



COP Deviation Report

MCCORD B #1F

Operator BURLINGTON RESOURCES OIL & GAS COMPANY	Legal WellName MCCORD B #1F	API / UWI 3004534200	County SAN JUAN	State/Province NEW MEXICO
Surface Legal Location SEC:23;TWN:030N;RNG:013W	BHL 2335/S 621/W	N/S Dist (ft) 2,410.00	N/S Ref FSL	E/W Dist (ft) 670.00 E/W Ref FWL

Survey Data

Date	MD (ftKB)	Incl (°)	Method	Survey Company
6/13/2008	100.00	0.56	Gyro MS	Scientific Drilling
2/6/2008	125.00	1.00	DEVIATION	MOTE
6/13/2008	200.00	0.64	Gyro MS	Scientific Drilling
2/6/2008	230.00	1.00	DEVIATION	MOTE
6/13/2008	300.00	0.72	Gyro MS	Scientific Drilling
6/13/2008	400.00	0.58	Gyro MS	Scientific Drilling
6/13/2008	500.00	0.82	Gyro MS	Scientific Drilling
6/13/2008	600.00	0.54	Gyro MS	Scientific Drilling
3/15/2008	660.00	0.25	Incl	AWS #777
6/13/2008	700.00	0.38	Gyro MS	Scientific Drilling
6/13/2008	800.00	0.13	Gyro MS	Scientific Drilling
6/13/2008	900.00	0.39	Gyro MS	Scientific Drilling
6/13/2008	1,000.00	0.05	Gyro MS	Scientific Drilling
6/13/2008	1,100.00	0.08	Gyro MS	Scientific Drilling
6/13/2008	1,200.00	0.15	Gyro MS	Scientific Drilling
3/15/2008	1,240.00	0.25	Incl	AWS #777
6/13/2008	1,300.00	0.59	Gyro MS	Scientific Drilling
6/13/2008	1,400.00	0.95	Gyro MS	Scientific Drilling
6/13/2008	1,500.00	1.16	Gyro MS	Scientific Drilling
6/13/2008	1,600.00	0.88	Gyro MS	Scientific Drilling
6/13/2008	1,700.00	1.33	Gyro MS	Scientific Drilling
3/15/2008	1,749.00	1.25	Incl	AWS #777
6/13/2008	1,800.00	1.83	Gyro MS	Scientific Drilling
6/13/2008	1,900.00	1.70	Gyro MS	Scientific Drilling
6/13/2008	2,000.00	1.56	Gyro MS	Scientific Drilling
6/13/2008	2,100.00	0.86	Gyro MS	Scientific Drilling
6/13/2008	2,200.00	0.75	Gyro MS	Scientific Drilling
3/16/2008	2,249.00	1.25	Incl	AWS #777
6/13/2008	2,300.00	0.87	Gyro MS	Scientific Drilling
6/13/2008	2,400.00	0.84	Gyro MS	Scientific Drilling
6/13/2008	2,500.00	1.17	Gyro MS	Scientific Drilling
6/13/2008	2,600.00	1.49	Gyro MS	Scientific Drilling
6/13/2008	2,700.00	1.07	Gyro MS	Scientific Drilling
3/16/2008	2,749.00	1.25	Incl	AWS #777

I, the undersigned, certify that I acting in my capacity as Drilling Engineer 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.

Any surveys taken by MOTE
or AWS 777 are invalid.
Only the gyro survey taken by
Scientific Drilling is valid. Amend

Subscribed and sworn to me this 16TH DAY OF JUNE 2008

NSL

RCVD JUN 17 08

OIL CONS. DIV.
DIST. 3

Maury N. Monroe

Notary Public in and for San Juan County, New Mexico

My Commission expires Jan 24, 2011

Survey Data

Date	MD (ftKB)	Incl (°)	Method	Survey Company
6/13/2008	2,800.00	1.04	Gyro MS	Scientific Drilling
6/13/2008	2,900.00	1.09	Gyro MS	Scientific Drilling
6/13/2008	3,000.00	1.10	Gyro MS	Scientific Drilling
6/13/2008	3,100.00	0.79	Gyro MS	Scientific Drilling
6/13/2008	3,200.00	1.03	Gyro MS	Scientific Drilling
3/16/2008	3,245.00	1.25	Incl	AWS #777
6/13/2008	3,300.00	1.06	Gyro MS	Scientific Drilling
6/13/2008	3,400.00	0.88	Gyro MS	Scientific Drilling
6/13/2008	3,500.00	0.23	Gyro MS	Scientific Drilling
3/16/2008	3,575.00	0.75	Incl	AWS #777
6/13/2008	3,600.00	0.14	Gyro MS	Scientific Drilling
6/13/2008	3,700.00	0.35	Gyro MS	Scientific Drilling
6/13/2008	3,800.00	0.30	Gyro MS	Scientific Drilling
6/13/2008	3,900.00	0.23	Gyro MS	Scientific Drilling
6/13/2008	4,000.00	0.33	Gyro MS	Scientific Drilling
6/13/2008	4,100.00	0.14	Gyro MS	Scientific Drilling
6/13/2008	4,200.00	0.08	Gyro MS	Scientific Drilling
3/21/2008	4,280.00	1.00	Incl	AWS #777
6/13/2008	4,300.00	0.42	Gyro MS	Scientific Drilling
6/13/2008	4,400.00	0.63	Gyro MS	Scientific Drilling
6/13/2008	4,500.00	0.77	Gyro MS	Scientific Drilling
6/13/2008	4,600.00	0.80	Gyro MS	Scientific Drilling
6/13/2008	4,700.00	0.92	Gyro MS	Scientific Drilling
3/22/2008	4,798.00	1.00	Incl	AWS #777
6/13/2008	4,800.00	0.81	Gyro MS	Scientific Drilling
6/13/2008	4,900.00	1.10	Gyro MS	Scientific Drilling
6/13/2008	5,000.00	1.54	Gyro MS	Scientific Drilling
6/13/2008	5,100.00	1.82	Gyro MS	Scientific Drilling
6/13/2008	5,200.00	2.13	Gyro MS	Scientific Drilling
3/23/2008	5,276.00	2.00	Incl	AWS #777
6/13/2008	5,300.00	2.41	Gyro MS	Scientific Drilling
6/13/2008	5,400.00	2.36	Gyro MS	Scientific Drilling
6/13/2008	5,500.00	3.09	Gyro MS	Scientific Drilling
6/13/2008	5,600.00	3.61	Gyro MS	Scientific Drilling
6/13/2008	5,700.00	3.87	Gyro MS	Scientific Drilling
3/25/2008	5,722.00	4.00	Incl	AWS #777
6/13/2008	5,800.00	3.90	Gyro MS	Scientific Drilling
6/13/2008	5,900.00	3.67	Gyro MS	Scientific Drilling
3/26/2008	5,972.00	4.00	Incl	AWS #777

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 _____

Survey Data

Date	MD (ftKB)	Incl (°)	Method	Survey Company
6/13/2008	6,000.00	3.42	Gyro MS	Scientific Drilling
6/13/2008	6,100.00	3.62	Gyro MS	Scientific Drilling
3/27/2008	6,169.00	4.75	Incl	AWS #777
6/13/2008	6,200.00	3.93	Gyro MS	Scientific Drilling
6/13/2008	6,250.00	3.99	Gyro MS	Scientific Drilling
3/28/2008	6,428.00	5.00	Incl	AWS #777
3/28/2008	6,611.00	6.00	Incl	AWS #777

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

Gyroscopic Survey Report for CONOCOPHILLIPS

Well Location	SF-078213
Well Name	MCCORD B #1F
Rig Name	
Survey Date	6/13/2008
Latitude	36.80 deg
North Reference	True North
Grid Correction	0.00 deg
Depth Reference	RKB 15'
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 0.00Azim (deg)
Definitive Survey	INRUN
Operator	CHRIS RICHEY

Comments

RAN SURVEY IN 2 3/8 TUBING FROM SURFACE TO 6250 MD.



Survey Report

Well Name: MCCORD B #1F

Survey: INRUN

Survey Date: 6/13/2008

MD	Inc	Azim	TVD	VS	Northing	Easting	DLS	Closure Distance	Closure Angle
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	deg
0.00	0.00	0 00	0 00	0 00	0 00	0.00	Invalid	0 00	0.00
100.00	0 56	49.59	100 00	0.32	0 32	0.37	0 56	0.49	49 59
200.00	0 64	8 37	199 99	1 19	1 19	0 83	0 43	1 45	34 90
300.00	0 72	20.65	299 99	2 33	2.33	1 13	0.16	2.59	25.93
400.00	0.58	18 95	399 98	3.39	3 39	1 52	0 14	3 71	24.09
500.00	0 82	14 53	499 97	4.56	4.56	1.86	0 25	4 93	22 18
600.00	0.54	343.13	599.97	5.71	5.71	1.90	0.46	6.02	18.42
700.00	0.38	350 51	699 96	6 49	6.49	1 71	0.18	6 71	14 75
800.00	0 13	295 79	799 96	6.87	6 87	1.55	0 32	7 04	12 75
900.00	0.39	300 44	899.96	7 09	7 09	1 16	0.27	7 18	9 25
1000.00	0 05	271.40	999 96	7.27	7 27	0.81	0 35	7.31	6 40
1100.00	0.08	187 28	1099 96	7 20	7.20	0 76	0.09	7 24	6.05
1200.00	0.15	71.02	1199.96	7.18	7.18	0 88	0 19	7 23	6.96
1300.00	0.59	195 35	1299 96	6.72	6 72	0.86	0 68	6.78	7 30
1400.00	0 95	193.58	1399 95	5 42	5.42	0.53	0 36	5 45	5 60
1500.00	1 16	189 10	1499 93	3 62	3 62	0.18	0.23	3.62	2.80
1600.00	0.88	192.93	1599 92	1.87	1.87	-0 16	0 29	1.87	355 24
1700.00	1.33	209 83	1699.90	0.11	0.11	-0 90	0 55	0 91	277 10
1800.00	1.83	206.91	1799 86	-2 32	-2 32	-2 20	0.51	3 20	223 56
1900.00	1 70	202.06	1899.81	-5.12	-5 12	-3 48	0 20	6.19	214.25
2000.00	1 56	197 68	1999.77	-7 79	-7 79	-4 46	0 18	8.98	209 76
2100.00	0 86	208 74	2099.75	-9.75	-9.75	-5 23	0 74	11 06	208 21
2200.00	0 75	214.96	2199 74	-10.95	-10.95	-5.97	0.14	12 47	208.60
2300.00	0.87	225 57	2299 73	-12.02	-12.02	-6 89	0.19	13.85	209 81
2400.00	0.84	244.29	2399.72	-12 86	-12.86	-8 09	0.28	15 19	212.16
2500.00	1.17	241.27	2499 70	-13.67	-13.67	-9 64	0 33	16 73	215 19
2600.00	1.49	221.63	2599.67	-15 13	-15 13	-11.40	0.56	18.95	216 99
2700.00	1.07	213 52	2699 65	-16 88	-16 88	-12 78	0 46	21 17	217 12
2800.00	1.04	203 00	2799.63	-18.49	-18.49	-13.65	0.20	22 98	216 43
2900.00	1 09	209 53	2899 62	-20 15	-20 15	-14 47	0 13	24.81	215 68
3000.00	1 10	229.18	2999 60	-21.61	-21.61	-15.66	0.37	26 69	215 94
3100.00	0.79	210 04	3099.58	-22 83	-22 83	-16 74	0 44	28.31	216.24
3200.00	1.03	231 96	3199 57	-23 99	-23 99	-17 79	0 42	29 87	216 57
3300.00	1 06	227.85	3299 56	-25.16	-25.16	-19.19	0.08	31.64	217 33
3400.00	0 88	183 78	3399.54	-26 55	-26 55	-19 92	0.75	33 19	216 88
3500.00	0 23	107 27	3499.54	-27 38	-27.38	-19.79	0 86	33 78	215.86
3600.00	0.14	257.69	3599 54	-27 46	-27 46	-19 72	0 36	33 81	215 68
3700.00	0.35	257.28	3699 54	-27.56	-27.56	-20 14	0.21	34.13	216.17
3800.00	0 30	145 63	3799.54	-27 84	-27 84	-20 29	0 54	34 45	216 09



Survey Report

Well Name: MCCORD B #1F

Survey: INRUN

Survey Date: 6/13/2008

MD ft	Inc deg	Azim deg	TVD ft	VS ft	Northing ft	Easting ft	DLS deg/100ft	Closure Distance ft	Closure Angle deg
3900.00	0.23	114.17	3899.53	-28.14	-28.14	-19.96	0.16	34.51	215.35
4000.00	0.33	112.55	3999.53	-28.34	-28.34	-19.51	0.11	34.41	214.55
4100.00	0.14	95.53	4099.53	-28.46	-28.46	-19.12	0.20	34.29	213.90
4200.00	-0.08	32.25	4199.53	-28.41	-28.41	-18.96	0.13	34.16	213.72
4300.00	0.42	54.62	4299.53	-28.13	-28.13	-18.63	0.35	33.74	213.50
4400.00	0.63	42.56	4399.53	-27.52	-27.52	-17.96	0.23	32.86	213.12
4500.00	0.77	47.63	4499.52	-26.66	-26.66	-17.09	0.16	31.67	212.66
4600.00	0.80	43.03	4599.51	-25.70	-25.70	-16.12	0.07	30.34	212.09
4700.00	0.92	72.83	4699.50	-24.96	-24.96	-14.88	0.45	29.06	210.80
4800.00	0.81	123.87	4799.49	-25.11	-25.11	-13.53	0.75	28.53	208.32
4900.00	1.10	147.12	4899.48	-26.32	-26.32	-12.42	0.48	29.10	205.27
5000.00	1.54	165.12	4999.45	-28.43	-28.43	-11.55	0.60	30.68	202.12
5100.00	1.82	163.15	5099.41	-31.25	-31.25	-10.75	0.28	33.04	198.98
5200.00	2.13	174.27	5199.35	-34.62	-34.62	-10.10	0.49	36.06	196.27
5300.00	2.41	178.09	5299.27	-38.57	-38.57	-9.85	0.32	39.81	194.32
5400.00	2.36	195.86	5399.18	-42.65	-42.65	-10.34	0.74	43.88	193.63
5500.00	3.09	203.12	5499.07	-47.11	-47.11	-11.96	0.81	48.60	194.25
5600.00	3.61	216.16	5598.90	-52.13	-52.13	-14.88	0.92	54.21	195.93
5700.00	3.87	229.84	5698.69	-56.85	-56.85	-19.31	0.93	60.04	198.76
5800.00	3.90	227.19	5798.46	-61.34	-61.34	-24.39	0.18	66.01	201.68
5900.00	3.67	236.91	5898.24	-65.40	-65.40	-29.57	0.68	71.77	204.33
6000.00	3.42	242.62	5998.05	-68.52	-68.52	-34.90	0.44	76.89	206.99
6100.00	3.62	238.69	6097.86	-71.53	-71.53	-40.24	0.31	82.07	209.36
6200.00	3.93	250.58	6197.65	-74.31	-74.31	-46.17	0.84	87.48	211.85
6250.00	3.99	249.55	6247.53	-75.48	-75.48	-49.41	0.18	90.22	213.21