

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

JUL 14 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-078995 Farmington Field Office Bureau of Land Management Unit Report Number NM NM-78421C FC
1b. Type of Well GAS			6. If Indian, All. or Tribe
2. Operator ConocoPhillips Company	7. Unit Agreement Name San Juan 31-6 Unit		
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name RCVD SEP 6'11 OIL CONS. DIV. DIST. 3		
4. Location of Well Surface: Unit F (SENW), 2620' FNL & 1380' FWL BHL : Unit E (SWNW), 1500' FNL & 760' FWL Surface: Latitude: 36.85606° N (NAD83) Longitude: 107.50856° W BHL : Latitude: 36.85913° N (NAD83) Longitude: 107.51069° W	10. Field, Pool, Wildcat Rosa PC / Basin FC 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 31, T31N, R6W API# 30-039 31079		
14. Distance in Miles from Nearest Town 24 miles to Gobernador	12. County San Juan Rio Arriba	13. State NM	
15. Distance from Proposed Location to Nearest Property or Lease Line 2620	17. Acres Assigned to Well 160.00 acres (NW/4) PC 320.00 acres (W/2) FC		
16. Acres in Lease 1920.00			
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 70' from SJ 31-6 Unit #50M (MV/DK)			
19. Proposed Depth 3446	20. Rotary or Cable Tools Rotary		
21. Elevations (DF, FT, GR, Etc.) 6224' GL	22. Approx. Date Work will Start		
23. Proposed Casing and Cementing Program See Operations Plan attached			
24. Authorized by: <u>Arleen Kellywood</u> Arleen Kellywood (Staff Regulatory Tech)	7/14/11 Date		

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

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 2

Bond Numbers ES-0048 and ES-0085

This action is subject to technical and procedural review pursuant to 43 CFR 3165.9 and appeal pursuant to 43 CFR 3165.4

for Directional Survey and "As Drilled" plat

SEP 20 2011

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

NOTIFY AZTEC OCD 24 HRS. for Directional Survey and "As Drilled" plat 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
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31078	² Pool Code 96175 - 71629	³ Pool Name ROSA PICTURED CLIFFS - BASIN FRUITLAND COAL
⁴ Property Code 31328	⁵ Property Name SAN JUAN 31-6 UNIT	⁶ Well Number 225A
⁷ GRID No. 217817	⁸ Operator Name CONOCOPHILLIPS COMPANY	⁹ Elevation 6224'

¹⁰ Surface Location

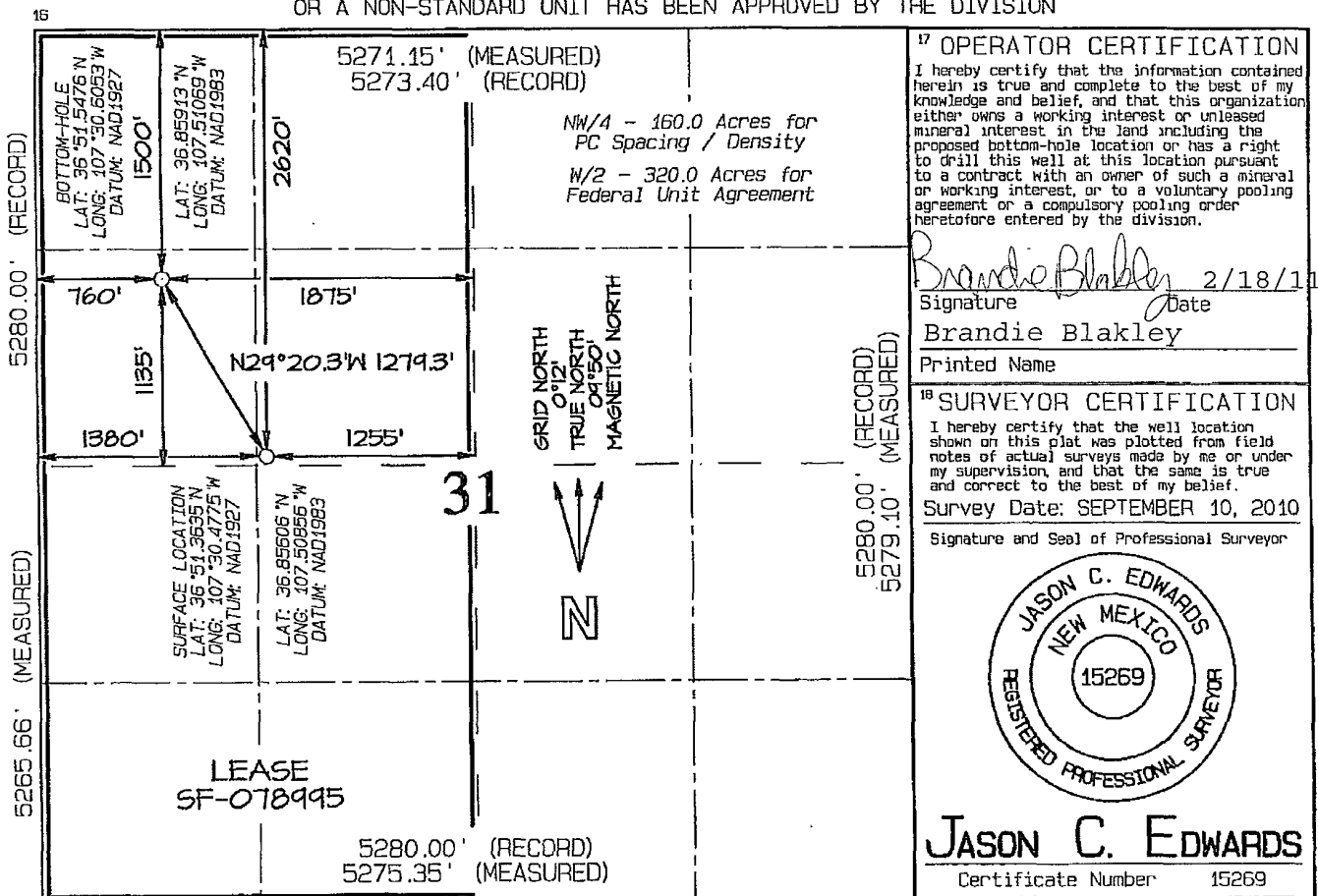
UL or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
F	31	31N	6W		2620	NORTH	1380	WEST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
E	31	31N	6W		1500	NORTH	760	WEST	RIO ARriba

¹² Dedicated Acres 160.0 Acres (NW/4) - PC 320.0 Acres (W/2) - FC	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



PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 31-6 UNIT 225A

DEVELOPMENT

Lease:		AFE #: WAN.CDR.1035				AFE \$: 1,237,602.90	
Field Name: 31-6		Rig: Aztec Rig 711		State: NM	County: RIO ARRIBA		API #: 3003930256
Geologist:		Phone:		Geophysicist:		Phone:	
Geoscientist: Sturdy, Michael D		Phone: 505-326-9850		Prod. Engineer: Bergman, Pat W.		Phone: +1 832 486 2358	
Res. Engineer: Poore, John W		Phone: +1 505-599-4038		Proj. Field Lead:		Phone:	
Primary Objective (Zones):							
Zone	Zone Name						
JCV	BASIN FRUITLAND COAL (GAS)						
R20003	PICTURED CLIFFS(R20003)						
Location: Surface Datum Code: NAD:27 Directional:							
Latitude: 36.856054		Longitude: -107.507954		X:	Y:	Section: 31	Range: 006W
Footage X: 1380 FWL		Footage Y: 2620 FNL		Elevation: 6224	(FT)	Township: 031N	
Tolerance:							
Location: Bottom: Hole Datum Code: NAD:27 Directional:							
Latitude: 36.859128		Longitude: -107.510088		X:	Y:	Section: 31	Range: 006W
Footage X: 760 FWL		Footage Y: 1500 FNL		Elevation:	(FT)	Township: 031N	
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2011		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6239 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	200	6039		☐			12-1/4 hole. 9-5/8" 32.2 ppf, H-40, STC csg. Cement with 121 cuft. Circulate cement to surface.
NACIMIENTO	839	5400		☐			
OJO ALAMO	2161	4078		☐			
KIRTLAND	2277	3962		☐			
FRUITLAND	2717	3522		☒	224	Gas	
FRUITLAND COAL	3036	3203		☐			
PICTURED CLIFFS	3246	2993		☐	1054	Gas; TD - 200' below T/PCCF	
Total Depth	3446	2793		☐			7-7/8" hole. 5-1/2" 17 ppf, J-55, LTC casing. Cement with 872 cuft. Circulate cement to surface.
Reference Wells:							
Reference Type	Well Name		Comments				
Intermediate	31-6 #223		32-31N-6W, SW				
Intermediate	NE Blanco Unit 304		30-31N-6W, SW				
Intermediate	NE Blanco Unit 22-A		36-31N-7W, SE				
Intermediate	31-6 #225		31-31N-6W, SW				

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 31-6 UNIT 225A

DEVELOPMENT

Logging Program:

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

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

Platform Express over minimum footages.

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 31-6 #225A
Company:	ConocoPhillips SJBU	TVD Reference:	WELL @ 6238.0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6238 0ft (Original Well Elev)
Site:	San Juan 31 Wells	North Reference:	True
Well:	SJ 31-6 #225A	Survey Calculation Method:	Minimum Curvature
Wellbore:	SJ 31-6 #225A		
Design:	SJ 31-6 #225A		

Project	San Juan Basin - New Mexico West 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 31 Wells		
Site Position:		Northing:	782,567,847.23 ft
From:	Lat/Long	Easting:	-103,766,633.21 ft
Position Uncertainty:	15.0 ft	Slot Radius:	"
		Latitude:	36° 50' 45.429 N
		Longitude:	107° 29' 49.149 E
		Grid Convergence:	0.00 °

Well	SJ 31-6 #225A		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty	15.0 ft	Wellhead Elevation:	ft
		Latitude:	36° 51' 21.810 N
		Longitude:	107° 30' 28.650 W
		Ground Level:	6,223.0 ft

Wellbore	SJ 31-6 #225A		
Magnetics	Model Name	Sample Date	Declination
	BGGM2010	4/29/2011	(°)
			9.80
		Dip Angle	(°)
		63.65	
		Field Strength	(nT)
		50,843	

Design	SJ 31-6 #225A		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction
			(°)
			129.81

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	
1,227.9	36.32	330.85	1,168.3	243.0	-135.5	4.00	4.00	0.00	330.85	
2,448.3	36.32	330.85	2,151.7	874.2	-487.7	0.00	0.00	0.00	0.00	
3,356.2	0.00	0.00	3,000.0	1,117.1	-623.2	4.00	-4.00	0.00	180.00	SJ 31-6 #225A -Depth
3,802.2	0.00	0.00	3,446.0	1,117.1	-623.2	0.00	0.00	0.00	0.00	

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
 Company: ConocoPhillips SJBU
 Project: San Juan Basin - New Mexico West Wells
 Site: San Juan 31 Wells
 Well: SJ 31-6 #225A
 Wellbore: SJ 31-6 #225A
 Design: SJ 31-6 #225A

Local Co-ordinate Reference: Well SJ 31-6 #225A
 TVD Reference: WELL @ 6238 0ft (Original Well Elev)
 MD Reference: WELL @ 6238 0ft (Original Well Elev)
 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
Casing									
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	3.20	330.85	400.0	2.0	-1.1	-2.1	4.00	4.00	0.00
500.0	7.20	330.85	499.5	9.9	-5.5	-10.5	4.00	4.00	0.00
600.0	11.20	330.85	598.2	23.8	-13.3	-25.5	4.00	4.00	0.00
700.0	15.20	330.85	695.6	43.8	-24.4	-46.8	4.00	4.00	0.00
800.0	19.20	330.85	791.1	69.6	-38.8	-74.4	4.00	4.00	0.00
851.1	21.24	330.85	839.0	85.0	-47.4	-90.8	4.00	4.00	0.00
Nacimiento									
900.0	23.20	330.85	884.3	101.2	-56.4	-108.1	4.00	4.00	0.00
1,000.0	27.20	330.85	974.7	138.3	-77.2	-147.8	4.00	4.00	0.00
1,100.0	31.20	330.85	1,062.0	180.9	-100.9	-193.4	4.00	4.00	0.00
1,200.0	35.20	330.85	1,145.7	228.7	-127.6	-244.5	4.00	4.00	0.00
1,227.9	36.32	330.85	1,168.3	243.0	-135.5	-259.7	4.00	4.00	0.00
1,300.0	36.32	330.85	1,226.4	280.3	-156.3	-299.5	0.00	0.00	0.00
1,400.0	36.32	330.85	1,307.0	332.0	-185.2	-354.8	0.00	0.00	0.00
1,500.0	36.32	330.85	1,387.6	383.7	-214.0	-410.1	0.00	0.00	0.00
1,600.0	36.32	330.85	1,468.1	435.4	-242.9	-465.4	0.00	0.00	0.00
1,700.0	36.32	330.85	1,548.7	487.1	-271.8	-520.6	0.00	0.00	0.00
1,800.0	36.32	330.85	1,629.3	538.9	-300.6	-575.9	0.00	0.00	0.00
1,900.0	36.32	330.85	1,709.9	590.6	-329.5	-631.2	0.00	0.00	0.00
2,000.0	36.32	330.85	1,790.5	642.3	-358.3	-686.4	0.00	0.00	0.00
2,100.0	36.32	330.85	1,871.0	694.0	-387.2	-741.7	0.00	0.00	0.00
2,200.0	36.32	330.85	1,951.6	745.7	-416.0	-797.0	0.00	0.00	0.00
2,300.0	36.32	330.85	2,032.2	797.5	-444.9	-852.3	0.00	0.00	0.00
2,400.0	36.32	330.85	2,112.8	849.2	-473.7	-907.5	0.00	0.00	0.00
2,448.3	36.32	330.85	2,151.7	874.2	-487.7	-934.3	0.00	0.00	0.00
2,459.8	35.85	330.85	2,161.0	880.1	-491.0	-940.6	4.00	-4.00	0.00
Ojo Alamo									
2,500.0	34.25	330.85	2,193.9	900.2	-502.2	-962.1	4.00	-4.00	0.00
2,598.3	30.31	330.85	2,277.0	946.1	-527.8	-1,011.1	4.00	-4.00	0.00
Kirtland									
2,600.0	30.25	330.85	2,278.4	946.8	-528.2	-1,011.9	4.00	-4.00	0.00
2,700.0	26.25	330.85	2,366.5	988.1	-551.2	-1,056.1	4.00	-4.00	0.00
2,800.0	22.25	330.85	2,457.7	1,024.0	-571.2	-1,094.4	4.00	-4.00	0.00
2,900.0	18.25	330.85	2,551.5	1,054.2	-588.1	-1,126.7	4.00	-4.00	0.00
3,000.0	14.25	330.85	2,647.5	1,078.7	-601.7	-1,152.8	4.00	-4.00	0.00
3,071.3	11.39	330.85	2,717.0	1,092.5	-609.4	-1,167.6	4.00	-4.00	0.00
Fruitland									
3,100.0	10.25	330.85	2,745.2	1,097.2	-612.1	-1,172.6	4.00	-4.00	0.00
3,200.0	6.25	330.85	2,844.1	1,109.7	-619.0	-1,186.0	4.00	-4.00	0.00
3,300.0	2.25	330.85	2,943.8	1,116.2	-622.7	-1,192.9	4.00	-4.00	0.00
3,356.2	0.00	0.00	3,000.0	1,117.1	-623.2	-1,193.9	4.00	-4.00	0.00
SJ 31-6 #225A -Depth to vertical									
3,392.2	0.00	0.00	3,036.0	1,117.1	-623.2	-1,193.9	0.00	0.00	0.00
Fruitland Coal									
3,400.0	0.00	0.00	3,043.8	1,117.1	-623.2	-1,193.9	0.00	0.00	0.00
3,500.0	0.00	0.00	3,143.8	1,117.1	-623.2	-1,193.9	0.00	0.00	0.00
3,600.0	0.00	0.00	3,243.8	1,117.1	-623.2	-1,193.9	0.00	0.00	0.00

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJBU
Project: San Juan Basin - New Mexico West Wells
Site: San Juan 31 Wells
Well: SJ 31-6 #225A
Wellbore: SJ 31-6 #225A
Design: SJ 31-6 #225A

Local Co-ordinate Reference: Well SJ 31-6 #225A
TVD Reference: WELL @ 6238.0ft (Original Well Elev)
MD Reference: WELL @ 6238.0ft (Original Well Elev)
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)
3,602.2	0.00	0.00	3,246.0	1,117.1	-623.2	-1,193.9	0.00	0.00	0.00
Pictured Cliffs									
3,700.0	0.00	0.00	3,343.8	1,117.1	-623.2	-1,193.9	0.00	0.00	0.00
3,800.0	0.00	0.00	3,443.8	1,117.1	-623.2	-1,193.9	0.00	0.00	0.00
3,802.2	0.00	0.00	3,446.0	1,117.1	-623.2	-1,193.9	0.00	0.00	0.00
Total Depth - Casing									

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 31-6 #225A -Depth to	- plan hits target center	0.00	0.00	3,000.0	1,117.1	-623.2	2,132,143.92	594,566.45	36° 51' 32.856 N	107° 30' 36.318 W
	- Point									

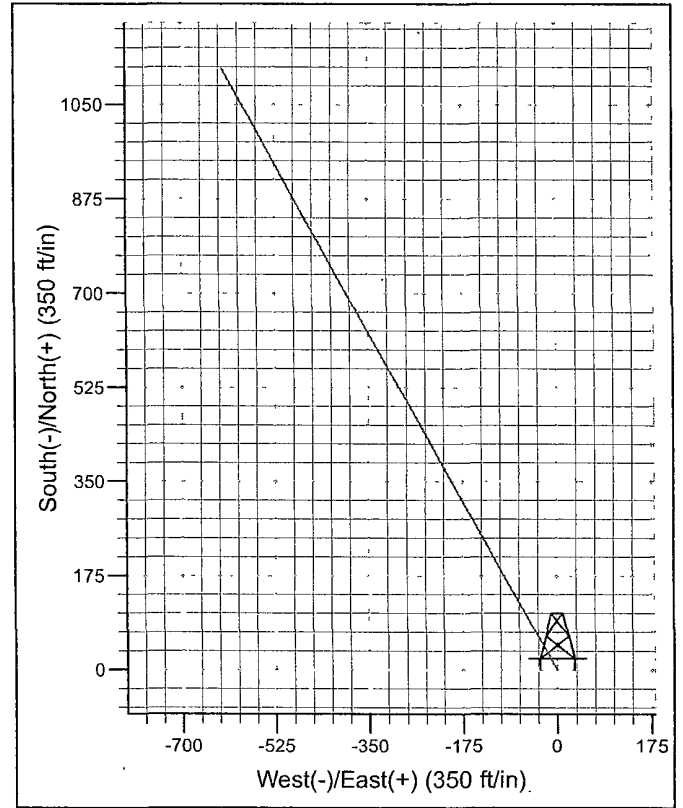
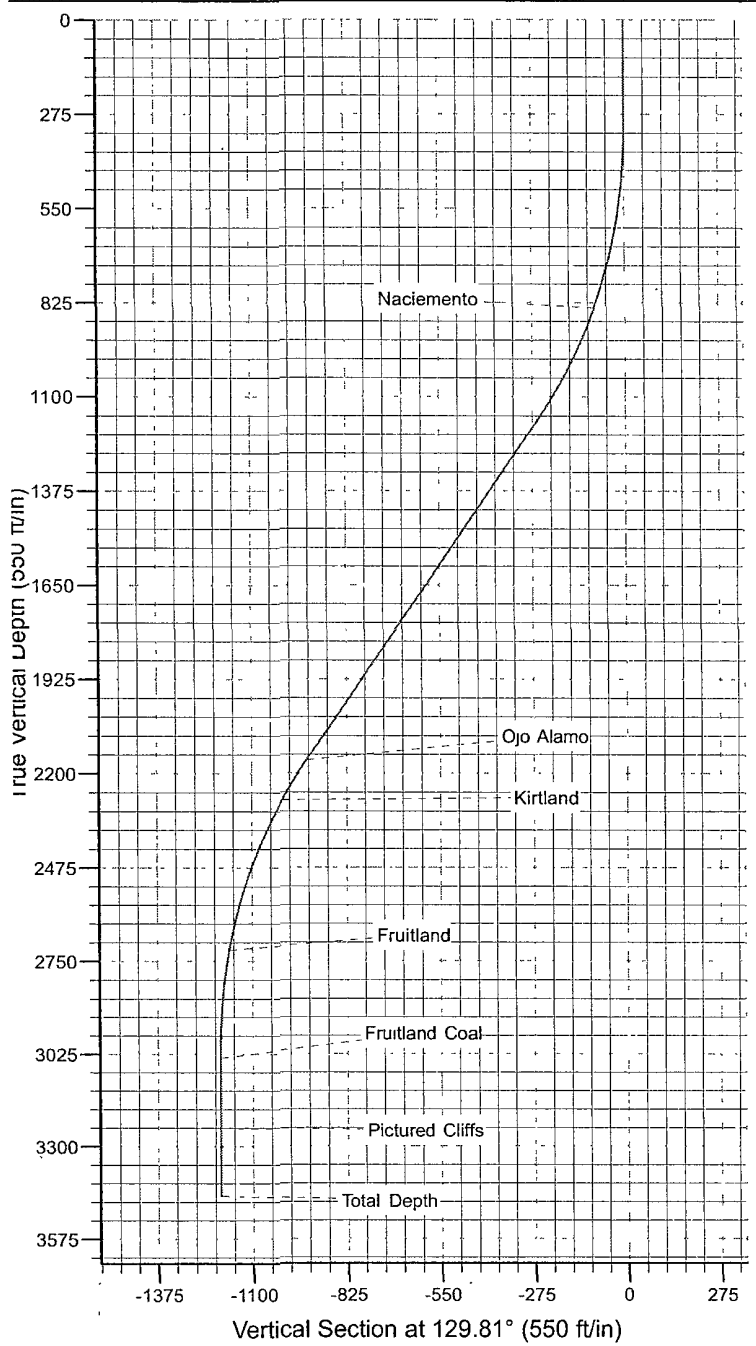
Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
200.0	200.0	Casing	9-5/8	12-1/4
3,802.2	3,446.0	Casing	5-1/2	7-7/8

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
851.1	839.0	Nacimiento		0.00	
2,598.3	2,277.0	Kirtland		0.00	
3,602.2	3,246.0	Pictured Cliffs		0.00	
3,802.2	3,446.0	Total Depth		0.00	
2,459.8	2,161.0	Ojo Alamo		0.00	
3,071.3	2,717.0	Fruitland		0.00	
3,392.2	3,036.0	Fruitland Coal		0.00	

WELLBORE DETAILS: SJ 31-6 #225A



Directions from the Intersection of US Hwy 64 & US Hwy 550 in Bloomfield, NM

to ConocoPhillips Company San Juan 31-6 Unit #225A

2620' FNL & 1380' FWL, Section 31, T31N, R6W, NMPM, Rio Arriba County, NM

Latitude : 36.85606°N Longitude : 107.50856°W Datum : NAD1983

From the intersection of US Hwy 64 & US Hwy 550 in Bloomfield, NM, travel Easterly on US Hwy 64 for 38.0 miles to State Hwy 527 (Simms Hwy);

Go left (North-westerly) on State Hwy 527 (Simms Hwy) for 7.9 miles to Rosa Road @ La Jara Station;

Go right (Northerly) on Rosa Road for 6.5 miles to fork in road;

Go left which is straight (North-easterly) remaining on Rosa Road for 1.6 miles to 4-way intersection;

Go left (Westerly) @ 4-way intersection for 2.5 miles to fork in road;

Go left (South-westerly) for 1.3 miles to fork in road;

Go right which is straight (South-westerly) for 0.9 miles to fork in road;

Go right (North-westerly) for 0.2 miles to fork in road;

Go left (South-westerly) for 0.8 miles to fork in road;

Go right (Northerly) for 200' to staked location which overlaps an existing wellpad.