ConocoPhillips

ConocoPhillips

SJB (NM Central)
SEC 26-T30N-R7W
SJ 30-6 #95P
API# 30-039-30922
Original Hole

Survey: Actual

Standard Survey Report

09 February, 2011

This survey is correct to the best of my knowledge and is supported by actual field data.

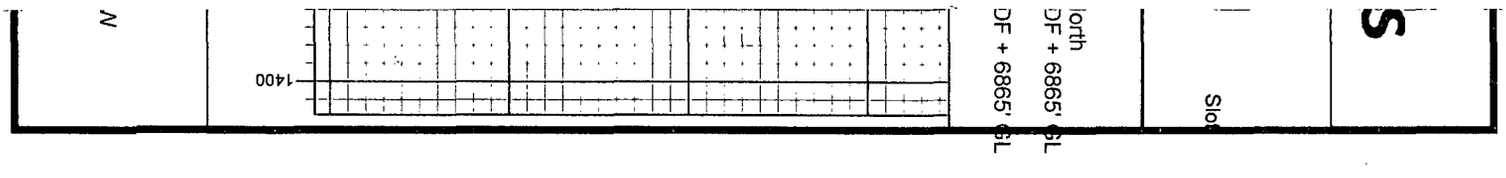
Notarized this date 9th of February, 2011.

Notary Signature
County of Midland
State of Texas

RECEIVED
MAY 2011
OIL CONS. DIV. DIST. 3

NOTARY PUBLIC STATE OF TEXAS
CARRIE REED
My Commission Expires
October 4, 2011

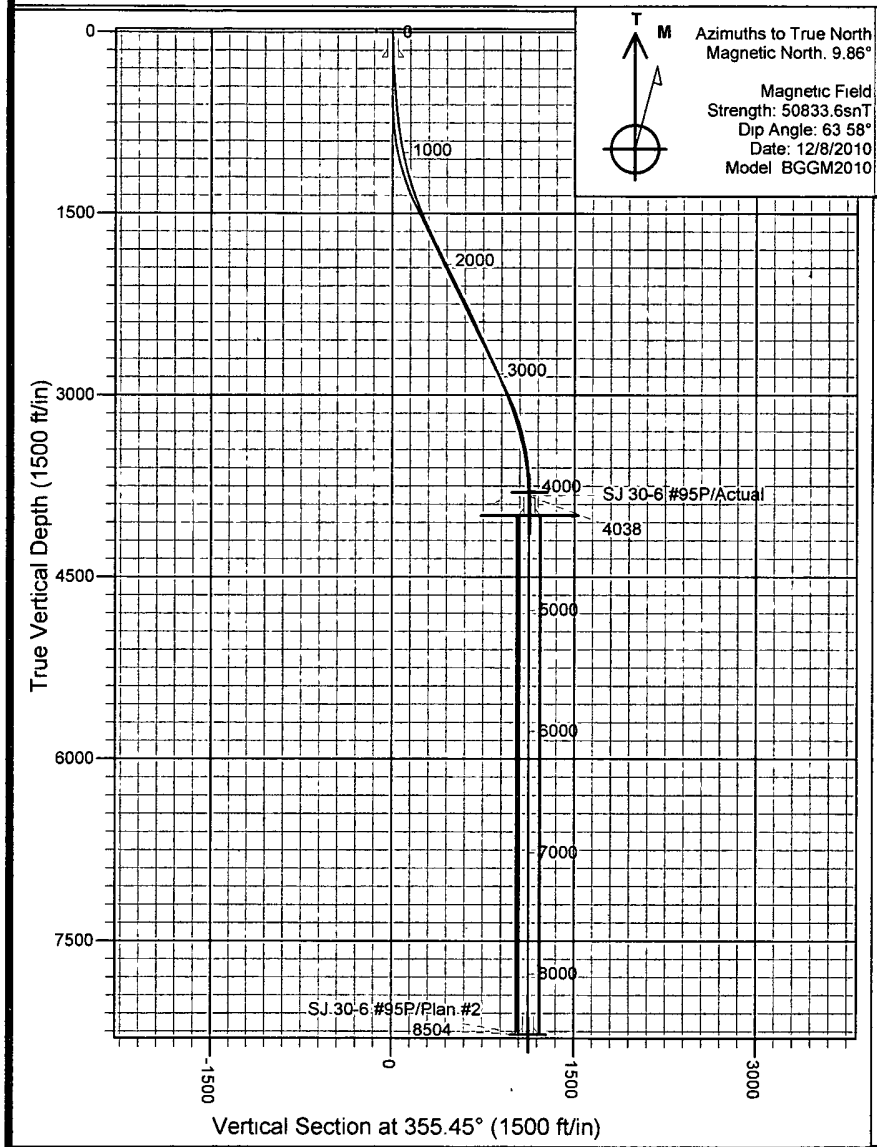
Scientific Drilling
Directional Drilling Operations



Scientific Drilling
Directional Drilling Operations

Project. SJB (NM Central)
Site: SEC 26-T30N-R7W
Well: SJ 30-6 #95P
Wellbore: Original Hole
Design: Plan #2

ConocoPhillips

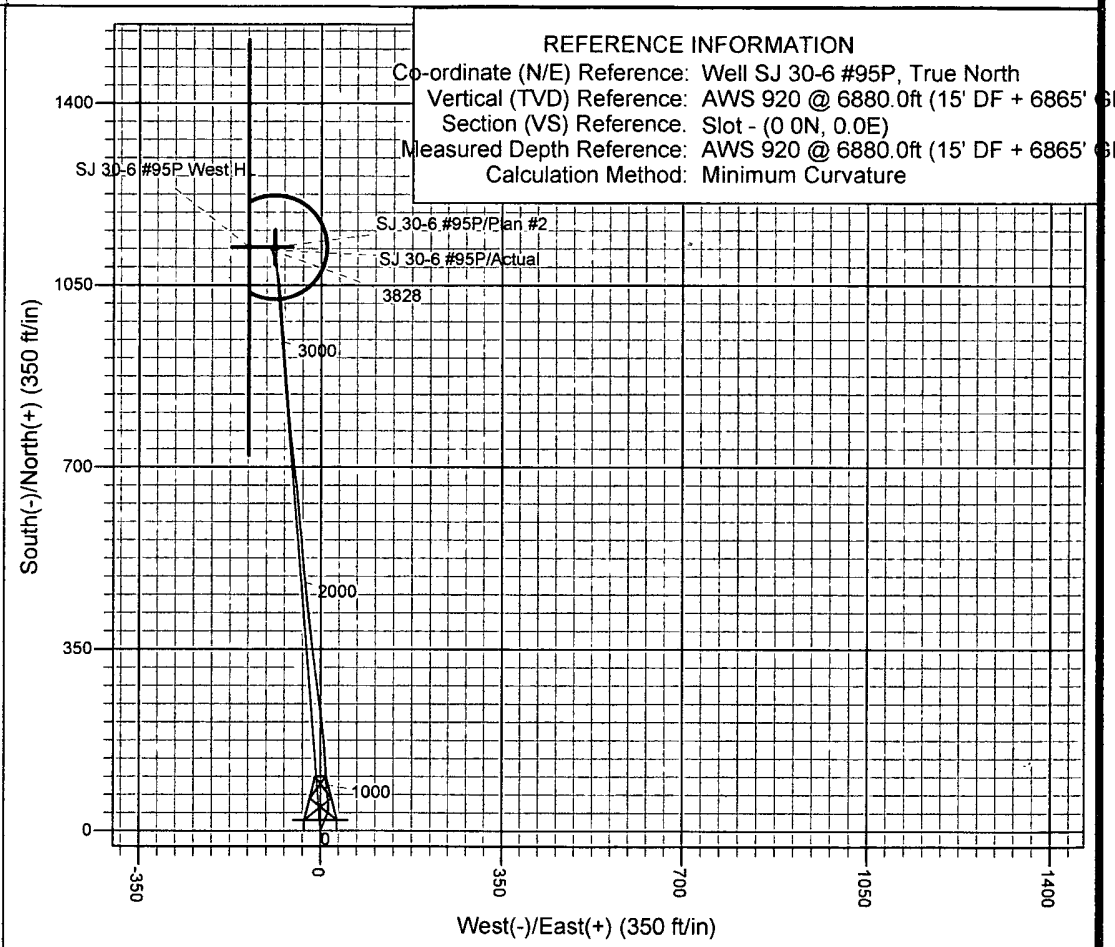


Azimuths to True North
Magnetic North. 9.86°

Magnetic Field
Strength: 50833.6snT
Dip Angle: 63 58°
Date: 12/8/2010
Model BGGM2010

WELL DETAILS: SJ 30-6 #95P
AWS 920 @ 6880.0ft (15' DF + 6865' GL)
Ground Level: 6865.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	2105254.24	120471 15	36° 46' 43 464 N	107° 32' 45 360 W	



REFERENCE INFORMATION
Co-ordinate (N/E) Reference: Well SJ 30-6 #95P, True North
Vertical (TVD) Reference: AWS 920 @ 6880.0ft (15' DF + 6865' GL
Section (VS) Reference. Slot - (0 0N, 0.0E)
Measured Depth Reference: AWS 920 @ 6880.0ft (15' DF + 6865' GL
Calculation Method: Minimum Curvature

COMPANY DETAILS: ConocoPhillips
Calculation Method: Minimum Curvature
Error System: ISCWSA
Scan Method: Closest Approach 3D
Error Surface: Combined Covariances
Warning Method: Risk Ratio

PROJECT DETAILS: SJB (NM Central)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid. Clarke 1866
Zone: New Mexico Central 3002
System Datum: Mean Sea Level

SITE DETAILS: SEC 26-T30N-R7W
Rio Arriba County NM
Site Centre Latitude: 36° 47' 1.660 N
Longitude: 107° 31' 52.434 W
Positional Uncertainty. 0.0
Convergence: -0.77
Local North: True

Company:	ConocoPhillips	**Local Co-ordinate Reference:**	Well SJ 30-6 #95P
Project:	SJB (NM Central)	**TVD Reference:**	AWS 920 @ 6880.0ft (15' DF + 6865' GL)
Site:	SEC 26-T30N-R7W	**MD Reference:**	AWS 920 @ 6880.0ft (15' DF + 6865' GL)
Well:	SJ 30-6 #95P	**North Reference:**	True
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Original Hole	**Database:**	edmCOP

Project	SJB (NM Central), New Mexico, S-Type MV/DK Wells		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		Using Well Reference Point
Map Zone:	New Mexico Central 3002		Using geodetic scale factor

Site	SEC 26-T30N-R7W				
Site Position:		**Northing:**	2,107,036.42 ft	**Latitude:**	36° 47' 1 660 N
From:	Lat/Long	**Easting:**	124,801 55 ft	**Longitude:**	107° 31' 52.434 W
Position Uncertainty:	0.0 ft	**Slot Radius:**	6-1/8"	**Grid Convergence:**	-0.77 °

Well	SJ 30-6 #95P, S-Type MV/DK Well					
Well Position	**+N/-S**	0 0 ft	**Northing:**	2,105,254 24 ft	**Latitude:**	36° 46' 43.464 N
	+E/-W	0 0 ft	**Easting:**	120,471.15 ft	**Longitude:**	107° 32' 45.360 W
Position Uncertainty		3 5 ft	**Wellhead Elevation:**	ft	**Ground Level:**	6,865.0 ft

Wellbore	Original Hole				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	BGGM2010	12/8/2010	9 86	63 58	50,834

Design	Original Hole				
Audit Notes:					
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0 0

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0 0	0.0	0.0	355.05

Survey Program **Date** 2/9/2011

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
542 0	4,038 0	Actual (Original Hole)	MWD SDI	MWD - Standard ver 1 0.1

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
542 0	5 87	21 26	541.1	25 9	10.1	24.9	1.08	1 08	0 00
572.0	6 10	20 22	570.9	28 8	11.2	27 7	0.85	0 77	-3.47
603.0	6 72	18 43	601 7	32 0	12 3	30.9	2 10	2 00	-5.77
634.0	6 41	16 37	632 5	35.4	13 4	34 1	1.26	-1.00	-6.65
665.0	6.26	9 51	663 3	38 8	14 1	37.4	2.49	-0.48	-22 13
696.0	6 30	5 24	694 1	42.1	14.6	40 7	1 51	0 13	-13.77
727 0	6.57	1.94	724 9	45 6	14.8	44 1	1 48	0.87	-10 65
758.0	6 93	358.79	755.7	49 2	14 8	47 8	1.67	1.16	-10.16
788.0	7 29	354 99	785.5	52.9	14.6	51 5	1 97	1.20	-12.67
819.0	7 75	356 39	816 2	57 0	14 3	55.5	1.60	1 48	4.52
853.0	8 45	355 23	849 9	61 7	13 9	60.3	2.11	2 06	-3.41
884 0	9.23	352 95	880 5	66.5	13.5	65 1	2 76	2.52	-7.35

Company:	ConocoPhillips	**Local Co-ordinate Reference:**	Well SJ 30-6 #95P
Project:	SJB (NM Central)	**TVD Reference:**	AWS 920 @ 6880.0ft (15' DF + 6865' GL)
Site:	SEC 26-T30N-R7W	**MD Reference:**	AWS 920 @ 6880.0ft (15' DF + 6865' GL)
Well:	SJ 30-6 #95P	**North Reference:**	True
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Original Hole	**Database:**	edmCOP

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)
916.0	10 15	352 09	912.0	71 8	12 7	70.5	2 91	2.88	-2.69
947.0	10 71	353 89	942.5	77.4	12.1	76 1	2 09	1 81	5 81
1,010 0	12 13	354.56	1,004.3	89.8	10 8	88 5	2 26	2 25	1.06
1,074 0	13 09	358.45	1,066 7	103.7	10.0	102.5	2 00	1 50	6.08
1,137 0	14 11	357 40	1,128.0	118 5	9 4	117 3	1 67	1 62	-1.67
1,200 0	15.16	356.39	1,188 9	134.4	8 6	133.2	1.72	1 67	-1 60
1,231.0	15.94	354 78	1,218.8	142.7	7 9	141 5	2.88	2.52	-5.19
1,262 0	16 36	356.25	1,248 6	151.3	7 3	150.1	1 89	1 35	4 74
1,294 0	17.30	355.47	1,279.2	160.6	6 6	159 4	3.02	2.94	-2.44
1,325 0	17.96	354.92	1,308 7	169.9	5 8	168.8	2.20	2 13	-1.77
1,357.0	18 99	353.77	1,339 1	180.0	4.8	178.9	3.41	3.22	-3.59
1,389.0	19 62	354.76	1,369 3	190 5	3 7	189 5	2.22	1.97	3 09
1,420.0	20 49	354 00	1,398 4	201 1	2.7	200.1	2.93	2.81	-2.45
1,452.0	20 91	354.19	1,428.3	212 4	1.5	211 4	1.33	1 31	0 59
1,484.0	21.75	352.11	1,458 2	223 9	0.1	223 1	3.53	2 63	-6 50
1,515.0	22.54	351 84	1,486.9	235.5	-1 5	234.7	2 57	2 55	-0 87
1,578.0	24.51	353 02	1,544.6	260.4	-4 8	259 9	3 21	3 13	1.87
1,641 0	25.06	352.88	1,601.8	286 6	-8 0	286.3	0.88	0.87	-0.22
1,704.0	24 77	352 62	1,659.0	313 0	-11 4	312 8	0 49	-0.46	-0.41
1,767.0	25 52	352 84	1,716.0	339.5	-14 8	339.5	1.20	1 19	0.35
1,830.0	26 05	351.47	1,772.7	366 7	-18.5	366 9	1.27	0.84	-2.17
1,894 0	26 15	353.79	1,830.2	394 6	-22.1	395.0	1 60	0 16	3 63
1,957.0	26 25	353 96	1,886.7	422 2	-25.1	422 8	0.20	0 16	0 27
2,019.0	26 62	354 63	1,942.2	449.7	-27.8	450 4	0 77	0 60	1.08
2,083 0	26.97	353.85	1,999 4	478 4	-30.7	479.3	0 78	0 55	-1 22
2,146 0	26 36	354 22	2,055.7	506.5	-33.7	507 5	1 00	-0.97	0 59
2,209 0	26.08	355 38	2,112 2	534 2	-36.2	535 4	0.93	-0 44	1 84
2,271 0	26 62	355.74	2,167 7	561.7	-38.3	562 9	0 91	0.87	0 58
2,335 0	26 42	354 14	2,225 0	590.1	-40 8	591 5	1 16	-0.31	-2 50
2,398.0	25 75	354 99	2,281.6	617.7	-43 5	619 2	1.22	-1 06	1.35
2,461 0	25.24	355 16	2,338 5	644.7	-45 8	646 3	0 82	-0 81	0 27
2,524.0	24.86	352 62	2,395 5	671 2	-48 6	672.9	1.81	-0 60	-4 03
2,587 0	24.53	353 49	2,452 8	697.4	-51 8	699.2	0 78	-0 52	1 38
2,650 0	24.05	354.03	2,510 2	723 1	-54 6	725.2	0.84	-0 76	0 86
2,714.0	24.13	353.56	2,568 6	749 1	-57.5	751.3	0.32	0 13	-0 73
2,777.0	24.58	354.42	2,626 0	774 9	-60.2	777.2	0.91	0 71	1 37
2,840 0	24.91	356.42	2,683 2	801.2	-62.3	803 6	1 43	0.52	3 17
2,903.0	24.18	355.80	2,740.5	827.3	-64.0	829 8	1 23	-1 16	-0.98
2,966.0	24 45	355 57	2,798 0	853 2	-66 0	855 7	0 45	0 43	-0.37
3,029.0	24 52	354 03	2,855.3	879 2	-68 4	881 8	1.02	0.11	-2.44
3,061.0	24.42	355.32	2,884.4	892.4	-69.6	895 1	1 70	-0 31	4 03
3,092.0	24 04	355.05	2,912 7	905 1	-70 7	907.8	1.28	-1 23	-0 87
3,123.0	23 16	355.82	2,941.1	917 4	-71 7	920 2	3.01	-2.84	2 48
3,155.0	21 69	355 23	2,970.7	929 6	-72 6	932.4	4.65	-4 59	-1 84
3,186 0	20 86	356.55	2,999.6	940.8	-73 4	943.7	3.09	-2 68	4 26
3,218.0	20 42	356 22	3,029.5	952 1	-74 1	954 9	1.42	-1.38	-1 03
3,250 0	19.69	356 67	3,059.6	963 0	-74 8	965.9	2 33	-2.28	1.41
3,281.0	19 57	356 21	3,088 8	973 4	-75 5	976.3	0.63	-0 39	-1 48
3,313 0	18.85	356 22	3,119.0	983 9	-76 1	986.8	2.25	-2.25	0 03
3,345.0	17.74	354 96	3,149.4	994 0	-76 9	996.9	3.68	-3 47	-3 94
3,376 0	17.52	355 32	3,178 9	1,003.3	-77 7	1,006 3	0.79	-0.71	1.16
3,408.0	17.27	354.98	3,209.4	1,012.8	-78 5	1,015.8	0.84	-0.78	-1.06
3,440 0	17.12	355 68	3,240 0	1,022.3	-79 3	1,025 3	0 80	-0.47	2.19
3,471.0	17.23	354 90	3,269 6	1,031.4	-80.0	1,034 5	0 82	0 35	-2 52

Company:	ConocoPhillips	**Local Co-ordinate Reference:**	Well SJ 30-6 #95P
Project:	SJB (NM Central)	**TVD Reference:**	AWS 920 @ 6880.0ft (15' DF + 6865' GL)
Site:	SEC 26-T30N-R7W	**MD Reference:**	AWS 920 @ 6880.0ft (15' DF + 6865' GL)
Well:	SJ 30-6 #95P	**North Reference:**	True
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Original Hole	**Database:**	edmCOP

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)
3,503 0	16 61	354.68	3,300.2	1,040 7	-80.9	1,043 8	1.95	-1.94	-0 69
3,534 0	15 40	352.90	3,330.0	1,049 2	-81.8	1,052.3	4 21	-3.90	-5.74
3,566.0	14.34	352.74	3,361 0	1,057 3	-82 8	1,060 5	3.31	-3.31	-0.50
3,597.0	13.15	351.62	3,391.1	1,064 6	-83 8	1,067.9	3.93	-3.84	-3.61
3,629 0	12.20	350 88	3,422.3	1,071.6	-84 9	1,074.9	3.01	-2.97	-2.31
3,660 0	11.27	350 96	3,452.6	1,077.8	-85.9	1,081.2	3.00	-3 00	0.26
3,692 0	10.21	349.95	3,484.1	1,083 7	-86.9	1,087 1	3.36	-3 31	-3.16
3,723 0	9 12	346.76	3,514 6	1,088.8	-87.9	1,092.3	3 92	-3.52	-10 29
3,754 0	8 02	346.50	3,545 3	1,093.3	-89.0	1,096.9	3.55	-3 55	-0 84
3,786 0	6 96	346.41	3,577.0	1,097.3	-90.0	1,101 0	3 31	-3.31	-0 28
3,817.0	6.48	348.50	3,607 8	1,100.8	-90.8	1,104 6	1 74	-1.55	6.74
3,849.0	6 06	345 25	3,639.6	1,104.3	-91 5	1,108 0	1.72	-1.31	-10.16
3,880 0	5.70	343.00	3,670.5	1,107 3	-92 4	1,111 2	1.38	-1 16	-7 26
3,912 0	5 01	342.68	3,702.3	1,110 2	-93.3	1,114 1	2 16	-2.16	-1.00
3,943.0	4 36	339.66	3,733.2	1,112 6	-94 1	1,116 5	2 24	-2.10	-9 74
3,974.0	4 11	334.72	3,764 1	1,114.7	-95.0	1,118 7	1 43	-0 81	-15 94
4,006 0	3.85	334 50	3,796 1	1,116.7	-95 9	1,120.8	0 81	-0 81	-0 69
4,038 0	3 72	332 30	3,828 0	1,118 6	-96 9	1,122.7	0.61	-0 41	-6.88