

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SEP 19 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 SF-078640 Unit Reporting Number NM 181130
1b. Type of Well GAS		6. If Indian, All. or Tribe
2. Operator ConocoPhillips	Company	7. Unit Agreement Name 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 JAN 9 '13 OIL CONS. DIV.
4. Location of Well Surface: Unit P(SE/SE), 842' FSL & 1205' FEL BHL : Unit O(SW/SE), 1340' FSL & 2050' FEL Surface: Latitude: 36.5679460° N (NAD83) Longitude: 107.5935382° W BHL: Latitude: 36.5693180° N (NAD83) Longitude: 107.5963800° W	10. Field, Pool, Wildcat BASIN DAKOTA 11. Sec., Twn, Rge, Mer. (NMPM) Surf: Sec. 17, T27N, R7W BHL : Sec. 17, T27N, R7W API # 30-039-31145	DIST. 3
14. Distance in Miles from Nearest Town 21 Miles from Blanco	12. County San Juan Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 842'		
16. Acres in Lease 2,560.000	17. Acres Assigned to Well 320.0 (E/2)	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 52' from San Juan 28-7 Unit 154E (MV / DK)		
19. Proposed Depth 7542'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6597' 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.)		9/19/12 Date

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY [Signature] TITLE AFM DATE 1/4/13

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

This action is subject to technical and procedural review pursuant to 43 CFR 3160.8 and appeal pursuant to 43 CFR 3165.4

for Directional Survey
and "As Drilled" plat
NMOCD
JAN 11 2013 ca

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

Hold C104
for Directional Survey
and "As Drilled" plat

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

RECEIVED

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 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, N.M. 87505

Alamogordo Field Office
Bureau of Land Management

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31145	² Pool Code 71599	³ Pool Name BASIN DAKOTA
⁴ Property Code 31739	⁵ Property Name SAN JUAN 28-7 UNIT	
⁷ GRID No. 217817	⁶ Operator Name CONOCOPHILLIPS COMPANY	⁸ Well Number 154F
		⁹ Elevation 6597

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
P	17	27 N	7 W		842	SOUTH	1205	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
O	17	27 N	7 W		1340	SOUTH	2050	EAST	RIO ARriba

¹² Dedicated Acres 320.0 (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

LEGEND:
 ○ = SURFACE LOCATION
 ● = BOTTOM HOLE LOCATION
 ⊙ = FOUND 1955 B.L.M. BRASS CAP
 ⊗ = POSITION DERIVED FROM WC

G.N.=GRID NORTH
T.N.=TRUE NORTH
CONVERGENCE AT SURFACE LOCATION

USA-NM 03521 SECTION 17 USA SF-078640

BEARINGS & DISTANCES SHOWN ARE REFERENCED TO THE NEW MEXICO COORDINATE SYSTEM, WEST ZONE, NAD 83, UNLESS OTHERWISE NOTED.

SURFACE
 LAT: 36.5679460° N
 LONG: 107.5935382° W
 NAD 83
 LAT: 36°34.07623' N
 LONG: 107°35.57580' W
 NAD 27

BOTTOM HOLE LOCATION
 LAT: 36.5693180° N
 LONG: 107.5963800° W
 NAD 83
 LAT: 36°34.15855' N
 LONG: 107°35.74631' W
 NAD 27

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.

Signature: *Marie E. Jaramillo* Date: *6/21/12*
 Printed Name: **Marie E. Jaramillo**
 E-mail Address: **marie.e.jaramillo@conocophillips.com**

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: **05/09/12**
 Signature and Seal: *Marshall W. Lindeen*
 Certificate Number: **17078**

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 154F

DEVELOPMENT

Lease:		AFE #: WAN.CDR.1103				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)						
Location: Surface: Datum Code: NAD 27 Directional							
Latitude: 36.567937	Longitude: -107.592930	X:	Y:	Section: 17		Range: 007W	
Footage X: 1205 FEL		Footage Y: 842 FSL		Elevation: 6597 (FT)	Township: 027N		
Tolerance:							
Location: Bottom Hole: Datum Code: NAD 27 Directional							
Latitude: 36.569309	Longitude: -107.595772	X:	Y:	Section: 17		Range: 007W	
Footage X: 2050 FEL		Footage Y: 1340 FSL		Elevation: (FT)	Township: 027N		
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2012		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6612 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SAN JOSE	15	6597		☐			Lost 340 bbls in San Juan 27-8 B 5.
Surface Casing	320	6292		☐		48	12-1/4 hole. 320' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 170 cuft. Circulate cement to surface.
NACIMIENTO	651	5961		☐			
OJO ALAMO	2210	4402		☐			
KIRTLAND	2333	4279		☐			
FRUITLAND	2612	4000		☐			Possible Gas
PICTURED CLIFFS	3035	3577		☐	417		
LEWIS	3160	3452		☐		108	
HUERFANITO BENTONITE	3388	3224		☐			
CHACRA	3963	2649		☐			
UPPER CLIFF HOUSE	4485	2127		☐			
MASSIVE CLIFF HOUSE	4685	1927		☐	251		Gas
MENEFEE	4707	1905		☐			
Intermediate Casing	4856	1756		☐		139	8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 1094 cuft. Circulate cement to surface.
POINT LOOKOUT	5309	1303		☐			Gas
MANCOS	5656	956		☐			
UPPER GALLUP	6464	148		☐			
GREENHORN	7241	-629		☐			
GRANEROS	7304	-692		☐			
TWO WELLS	7337	-725		☐	2837	193	Gas
PAGUATE	7421	-809		☐			Gas

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 154F

DEVELOPMENT

UPPER CUBERO	7455	-843	☐	Gas
LOWER CUBERO	7478	-866	☐	Gas
ENCINAL	7542	-930	☐	TD ~ T/Encinal. Est bottom perf 7527'
Total Depth	7542	-930	☐	197 6-1/4" hole, 4-1/2" 11.6 ppf, L-80 LTC/BTC casing. Cement w/ 360 cuft. Circulate cement a minimum of 100' inside the previous casing string.
BURRO CANYON	7595	-983	☐	
MORRISON	7620	-1008	☐	

Reference Wells:

Reference Type	Well Name	Comments
Production	SAN JUAN 28-7 NP 185	

Logging Program:

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

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

GR/CBL

Mudlog ~100' above GLLP down to TD.

Mudlogger will call TD.

Est bot perf ~15' 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 27-4 #154F
Company:	ConocoPhillips SJBU	TVD Reference:	WELL @ 6612.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6612.0usft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 27-4 #154F	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:	Lat/Long	Northing:	2,048,839.82 usft
From:		Easting:	114,875.15 usft
Position Uncertainty:	15.0 usft	Slot Radius:	13-3/16"
		Latitude:	36° 37' 24.629 N
		Longitude:	109° 8' 44.556 W
		Grid Convergence:	-0.78 °

Well	SJ 27-4 #154F		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	36° 34' 4.574 N
		Longitude:	107° 35' 34.548 W
		Ground Level:	6,597.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	BGGM2012	8/20/2012	9.66
			Dip-Angle
			63.31
			Field Strength
			50,498

Design	Design #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			300.76

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	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,044.6	24.89	300.76	2,005.8	136.1	-228.7	2.00	2.00	0.00	300.76	
3,301.7	24.89	300.76	3,146.1	406.7	-683.4	0.00	0.00	0.00	0.00	
4,131.4	0.00	0.00	3,950.0	497.4	-835.9	3.00	-3.00	0.00	180.00	SJ 28-7 #154F VERTI
5,037.4	0.00	0.00	4,856.0	497.4	-835.9	0.00	0.00	0.00	0.00	SJ 28-7 #154F ICP
7,753.4	0.00	0.00	7,572.0	497.4	-835.9	0.00	0.00	0.00	0.00	SJ 28-7 #154F PCP

ConocoPhillips

Planning Report

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Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 27-4 #154F	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	
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	
651.0	0.00	0.00	651.0	0.0	0.0	0.0	0.00	0.00	0.00	
NACIEMENTO										
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	2.00	300.76	900.0	0.9	-1.5	1.7	2.00	2.00	0.00	
1,000.0	4.00	300.76	999.8	3.6	-6.0	7.0	2.00	2.00	0.00	
1,100.0	6.00	300.76	1,099.5	8.0	-13.5	15.7	2.00	2.00	0.00	
1,200.0	8.00	300.76	1,198.7	14.3	-24.0	27.9	2.00	2.00	0.00	
1,300.0	10.00	300.76	1,297.5	22.3	-37.4	43.5	2.00	2.00	0.00	
1,400.0	12.00	300.76	1,395.6	32.0	-53.8	62.6	2.00	2.00	0.00	
1,500.0	14.00	300.76	1,493.1	43.5	-73.1	85.1	2.00	2.00	0.00	
1,600.0	16.00	300.76	1,589.6	56.8	-95.4	111.0	2.00	2.00	0.00	
1,700.0	18.00	300.76	1,685.3	71.7	-120.5	140.2	2.00	2.00	0.00	
1,800.0	20.00	300.76	1,779.8	88.4	-148.5	172.8	2.00	2.00	0.00	
1,900.0	22.00	300.76	1,873.2	106.7	-179.3	208.6	2.00	2.00	0.00	
2,000.0	24.00	300.76	1,965.2	126.7	-212.8	247.7	2.00	2.00	0.00	
2,044.6	24.89	300.76	2,005.8	136.1	-228.7	266.1	2.00	2.00	0.00	
2,100.0	24.89	300.76	2,056.1	148.0	-248.7	289.4	0.00	0.00	0.00	
2,200.0	24.89	300.76	2,146.8	169.5	-284.9	331.5	0.00	0.00	0.00	
2,269.7	24.89	300.76	2,210.0	184.5	-310.1	360.9	0.00	0.00	0.00	
OJO ALAMO										
2,300.0	24.89	300.76	2,237.5	191.1	-321.1	373.6	0.00	0.00	0.00	
2,400.0	24.89	300.76	2,328.2	212.6	-357.2	415.7	0.00	0.00	0.00	
2,405.3	24.89	300.76	2,333.0	213.7	-359.2	418.0	0.00	0.00	0.00	
KIRTLAND										
2,500.0	24.89	300.76	2,418.9	234.1	-393.4	457.8	0.00	0.00	0.00	
2,600.0	24.89	300.76	2,509.6	255.6	-429.6	499.9	0.00	0.00	0.00	
2,700.0	24.89	300.76	2,600.3	277.2	-465.8	542.0	0.00	0.00	0.00	
2,712.9	24.89	300.76	2,612.0	279.9	-470.4	547.4	0.00	0.00	0.00	
FRUITLAND										
2,800.0	24.89	300.76	2,691.0	298.7	-501.9	584.1	0.00	0.00	0.00	
2,900.0	24.89	300.76	2,781.8	320.2	-538.1	626.2	0.00	0.00	0.00	
3,000.0	24.89	300.76	2,872.5	341.7	-574.3	668.3	0.00	0.00	0.00	
3,100.0	24.89	300.76	2,963.2	363.3	-610.4	710.4	0.00	0.00	0.00	
3,179.2	24.89	300.76	3,035.0	380.3	-639.1	743.7	0.00	0.00	0.00	
PICTURED CLIFFS										
3,200.0	24.89	300.76	3,053.9	384.8	-646.6	752.5	0.00	0.00	0.00	
3,300.0	24.89	300.76	3,144.6	406.3	-682.8	794.5	0.00	0.00	0.00	
3,301.7	24.89	300.76	3,146.1	406.7	-683.4	795.3	0.00	0.00	0.00	
3,317.0	24.43	300.76	3,160.0	409.9	-688.9	801.6	3.00	-3.00	0.00	
LEWIS										
3,400.0	21.94	300.76	3,236.3	426.7	-717.0	834.3	3.00	-3.00	0.00	
3,500.0	18.94	300.76	3,330.0	444.5	-747.0	869.2	3.00	-3.00	0.00	
3,561.0	17.11	300.76	3,388.0	454.2	-763.2	888.1	3.00	-3.00	0.00	
HUEFANITO BENTONITE										
3,600.0	15.94	300.76	3,425.4	459.9	-772.7	899.2	3.00	-3.00	0.00	

ConocoPhillips

Planning Report

28-7

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 27-4 #154F
Company:	ConocoPhillips SJBU	TVD Reference:	WELL @ 6612.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6612.0usft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 27-4 #154F	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)	
3,700.0	12.94	300.76	3,522.2	472.6	-794.2	924.2	3.00	-3.00	0.00	
3,800.0	9.94	300.76	3,620.2	482.8	-811.2	944.0	3.00	-3.00	0.00	
3,900.0	6.94	300.76	3,719.1	490.3	-823.8	958.7	3.00	-3.00	0.00	
4,000.0	3.94	300.76	3,818.7	495.1	-832.0	968.2	3.00	-3.00	0.00	
4,100.0	0.94	300.76	3,918.6	497.3	-835.6	972.4	3.00	-3.00	0.00	
4,131.4	0.00	0.00	3,950.0	497.4	-835.9	972.7	3.00	-3.00	0.00	
4,144.4	0.00	0.00	3,963.0	497.4	-835.9	972.7	0.00	0.00	0.00	
CHACRA										
4,200.0	0.00	0.00	4,018.6	497.4	-835.9	972.7	0.00	0.00	0.00	
4,300.0	0.00	0.00	4,118.6	497.4	-835.9	972.7	0.00	0.00	0.00	
4,400.0	0.00	0.00	4,218.6	497.4	-835.9	972.7	0.00	0.00	0.00	
4,500.0	0.00	0.00	4,318.6	497.4	-835.9	972.7	0.00	0.00	0.00	
4,600.0	0.00	0.00	4,418.6	497.4	-835.9	972.7	0.00	0.00	0.00	
4,666.4	0.00	0.00	4,485.0	497.4	-835.9	972.7	0.00	0.00	0.00	
UPPER CLIFF HOUSE										
4,700.0	0.00	0.00	4,518.6	497.4	-835.9	972.7	0.00	0.00	0.00	
4,800.0	0.00	0.00	4,618.6	497.4	-835.9	972.7	0.00	0.00	0.00	
4,888.4	0.00	0.00	4,707.0	497.4	-835.9	972.7	0.00	0.00	0.00	
MASSIVE CLIFF HOUSE										
4,900.0	0.00	0.00	4,718.6	497.4	-835.9	972.7	0.00	0.00	0.00	
5,000.0	0.00	0.00	4,818.6	497.4	-835.9	972.7	0.00	0.00	0.00	
5,037.4	0.00	0.00	4,856.0	497.4	-835.9	972.7	0.00	0.00	0.00	
5,100.0	0.00	0.00	4,918.6	497.4	-835.9	972.7	0.00	0.00	0.00	
5,200.0	0.00	0.00	5,018.6	497.4	-835.9	972.7	0.00	0.00	0.00	
5,300.0	0.00	0.00	5,118.6	497.4	-835.9	972.7	0.00	0.00	0.00	
5,400.0	0.00	0.00	5,218.6	497.4	-835.9	972.7	0.00	0.00	0.00	
5,490.4	0.00	0.00	5,309.0	497.4	-835.9	972.7	0.00	0.00	0.00	
POINT LOOKOUT										
5,500.0	0.00	0.00	5,318.6	497.4	-835.9	972.7	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,418.6	497.4	-835.9	972.7	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,518.6	497.4	-835.9	972.7	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,618.6	497.4	-835.9	972.7	0.00	0.00	0.00	
5,837.4	0.00	0.00	5,656.0	497.4	-835.9	972.7	0.00	0.00	0.00	
MANCOS										
5,900.0	0.00	0.00	5,718.6	497.4	-835.9	972.7	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,818.6	497.4	-835.9	972.7	0.00	0.00	0.00	
6,100.0	0.00	0.00	5,918.6	497.4	-835.9	972.7	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,018.6	497.4	-835.9	972.7	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,118.6	497.4	-835.9	972.7	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,218.6	497.4	-835.9	972.7	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,318.6	497.4	-835.9	972.7	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,418.6	497.4	-835.9	972.7	0.00	0.00	0.00	
6,645.4	0.00	0.00	6,464.0	497.4	-835.9	972.7	0.00	0.00	0.00	
UPPER GALLUP										
6,700.0	0.00	0.00	6,518.6	497.4	-835.9	972.7	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,618.6	497.4	-835.9	972.7	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,718.6	497.4	-835.9	972.7	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,818.6	497.4	-835.9	972.7	0.00	0.00	0.00	
7,100.0	0.00	0.00	6,918.6	497.4	-835.9	972.7	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,018.6	497.4	-835.9	972.7	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,118.6	497.4	-835.9	972.7	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,218.6	497.4	-835.9	972.7	0.00	0.00	0.00	
7,422.4	0.00	0.00	7,241.0	497.4	-835.9	972.7	0.00	0.00	0.00	

ConocoPhillips

Planning Report

28-7

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #154F
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6612.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6612.0usft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 28-7 #154F	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)	
GREENHORN										
7,500.0	0.00	0.00	7,318.6	497.4	-835.9	972.7	0.00	0.00	0.00	
7,518.4	0.00	0.00	7,337.0	497.4	-835.9	972.7	0.00	0.00	0.00	
TWO WELLS										
7,600.0	0.00	0.00	7,418.6	497.4	-835.9	972.7	0.00	0.00	0.00	
7,602.4	0.00	0.00	7,421.0	497.4	-835.9	972.7	0.00	0.00	0.00	
PAGUATE										
7,636.4	0.00	0.00	7,455.0	497.4	-835.9	972.7	0.00	0.00	0.00	
UPPER CUBERO										
7,659.4	0.00	0.00	7,478.0	497.4	-835.9	972.7	0.00	0.00	0.00	
LOWER CUBERO										
7,700.0	0.00	0.00	7,518.6	497.4	-835.9	972.7	0.00	0.00	0.00	
7,723.4	0.00	0.00	7,542.0	497.4	-835.9	972.7	0.00	0.00	0.00	
ENCINAL										
7,753.4	0.00	0.00	7,572.0	497.4	-835.9	972.7	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 #154F VERTIC/	0.00	0.00	3,950.0	497.4	-835.9	2,026,564.17	569,760.89	36° 34' 9.513 N	107° 35' 44.779 W	
- plan hits target center										
- Point										
SJ 28-7 #154F ICP	0.00	0.00	4,856.0	497.4	-835.8	2,026,564.17	569,760.92	36° 34' 9.513 N	107° 35' 44.779 W	
- plan hits target center										
- Point										
SJ 28-7 #154F PCP	0.00	0.00	7,572.0	497.4	-835.9	2,026,564.17	569,760.89	36° 34' 9.513 N	107° 35' 44.779 W	
- plan hits target center										
- Point										

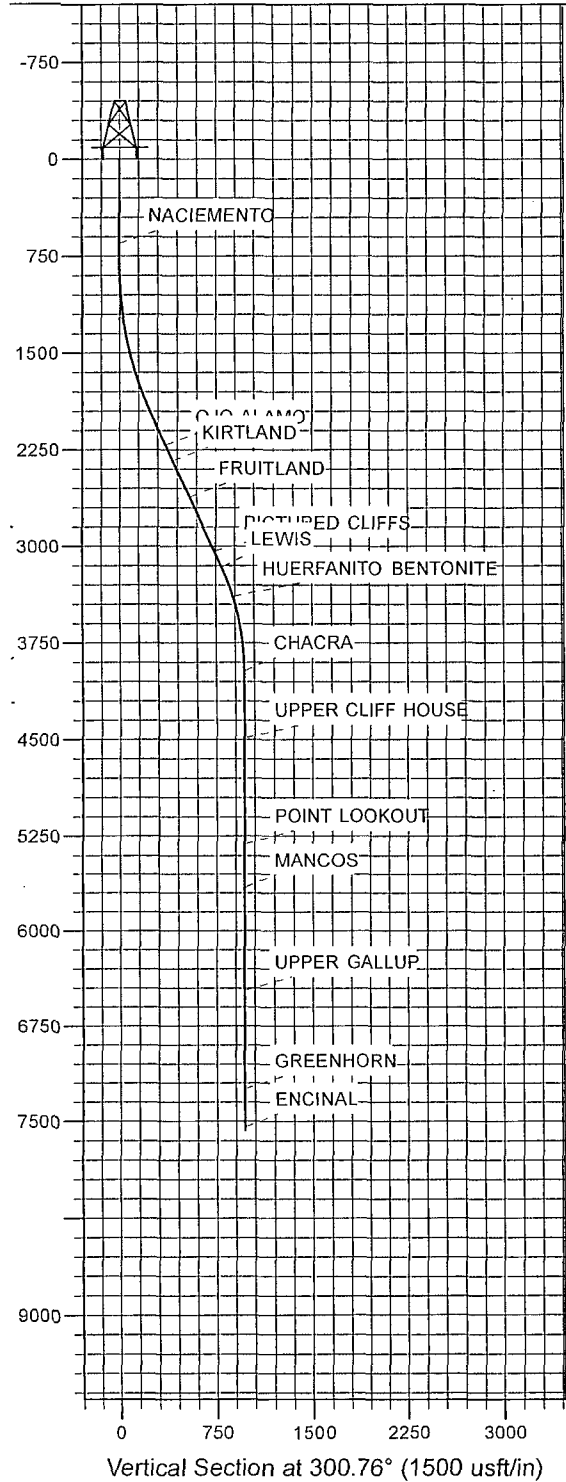
REFERENCE INFORMATION

LL @ 6612.0usft (Original Well Elev)
 round Elevation 6597.0
 Reference Lat: 36° 34' 4.574 N
 Reference Long: 107° 35' 34.548 W

Project: San Juan Basin - New Mexico West W
 Site: San Juan 28 Wells
 Well: SJ 27-4 #154F
 Wellbore: Wellbore #1
 Design: Design #1

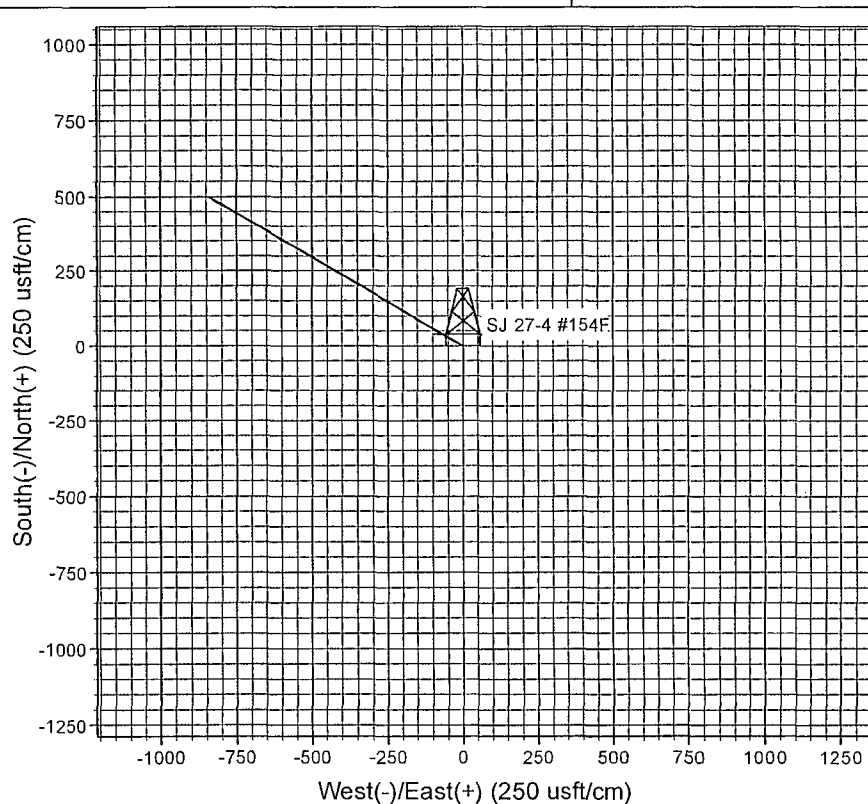
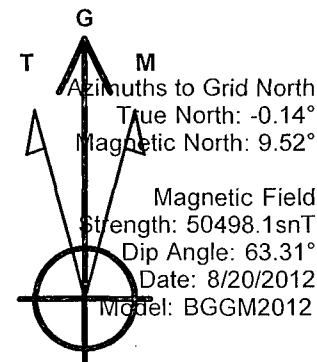
SECTION DETAILS

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	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	2044.6	24.89	300.76	2005.8	136.1	-228.7	2.00	300.76	266.1	
4	3301.7	24.89	300.76	3146.1	406.7	-683.4	0.00	0.00	795.3	
5	4131.4	0.00	0.00	3950.0	497.4	-835.9	3.00	180.00	972.7	SJ 28-7 #154F VERTICAL POINT
6	5037.4	0.00	0.00	4856.0	497.4	-835.9	0.00	0.00	972.7	SJ 28-7 #154F ICP
7	7753.4	0.00	0.00	7572.0	497.4	-835.9	0.00	0.00	972.7	SJ 28-7 #154F PCP



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
651.0	651.0	NACIMIENTO
2210.0	2269.7	OJO ALAMO
2333.0	2405.3	KIRTLAND
2612.0	2712.9	FRUITLAND
3035.0	3179.2	PICTURED CLIFFS
3160.0	3317.0	LEWIS
3388.0	3561.0	HUERFANITO BENTONITE
3963.0	4144.4	CHACRA
4485.0	4666.4	UPPER CLIFF HOUSE
4707.0	4888.4	MASSIVE CLIFF HOUSE
5309.0	5490.4	POINT LOOKOUT
5656.0	5837.4	MANCOS
6464.0	6645.4	UPPER GALLUP
7241.0	7422.4	GREENHORN
7337.0	7518.4	TWO WELLS
7421.0	7602.4	PAGUATE
7455.0	7636.4	UPPER CUBERO
7478.0	7659.4	LOWER CUBERO
7542.0	7723.4	ENCINAL



CONOCOPHILLIPS COMPANY

SAN JUAN 28-7 UNIT 154F

842' FSL & 1205' FEL (SURFACE)

1340' FSL & 2050' FEL (BOTTOM HOLE LOCATION)

LATITUDE: 36.5679460° N

LONGITUDE: 107.5935382° W

NAD 83

SECTION 17, T-27-N, R-7-W, N.M.P.M.

RIO ARRIBA COUNTY, NEW MEXICO

FROM U.S. POST OFFICE, ZIP CODE 87412, IN BLANCO, NEW MEXICO.

TRAVEL EASTERLY ON U.S. HIGHWAY 64 FOR 1.3 MILES TO MILE POST 75.

TURN RIGHT ONTO C.R. 4450 (LARGO CANYON)

AND TRAVEL SOUTHEASTERLY 3.6 MILES.

TURN LEFT AT FORK IN ROAD AND CONTINUE SOUTHEASTERLY 2.4 MILES

TOWARD CUTTER DAM TURNOFF.

PASSING TURNOFF, CONTINUE SOUTHEASTERLY 3.3 MILES ON MAIN ROAD,

PASSING JASIS CANYON, TOWARDS CARRIZO CANYON

TO A MAJOR INTERSECTION SOUTHWEST OF JASIS MESA.

TURN RIGHT AND CROSS CARRIZO WASH AT "ROCK CROSSING" BY OLD BRIDGE

AND TRAVEL SOUTHERLY 0.2 MILE TO 3-WAY INTERSECTION.

TURN LEFT AND TRAVEL SOUTHEASTERLY 4.1 MILES

THROUGH CARRIZO CANYON ON MAIN ROAD.

TURN RIGHT TOWARD STOVE CANYON AND TRAVEL 3.8 MILES UP GOULD PASS.

TURN RIGHT, AT FORK IN ROAD AND TRAVEL SOUTHERLY 1.4 MILES.

TURN LEFT AT "Y" IN ROAD AND TRAVEL EASTERLY 1.2 MILES ON C.R. 500.

TURN LEFT AND TRAVEL NORTHERLY ON ACCESS TO EXISTING

SAN JUAN 28-7 UNIT 154E WELL LOCATION AND

PROPOSED SAN JUAN 28-7 UNIT 154F WELL LOCATION.