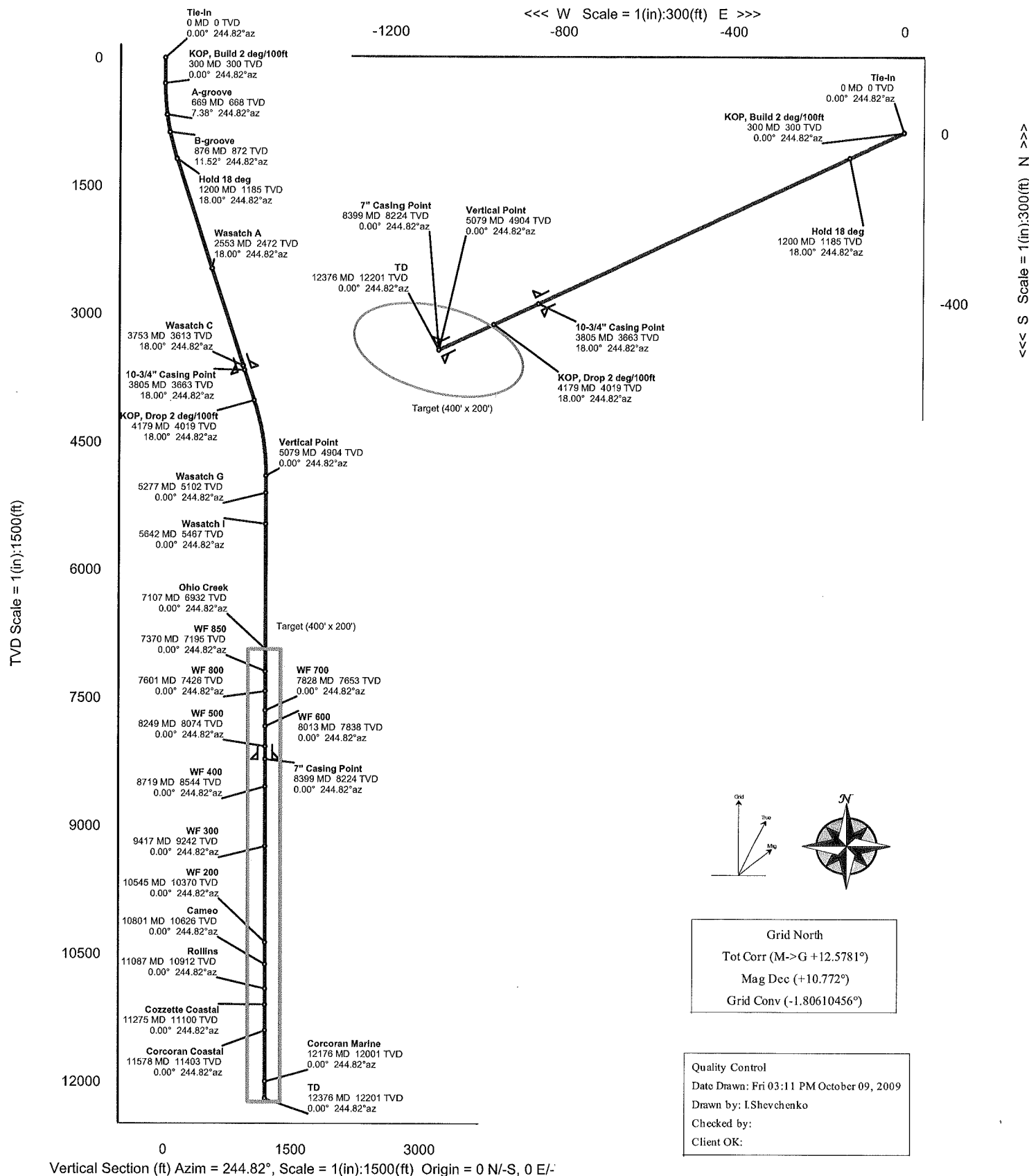


WELL FRU 197-28A6		FIELD CO, Rio Blanco County		STRUCTURE TBA	
Magnetic Parameters Model: BGGM 2009 Dip: 66.112° Date: October 09, 2009 Mag Dec: +10.772° FS: 52633.2 nT		Surface Location Lat: N39 56.4 262 Northing: 231343.00 IJUS Lon: W108 17.42 900 Easting: 1216256.00 IJUS Grid Code: -1.80610456* Scale Fact: 0.999971991		Miscellaneous Sht: FRU 197-28A6 TVD Ref: (6112.00 ft above MSL) Plan: FRU 197-28A6 RD Svy Date: October 09, 2009	



FRU 197-28A6 R0 Geodetic Proposal

Report Date: October 9, 2009	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: ExxonMobil	Vertical Section Azimuth: 244.820°
Field: CO, Rio Blanco County (NAD 27 N2) ExxonMobil 2008	Vertical Section Origin: N 0.000 ft, E 0.000 ft
Structure / Slot: ExxonMobil 28-1S-97W (FRU 197-28A Pad) / FRU 197-28A6	TVD Reference Datum:
Well: FRU 197-28A6	TVD Reference Elevation: 6112.0 ft relative to MSL
Borehole: FRU 197-28A6	Sea Bed / Ground Level Elevation: 6081.600 ft relative to MSL
UWI/API#:	Magnetic Declination: 10.772°
Survey Name / Date: FRU 197-28A6 R0 ivs 9-Oct-09 / October 9, 2009	Total Field Strength: 52633.184 nT
Tort / AHD / DDI / ERD ratio: 36.003° / 1201.16 ft / 4.642 / 0.098	Magnetic Dip: 66.112°
Grid Coordinate System: NAD27 Colorado State Planes, Northern Zone, US Feet	Declination Date: October 09, 2009
Location Lat/Long: N 39 56 4.262, W 108 17 42.900	Magnetic Declination Model: BGGM 2009
Location Grid N/E Y/X: N 231343.000 ftUS, E 1216258.000 ftUS	North Reference: Grid North
Grid Convergence Angle: -1.80610456°	Total Corr Mag North -> Grid North: +12.578°
Grid Scale Factor: 0.99997199	Local Coordinates Referenced To: Well Head

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Sub-Sea TVD (ft)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	DLS (deg/100 ft)	Northing (ftUS)	Easting (ftUS)	Latitude	Longitude
Tie-In	0.00	0.00	244.82	-6112.00	0.00	0.00	0.00	0.00	0.00	231343.00	1216258.00	N 39 56 4.262	W 108 17 42.900
KOP, Build 2 deg/100ft	300.00	0.00	244.82	-5812.00	300.00	0.00	0.00	0.00	0.00	231343.00	1216258.00	N 39 56 4.262	W 108 17 42.900
	500.00	4.00	244.82	-5612.16	499.84	6.98	-2.97	-6.32	2.00	231340.03	1216251.68	N 39 56 4.231	W 108 17 42.980
A-groove	669.02	7.38	244.82	-5444.00	668.00	23.73	-10.10	-21.48	2.00	231332.90	1216236.52	N 39 56 4.156	W 108 17 43.172
B-groove	875.87	11.52	244.82	-5240.00	872.00	57.69	-24.54	-52.20	2.00	231318.46	1216205.80	N 39 56 4.004	W 108 17 43.560
	1000.00	14.00	244.82	-5118.94	993.06	85.10	-36.20	-77.01	2.00	231306.80	1216180.99	N 39 56 3.881	W 108 17 43.874
Hold 18 deg	1200.08	18.00	244.82	-4926.66	1185.34	140.24	-59.66	-126.91	2.00	231283.34	1216131.09	N 39 56 3.634	W 108 17 44.504
	1500.00	18.00	244.82	-4641.42	1470.58	232.93	-99.09	-210.79	0.00	231243.91	1216047.21	N 39 56 3.218	W 108 17 45.565
	2000.00	18.00	244.82	-4165.89	1946.11	387.45	-164.83	-350.63	0.00	231178.17	1215907.38	N 39 56 2.525	W 108 17 47.332
	2500.00	18.00	244.82	-3690.37	2421.63	541.97	-230.57	-490.47	0.00	231112.43	1215767.54	N 39 56 1.832	W 108 17 49.100
Wasatch A	2552.96	18.00	244.82	-3640.00	2472.00	558.33	-237.54	-505.29	0.00	231105.47	1215752.73	N 39 56 1.759	W 108 17 49.287
	3000.00	18.00	244.82	-3214.84	2897.16	696.49	-296.31	-630.31	0.00	231046.70	1215627.70	N 39 56 1.139	W 108 17 50.867
	3500.00	18.00	244.82	-2739.32	3372.68	851.01	-362.05	-770.15	0.00	230980.96	1215487.87	N 39 56 0.446	W 108 17 52.635
Wasatch C	3752.69	18.00	244.82	-2499.00	3613.00	929.10	-395.27	-840.83	0.00	230947.74	1215417.20	N 39 56 0.096	W 108 17 53.528
10-3/4" Casing Point	3805.26	18.00	244.82	-2449.00	3663.00	945.35	-402.19	-855.53	0.00	230940.83	1215402.50	N 39 56 0.023	W 108 17 53.714
	4000.00	18.00	244.82	-2263.80	3848.20	1005.53	-427.79	-909.99	0.00	230915.22	1215348.03	N 39 55 59.753	W 108 17 54.403
KOP, Drop 2 deg/100ft	4179.23	18.00	244.82	-2093.34	4018.66	1060.92	-451.35	-960.12	0.00	230891.66	1215297.91	N 39 55 59.505	W 108 17 55.036
	4500.00	11.59	244.82	-1783.36	4328.64	1142.78	-486.18	-1034.21	2.00	230856.83	1215223.83	N 39 55 59.138	W 108 17 55.973
	5000.00	1.59	244.82	-1287.29	4824.71	1200.06	-510.55	-1086.04	2.00	230832.47	1215171.99	N 39 55 58.881	W 108 17 56.628
Vertical Point	5079.30	0.00	244.82	-1208.00	4904.00	1201.16	-511.02	-1087.03	2.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
Wasatch G	5277.30	0.00	244.82	-1010.00	5102.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	5500.00	0.00	244.82	-787.30	5324.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
Wasatch I	5642.30	0.00	244.82	-645.00	5467.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	6000.00	0.00	244.82	-287.30	5824.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	6500.00	0.00	244.82	212.70	6324.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
Ohio Creek	7000.00	0.00	244.82	712.70	6824.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
WF 850	7107.30	0.00	244.82	820.00	6932.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	7370.30	0.00	244.82	1083.00	7195.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
WF 800	7500.00	0.00	244.82	1212.70	7324.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	7601.30	0.00	244.82	1314.00	7426.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
WF 700	7828.30	0.00	244.82	1541.00	7653.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	8000.00	0.00	244.82	1712.70	7824.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
WF 600	8013.30	0.00	244.82	1726.00	7838.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
WF 500	8249.30	0.00	244.82	1962.00	8074.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
7" Casing Point	8399.30	0.00	244.82	2112.00	8224.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	8500.00	0.00	244.82	2212.70	8324.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
WF 400	8719.30	0.00	244.82	2432.00	8544.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	9000.00	0.00	244.82	2712.70	8824.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
WF 300	9417.30	0.00	244.82	3130.00	9242.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	9500.00	0.00	244.82	3212.70	9324.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	10000.00	0.00	244.82	3712.70	9824.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
WF 200	10500.00	0.00	244.82	4212.70	10324.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	10545.30	0.00	244.82	4258.00	10370.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
Cameo	10801.30	0.00	244.82	4514.00	10626.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	11000.00	0.00	244.82	4712.70	10824.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
Rollins	11087.30	0.00	244.82	4800.00	10912.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
Cozzette Coastal	11275.30	0.00	244.82	4988.00	11100.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	11500.00	0.00	244.82	5212.70	11324.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
Corcoran Coastal	11578.30	0.00	244.82	5291.00	11403.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
	12000.00	0.00	244.82	5712.70	11824.70	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
Corcoran Marine	12176.30	0.00	244.82	5889.00	12001.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640
TD	12376.30	0.00	244.82	6089.00	12201.00	1201.16	-511.02	-1087.03	0.00	230832.00	1215171.00	N 39 55 58.876	W 108 17 56.640

Survey Type: Non-Def Proposal

Survey Error Model: SLB ISCWSA version 24 *** 3-D 95.00% Confidence 2.7955 sigma

Surveying Prog:

MD From (ft)	MD To (ft)	EOU Freq	Survey Tool Type
0.00	30.40	1/100.00	SLB_NSG+SSHOT-Depth Only
30.40	300.00	1/100.00	SLB_NSG+SSHOT
300.00	5079.30	1/100.00	SLB_MWD-STD
5079.30	12376.30	1/100.00	SLB_INC-ONLY

Borehole -> Survey

FRU 197-28A6 -> FRU 197-28A6 R0 ivs 9-Oct-09
FRU 197-28A6 -> FRU 197-28A6 R0 ivs 9-Oct-09
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