

Murchison Oil and Gas

Ramsey
Ogden 5B
Ogden 5B
Ogden 5B

Survey: Ogden 5B^H Leg 2

MOJO Standard Survey

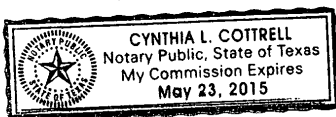
17 May, 2012

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

Notarized this date 17 of MAY, 2012.


Notary Signature

County of Collin
State of Texas



MOJO
DIRECTIONAL CORPORATION

Company: Murchison Oil and Gas	Local Co-ordinate Reference: Well Ogden 5B
Project: Ramsey	TVD Reference: Well @ 3390 0usft (HWD 4)
Site: Ogden 5B	MD Reference: Well @ 3390 0usft (HWD 4)
Well: Ogden 5B	North Reference: Grid
Wellbore: Ogden 5B	Survey Calculation Method: Minimum Curvature
Design: Ogden 5B	Database: EDM 5000.1 Single User Db

Project: Ramsey, Pinnate Appraisal Well	System Datum: Mean Sea Level
Map System: US State Plane 1983	
Geo Datum: North American Datum 1983	
Map Zone: New Mexico Eastern Zone	

Site: Ogden 5B			
Site Position:	From: Lat/Long	Northing: 419,069.17 usft	Latitude: 32° 9' 7.484 N
		Easting: 563,741.80 usft	Longitude: 104° 15' 39.380 W
Position Uncertainty: 1.0 usft		Slot Radius: 15 "	Grid Convergence: 0.04 °

Well: Ogden 5B, Multi-Lateral Horizontal Intersection			
Well Position	+N/-S 0.0 usft	Northing: 419,069.17 usft	Latitude: 32° 9' 7.484 N
	+E/-W 0.0 usft	Easting: 563,741.80 usft	Longitude: 104° 15' 39.380 W
Position Uncertainty 1.0 usft		Wellhead Elevation: usft	Ground Level: 3,378 0 usft

Wellbore: Ogden 5B					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF200510	04/11/2011	(°) 7.84	(°) 60.01	(nT) 48,497

Design: Ogden 5B				
Audit Notes:				
Version:	Phase: ACTUAL	Tie On Depth: 0 0		
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	8.53

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From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
360.0	2,255.0	Ogden 5B Main bore (Ogden 5B)		
2,278.0	2,569.0	Ogden 5B Leg 2 (Ogden 5B)		
2,590.0	6,718.0	Ogden 5B Leg 3 (Ogden 5B)		

MD (usft)	Incl (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	Closure Azimuth (°)	Closure Distance (usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.00	419,069.17	563,741.80	0.00	0.00
334.0	0.46	313.30	334.0	0.9	-1.0	0.14	419,070.10	563,740.81	313.30	1.35
9 5/8"										
360.0	0.50	313.30	360.0	1.1	-1.1	0.14	419,070.25	563,740.65	313.30	1.57
420.0	0.40	334.80	420.0	1.4	-1.4	0.32	419,070.62	563,740.37	315.47	2.03
574.0	0.60	339.80	574.0	2.7	-1.9	0.13	419,071.86	563,739.87	324.33	3.31
674.0	0.20	24.10	674.0	3.3	-2.0	0.48	419,072.51	563,739.76	328.59	3.91
774.0	1.00	319.60	774.0	4.2	-2.5	0.93	419,073.34	563,739.26	328.68	4.87
874.0	1.50	315.70	874.0	5.8	-4.0	0.51	419,074.94	563,737.78	325.16	7.02
974.0	1.50	314.90	973.9	7.6	-5.9	0.02	419,076.80	563,735.94	322.48	9.61
1,074.0	2.70	338.70	1,073.9	10.7	-7.6	1.46	419,079.92	563,734.16	324.59	13.18
1,174.0	2.70	341.50	1,173.7	15.2	-9.2	0.13	419,084.34	563,732.56	328.66	17.76
1,274.0	2.40	357.20	1,273.6	19.5	-10.1	0.76	419,088.67	563,731.71	332.64	21.95
1,349.0	2.40	3.30	1,348.6	22.6	-10.1	0.34	419,091.81	563,731.72	336.00	24.78
1,388.0	2.50	4.20	1,387.5	24.3	-10.0	0.27	419,093.47	563,731.83	337.70	26.26
1,433.0	2.60	11.90	1,432.5	26.3	-9.7	0.79	419,095.45	563,732.11	339.77	28.00
1,478.0	3.80	20.90	1,477.4	28.7	-8.9	2.88	419,097.84	563,732.85	342.67	30.03
1,523.0	5.80	27.20	1,522.3	32.1	-7.4	4.59	419,101.25	563,734.43	347.06	32.92
1,568.0	6.60	29.50	1,567.0	36.4	-5.1	1.86	419,105.53	563,736.74	352.08	36.71
1,613.0	7.10	26.70	1,611.7	41.1	-2.5	1.34	419,110.26	563,739.26	356.47	41.17
1,658.0	8.20	22.30	1,656.3	46.5	-0.1	2.77	419,115.72	563,741.73	359.92	46.54

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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	D Leg (°/100usft)	Northing (usft)	Easting (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,703.0	9.50	18.90	1,700.7	53.0	2.4	3.11	419,122.20	563,744.15	2.54	53.08
1,748.0	11.90	17.80	1,745.0	61.0	5.0	5.35	419,130.13	563,746.77	4.67	61.16
1,799.0	16.60	14.00	1,794.4	73.0	8.3	9.39	419,142.21	563,750.14	6.52	73.52
1,843.0	24.20	11.60	1,835.6	88.0	11.7	17.37	419,157.17	563,753.48	7.56	88.77
1,879.0	30.00	10.50	1,867.6	104.1	14.8	16.17	419,173.26	563,756.61	8.10	105.14
1,924.0	35.50	9.00	1,905.5	128.1	18.9	12.35	419,197.24	563,760.71	8.40	129.46
1,969.0	40.90	7.50	1,940.8	155.6	22.9	12.18	419,224.78	563,764.67	8.36	157.28
2,014.0	48.20	9.30	1,972.9	186.8	27.5	16.46	419,255.98	563,769.31	8.38	188.82
2,059.0	55.10	12.20	2,000.8	221.4	34.1	16.14	419,290.61	563,775.93	8.76	224.06
2,075.0	56.99	11.57	2,009.7	234.4	36.9	12.23	419,303.60	563,778.67	8.94	237.31
7"										
2,098.0	59.70	10.70	2,021.8	253.6	40.6	12.23	419,322.81	563,782.44	9.10	256.87
2,143.0	62.50	10.60	2,043.5	292.3	47.9	6.23	419,361.52	563,789.72	9.31	296.25
2,188.0	72.00	3.30	2,060.9	333.5	52.8	25.86	419,402.64	563,794.64	9.01	337.63
2,233.0	79.70	1.80	2,071.9	377.0	54.8	17.41	419,446.20	563,796.57	8.27	380.99
2,255.0	82.00	1.10	2,075.4	398.7	55.3	10.92	419,467.91	563,797.12	7.90	402.56
2,278.0	84.70	1.00	2,078.1	421.6	55.7	11.75	419,490.75	563,797.54	7.53	425.25
2,323.0	90.10	1.40	2,080.1	466.5	56.7	12.03	419,535.68	563,798.48	6.93	469.94
2,368.0	95.00	4.50	2,078.1	511.4	59.0	12.88	419,580.56	563,800.79	6.58	514.78

334.0	334.0	9 5/8"	12-1/4	12-1/4
2,075.0	2,009.7	7"	7	8-3/4

Checked By: Steve Morris Approved By: Joel Stockford Date: 17/05/2012