGUE	3613	3220	☐			
BASE LOWEST COAL	3728	3105	☐			
PCCF	3733	3100	☐			
Total Depth	3803	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	Phillips SJ 32-8 #4-15	
Intermediate	EPNG SJ #31-22	

ConocoPhillips

San Juan Business Unit

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 32-8 213A

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: General/Work Description -
Estimated elevation from topo map as of 12/14/2004.
3 basal coal above PCCF. No PCCF PA.
Notify geologist if final graded location has elevation difference more than 20 ft to 6820' GL.

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

Printed on: 1/5/2005 8:27:19 AM

MULTI-POINT SURFACE USE PLAN

ConocoPhillips Company San Juan 32-8 Unit #213A

The following is required information concerning the possible effect, which the drilling of this well may have on the environment, existing road sites, and surrounding acreage. A copy will be posted on the derrick floor so all contractors and sub-contractors will be aware of all items on this plan.

1. Existing Roads and Well Location

   A. The proposed Basin Fruitland Coal well location site is located at 2426' FNL and 1169' FWL, Section 22, T32N, R8W, San Juan County, New Mexico. All existing roads used to access the location shall be maintained in the same or better condition than presently maintained.

   B. Directions to the location are as follows:
   From the intersection of State Hwy 172 and State Hwy 151 in Ignacio, CO; travel southerly on State Hwy 172, which changes name at the State line to State Hwy 511 for 13.6 miles;
   Turn right on well road and travel for 0.9 miles:
   Turn right on well road and travel for 0.2 mile;
   Turn right on well road and travel for 0.3 mile to well flag.

2. Planned Access Road

   A. No new access road will be needed to service the proposed well pad.

   C. Culverts as specified by BLM; Minimum of 18" diameter culvert shall be placed where the proposed well location will overlap the existing road (on the southeast side). Any additional culverts deemed necessary by dirt contractor during construction shall also be a minimum of 18" in diameter, brought to the attention of the BLM lead, and placed accordingly.

   D. Gates, cattleguards, or fences as specified by the BLM.

3. Topographic Map and Well Location

   A 7.5' quadrangle topographic map was filed with the Notice of Staking. The proposed project is located on the Anastacio Spring quadrangle map: T32N, R8W, SWNW/4, Section 22, 2426' FNL and 1169' FWL. The general terrain is gradually sloping to the southwest at an average 6% grade or less. The proposed well pad is located on an unnamed mesa, on the south rim of Wildcat Canyon. Canyons in the area are dissected by deep ephemeral sandstone canyons. The primary vegetation in the immediate and surrounding project area consists of piñon juniper woodland vegetation community. Approximately eight (8) existing natural gas wells are located within a one (1) mile radius of the proposed project. Pipelines and access roads associated with these facilities represent further disturbance within the area.

4. Wellsite Layout and Cross Sections

   See Cut & Fill plat for details. The proposed project will require 3:1 cut and fill slopes where suitable during the clean-up phase of the project; 2:1 cut and fill slopes will be allowed if necessary. Drainage will be diverted above the cut slope on the north side draining around the location to the south.

5. Water Supply

   Due to the presence of adequate clay material on the location site, produced water will be

utilized in the drilling operations of this well according to the terms of the Beneficial Use Permit on file with the BLM. Produced water that is suitable for drilling operations and meets the established requirements will be trucked from the nearest existing ConocoPhillips gas well in the area or a two-inch (2") poly line will be installed on the surface along the new and existing access roadway to the well location. Said poly line, if utilized, will tie-in to the existing ConocoPhillips produced water gathering system at an existing riser along said system. In the event that an adequate amount of produced water is not available then water will trucked to the location from one of the following sources;

a) San Juan River at Blanco Bridge, NWSESE of Section 18, T29N, R9W
b) 29-6 Waterhole in Unit L, Section 28, T29N, R6W
c) Navajo Reservoir, SWNWSE of Section 14, T30N, R7W
d) Sims Mesa (SJ #14) NWSW Section 35, T31N, R7W
e) La Jara Water Hole, Unit M, section 11, T30N, R6W
f) Pine River
g) City of Ignacio, CO
h) City of Aztec, NM

6. Source of Construction Materials

Construction materials will be obtained from the location site.

7. Methods of Handling Waste Disposal

A. The drill cuttings, fluids and completion fluids will be placed in the reserve pit that will be lined. The reserve pit will be fenced on three sides away from the pad during drilling and the fourth side fenced as soon as the rig moves out. The reserve pit will be allowed to dry, and materials remaining in the reserve pit shall be capped with a 4" minimum of suitable clay material. The reserve pit will then be backfilled, leveled and contoured so as to prevent any materials being carried into the watershed. Upon completion, the pad will be leveled, contoured, and reseeded with the appropriate seed mixture as specified by the BLM. The BLM seed mix for this project is a special test mixture for areas receiving more than 10" of annual precipitation.
B. All garbage and trash will be hauled away to a landfill designated by ConocoPhillips.
C. Chemical toilets will be provided and maintained during drilling operations.
D. Slash and small trees will be chipped and spread over the seeded and mulched topsoil to help reduce erosion during reclamation.

8. Ancillary Facilities

There is a possibility for the placement of a compressor unit on location during some stage in the life of this well. If and when a compressor is placed on location, it will abide by any noise restrictions in affect at the time.

9. Production Facility Layout

A. See attachment to this plan. Production equipment will be painted the color designated by the BLM. Color: Juniper Green.
B. Any production equipment encompassed by a dirt berm or one in which potentially hazardous fluids are present shall be adequately fenced and properly maintained in order to safeguard both livestock and wildlife.
C. Location of Proposed New Facilities – A 4-1/2" OD buried steel pipeline that is 100 feet in length. The well-tie pipeline will tie-in to a Williams Field Service

pipeline within the surveyed area of the proposed well pad, therefore, no new disturbance would be associated with the proposed pipeline.

D. The pipe-wall thickness is .156 and the pipe-wall strength is 42,000# yield. The pipeline has the potential to be used to transport gas to drill the well. After the well is spudded, the pipeline will be authorized by a right-of-way issued to Williams Field Services. Please refer to the attached preliminary pipeline plat for additional information.

10. Plans for Restoration of Surface

Topsoil (6") will be stockpiled in the construction zone for later use in restoration. When the well is abandoned, the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with the appropriate seed mixture. If the well is productive, areas not used in production will be contoured and seeded with stipulated mixture.

11. Surface Ownership

The surface ownership is the BLM. The BLM/Farmington Field Office has mineral jurisdiction on this project.

12. Other Information

The onsite for the proposed project was conducted on December 20, 2004 with Mike Flaniken as the BLM lead.

No invasive weeds were identified in the proposed project area.

La Plata Archaeological Consultants in Dolores, Colorado has submitted the Cultural Resources Survey Report to the BLM. For the report number, contact either the Archeological Consultants or the BLM.

The construction contractor for the proposed project is Aztec Excavation Company.

There are no recreational areas, Special Management Areas (SMAs), Areas of Critical Environmental Concern (ACECs), or wilderness areas are within the project area.

The location lies in the BLM/FFO designated Rattlesnake Canyon Wildlife Area (BLM 2003a, pg. C-171). No construction will be allowed in this area between December 1st and March 31st.

The proposed action would not impact floodplains or stock ponds.

13. Operator's Representative and Certification

The person who can be contacted concerning compliance of this Surface Use Plan is:

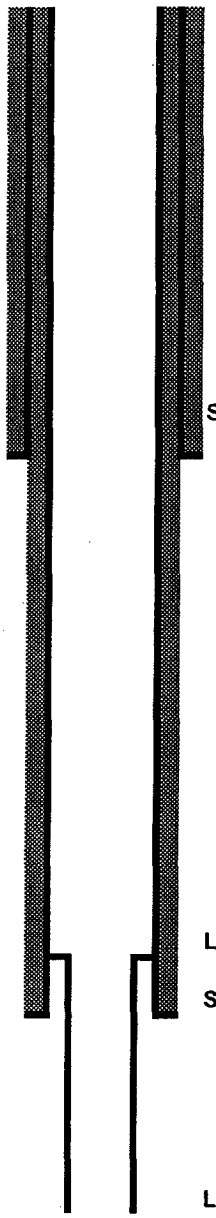
Mike L. Mankin
Coordinator / Right of Way and Claims
ConocoPhillips Company
4001 Penbrook, Suite 313
Odessa, Texas 79762
(432) 368-1293

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drilling site; that I am familiar with the conditions which currently exist; that the statements made in this plan, are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by ConocoPhillips Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Mike Mankin (pj)
Mike L. Mankin
Coordinator / Right of Way and Claims

1/7/05
Date

San Juan 32-8 # 213A



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	3378	'
Lead Cement Yield	2.91	cuft/sk
Lead Cement Excess	160	%
Tail Cement Length	315	'
Tail Cement Yield	1.33	cuft/sk
Tail Cement Excess	160	%
Lead Cement Required	394	**sx**
Tail Cement Required	100	**sx**

Casing Inside Diam. 6.456 "

LINER TOP **3358 '**

SHOE **3378 ', 7 ", 20 ppf, J-55**

LINER BOTTOM 3803 ' (Uncemented)

SAN JUAN 32-8 #213A

OPTION 1

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 Additiv	
	+ 10 lb/sx Gilsonite (Lost Circ. Additvie	
	+ 0.25 lb/sx Flocele (Lost Circ. Additive	
Cement Required	394	sx
Cement Yield	2.91	cuft/sx
Slurry Volume	1146.2	cuft
	204.1	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. Additiv	
	+ 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

OPTION 2

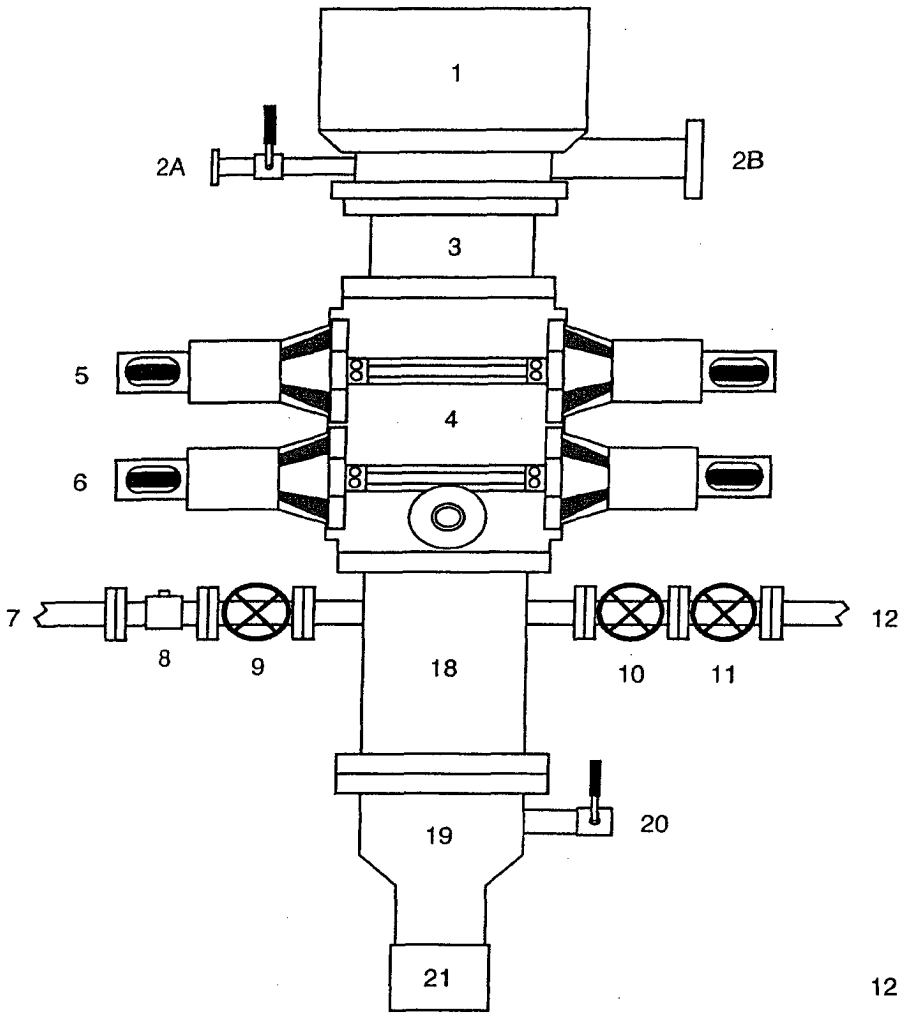
9-5/8" Surface Casing		
Cement Slurry	Class G	
	+ 2% S001 Calcium Chloride	
	+ 0.25 lb/sx D029 Cellophane Flakes	
Cement Volume	147	sx
Cement Yield	1.16	cuft/sx
Cement Volume	170.59	cuft
Cement Density	15.8	ppg
Water Required	4.983	gal/sx

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	442	sx
Cement Yield	2.61	cuft/sx
Cement Volume	1153.25	cuft
Cement Density	11.7	ppg
Water Required	15.876	gal/sx

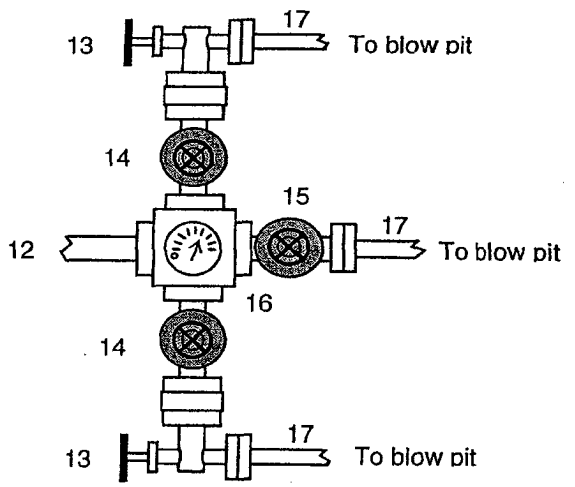
7" Intermediate Casing		
Tail Slurry		
Cement Slurry	50% POZ / 50% Class G cement	
	+ 2% D020 Bentonite	
	+ 2% S001 Calcium Chloride	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 5 lb/sx Gilsonite Extender	
	+ 0.2% D046 Antifoam	
Cement Volume	100	sx
Cement Yield	1.27	cuft/sx
Cement Volume	126.80	cuft
Cement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

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



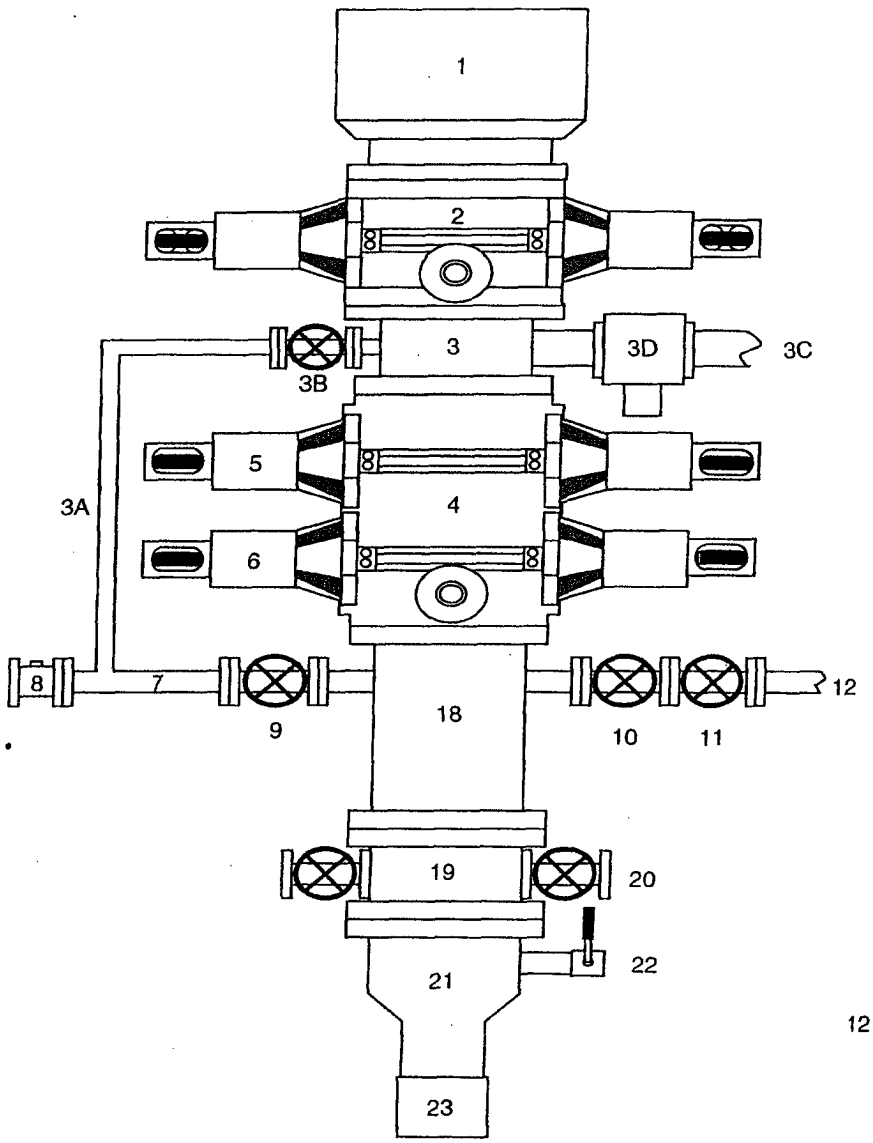
A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe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

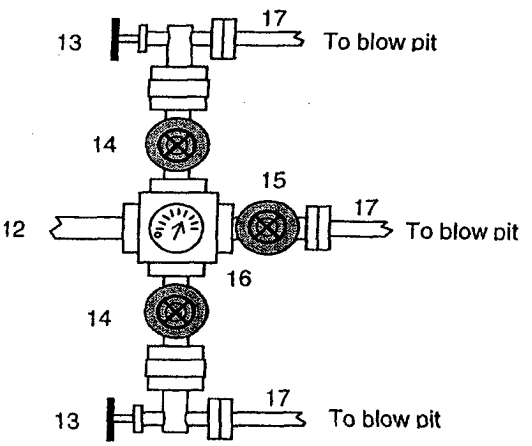
Revision Date: September 1, 2004

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 32-8 **Well #:** 213A

Surface Location:

Unit: E **Section:** 22 **Township:** 32N Range: 8W

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

Footage: 2426 **from the** North line, 1169 **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.