

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

MAR 01 2013

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		5. Lease Serial No. SF-078498
2. Name of Operator ConocoPhillips Company		6. If Indian, Allottee or Tribe Name
3a. Address PO Box 4289, Farmington, NM 87499	3b. Phone No. (include area code) (505) 326-9700	7. If Unit of CA/Agreement, Name and/or No. San Juan 28-7 Unit
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Surface Unit L (NWSW), 1491' FSL & 1158' FWL, Sec. 28, T28N, R7W Unit K (NESW), 1590' FSL & 2330' FWL, Sec. 28, T28N, R7W		8. Well Name and No. San Juan 28-7 Unit #193N
		9. API Well No. 30-039- 31186
		10. Field and Pool or Exploratory Area Basin Dakota
		11. Country or Parish, State Rio Arriba, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other <u>Change</u>
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	TD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

ConocoPhillips needs to change the total depth on our previously APD submitted on 2/25/13. The corrected TD should be 7757'. Attached is the corrected project proposal and the directional drill plan.

RCVD MAY 6 '13
OIL CONS. DIV.
DIST. 3

Hold C104
for Directional Survey
and "As Drilled" plat

Hold C104
for Directional Survey
and "As Drilled" plat

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Patsy Clugston	Title Sr. Regulatory Specialist
Signature <i>Patsy Clugston</i>	Date 3/1/13

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by <i>[Signature]</i>	Title AFM	Date 5/2/13
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office FFO	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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 representations as to any matter within its jurisdiction.

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 193N

DEVELOPMENT

Lease:		AFE #: WAN.CDR.1184				AFE \$:	
Field Name: SAN JUAN		Rig:		State: NM	County: RIO ARRIBA		API #: 3003931186
Geologist:		Phone:		Geophysicist:		Phone:	
Geoscientist:		Phone:		Prod. Engineer:		Phone:	
Res. Engineer:		Phone:		Proj. Field Lead:		Phone:	
Primary Objective (Zones):							
Zone	Zone Name			RCVD MAY 9 '13 OIL CONS. DIV. DIST. 3			
FRR	BASIN DAKOTA (PRORATED GAS)						
Location: Surface Datum Code: NAD 27 Directional							
Latitude: 36.629120		Longitude: -107.583279		X:	Y:	Section: 28	Range: 007W
Footage X: 1158 FWL		Footage Y: 1491 FSL		Elevation: 6674 (FT)		Township: 028N	
Tolerance:							
Location: Bottom Hole Datum Code: NAD 27 Directional							
Latitude: 36.629393		Longitude: -107.579285		X:	Y:	Section: 28	Range: 007W
Footage X: 2330 FWL		Footage Y: 1590 FSL		Elevation: (FT)		Township: 028N	
Tolerance:							
Location Type: Year Round		Start Date (Est.): 1/1/2014		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6689 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SAN JOSE	15	6674		☐			Ground water 140' tvd in SJ 28-7 193F. lost circulation (400) in SJ 28-7 215F 27n7w4.
Surface Casing	200	6489		☐		46	12-1/4 hole. 200' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 94 cuft. Circulate cement to surface.
NACIMIENTO	942	5747		☐			
OJO ALAMO	2421	4268		☐			
KIRTLAND	2535	4154		☐			
FRUITLAND	2883	3806		☐			Possible Gas
PICTURED CLIFFS	3296	3393		☐	197	107	
LEWIS	3427	3262		☐			Lost circulation (200) in SJ 28-7 257F 28n7w19.
Intermediate Casing	3575	3114		☐			8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 795 cuft. Circulate cement to surface.
HUERFANITO BENTONITE	3838	2851		☐			
CHACRA	4223	2466		☐			
UPPER CLIFF HOUSE	4826	1863		☐			Gas
MASSIVE CLIFF HOUSE	4914	1775		☐	365	139	Gas
MENEFEE	5047	1642		☐			Gas
POINT LOOKOUT	5528	1161		☐			Gas
MANCOS	5916	773		☐			
UPPER GALLUP	6690	-1		☐			Quit dusting, pressure increase from 550 to 800 psi in SJ 28-7 190G
GREENHORN	7442	-753		☐			
GRANEROS	7500	-811		☐			
TWO WELLS	7543	-854		☐	2403	191	Gas - Est top DK perf 7553' tvd (~10' below T/TWLS).

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 193N

DEVELOPMENT

PAGUATE	7568	-879	☐	
UPPER CUBERO	7661	-972	☐	Gas
LOWER CUBERO	7681	-992	☐	Gas - Est bot DK perf 7737' tvd (~56' below T/CBRL).
ENCINAL	7740	-1051	☐	Gas - from the log, lower section could be wet. Wet in SJ 29-7 106 during compl.
Total Depth	7757	-1068	☐	195 6-1/4" hole, 4-1/2" 10.5/11.6 ppf, L-80, BTC/LTC casing. Cement w/ 663 cuft. Circulate cement a minimum of 100' inside the previous casing string.
BURRO CANYON	7787	-1098	☐	Look wet on the log.
MORRISON	7879	-1190	☐	198 Look wet on the log.

Reference Wells:

Reference Type	Well Name	Comments
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Logging Program:

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

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

GR/CBL.
Mud log ~100' above Gallup down to TD.
Mudlogger will call TD.
Est bot DK perf ~20' above TD.

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
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Comments: Location/Tops/Logging - DKNM028N007W28SW2 Not M - SJ 28-7 Unit 193, an inactive DK well, has made ~0.5 BCF from here. Try a BHL in N, then K and L. L might be crowding with others. Topo could be an issue.

Zones - DKNM028N007W28SW2

General/Work Description - 1/16/13 Economic in 2014. JH
11/11/11 - Economic as directional.--TLJ

ConocoPhillips SJB

San Juan Basin - New Mexico West Wells

San Juan 28 Wells

SJ 28-7 #193N

Wellbore #1

Plan: Design #1

Standard Planning Report

09 May, 2013

RCVD MAY 9 '13
OIL CONS. DIV.
DIST. 3

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #193N
Company:	ConocoPhillips SJBU	TVD Reference:	KB @ 6689.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	KB @ 6689.0usft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 28-7 #193N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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

Site	San Juan 28 Wells				
Site Position:		Northing:	2,030,915.03 usft	Latitude:	36° 34' 52.543 N
From:	Lat/Long	Easting:	569,619.07 usft	Longitude:	107° 35' 46.386 W
Position Uncertainty:	15.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.14 °

Well	SJ 28-7 #193N					
Well Position	+N/-S	0.0 usft	Northing:	2,048,347.14 usft	Latitude:	36° 37' 44.835 N
	+E/-W	0.0 usft	Easting:	573,372.64 usft	Longitude:	107° 34' 59.807 W
Position Uncertainty		2.0 usft	Wellhead Elevation:	usft	Ground Level:	6,674.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2012	2/18/2013	9.60	63.34	50,472

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	85.00

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	
310.0	0.00	0.00	310.0	0.0	0.0	0.00	0.00	0.00	0.00	
932.9	24.92	85.00	913.5	11.6	132.8	4.00	4.00	0.00	85.00	
3,091.9	24.92	85.00	2,871.5	90.9	1,038.9	0.00	0.00	0.00	0.00	
3,714.8	0.00	0.00	3,475.0	102.5	1,171.7	4.00	-4.00	0.00	180.00	
3,814.8	0.00	0.00	3,575.0	102.5	1,171.7	0.00	0.00	0.00	0.00	ICP
7,996.8	0.00	0.00	7,757.0	102.5	1,171.7	0.00	0.00	0.00	0.00	SJ 28-7 193N PCP

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #193N
Company:	ConocoPhillips SJBU	TVD Reference:	KB @ 6689.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	KB @ 6689.0usft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 28-7 #193N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
15.0	0.00	0.00	15.0	0.0	0.0	0.0	0.00	0.00	0.00
San Jose									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
310.0	0.00	0.00	310.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	3.60	85.00	399.9	0.2	2.8	2.8	4.00	4.00	0.00
500.0	7.60	85.00	499.4	1.1	12.5	12.6	4.00	4.00	0.00
600.0	11.60	85.00	598.0	2.6	29.1	29.3	4.00	4.00	0.00
700.0	15.60	85.00	695.2	4.6	52.6	52.8	4.00	4.00	0.00
800.0	19.60	85.00	790.5	7.2	82.7	83.0	4.00	4.00	0.00
900.0	23.60	85.00	883.5	10.4	119.3	119.8	4.00	4.00	0.00
932.9	24.92	85.00	913.5	11.6	132.8	133.3	4.00	4.00	0.00
964.4	24.92	85.00	942.0	12.8	146.0	146.6	0.00	0.00	0.00
Nacimiento									
1,000.0	24.92	85.00	974.3	14.1	161.0	161.6	0.00	0.00	0.00
1,100.0	24.92	85.00	1,065.0	17.8	202.9	203.7	0.00	0.00	0.00
1,200.0	24.92	85.00	1,155.7	21.4	244.9	245.8	0.00	0.00	0.00
1,300.0	24.92	85.00	1,246.4	25.1	286.9	288.0	0.00	0.00	0.00
1,400.0	24.92	85.00	1,337.1	28.8	328.8	330.1	0.00	0.00	0.00
1,500.0	24.92	85.00	1,427.8	32.5	370.8	372.2	0.00	0.00	0.00
1,600.0	24.92	85.00	1,518.5	36.1	412.8	414.4	0.00	0.00	0.00
1,700.0	24.92	85.00	1,609.2	39.8	454.8	456.5	0.00	0.00	0.00
1,800.0	24.92	85.00	1,699.8	43.5	496.7	498.6	0.00	0.00	0.00
1,900.0	24.92	85.00	1,790.5	47.1	538.7	540.7	0.00	0.00	0.00
2,000.0	24.92	85.00	1,881.2	50.8	580.7	582.9	0.00	0.00	0.00
2,100.0	24.92	85.00	1,971.9	54.5	622.6	625.0	0.00	0.00	0.00
2,200.0	24.92	85.00	2,062.6	58.2	664.6	667.1	0.00	0.00	0.00
2,300.0	24.92	85.00	2,153.3	61.8	706.6	709.3	0.00	0.00	0.00
2,400.0	24.92	85.00	2,244.0	65.5	748.5	751.4	0.00	0.00	0.00
2,500.0	24.92	85.00	2,334.7	69.2	790.5	793.5	0.00	0.00	0.00
2,595.2	24.92	85.00	2,421.0	72.7	830.4	833.6	0.00	0.00	0.00
Ojo Alamo									
2,600.0	24.92	85.00	2,425.4	72.9	832.5	835.6	0.00	0.00	0.00
2,700.0	24.92	85.00	2,516.1	76.5	874.4	877.8	0.00	0.00	0.00
2,720.9	24.92	85.00	2,535.0	77.3	883.2	886.6	0.00	0.00	0.00
Kirtland									
2,800.0	24.92	85.00	2,606.8	80.2	916.4	919.9	0.00	0.00	0.00
2,900.0	24.92	85.00	2,697.5	83.9	958.4	962.0	0.00	0.00	0.00
3,000.0	24.92	85.00	2,788.2	87.5	1,000.3	1,004.2	0.00	0.00	0.00
3,091.9	24.92	85.00	2,871.5	90.9	1,038.9	1,042.9	0.00	0.00	0.00
3,100.0	24.59	85.00	2,878.9	91.2	1,042.3	1,046.3	4.00	-4.00	0.00
3,104.5	24.41	85.00	2,883.0	91.4	1,044.2	1,048.2	4.00	-4.00	0.00
Fruitland									
3,200.0	20.59	85.00	2,971.2	94.6	1,080.6	1,084.7	4.00	-4.00	0.00
3,300.0	16.59	85.00	3,065.9	97.3	1,112.3	1,116.6	4.00	-4.00	0.00
3,400.0	12.59	85.00	3,162.7	99.5	1,137.4	1,141.8	4.00	-4.00	0.00
3,500.0	8.59	85.00	3,261.0	101.1	1,155.7	1,160.1	4.00	-4.00	0.00
3,535.4	7.18	85.00	3,296.0	101.6	1,160.6	1,165.0	4.00	-4.00	0.00
Pictured Cliffs									
3,600.0	4.59	85.00	3,360.3	102.1	1,167.2	1,171.6	4.00	-4.00	0.00
3,666.8	1.92	85.00	3,427.0	102.5	1,170.9	1,175.4	4.00	-4.00	0.00

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #193N
Company:	ConocoPhillips SJB	TVD Reference:	KB @ 6689.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	KB @ 6689.0usft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 28-7 #193N	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)
Lewis									
3,700.0	0.59	85.00	3,460.2	102.5	1,171.7	1,176.1	4.00	-4.00	0.00
3,714.8	0.00	0.00	3,475.0	102.5	1,171.7	1,176.2	4.00	-4.00	0.00
3,800.0	0.00	0.00	3,560.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
3,814.8	0.00	0.00	3,575.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00
3,900.0	0.00	0.00	3,660.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
4,000.0	0.00	0.00	3,760.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
4,077.8	0.00	0.00	3,838.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00
Huerfano Bentonite									
4,100.0	0.00	0.00	3,860.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
4,200.0	0.00	0.00	3,960.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
4,300.0	0.00	0.00	4,060.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
4,400.0	0.00	0.00	4,160.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
4,462.8	0.00	0.00	4,223.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00
Chacra									
4,500.0	0.00	0.00	4,260.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
4,600.0	0.00	0.00	4,360.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
4,700.0	0.00	0.00	4,460.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
4,800.0	0.00	0.00	4,560.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
4,900.0	0.00	0.00	4,660.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
5,000.0	0.00	0.00	4,760.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
5,065.8	0.00	0.00	4,826.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00
Upper Cliffhouse									
5,100.0	0.00	0.00	4,860.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
5,153.8	0.00	0.00	4,914.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00
Mass. Cliffhouse									
5,200.0	0.00	0.00	4,960.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
5,286.8	0.00	0.00	5,047.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00
Menefee									
5,300.0	0.00	0.00	5,060.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
5,400.0	0.00	0.00	5,160.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
5,500.0	0.00	0.00	5,260.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
5,600.0	0.00	0.00	5,360.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
5,700.0	0.00	0.00	5,460.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
5,767.8	0.00	0.00	5,528.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00
Pt. Lookout									
5,800.0	0.00	0.00	5,560.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
5,900.0	0.00	0.00	5,660.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
6,000.0	0.00	0.00	5,760.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
6,100.0	0.00	0.00	5,860.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
6,155.8	0.00	0.00	5,916.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00
Mancos Shale									
6,200.0	0.00	0.00	5,960.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
6,300.0	0.00	0.00	6,060.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
6,400.0	0.00	0.00	6,160.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
6,500.0	0.00	0.00	6,260.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
6,600.0	0.00	0.00	6,360.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
6,700.0	0.00	0.00	6,460.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
6,800.0	0.00	0.00	6,560.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
6,900.0	0.00	0.00	6,660.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00
6,929.8	0.00	0.00	6,690.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00
Gallup									

ConocoPhillips
Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #193N
Company:	ConocoPhillips SJB	TVD Reference:	KB @ 6689.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	KB @ 6689.0usft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	Grid
Well:	SJ 28-7 #193N	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)	
7,000.0	0.00	0.00	6,760.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
7,100.0	0.00	0.00	6,860.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
7,200.0	0.00	0.00	6,960.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,060.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,160.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,260.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,360.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
7,681.8	0.00	0.00	7,442.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
Greenhorn										
7,700.0	0.00	0.00	7,460.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
7,739.8	0.00	0.00	7,500.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
Graneros										
7,782.8	0.00	0.00	7,543.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
Two Wells										
7,800.0	0.00	0.00	7,560.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
7,807.8	0.00	0.00	7,568.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
Paguate										
7,900.0	0.00	0.00	7,660.2	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
7,900.8	0.00	0.00	7,661.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
Upper Cubero										
7,920.8	0.00	0.00	7,681.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
Lower Cubero										
7,979.8	0.00	0.00	7,740.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
Encinal										
7,996.8	0.00	0.00	7,757.0	102.5	1,171.7	1,176.2	0.00	0.00	0.00	
TD										

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 193N PCP	0.00	0.00	7,757.0	102.5	1,171.7	2,048,449.68	574,544.29	36° 37' 45.819 N	107° 34' 45.429 W
- plan hits target center									
- Point									
ICP	0.00	0.00	3,575.0	102.5	1,171.7	2,048,449.68	574,544.29	36° 37' 45.819 N	107° 34' 45.429 W
- plan hits target center									
- Point									

REFERENCE INFORMATION

KB @ 6689.0usft (Original Well Elev)
Ground Elevation 6674.0
Reference Lat: 36° 37' 44.835 N
Reference Long: 107° 34' 59.807 W

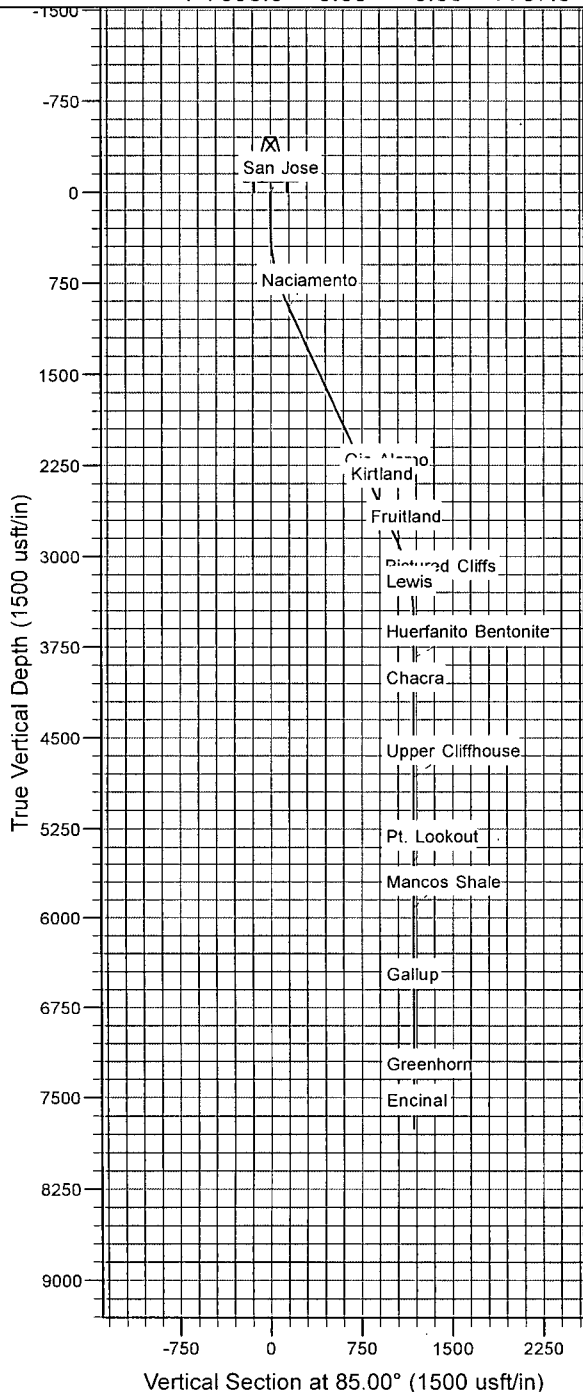
Project: San Juan Basin - New Mexico West W
Site: San Juan 28 Wells
Well: SJ 28-7 #193N
Wellbore: Wellbore #1
Design: Design #1



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	310.0	0.00	0.00	310.0	0.0	0.0	0.00	0.00	0.0	
3	932.9	24.92	85.00	913.5	11.6	132.8	4.00	85.00	133.3	
4	3091.9	24.92	85.00	2871.5	90.9	1038.9	0.00	0.00	1042.9	
5	3714.8	0.00	0.00	3475.0	102.5	1171.7	4.00	180.00	1176.2	
6	3814.8	0.00	0.00	3575.0	102.5	1171.7	0.00	0.00	1176.2	ICP
7	7996.8	0.00	0.00	7757.0	102.5	1171.7	0.00	0.00	1176.2	SJ 28-7 193N PCP

RCVD MAY 9 '13
OIL CONS. DIV.
DIST. 3



FORMATION TOP DETAILS

VDPPath MDPPath Formation

