



MARKSMEN DIRECTIONAL, INC.



OPERATOR: Enduring Resources, LLC
WELL: University 09 # 1803-H
LOCATION: Reagan Co., Texas
Rig: Ensign 784

START: #NAME?
FINISH:
DIR. DRILLER T. Gibson / A. Goudeau
CO. REP. K. Dabney / I. Dabney

TIE-IN SURVEY PROVIDED BY: VES @ Surface
Comments: Directional by Marksmen Directional

DECLINATION (+E / -W): 6.92
Grid Conv.

MINIMUM CURVATURE CALCULATIONS(SPE-3362)

PROPOSED DIR.: 181.16

*****Survey Input*****

Survey	No.	Measured Depth	INC	TRUE AZM	TVD	North + - South	East + - West	Vertical Section	DLS/ 100
Tie In		0.0	0.00	0.00	0.00	0.00	0.00	0.00	****
GYRO		130.0	0.57	174.89	130.00	-0.64	0.06	0.64	0.44
GYRO		230.0	0.16	134.85	230.00	-1.24	0.20	1.23	0.46
GYRO		330.0	0.15	101.71	330.00	-1.36	0.43	1.35	0.09
GYRO		430.0	0.15	80.16	430.00	-1.37	0.69	1.35	0.06
GYRO		530.0	0.14	130.09	529.99	-1.42	0.91	1.40	0.12
GYRO		630.0	0.11	173.96	629.99	-1.60	1.01	1.58	0.10
GYRO		679.0	0.19	268.33	678.99	-1.65	0.93	1.63	0.46
MWD1		757.0	0.40	274.80	756.99	-1.63	0.53	1.62	0.27
MWD2		852.0	0.40	29.80	851.99	-1.31	0.37	1.30	0.71
MWD3		946.0	0.40	133.70	945.99	-1.25	0.77	1.24	0.67
MWD4		1040.0	0.30	193.80	1039.99	-1.72	0.95	1.70	0.38
MWD5		1134.0	0.30	72.10	1133.99	-1.88	1.12	1.86	0.56
MWD6		1228.0	1.50	320.20	1227.98	-0.86	0.57	0.85	1.74
MWD7		1322.0	4.10	326.00	1321.86	2.87	-2.10	-2.83	2.78
MWD8		1416.0	5.10	333.20	1415.55	9.38	-5.86	-9.26	1.23
MWD9		1510.0	4.40	325.60	1509.23	16.09	-9.78	-15.89	1.00
MWD10		1605.0	4.00	330.40	1603.98	21.98	-13.48	-21.70	0.56
MWD11		1699.0	3.60	317.70	1697.77	27.01	-17.08	-26.66	0.99
MWD12		1793.0	1.70	304.70	1791.67	29.99	-20.22	-29.57	2.11
MWD13		1887.0	3.30	316.10	1885.58	32.73	-23.24	-32.25	1.77
MWD14		1982.0	2.60	312.60	1980.45	36.16	-26.72	-35.61	0.76
MWD15		2076.0	2.20	308.90	2074.37	38.74	-29.69	-38.13	0.46
MWD16		2171.0	2.40	307.30	2169.29	41.09	-32.70	-40.42	0.22
MWD17		2266.0	1.80	299.80	2264.23	43.03	-35.57	-42.30	0.69
MWD18		2360.0	0.40	313.80	2358.21	43.99	-37.09	-43.23	1.51
MWD19		2454.0	0.50	117.50	2452.21	44.03	-36.96	-43.27	0.95
MWD20		2549.0	0.40	286.90	2547.20	43.94	-36.91	-43.18	0.94
MWD21		2643.0	0.20	37.70	2641.20	44.16	-37.13	-43.40	0.54
MWD22		2738.0	0.40	284.00	2736.20	44.37	-37.35	-43.61	0.54
MWD23		2832.0	0.40	157.70	2830.20	44.15	-37.54	-43.38	0.76
MWD24		2926.0	0.30	124.90	2924.20	43.70	-37.21	-42.94	0.23
MWD25		3020.0	0.40	349.20	3018.20	43.89	-37.07	-43.13	0.69
MWD26		3115.0	0.40	340.60	3113.20	44.52	-37.25	-43.76	0.06
MWD27		3209.0	0.20	215.20	3207.20	44.70	-37.45	-43.93	0.58
MWD28		3303.0	0.50	119.20	3301.20	44.37	-37.19	-43.60	0.59
MWD29		3397.0	0.40	337.70	3395.19	44.47	-36.95	-43.71	0.90
MWD30		3492.0	0.20	237.00	3490.19	44.69	-37.22	-43.92	0.50
MWD31		3586.0	0.40	79.90	3584.19	44.65	-37.03	-43.90	0.63
MWD32		3681.0	0.40	321.20	3679.19	44.97	-36.91	-44.21	0.72



MARKSMEN DIRECTIONAL, INC.

OPERATOR: Enduring Resources, LLC
WELL: University 09 # 1803-H
LOCATION: Reagan Co., Texas
Rig: Ensign 784

START: #NAME?
FINISH:
DIR. DRILLER T. Gibson / A. Goudeau
CO. REP. K. Dabney / I. Dabney

TIE-IN SURVEY PROVIDED BY: VES @ Surface
Comments: Directional by Marksmen Directional

DECLINATION (+E / -W): 6.92
Grid Conv.

MINIMUM CURVATURE CALCULATIONS(SPE-3362)

PROPOSED DIR.: 181.16

*****Survey Input*****

Survey	Measured No.	Depth	INC	TRUE AZM	TVD	North + - South	East + - West	Vertical Section	DLS/ 100
MWD33		3775.0	0.40	312.80	3773.19	45.45	-37.36	-44.68	0.06
MWD34		3870.0	0.50	39.10	3868.19	46.00	-37.34	-45.23	0.65
MWD35		3964.0	0.40	82.50	3962.18	46.36	-36.76	-45.60	0.37
MWD36		4058.0	0.20	316.30	4056.18	46.52	-36.55	-45.77	0.58
MWD37		4153.0	0.30	133.30	4151.18	46.47	-36.48	-45.72	0.53
MWD38		4247.0	0.20	195.50	4245.18	46.14	-36.34	-45.40	0.29
MWD39		4341.0	0.50	156.20	4339.18	45.61	-36.22	-44.87	0.39
MWD40		4436.0	0.10	161.10	4434.18	45.15	-36.03	-44.41	0.42
MWD41		4530.0	0.70	123.60	4528.18	44.76	-35.52	-44.03	0.66
MWD42		4624.0	0.40	167.80	4622.17	44.12	-34.98	-43.40	0.53
MWD43		4718.0	0.60	101.70	4716.17	43.70	-34.42	-42.99	0.61
MWD44		4812.0	0.40	175.80	4810.17	43.27	-33.92	-42.57	0.66
MWD45		4907.0	0.50	138.90	4905.16	42.63	-33.62	-41.94	0.32
MWD46		5001.0	0.50	144.90	4999.16	41.98	-33.12	-41.30	0.06
MWD47		5096.0	0.40	156.20	5094.16	41.34	-32.74	-40.67	0.14
MWD48		5191.0	0.20	64.40	5189.16	41.11	-32.46	-40.44	0.48
MWD49		5285.0	0.30	173.70	5283.16	40.93	-32.29	-40.27	0.44
MWD50		5379.0	0.40	122.90	5377.15	40.51	-31.98	-39.85	0.33
MWD51		5473.0	0.20	155.50	5471.15	40.18	-31.64	-39.53	0.27
MWD52		5567.0	0.40	29.10	5565.15	40.32	-31.41	-39.68	0.58
MWD53		5661.0	0.40	25.40	5659.15	40.90	-31.11	-40.27	0.03
MWD54		5756.0	0.50	97.80	5754.15	41.15	-30.56	-40.52	0.57
MWD55		5850.0	0.50	94.50	5848.14	41.06	-29.74	-40.45	0.03
MWD56		5944.0	0.10	101.30	5942.14	41.01	-29.25	-40.41	0.43
MWD57		6038.0	0.50	95.20	6036.14	40.96	-28.77	-40.37	0.43
MWD58		6133.0	0.40	105.40	6131.14	40.83	-28.03	-40.26	0.13
MWD59		6227.0	0.40	39.40	6225.14	41.00	-27.51	-40.43	0.46
MWD60		6359.0	0.40	70.70	6357.13	41.51	-26.78	-40.96	0.16
MWD61		6453.0	0.50	78.50	6451.13	41.70	-26.07	-41.16	0.12
MWD62		6547.0	0.30	82.00	6545.13	41.81	-25.42	-41.29	0.21
MWD63		6642.0	0.70	94.80	6640.12	41.80	-24.60	-41.29	0.43
MWD64		6736.0	0.20	0.40	6734.12	41.91	-24.03	-41.42	0.79
MWD65		6830.0	0.20	288.20	6828.12	42.13	-24.18	-41.63	0.25
MWD66		6924.0	0.40	55.30	6922.12	42.37	-24.07	-41.87	0.58
MWD67		7019.0	0.80	296.40	7017.12	42.85	-24.39	-42.35	1.11
MWD68		7113.0	0.60	307.50	7111.11	43.44	-25.37	-42.92	0.26
MWD69		7207.0	0.60	323.90	7205.11	44.14	-26.05	-43.60	0.18
MWD70		7239.0	0.30	213.80	7237.11	44.21	-26.19	-43.67	2.37
MWD71		7270.0	2.60	177.80	7268.09	43.44	-26.21	-42.90	7.63
MWD72		7301.0	6.10	174.40	7299.00	41.09	-26.02	-40.56	11.32



MARKSMEN DIRECTIONAL, INC.

OPERATOR: Enduring Resources, LLC
 WELL: University 09 # 1803-H
 LOCATION: Reagan Co., Texas
 Rig: Ensign 784

START: #NAME?
 FINISH:
 DIR. DRILLER T. Gibson / A. Goudeau
 CO. REP. K. Dabney / I. Dabney

TIE-IN SURVEY PROVIDED BY: VES @ Surface
 Comments: Directional by Marksmen Directional

DECLINATION (+E / -W): 6.92
Grid Conv.

MINIMUM CURVATURE CALCULATIONS(SPE-3362)

PROPOSED DIR.: 181.16

*****Survey Input*****

Survey	Measured	TRUE			North +	East +	Vertical	DLS/ 100	
	No.	Depth	INC	AZM	- South	- West	Section		
MWD73		7333.0	9.40	174.40	7330.70	36.80	-25.60	-36.27	10.31
MWD74		7364.0	12.50	176.20	7361.13	30.93	-25.13	-30.42	10.06
MWD75		7396.0	15.50	177.10	7392.18	23.20	-24.69	-22.70	9.40
MWD76		7427.0	18.30	177.80	7421.84	14.20	-24.29	-13.71	9.06
MWD77		7458.0	21.10	178.50	7451.02	3.76	-23.96	-3.27	9.06
MWD78		7490.0	24.30	179.20	7480.54	-8.59	-23.71	9.06	10.04
MWD79		7521.0	27.30	180.90	7508.45	-22.08	-23.74	22.55	9.97
MWD80		7553.0	30.70	180.90	7536.43	-37.59	-23.98	38.06	10.63
MWD81		7584.0	33.90	181.60	7562.63	-54.14	-24.35	54.63	10.39
MWD82		7616.0	37.60	182.20	7588.60	-72.83	-24.97	73.32	11.61
MWD83		7647.0	41.40	182.20	7612.51	-92.53	-25.73	93.03	12.26
MWD84		7679.0	44.60	181.80	7635.91	-114.33	-26.49	114.85	10.04
MWD85		7710.0	46.70	180.90	7657.58	-136.49	-27.01	137.01	7.09
MWD86		7742.0	49.70	180.60	7678.91	-160.34	-27.32	160.86	9.40
MWD87		7773.0	51.60	180.80	7698.56	-184.31	-27.61	184.83	6.15
MWD88		7804.0	54.40	181.60	7717.22	-209.06	-28.13	209.59	9.26
MWD89		7836.0	56.70	182.30	7735.32	-235.43	-29.03	235.97	7.41
MWD90		7867.0	59.00	182.90	7751.81	-261.65	-30.22	262.21	7.60
MWD91		7898.0	61.10	183.40	7767.29	-288.47	-31.70	289.05	6.92
MWD92		7930.0	63.80	183.10	7782.09	-316.79	-33.31	317.40	8.48
MWD93		7961.0	66.20	182.90	7795.19	-344.85	-34.78	345.48	7.76
MWD94		7993.0	68.90	182.30	7807.41	-374.39	-36.12	375.04	8.61
MWD95		8024.0	71.60	182.30	7817.88	-403.54	-37.29	404.21	8.71
MWD96		8056.0	74.40	181.80	7827.24	-434.12	-38.38	434.81	8.88
MWD97		8087.0	77.00	181.50	7834.89	-464.14	-39.25	464.84	8.44
MWD98		8118.0	80.70	181.60	7840.89	-494.54	-40.07	495.25	11.94
MWD99		8150.0	82.70	181.60	7845.51	-526.19	-40.95	526.91	6.25
MWD100		8181.0	85.00	182.00	7848.83	-557.00	-41.92	557.73	7.53
MWD101		8213.0	89.00	182.50	7850.50	-588.92	-43.18	589.67	12.60
MWD102		8245.0	91.20	183.40	7850.45	-620.88	-44.82	621.66	7.43
MWD103		8339.0	92.00	183.10	7847.82	-714.69	-50.15	715.56	0.91
MWD104		8434.0	89.40	181.60	7846.66	-809.59	-54.04	810.52	3.16
MWD105		8492.0	90.10	182.70	7846.91	-867.55	-56.22	868.51	2.25
MWD106		8586.0	89.70	183.10	7847.08	-961.43	-60.98	962.46	0.60
MWD107		8681.0	89.80	184.60	7847.49	-1056.21	-67.35	1057.35	1.58
MWD108		8775.0	89.30	181.80	7848.23	-1150.05	-72.60	1151.28	3.03
MWD109		8869.0	90.40	183.20	7848.48	-1243.96	-76.70	1245.25	1.89
MWD110		8963.0	89.50	180.80	7848.56	-1337.89	-79.98	1339.24	2.73
MWD111		9058.0	89.60	180.80	7849.31	-1432.88	-81.31	1434.23	0.11
MWD112		9152.0	90.00	181.50	7849.63	-1526.86	-83.19	1528.23	0.86



MARKSMEN DIRECTIONAL, INC.



OPERATOR: Enduring Resources, LLC
 WELL: University 09 # 1803-H
 LOCATION: Reagan Co., Texas
 Rig: Ensign 784

START: #NAME?
 FINISH:
 DIR. DRILLER T. Gibson / A. Goudeau
 CO. REP. K. Dabney / I. Dabney

TIE-IN SURVEY PROVIDED BY: VES @ Surface
 Comments: Directional by Marksmen Directional

DECLINATION (+E / -W): 6.92
Grid Conv.

MINIMUM CURVATURE CALCULATIONS(SPE-3362)

PROPOSED DIR.: 181.16

*****Survey Input*****

Survey	Measured No.	Depth	INC	TRUE AZM	TVD	North + - South	East + - West	Vertical Section	DLS/ 100
MWD113		9246.0	89.60	181.60	7849.96	-1620.82	-85.74	1622.23	0.44
MWD114		9340.0	89.50	181.80	7850.70	-1714.78	-88.53	1716.22	0.24
MWD115		9435.0	90.70	182.90	7850.53	-1809.69	-92.42	1811.19	1.71
MWD116		9529.0	91.00	179.70	7849.14	-1903.65	-94.55	1905.17	3.42
MWD117		9623.0	91.50	179.00	7847.09	-1997.62	-93.49	1999.10	0.91
MWD118		9717.0	91.80	178.70	7844.38	-2091.56	-91.60	2092.99	0.45
MWD119		9811.0	89.40	179.40	7843.40	-2185.54	-90.04	2186.91	2.66
MWD119		9906.0	89.70	179.40	7844.14	-2280.53	-89.05	2281.86	0.32
MWD120		10000.0	89.60	179.50	7844.72	-2374.52	-88.15	2375.82	0.15
MWD121		10094.0	88.30	178.00	7846.44	-2468.48	-86.10	2469.71	2.11
MWD122		10188.0	88.60	177.30	7848.98	-2562.36	-82.24	2563.50	0.81
MWD123		10282.0	89.20	181.10	7850.79	-2656.32	-80.93	2657.41	4.09
MWD124		10377.0	90.00	183.20	7851.45	-2751.24	-84.49	2752.39	2.37
MWD125		10471.0	90.30	183.40	7851.21	-2845.09	-89.91	2846.32	0.38
MWD126		10564.0	90.10	182.00	7850.88	-2937.98	-94.29	2939.29	1.52
MWD127		10659.0	90.20	182.00	7850.63	-3032.92	-97.60	3034.28	0.11
MWD128		10753.0	89.80	180.10	7850.63	-3126.90	-99.32	3128.27	2.07
MWD129		10847.0	90.00	178.30	7850.80	-3220.89	-98.01	3222.21	1.93
MWD130		10941.0	89.70	176.00	7851.04	-3314.77	-93.34	3315.98	2.47
MWD131		11036.0	89.80	179.00	7851.46	-3409.66	-89.20	3410.77	3.16
MWD132		11130.0	90.00	179.00	7851.62	-3503.65	-87.55	3504.70	0.21
MWD133		11224.0	90.00	180.80	7851.62	-3597.65	-87.39	3598.68	1.91
MWD134		11319.0	89.90	179.20	7851.70	-3692.64	-87.39	3693.66	1.69
MWD135		11413.0	90.60	181.60	7851.29	-3786.63	-88.05	3787.64	2.66
MWD136		11507.0	90.90	181.50	7850.06	-3880.59	-90.59	3881.63	0.34
MWD137		11601.0	89.70	182.30	7849.57	-3974.53	-93.71	3975.62	1.53
MWD138		11696.0	90.10	180.90	7849.74	-4069.49	-96.36	4070.61	1.53
MWD139		11790.0	88.40	183.20	7850.97	-4163.42	-99.72	4164.58	3.04
MWD140		11885.0	87.80	183.20	7854.12	-4258.22	-105.02	4259.47	0.63
MWD141		11979.0	90.40	181.60	7855.59	-4352.11	-108.95	4353.42	3.25
MWD142		12074.0	91.30	180.40	7854.18	-4447.08	-110.61	4448.41	1.58
MWD143		12168.0	92.00	180.20	7851.48	-4541.04	-111.10	4542.36	0.77
MWD144		12262.0	90.10	181.10	7849.76	-4635.02	-112.17	4636.34	2.24
MWD145		12357.0	91.50	180.90	7848.43	-4729.99	-113.83	4731.32	1.49
MWD146		12451.0	89.20	184.10	7847.85	-4823.88	-117.93	4825.28	4.19
MWD147		12545.0	89.40	184.10	7849.00	-4917.63	-124.65	4919.15	0.21
MWD148		12639.0	89.70	181.60	7849.74	-5011.51	-129.32	5013.10	2.68
MWD149		12733.0	90.90	181.10	7849.25	-5105.48	-131.54	5107.09	1.38
MWD150		12828.0	91.70	180.40	7847.09	-5200.44	-132.78	5202.06	1.12
MWD151		12922.0	88.20	181.60	7847.18	-5294.41	-134.42	5296.05	3.94



MARKSMEN DIRECTIONAL, INC.



OPERATOR: Enduring Resources, LLC
WELL: University 09 # 1803-H
LOCATION: Reagan Co., Texas
Rig: Ensign 784

START: #NAME?
FINISH:
DIR. DRILLER T. Gibson / A. Goudeau
CO. REP. K. Dabney / I. Dabney

TIE-IN SURVEY PROVIDED BY: VES @ Surface
Comments: Directional by Marksmen Directional

DECLINATION (+E / -W): 6.92
Grid Conv.

MINIMUM CURVATURE CALCULATIONS(SPE-3362)

PROPOSED DIR.: 181.16

*****Survey Input*****

Survey	No.	Measured Depth	INC	TRUE AZM	TVD	North + - South	East + - West	Vertical Section	DLS/ 100
MWD152		13016.0	88.40	181.10	7849.96	-5388.34	-136.63	5390.01	0.57
MWD153		13110.0	90.30	183.80	7851.03	-5482.24	-140.65	5483.96	3.51
MWD154		13205.0	90.70	182.50	7850.20	-5577.09	-145.87	5578.90	1.43
MWD155		13299.0	90.80	181.10	7848.97	-5671.03	-148.82	5672.88	1.49
MWD156		13393.0	91.10	179.90	7847.41	-5765.01	-149.64	5766.86	1.32
MWD157		13487.0	89.30	181.10	7847.08	-5859.00	-150.46	5860.85	2.30
MWD158		13580.0	88.40	179.70	7848.95	-5951.98	-151.11	5953.82	1.79
MWD161		13675.0	87.90	179.20	7852.02	-6046.93	-150.20	6048.73	0.74
MWD162		13731.0	88.20	179.20	7853.92	-6102.89	-149.42	6104.66	0.54
PBHL		13782.3	88.20	179.20	7855.54	-6154.17	-148.70	6155.92	0.00