

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BUREAU OF LAND MANAGEMENT

DEC 19 2012

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS	5. Lease Number NM-03521 Unit Reporting Number NMNM78413C	6. If Indian, All. or Tribe
1b. Type of Well GAS			
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	9. Well Number 185E
4. Location of Well Surface: Unit 0 (SW/SE), 221' FSL & 2279' FEL BHL : Unit C (NE/NW), 325' FNL & 2175' FWL Surface: Latitude: 36.5812705° N (NAD83) Longitude: 107.5938267° W BHL : Latitude: 36.5797752° N (NAD83) Longitude: 107.5997291° W		10. Field, Pool, Wildcat BASIN DAKOTA 11. Sec., Twn, Rge, Mer. (NMPM) Surf: Sec. 8, T27N, R7W BHL : Sec. 17, T27N, R7W API # 30-039-31168	RCVD APR 19 '13 OIL CONS. DIV. DIST. 3
14. Distance in Miles from Nearest Town 20 MILES/BLANCO		12. County SAN JUAN Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 221			
16. Acres in Lease 640.000		17. Acres Assigned to Well 320.00 ACRES (W/2)	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 1874'/SJ 28-7 #154 (P&A/DK)			
19. Proposed Depth 7866		20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6899' GL		22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached			
24. Authorized by: <u>Arleen White</u> Arleen White (Staff Regulatory Tech)		<u>12/18/12</u> Date	

Hold C104
for Directional Survey
and "As Drilled" plat

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY [Signature] TITLE AFM DATE 4/17/13

Archaeological Report attached A gas recovery unit may or may not be used on this location.
Threatened and Endangered Species Report attached

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

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

Example Master Plan Type 3

Bond Numbers NMB-000015 and NMB-000089

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

Hold C104
for Directional Survey
and "As Drilled" plat

NMOCD A

This action is subject to technical and
procedural review pursuant to 43 CFR 3160.3
and appeal pursuant to 43 CFR 3165.4

PC

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) 478-3460 Fax: (505) 478-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr. Farmington Field Office
Santa Fe, N.M. 87505 Bureau of Land Management

Form C-102

DEC 19 2012

Revised August 1, 2011

Submit one copy to appropriate

District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039- 31168	² Pool Code 71599	BASIN ³ Pool Name 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 185E
		⁹ Elevation 6899

¹⁰ Surface Location

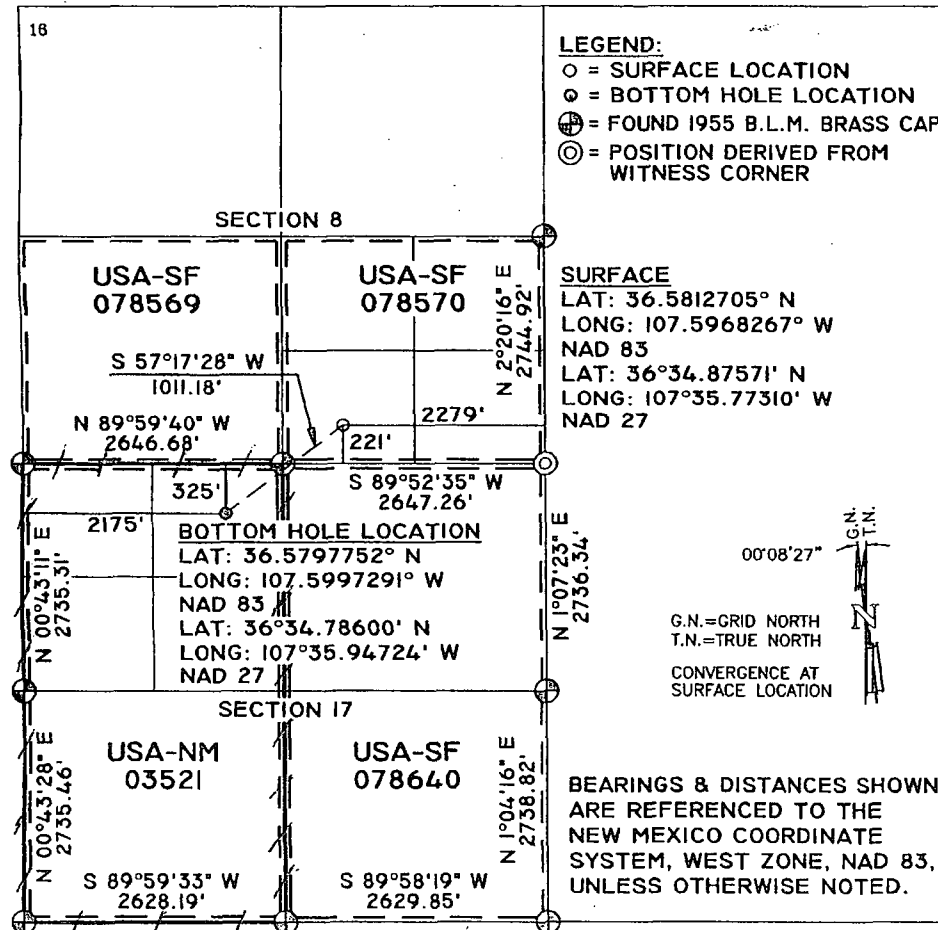
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	8	27 N	7 W		221	SOUTH	2279	EAST	RIO ARriba

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
C	17	27 N	7 W		325	NORTH	2175	WEST	RIO ARriba

¹² Dedicated Acres 320.0 (W/2) SEC. 17	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Arleen Kellywood 8/9/12
 Signature Date
 Arleen Kellywood
 Printed Name
 arleen.r.kellywood@conocophillips.com
 E-mail Address

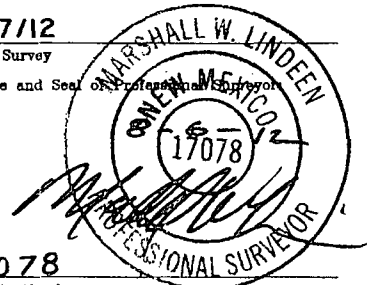
¹⁸ SURVEYOR CERTIFICATION

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

07/17/12

Date of Survey

Signature and Seal of Professional Surveyor



17078
 Certificate Number

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 185E

DEVELOPMENT

Lease:		AFE #: WAN.CDR.1101				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: 36.581262	Longitude: -107.596218	X:	Y:	Section: 08		Range: 007W	
Footage X: 2279 FEL	Footage Y: 221 FSL	Elevation: 6899	(FT)	Township: 027N			
Tolerance:							
Location: Bottom Hole Datum Code: NAD 27 Directional							
Latitude: 36.579767	Longitude: -107.599121	X:	Y:	Section: 17		Range: 007W	
Footage X: 2175 FWL	Footage Y: 325 FNL	Elevation:	(FT)	Township: 027N			
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2013		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6914 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	320	6594		☐			12-1/4 hole. 300' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 183 cuft. Circulate cement to surface.
NACIMIENTO	942	5972		☐			
OJO ALAMO	2532	4382		☐			
KIRTLAND	2645	4269		☐			
FRUITLAND	2955	3959		☐			Possible Gas
PICTURED CLIFFS	3404	3510		☐			
LEWIS	3506	3408		☐			
HUERFANITO BENTONITE	3681	3233		☐			
CHACRA	4317	2597		☐			
MASSIVE CLIFF HOUSE	5031	1883		☐	270		Gas; Cliffhouse is dry
MENEFEE	5060	1854		☐			
Intermediate Casing	5206	1708		☐			8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 1167 cuft. Circulate cement to surface.
POINT LOOKOUT	5634	1280		☐			
MANCOS	5989	925		☐			
UPPER GALLUP	6790	124		☐			
GREENHORN	7543	-629		☐			
GRANEROS	7605	-691		☐			
TWO WELLS	7654	-740		☐	2786		Gas
UPPER CUBERO	7770	-856		☐			
LOWER CUBERO	7792	-878		☐			

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 185E

DEVELOPMENT

Total Depth	7866	-952	☐	200	6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC/BTC casing. Cement w/ 353 cuft. Circulate cement a minimum of 100' inside the previous casing string.
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ENCINAL -	7866	-952	☐		TD - T/ENCN. 7851' - est bottom perf (15' above est TD).
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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

Mud log from ~100' above the Upper Gallup to TD. Mud loggers will call final TD.

Additional Information:

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

Planning Report

Database: EDM Central Planning	Local Co-ordinate Reference: Well SJ 28-7 #185E	
Company: ConocoPhillips SJB	TVD Reference: WELL @ 6914.0usft (Original Well Elev)	
Project: San Juan Basin - New Mexico West Wells	MD Reference: WELL @ 6914.0usft (Original Well Elev)	
Site: San Juan 28 Wells	North Reference: Grid	
Well: SJ 28-7 #185E	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 #185E		
Well Position	+N/-S 0.0 usft	Northing: 2,030,915.03 usft	Latitude: 36° 34' 52.543 N
	+E/-W 0.0 usft	Easting: 569,619.07 usft	Longitude: 107° 35' 46.386 W
Position Uncertainty	0.0 usft	Wellhead Elevation: usft	Ground Level: 6,899.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2012	8/21/2012	9.66	63.32	50,503

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	0.0 237.29

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	
1,888.6	21.77	237.29	1,862.6	-110.4	-172.0	2.00	2.00	0.00	237.29	
3,696.6	21.77	237.29	3,541.6	-472.8	-736.2	0.00	0.00	0.00	0.00	
4,422.3	0.00	0.00	4,250.0	-546.4	-850.9	3.00	-3.00	0.00	180.00	San Juan 28-7 #185E
5,378.3	0.00	0.00	5,206.0	-546.4	-850.9	0.00	0.00	0.00	0.00	San Juan 28-7 #185E
8,038.3	0.00	0.00	7,866.0	-546.4	-850.9	0.00	0.00	0.00	0.00	San Juan 28-7 #185E

ConocoPhillips

Planning Report

Database: EDM Central Planning
 Company: ConocoPhillips SJB
 Project: San Juan Basin - New Mexico West Wells
 Site: San Juan 28 Wells
 Well: SJ 28-7 #185E
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference: Well SJ 28-7 #185E
 TVD Reference: WELL @ 6914.0usft (Original Well Elev)
 MD Reference: WELL @ 6914.0usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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
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	237.29	900.0	-0.9	-1.5	1.7	2.00	2.00	0.00
942.1	2.84	237.29	942.0	-1.9	-3.0	3.5	2.00	2.00	0.00
NACIMIENTO									
1,000.0	4.00	237.29	999.8	-3.8	-5.9	7.0	2.00	2.00	0.00
1,100.0	6.00	237.29	1,099.5	-8.5	-13.2	15.7	2.00	2.00	0.00
1,200.0	8.00	237.29	1,198.7	-15.1	-23.5	27.9	2.00	2.00	0.00
1,300.0	10.00	237.29	1,297.5	-23.5	-36.6	43.5	2.00	2.00	0.00
1,400.0	12.00	237.29	1,395.6	-33.8	-52.7	62.6	2.00	2.00	0.00
1,500.0	14.00	237.29	1,493.1	-46.0	-71.6	85.1	2.00	2.00	0.00
1,600.0	16.00	237.29	1,589.6	-60.0	-93.4	111.0	2.00	2.00	0.00
1,700.0	18.00	237.29	1,685.3	-75.8	-118.0	140.2	2.00	2.00	0.00
1,800.0	20.00	237.29	1,779.8	-93.4	-145.4	172.8	2.00	2.00	0.00
1,888.6	21.77	237.29	1,862.6	-110.4	-172.0	204.4	2.00	2.00	0.00
1,900.0	21.77	237.29	1,873.2	-112.7	-175.5	208.6	0.00	0.00	0.00
2,000.0	21.77	237.29	1,966.0	-132.8	-206.7	245.7	0.00	0.00	0.00
2,100.0	21.77	237.29	2,058.9	-152.8	-237.9	282.8	0.00	0.00	0.00
2,200.0	21.77	237.29	2,151.8	-172.8	-269.1	319.9	0.00	0.00	0.00
2,300.0	21.77	237.29	2,244.6	-192.9	-300.3	356.9	0.00	0.00	0.00
2,400.0	21.77	237.29	2,337.5	-212.9	-331.6	394.0	0.00	0.00	0.00
2,500.0	21.77	237.29	2,430.4	-233.0	-362.8	431.1	0.00	0.00	0.00
2,600.0	21.77	237.29	2,523.2	-253.0	-394.0	468.2	0.00	0.00	0.00
2,609.4	21.77	237.29	2,532.0	-254.9	-396.9	471.7	0.00	0.00	0.00
OJO ALAMO									
2,700.0	21.77	237.29	2,616.1	-273.1	-425.2	505.3	0.00	0.00	0.00
2,731.1	21.77	237.29	2,645.0	-279.3	-434.9	516.9	0.00	0.00	0.00
KIRTLAND									
2,800.0	21.77	237.29	2,709.0	-293.1	-456.4	542.4	0.00	0.00	0.00
2,900.0	21.77	237.29	2,801.8	-313.1	-487.6	579.5	0.00	0.00	0.00
3,000.0	21.77	237.29	2,894.7	-333.2	-518.8	616.6	0.00	0.00	0.00
3,064.9	21.77	237.29	2,955.0	-346.2	-539.1	640.7	0.00	0.00	0.00
FRUITLAND									
3,100.0	21.77	237.29	2,987.6	-353.2	-550.0	653.7	0.00	0.00	0.00
3,200.0	21.77	237.29	3,080.4	-373.3	-581.2	690.8	0.00	0.00	0.00
3,300.0	21.77	237.29	3,173.3	-393.3	-612.5	727.9	0.00	0.00	0.00
3,400.0	21.77	237.29	3,266.2	-413.4	-643.7	765.0	0.00	0.00	0.00
3,500.0	21.77	237.29	3,359.0	-433.4	-674.9	802.1	0.00	0.00	0.00
3,548.4	21.77	237.29	3,404.0	-443.1	-690.0	820.0	0.00	0.00	0.00
PICTURED CLIFFS									
3,600.0	21.77	237.29	3,451.9	-453.4	-706.1	839.1	0.00	0.00	0.00
3,658.2	21.77	237.29	3,506.0	-465.1	-724.3	860.8	0.00	0.00	0.00
LEWIS									
3,696.6	21.77	237.29	3,541.6	-472.8	-736.2	875.0	0.00	0.00	0.00
3,700.0	21.67	237.29	3,544.8	-473.5	-737.3	876.2	3.00	-3.00	0.00
3,800.0	18.67	237.29	3,638.6	-492.1	-766.3	910.7	3.00	-3.00	0.00

ConocoPhillips

Planning Report

Database: EDM Central Planning
 Company: ConocoPhillips SJBU
 Project: San Juan Basin - New Mexico West Wells
 Site: San Juan 28 Wells
 Well: SJ 28-7 #185E
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference: Well SJ 28-7 #185E
 TVD Reference: WELL @ 6914.0usft (Original Well Elev)
 MD Reference: WELL @ 6914.0usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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)
3,844.5	17.33	237.29	3,681.0	-499.6	-777.9	924.5	3.00	-3.00	0.00
HUERFANITO BENTONITE									
3,900.0	15.67	237.29	3,734.2	-508.1	-791.1	940.2	3.00	-3.00	0.00
4,000.0	12.67	237.29	3,831.1	-521.3	-811.7	964.7	3.00	-3.00	0.00
4,100.0	9.67	237.29	3,929.2	-531.8	-828.0	984.1	3.00	-3.00	0.00
4,200.0	6.67	237.29	4,028.2	-539.4	-840.0	998.3	3.00	-3.00	0.00
4,300.0	3.67	237.29	4,127.8	-544.3	-847.6	1,007.3	3.00	-3.00	0.00
4,400.0	0.67	237.29	4,227.7	-546.4	-850.8	1,011.1	3.00	-3.00	0.00
4,422.3	0.00	0.00	4,250.0	-546.4	-850.9	1,011.2	3.00	-3.00	0.00
4,489.3	0.00	0.00	4,317.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
CHACRA									
4,500.0	0.00	0.00	4,327.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
4,600.0	0.00	0.00	4,427.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
4,700.0	0.00	0.00	4,527.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
4,800.0	0.00	0.00	4,627.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
4,900.0	0.00	0.00	4,727.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
5,000.0	0.00	0.00	4,827.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
5,100.0	0.00	0.00	4,927.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
5,200.0	0.00	0.00	5,027.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
5,203.3	0.00	0.00	5,031.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
MASSIVE CLIFF HOUSE									
5,232.3	0.00	0.00	5,060.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
MENEFE									
5,300.0	0.00	0.00	5,127.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
5,378.3	0.00	0.00	5,206.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
5,400.0	0.00	0.00	5,227.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
5,500.0	0.00	0.00	5,327.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
5,600.0	0.00	0.00	5,427.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
5,700.0	0.00	0.00	5,527.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
5,800.0	0.00	0.00	5,627.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
5,806.3	0.00	0.00	5,634.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
POINT LOOKOUT									
5,900.0	0.00	0.00	5,727.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
6,000.0	0.00	0.00	5,827.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
6,100.0	0.00	0.00	5,927.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
6,161.3	0.00	0.00	5,989.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
MANCOS									
6,200.0	0.00	0.00	6,027.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
6,300.0	0.00	0.00	6,127.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
6,400.0	0.00	0.00	6,227.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
6,500.0	0.00	0.00	6,327.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
6,600.0	0.00	0.00	6,427.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
6,700.0	0.00	0.00	6,527.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
6,800.0	0.00	0.00	6,627.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
6,900.0	0.00	0.00	6,727.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
6,962.3	0.00	0.00	6,790.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
UPPER GALLUP									
7,000.0	0.00	0.00	6,827.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
7,100.0	0.00	0.00	6,927.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
7,200.0	0.00	0.00	7,027.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
7,300.0	0.00	0.00	7,127.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
7,400.0	0.00	0.00	7,227.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
7,500.0	0.00	0.00	7,327.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database: EDM Central Planning
 Company: ConocoPhillips SJB
 Project: San Juan Basin - New Mexico West Wells
 Site: San Juan 28 Wells
 Well: SJ 28-7 #185E
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference: Well SJ 28-7 #185E
 TVD Reference: WELL @ 6914.0usft (Original Well Elev)
 MD Reference: WELL @ 6914.0usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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)
7,600.0	0.00	0.00	7,427.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
7,700.0	0.00	0.00	7,527.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
7,715.3	0.00	0.00	7,543.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
GREENHORN									
7,777.3	0.00	0.00	7,605.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
GRANEROS									
7,800.0	0.00	0.00	7,627.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
7,826.3	0.00	0.00	7,654.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
TWO WELLS									
7,900.0	0.00	0.00	7,727.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
7,942.3	0.00	0.00	7,770.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
UPPER CUBERO									
7,964.3	0.00	0.00	7,792.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
LOWER CUBERO									
8,000.0	0.00	0.00	7,827.7	-546.4	-850.9	1,011.2	0.00	0.00	0.00
8,038.3	0.00	0.00	7,866.0	-546.4	-850.9	1,011.2	0.00	0.00	0.00
ENCINAL									

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									
San Juan 28-7 #185E Pt	0.00	0.00	7,866.0	-546.4	-850.9	2,030,368.65	568,768.28	36° 34' 47.160 N	107° 35' 56.834 W
- plan hits target center									
- Point									
San Juan 28-7 #185E Vi	0.00	0.00	4,250.0	-546.4	-850.9	2,030,368.65	568,768.28	36° 34' 47.160 N	107° 35' 56.834 W
- plan hits target center									
- Point									
San Juan 28-7 #185E IC	0.00	0.00	5,206.0	-546.4	-850.9	2,030,368.65	568,768.25	36° 34' 47.160 N	107° 35' 56.834 W
- plan hits target center									
- Point									

ConocoPhillips

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: San Juan 28 Wells
Well: SJ 28-7 #185E
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well SJ 28-7 #185E
TVD Reference: WELL @ 6914.0usft (Original Well Elev)
MD Reference: WELL @ 6914.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,942.3	7,770.0	UPPER CUBERO		0.00		
5,806.3	5,634.0	POINT LOOKOUT		0.00		
3,064.9	2,955.0	FRUITLAND		0.00		
3,844.5	3,681.0	HUERFANITO BENTONITE		0.00		
5,203.3	5,031.0	MASSIVE CLIFF HOUSE		0.00		
5,232.3	5,060.0	MENEFEE		0.00		
942.1	942.0	NACIMIENTO		0.00		
2,731.1	2,645.0	KIRTLAND		0.00		
7,826.3	7,654.0	TWO WELLS		0.00		
3,658.2	3,506.0	LEWIS		0.00		
3,548.4	3,404.0	PICTURED CLIFFS		0.00		
7,715.3	7,543.0	GREENHORN		0.00		
7,777.3	7,605.0	GRANEROS		0.00		
2,609.4	2,532.0	OJO ALAMO		0.00		
7,964.3	7,792.0	LOWER CUBERO		0.00		
8,038.3	7,866.0	ENCINAL		0.00		
6,962.3	6,790.0	UPPER GALLUP		0.00		
4,489.3	4,317.0	CHACRA		0.00		
6,161.3	5,989.0	MANCOS		0.00		

REFERENCE INFORMATION

Project: San Juan Basin - New Mexico West V

WELL @ 6914.0usft (Original Well Elev)
Ground Elevation 6899.0
Reference Lat: 36° 34' 52.543 N
Reference Long: 107° 35' 46.386 W

Site: San Juan 28 Wells

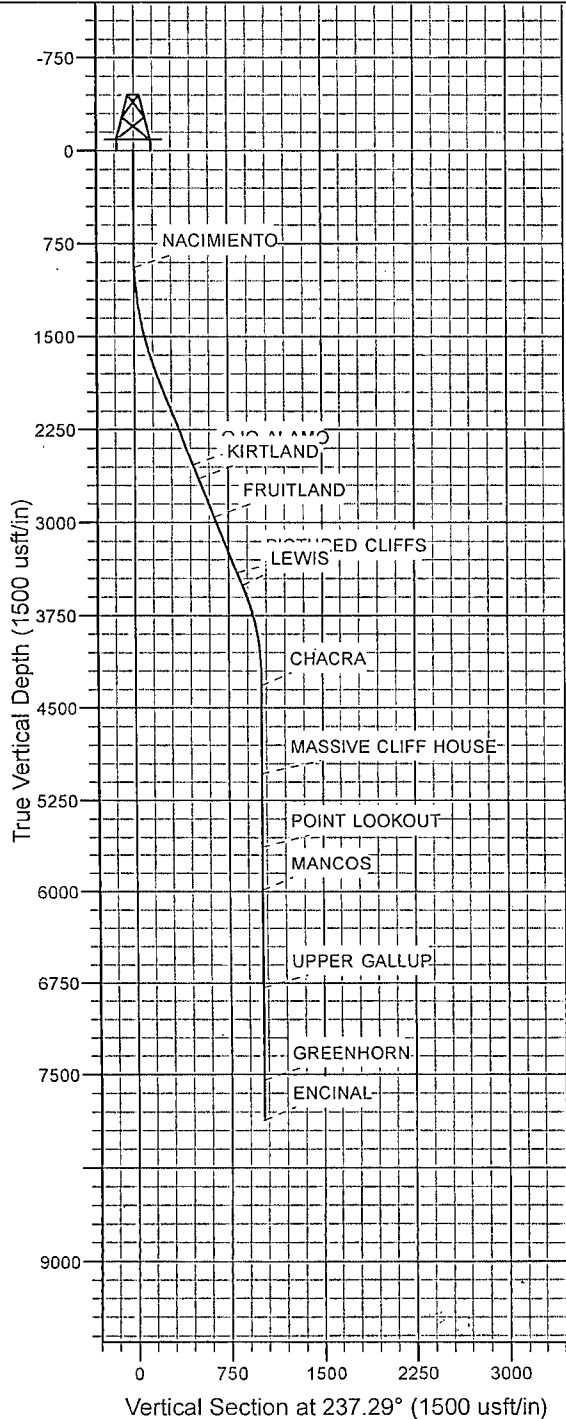
Well: SJ 28-7 #185E

Wellbore: Wellbore #1

Design: Design #1

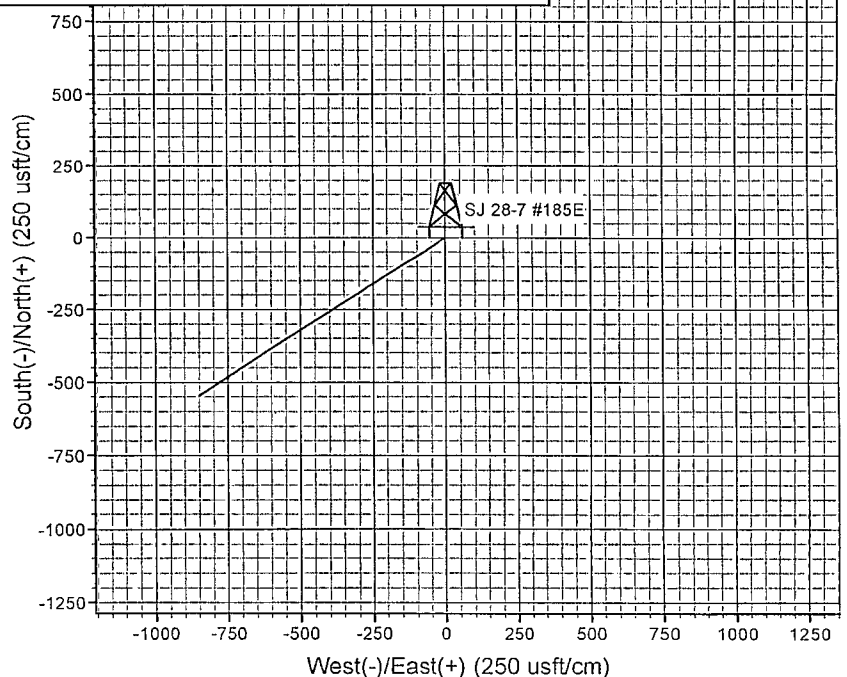
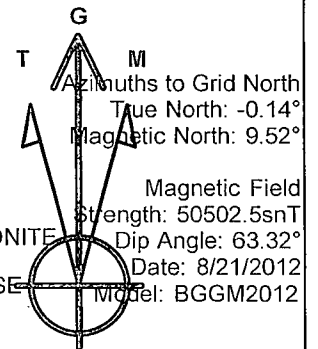
SECTION DETAILS

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	1888.6	21.77	237.29	1862.6	-110.4	-172.0	2.00	237.29	204.4	
4	3696.6	21.77	237.29	3541.6	-472.8	-736.2	0.00	0.00	875.0	
5	4422.3	0.00	0.00	4250.0	-546.4	-850.9	3.00	180.00	1011.2	San Juan 28-7 #185E Vertical Point
6	5378.3	0.00	0.00	5206.0	-546.4	-850.9	0.00	0.00	1011.2	San Juan 28-7 #185E ICP
7	8038.3	0.00	0.00	7866.0	-546.4	-850.9	0.00	0.00	1011.2	San Juan 28-7 #185E PCP



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
942.0	942.1	NACIMIENTO
2532.0	2609.4	OJO ALAMO
2645.0	2731.1	KIRTLAND
2955.0	3064.9	FRUITLAND
3404.0	3548.4	PICTURED CLIFFS
3506.0	3658.2	LEWIS
3681.0	3844.5	HUERFANITO BENTONITE
4317.0	4489.3	CHACRA
5031.0	5203.3	MASSIVE CLIFF HOUSE
5060.0	5232.3	MENEFEE
5634.0	5806.3	POINT LOOKOUT
5989.0	6161.3	MANCOS
6790.0	6962.3	UPPER GALLUP
7543.0	7715.3	GREENHORN
7605.0	7777.3	GRANEROS
7654.0	7826.3	TWO WELLS
7770.0	7942.3	UPPER CUBERO
7792.0	7964.3	LOWER CUBERO
7866.0	8038.3	ENCINAL



CONOCOPHILLIPS COMPANY
SAN JUAN 28-7 UNIT COM 185E
221' FSL & 2279' FEL (SURFACE) SECTION 8
325' FNL & 2175' FWL (BOTTOM HOLE) SECTION 17
T-27-N, R-7-W, N.M.P.M.
LATITUDE: 36.5812705° N
LONGITUDE: 107.5968267° W
NAD 83
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 4.5 MILES UP GOULD PASS.
TURN RIGHT AT FORK AND TRAVEL SOUTHERLY 0.2 MILE TO PROPOSED
SAN JUAN 28-7 UNIT 185E WELL LOCATION AND PROPOSED ACCESS ROAD.