

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JUN 05 2012

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK Farmington Field Office
Bureau of Land Management

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 NM 03560	Unit Reporting Number
1b. Type of Well GAS		6. If Indian, All. or Tribe	
2. Operator ConocoPhillips Company		7. Unit Agreement Name NM NM-78413A-MV NM NM-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 RCVD FEB 11 '13	
		9. Well Number 100P	OIL CONS. DIV. DIST. 3
4. Location of Well Surface: Unit A(NENE), 753' FNL & 1024' FEL BHL : Unit G(SWNE), 1530' FNL & 1740' FEL Surface: Latitude: 36.549122° N (NAD83) Longitude: 107.610986° W BHL : Latitude: 36.547016° N (NAD83) Longitude: 107.613430° W		10. Field, Pool, Wildcat Blanco MV/Basin DK	
		11. Sec., Twn, Rge, Mer. (NMPM) Sec. 30, T27N, R7W	
		API # 30-039- 31120	
14. Distance in Miles from Nearest Town 33.1 miles from Bloomfield	12. County Rio Arriba	13. State NM	
15. Distance from Proposed Location to Nearest Property or Lease Line 753'			
16. Acres in Lease 1281.440	17. Acres Assigned to Well 320.00 E/2		
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 101.1 from SJ 28-7 Unit 100 DK/MV			
19. Proposed Depth 6924	20. Rotary or Cable Tools Rotary		
21. Elevations (DF, FT, GR, Etc.) 6056' GL	22. Approx. Date Work will Start		
23. Proposed Casing and Cementing Program See Operations Plan attached			
24. Authorized by: <u>Arleen Kellywood</u> Arleen Kellywood (Staff Regulatory Tech)	<u>6/5/12</u> Date		

Hold C104
for Directional Survey
and "As Drilled" plat

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY [Signature] TITLE AFM DATE 2/7/13

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 ES-0048 and ES-0085

for Directional Survey
and "As Drilled" plat

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

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

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

UNMOCD A FEB 19 2013 ea

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1501 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

Form C-102

Revised July 16, 2010

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039- 31130	² Pool Code 72319/71599	³ Pool Name BLANCO MESAVERDE / BASIN DAKOTA
⁴ Property Code 31739	⁵ Property Name SAN JUAN 28-7 UNIT	⁶ Well Number 100P
⁷ OGRID No. 21787	⁸ Operator Name CONOCOPHILLIPS COMPANY	⁹ Elevation 6056

10

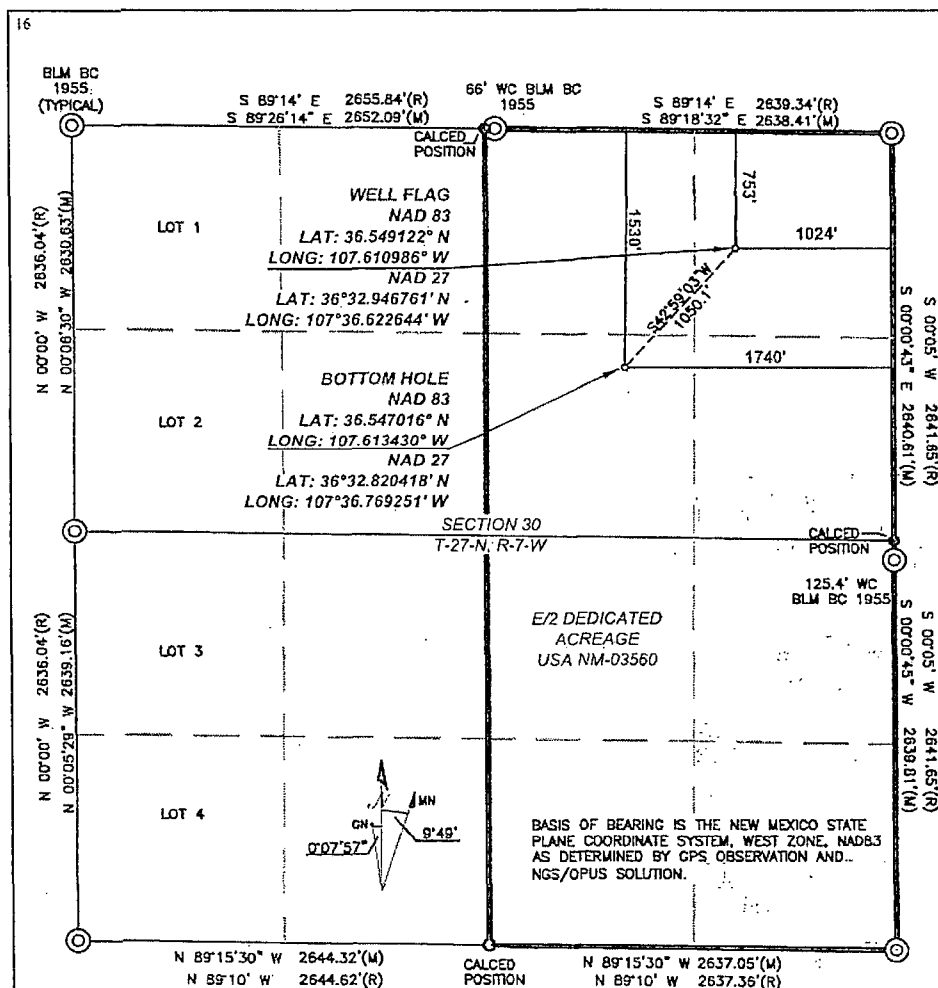
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	30	27-N	7-W		753	NORTH	1024	EAST	RIO ARRIBA

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
G	30	27-N	7-W		1530	NORTH	1740	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 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.

Arleen Kellywood 8/3/11
Signature Date

Arleen Kellywood
Printed Name

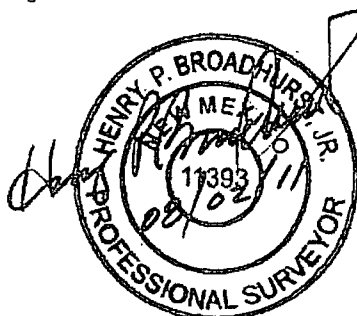
arleen.r.kellywood@conocophillips.com
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this 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: 05/09/2011

Signature and Seal of Professional Surveyor



Certificate Number: NM 11393

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 100P

DEVELOPMENT

Lease:		AFE #: WAN.CDR.1057				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						
FRR	BASIN DAKOTA (PRORATED GAS)						
RON	BLANCO MESAVERDE (PRORATED GAS)						
Location: Surface Datum Code NAD 27 Directional							
Latitude: 36.549113	Longitude: -107.610377	X:	Y:	Section: 30		Range: 007W	
Footage X: 1024 FEL	Footage Y: 753 FNL	Elevation: 6056	(FT)	Township: 027N			
Tolerance:							
Location: Bottom Hole Datum Code NAD 27 Directional							
Latitude: 36.547007	Longitude: -107.612821	X:	Y:	Section: 30		Range: 007W	
Footage X: 1740 FWL	Footage Y: 1530 FNL	Elevation:	(FT)	Township: 027N			
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2013		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6071 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	200	5871		☐			12-1/4 hole. 200' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 121 cuft. Circulate cement to surface.
OJO ALAMO	1504	4567		☐			
KIRTLAND	1667	4404		☐			
FRUITLAND	1938	4133		☐			Possible Gas
PICTURED CLIFFS	2346	3725		☐			
LEWIS	2464	3607		☐			
HUERFANITO BENTONITE	2803	3268		☐			
CHACRA	3246	2825		☐			
UPPER CLIFF HOUSE	3931	2140		☐			Gas; Cliffhouse is wet
MASSIVE CLIFF HOUSE	3993	2078		☐	287		Gas;
MENEFEE	4032	2039		☐			Est. Top Perf - 4232 (1839)
Intermediate Casing	4182	1889		☐			139 8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 1122 cuft. Circulate cement to surface.
POINT LOOKOUT	4617	1454		☐			
MANCOS	4941	1130		☐			
UPPER GALLUP	5772	299		☐			
GREENHORN	6567	-496		☐			
GRANEROS	6624	-553		☐			
TWO WELLS	6681	-610		☐	2877		Gas
PAGUATE	6723	-652		☐			
UPPER CUBERO	6778	-707		☐			
LOWER CUBERO	6801	-730		☐			Est. Btm Perf ~15' (6869') above the Encinal top.

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 100P

DEVELOPMENT

ENCINAL	6884	-813	☐	Mud TD ~ 40' below T/Encinal.
Total Depth	6924	-853	☐	194 6-1/4" hole, 4-1/2" 11.6 ppf, J-55/L-80, LTC casing. Cement w/ 377 cuft. Circulate cement a minimum of 100' inside the previous casing string.

Reference Wells:

Reference Type	Well Name	Comments
Production	SJ 28-7 UNIT-100	27N 7W 30 SW NE NE
Production	SJ 28-7-98M	27N 7W 29 SE SE NW
Production	SJ 28-7-237M	27N 7W 19 SE NW SE

Logging Program:

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

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

Cased Hole GR / CBL

Mudlog from 100' above top of GLLP to TD - mudlogger will call TD.

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
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ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
 Company: ConocoPhillips SJBU
 Project: San Juan Basin - New Mexico West Wells
 Site: San Juan 28 Wells
 Well: SJ 28-7 #100P
 Wellbore: Wellbore #1
 Design: Plan #1

Local Co-ordinate Reference: Well SJ 28-7 #100P
 TVD Reference: WELL @ 6071.0ft (Original Well Elev)
 MD Reference: WELL @ 6071.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

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: 2,046,354.53ft Latitude: 36° 37' 24.966 N
 From: Lat/Long Easting: 579,505.00ft Longitude: 107° 33' 44.640 W
 Position Uncertainty: 15.0 ft Slot Radius: " Grid Convergence: 0.16 °

Well: SJ 28-7 #100P

Well Position	+N-S	0.0 ft	Northing:	2,019,201.70 ft	Latitude:	36° 32' 56.806 N
	+E-W	0.0 ft	Easting:	565,488.97 ft	Longitude:	107° 36' 37.359 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,056.0 ft

Wellbore: Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2011	5/29/2012	9.69	63.29	50,516

Design: Plan #1

Audit Notes:

Version: Phase: PROTOTYPE Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	223.12

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
850.0	0.00	0.00	850.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,082.3	24.65	223.12	2,044.7	-190.5	-178.4	2.00	2.00	0.00	223.12	
3,557.6	24.65	223.12	3,385.6	-639.6	-598.9	0.00	0.00	0.00	0.00	
4,379.2	0.00	0.00	4,182.0	-766.6	-717.8	3.00	-3.00	0.00	180.00	SJ 28-7 #100P ICP
7,121.2	0.00	0.00	6,924.0	-766.6	-717.8	0.00	0.00	0.00	0.00	SJ 28-7 #100P PCF

ConocoPhillips or its affiliates

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Site: San Juan 28 Wells
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Local Co-ordinate Reference: Well SJ 28-7 #100P
TVD Reference: WELL @ 6071.0ft (Original Well Elev)
MD Reference: WELL @ 6071.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
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
850.0	0.00	0.00	850.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	1.00	223.12	900.0	-0.3	-0.3	0.4	2.00	2.00	0.00
1,000.0	3.00	223.12	999.9	-2.9	-2.7	3.9	2.00	2.00	0.00
1,100.0	5.00	223.12	1,099.7	-8.0	-7.5	10.9	2.00	2.00	0.00
1,200.0	7.00	223.12	1,199.1	-15.6	-14.6	21.4	2.00	2.00	0.00
1,300.0	9.00	223.12	1,298.2	-25.7	-24.1	35.3	2.00	2.00	0.00
1,400.0	11.00	223.12	1,396.6	-38.4	-36.0	52.6	2.00	2.00	0.00
1,500.0	13.00	223.12	1,494.4	-53.6	-50.2	73.4	2.00	2.00	0.00
1,509.8	13.20	223.12	1,504.0	-55.2	-51.7	75.6	2.00	2.00	0.00
OJO ALAMO									
1,600.0	15.00	223.12	1,591.5	-71.3	-66.7	97.6	2.00	2.00	0.00
1,678.5	16.57	223.12	1,667.0	-86.8	-81.3	119.0	2.00	2.00	0.00
KIRTLAND									
1,700.0	17.00	223.12	1,687.6	-91.4	-85.6	125.2	2.00	2.00	0.00
1,800.0	19.00	223.12	1,782.7	-113.9	-106.7	156.1	2.00	2.00	0.00
1,900.0	21.00	223.12	1,876.6	-138.9	-130.1	190.3	2.00	2.00	0.00
1,966.0	22.32	223.12	1,938.0	-156.7	-146.7	214.6	2.00	2.00	0.00
FRUITLAND									
2,000.0	23.00	223.12	1,969.4	-166.2	-155.7	227.7	2.00	2.00	0.00
2,082.3	24.65	223.12	2,044.7	-190.5	-178.4	261.0	2.00	2.00	0.00
2,100.0	24.65	223.12	2,060.7	-195.9	-183.4	268.4	0.00	0.00	0.00
2,200.0	24.65	223.12	2,151.6	-226.3	-211.9	310.1	0.00	0.00	0.00
2,300.0	24.65	223.12	2,242.5	-256.8	-240.4	351.8	0.00	0.00	0.00
2,400.0	24.65	223.12	2,333.4	-287.2	-268.9	393.5	0.00	0.00	0.00
2,413.9	24.65	223.12	2,346.0	-291.4	-272.9	399.2	0.00	0.00	0.00
PICTURED CLIFFS									
2,500.0	24.65	223.12	2,424.3	-317.7	-297.4	435.2	0.00	0.00	0.00
2,543.7	24.65	223.12	2,464.0	-331.0	-309.9	453.4	0.00	0.00	0.00
LEWIS									
2,600.0	24.65	223.12	2,515.2	-348.1	-325.9	476.9	0.00	0.00	0.00
2,700.0	24.65	223.12	2,606.1	-378.5	-354.4	518.6	0.00	0.00	0.00
2,800.0	24.65	223.12	2,697.0	-409.0	-382.9	560.3	0.00	0.00	0.00
2,900.0	24.65	223.12	2,787.9	-439.4	-411.4	602.0	0.00	0.00	0.00
2,916.7	24.65	223.12	2,803.0	-444.5	-416.2	608.9	0.00	0.00	0.00
HUERFANITO BENTONITE									
3,000.0	24.65	223.12	2,878.7	-469.9	-439.9	643.7	0.00	0.00	0.00
3,100.0	24.65	223.12	2,969.6	-500.3	-468.4	685.4	0.00	0.00	0.00
3,200.0	24.65	223.12	3,060.5	-530.7	-496.9	727.1	0.00	0.00	0.00
3,300.0	24.65	223.12	3,151.4	-561.2	-525.4	768.8	0.00	0.00	0.00
3,400.0	24.65	223.12	3,242.3	-591.6	-554.0	810.5	0.00	0.00	0.00
3,404.1	24.65	223.12	3,246.0	-592.9	-555.1	812.2	0.00	0.00	0.00
CHACRA									
3,500.0	24.65	223.12	3,333.2	-622.1	-582.5	852.2	0.00	0.00	0.00
3,557.6	24.65	223.12	3,385.6	-639.6	-598.9	876.2	0.00	0.00	0.00

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
 Company: ConocoPhillips SJB
 Project: San Juan Basin - New Mexico West Wells
 Site: San Juan 28 Wells
 Well: SJ 28-7 #100P
 Wellbore: Wellbore #1
 Design: Plan #1

Local Co-ordinate Reference: Well SJ 28-7 #100P
 TVD Reference: WELL @ 6071.0ft (Original Well Elev)
 MD Reference: WELL @ 6071.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,600.0	23.37	223.12	3,424.3	-652.2	-610.7	893.5	3.00	-3.00	0.00
3,700.0	20.37	223.12	3,517.1	-679.4	-636.1	930.7	3.00	-3.00	0.00
3,800.0	17.37	223.12	3,611.7	-703.0	-658.2	963.1	3.00	-3.00	0.00
3,900.0	14.37	223.12	3,707.9	-723.0	-676.9	990.4	3.00	-3.00	0.00
4,000.0	11.37	223.12	3,805.3	-739.2	-692.2	1,012.7	3.00	-3.00	0.00
4,100.0	8.37	223.12	3,903.8	-751.7	-703.9	1,029.8	3.00	-3.00	0.00
4,127.4	7.55	223.12	3,931.0	-754.5	-706.5	1,033.6	3.00	-3.00	0.00
UPPER CLIFF HOUSE									
4,189.8	5.68	223.12	3,993.0	-759.8	-711.4	1,040.8	3.00	-3.00	0.00
MASSIVE CLIFF HOUSE									
4,200.0	5.37	223.12	4,003.1	-760.5	-712.1	1,041.8	3.00	-3.00	0.00
4,229.0	4.50	223.12	4,032.0	-762.3	-713.8	1,044.3	3.00	-3.00	0.00
MENEFE									
4,300.0	2.37	223.12	4,102.9	-765.4	-716.7	1,048.6	3.00	-3.00	0.00
4,379.2	0.00	0.00	4,182.0	-766.6	-717.8	1,050.2	3.00	-3.00	172.93
SJ 28-7 #100P ICP									
4,400.0	0.00	0.00	4,202.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
4,500.0	0.00	0.00	4,302.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
4,600.0	0.00	0.00	4,402.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
4,700.0	0.00	0.00	4,502.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
4,800.0	0.00	0.00	4,602.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
4,814.2	0.00	0.00	4,617.0	-766.6	-717.8	1,050.2	0.00	0.00	0.00
POINT LOOKOUT									
4,900.0	0.00	0.00	4,702.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
5,000.0	0.00	0.00	4,802.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
5,100.0	0.00	0.00	4,902.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
5,138.2	0.00	0.00	4,941.0	-766.6	-717.8	1,050.2	0.00	0.00	0.00
MANCOS									
5,200.0	0.00	0.00	5,002.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
5,300.0	0.00	0.00	5,102.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
5,400.0	0.00	0.00	5,202.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
5,500.0	0.00	0.00	5,302.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
5,600.0	0.00	0.00	5,402.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
5,700.0	0.00	0.00	5,502.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
5,800.0	0.00	0.00	5,602.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
5,900.0	0.00	0.00	5,702.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
5,969.2	0.00	0.00	5,772.0	-766.6	-717.8	1,050.2	0.00	0.00	0.00
UPPER GALLUP									
6,000.0	0.00	0.00	5,802.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
6,100.0	0.00	0.00	5,902.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
6,200.0	0.00	0.00	6,002.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
6,300.0	0.00	0.00	6,102.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
6,400.0	0.00	0.00	6,202.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
6,500.0	0.00	0.00	6,302.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
6,600.0	0.00	0.00	6,402.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
6,700.0	0.00	0.00	6,502.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
6,764.2	0.00	0.00	6,567.0	-766.6	-717.8	1,050.2	0.00	0.00	0.00
GREENHORN									
6,800.0	0.00	0.00	6,602.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
6,821.2	0.00	0.00	6,624.0	-766.6	-717.8	1,050.2	0.00	0.00	0.00
GRANEROS									
6,878.2	0.00	0.00	6,681.0	-766.6	-717.8	1,050.2	0.00	0.00	0.00

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: San Juan 28 Wells
Well: SJ 28-7 #100P
Wellbore: Wellbore #1
Design: Plan #1

Local Co-ordinate Reference: Well SJ 28-7 #100P
TVD Reference: WELL @ 6071.0ft (Original Well Elev)
MD Reference: WELL @ 6071.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
TWO WELLS									
6,900.0	0.00	0.00	6,702.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
6,920.2	0.00	0.00	6,723.0	-766.6	-717.8	1,050.2	0.00	0.00	0.00
PAGUATE									
6,975.2	0.00	0.00	6,778.0	-766.6	-717.8	1,050.2	0.00	0.00	0.00
UPPER CUBERO									
6,998.2	0.00	0.00	6,801.0	-766.6	-717.8	1,050.2	0.00	0.00	0.00
LOWER CUBERO									
7,000.0	0.00	0.00	6,802.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
7,081.2	0.00	0.00	6,884.0	-766.6	-717.8	1,050.2	0.00	0.00	0.00
ENCINAL									
7,100.0	0.00	0.00	6,902.8	-766.6	-717.8	1,050.2	0.00	0.00	0.00
7,121.2	0.00	0.00	6,924.0	-766.6	-717.8	1,050.2	0.00	0.00	0.00
SJ 28-7 #100P PCP									

Targets

Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
SJ 28-7 #100P ICP	- plan hits target center	0.00	0.00	4,182.0	-766.6	-717.8	2,018,433.50	564,773.01	36° 32' 49.225 N	107° 36' 46.155 W
- Point										
SJ 28-7 #100P PCP	- plan hits target center	0.00	0.00	6,924.0	-766.6	-717.8	2,018,433.49	564,773.01	36° 32' 49.225 N	107° 36' 46.155 W
- Point										

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: San Juan 28 Wells
Well: SJ 28-7 #100P
Wellbore: Wellbore #1
Design: Plan #1

Local Co-ordinate Reference: Well SJ 28-7 #100P
TVD Reference: WELL @ 6071.0ft (Original Well Elev)
MD Reference: WELL @ 6071.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,969.2	5,772.0	UPPER GALLUP		0.00	
6,998.2	6,801.0	LOWER CUBERO		0.00	
4,189.8	3,993.0	MASSIVE CLIFF HOUSE		0.00	
4,127.4	3,931.0	UPPER CLIFF HOUSE		0.00	
2,413.9	2,346.0	PICTURED CLIFFS		0.00	
4,814.2	4,617.0	POINT LOOKOUT		0.00	
1,966.0	1,938.0	FRUITLAND		0.00	
6,764.2	6,567.0	GREENHORN		0.00	
1,509.8	1,504.0	OJO ALAMO		0.00	
4,229.0	4,032.0	MENEFEE		0.00	
3,404.1	3,246.0	CHACRA		0.00	
2,543.7	2,464.0	LEWIS		0.00	
1,678.5	1,667.0	KIRTLAND		0.00	
7,081.2	6,884.0	ENCINAL		0.00	
6,878.2	6,681.0	TWO WELLS		0.00	
6,821.2	6,624.0	GRANEROS		0.00	
6,920.2	6,723.0	PAGUATE		0.00	
2,916.7	2,803.0	HUERFANITO BENTONITE		0.00	
5,138.2	4,941.0	MANCOS		0.00	
6,975.2	6,778.0	UPPER CUBERO		0.00	

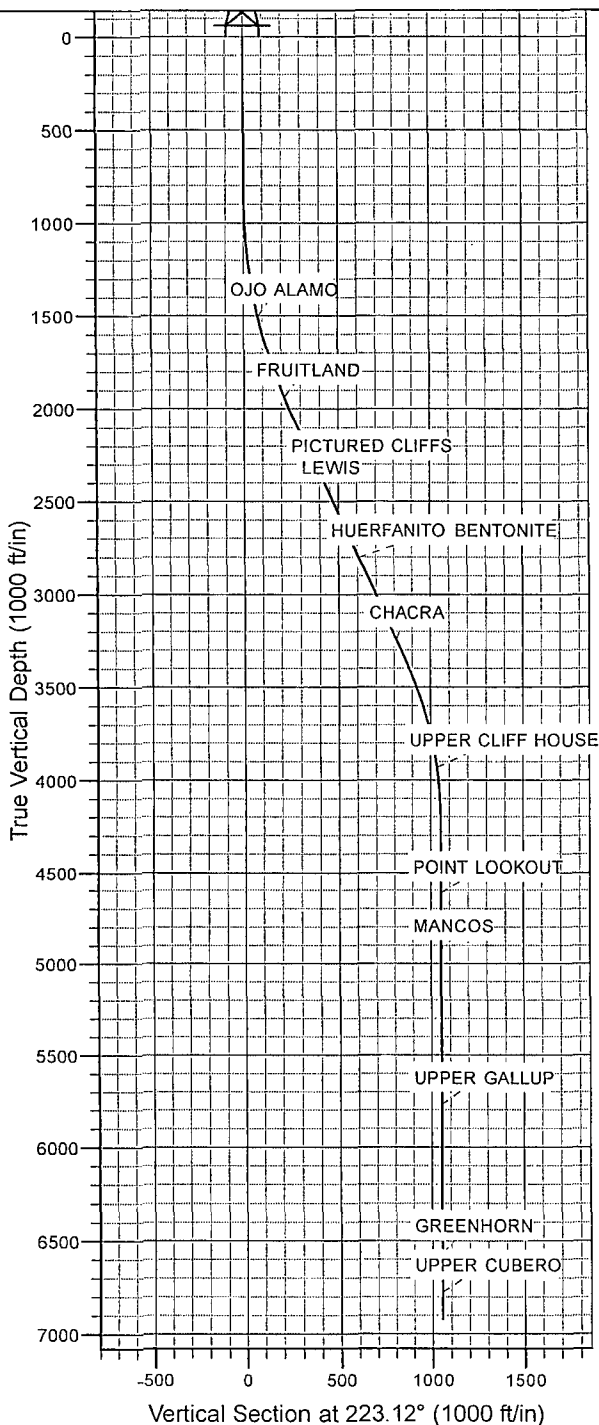
REFERENCE INFORMATION

WELL @ 6071.0ft (Original Well Elev)
Ground Elevation 6056.0
Reference Lat: 36° 32' 56.806 N
Reference Long: 107° 36' 37.359 W

Project: San Juan Basin - New Mexico West W
Site: San Juan 28 Wells
Well: SJ 28-7 #100P
Wellbore: Wellbore #1
Design: Plan #1

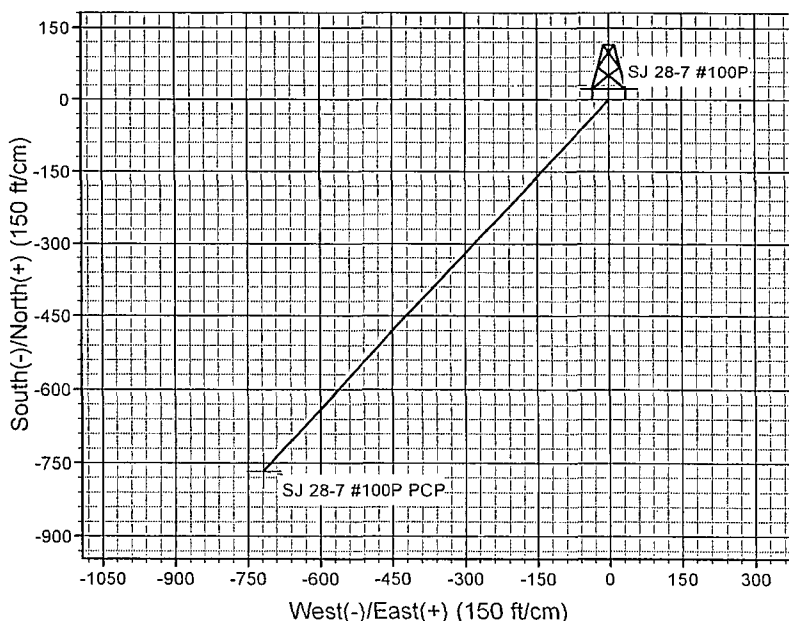
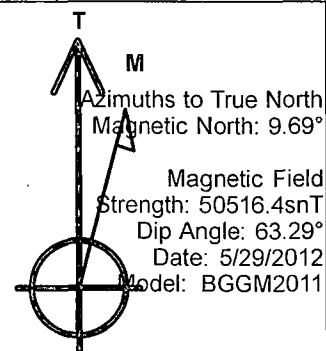
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	850.0	0.00	0.00	850.0	0.0	0.0	0.00	0.00	0.0	
3	2082.3	24.65	223.12	2044.7	-190.5	-178.4	2.00	223.12	261.0	
4	3557.6	24.65	223.12	3385.6	-639.6	-598.9	0.00	0.00	876.2	
5	4379.2	0.00	0.00	4182.0	-766.6	-717.8	3.00	180.00	1050.2	SJ 28-7 #100P ICP
6	7121.2	0.00	0.00	6924.0	-766.6	-717.8	0.00	0.00	1050.2	SJ 28-7 #100P PCP



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1504.0	1509.8	OJO ALAMO
1667.0	1678.5	KIRTLAND
1938.0	1966.0	FRUITLAND
2346.0	2413.9	PICTURED CLIFFS
2464.0	2543.7	LEWIS
2803.0	2916.7	HUERFANITO BENTONITE
3246.0	3404.1	CHACRA
3931.0	4127.4	UPPER CLIFF HOUSE
3993.0	4189.8	MASSIVE CLIFF HOUSE
4032.0	4229.0	MENEFFEE
4617.0	4814.2	POINT LOOKOUT
4941.0	5138.2	MANCOS
5772.0	5969.2	UPPER GALLUP
6567.0	6764.2	GREENHORN
6624.0	6821.2	GRANEROS
6681.0	6878.2	TWO WELLS
6723.0	6920.2	PAGUATE
6778.0	6975.2	UPPER CUBERO
6801.0	6998.2	LOWER CUBERO
6884.0	7081.2	ENCINAL



CONOCOPHILLIPS COMPANY

SAN JUAN 28-7 UNIT #100P

753' FNL, 1024' FEL

SECTION 30, T-27-N, R-7-W, N.M.P.M.

RIO ARriba COUNTY, NEW MEXICO

NAD 83 LAT.: 36.549122°N LONG.: 107.610986°W

ELEV.: 6056 NAVD88

NO NEW ACCESS

FROM BLOOMFIELD N.M. INTERSECTION OF HWY 64 & HWY 550 SOUTH:

GO: 1.1 MILES SOUTH ON HWY 550 TOWARDS CUBA. TURN LEFT (EAST)
ON SULLIVAN ROAD, CO. ROAD 4990.

GO: 15.0 MILES EAST ON CO. ROAD 4990 TO INTERSECTION WITH CO.
ROAD 4450 AT "5 MILE BRIDGE". CONTINUE EAST ON CO. ROAD 4450.

GO: 14.2 MILES SOUTH ON CO. ROAD 4450. TURN LEFT AT BLM SIGN FOR
CROW CANYON.

GO: 0.6 MILES NORTH EAST, CROSSING LARGO WASH. TURN LEFT.

GO: 1.0 MILES NORTH WEST. TURN RIGHT INTO CUERVO CANYON

GO: 1.2 MILES NORTH EAST INTO CUERVO CANYON TO EXISTING WELL
PAD FOR COPC SJ 28-7 UNIT 100. NEW WELL IS TWINNED HERE.