

Results of Directional Survey

API number:	30-041-20950		
OGRID:		Operator:	MARSHALL & WINSTON INC
		Property:	HOMETOWN 13 # 1H

surface	ULSTR:	M	13	T	06S	R	34E
				380	FSL	330	FWL

BH Loc	ULSTR:	P	13	T	06S	R	34E
8653	MD	4217.0	TVD	410	FSL	304	FEL
						4976	FWL

Top Perf/OH	ULSTR:	M	13	T	06S	R	34E
4265	MD	4178.7	TVD	397	FSL	594	FWL

Bot Perf/OH	ULSTR:	P	13	T	06S	R	34E
8590	MD	4217.6	TVD	410	FSL	367	FEL
						4913	FWL

	MD	N/S	E/W	VD
	4237	16.40	239.50	4165
TOP PERFS/OH	4265	16.84	263.91	4178.65
	4269	16.90	267.40	4180.60
	8566	30.10	4558.70	4217.70
BOT PERFS/OH	8590	30.03	4582.70	4217.55
	8598	30.00	4590.70	4217.50

NEXT TO LAST	8598	30.00	4590.70	4217.50
LAST READING	8652	29.70	4644.70	4217.00
TD	8653	29.69	4645.70	4216.99

Surface Location	380	FS	330	FW
Projected BHL	410	FS	4976	FW
Location of				
Top Perfs/OH	397	FS	594	FW
Bottom Perfs/OH	410	FS	4913	FW

SUMMARY of Subsurface Locations

Surface Location	M-13-06S-34E	380	FS	330	FW	Vert. Depth
Top Perfs/OH	M-13-06S-34E	397	FS	594	FW	4178.65
Bottom Perfs/OH	P-13-06S-34E	410	FS	4913	FW	4217.55
Projected TD	P-13-06S-34E	410	FS	4976	FW	4216.99

HOBBS OCD

SEP 13 2012

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MARSHALL & WINSTON

Roosevelt County, NM

Hometown 13 #1H

Hometown 13 #1H

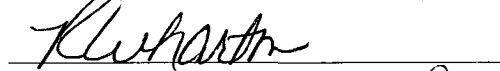
VH - Job #320512637

SUR: M-13-06s-34e, 380/S & 330/W
BHL: P-13-06s-34e, 410/S & 4976/W
API # 30-041-20950

Survey: Gyro

SDI Standard Survey Report

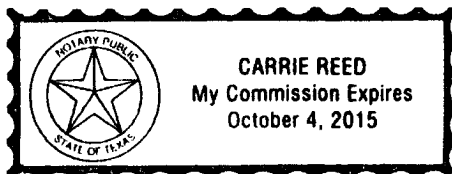
This survey is correct to the best of my knowledge and is supported by actual field data.



Notarized this date 10th of July, 2012.



Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	MARSHALL & WINSTON	Local Co-ordinate Reference:	Well Hometown 13 #1H
Project:	Roosevelt County, NM	TVD Reference:	WELL @ 0 00usft (Original Well Elev)
Site:	Hometown 13 #1H	MD Reference:	WELL @ 0 00usft (Original Well Elev)
Well:	Hometown 13 #1H	North Reference:	Grid
Wellbore:	VH - Job #320512637	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #320512637	Database:	EDM-Regulatory

Project		Roosevelt County, NM	
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Hometown 13 #1H			
Site Position:		Northing:	652,230 43 usft	Latitude:	32° 47' 23 201 N
From:	Lat/Long	Easting:	779,125 04 usft	Longitude:	103° 25' 30 212 W
Position Uncertainty:	0 00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0 49 °

Well	Hometown 13 #1H, Directional (DDC)					
Well Position	+N/-S	0 00 usft	Northing:	652,230 43 usft	Latitude:	32° 47' 23 201 N
	+E/-W	0 00 usft	Easting:	779,125 04 usft	Longitude:	103° 25' 30 212 W
Position Uncertainty		0 00 usft	Wellhead Elevation:	usft	Ground Level:	0 00 usft

Wellbore		VH - Job #320512637			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/30/12	7 44	60 71	48,903

Design		VH - Job #320512637						
Audit Notes:								
Version:		1 0	Phase:		ACTUAL	Tie On Depth:		0 00
Vertical Section:		Depth From (TVD) (usft)		+N/-S (usft)		+E/-W (usft)		Direction (°)
		0 00		0 00		0 00		89 60

Survey Program		Date	07/08/12		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100 00	3,900 70	Gyro (VH - Job #320512637)	KSRG	Keeper Gyro	

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
100 00	0 60	70 38	100 00	0 18	0 49	70 38	0 52
200 00	0 69	87 44	199 99	0 38	1 59	76 59	1 63
300 00	0 67	68 41	299 99	0 62	2 73	77 21	2 80
400 00	0 68	81 46	399 98	0 92	3 86	76 55	3 97
500 00	0 77	83 72	499 97	1 09	5 12	78 03	5 23
600 00	0 63	79 61	599 96	1 26	6 33	78 75	6 45
700 00	0 55	74 33	699 96	1 49	7 33	78 53	7 48
800 00	0 58	83 66	799 95	1 67	8 29	78 60	8 46
900 00	0 55	95 45	899 95	1 68	9 28	79 72	9 43
1,000 00	0 59	103 50	999 94	1 52	10 25	81 59	10 37
1,100 00	0 64	111 35	1,099 94	1 19	11 28	83 96	11 34

Scientific Drilling International, Inc.

SDI Standard Survey Report



Company:	MARSHALL & WINSTON	Local Co-ordinate Reference:	Well Hometown 13 #1H
Project:	Roosevelt County, NM	TVD Reference:	WELL @ 0 00usft (Original Well Elev)
Site:	Hometown 13 #1H	MD Reference:	WELL @ 0 00usft (Original Well Elev)
Well:	Hometown 13 #1H	North Reference:	Grid
Wellbore:	VH - Job #320512637	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #320512637	Database:	EDM-Regulatory

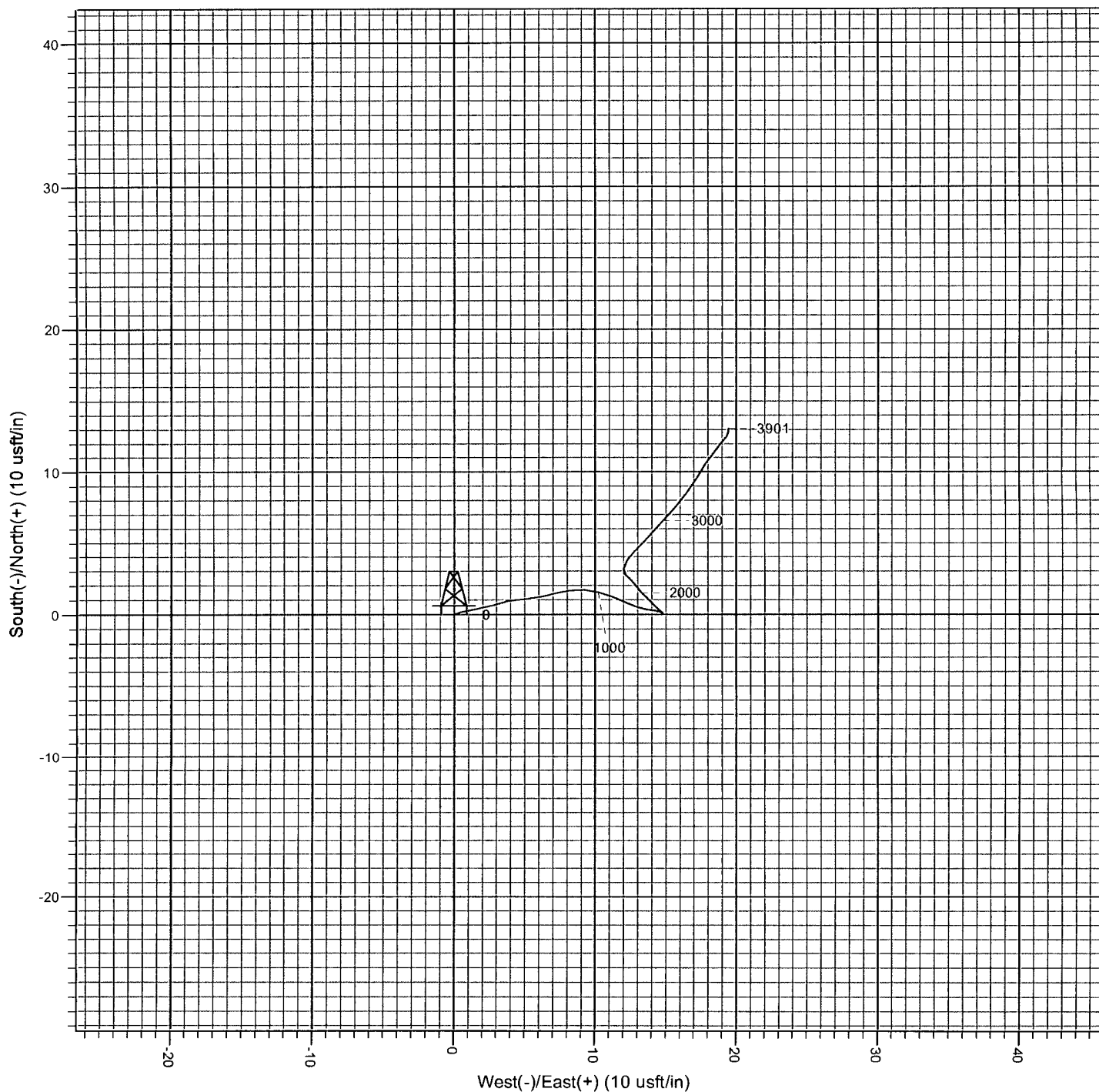
Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
1,200 00	0 49	113 89	1,199 93	0 82	12 19	86 16	12 21	
1,300 00	0 46	110 25	1,299 93	0 50	12 95	87 77	12 96	
1,400 00	0 38	93 18	1,399 93	0 35	13 66	88 54	13 67	
1,500 00	0 30	101 78	1,499 92	0 28	14 25	88 89	14 25	
1,600 00	0 29	111 07	1,599 92	0 13	14 74	89 49	14 74	
1,700 00	0 21	293 73	1,699 92	0 11	14 81	89 56	14 81	
1,800 00	0 51	316 93	1,799 92	0 51	14 34	87 95	14 35	
1,900 00	0 40	309 52	1,899 92	1 06	13 76	85 60	13 81	
2,000 00	0 33	319 40	1,999 92	1 50	13 31	83 57	13 39	
2,100 00	0 23	322 79	2,099 91	1 88	13 00	81 77	13 13	
2,200 00	0 17	322 92	2,199 91	2 16	12 79	80 42	12 97	
2,300 00	0 27	310 36	2,299 91	2 43	12 52	79 02	12 75	
2,400 00	0 26	311 05	2,399 91	2 73	12 17	77 36	12 47	
2,500 00	0 32	4 96	2,499 91	3 16	12 02	75 28	12 43	
2,600 00	0 45	33 53	2,599 91	3 76	12 26	72 94	12 83	
2,700 00	0 50	48 03	2,699 91	4 38	12 80	71 11	13 53	
2,800 00	0 52	39 68	2,799 90	5 02	13 42	69 48	14 33	
2,900 00	0 61	44 00	2,899 90	5 76	14 08	67 76	15 21	
3,000 00	0 68	42 89	2,999 89	6 57	14 85	66 13	16 24	
3,100 00	0 69	40 64	3,099 88	7 46	15 65	64 50	17 34	
3,200 00	0 84	38 81	3,199 87	8 49	16 50	62 76	18 56	
3,300 00	0 73	28 76	3,299 86	9 62	17 27	60 87	19 77	
3,400 00	0 60	33 42	3,399 86	10 62	17 86	59 27	20 78	
3,500 00	0 50	42 51	3,499 85	11 38	18 44	58 33	21 67	
3,600 00	0 49	35 88	3,599 85	12 04	18 99	57 61	22 49	
3,700 00	0 20	41 36	3,699 85	12 52	19 35	57 10	23 05	
3,800 00	0 10	359 69	3,799 85	12 74	19 47	56 80	23 27	
3,900 00	0 25	5 37	3,899 85	13 04	19 49	56 20	23 45	
3,900 70	0 25	6 32	3,900 55	13 05	19 49	56 20	23 45	



Project: Roosevelt County, NM
Hometown 13 #1H
Well: Hometown 13 #1H
Wellbore: VH - Job #320512637
Design: VH - Job #320512637

WELL DETAILS: Hometown 13 #1H
WELL @ 0.00usft (Original Well Elev)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	652230.43	779125.04	32° 47' 23.201 N	103° 25' 30.212 W	



PROJECT DETAILS: Roosevelt County, NM	SITE DETAILS: Hometown 13 #1H
Geodetic System: US State Plane 1927 (Exact solution)	Site Centre Latitude: 32° 47' 23.201 N
Datum: NAD 1927 (NADCON CONUS)	Longitude: 103° 25' 30.212 W
Ellipsoid: Clarke 1866	Positional Uncertainty: 0.00
Zone: New Mexico East 3001	Convergence: 0.49
System Datum: Mean Sea Level	Local North. Grid



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Marshall & Winston, Inc

Roosevelt County, NM

Section 13: 6S-34E

Hometown 13 #1H

Wellbore #1

SUR: M-13-06s-34e, 380/S & 330/W
BHL: P-13-06s-34e, 410/S & 4976/W
API # 30-041-20950

Survey: MWD

DDC Survey Report

13 June, 2012



Company:	Marshall & Winston, Inc	Local Co-ordinate Reference:	Site Section 13' 6S-34E
Project:	Roosevelt County, NM	TVD Reference:	Well @ 4312 0usft (Precision #454)
Site:	Section 13: 6S-34E	MD Reference:	Well @ 4312 0usft (Precision #454)
Well:	Hometown 13 #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Roosevelt County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Section 13. 6S-34E			
Site Position:		Northing:	1,015,896.67 usft	Latitude:	33° 47' 21.380 N
From:	Map	Easting:	775,958.95 usft	Longitude:	103° 25' 30.232 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.51 °

Well:	Hometown 13 #1H					
Well Position	+N/-S	0 0 usft	Northing:	1,015,896.67 usft	Latitude:	33° 47' 21.380 N
	+E/-W	0 0 usft	Easting:	775,958.95 usft	Longitude:	103° 25' 30.232 W
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level:	4,292.0 usft

Wellbore:	Wellbore #1
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/3/2012	7.53	61.62	49,483

Design:	Wellbore #1
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Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	89.60

Survey Program	Date	From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
	6/13/2012	100.0	3,700.0	Scientific Gyro Survey (Wellbore #1)	Good_gyro	Good Gyro
		3,730.0	8,652.0	MWD (Wellbore #1)	MWD default	MWD - Standard

Survey	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
TIE IN @ 3700' MD / 3700' TVD										
	3,700.0	0.20	41.36	3,699.8	12.5	19.4	19.4	0.00	0.00	0.00
	3,730.0	2.20	76.80	3,729.8	12.7	19.9	20.0	6.80	6.67	118.13
	3,763.0	4.50	82.10	3,762.8	13.0	21.8	21.9	7.03	6.97	16.06
	3,793.0	7.10	83.50	3,792.6	13.4	24.9	24.9	8.68	8.67	4.67
	3,824.0	10.30	86.00	3,823.3	13.8	29.5	29.6	10.39	10.32	8.06
	3,856.0	13.20	86.10	3,854.6	14.2	36.0	36.1	9.06	9.06	0.31
	3,888.0	16.00	86.50	3,885.6	14.8	44.1	44.2	8.76	8.75	1.25
	3,920.0	18.70	87.40	3,916.1	15.3	53.6	53.7	8.48	8.44	2.81
	3,951.0	21.50	88.60	3,945.2	15.6	64.2	64.4	9.13	9.03	3.87

Company:	Marshall & Winston, Inc	Local Co-ordinate Reference:	Site Section 13: 6S-34E
Project:	Roosevelt County, NM	TVD Reference:	Well @ 4312.0usft (Precision #454)
Site:	Section 13: 6S-34E	MD Reference:	Well @ 4312.0usft (Precision #454)
Well:	Hometown 13 #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
3,983.0	24.70	89.30	3,974.6	15.9	76.8	76.9	10.04	10.00	2.19	
4,015.0	28.30	89.80	4,003.3	16.0	91.1	91.2	11.27	11.25	1.56	
4,047.0	31.90	90.00	4,030.9	16.0	107.1	107.2	11.25	11.25	0.63	
4,079.0	35.80	90.00	4,057.5	16.0	124.9	125.1	12.19	12.19	0.00	
4,110.0	40.10	90.20	4,082.0	16.0	144.0	144.1	13.88	13.87	0.65	
4,142.0	44.70	89.80	4,105.6	16.0	165.6	165.7	14.40	14.38	-1.25	
4,174.0	49.20	89.70	4,127.4	16.1	189.0	189.1	14.06	14.06	-0.31	
4,206.0	53.30	89.70	4,147.4	16.2	213.9	214.0	12.81	12.81	0.00	
4,237.0	57.90	89.30	4,165.0	16.4	239.5	239.6	14.88	14.84	-1.29	
4,269.0	63.50	88.90	4,180.6	16.9	267.4	267.5	17.53	17.50	-1.25	
4,301.0	69.60	88.40	4,193.3	17.6	296.7	296.8	19.12	19.06	-1.56	
4,333.0	75.80	88.10	4,202.8	18.5	327.2	327.3	19.40	19.38	-0.94	
4,353.0	79.70	88.20	4,207.1	19.1	346.8	346.9	19.51	19.50	0.50	
4,365.0	81.60	88.80	4,209.0	19.4	358.6	358.7	16.58	15.83	5.00	
4,397.0	86.30	89.80	4,212.4	19.8	390.4	390.5	15.01	14.69	3.13	
4,429.0	87.10	90.00	4,214.3	19.9	422.3	422.5	2.58	2.50	0.63	
4,461.0	88.50	90.00	4,215.5	19.9	454.3	454.4	4.38	4.38	0.00	
4,493.0	89.00	90.20	4,216.2	19.8	486.3	486.4	1.68	1.56	0.63	
4,525.0	90.30	89.70	4,216.4	19.8	518.3	518.4	4.35	4.06	-1.56	
4,556.0	90.70	89.70	4,216.1	20.0	549.3	549.4	1.29	1.29	0.00	
4,588.0	90.50	89.70	4,215.8	20.2	581.3	581.4	0.63	-0.63	0.00	
4,620.0	90.60	90.50	4,215.5	20.1	613.3	613.4	2.52	0.31	2.50	
4,652.0	91.40	91.10	4,214.9	19.7	645.3	645.4	3.12	2.50	1.88	
4,684.0	91.50	91.40	4,214.1	19.0	677.3	677.4	0.99	0.31	0.94	
4,715.0	91.40	91.40	4,213.3	18.2	708.3	708.4	0.32	-0.32	0.00	
4,747.0	90.30	90.70	4,212.8	17.6	740.3	740.4	4.07	-3.44	-2.19	
4,778.0	90.00	90.00	4,212.8	17.4	771.3	771.4	2.46	-0.97	-2.26	
4,810.0	89.80	90.00	4,212.8	17.4	803.3	803.4	0.63	-0.63	0.00	
4,842.0	89.90	90.00	4,212.9	17.4	835.3	835.4	0.31	0.31	0.00	
4,874.0	90.00	90.30	4,212.9	17.4	867.3	867.4	0.99	0.31	0.94	
4,906.0	90.60	90.70	4,212.8	17.1	899.2	899.3	2.25	1.88	1.25	
4,938.0	91.10	91.40	4,212.3	16.5	931.2	931.3	2.69	1.56	2.19	
4,969.0	90.80	91.10	4,211.8	15.8	962.2	962.3	1.37	-0.97	-0.97	
5,001.0	90.70	91.20	4,211.3	15.2	994.2	994.3	0.44	-0.31	0.31	
5,033.0	90.00	89.80	4,211.2	14.9	1,026.2	1,026.3	4.89	-2.19	-4.38	
5,065.0	89.70	88.80	4,211.2	15.3	1,058.2	1,058.3	3.26	-0.94	-3.13	
5,097.0	89.70	88.80	4,211.4	16.0	1,090.2	1,090.3	0.00	0.00	0.00	
5,129.0	89.50	88.60	4,211.6	16.7	1,122.2	1,122.3	0.88	-0.63	-0.63	
5,161.0	89.80	89.10	4,211.8	17.3	1,154.2	1,154.3	1.82	0.94	1.56	
5,193.0	90.00	89.50	4,211.9	17.7	1,186.2	1,186.3	1.40	0.63	1.25	
5,225.0	90.00	89.80	4,211.9	17.9	1,218.2	1,218.3	0.94	0.00	0.94	
5,257.0	90.00	89.70	4,211.9	18.0	1,250.2	1,250.3	0.31	0.00	-0.31	
5,288.0	89.80	89.10	4,211.9	18.4	1,281.2	1,281.3	2.04	-0.65	-1.94	

Company:	Marshall & Winston, Inc	Local Co-ordinate Reference:	Site Section 13 6S-34E
Project:	Roosevelt County, NM	TVD Reference:	Well @ 4312.0usft (Precision #454)
Site:	Section 13 6S-34E	MD Reference:	Well @ 4312.0usft (Precision #454)
Well:	Hometown 13 #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User.Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,320.0	89.80	89 10	4,212.0	18 9	1,313.2	1,313.3	0 00	0 00	0.00	
5,352.0	90.40	89 80	4,212.0	19 2	1,345.2	1,345.3	2 88	1.88	2.19	
5,384.0	90.70	90 20	4,211.7	19.2	1,377.2	1,377.3	1.56	0.94	1.25	
5,416.0	90.80	90 20	4,211.3	19 1	1,409.2	1,409.3	0 31	0.31	0.00	
5,448.0	90 90	90 20	4,210.8	19 0	1,441.2	1,441.3	0.31	0.31	0.00	
5,479.0	90 30	89.30	4,210.5	19 1	1,472.2	1,472.3	3 49	-1 94	-2.90	
5,511.0	90 40	89.80	4,210.3	19 3	1,504.2	1,504.3	1 59	0.31	1.56	
5,543.0	90.50	89 30	4,210.0	19 6	1,536.2	1,536.3	1.59	0.31	-1.56	
5,575.0	90 80	89.70	4,209.7	19 9	1,568.2	1,568.3	1 56	0 94	1.25	
5,606.0	90.90	89.80	4,209.2	20 0	1,599.2	1,599.3	0.46	0 32	0 32	
5,639.0	89.60	89 80	4,209.1	20.1	1,632.2	1,632.3	3 94	-3 94	0.00	
5,670.0	89 30	89 70	4,209.3	20 3	1,663.2	1,663.3	1 02	-0 97	-0 32	
5,702.0	89 20	89 70	4,209.8	20 4	1,695.2	1,695.3	0 31	-0 31	0.00	
5,734.0	89 20	89 70	4,210.2	20 6	1,727.1	1,727.2	0.00	0 00	0.00	
5,766.0	89 80	89 80	4,210.5	20 7	1,759.1	1,759.2	1.90	1 88	0 31	
5,798.0	90 00	90.30	4,210.5	20.7	1,791.1	1,791.2	1.68	0.63	1 56	
5,828.0	90.00	89.80	4,210.5	20 7	1,821.1	1,821.2	1.67	0 00	-1 67	
5,860.0	89.90	89.80	4,210.6	20.8	1,853.1	1,853.2	0.31	-0 31	0.00	
5,892.0	89 90	90.30	4,210.6	20 8	1,885.1	1,885.2	1.56	0.00	1 56	
5,924.0	90.00	90.00	4,210.7	20 7	1,917.1	1,917.2	0 99	0 31	-0 94	
5,956.0	90.00	90.70	4,210.7	20 5	1,949.1	1,949.2	2.19	0 00	2.19	
5,987.0	90.30	90.70	4,210.6	20 1	1,980.1	1,980.2	0 97	0.97	0.00	
6,019.0	88 80	90 50	4,210.8	19 8	2,012.1	2,012.2	4.73	-4 69	-0 63	
6,050.0	88.20	90.50	4,211.6	19 5	2,043.1	2,043.2	1.94	-1 94	0 00	
6,082.0	88.10	90.70	4,212.7	19.2	2,075.1	2,075.2	0 70	-0 31	0 63	
6,114.0	88 60	90.50	4,213.6	18 8	2,107.1	2,107.2	1.68	1.56	-0.63	
6,146.0	88.70	90 50	4,214.4	18 6	2,139.1	2,139.2	0 31	0 31	0 00	
6,177.0	89 00	89.30	4,215.0	18.6	2,170.1	2,170.2	3.99	0 97	-3 87	
6,208.0	89 30	89.10	4,215.4	19 0	2,201.1	2,201.1	1 16	0 97	-0 65	
6,240.0	89 30	88.80	4,215.8	19 6	2,233.1	2,233.1	0 94	0.00	-0.94	
6,273.0	89 40	89 50	4,216.2	20 1	2,266.1	2,266.1	2 14	0 30	2.12	
6,305.0	89.40	89.50	4,216.5	20 4	2,298.1	2,298.1	0.00	0.00	0.00	
6,337.0	89 30	88 90	4,216.9	20 8	2,330.0	2,330.1	1.90	-0 31	-1.88	
6,368.0	89 00	88.90	4,217.4	21 4	2,361.0	2,361.1	0 97	-0 97	0 00	
6,400.0	88 90	89 30	4,217.9	21 9	2,393.0	2,393.1	1 29	-0 31	1 25	
6,432.0	88.80	89 80	4,218.6	22.2	2,425.0	2,425.1	1 59	-0 31	1 56	
6,464.0	88 90	89 30	4,219.2	22 4	2,457.0	2,457.1	1.59	0.31	-1.56	
6,496.0	88 90	90 00	4,219.8	22 6	2,489.0	2,489.1	2 19	0.00	2 19	
6,528.0	90 00	89 30	4,220.1	22 8	2,521.0	2,521.1	4 07	3.44	-2 19	
6,559.0	89 70	89 70	4,220.2	23.1	2,552.0	2,552.1	1 61	-0.97	1.29	
6,591.0	89.60	88.80	4,220.4	23.5	2,584.0	2,584.1	2.83	-0.31	-2.81	
6,623.0	89.90	88 90	4,220.6	24.2	2,616.0	2,616.1	0 99	0.94	0.31	
6,654.0	90 10	89 50	4,220.6	24 6	2,647.0	2,647.1	2.04	0.65	1 94	

Company:	Marshall & Winston, Inc	Local Co-ordinate Reference:	Site Section 13 6S-34E
Project:	Roosevelt County, NM	TVD Reference:	Well @ 4312 0usft (Precision #454)
Site:	Section 13 6S-34E	MD Reference:	Well @ 4312 0usft (Precision #454)
Well:	Hometown 13 #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000 1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,686.0	89.90	89.80	4,220.6	24.8	2,679.0	2,679.1	1.13	-0.63	0.94
6,718.0	89.70	89.50	4,220.7	25.0	2,711.0	2,711.1	1.13	-0.63	-0.94
6,749.0	90.30	88.90	4,220.7	25.4	2,742.0	2,742.1	2.74	1.94	-1.94
6,781.0	90.40	89.80	4,220.5	25.8	2,774.0	2,774.1	2.83	0.31	2.81
6,813.0	90.20	89.50	4,220.3	26.0	2,806.0	2,806.1	1.13	-0.63	-0.94
6,845.0	90.00	88.80	4,220.3	26.5	2,838.0	2,838.1	2.28	-0.63	-2.19
6,877.0	89.60	88.40	4,220.4	27.2	2,870.0	2,870.1	1.77	-1.25	-1.25
6,909.0	90.00	90.00	4,220.5	27.7	2,902.0	2,902.1	5.15	1.25	5.00
6,941.0	90.00	90.20	4,220.5	27.6	2,934.0	2,934.1	0.63	0.00	0.63
6,973.0	89.90	89.30	4,220.5	27.8	2,966.0	2,966.1	2.83	-0.31	-2.81
7,005.0	90.00	89.80	4,220.5	28.0	2,998.0	2,998.1	1.59	0.31	1.56
7,037.0	90.30	89.30	4,220.5	28.3	3,030.0	3,030.1	1.82	0.94	-1.56
7,069.0	90.10	88.90	4,220.3	28.8	3,062.0	3,062.1	1.40	-0.63	-1.25
7,101.0	90.10	90.20	4,220.3	29.0	3,094.0	3,094.1	4.06	0.00	4.06
7,133.0	89.70	90.20	4,220.3	28.9	3,126.0	3,126.1	1.25	-1.25	0.00
7,165.0	90.30	90.30	4,220.3	28.8	3,158.0	3,158.1	1.90	1.88	0.31
7,197.0	90.70	90.50	4,220.1	28.5	3,189.9	3,190.1	1.40	1.25	0.63
7,229.0	91.60	91.10	4,219.4	28.1	3,221.9	3,222.1	3.38	2.81	1.88
7,261.0	91.80	91.40	4,218.5	27.4	3,253.9	3,254.0	1.13	0.63	0.94
7,292.0	91.40	91.20	4,217.6	26.7	3,284.9	3,285.0	1.44	-1.29	-0.65
7,324.0	90.20	90.30	4,217.2	26.3	3,316.9	3,317.0	4.69	-3.75	-2.81
7,356.0	90.00	89.70	4,217.1	26.3	3,348.9	3,349.0	1.98	-0.63	-1.88
7,388.0	89.80	89.70	4,217.2	26.4	3,380.9	3,381.0	0.63	-0.63	0.00
7,420.0	90.00	89.30	4,217.2	26.7	3,412.9	3,413.0	1.40	0.63	-1.25
7,451.0	90.30	89.70	4,217.1	27.0	3,443.9	3,444.0	1.61	0.97	1.29
7,483.0	90.10	90.30	4,217.0	27.0	3,475.9	3,476.0	1.98	-0.63	1.88
7,516.0	90.00	90.50	4,217.0	26.8	3,508.9	3,509.0	0.68	-0.30	0.61
7,548.0	90.50	91.10	4,216.9	26.3	3,540.9	3,541.0	2.44	1.56	1.88
7,580.0	91.10	90.90	4,216.4	25.8	3,572.9	3,573.0	1.98	1.88	-0.63
7,612.0	91.30	91.10	4,215.7	25.2	3,604.9	3,605.0	0.88	0.63	0.63
7,643.0	91.00	91.60	4,215.1	24.5	3,635.8	3,635.9	1.88	-0.97	1.61
7,675.0	90.80	91.20	4,214.6	23.7	3,667.8	3,667.9	1.40	-0.63	-1.25
7,707.0	90.50	90.70	4,214.2	23.2	3,699.8	3,699.9	1.82	-0.94	-1.56
7,739.0	90.40	90.70	4,214.0	22.8	3,731.8	3,731.9	0.31	-0.31	0.00
7,771.0	89.90	90.30	4,213.9	22.5	3,763.8	3,763.9	2.00	-1.56	-1.25
7,803.0	89.30	89.70	4,214.1	22.5	3,795.8	3,795.9	2.65	-1.88	-1.88
7,834.0	89.20	90.00	4,214.5	22.6	3,826.8	3,826.9	1.02	-0.32	0.97
7,866.0	88.90	88.90	4,215.1	22.9	3,858.8	3,858.9	3.56	-0.94	-3.44
7,898.0	89.10	88.80	4,215.6	23.5	3,890.8	3,890.9	0.70	0.63	-0.31
7,930.0	89.30	87.70	4,216.1	24.5	3,922.8	3,922.9	3.49	0.63	-3.44
7,962.0	89.20	88.20	4,216.5	25.6	3,954.8	3,954.8	1.59	-0.31	1.56
7,994.0	89.50	88.20	4,216.9	26.6	3,986.7	3,986.8	0.94	0.94	0.00
8,026.0	89.90	89.10	4,217.0	27.4	4,018.7	4,018.8	3.08	1.25	2.81
8,058.0	89.70	88.90	4,217.1	28.0	4,050.7	4,050.8	0.88	-0.63	-0.63

Company:	Marshall & Winston, Inc	Local Co-ordinate Reference:	Site Section 13 6S-34E
Project:	Roosevelt County, NM	TVD Reference:	Well @ 4312.0usft (Precision #454)
Site:	Section 13: 6S-34E	MD Reference:	Well @ 4312.0usft (Precision #454)
Well:	Hometown 13 #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,089.0	89.40	88.80	4,217.4	28.6	4,081.7	4,081.8	1.02	-0.97	-0.32
8,122.0	89.50	88.90	4,217.7	29.2	4,114.7	4,114.8	0.43	0.30	0.30
8,154.0	90.10	89.70	4,217.8	29.6	4,146.7	4,146.8	3.12	1.88	2.50
8,185.0	90.00	89.50	4,217.8	29.9	4,177.7	4,177.8	0.72	-0.32	-0.65
8,217.0	89.60	89.70	4,217.9	30.1	4,209.7	4,209.8	1.40	-1.25	0.63
8,249.0	89.90	89.80	4,218.0	30.2	4,241.7	4,241.8	0.99	0.94	0.31
8,281.0	90.40	89.50	4,218.0	30.4	4,273.7	4,273.8	1.82	1.56	-0.94
8,311.0	90.30	89.70	4,217.8	30.6	4,303.7	4,303.8	0.75	-0.33	0.67
8,343.0	90.40	90.20	4,217.6	30.6	4,335.7	4,335.8	1.59	0.31	1.56
8,375.0	90.20	90.30	4,217.4	30.5	4,367.7	4,367.8	0.70	-0.63	0.31
8,407.0	90.00	89.70	4,217.3	30.5	4,399.7	4,399.8	1.98	-0.63	-1.88
8,438.0	89.90	89.70	4,217.4	30.7	4,430.7	4,430.8	0.32	-0.32	0.00
8,470.0	89.70	90.30	4,217.5	30.7	4,462.7	4,462.8	1.98	-0.63	1.88
8,502.0	89.70	90.50	4,217.7	30.4	4,494.7	4,494.8	0.62	0.00	0.63
8,534.0	90.00	90.20	4,217.7	30.3	4,526.7	4,526.8	1.33	0.94	-0.94
8,566.0	90.10	90.20	4,217.7	30.1	4,558.7	4,558.8	0.31	0.31	0.00
8,598.0	90.60	90.30	4,217.5	30.0	4,590.7	4,590.8	1.59	1.56	0.31
TD @ 8652' MD / 4217' TVD									
8,652.0	90.60	90.30	4,217.0	29.7	4,644.7	4,644.8	0.00	0.00	0.00

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,700.0	3,699.8	12.5	19.4	TIE IN @ 3700' MD / 3700' TVD
8,652.0	4,217.0	29.7	4,644.7	TD @ 8652' MD / 4217' TVD

Checked By: _____ Approved By: _____ Date: _____