

RECEIVED

NOV 23 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Farmington Field Office
Bureau of Land Management

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number SF-079382 Unit Reporting Number
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator BURLINGTON RESOURCES Oil & Gas Company, LP	7. Unit Agreement Name NMNM-78420D-DK NMNM-78420A-MV San Juan 30-6 Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name 9. Well Number 77M
4. Location of Well Surface: Unit J(NWSE), 1450' FSL & 2170' FEL Bottomhole: Unit N(SES), 840' FSL & 2565' FEL Surface: Latitude: 36.794832° N (NAD83) Longitude: 107.520696° W Bottomhole: Latitude: 36.793165° N (NAD83) Longitude: 107.522562° W	10. Field, Pool, Wildcat Basin DK/Blanco MV 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 24, T30N, R7W API # 30-039- 31001
14. Distance in Miles from Nearest Town 40.6 Miles from Blanco, NM	12. County Rio Arriba 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 840'	
16. Acres in Lease 2,080	17. Acres Assigned to Well 320 Acres W/2
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 740' from San Juan 30-6 Unit 76A (MV/DK)	
19. Proposed Depth 7707'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6194' GL	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Brandie Blakley</u> Brandie Blakley (Staff Regulatory Tech)	<u>11-18-11</u> 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.

BLM Example Master Plan Type 3 THIS Bond Numbers NMB-000015 and NMB-000089

ACTION DOES NOT RELIEVE THE LESSEE AND
OPERATOR FROM OBTAINING ANY OTHER
AUTHORIZATION REQUIRED FOR OPERATIONS
ON FEDERAL AND INDIAN LANDS

NMOCD

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

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

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised October 12, 2005

DISTRICT II
1301 West Grand Avenue, Artesia, N.M. 88210

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

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

Farmington Field Office
Bureau of Land Management

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039- 31001	² Pool Code 71599/72319	³ Pool Name BASIN DAKOTA/BLANCO MESAVERDE
⁴ Property Code 7469	⁵ Property Name SAN JUAN 30 - 6 UNIT	⁶ Well Number 77M
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	⁹ Elevation 6194'

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
J	24	30-N	7-W		1450'	SOUTH	2170'	EAST	RIO ARRIBA

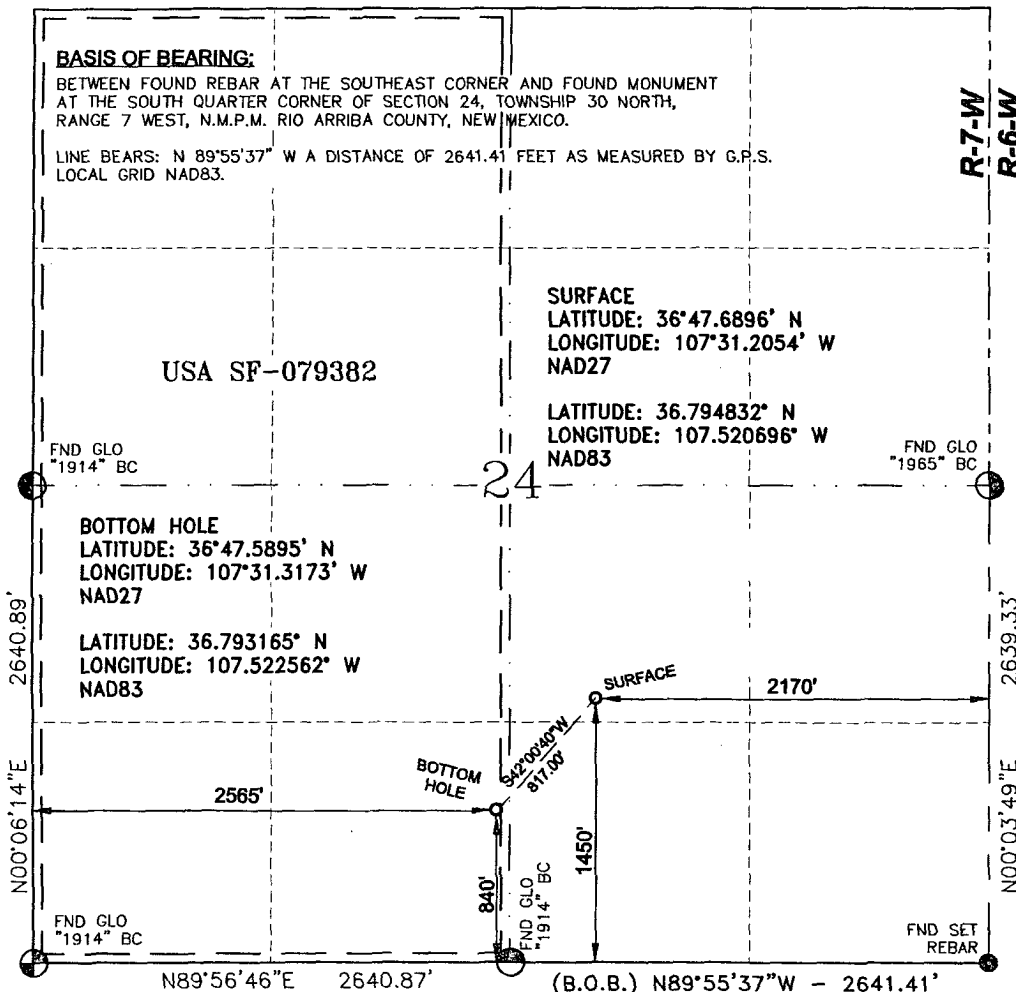
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	24	30-N	7-W		840'	SOUTH	2565	WEST	RIO ARRIBA

¹² Dedicated Acres DK 320.00 ACRES W/2 MV 320.00 ACRES W/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

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



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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Brandie Blakley
Signature

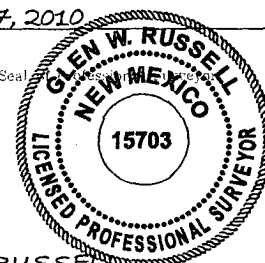
Brandie Blakley 8-23-10
Printed Name

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.

AUGUST 17, 2010
Date of Survey

Signature and Seal



GLEN W. RUSSELL
Certificate Number

15703

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 30-6 UNIT 77M

DEVELOPMENT

Lease:		AFE #: WAN.CDR.0017		AFE \$: 830,298.65	
Field Name: SAN JUAN		Rig: Aztec Rig 673		State: NM	County: RIO ARRIBA
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)				
RON	BLANCO MESAVERDE (PRORATED GAS)				
Location: Surface Datum Code: NAD 27 Directional					
Latitude: 36.794826	Longitude: -107.520090	X:	Y:	Section: 24	Range: 007W
Footage X: 2170 FEL	Footage Y: 1450 FSL	Elevation: 6194	(FT)	Township: 030N	
Tolerance:					
Location: Bottom Hole Datum Code: NAD 27 Directional					
Latitude: 36.793159	Longitude: -107.521956	X:	Y:	Section: 24	Range: 007W
Footage X: 2565 FWL	Footage Y: 840 FSL	Elevation:	(FT)	Township: 030N	
Tolerance:					
Location Type: Year Round		Start Date (Est.): 1/1/2012		Completion Date:	
Formation Data: Assume KB = 6209		Units = FT			
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)
Surface Casing	230	5979		☐	
					12-1/4 hole. 230' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 121 cuft. Circulate cement to surface.
NACIMIENTO	881	5328		☐	
OJO ALAMO	2188	4021		☐	
KIRTLAND	2305	3904		☐	
FRUITLAND	2683	3526		☐	Possible Gas
PICTURED CLIFFS	3147	3062		☐	
LEWIS	3278	2931		☐	
Intermediate Casing	3378	2831		☐	127 8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 796 cuft. Circulate cement to surface.
HUERFANITO BENTONITE	3821	2388		☐	
CHACRA	4170	2039		☐	
UPPER CLIFF HOUSE	4859	1350		☐	Gas; Est. Top Perf - 4861 (1348)
MASSIVE CLIFF HOUSE	4979	1230		☐	298 Gas; Cliffhouse is dry
MENEFEE	5039	1170		☐	
POINT LOOKOUT	5355	854		☐	
MANCOS	5699	510		☐	
UPPER GALLUP	6594	-385		☐	
GREENHORN	7336	-1127		☐	
GRANEROS	7386	-1177		☐	
TWO WELLS	7471	-1262		☐	3353 Gas
PAGUATE	7509	-1300		☐	
UPPER CUBERO	7519	-1310		☐	

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 30-6 UNIT 77M

DEVELOPMENT

LOWER CUBERO	7553	-1344	☐	
ENCINAL	7627	-1418	☐	Est. Btm Perf - 7687 (- 1478) based on offset wells
BURRO CANYON	7678	-1469	☐	TD - 80' below T/ENCN
Total Depth	7707	-1498	☐	223 6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC casing. Cement w/ 589 cuft. Circulate cement a minimum of 100' inside the previous casing string.

Reference Wells:

Reference Type	Well Name	Comments
Production	SJ 30-6 Unit 76A	30N 7W 24 NE SW SE
Production	SJ 30-6 Unit 77A	30N 7W 24 NE SW NW
Production	SJ 30-6 Unit 76E	30N 7W 24 NW SE NE

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
----------	-------	-----------	---------	----------------	---------

ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 30-6 #77M
Company:	ConocoPhillips SJBU	TVD Reference:	RKB @ 6209.0ft (AWS RIGS)
Project:	San Juan Basin - New Mexico Wells	MD Reference:	RKB @ 6209.0ft (AWS RIGS)
Site:	San Juan 30 Wells	North Reference:	True
Well:	SJ 30-6 #77M	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 30-6 #77M, Directional "S" Curve Short, Lewis not included					
Well Position	+N/-S	0.0 ft	Northing:	2,108,725.68 ft	Latitude:	36° 47' 41.376 N
	+E/-W	0.0 ft	Easting:	591,717.13 ft	Longitude:	107° 31' 12.324 W
Position Uncertainty		3.5 ft	Wellhead Elevation:	ft	Ground Level:	6,194.0 ft

Wellbore:	Principal Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	9/27/2010	9.88	63.61	50,871

Design:		Plan #1		
Audit Notes:				
Version:	1	Phase:	PROTOTYPE	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	221.96

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	
1,181.2	25.84	221.96	1,152.3	-142.0	-127.6	3.00	3.00	0.00	221.96	
2,179.3	25.84	221.96	2,050.7	-465.4	-418.5	0.00	0.00	0.00	0.00	
3,040.6	0.00	0.00	2,883.0	-607.4	-546.1	3.00	-3.00	0.00	180.00	SJ 30-6 #77M - VACF
3,535.6	0.00	0.00	3,378.0	-607.4	-546.1	0.00	0.00	0.00	0.00	SJ 30-6 #77M - ICP
7,864.6	0.00	0.00	7,707.0	-607.4	-546.1	0.00	0.00	0.00	0.00	SJ 30-6 #77M - PCP

ConocoPhillips or its affiliates
Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 30-6 #77M
Company:	ConocoPhillips SJBU	TVD Reference:	RKB @ 6209.0ft (AWS RIGS)
Project:	San Juan Basin - New Mexico Wells	MD Reference:	RKB @ 6209.0ft (AWS RIGS)
Site:	San Juan 30 Wells	North Reference:	True
Well:	SJ 30-6 #77M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Principal Wellbore		
Design:	Plan #1		

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
Surface Shoe									
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	221.96	400.0	-1.2	-1.1	1.7	3.00	3.00	0.00
500.0	5.40	221.96	499.7	-6.3	-5.7	8.5	3.00	3.00	0.00
600.0	8.40	221.96	599.0	-15.2	-13.7	20.5	3.00	3.00	0.00
700.0	11.40	221.96	697.5	-28.0	-25.2	37.7	3.00	3.00	0.00
800.0	14.40	221.96	795.0	-44.6	-40.1	60.0	3.00	3.00	0.00
889.4	17.08	221.96	881.0	-62.7	-56.3	84.3	3.00	3.00	0.00
Nacimiento									
900.0	17.40	221.96	891.1	-65.0	-58.4	87.4	3.00	3.00	0.00
1,000.0	20.40	221.96	985.7	-89.1	-80.1	119.8	3.00	3.00	0.00
1,100.0	23.40	221.96	1,078.5	-116.8	-105.0	157.1	3.00	3.00	0.00
1,181.2	25.84	221.96	1,152.3	-142.0	-127.6	190.9	3.00	3.00	0.00
1,200.0	25.84	221.96	1,169.2	-148.0	-133.1	199.1	0.00	0.00	0.00
1,300.0	25.84	221.96	1,259.2	-180.5	-162.3	242.7	0.00	0.00	0.00
1,400.0	25.84	221.96	1,349.2	-212.9	-191.4	286.3	0.00	0.00	0.00
1,500.0	25.84	221.96	1,439.2	-245.3	-220.5	329.8	0.00	0.00	0.00
1,600.0	25.84	221.96	1,529.2	-277.7	-249.7	373.4	0.00	0.00	0.00
1,700.0	25.84	221.96	1,619.2	-310.1	-278.8	417.0	0.00	0.00	0.00
1,800.0	25.84	221.96	1,709.3	-342.5	-307.9	460.6	0.00	0.00	0.00
1,900.0	25.84	221.96	1,799.3	-374.9	-337.1	504.2	0.00	0.00	0.00
2,000.0	25.84	221.96	1,889.3	-407.3	-366.2	547.7	0.00	0.00	0.00
2,100.0	25.84	221.96	1,979.3	-439.7	-395.4	591.3	0.00	0.00	0.00
2,179.3	25.84	221.96	2,050.7	-465.4	-418.5	625.9	0.00	0.00	0.00
2,200.0	25.22	221.96	2,069.3	-472.1	-424.4	634.8	3.00	-3.00	0.00
2,300.0	22.22	221.96	2,160.9	-502.0	-451.3	675.0	3.00	-3.00	0.00
2,329.2	21.34	221.96	2,188.0	-510.0	-458.6	685.9	3.00	-3.00	0.00
Ojo									
2,400.0	19.22	221.96	2,254.4	-528.3	-475.0	710.4	3.00	-3.00	0.00
2,453.4	17.62	221.96	2,305.0	-540.8	-486.2	727.3	3.00	-3.00	0.00
Kirtland									
2,500.0	16.22	221.96	2,349.6	-550.9	-495.3	740.8	3.00	-3.00	0.00
2,600.0	13.22	221.96	2,446.3	-569.8	-512.3	766.2	3.00	-3.00	0.00
2,648.8	11.75	221.96	2,494.0	-577.6	-519.4	776.8	3.00	-3.00	0.00
Stage Tool									
2,700.0	10.22	221.96	2,544.2	-584.9	-525.9	786.5	3.00	-3.00	0.00
2,800.0	7.22	221.96	2,643.1	-596.1	-536.0	801.7	3.00	-3.00	0.00
2,840.2	6.01	221.96	2,683.0	-599.6	-539.1	806.3	3.00	-3.00	0.00
Fruitland									
2,900.0	4.22	221.96	2,742.6	-603.6	-542.7	811.6	3.00	-3.00	0.00
3,000.0	1.22	221.96	2,842.4	-607.1	-545.8	816.4	3.00	-3.00	0.00
3,040.6	0.00	0.00	2,883.0	-607.4	-546.1	816.8	3.00	-3.00	0.00
SJ 30-6 #77M - VACP									
3,100.0	0.00	0.00	2,942.4	-607.4	-546.1	816.8	0.00	0.00	0.00
3,200.0	0.00	0.00	3,042.4	-607.4	-546.1	816.8	0.00	0.00	0.00
3,300.0	0.00	0.00	3,142.4	-607.4	-546.1	816.8	0.00	0.00	0.00
3,304.6	0.00	0.00	3,147.0	-607.4	-546.1	816.8	0.00	0.00	0.00
Pictured Cliffs									

ConocoPhillips or its affiliates
Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 30-6 #77M
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 6209.0ft (AWS RIGS)
Project:	San Juan Basin - New Mexico Wells	MD Reference:	RKB @ 6209.0ft (AWS RIGS)
Site:	San Juan 30 Wells	North Reference:	True
Well:	SJ 30-6 #77M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Principal Wellbore		
Design:	Plan #1		

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)	
3,400.0	0.00	0.00	3,242.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
3,435.6	0.00	0.00	3,278.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Lewis										
3,500.0	0.00	0.00	3,342.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
3,535.6	0.00	0.00	3,378.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Intermediate Shoe - SJ 30-6 #77M - ICP										
3,600.0	0.00	0.00	3,442.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
3,700.0	0.00	0.00	3,542.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
3,800.0	0.00	0.00	3,642.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
3,900.0	0.00	0.00	3,742.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
3,978.6	0.00	0.00	3,821.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Huerfano Bentonite										
4,000.0	0.00	0.00	3,842.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
4,100.0	0.00	0.00	3,942.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
4,200.0	0.00	0.00	4,042.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
4,300.0	0.00	0.00	4,142.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
4,327.6	0.00	0.00	4,170.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Chacra										
4,400.0	0.00	0.00	4,242.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
4,500.0	0.00	0.00	4,342.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
4,600.0	0.00	0.00	4,442.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
4,700.0	0.00	0.00	4,542.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
4,800.0	0.00	0.00	4,642.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
4,900.0	0.00	0.00	4,742.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
5,000.0	0.00	0.00	4,842.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
5,016.6	0.00	0.00	4,859.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Upper Cliffhouse										
5,100.0	0.00	0.00	4,942.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
5,136.6	0.00	0.00	4,979.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Massive Cliffhouse										
5,196.6	0.00	0.00	5,039.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Menefee										
5,200.0	0.00	0.00	5,042.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
5,300.0	0.00	0.00	5,142.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
5,400.0	0.00	0.00	5,242.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,342.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
5,512.6	0.00	0.00	5,355.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Point Lookout										
5,600.0	0.00	0.00	5,442.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,542.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,642.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
5,856.6	0.00	0.00	5,699.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Mancos										
5,900.0	0.00	0.00	5,742.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,842.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
6,100.0	0.00	0.00	5,942.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,042.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,142.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,242.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,342.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,442.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,542.4	-607.4	-546.1	816.8	0.00	0.00	0.00	

ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 30-6 #77M
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 6209.0ft (AWS RIGS)
Project:	San Juan Basin - New Mexico Wells	MD Reference:	RKB @ 6209.0ft (AWS RIGS)
Site:	San Juan 30 Wells	North Reference:	True
Well:	SJ 30-6 #77M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Principal Wellbore		
Design:	Plan #1		

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)	
6,751.6	0.00	0.00	6,594.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Upper Gallup										
6,800.0	0.00	0.00	6,642.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,742.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,842.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
7,100.0	0.00	0.00	6,942.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,042.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,142.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,242.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
7,493.6	0.00	0.00	7,336.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Greenhorn										
7,500.0	0.00	0.00	7,342.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
7,543.6	0.00	0.00	7,386.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Graneros										
7,600.0	0.00	0.00	7,442.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
7,628.6	0.00	0.00	7,471.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Two Wells										
7,666.6	0.00	0.00	7,509.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Paguate										
7,676.6	0.00	0.00	7,519.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Upper cubero										
7,700.0	0.00	0.00	7,542.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
7,710.6	0.00	0.00	7,553.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Lower Cubero										
7,784.6	0.00	0.00	7,627.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Enclinal										
7,800.0	0.00	0.00	7,642.4	-607.4	-546.1	816.8	0.00	0.00	0.00	
7,835.6	0.00	0.00	7,678.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Burro Canyon										
7,864.6	0.00	0.00	7,707.0	-607.4	-546.1	816.8	0.00	0.00	0.00	
Total Depth - Production Shoe - SJ 30-6 #77M - 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 30-6 #77M - ICP	- plan hits target center - Circle (radius 100.0)	0.00	0.00	3,378.0	-607.4	-546.1	2,108,116.55	591,173.04	36° 47' 35.370 N	107° 31' 19.038 W
SJ 30-6 #77M - VACP	- plan hits target center - Circle (radius 100.0)	0.00	0.00	2,883.0	-607.4	-546.1	2,108,116.55	591,173.04	36° 47' 35.370 N	107° 31' 19.038 W
SJ 30-6 #77M - PCP	- plan hits target center - Circle (radius 100.0)	0.00	0.00	7,707.0	-607.4	-546.1	2,108,116.55	591,173.04	36° 47' 35.370 N	107° 31' 19.038 W

ConocoPhillips or its affiliates
Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 30-6 #77M
Company:	ConocoPhillips SJBU	TVD Reference:	RKB @ 6209.0ft (AWS RIGS)
Project:	San Juan Basin - New Mexico Wells	MD Reference:	RKB @ 6209.0ft (AWS RIGS)
Site:	San Juan 30 Wells	North Reference:	True
Well:	SJ 30-6 #77M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Principal Wellbore		
Design:	Plan #1		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
230.0	230.0	Surface Shoe	9-5/8	12-1/4	
3,535.6	3,378.0	Intermediate Shoe	7	8-3/4	
7,864.6	7,707.0	Production Shoe	4-1/2	6-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,493.6	7,336.0	Greenhorn		0.00		
3,304.6	3,147.0	Pictured Cliffs		0.00		
7,835.6	7,678.0	Burro Canyon		0.00		
5,512.6	5,355.0	Point Lookout		0.00		
7,710.6	7,553.0	Lower Cubero		0.00		
5,136.6	4,979.0	Massive Cliffhouse		0.00		
889.4	881.0	Nacimiento		0.00		
5,856.6	5,699.0	Mancos		0.00		
7,784.6	7,627.0	Encinal		0.00		
7,543.6	7,386.0	Graneros		0.00		
7,628.6	7,471.0	Two Wells		0.00		
7,864.6	7,707.0	Total Depth		0.00		
5,016.6	4,859.0	Upper Cliffhouse		0.00		
6,751.6	6,594.0	Upper Gallup		0.00		
2,840.2	2,683.0	Fruitland		0.00		
2,453.4	2,305.0	Kirtland		0.00		
7,676.6	7,519.0	Upper cubero		0.00		
5,196.6	5,039.0	Menefee		0.00		
3,435.6	3,278.0	Lewis		0.00		
2,329.2	2,188.0	Ojo		0.00		
2,648.8	2,494.0	Stage Tool		0.00		
4,327.6	4,170.0	Chacra		0.00		
3,978.6	3,821.0	Huerfanito Bentonite		0.00		
7,666.6	7,509.0	Paguate		0.00		

REFERENCE INFORMATION

RKB @ 6209.0ft (AWS RIGS)
Ground Elevation 6194.0
Reference Lat: 36° 47' 41.376 N
Reference Long: 107° 31' 12.324 W

Project: San Juan Basin - New Mexico Well
Site: San Juan 30 Wells
Well: SJ 30-6 #77M
Wellbore: Principal Wellbore
Design: Plan #1

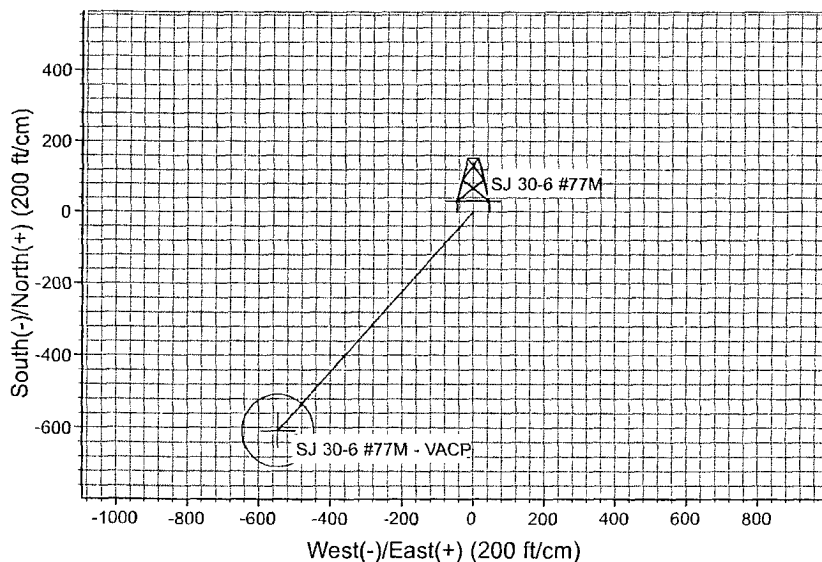
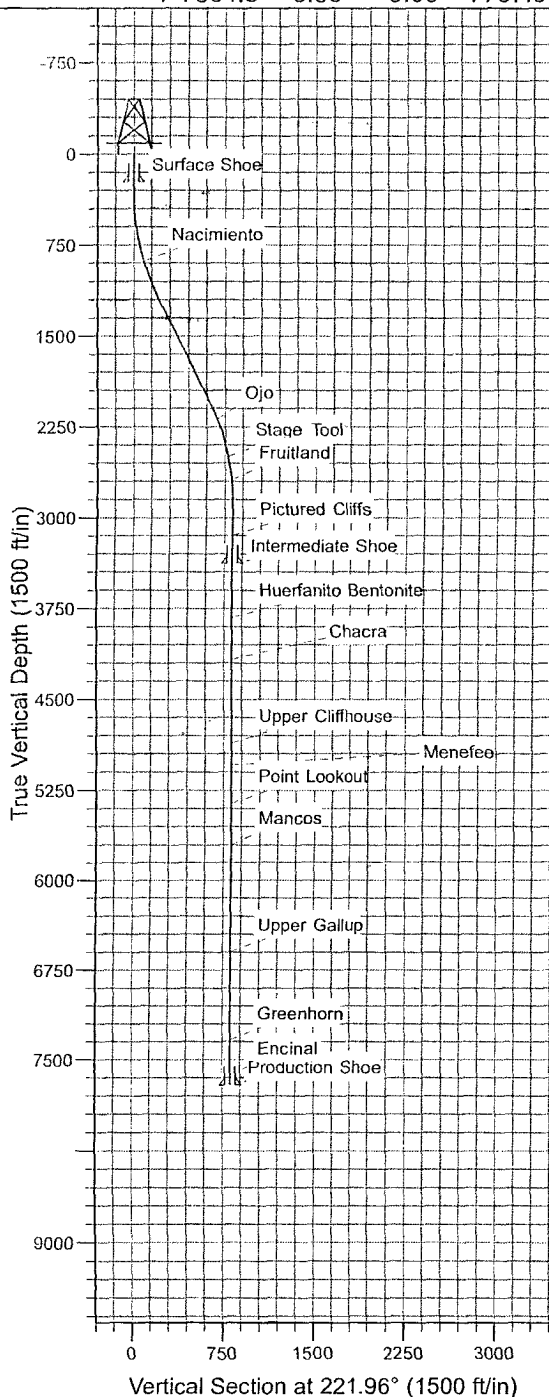
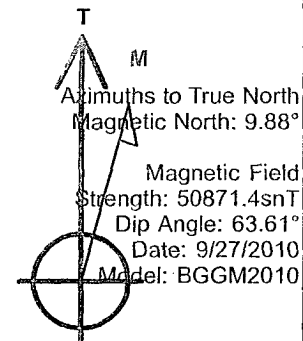
ConocoPhillips

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	1181.2	25.84	221.96	1152.3	-142.0	-127.6	3.00	221.96	190.9	
4	2179.3	25.84	221.96	2050.7	-465.4	-418.5	0.00	0.00	625.9	
5	3040.6	0.00	0.00	2883.0	-607.4	-546.1	3.00	180.00	816.8	SJ 30-6 #77M - VACP
6	3535.6	0.00	0.00	3378.0	-607.4	-546.1	0.00	0.00	816.8	SJ 30-6 #77M - ICP
7	7864.6	0.00	0.00	7707.0	-607.4	-546.1	0.00	0.00	816.8	SJ 30-6 #77M - PCP

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
881.0	889.4	Nacimiento
2188.0	2329.2	Ojo
2305.0	2453.4	Kirtland
2494.0	2648.8	Stage Tool
2683.0	2840.2	Fruitland
3147.0	3304.6	Pictured Cliffs
3278.0	3435.6	Lewis
3821.0	3978.6	Huerfanito Bentonite
4170.0	4327.6	Chacra
4859.0	5016.6	Upper Cliffhouse
4979.0	5136.6	Massive Cliffhouse
5039.0	5196.6	Menefee
5355.0	5512.6	Point Lookout
5699.0	5856.6	Mancos
6594.0	6751.6	Upper Gallup
7336.0	7493.6	Greenhorn
7386.0	7543.6	Graneros
7471.0	7628.6	Two Wells
7509.0	7666.6	Paguate
7519.0	7676.6	Upper cubero
7553.0	7710.6	Lower Cubero
7627.0	7784.6	Encinal
7678.0	7835.6	Burro Canyon
7707.0	7864.6	Total Depth



SAN JUAN 30-6 UNIT #77M, 1450' FSL & 2170' FEL
SECTION 24, T-30-N, R-7-W, NMPM, RIO ARriba COUNTY, NM
GROUND ELEVATION: 6194', DATE: JULY 19, 2010

