

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APR 08 2011

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

Farmington Field Office

Bureau of Land Management

1a. Type of Work DRILL	5. Lease Number SF-080538 Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe RCVD SEP 11 '12	
2. Operator ConocoPhillips Company	7. Unit Agreement Name OIE CONS. DIV. DIST. 3 San Juan 30-5 Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 30-5 Unit 9. Well Number 8A	
4. Location of Well Surface: Unit H(ENE), 2333' FNL & 860' FEL BHL: Unit J(NWSE), 2580' FSL & 1930' FEL Surface: Latitude: 36.827997° N (NAD83) Longitude: 107.320637° W BHL: Latitude: 36.827013° N (NAD83) Longitude: 107.324292° W	10. Field, Pool, Wildcat Blanco MV / Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 11, T30N, R5W API # 30-039-31052	
14. Distance in Miles from Nearest Town 59.6 miles from Bloomfield, NM	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 860'	17. Acres Assigned to Well 320.00 acres E/2	
16. Acres in Lease 1886.390 acres		
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 71.7' from SJ 30-5 Unit 8N (MV/DK)	20. Rotary or Cable Tools Rotary	
19. Proposed Depth 8319' This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4	22. Approx. Date Work will Start April 7, 2011	
21. Elevations (DF, FT, GR, Etc.) 6810' GL	23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Dollie L. Busse</u> Dollie L. Busse (Staff Regulatory Tech.)	24. <u>April 7, 2011</u> Date	

Hold C104
for Directional Survey
and "As Drilled" plat

PERMIT NO.

APPROVAL DATE

APPROVED BY D. Montano

TITLE Asst

DATE 9/5/12

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any false statement or presentation as to any matter within the jurisdiction of the United States any false, fictitious or fraudulent statements or presentations as to any matter within the jurisdiction of the United States

Example Master Plan Type 3

Bond Numbers ES-0048 and ES-0085

NMOCD

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

SEP 18 2012

APPROVAL OR ACCEPTANCE OF THIS
OPERATOR FROM OBTAINING ANY OTHER
AUTHORIZATION REQUIRED FOR OPERATIONS
ON FEDERAL AND INDIAN LANDS

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 7 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039- 31052	² Pool Code 71599 / 72319	³ Pool Name BASIN DAKOTA / BLANCO MESAVERDE
⁴ Property Code 31327	⁵ Property Name SAN JUAN 30-5 UNIT	⁶ Well Number 8A
⁷ OGRID No. 217817	⁸ Operator Name CONOCOPHILLIPS COMPANY	⁹ Elevation 6810

¹⁰ SURFACE LOCATION

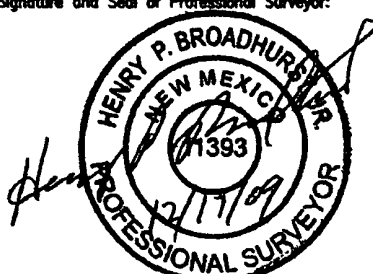
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	11	30-N	5-W		2333	NORTH	860	EAST	RIO ARRIBA

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
J	11	30-N	5-W		2580	SOUTH	1930	EAST	RIO ARRIBA

¹² Dedicated Acres 320.00	¹³ Joint or Infill (B/2)	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

¹⁶ GLO 1916	N 89°53'22" W N 89°46' E			5269.1' (M) 5260.2' (R)	GLO 1916	¹⁷ OPERATOR CERTIFICATION <i>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.</i> <i>Crystal Tafoya 2/12/10</i> Signature Crystal Tafoya Printed Name Regulatory Tech Title and E-mail Address February 12, 2010 Date
		E/2 DEDICATED ACREAGE USA SF-080538 SECTION 11, T-30-N, R-5-W	2333'		2840.0' (R) 2838.1' (M)	
		WELL FLAG NAD 83 LAT: 36.827997° N LONG: 107.320637° W NAD 27 LAT: 36°49.679467° N LONG: 107°19.202196° W S 71°08'54" W 1128.3'			860'	
	BASIS OF BEARING IS THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION AND NGS/OPUS SOLUTION.				0°03' E N 0°23'46" W	
		BOTTOM HOLE NAD 83 LAT: 36.827013° N LONG: 107.324292° W NAD 27 LAT: 36°49.620375° N LONG: 107°19.421513° W	2580'		2840.0' (R) 2843.8' (M)	
					0°03' E N 0°25'48" W	
GLO 1916	N 89°40' E N 89°53'20" W			5266.1' (R) 5280.7' (M)	GLO 1916	¹⁸ SURVEYOR CERTIFICATION <i>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.</i> Date of Survey: 11/3/09 Signature and Seal of Professional Surveyor:  Certificate Number: NM 11393

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 30-5 UNIT 8A

DEVELOPMENT

Lease:		AFE #: WAN.CDR.8111		AFE \$: 965,680.82							
Field Name: SAN JUAN		Rig: Aztec Rig 920		State: NM	County: RIO ARRIBA						
Geologist:		Phone:		Geophysicist:							
Geoscientist:		Phone:		Prod. Engineer:							
Res. Engineer: McKee, Cory J		Phone: +1 505-326-9826		Proj. Field Lead:							
Primary Objective (Zones): <table border="1"> <thead> <tr> <th>Zone</th> <th>Zone Name</th> </tr> </thead> <tbody> <tr> <td>FRR</td> <td>BASIN DAKOTA (PRORATED GAS)</td> </tr> <tr> <td>RON</td> <td>BLANCO MESAVERDE (PRORATED GAS)</td> </tr> </tbody> </table>						Zone	Zone Name	FRR	BASIN DAKOTA (PRORATED GAS)	RON	BLANCO MESAVERDE (PRORATED GAS)
Zone	Zone Name										
FRR	BASIN DAKOTA (PRORATED GAS)										
RON	BLANCO MESAVERDE (PRORATED GAS)										
Location: Surface Datum Code: NAD 27 Directional											
Latitude: 36.827990	Longitude: -107.320036	X:	Y:	Section: 11	Range: 005W						
Footage X: 860 FEL	Footage Y: 2333 FNL	Elevation: 6810	(FT)	Township: 030N							
Tolerance:											
Location: Bottom Hole Datum Code: NAD 27 Directional											
Latitude: 36.827006	Longitude: -107.323691	X:	Y:	Section: 11	Range: 005W						
Footage X: 1930 FEL	Footage Y: 2580 FSL	Elevation:	(FT)	Township: 030N							
Tolerance:											
Location Type: Restricted		Start Date (Est.): 1/1/2012		Completion Date:							
				Date In Operation:							
Formation Data: Assume KB = 6826 Units = FT											
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)						
Surface Casing	231	6595		☐							
					12-1/4 hole. 230' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 121 cuft. Circulate cement to surface.						
NACIMIENTO	1651	5175		☐							
OJO ALAMO	2895	3931		☐							
KIRTLAND	3106	3720		☐							
FRUITLAND	3202	3624		☐	556 Possible Gas						
PICTURED CLIFFS	3766	3060		☐	1100						
LEWIS	3856	2970		☐							
Intermediate Casing	3956	2870		☐	125 8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 950 cuft. Circulate cement to surface.						
HUERFANITO BENTONITE	4573	2253		☐							
CHACRA	4938	1888		☐							
UPPER CLIFF HOUSE	5483	1343		☐	Gas; Est. Top Perf - 5484 (1341)						
MASSIVE CLIFF HOUSE	5768	1058		☐	526 Gas; Cliffhouse is dry						
MENEFEE	5824	1002		☐							
POINT LOOKOUT	5980	846		☐							
MANCOS	6446	380		☐							
UPPER GALLUP	7311	-485		☐							
GREENHORN	8025	-1199		☐							
GRANEROS	8072	-1246		☐							
TWO WELLS	8185	-1359		☐	3164 Gas						
PAGUATE	8200	-1374		☐							
UPPER CUBERO	8203	-1377		☐							

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 30-5 UNIT 8A

DEVELOPMENT

LOWER CUBERO	8248	-1422	☐
ENCINAL	8319	-1493	☐
Total Depth	8319	-1493	☐

Est. Btm Perf - 8303 (- 1478) based on offset wells
 TD - T/ENCN
 221 6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC casing. Cement
 w/ 594 cuft. Circulate cement a minimum of 100' inside th
 evinus cas str

Reference Wells:

Reference Type	Well Name	Comments
Production	Carson SRC 4E	30N 5W 2 SW NE SW
Production	Schalk 1-57	30N 5W 12 SW NE NW
Production	SJ 30-5 Unit 113	30N 5W 11 SW NE SW
Production	SJ 30-5 Unit 112	30N 5W 12 NE SW 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	Local Co-ordinate Reference:	Well SJ 30-5 #8A
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 6826.0ft (H&P RIGS)
Project:	San Juan Basin - New Mexico Wells	MD Reference:	RKB @ 6826.0ft (H&P RIGS)
Site:	San Juan 30 Wells	North Reference:	True
Well:	SJ 30-5 #8A	Survey Calculation Method:	Minimum Curvature
Wellbore:	Principal Wellbore		
Design:	Plan #1		

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

Site:	San Juan 30 Wells		
Site Position:		Northing:	2,113,682.53 ft
From:	Lat/Long	Easting:	628,365.80 ft
Position Uncertainty:	15.0 ft	Slot Radius:	"
		Latitude:	36° 48' 28.968 N
		Longitude:	107° 23' 41.454 W
		Grid Convergence:	0.26 °

Well:	SJ 30-5 #8A, Directional "S" Curve SHORT, Lewis not included		
Well Position	+N-S	0.0 ft	Northing: 2,121,052.35 ft
	+E-W	0.0 ft	Easting: 650,227.97 ft
Position Uncertainty	3.5 ft	Wellhead Elevation:	ft
		Latitude:	36° 49' 40.768 N
		Longitude:	107° 19' 12.132 W
		Ground Level:	6,810.0 ft

Wellbore:	Principal Wellbore		
Magnetics	Model Name	Sample Date	Declination
	BGGM2010	8/10/2010	9.81
			Dip Angle
			63.68
			Field Strength
			50,925

Design:	Plan #1		
Audit Notes:			
Version:	1	Phase:	PROTOTYPE
		Tie On Depth:	0.0
Vertical Section	Depth From (TVD)	+N-S	+E-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction
			251.48

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	
320.0	0.00	0.00	320.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,406.0	32.58	251.48	1,348.4	-95.5	-284.9	3.00	3.00	0.00	251.48	
2,385.3	32.58	251.48	2,173.6	-263.0	-785.0	0.00	0.00	0.00	0.00	
3,471.3	0.00	0.00	3,202.0	-358.5	-1,069.9	3.00	-3.00	0.00	180.00	SJ 30-5 #8A - VACP
4,225.3	0.00	0.00	3,956.0	-358.5	-1,069.9	0.00	0.00	0.00	0.00	SJ 30-5 #8A - ICP
8,588.3	0.00	0.00	8,319.0	-358.5	-1,069.9	0.00	0.00	0.00	0.00	SJ 30-5 #8A - PCP

ConocoPhillips or its affiliates
Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJBU
Project: San Juan Basin - New Mexico Wells
Site: San Juan 30 Wells
Well: SJ 30-5 #8A
Wellbore: Principal Wellbore
Design: Plan #1

Local Co-ordinate Reference: Well SJ 30-5 #8A
TVD Reference: RKB @ 6826 0ft (H&P RIGS)
MD Reference: RKB @ 6826 0ft (H&P RIGS)
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	
230.0	0.00	0.00	230.0	0.0	0 0	0.0	0.00	0.00	0.00	
Surf										
300 0	0 00	0 00	300 0	0.0	0 0	0.0	0.00	0.00	0.00	
320.0	0.00	0 00	320.0	0.0	0 0	0.0	0.00	0.00	0.00	
400 0	2.40	251.48	400 0	-0.5	-1.6	1.7	3.00	3.00	0.00	
500.0	5.40	251.48	499.7	-2.7	-8.0	8.5	3.00	3.00	0.00	
600.0	8.40	251.48	599.0	-6.5	-19.4	20.5	3.00	3.00	0.00	
700.0	11.40	251.48	697.5	-12.0	-35.7	37.7	3.00	3.00	0.00	
800 0	14.40	251.48	795.0	-19.1	-56.9	60.0	3.00	3.00	0.00	
900.0	17.40	251.48	891.1	-27.8	-82.9	87.4	3.00	3.00	0.00	
1,000.0	20.40	251.48	985.7	-38.1	-113.6	119.8	3.00	3.00	0.00	
1,100 0	23.40	251.48	1,078.5	-49.9	-148.9	157.1	3.00	3.00	0.00	
1,200.0	26.40	251.48	1,169.2	-63.3	-188.9	199.2	3.00	3.00	0.00	
1,300 0	29.40	251.48	1,257.6	-78.1	-233.2	246.0	3.00	3.00	0.00	
1,406 0	32.58	251.48	1,348.4	-95.5	-284.9	300.5	3.00	3.00	0.00	
1,500 0	32.58	251.48	1,427.6	-111.6	-333.0	351.2	0.00	0.00	0.00	
1,600.0	32.58	251.48	1,511.9	-128.7	-384.0	405.0	0.00	0.00	0.00	
1,700.0	32.58	251.48	1,596.2	-145.8	-435.1	458.8	0.00	0.00	0.00	
1,765.1	32.58	251.48	1,651.0	-156.9	-468.3	493.9	0.00	0.00	0.00	
Nacimlento										
1,800.0	32.58	251.48	1,680.4	-162.9	-486.1	512.7	0.00	0.00	0.00	
1,900 0	32.58	251.48	1,764.7	-180.0	-537.2	566.5	0.00	0.00	0.00	
2,000 0	32.58	251.48	1,848.9	-197.1	-588.2	620.4	0.00	0.00	0.00	
2,100.0	32.58	251.48	1,933.2	-214.2	-639.3	674.2	0.00	0.00	0.00	
2,200 0	32.58	251.48	2,017.5	-231.3	-690.4	728.1	0.00	0.00	0.00	
2,300.0	32.58	251.48	2,101.7	-248.4	-741.4	781.9	0.00	0.00	0.00	
2,385.3	32.58	251.48	2,173.6	-263.0	-785.0	827.8	0.00	0.00	0.00	
2,400 0	32.14	251.48	2,186.0	-265.5	-792.4	835.7	3.00	-3.00	0.00	
2,500.0	29.14	251.48	2,272.1	-281.7	-840.7	886.7	3.00	-3.00	0.00	
2,600.0	26.14	251.48	2,360.6	-296.4	-884.7	933.1	3.00	-3.00	0.00	
2,700 0	23.14	251.48	2,451.5	-309.7	-924.2	974.7	3.00	-3.00	0.00	
2,800.0	20.14	251.48	2,544.5	-321.4	-959.2	1,011.6	3.00	-3.00	0.00	
2,900.0	17.14	251.48	2,639.2	-331.6	-989.5	1,043.6	3.00	-3.00	0.00	
3,000 0	14.14	251.48	2,735.5	-340.1	-1,015.0	1,070.5	3.00	-3.00	0.00	
3,100.0	11.14	251.48	2,833.1	-347.1	-1,035.8	1,092.4	3.00	-3.00	0.00	
3,162.9	9.25	251.48	2,895.0	-350.6	-1,046.4	1,103.5	3.00	-3.00	0.00	
Ojo Alamo										
3,200 0	8.14	251.48	2,931.7	-352.4	-1,051.7	1,109.1	3.00	-3.00	0.00	
3,300.0	5.14	251.48	3,031.0	-356.1	-1,062.6	1,120.7	3.00	-3.00	0.00	
3,375.2	2.88	251.48	3,106.0	-357.7	-1,067.6	1,125.9	3.00	-3.00	0.00	
Kirtland										
3,400.0	2.14	251.48	3,130.8	-358.1	-1,068.6	1,127.0	3.00	-3.00	0.00	
3,423.3	1.44	251.48	3,154.0	-358.3	-1,069.3	1,127.8	3.00	-3.00	0.00	
Stage Tool										
3,471.3	0.00	0 00	3,202.0	-358.5	-1,069.9	1,128.4	3.00	-3.00	0.00	
Fruitland - SJ 30-5 #8A - VACP										
3,500 0	0.00	0.00	3,230.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00	
3,600 0	0.00	0.00	3,330.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00	
3,700 0	0.00	0.00	3,430.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00	
3,800.0	0.00	0.00	3,530.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00	

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJBU
Project: San Juan Basin - New Mexico Wells
Site: San Juan 30 Wells
Well: SJ 30-5 #8A
Wellbore: Principal Wellbore
Design: Plan #1

Local Co-ordinate Reference: Well SJ 30-5 #8A
TVD Reference: RKB @ 6826.0ft (H&P RIGS)
MD Reference: RKB @ 6826.0ft (H&P RIGS)
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)
3,900.0	0.00	0.00	3,630.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
4,000.0	0.00	0.00	3,730.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
4,035.3	0.00	0.00	3,766.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Pictured Cliffs									
4,100.0	0.00	0.00	3,830.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
4,125.3	0.00	0.00	3,856.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Lewis									
4,200.0	0.00	0.00	3,930.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
4,225.3	0.00	0.00	3,956.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Int - SJ 30-5 #8A - ICP									
4,300.0	0.00	0.00	4,030.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
4,400.0	0.00	0.00	4,130.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
4,500.0	0.00	0.00	4,230.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
4,600.0	0.00	0.00	4,330.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
4,700.0	0.00	0.00	4,430.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
4,800.0	0.00	0.00	4,530.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
4,842.3	0.00	0.00	4,573.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Huerfano Bentonite									
4,900.0	0.00	0.00	4,630.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
5,000.0	0.00	0.00	4,730.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
5,100.0	0.00	0.00	4,830.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
5,200.0	0.00	0.00	4,930.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
5,207.3	0.00	0.00	4,938.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Chacra									
5,300.0	0.00	0.00	5,030.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
5,400.0	0.00	0.00	5,130.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
5,500.0	0.00	0.00	5,230.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
5,600.0	0.00	0.00	5,330.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
5,700.0	0.00	0.00	5,430.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
5,752.3	0.00	0.00	5,483.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Upper Cliffhouse									
5,800.0	0.00	0.00	5,530.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
5,900.0	0.00	0.00	5,630.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
6,000.0	0.00	0.00	5,730.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
6,037.3	0.00	0.00	5,768.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Massive Cliffhouse									
6,093.3	0.00	0.00	5,824.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Menefee									
6,100.0	0.00	0.00	5,830.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
6,200.0	0.00	0.00	5,930.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
6,249.3	0.00	0.00	5,980.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Point Lookout									
6,300.0	0.00	0.00	6,030.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,130.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
6,500.0	0.00	0.00	6,230.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
6,600.0	0.00	0.00	6,330.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
6,700.0	0.00	0.00	6,430.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
6,715.3	0.00	0.00	6,446.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Mancos									
6,800.0	0.00	0.00	6,530.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
6,900.0	0.00	0.00	6,630.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
7,000.0	0.00	0.00	6,730.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
 Company: ConocoPhillips SJBU
 Project: San Juan Basin - New Mexico Wells
 Site: San Juan 30 Wells
 Well: SJ 30-5 #8A
 Wellbore: Principal Wellbore
 Design: Plan #1

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well SJ 30-5 #8A
 RKB @ 6826.0ft (H&P RIGS)
 RKB @ 6826 0ft (H&P RIGS)
 True
 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)
7,100.0	0.00	0.00	6,830.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
7,200.0	0.00	0.00	6,930.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
7,300.0	0.00	0.00	7,030.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
7,400.0	0.00	0.00	7,130.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
7,500.0	0.00	0.00	7,230.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
7,580.3	0.00	0.00	7,311.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Upper Gallup									
7,600.0	0.00	0.00	7,330.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
7,700.0	0.00	0.00	7,430.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
7,800.0	0.00	0.00	7,530.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
7,900.0	0.00	0.00	7,630.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
8,000.0	0.00	0.00	7,730.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
8,100.0	0.00	0.00	7,830.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
8,200.0	0.00	0.00	7,930.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
8,294.3	0.00	0.00	8,025.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Greenhorn									
8,300.0	0.00	0.00	8,030.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
8,341.3	0.00	0.00	8,072.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Graneros									
8,400.0	0.00	0.00	8,130.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
8,454.3	0.00	0.00	8,185.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Two Wells									
8,469.3	0.00	0.00	8,200.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Paguate									
8,472.3	0.00	0.00	8,203.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Upper Cubero									
8,500.0	0.00	0.00	8,230.7	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
8,517.3	0.00	0.00	8,248.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Lower Cubero									
8,588.3	0.00	0.00	8,319.0	-358.5	-1,069.9	1,128.4	0.00	0.00	0.00
Encinal - Prod - SJ 30-5 #8A - PCP									

Targets

Target Name	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
SJ 30-5 #8A - PCP	0.00	0.00	8,319.0	-358.5	-1,069.9	2,120,688.14	649,160.07	36° 49' 37.223 N	107° 19' 25.291 W
- plan hits target center									
- Circle (radius 100.0)									
SJ 30-5 #8A - ICP	0.00	0.00	3,956.0	-358.5	-1,069.9	2,120,688.14	649,160.07	36° 49' 37.223 N	107° 19' 25.291 W
- plan hits target center									
- Circle (radius 100.0)									
SJ 30-5 #8A - VACP	0.00	0.00	3,202.0	-358.5	-1,069.9	2,120,688.14	649,160.07	36° 49' 37.223 N	107° 19' 25.291 W
- plan hits target center									
- Circle (radius 100.0)									

ConocoPhillips or its affiliates
Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJBU
Project: San Juan Basin - New Mexico Wells
Site: San Juan 30 Wells
Well: SJ 30-5 #8A
Wellbore: Principal Wellbore
Design: Plan #1

Local Co-ordinate Reference: Well SJ 30-5 #8A
TVD Reference: RKB @ 6826.0ft (H&P RIGS)
MD Reference: RKB @ 6826 0ft (H&P RIGS)
North Reference: True
Survey Calculation Method: Minimum Curvature

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
230.0	230.0	Surf	9-5/8	12-1/4
4,225.3	3,956.0	Int	7	8-3/4
8,588.3	8,319.0	Prod	4-1/2	6-1/4

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
8,517.3	8,248.0	Lower Cubero		0.00		
6,037.3	5,768.0	Massive Cliffhouse		0.00		
4,842.3	4,573.0	Huerfanto Bentonite		0.00		
8,294.3	8,025.0	Greenhorn		0.00		
8,469.3	8,200.0	Paguate		0.00		
6,093.3	5,824.0	Menefee		0.00		
3,375.2	3,106.0	Kirtland		0.00		
4,125.3	3,856.0	Lewis		0.00		
6,249.3	5,980.0	Point Lookout		0.00		
6,715.3	6,446.0	Mancos		0.00		
3,162.9	2,895.0	Ojo Alamo		0.00		
7,580.3	7,311.0	Upper Gallup		0.00		
8,341.3	8,072.0	Graneros		0.00		
8,472.3	8,203.0	Upper Cubero		0.00		
8,454.3	8,185.0	Two Wells		0.00		
3,471.3	3,202.0	Fruitland		0.00		
5,752.3	5,483.0	Upper Cliffhouse		0.00		
1,765.1	1,651.0	Nacimiento		0.00		
4,035.3	3,766.0	Pictured Cliffs		0.00		
3,423.3	3,154.0	Stage Tool		0.00		
5,207.3	4,938.0	Chacra		0.00		

REFERENCE INFORMATION

RKB @ 6826.0ft (H&P RIGS)
Ground Elevation 6810.0
Reference Lat: 36° 49' 40.768 N
Reference Long: 107° 19' 12.132 W

Project: San Juan Basin - New Mexico Well
Site: San Juan 30 Wells
Well: SJ 30-5 #8A
Wellbore: Principal Wellbore
Design: Plan #1

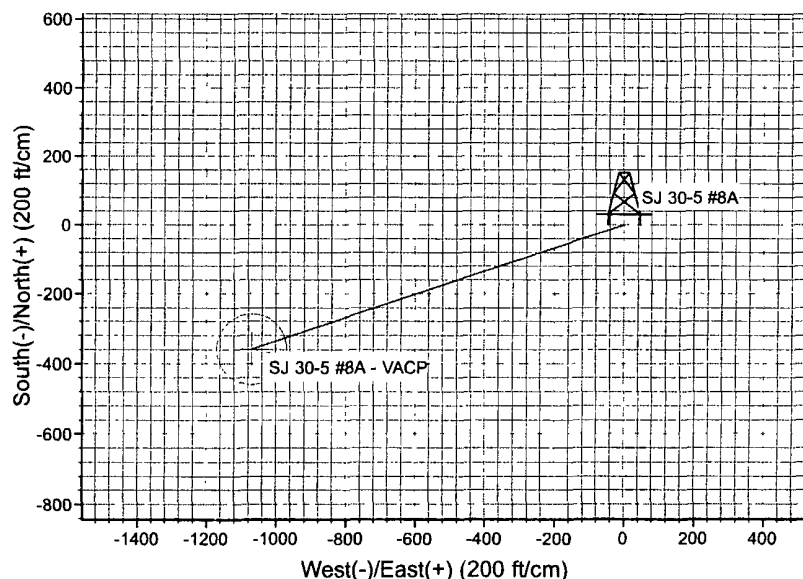
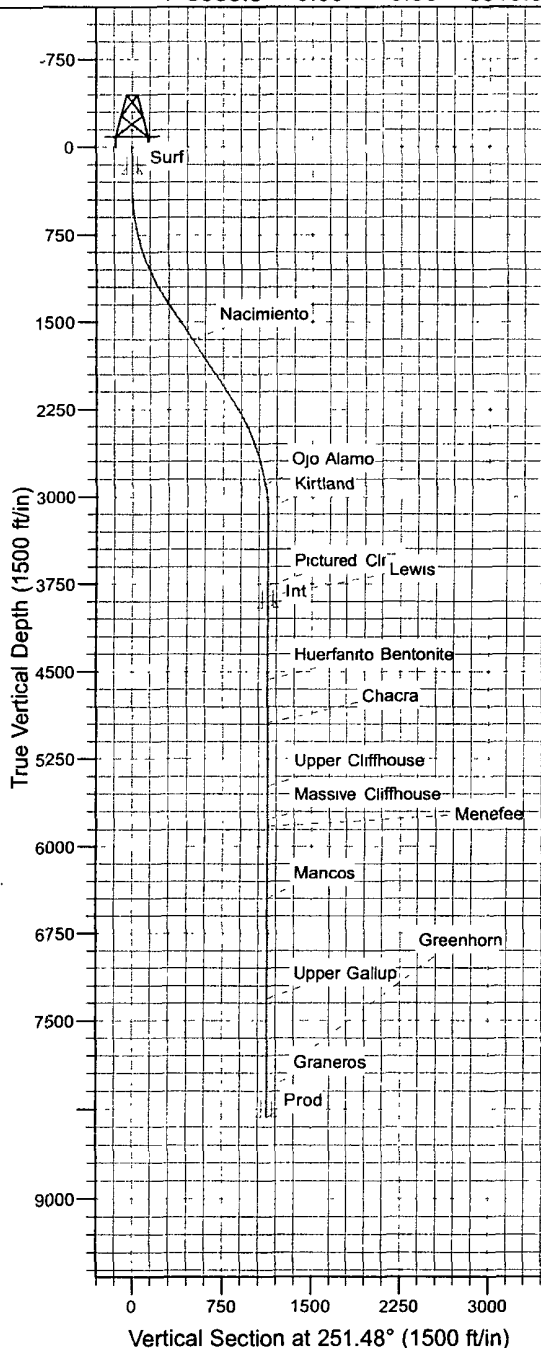
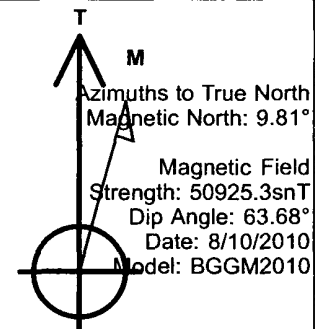


SECTION DETAILS

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	320.0	0.00	0.00	320.0	0.0	0.0	0.00	0.00	0.0	
3	1406.0	32.58	251.48	1348.4	-95.5	-284.9	3.00	251.48	300.5	
4	2385.3	32.58	251.48	2173.6	-263.0	-785.0	0.00	0.00	827.8	
5	3471.3	0.00	0.00	3202.0	-358.5	-1069.9	3.00	180.00	1128.4	SJ 30-5 #8A - VACP
6	4225.3	0.00	0.00	3956.0	-358.5	-1069.9	0.00	0.00	1128.4	SJ 30-5 #8A - ICP
7	8588.3	0.00	0.00	8319.0	-358.5	-1069.9	0.00	0.00	1128.4	SJ 30-5 #8A - PCP

FORMATION TOP DETAILS

VDPath	MDPath	Formation
1651.0	1765.1	Nacimiento
2895.0	3162.9	Ojo Alamo
3106.0	3375.2	Kirtland
3154.0	3423.3	Stage Tool
3202.0	3471.3	Fruitland
3766.0	4035.3	Pictured Cliffs
3856.0	4125.3	Lewis
4573.0	4842.3	Huerfanto Bentonite
4938.0	5207.3	Chacra
5483.0	5752.3	Upper Cliffhouse
5768.0	6037.3	Massive Cliffhouse
5824.0	6093.3	Menefee
5980.0	6249.3	Point Lookout
6446.0	6715.3	Mancos
7311.0	7580.3	Upper Gallup
8025.0	8294.3	Greenhorn
8072.0	8341.3	Graneros
8185.0	8454.3	Two Wells
8200.0	8469.3	Paguate
8203.0	8472.3	Upper Cubero
8248.0	8517.3	Lower Cubero



CONOCOPHILLIPS COMPANY

SAN JUAN 30-5 UNIT #8A

2333' FNL, 860' FEL

SECTION 11, T-30-N, R-5-W, N.M.P.M.,

RIO ARRIBA COUNTY, NEW MEXICO

NAD 83 LAT.: 36.827997°N LONG.: 107.320637°W

GROUND ELEV.: 6810 FIN. ELEV.: 6809 NAVD88

NEW ACCESS 475.5'

FROM BLOOMFIELD, NEW MEXICO:

- **GO 37.7 MI. EAST ON HWY. 64 (MILE MARKER 102.3). TURN LEFT (NORTH) ON HWY. 527, AKA SIMMS MARINA ROAD.**
- **GO 8.0 MI. NORTH ON HWY. 527 (SIMMS MARINA ROAD). TURN RIGHT ONTO ROSA ROAD.**
- **GO 6.4 MI. ALONG ROSA ROAD CROSSING LA JARA WASH. TURN RIGHT (WESTERLY) AT BLM SIGN.**
- **GO 5.2 MI. CROSSING LA FRAGUA WASH STAYING ON MAIN ROAD HEADING EAST TOWARDS THE "DEAD COTTONWOOD BY STOCK POND" IN THE SOUTHEAST PART OF SECTION 16, T-30-N, R-5-W. TURN LEFT (NORTH).**
- **GO 0.15 MI. NORTH. TURN RIGHT JUST PAST THE "DEAD COTTONWOOD BY STOCK POND."**
- **GO 2.1 MI. NORTH CROSSING LOPEZ WASH AND CLIMBING UPHILL ONTO A SMALL MESA. CONTINUE NORTHERLY TO AN EXISTING BURROWING PIT AND A RIGHT HAIR PIN TURN.**
- **THE SJ 30-5 UNIT #8A IS ON THE SOUTH SIDE OF THIS ROAD.**