

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

APR 08 2011

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-080538	6. If Indian, All. or Tribe
1b. Type of Well GAS		Unit Reporting Number	
2. Operator ConocoPhillips Company		7. Unit Agreement Name NMNM-78419A-MV	
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 8M	
4. Location of Well Surface: Unit H(SENE), 2265' FNL & 655' FEL BHL: Unit A(NENE), 710' FNL & 710' FEL Surface: Latitude: 36.828181° N (NAD83) Longitude: 107.319940° W BHL: Latitude: 36.832453° N (NAD83) Longitude: 107.320134° W		10. Field, Pool, Wildcat Blanco MV / Basin DK	
		11. Sec., Twn, Rge, Mer. (NMPM) Sec. 11, T30N, R5W	
		API # 30-039-31053	
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 655'		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 71.5' from SJ 30-5 Unit 8P (MV/DK)		20. Rotary or Cable Tools Rotary	
19. Proposed Depth 8349'			
21. Elevations (DF, FT, GR, Etc.) 6813' GL		22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached			
24. Authorized by: <u>Dollie L. Busse</u> Dollie L. Busse (Staff Regulatory Tech.)		Date <u>April 7, 2011</u>	

Hold C104
Directional Survey
As Drilled plat

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY [Signature] TITLE AFM DATE 9/5/12

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 and "As Drilled" plat
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

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

SEP 18 2012 ea

NMOCD

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

NOTIFY AZIEC UDD 24 HRS.
PRIOR TO CASING & CEMENT

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 30-039-31053		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 8M
⁷ OGRID No. 217817		⁸ Operator Name CONOCOPHILLIPS COMPANY			⁹ Elevation 6813

¹⁰ SURFACE LOCATION

UL or lot no. H	Section 11	Township 30-N	Range 5-W	Lot Idn	Feet from the 2265	North/South line NORTH	Feet from the 655	East/West line EAST	County RIO ARRIBA
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. A	Section 11	Township 30-N	Range 5-W	Lot Idn	Feet from the 710	North/South line NORTH	Feet from the 710	East/West line EAST	County RIO ARRIBA
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¹² Dedicated Acres 320.00 (E/2)	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

¹⁶ GLO 1916 N 89°33'22" W N 89°46' E	5269.1' (M) 5260.2' (R)		GLO 1916 2640.0' (R) 2638.1' (M)
	BOTTOM HOLE NAD 83 LAT: 36.832453° N LONG: 107.320134° W NAD 27 LAT: 36°49.946823° N LONG: 107°19.172046° W		
	N 22°20' W 1558.5'		
	2265'		
BASIS OF BEARING IS THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION AND NGS/OPUS SOLUTION.	WELL FLAG NAD 83 LAT: 36.828181° N LONG: 107.319940° W NAD 27 LAT: 36°49.690480° N LONG: 107°19.160353° W		GLO 1916 N 07°3' E N 07°23' 46" W
	655'		
	E/2 DEDICATED ACREAGE USA SF-080538 SECTION 11, T-30-N, R-5-W		
	710'		

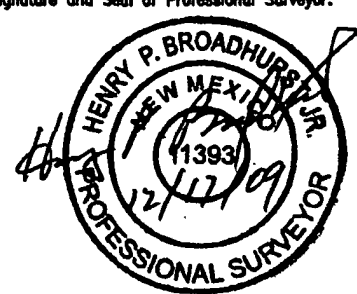
¹⁷ OPERATOR CERTIFICATION

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.

Crystal Tafoya 2/12/10
Signature
Crystal Tafoya
Printed Name
Regulatory Tech
Title and E-mail Address
February 12, 2010
Date

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: 11/3/09
Signature and Seal of Professional Surveyor:


Certificate Number: NM 11393

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 30-5 UNIT 8M

DEVELOPMENT

Lease:		AFE #: WAN.CDR.8276				AFE \$: 1,104,056.63	
Field Name: SAN JUAN		Rig: Aztec Rig 920		State: NM	County: RIO ARRIBA		API #:
Geologist:		Phone:		Geophysicist:		Phone:	
Geoscientist: Johnson, David		Phone: +1 505-324-6169		Prod. Engineer:		Phone:	
Res. Engineer: Prabowo, Wahyu		Phone: +1-505-326-9797		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: 36.828174		Longitude: -107.319339		X:	Y:	Section: 11	Range: 005W
Footage X: 655 FEL		Footage Y: 2265 FNL		Elevation: 6813 (FT)	Township: 030N		
Tolerance:							
Location: Bottom Hole Datum Code: NAD/27 Directional							
Latitude: 36.832446		Longitude: -107.319533		X:	Y:	Section: 11	Range: 005W
Footage X: 710 FEL		Footage Y: 710 FNL		Elevation: (FT)	Township: 030N		
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2012		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6829 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	231	6598		☐			12-1/4 hole. 230' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 121 cuft. Circulate cement to surface.
NACIMIENTO	1655	5174		☐			
OJO ALAMO	2901	3928		☐			
KIRTLAND	3113	3716		☐			
FRUITLAND	3206	3623		☐			Possible Gas
PICTURED CLIFFS	3773	3056		☐			
LEWIS	3873	2956		☐			
Intermediate Casing	3973	2856		☐	125		8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 990 cuft. Circulate cement to surface.
HUERFANITO BENTONITE	4585	2244		☐			
CHACRA	4957	1872		☐			
UPPER CLIFF HOUSE	5507	1322		☐			Gas; Est. Top Perf - 5508 (1320)
MASSIVE CLIFF HOUSE	5789	1040		☐	534		Gas; Cliffhouse is dry
MENEFEE	5843	986		☐			
POINT LOOKOUT	6026	803		☐			
MANCOS	6473	356		☐			
UPPER GALLUP	7337	-508		☐			
GREENHORN	8055	-1226		☐			
GRANEROS	8102	-1273		☐			
TWO WELLS	8215	-1386		☐	3180		Gas
PAGUATE	8223	-1394		☐			
UPPER CUBERO	8231	-1402		☐			

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 30-5 UNIT 8M

DEVELOPMENT

LOWER CUBERO	8277	-1448	☐	Est. Btm Perf - 8332 (- 1504) based on offset wells
ENCINAL	8348	-1519	☐	TD - T/ENCN
Total Depth	8349	-1520	☐	222 6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC casing. Cement w/ 595 cuft. Circulate cement a minimum of 100' inside the previous casing

Reference Wells:

Reference Type	Well Name	Comments
Production	CARSON-1	30N 5W 1 SE NW SW
Production	SCHALK-1-57	30N 5W 12 SW NE NW
Production	SJ 30-5 UNIT-113	30N 5W 12 SW NE NW
Production	SJ 30-5 UNIT-112	30N 5W 12 NE SW SE
Production	SCHALK-54-1-E	30N 5W 2 SW NE 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 #8M
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 6829.0ft (H&P RIGS)
Project:	San Juan Basin - New Mexico Wells	MD Reference:	RKB @ 6829.0ft (H&P RIGS)
Site:	San Juan 30 Wells	North Reference:	True
Well:	SJ 30-5 #8M	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	Latitude:	36° 48' 28.968 N
From:	Lat/Long	Easting:	628,365.80 ft	Longitude:	107° 23' 41.454 W
Position Uncertainty:	15.0 ft	Slot Radius:	"	Grid Convergence:	0.26 °

Well: SJ 30-5 #8M, Directional "S" Curve Long, Lewis not included

Well Position	+N/-S	0.0 ft	Northing:	2,121,120.29 ft	Latitude:	36° 49' 41.429 N
	+E/-W	0.0 ft	Easting:	650,431.75 ft	Longitude:	107° 19' 9.621 W
Position Uncertainty		3.5 ft	Wellhead Elevation:	ft	Ground Level:	6,813.0 ft

Wellbore: Principal Wellbore

Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	BGGM2010	8/10/2010	9.81	63.68	50,925

Design: Plan #1

Audit Notes:

Version:	1	Phase:	PROTOTYPE	Tie On Depth:	0.0
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Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	357.90

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	
1,502.6	35.48	357.90	1,428.5	354.4	-13.0	3.00	3.00	0.00	357.90	
3,115.2	35.48	357.90	2,741.6	1,289.7	-47.3	0.00	0.00	0.00	0.00	
4,002.1	0.00	0.00	3,573.0	1,555.4	-57.1	4.00	-4.00	0.00	180.00	SJ 30-5 #8M - VACP
4,402.1	0.00	0.00	3,973.0	1,555.4	-57.1	0.00	0.00	0.00	0.00	SJ 30-5 #8M - ICP
8,778.1	0.00	0.00	8,349.0	1,555.4	-57.1	0.00	0.00	0.00	0.00	SJ 30-5 #8M - 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 #8M
Wellbore: Principal Wellbore
Design: Plan #1

Local Co-ordinate Reference: Well SJ 30-5 #8M
TVD Reference: RKB @ 6829.0ft (H&P RIGS)
MD Reference: RKB @ 6829.0ft (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	357.90	400.0	1.7	-0.1	1.7	3.00	3.00	0.00	
500.0	5.40	357.90	499.7	8.5	-0.3	8.5	3.00	3.00	0.00	
600.0	8.40	357.90	599.0	20.5	-0.8	20.5	3.00	3.00	0.00	
700.0	11.40	357.90	697.5	37.7	-1.4	37.7	3.00	3.00	0.00	
800.0	14.40	357.90	795.0	60.0	-2.2	60.0	3.00	3.00	0.00	
900.0	17.40	357.90	891.1	87.3	-3.2	87.4	3.00	3.00	0.00	
1,000.0	20.40	357.90	985.7	119.7	-4.4	119.8	3.00	3.00	0.00	
1,100.0	23.40	357.90	1,078.5	157.0	-5.8	157.1	3.00	3.00	0.00	
1,200.0	26.40	357.90	1,169.2	199.0	-7.3	199.2	3.00	3.00	0.00	
1,300.0	29.40	357.90	1,257.6	245.8	-9.0	246.0	3.00	3.00	0.00	
1,400.0	32.40	357.90	1,343.4	297.1	-10.9	297.3	3.00	3.00	0.00	
1,502.6	35.48	357.90	1,428.5	354.4	-13.0	354.6	3.00	3.00	0.00	
1,600.0	35.48	357.90	1,507.8	410.8	-15.1	411.1	0.00	0.00	0.00	
1,700.0	35.48	357.90	1,589.2	468.8	-17.2	469.2	0.00	0.00	0.00	
1,780.8	35.48	357.90	1,655.0	515.7	-18.9	516.0	0.00	0.00	0.00	
Nacimiento										
1,800.0	35.48	357.90	1,670.6	526.8	-19.3	527.2	0.00	0.00	0.00	
1,900.0	35.48	357.90	1,752.1	584.8	-21.5	585.2	0.00	0.00	0.00	
2,000.0	35.48	357.90	1,833.5	642.8	-23.6	643.3	0.00	0.00	0.00	
2,100.0	35.48	357.90	1,914.9	700.8	-25.7	701.3	0.00	0.00	0.00	
2,200.0	35.48	357.90	1,996.4	758.8	-27.8	759.4	0.00	0.00	0.00	
2,300.0	35.48	357.90	2,077.8	816.8	-30.0	817.4	0.00	0.00	0.00	
2,400.0	35.48	357.90	2,159.2	874.8	-32.1	875.4	0.00	0.00	0.00	
2,500.0	35.48	357.90	2,240.7	932.9	-34.2	933.5	0.00	0.00	0.00	
2,600.0	35.48	357.90	2,322.1	990.9	-36.4	991.5	0.00	0.00	0.00	
2,700.0	35.48	357.90	2,403.5	1,048.9	-38.5	1,049.6	0.00	0.00	0.00	
2,800.0	35.48	357.90	2,485.0	1,106.9	-40.6	1,107.6	0.00	0.00	0.00	
2,900.0	35.48	357.90	2,566.4	1,164.9	-42.7	1,165.6	0.00	0.00	0.00	
3,000.0	35.48	357.90	2,647.8	1,222.9	-44.9	1,223.7	0.00	0.00	0.00	
3,100.0	35.48	357.90	2,729.3	1,280.9	-47.0	1,281.7	0.00	0.00	0.00	
3,115.2	35.48	357.90	2,741.6	1,289.7	-47.3	1,290.5	0.00	0.00	0.00	
3,200.0	32.09	357.90	2,812.1	1,336.8	-49.0	1,337.7	4.00	-4.00	0.00	
3,300.0	28.09	357.90	2,898.6	1,386.9	-50.9	1,387.8	4.00	-4.00	0.00	
3,302.7	27.98	357.90	2,901.0	1,388.1	-50.9	1,389.1	4.00	-4.00	0.00	
Ojo Alamo										
3,400.0	24.09	357.90	2,988.4	1,430.8	-52.5	1,431.8	4.00	-4.00	0.00	
3,500.0	20.09	357.90	3,081.1	1,468.4	-53.9	1,469.4	4.00	-4.00	0.00	
3,533.8	18.73	357.90	3,113.0	1,479.6	-54.3	1,480.6	4.00	-4.00	0.00	
Kirtland										
3,583.2	16.76	357.90	3,160.0	1,494.6	-54.8	1,495.6	4.00	-4.00	0.00	
Stage Tool										
3,600.0	16.09	357.90	3,176.1	1,499.4	-55.0	1,500.4	4.00	-4.00	0.00	
3,631.0	14.85	357.90	3,206.0	1,507.6	-55.3	1,508.7	4.00	-4.00	0.00	
Fruitland										
3,700.0	12.09	357.90	3,273.1	1,523.7	-55.9	1,524.7	4.00	-4.00	0.00	
3,800.0	8.09	357.90	3,371.5	1,541.2	-56.6	1,542.2	4.00	-4.00	0.00	

ConocoPhillips or its affiliates

Planning Report

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

Local Co-ordinate Reference: Well SJ 30-5 #8M
 TVD Reference: RKB @ 6829.0ft (H&P RIGS)
 MD Reference: RKB @ 6829.0ft (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	4.09	357.90	3,470.9	1,551.8	-56.9	1,552.8	4.00	-4.00	0.00
4,002.1	0.00	0.00	3,573.0	1,555.4	-57.1	1,556.5	4.00	-4.00	0.00
SJ 30-5 #8M - VACP									
4,100.0	0.00	0.00	3,670.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
4,200.0	0.00	0.00	3,770.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
4,202.1	0.00	0.00	3,773.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
Pictured Cliffs									
4,300.0	0.00	0.00	3,870.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
4,302.1	0.00	0.00	3,873.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
Lewis									
4,402.1	0.00	0.00	3,973.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
Int - SJ 30-5 #8M - ICP									
4,500.0	0.00	0.00	4,070.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
4,600.0	0.00	0.00	4,170.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
4,700.0	0.00	0.00	4,270.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
4,800.0	0.00	0.00	4,370.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
4,900.0	0.00	0.00	4,470.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
5,000.0	0.00	0.00	4,570.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
5,014.1	0.00	0.00	4,585.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
Huerfanto Bentonite									
5,100.0	0.00	0.00	4,670.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
5,200.0	0.00	0.00	4,770.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
5,300.0	0.00	0.00	4,870.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
5,386.1	0.00	0.00	4,957.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
Chacra									
5,400.0	0.00	0.00	4,970.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
5,500.0	0.00	0.00	5,070.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
5,600.0	0.00	0.00	5,170.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
5,700.0	0.00	0.00	5,270.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
5,800.0	0.00	0.00	5,370.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
5,900.0	0.00	0.00	5,470.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
5,936.1	0.00	0.00	5,507.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
Upper Cliffhouse									
6,000.0	0.00	0.00	5,570.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
6,100.0	0.00	0.00	5,670.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
6,200.0	0.00	0.00	5,770.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
6,218.1	0.00	0.00	5,789.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
Massive Cliffhouse									
6,272.1	0.00	0.00	5,843.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
Menefee									
6,300.0	0.00	0.00	5,870.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
6,400.0	0.00	0.00	5,970.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
6,455.1	0.00	0.00	6,026.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
Point Lookout									
6,500.0	0.00	0.00	6,070.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
6,600.0	0.00	0.00	6,170.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
6,700.0	0.00	0.00	6,270.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,370.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
6,900.0	0.00	0.00	6,470.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
6,902.1	0.00	0.00	6,473.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00
Mancos									
7,000.0	0.00	0.00	6,570.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00

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Planning Report

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

Local Co-ordinate Reference: Well SJ 30-5 #8M
TVD Reference: RKB @ 6829 0ft (H&P RIGS)
MD Reference: RKB @ 6829 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)	
7,100.0	0.00	0.00	6,670.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
7,200.0	0.00	0.00	6,770.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
7,300.0	0.00	0.00	6,870.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
7,400.0	0.00	0.00	6,970.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,070.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,170.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,270.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
7,766.1	0.00	0.00	7,337.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
Upper Gallup										
7,800.0	0.00	0.00	7,370.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,470.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,570.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
8,100.0	0.00	0.00	7,670.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
8,200.0	0.00	0.00	7,770.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
8,300.0	0.00	0.00	7,870.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
8,400.0	0.00	0.00	7,970.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
8,484.1	0.00	0.00	8,055.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
Greenhorn										
8,500.0	0.00	0.00	8,070.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
8,531.1	0.00	0.00	8,102.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
Graneros										
8,600.0	0.00	0.00	8,170.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
8,644.1	0.00	0.00	8,215.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
Two Wells										
8,652.1	0.00	0.00	8,223.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
Paguate										
8,660.1	0.00	0.00	8,231.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
Upper Cubero										
8,700.0	0.00	0.00	8,270.9	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
8,706.1	0.00	0.00	8,277.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
Lower Cubero										
8,777.1	0.00	0.00	8,348.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
Encinal										
8,778.1	0.00	0.00	8,349.0	1,555.4	-57.1	1,556.5	0.00	0.00	0.00	
Total Depth - Prod - SJ 30-5 #8M - 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 30-5 #8M - PCP	- plan hits target center - Circle (radius 100.0)	0.00	0.00	8,349.0	1,555.4	-57.1	2,122,675.31	650,366.32	36° 49' 56.809 N	107° 19' 10.323 W
SJ 30-5 #8M - VACP	- plan hits target center - Circle (radius 100.0)	0.00	0.00	3,573.0	1,555.4	-57.1	2,122,675.31	650,366.32	36° 49' 56.809 N	107° 19' 10.323 W
SJ 30-5 #8M - ICP	- plan hits target center - Circle (radius 100.0)	0.00	0.00	3,973.0	1,555.4	-57.1	2,122,675.31	650,366.32	36° 49' 56.809 N	107° 19' 10.323 W

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 #8M
Wellbore: Principal Wellbore
Design: Plan #1

Local Co-ordinate Reference: Well SJ 30-5 #8M
TVD Reference: RKB @ 6829.0ft (H&P RIGS)
MD Reference: RKB @ 6829.0ft (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
4,402.1	3,973.0	Int	7	8-3/4
8,778.1	8,349.0	Prod	4-1/2	6-1/4
6,218.1	5,789.0	Massive Cliffhouse	0.00	
6,902.1	6,473.0	Mancos	0.00	
3,302.7	2,901.0	Ojo Alamo	0.00	
5,386.1	4,957.0	Chacra	0.00	
8,777.1	8,348.0	Encinal	0.00	
8,778.1	8,349.0	Total Depth	0.00	
6,455.1	6,026.0	Point Lookout	0.00	
3,631.0	3,206.0	Fruitland	0.00	
3,583.2	3,160.0	Stage Tool	0.00	
8,644.1	8,215.0	Two Wells	0.00	
8,531.1	8,102.0	Graneros	0.00	
3,533.8	3,113.0	Kirtland	0.00	
8,706.1	8,277.0	Lower Cubero	0.00	
5,936.1	5,507.0	Upper Cliffhouse	0.00	
5,014.1	4,585.0	Huerfano Bentonite	0.00	
4,302.1	3,873.0	Lewis	0.00	
6,272.1	5,843.0	Menefee	0.00	
4,202.1	3,773.0	Pictured Cliffs	0.00	
8,484.1	8,055.0	Greenhorn	0.00	
1,780.8	1,655.0	Nacimiento	0.00	
8,652.1	8,223.0	Paguate	0.00	
7,766.1	7,337.0	Upper Gallup	0.00	
8,660.1	8,231.0	Upper Cubero	0.00	

REFERENCE INFORMATION

RKB @ 6829.0ft (H&P RIGS)
Ground Elevation 6813.0
Reference Lat: 36° 49' 41.429 N
Reference Long: 107° 19' 9.621 W

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

ConocoPhillips

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	1502.6	35.48	357.90	1428.5	354.4	-13.0	3.00	357.90	354.6	
4	3115.2	35.48	357.90	2741.6	1289.7	-47.3	0.00	0.00	1290.5	
5	4002.1	0.00	0.00	3573.0	1555.4	-57.1	4.00	180.00	1556.5	SJ 30-5 #8M - VACP
6	4402.1	0.00	0.00	3973.0	1555.4	-57.1	0.00	0.00	1556.5	SJ 30-5 #8M - ICP
7	8778.1	0.00	0.00	8349.0	1555.4	-57.1	0.00	0.00	1556.5	SJ 30-5 #8M - PCP

FORMATION TOP DETAILS

VDPPath	MDPath	Formation
1655.0	1780.8	Nacimiento
2901.0	3302.7	Ojo Alamo
3113.0	3533.8	Kirtland
3160.0	3583.2	Stage Tool
3206.0	3631.0	Fruitland
3773.0	4202.1	Pictured Cliffs
3873.0	4302.1	Lewis
4585.0	5014.1	Huerfano Bentonite
4957.0	5386.1	Chacra
5507.0	5936.1	Upper Cliffhouse
5789.0	6218.1	Massive Cliffhouse
5843.0	6272.1	Menefee
6026.0	6455.1	Point Lookout
6473.0	6902.1	Mancos
7337.0	7766.1	Upper Gallup
8055.0	8484.1	Greenhorn
8102.0	8531.1	Graneros
8215.0	8644.1	Two Wells
8223.0	8652.1	Paguate
8231.0	8660.1	Upper Cubero
8277.0	8706.1	Lower Cubero
8348.0	8777.1	Encinal
8349.0	8778.1	Total Depth

