



COP Deviation Report

SAN JUAN 28-7 UNIT #257N

Operator CONOCOPHILLIPS COMPANY	Legal WellName SAN JUAN 28-7 UNIT #257N	API / UWI 3003930687	County RIO ARRIBA	State/Province NEW MEXICO
Surface Legal Location 019-028N-007W-C	N/S Dist (ft) 1,075.00	N/S Ref FNL	E/W Dist (ft) 1,730.00	E/W Ref FWL

Survey Data

Date	MD (ftKB)	Incl (°)	Method	Survey Company
11/10/2009	271.00	1.52	Inc-Drop	Scientific Drilling
11/10/2009	302.00	1.40	Inc-Drop	Scientific Drilling
11/10/2009	333.00	0.57	Inc-Drop	Scientific Drilling
11/10/2009	362.00	0.44	Inc-Drop	Scientific Drilling
11/10/2009	393.00	1.95	Inc-Drop	Scientific Drilling
11/10/2009	424.00	3.12	Inc-Drop	Scientific Drilling
11/10/2009	455.00	4.37	Inc-Drop	Scientific Drilling
11/10/2009	486.00	5.34	Inc-Drop	Scientific Drilling
11/10/2009	517.00	6.17	Inc-Drop	Scientific Drilling
11/10/2009	548.00	7.21	Inc-Drop	Scientific Drilling
11/10/2009	596.00	9.06	Inc-Drop	Scientific Drilling
11/10/2009	641.00	11.00	Inc-Drop	Scientific Drilling
11/10/2009	686.00	12.47	Inc-Drop	Scientific Drilling
11/10/2009	731.00	13.80	Inc-Drop	Scientific Drilling
11/10/2009	776.00	15.23	Inc-Drop	Scientific Drilling
11/10/2009	821.00	16.96	Inc-Drop	Scientific Drilling
11/10/2009	866.00	18.65	Inc-Drop	Scientific Drilling
11/10/2009	911.00	20.58	Inc-Drop	Scientific Drilling
11/10/2009	956.00	22.75	Inc-Drop	Scientific Drilling
11/10/2009	1,001.00	24.20	Inc-Drop	Scientific Drilling
11/10/2009	1,046.00	25.22	Inc-Drop	Scientific Drilling
11/10/2009	1,136.00	25.62	Inc-Drop	Scientific Drilling
11/10/2009	1,226.00	26.18	Inc-Drop	Scientific Drilling
11/10/2009	1,316.00	26.07	Inc-Drop	Scientific Drilling
11/10/2009	1,406.00	26.21	Inc-Drop	Scientific Drilling
11/10/2009	1,496.00	27.47	Inc-Drop	Scientific Drilling
11/10/2009	1,586.00	27.19	Inc-Drop	Scientific Drilling
11/10/2009	1,676.00	27.48	Inc-Drop	Scientific Drilling
11/10/2009	1,766.00	27.24	Inc-Drop	Scientific Drilling
11/10/2009	1,856.00	26.90	Inc-Drop	Scientific Drilling
11/10/2009	1,946.00	27.12	Inc-Drop	Scientific Drilling
11/10/2009	2,036.00	27.77	Inc-Drop	Scientific Drilling
11/10/2009	2,126.00	27.45	Inc-Drop	Scientific Drilling
11/10/2009	2,216.00	28.17	Inc-Drop	Scientific Drilling
11/10/2009	2,306.00	27.91	Inc-Drop	Scientific Drilling
11/11/2009	2,396.00	27.98	Inc-Drop	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as _____ for ConocoPhillips Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

Subscribed and sworn to me this _____

Notary Public in and for San Juan County, New Mexico

My Commission expires _____

COP Deviation Report

SAN JUAN 28-7 UNIT #257N

Survey Data

Date	MD (RKB)	Incl (°)	Method	Survey Company
11/11/2009	2,486.00	28.15	Inc-Drop	Scientific Drilling
11/11/2009	2,575.00	28.51	Inc-Drop	Scientific Drilling
11/11/2009	2,665.00	29.05	Inc-Drop	Scientific Drilling
11/11/2009	2,755.00	28.63	Inc-Drop	Scientific Drilling
11/11/2009	2,845.00	27.27	Inc-Drop	Scientific Drilling
11/11/2009	2,935.00	25.76	Inc-Drop	Scientific Drilling
11/11/2009	3,025.00	25.51	Inc-Drop	Scientific Drilling
11/11/2009	3,115.00	24.74	Inc-Drop	Scientific Drilling
11/11/2009	3,205.00	24.18	Inc-Drop	Scientific Drilling
11/11/2009	3,295.00	23.49	Inc-Drop	Scientific Drilling
11/11/2009	3,385.00	21.89	Inc-Drop	Scientific Drilling
11/11/2009	3,475.00	18.74	Inc-Drop	Scientific Drilling
11/11/2009	3,565.00	15.72	Inc-Drop	Scientific Drilling
11/11/2009	3,655.00	13.47	Inc-Drop	Scientific Drilling
11/11/2009	3,745.00	12.59	Inc-Drop	Scientific Drilling
11/11/2009	3,834.00	8.97	Inc-Drop	Scientific Drilling
11/11/2009	3,924.00	5.80	Inc-Drop	Scientific Drilling
11/11/2009	4,014.00	2.77	Inc-Drop	Scientific Drilling
11/11/2009	4,104.00	1.60	Inc-Drop	Scientific Drilling
11/11/2009	4,178.00	1.42	Inc-Drop	Scientific Drilling
11/19/2009	8,083.00	2.00	IncAzi-WL	PHOENIX

RCVD APR 14 '10

OIL CONS. DIV.

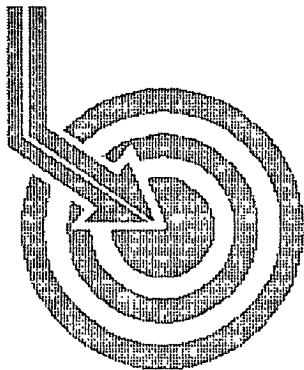
DIST. 3

I, the undersigned, certify that I acting in my capacity as _____ for ConocoPhillips Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

Subscribed and sworn to me this _____

Notary Public in and for San Juan County, New Mexico

My Commission expires _____



Scientific Drilling

CONOCOPHILLIPS

Field: San Juan
Site: SEC 19-T28N-R7W
Well: San Juan 28-7 #257N
Wellpath: DH - Job #33D1109204
Survey: 11/09/09-11/12/09

RCVD APR 14 '10

OIL CONS. DIV.

DIST. 3

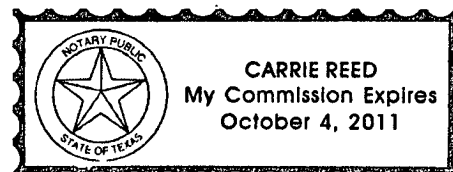
This survey is correct to the best of my knowledge
and is supported by actual field data.

.....Robert Horton..... Company Representative

Notorized this date 23rd of November, 2009.

Carrie Reed

Notary Signature
County of Midland
State of Texas





Scientific Drilling International

COP Survey Report

Company: CONOCOPHILLIPS	Date: 11/23/2009	Time: 12:11:45	Page: 1
Field: San Juan	Co-ordinate(NE) Reference: Site: SEC 19-T28N-R7W, Grid North		
Site: SEC 19-T28N-R7W	Vertical (TVD) Reference: SITE 0.0		
Well: San Juan 28-7 #257N	Section (VS) Reference: Well (0.00N,0.00E,135.29Azi)		
Wellpath: DH - Job #33D1109204	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: 11/09/09-11/12/09	Start Date: 11/09/2009
E-field: 0'-4178'	
Company: Scientific Drilling Internatio	Engineer: Richey/Lowe/Blosser/Rogers
Tool: E-field;E-field MWD	Tied-to: From Surface

Site:		SEC 19-T28N-R7W			
Site Position:		Northing:	2056288.94 ft	Latitude:	36 39 3.609 N
From:	Map	Easting:	563499.72 ft	Longitude:	107 37 0.715 W
Position Uncertainty:	0.00 ft			North Reference:	Grid
Ground Level:	6745.00 ft			Grid Convergence:	0.13 deg

Well:	San Juan 28-7 #257N			Slot Name:			
	1341' Slant @ S44.71E						
Well Position:	+N/-S	0.00 ft	Northing:	2056288.94 ft	Latitude:	36 39	3.609 N
	+E/-W	0.00 ft	Easting :	563499.72 ft	Longitude:	107 37	0.715 W
Position Uncertainty:		0.00 ft					

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
271.00	1.52	343.67	270.97	-3.16	3.45	-1.01	0.56	3.59	343.67
302.00	1.40	344.84	301.96	-3.85	4.21	-1.23	0.40	4.38	343.77
333.00	0.57	2.14	332.95	-4.29	4.73	-1.32	2.81	4.91	344.42
362.00	0.44	100.43	361.95	-4.30	4.85	-1.20	2.65	5.00	346.07
393.00	1.95	116.54	392.95	-3.70	4.60	-0.61	4.94	4.64	352.38
424.00	3.12	125.54	423.91	-2.37	3.87	0.54	3.98	3.91	8.00
455.00	4.37	129.59	454.85	-0.36	2.63	2.14	4.12	3.39	39.17
486.00	5.34	126.90	485.74	2.24	1.01	4.20	3.21	4.32	76.52
517.00	6.17	128.08	516.58	5.32	-0.89	6.67	2.70	6.73	97.57
548.00	7.21	126.69	547.37	8.90	-3.08	9.54	3.40	10.02	107.87
596.00	9.06	123.99	594.88	15.58	-6.99	15.09	3.93	16.63	114.85
641.00	11.00	124.35	639.19	23.27	-11.39	21.57	4.31	24.40	117.84
686.00	12.47	126.48	683.25	32.29	-16.70	29.02	3.41	33.49	119.92
731.00	13.80	129.16	727.07	42.43	-22.98	37.09	3.25	43.63	121.78
776.00	15.23	131.09	770.64	53.66	-30.26	45.71	3.35	54.82	123.50
821.00	16.96	132.58	813.87	66.11	-38.58	55.00	3.95	67.18	125.05
866.00	18.65	132.37	856.71	79.85	-47.87	65.15	3.76	80.84	126.31
911.00	20.58	131.70	899.10	94.93	-57.98	76.37	4.32	95.89	127.21
956.00	22.75	132.75	940.92	111.52	-69.15	88.66	4.90	112.44	127.95
1001.00	24.20	134.18	982.19	129.44	-81.49	101.67	3.46	130.30	128.71
1046.00	25.22	135.24	1023.07	148.25	-94.72	115.04	2.47	149.02	129.47
1136.00	25.62	136.06	1104.36	186.88	-122.35	142.04	0.59	187.47	130.74
1226.00	26.18	136.39	1185.32	226.18	-150.74	169.23	0.64	226.63	131.69
1316.00	26.07	136.16	1266.13	265.81	-179.37	196.63	0.17	266.15	132.37
1406.00	26.21	135.69	1346.92	305.46	-207.86	224.21	0.28	305.74	132.83
1496.00	27.47	135.68	1427.22	346.09	-236.94	252.60	1.40	346.33	133.17
1586.00	27.19	135.36	1507.18	387.41	-266.42	281.55	0.35	387.62	133.42
1676.00	27.48	135.10	1587.13	428.74	-295.76	310.65	0.35	428.92	133.59
1766.00	27.24	134.65	1667.06	470.10	-324.94	339.96	0.35	470.28	133.71
1856.00	26.90	133.54	1747.20	511.04	-353.44	369.37	0.68	511.23	133.74
1946.00	27.12	134.19	1827.38	551.90	-381.76	398.84	0.41	552.10	133.75
2036.00	27.77	136.14	1907.26	593.38	-411.18	428.08	1.23	593.57	133.85
2126.00	27.45	135.32	1987.01	635.09	-441.05	457.19	0.55	635.26	133.97
2216.00	28.17	135.36	2066.61	677.08	-470.92	486.71	0.80	677.23	134.06
2306.00	27.91	135.34	2146.05	719.38	-501.01	516.44	0.29	719.53	134.13
2396.00	27.98	135.32	2225.55	761.56	-531.01	546.09	0.08	761.70	134.20



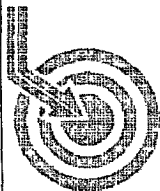
Scientific Drilling International

COP Survey Report

Company: CONOCOPHILLIPS **Date:** 11/23/2009 **Time:** 12:11:45 **Page:** 2
Field: San Juan **Co-ordinate(NE) Reference:** Site: SEC 19-T28N-R7W, Grid North
Site: SEC 19-T28N-R7W **Vertical (TVD) Reference:** SITE 0.0
Well: San Juan 28-7 #257N **Section (VS) Reference:** Well (0.00N,0.00E,135.29Azi)
Wellpath: DH - Job #33D1109204 **Survey Calculation Method:** Minimum Curvature **Db:** Sybase

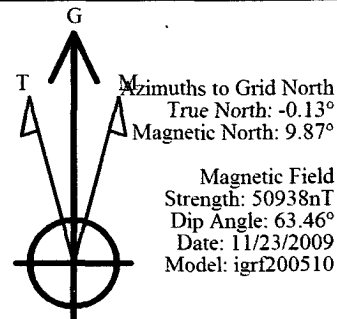
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/V ft	DLS deg/100ft	ClsD ft	ClsA deg
2486.00	28.15	134.86	2304.97	803.90	-561.00	575.98	0.31	804.04	134.24
2575.00	28.51	134.13	2383.31	846.13	-590.59	606.11	0.56	846.27	134.26
2665.00	29.05	133.94	2462.19	889.45	-620.71	637.26	0.61	889.60	134.25
2755.00	28.63	135.70	2541.03	932.86	-651.31	668.06	1.05	933.01	134.27
2845.00	27.27	136.37	2620.53	975.04	-681.66	697.34	1.55	975.17	134.35
2935.00	25.76	136.78	2701.06	1015.20	-710.84	724.96	1.69	1015.32	134.44
3025.00	25.51	137.19	2782.21	1054.12	-739.31	751.53	0.34	1054.22	134.53
3115.00	24.74	136.51	2863.69	1092.32	-767.19	777.66	0.91	1092.40	134.61
3205.00	24.18	135.56	2945.61	1129.58	-794.01	803.53	0.76	1129.65	134.66
3295.00	23.49	135.14	3027.94	1165.95	-819.89	829.08	0.79	1166.02	134.68
3385.00	21.89	135.76	3110.97	1200.67	-844.62	853.44	1.80	1200.73	134.70
3475.00	18.74	137.57	3195.36	1231.90	-867.32	874.91	3.57	1231.95	134.75
3565.00	15.72	138.88	3281.31	1258.52	-887.18	892.68	3.38	1258.56	134.82
3655.00	13.47	137.30	3368.40	1281.17	-904.07	907.81	2.54	1281.20	134.88
3745.00	12.59	136.47	3456.08	1301.45	-918.89	921.68	1.00	1301.48	134.91
3834.00	8.97	135.98	3543.50	1318.09	-930.91	933.18	4.07	1318.12	134.93
3924.00	5.80	138.65	3632.74	1329.65	-939.37	941.06	3.54	1329.67	134.95
4014.00	2.77	137.47	3722.48	1336.36	-944.39	945.54	3.37	1336.38	134.97
4104.00	1.60	132.20	3812.41	1339.79	-946.84	947.94	1.32	1339.81	134.97
4178.00	1.42	143.42	3886.39	1341.73	-948.27	949.25	0.47	1341.75	134.97

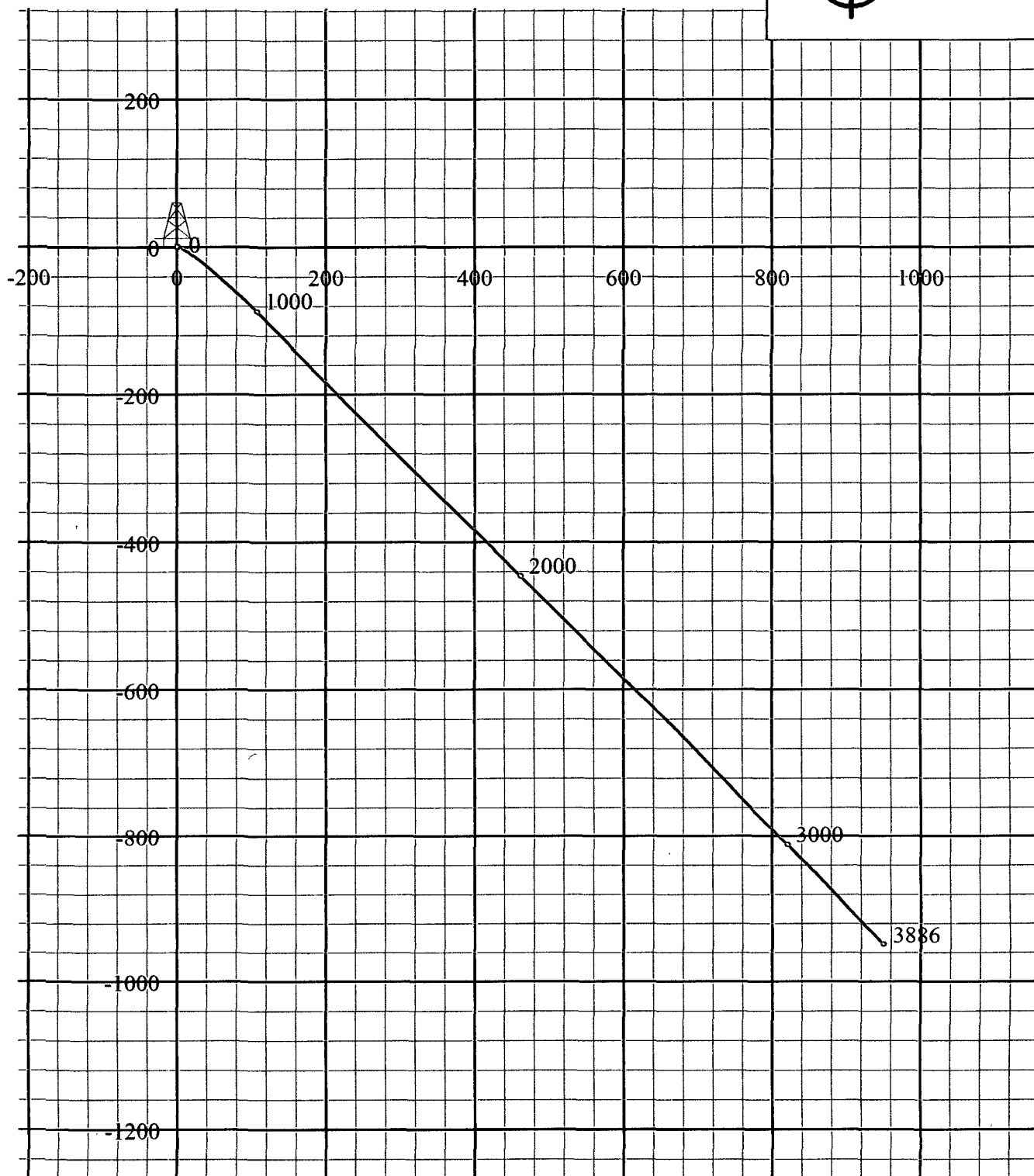


Scientific
Drilling

Field: San Juan
Site: SEC 19-T28N-R7W
Well: San Juan 28-7 #257N
Wellpath: DH - Job #33D1109204
Survey: 11/09/09-11/12/09



South(-)/North(+) [200ft/in]



West(-)/East(+) [200ft/in]