

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK SEP 26 2012

1a. Type of Work
DRILL
BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS
5. Lease Number
SF-078570 Farmington Field Office
Bureau of Land Management
Unit Reporting Number
6. If Indian, All. or Tribe

1b. Type of Well
GAS
2. Operator
ConocoPhillips
Company
7. Unit Agreement Name
NMM-78413A-MV
NMM-78413C-DK
San Juan 28-7 Unit

3. Address & Phone No. of Operator
PO Box 4289, Farmington, NM 87499
(505) 326-9700
8. Farm or Lease Name
San Juan 28-7 Unit
9. Well Number
216N
RCVD FEB 21 '13
OIL CONS. DIV.

4. Location of Well
Surface: Unit I (NE/SE), 1646' FSL & 1175' FEL
BHL : Unit J (NW/SE), 2000' FSL & 1930' FEL
Surface: Latitude: 36.585183° N (NAD83)
Longitude: 107.592853° W
BHL: Latitude: 36.586158° N (NAD83)
Longitude: 107.595374° W
10. Field, Pool, Wildcat
BLANCO MV/BASIN DK/BASIN MC
11. Sec., Twn, Rge, Mer. (NMPM)
Surf: Sec. 8, T27N, R7W
BHL : Sec. 8, T27N, R7W
API # 30-039-31147

14. Distance in Miles from Nearest Town
29.1 from Bloomfield
12. County
Rio Arriba
13. State
NM

15. Distance from Proposed Location to Nearest Property or Lease Line
1175'

16. Acres in Lease
640.000
17. Acres Assigned to Well
E/2 (320.0)

18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease
84.4' from SJ 28-7 Unit 216M BMV/BDK

19. Proposed Depth
7832'
20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6861' GL
22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Marie E. Jaramillo (Staff Regulatory Tech.)
Date 9/26/12

PERMIT NO. APPROVAL DATE
APPROVED BY DATE 2/19/13

Archaeological Report attached A gas recovery unit may or may not be used on this location
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.

Example Master Plan Type 3 Bond Numbers NMB-000015 and NMB-000089

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

FEB 25 2013 ca NMOCDA

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

Hold C104
for Directional Survey
and "As Drilled" plat

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

PC

SEP 26 2012

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
f Land Management District Office

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-9720

District III
1009 Rio Uruos Road, Aylett, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31147	² Pool Code 72319/71599/97232	³ Pool Name BLANCO MESAVERDE / BASIN DAKOTA / Basin Mancos
⁴ Property Code 31739	⁵ Property Name SAN JUAN 28-7 UNIT	⁶ Well Number 216N
⁷ OGRID No. 217817	⁸ Operator Name CONOCOPHILLIPS COMPANY	⁹ Elevation 6861

¹⁰ SURFACE LOCATION

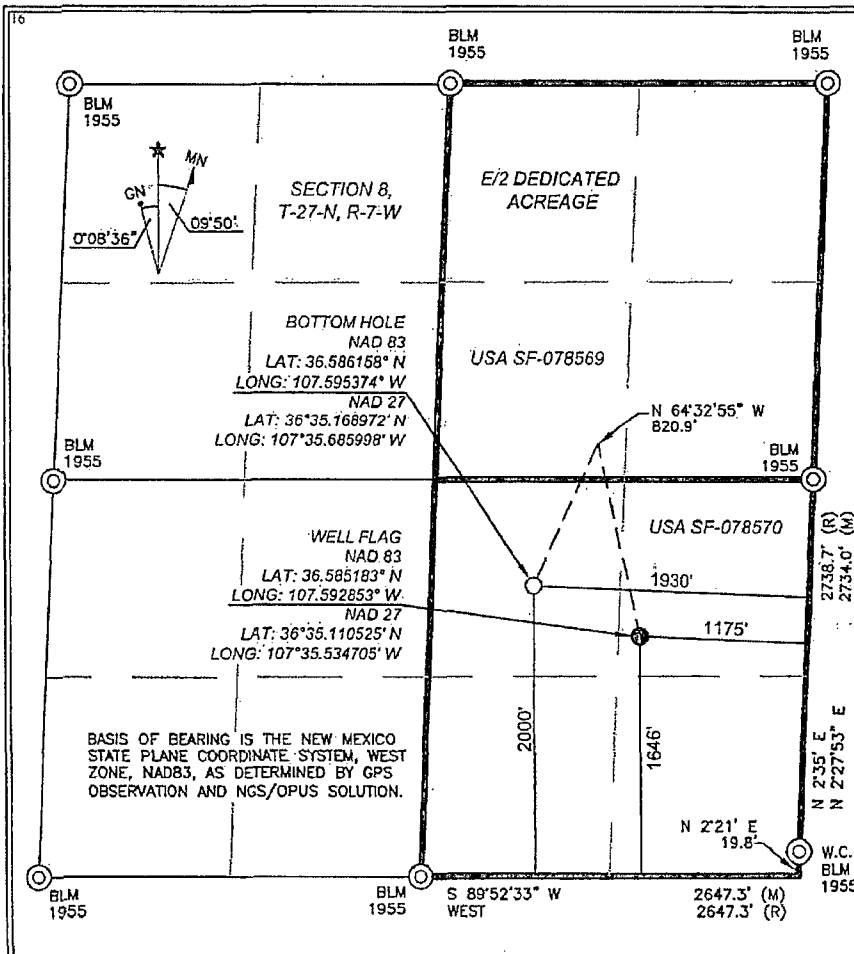
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	8	27-N	7-W		1646	SOUTH	1175	EAST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County
J	8	27-N	7-W		2000	SOUTH	1930	EAST	RIO ARriba

¹² Dedicated Acres E/2(320.0)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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~~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 undivided 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.

Arleen Kellywood 7/12/12
Signature Date

Arleen Kellywood

Printed Name
arleen.r.kellywood@conocophillips.com

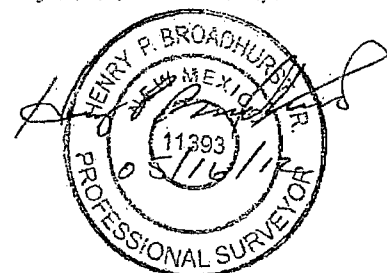
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plot 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: 02/25/2011

Signature and Seal of Professional Surveyor:



Certificate Number: NM 11393

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 216N

DEVELOPMENT

Lease:		AFE #: WAN.CDR.1007				AFE \$:	
Field Name: SAN JUAN		Rig: Aztec Rig 711		State: NM	County: RIO ARRIBA		API #:
Geologist:	Phone:	Geophysicist:		Phone:			
Geoscientist:	Phone:	Prod. Engineer:		Phone:			
Res. Engineer:	Phone:	Proj. Field Lead:		Phone:			
Primary Objective (Zones):							
Zone	Zone Name						
RCO085	MANCOS(RCO085)						
RON	BLANCO MESAVERDE (PRORATED GAS)						
FRR	BASIN DAKOTA (PRORATED GAS)						
Location: Surface Datum Code: NAD 27 Directional							
Latitude: 36.585174	Longitude: -107.592245	X:	Y:	Section: 08	Range: 007W		
Footage X: 1175 FEL	Footage Y: 1646 FSL	Elevation: 6861	(FT)	Township: 027N			
Tolerance:							
Location: Bottom Hole Datum Code: NAD 27 Directional							
Latitude: 36.586150	Longitude: -107.594766	X:	Y:	Section: 08	Range: 007W		
Footage X: 1930 FEL	Footage Y: 2000 FSL	Elevation:	(FT)	Township: 027N			
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2013		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6876		Units = FT					
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SAN JOSE	15	6861		☐			
Surface Casing	320	6556		☐	42		12-1/4 hole. 320' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 183 cuft. Circulate cement to surface.
NACIMIENTO	925	5951		☐			
OJO ALAMO	2513	4363		☐			
KIRTLAND	2636	4240		☐			
FRUITLAND	2940	3936		☐			Possible Gas
PICTURED CLIFFS	3404	3472		☐	285	107	
LEWIS	3488	3388		☐			
HUERFANITO BENTONITE	4078	2798		☐			
CHACRA	4305	2571		☐			
UPPER CLIFF HOUSE	4896	1980		☐			Gas
MASSIVE CLIFF HOUSE	5023	1853		☐	264	140	Gas - Est top MV perf 5028' tvd (5' below T/MCLH)
MENEFEE	5065	1811		☐			Gas
Intermediate Casing	5212	1664		☐			8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 1168 cuft. Circulate cement to surface.
POINT LOOKOUT	5616	1260		☐			Gas - Est bot MV perf 5746' tvd (130' below T/PNLK)
MANCOS	5983	893		☐		160	
UPPER GALLUP	6773	103		☐			
GREENHORN	7518	-642		☐			
GRANEROS	7578	-702		☐			
TWO WELLS	7625	-749		☐	2665	193	Gas
PAGUATE	7704	-828		☐			Gas

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 216N

DEVELOPMENT

UPPER CUBERO	7738	-862	☐	Gas
LOWER CUBERO	7763	-887	☐	Gas - Est bot DK perf 7812' tvd (49' below T/CBRL)
Total Depth	7832	-956	☐	198 6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC/BTC casing. Cement w/ 348 cuft. Circulate cement a minimum of 100' inside the previous casing string.
ENCINAL	7833	-957	☐	Gas - RAM has ENCN booked but BRCN look wet in SJ 28-7 184.
BURRO CANYON	7886	-1010	☐	
MORRISON	7911	-1035	☐	

Reference Wells:

Reference Type	Well Name	Comments
Production	SAN JUAN 28-7 216M	
Production	SAN JUAN 28-7 184	

Logging Program:

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

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

GR/CBL

Mud log ~100' above GLLP down to TD.

Mudlogger will call TD.

Est bot perf is 20' above TD.

Additional Information:

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

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #216N
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6876.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6876.0usft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 28-7 #216N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	San Juan Basin - New Mexico West Wells, New Mexico, Directional "S"		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site	San Juan 28 Wells				
Site Position:		Northing:	2,048,839.82 usft	Latitude:	36° 37' 24.629 N
From:	Lat/Long	Easting:	114,875.15 usft	Longitude:	109° 8' 44.556 W
Position Uncertainty:	15.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	-0.78 °

Well	SJ 28-7 #216N					
Well Position	+N/-S	0.0 usft	Northing:	2,032,342.62 usft	Latitude:	36° 35' 6.632 N
	+E/-W	0.0 usft	Easting:	570,782.08 usft	Longitude:	107° 35' 32.082 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	6,861.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2012	8/29/2012	9.66	63.32	50,503

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	295.45

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,915.6	18.31	295.45	1,900.1	62.3	-131.0	2.00	2.00	0.00	295.45	
3,758.8	18.31	295.45	3,649.9	311.2	-653.9	0.00	0.00	0.00	0.00	
4,369.2	0.00	0.00	4,250.0	352.8	-741.3	3.00	-3.00	0.00	180.00	SJ 28-7 #216N VERT
5,331.2	0.00	0.00	5,212.0	352.8	-741.3	0.00	0.00	0.00	0.00	SJ 28-7 #216N ICP
7,951.2	0.00	0.00	7,832.0	352.8	-741.3	0.00	0.00	0.00	0.00	SJ 28-7 #216N PCP

ConocoPhillips

Planning Report

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Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6876.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6876.0usft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 28-7 #216N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
15.0	0.00	0.00	15.0	0.0	0.0	0.0	0.00	0.00	0.00
SAN JOSE									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
925.0	0.00	0.00	925.0	0.0	0.0	0.0	0.00	0.00	0.00
NACIEMENTO									
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	2.00	295.45	1,100.0	0.7	-1.6	1.7	2.00	2.00	0.00
1,200.0	4.00	295.45	1,199.8	3.0	-6.3	7.0	2.00	2.00	0.00
1,300.0	6.00	295.45	1,299.5	6.7	-14.2	15.7	2.00	2.00	0.00
1,400.0	8.00	295.45	1,398.7	12.0	-25.2	27.9	2.00	2.00	0.00
1,500.0	10.00	295.45	1,497.5	18.7	-39.3	43.5	2.00	2.00	0.00
1,600.0	12.00	295.45	1,595.6	26.9	-56.5	62.6	2.00	2.00	0.00
1,700.0	14.00	295.45	1,693.1	36.6	-76.8	85.1	2.00	2.00	0.00
1,800.0	16.00	295.45	1,789.6	47.7	-100.2	111.0	2.00	2.00	0.00
1,900.0	18.00	295.45	1,885.3	60.3	-126.6	140.2	2.00	2.00	0.00
1,915.6	18.31	295.45	1,900.1	62.3	-131.0	145.1	2.00	2.00	0.00
2,000.0	18.31	295.45	1,980.2	73.7	-154.9	171.6	0.00	0.00	0.00
2,100.0	18.31	295.45	2,075.2	87.2	-183.3	203.0	0.00	0.00	0.00
2,200.0	18.31	295.45	2,170.1	100.7	-211.7	234.4	0.00	0.00	0.00
2,300.0	18.31	295.45	2,265.0	114.2	-240.1	265.9	0.00	0.00	0.00
2,400.0	18.31	295.45	2,360.0	127.7	-268.4	297.3	0.00	0.00	0.00
2,500.0	18.31	295.45	2,454.9	141.2	-296.8	328.7	0.00	0.00	0.00
2,561.2	18.31	295.45	2,513.0	149.5	-314.2	347.9	0.00	0.00	0.00
OJO ALAMO									
2,600.0	18.31	295.45	2,549.8	154.7	-325.2	360.1	0.00	0.00	0.00
2,690.8	18.31	295.45	2,636.0	167.0	-350.9	388.6	0.00	0.00	0.00
KIRTLAND									
2,700.0	18.31	295.45	2,644.8	168.2	-353.5	391.5	0.00	0.00	0.00
2,800.0	18.31	295.45	2,739.7	181.7	-381.9	423.0	0.00	0.00	0.00
2,900.0	18.31	295.45	2,834.6	195.3	-410.3	454.4	0.00	0.00	0.00
3,000.0	18.31	295.45	2,929.6	208.8	-438.7	485.8	0.00	0.00	0.00
3,011.0	18.31	295.45	2,940.0	210.2	-441.8	489.2	0.00	0.00	0.00
FRUITLAND									
3,100.0	18.31	295.45	3,024.5	222.3	-467.0	517.2	0.00	0.00	0.00
3,200.0	18.31	295.45	3,119.4	235.8	-495.4	548.6	0.00	0.00	0.00
3,300.0	18.31	295.45	3,214.4	249.3	-523.8	580.1	0.00	0.00	0.00
3,400.0	18.31	295.45	3,309.3	262.8	-552.1	611.5	0.00	0.00	0.00
3,499.7	18.31	295.45	3,404.0	276.2	-580.4	642.8	0.00	0.00	0.00
PICTURED CLIFFS									
3,500.0	18.31	295.45	3,404.3	276.3	-580.5	642.9	0.00	0.00	0.00
3,588.2	18.31	295.45	3,488.0	288.2	-605.5	670.6	0.00	0.00	0.00
LEWIS									
3,600.0	18.31	295.45	3,499.2	289.8	-608.9	674.3	0.00	0.00	0.00
3,700.0	18.31	295.45	3,594.1	303.3	-637.2	705.7	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #216N
Company:	ConocoPhillips SJBU	TVD Reference:	WELL @ 6876.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6876.0usft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 28-7 #216N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,758.8	18.31	295.45	3,649.9	311.2	-653.9	724.2	0.00	0.00	0.00
3,800.0	17.08	295.45	3,689.2	316.6	-665.2	736.7	3.00	-3.00	0.00
3,900.0	14.08	295.45	3,785.5	328.1	-689.5	763.6	3.00	-3.00	0.00
4,000.0	11.08	295.45	3,883.1	337.5	-709.1	785.3	3.00	-3.00	0.00
4,100.0	8.08	295.45	3,981.7	344.6	-724.2	802.0	3.00	-3.00	0.00
4,197.0	5.17	295.45	4,078.0	349.4	-734.3	813.2	3.00	-3.00	0.00
HUERFANITO BENTONITE									
4,200.0	5.08	295.45	4,081.0	349.5	-734.5	813.4	3.00	-3.00	0.00
4,300.0	2.08	295.45	4,180.8	352.2	-740.1	819.7	3.00	-3.00	0.00
4,369.2	0.00	0.00	4,250.0	352.8	-741.3	820.9	3.00	-3.00	0.00
VERTICAL POINT									
4,400.0	0.00	0.00	4,280.8	352.8	-741.3	820.9	0.00	0.00	0.00
4,424.2	0.00	0.00	4,305.0	352.8	-741.3	820.9	0.00	0.00	0.00
CHACRA									
4,500.0	0.00	0.00	4,380.8	352.8	-741.3	820.9	0.00	0.00	0.00
4,600.0	0.00	0.00	4,480.8	352.8	-741.3	820.9	0.00	0.00	0.00
4,700.0	0.00	0.00	4,580.8	352.8	-741.3	820.9	0.00	0.00	0.00
4,800.0	0.00	0.00	4,680.8	352.8	-741.3	820.9	0.00	0.00	0.00
4,900.0	0.00	0.00	4,780.8	352.8	-741.3	820.9	0.00	0.00	0.00
5,000.0	0.00	0.00	4,880.8	352.8	-741.3	820.9	0.00	0.00	0.00
5,015.2	0.00	0.00	4,896.0	352.8	-741.3	820.9	0.00	0.00	0.00
UPPER CLIFF HOUSE									
5,100.0	0.00	0.00	4,980.8	352.8	-741.3	820.9	0.00	0.00	0.00
5,142.2	0.00	0.00	5,023.0	352.8	-741.3	820.9	0.00	0.00	0.00
MASSIVE CLIFF HOUSE									
5,184.2	0.00	0.00	5,065.0	352.8	-741.3	820.9	0.00	0.00	0.00
MENEFFEE									
5,200.0	0.00	0.00	5,080.8	352.8	-741.3	820.9	0.00	0.00	0.00
5,300.0	0.00	0.00	5,180.8	352.8	-741.3	820.9	0.00	0.00	0.00
5,331.2	0.00	0.00	5,212.0	352.8	-741.3	820.9	0.00	0.00	0.00
INT. CASING									
5,400.0	0.00	0.00	5,280.8	352.8	-741.3	820.9	0.00	0.00	0.00
5,500.0	0.00	0.00	5,380.8	352.8	-741.3	820.9	0.00	0.00	0.00
5,600.0	0.00	0.00	5,480.8	352.8	-741.3	820.9	0.00	0.00	0.00
5,700.0	0.00	0.00	5,580.8	352.8	-741.3	820.9	0.00	0.00	0.00
5,735.2	0.00	0.00	5,616.0	352.8	-741.3	820.9	0.00	0.00	0.00
POINT LOOKOUT									
5,800.0	0.00	0.00	5,680.8	352.8	-741.3	820.9	0.00	0.00	0.00
5,900.0	0.00	0.00	5,780.8	352.8	-741.3	820.9	0.00	0.00	0.00
6,000.0	0.00	0.00	5,880.8	352.8	-741.3	820.9	0.00	0.00	0.00
6,100.0	0.00	0.00	5,980.8	352.8	-741.3	820.9	0.00	0.00	0.00
6,102.2	0.00	0.00	5,983.0	352.8	-741.3	820.9	0.00	0.00	0.00
MANCOS									
6,200.0	0.00	0.00	6,080.8	352.8	-741.3	820.9	0.00	0.00	0.00
6,300.0	0.00	0.00	6,180.8	352.8	-741.3	820.9	0.00	0.00	0.00
6,400.0	0.00	0.00	6,280.8	352.8	-741.3	820.9	0.00	0.00	0.00
6,500.0	0.00	0.00	6,380.8	352.8	-741.3	820.9	0.00	0.00	0.00
6,600.0	0.00	0.00	6,480.8	352.8	-741.3	820.9	0.00	0.00	0.00
6,700.0	0.00	0.00	6,580.8	352.8	-741.3	820.9	0.00	0.00	0.00
6,800.0	0.00	0.00	6,680.8	352.8	-741.3	820.9	0.00	0.00	0.00
6,892.2	0.00	0.00	6,773.0	352.8	-741.3	820.9	0.00	0.00	0.00
UPPER GALLUP									

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #216N
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6876.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6876.0usft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 28-7 #216N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,900.0	0.00	0.00	6,780.8	352.8	-741.3	820.9	0.00	0.00	0.00
7,000.0	0.00	0.00	6,880.8	352.8	-741.3	820.9	0.00	0.00	0.00
7,100.0	0.00	0.00	6,980.8	352.8	-741.3	820.9	0.00	0.00	0.00
7,200.0	0.00	0.00	7,080.8	352.8	-741.3	820.9	0.00	0.00	0.00
7,300.0	0.00	0.00	7,180.8	352.8	-741.3	820.9	0.00	0.00	0.00
7,400.0	0.00	0.00	7,280.8	352.8	-741.3	820.9	0.00	0.00	0.00
7,500.0	0.00	0.00	7,380.8	352.8	-741.3	820.9	0.00	0.00	0.00
7,600.0	0.00	0.00	7,480.8	352.8	-741.3	820.9	0.00	0.00	0.00
7,637.2	0.00	0.00	7,518.0	352.8	-741.3	820.9	0.00	0.00	0.00
GREENHORN									
7,697.2	0.00	0.00	7,578.0	352.8	-741.3	820.9	0.00	0.00	0.00
GRANEROS									
7,700.0	0.00	0.00	7,580.8	352.8	-741.3	820.9	0.00	0.00	0.00
7,744.2	0.00	0.00	7,625.0	352.8	-741.3	820.9	0.00	0.00	0.00
TWO WELLS									
7,800.0	0.00	0.00	7,680.8	352.8	-741.3	820.9	0.00	0.00	0.00
7,823.2	0.00	0.00	7,704.0	352.8	-741.3	820.9	0.00	0.00	0.00
PAGUATE									
7,857.2	0.00	0.00	7,738.0	352.8	-741.3	820.9	0.00	0.00	0.00
UPPER CUBERO									
7,882.2	0.00	0.00	7,763.0	352.8	-741.3	820.9	0.00	0.00	0.00
LOWER CUBERO									
7,900.0	0.00	0.00	7,780.8	352.8	-741.3	820.9	0.00	0.00	0.00
7,951.2	0.00	0.00	7,832.0	352.8	-741.3	820.9	0.00	0.00	0.00

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
SJ 28-7 #216N ICP	0.00	0.00	5,212.0	352.8	-741.3	2,032,695.38	570,040.89	36° 35' 10.138 N	107° 35' 41.160 W
- plan hits target center									
- Point									
SJ 28-7 #216N VERTIC	0.00	0.00	4,250.0	352.8	-741.3	2,032,695.35	570,040.88	36° 35' 10.138 N	107° 35' 41.160 W
- plan hits target center									
- Point									
SJ 28-7 #216N PCP	0.00	0.00	7,832.0	352.8	-741.3	2,032,695.35	570,040.88	36° 35' 10.138 N	107° 35' 41.160 W
- plan hits target center									
- Point									

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #216N
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6876.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6876.0usft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 28-7 #216N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

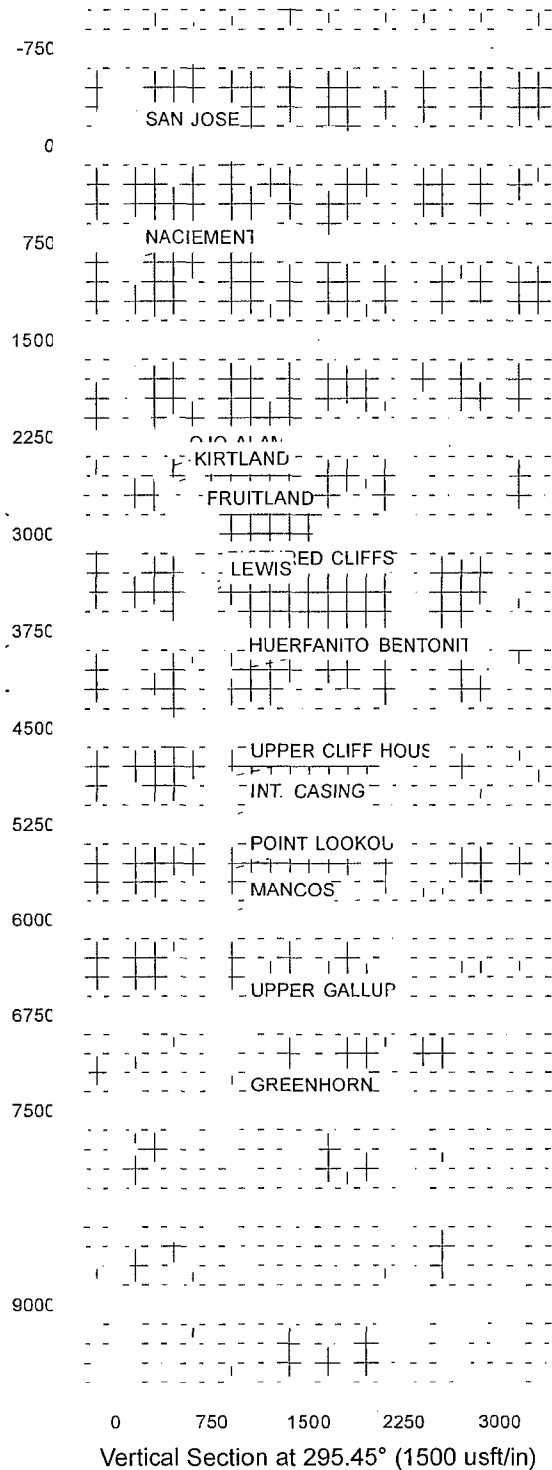
Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
15.0	15.0	SAN JOSE		0.00		
6,892.2	6,773.0	UPPER GALLUP		0.00		
6,102.2	5,983.0	MANCOS		0.00		
5,735.2	5,616.0	POINT LOOKOUT		0.00		
5,331.2	5,212.0	INT. CASING		0.00		
5,142.2	5,023.0	MASSIVE CLIFF HOUSE		0.00		
7,857.2	7,738.0	UPPER CUBERO		0.00		
4,424.2	4,305.0	CHACRA		0.00		
5,015.2	4,896.0	UPPER CLIFF HOUSE		0.00		
2,561.2	2,513.0	OJO ALAMO		0.00		
7,823.2	7,704.0	PAGUATE		0.00		
7,744.2	7,625.0	TWO WELLS		0.00		
3,499.7	3,404.0	PICTURED CLIFFS		0.00		
7,882.2	7,763.0	LOWER CUBERO		0.00		
3,011.0	2,940.0	FRUITLAND		0.00		
5,184.2	5,065.0	MENEFEE		0.00		
4,369.2	4,250.0	VERTICAL POINT		0.00		
4,197.0	4,078.0	HUERFANITO BENTONITE		0.00		
925.0	925.0	NACIMIENTO		0.00		
2,690.8	2,636.0	KIRTLAND		0.00		
3,588.2	3,488.0	LEWIS		0.00		
7,697.2	7,578.0	GRANEROS		0.00		
7,637.2	7,518.0	GREENHORN		0.00		

REFERENCE INFORMATION
LL @ 6876.0usft (Original Well Elev)
round Elevation 6861.0
Reference Lat: 36° 35' 6.632 N
Reference Long: 107° 35' 32.082 W

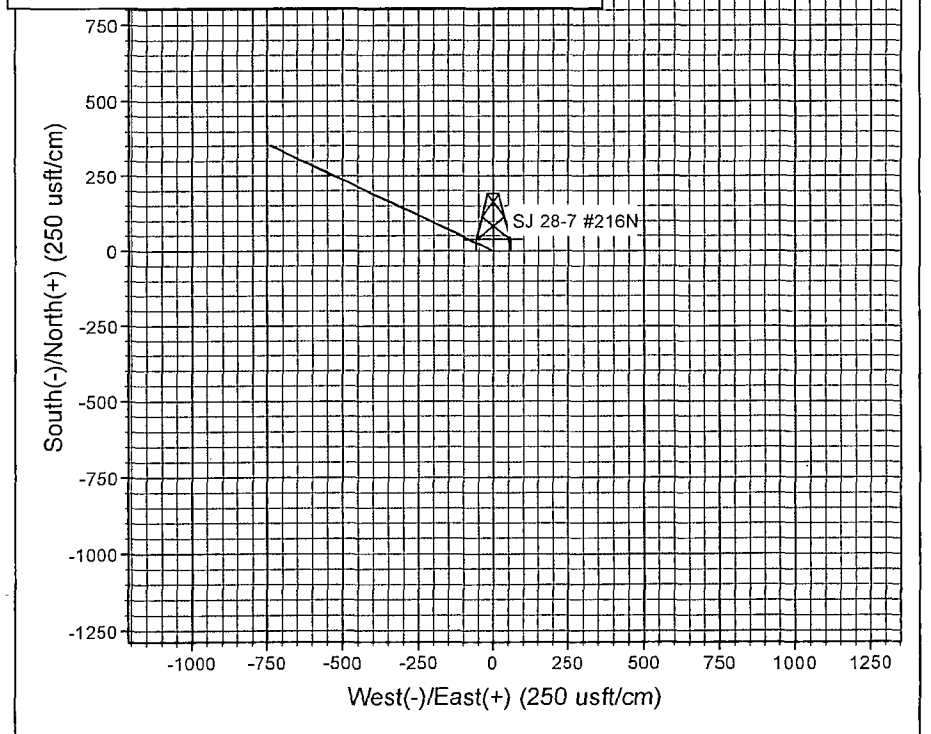
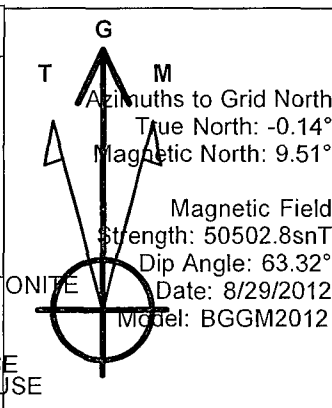
Project: San Juan Basin - New Mexico West
Site: San Juan 28 Wells
Well: SJ 28-7 #216N
Wellbore: Wellbore #1
Design: Design #1

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1915.6	18.31	295.45	1900.1	62.3	-131.0	2.00	295.45	145.1	
4	3758.8	18.31	295.45	3649.9	311.2	-653.9	0.00	0.00	724.2	
5	4369.2	0.00	0.00	4250.0	352.8	-741.3	3.00	180.00	820.9	SJ 28-7 #216N VERTICAL PT.
6	5331.2	0.00	0.00	5212.0	352.8	-741.3	0.00	0.00	820.9	SJ 28-7 #216N ICP
7	7951.2	0.00	0.00	7832.0	352.8	-741.3	0.00	0.00	820.9	SJ 28-7 #216N PCP



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
15.0	15.0	SAN JOSE
925.0	925.0	NACIEMENTO
2513.0	2561.2	OJO ALAMO
2636.0	2690.8	KIRTLAND
2940.0	3011.0	FRUITLAND
3404.0	3499.7	PICTURED CLIFFS
3488.0	3588.2	LEWIS
4078.0	4197.0	HUERFANITO BENTONITE
4250.0	4369.2	VERTICAL POINT
4305.0	4424.2	CHACRA
4896.0	5015.2	UPPER CLIFF HOUSE
5023.0	5142.2	MASSIVE CLIFF HOUSE
5065.0	5184.2	MENEFEE
5212.0	5331.2	INT. CASING
5616.0	5735.2	POINT LOOKOUT
5983.0	6102.2	MANCOS
6773.0	6892.2	UPPER GALLUP
7518.0	7637.2	GREENHORN
7578.0	7697.2	GRANEROS
7625.0	7744.2	TWO WELLS
7704.0	7823.2	PAGUATE
7738.0	7857.2	UPPER CUBERO
7763.0	7882.2	LOWER CUBERO



CONOCOPHILLIPS COMPANY
SAN JUAN 28-7 UNIT #216N
1646' FSL, 1175' FEL
SECTION 8, T-27-N, R-7-W, N.M.P.M.,
RIO ARriba COUNTY, NEW MEXICO
NAD 83 LAT.: 36. 585183° N LONG.: 107. 592853°W
ELEV.: 6861 NAVD88
NO NEW ACCESS

**FROM BLOOMFIELD, NEW MEXICO AT THE INTERSECTION OF HWY.
64 AND HWY 550:**

- **GO 10.6 MILES EAST ON HWY. 64 THROUGH BLANCO, N.M. AND ACROSS THE SAN JUAN RIVER TO THE INTERSECTION OF HWY. 64 AND C.R. 4450 (LARGO CANYON). TURN RIGHT AND HEAD SOUTHEAST ON C.R. 4450 ALONG THE NORTH SIDE OF LARGO WASH.**
- **GO 9.5 MILES SOUTHEAST ON C.R. 4450 AND TURN RIGHT TO "9 MILE BRIDGE" WASH CROSSING.**
- **GO 4.3 MILES SOUTHEAST FROM "9 MILE BRIDGE" ON C.R. 4450 ALONG THE SOUTH SIDE OF CARRIZO WASH. STAY RIGHT ON MAIN ROAD INTO "STOVE CANYON" AND BEGIN CLIMBING UP GOULD PASS.**
- **GO 3.3 MILES SOUTHERLY WINDING UP GOULD PASS AND TOPPING OUT ON ENCINADA MESA IN THE NORTHEAST PART OF SECTION 7, T-27-N, R-7-W. HEAD EASTERLY ON MAIN ROAD.**
- **GO 0.8 MILES FROM THE TOP OF GOULD PASS, STAY RIGHT.**
- **CONTINUE 0.6 MILES ALONG MAIN ROAD TO ENCINADA MESA. TURN LEFT INTO COPC LOCATION FOR SJ 28-7 #216M.**
- **NEW WELL TWINED HERE.**