

Marshall & Winston, Inc.

Loco Dinero 36 #2H
Lea County, New Mexico
Job No: WT-16-059
Rig: McVay #10



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target	Annotation
1	15245.00	89.00	178.70	10919.80	-4558.01	136.93	0.00	0.00	4558.93		Last Aim Svy
2	15307.00	89.00	178.70	10920.88	-4619.99	138.34	0.00	0.00	4620.91		Projection to BHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
#2H Plat BHL	10874.00	-4621.70	35.30	520660.20	751201.40	32° 25' 43.598 N	103° 31' 9.094 W
#2H Lateral PBHL-Shifted East	10900.00	-4621.08	120.30	520660.82	751286.40	32° 25' 43.598 N	103° 31' 8.102 W
#2H Pilot PBHL	12300.00	0.00	0.00	525281.90	751166.10	32° 26' 29.333 N	103° 31' 9.094 W

SITE DETAILS: Loco Dinero 36 #2H

Site Centre Northing: 525281.90
Easting: 751166.10

Positional Uncertainty: 0.00
Convergence: 0.44
Local North: Grid

PROJECT DETAILS: Lea County, New Mexico

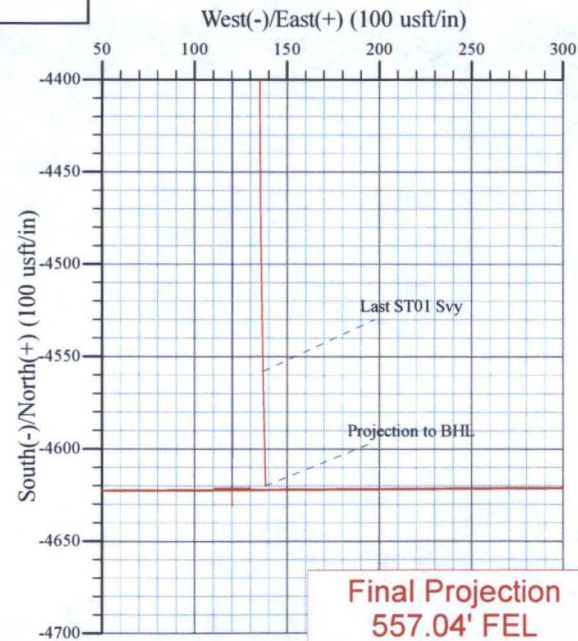
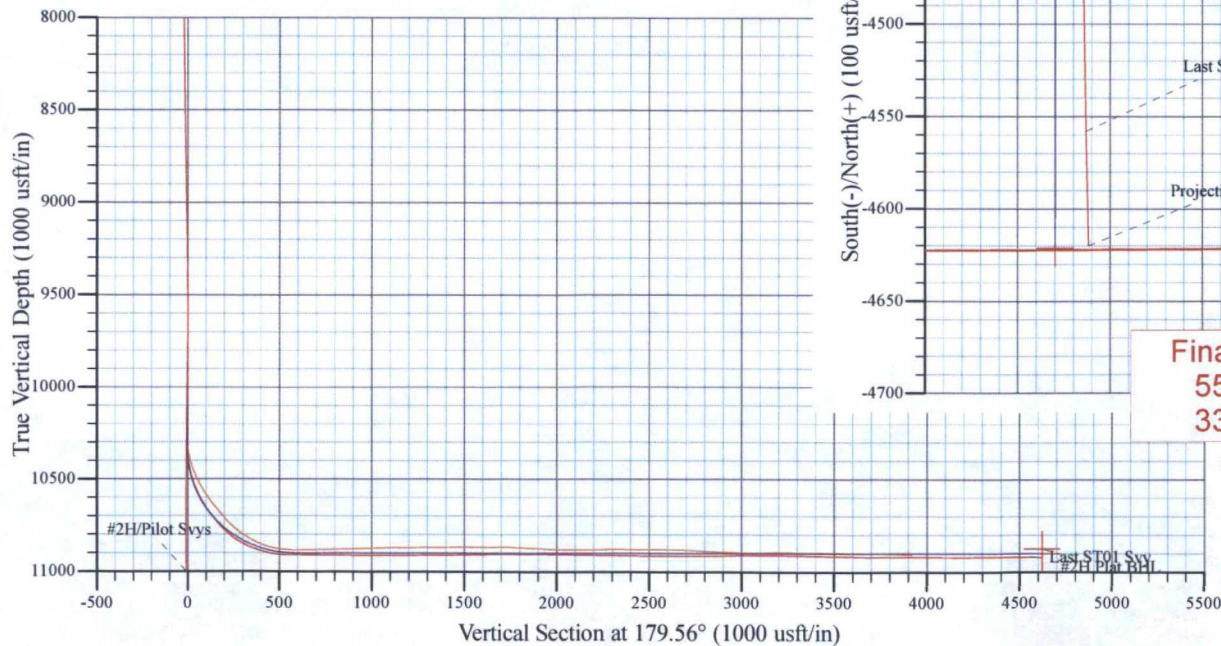
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001

System Datum: Mean Sea Level

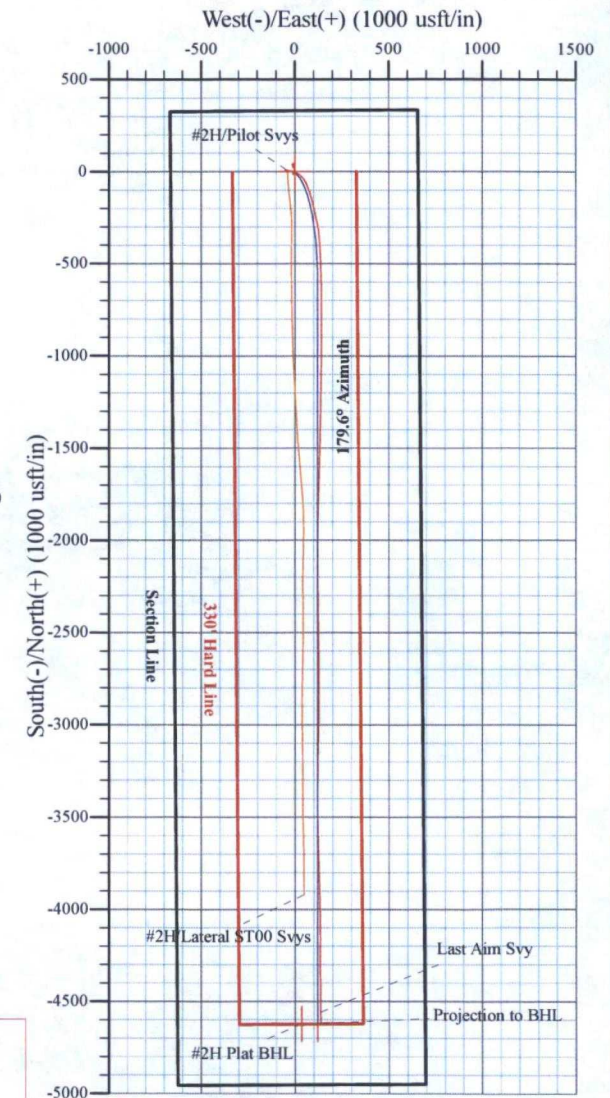


Azimuths to Grid North
True North: -0.44°
Magnetic North: 6.48°

Magnetic Field
Strength: 48418.4snT
Dip Angle: 60.35°
Date: 8/11/2016
Model: HDGM



Final Projection
557.04' FEL
330.99' FSL



AUG 29 2016

Aim Directional Services
Survey Report

RECEIVED

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Site Loco Dinero 36 #2H
Project:	Lea County, New Mexico	TVD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	Lateral ST01	Survey Calculation Method:	Minimum Curvature
Design:	Lateral ST01	Database:	EDM 5000.1 Single User Db

Project	Lea County, New Mexico		
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	Loco Dinero 36 #2H		
Site Position:		Northing:	525,281.90 usft
From:	Map	Easting:	751,166.10 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 26' 29.333 N
		Longitude:	103° 31' 9.094 W
		Grid Convergence:	0.44 °

Well	#2H		
Well Position	+N/-S	0.00 usft	Northing: 525,281.90 usft
	+E/-W	0.00 usft	Easting: 751,166.10 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 26' 29.333 N
		Longitude:	103° 31' 9.094 W
		Ground Level:	3,644.00 usft

Wellbore	Lateral ST01				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/11/2016	6.92	60.35	48,418

Design	Lateral ST01				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	10,136.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	179.56	

Survey Program	Date 8/20/2016				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	5,435.00	2nd Phoenix Gyro Svys (Pilot)	Gyroscope	Gyroscope	
5,633.00	10,136.00	2nd Aim MWD Pilot Svys (Pilot)	MWD+HDGM	OWSG MWD + HDGM	
10,234.00	15,307.00	Aim ST01 Svys (Lateral ST01)	MWD+HDGM	OWSG MWD + HDGM	

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)	
10,136.00	1.60	285.30	10,134.27	4.89	-28.14	-5.10	0.00	0.00	0.00	
Tie on Aim Pilot Svys										
10,234.00	2.80	94.50	10,232.24	5.06	-27.07	-5.27	4.47	1.22	172.65	
First ST01 Svy										
10,266.00	5.20	88.00	10,264.16	5.05	-24.84	-5.24	7.62	7.50	-20.31	
10,294.00	8.10	102.30	10,291.97	4.67	-21.65	-4.84	11.85	10.36	51.07	
10,329.00	11.90	104.80	10,326.43	3.23	-15.75	-3.35	10.93	10.86	7.14	
10,360.00	15.20	105.90	10,356.57	1.29	-8.75	-1.36	10.68	10.65	3.55	

Aim Directional Services

Survey Report



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Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	Lateral ST01	Survey Calculation Method:	Minimum Curvature
Design:	Lateral ST01	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)
10,389.00	17.60	108.40	10,384.38	-1.13	-0.93	1.12	8.62	8.28	8.62
10,423.00	19.90	116.50	10,416.58	-5.34	9.13	5.41	10.20	6.76	23.82
10,455.00	21.80	123.60	10,446.49	-11.06	18.96	11.20	9.87	5.94	22.19
10,484.00	22.90	129.10	10,473.32	-17.60	27.82	17.81	8.14	3.79	18.97
10,534.00	25.10	139.70	10,519.01	-31.83	42.24	32.15	9.66	4.40	21.20
10,578.00	27.10	148.20	10,558.54	-47.47	53.56	47.88	9.63	4.55	19.32
10,628.00	30.70	156.30	10,602.32	-68.85	64.70	69.35	10.62	7.20	16.20
10,673.00	33.10	161.20	10,640.53	-91.01	73.28	91.57	7.84	5.33	10.89
10,723.00	37.30	162.90	10,681.38	-118.43	82.14	119.05	8.62	8.40	3.40
10,767.00	40.40	165.10	10,715.64	-144.96	89.73	145.64	7.71	7.05	5.00
10,801.00	43.00	165.60	10,741.02	-166.84	95.45	167.56	7.71	7.65	1.47
10,833.00	45.40	166.90	10,763.96	-188.50	100.74	189.27	8.02	7.50	4.06
10,853.00	47.50	167.90	10,777.74	-202.65	103.90	203.44	11.11	10.50	5.00
10,888.00	51.20	168.20	10,800.54	-228.63	109.40	229.46	10.59	10.57	0.86
10,919.00	54.90	168.20	10,819.17	-252.87	114.46	253.74	11.94	11.94	0.00
10,948.00	57.90	169.20	10,835.22	-276.56	119.19	277.46	10.74	10.34	3.45
10,982.00	62.80	170.80	10,852.03	-305.65	124.31	306.59	14.98	14.41	4.71
11,014.00	66.80	173.40	10,865.66	-334.32	128.28	335.29	14.50	12.50	8.13
11,043.00	70.20	175.20	10,876.28	-361.16	130.95	362.16	13.07	11.72	6.21
11,077.00	72.70	176.60	10,887.10	-393.31	133.25	394.32	8.32	7.35	4.12
#2H Pilot PBHL									
11,108.00	75.70	177.00	10,895.54	-423.09	134.92	424.11	9.76	9.68	1.29
11,137.00	79.30	177.60	10,901.82	-451.37	136.25	452.40	12.58	12.41	2.07
11,171.00	84.30	178.30	10,906.66	-484.99	137.45	486.03	14.85	14.71	2.06
11,200.00	89.00	178.80	10,908.36	-513.92	138.18	514.96	16.30	16.21	1.72
11,294.00	89.40	178.70	10,909.67	-607.89	140.24	608.95	0.44	0.43	-0.11
11,389.00	89.40	179.30	10,910.67	-702.87	141.89	703.94	0.63	0.00	0.63
11,483.00	90.00	180.40	10,911.16	-796.86	142.14	797.93	1.33	0.64	1.17
11,578.00	89.50	180.00	10,911.57	-891.86	141.81	892.92	0.67	-0.53	-0.42
11,673.00	89.60	180.20	10,912.32	-986.86	141.64	987.92	0.24	0.11	0.21
11,767.00	90.10	181.20	10,912.56	-1,080.85	140.49	1,081.90	1.19	0.53	1.06
11,862.00	90.20	180.70	10,912.32	-1,175.84	138.92	1,176.87	0.54	0.11	-0.53
11,956.00	90.90	180.70	10,911.41	-1,269.82	137.77	1,270.84	0.74	0.74	0.00
12,051.00	90.40	180.90	10,910.34	-1,364.81	136.44	1,365.82	0.57	-0.53	0.21
12,145.00	90.30	181.40	10,909.76	-1,458.79	134.56	1,459.78	0.54	-0.11	0.53
12,240.00	90.90	181.40	10,908.77	-1,553.75	132.24	1,554.72	0.63	0.63	0.00
12,334.00	90.90	181.60	10,907.29	-1,647.71	129.78	1,648.66	0.21	0.00	0.21
12,429.00	90.80	181.80	10,905.88	-1,742.66	126.96	1,743.58	0.24	-0.11	0.21
12,524.00	89.70	181.50	10,905.47	-1,837.61	124.22	1,838.51	1.20	-1.16	-0.32
12,618.00	89.80	180.90	10,905.88	-1,931.59	122.25	1,932.47	0.65	0.11	-0.64
12,713.00	89.20	179.90	10,906.71	-2,026.59	121.59	2,027.46	1.23	-0.63	-1.05
12,808.00	89.20	179.30	10,908.03	-2,121.57	122.25	2,122.45	0.63	0.00	-0.63
12,902.00	88.70	179.90	10,909.75	-2,215.55	122.91	2,216.43	0.83	-0.53	0.64
12,997.00	89.50	179.80	10,911.25	-2,310.54	123.16	2,311.42	0.85	0.84	-0.11

Aim Directional Services

Survey Report



Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Site Loco Dinero 36 #2H
Project:	Lea County, New Mexico	TVD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	Lateral ST01	Survey Calculation Method:	Minimum Curvature
Design:	Lateral ST01	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)	
13,091.00	89.50	179.40	10,912.07	-2,404.54	123.81	2,405.42	0.43	0.00	-0.43	
13,186.00	89.00	178.70	10,913.31	-2,499.51	125.39	2,500.40	0.91	-0.53	-0.74	
13,280.00	88.80	178.60	10,915.12	-2,593.47	127.60	2,594.37	0.24	-0.21	-0.11	
13,375.00	90.50	180.20	10,915.70	-2,688.46	128.60	2,689.36	2.46	1.79	1.68	
13,470.00	90.70	180.90	10,914.70	-2,783.45	127.69	2,784.34	0.77	0.21	0.74	
13,564.00	90.90	180.40	10,913.39	-2,877.43	126.62	2,878.32	0.57	0.21	-0.53	
13,659.00	91.00	180.10	10,911.81	-2,972.42	126.21	2,973.30	0.33	0.11	-0.32	
13,753.00	91.20	181.30	10,910.01	-3,066.39	125.06	3,067.26	1.29	0.21	1.28	
13,848.00	88.80	180.60	10,910.01	-3,161.37	123.48	3,162.22	2.63	-2.53	-0.74	
13,942.00	89.30	180.60	10,911.57	-3,255.35	122.50	3,256.20	0.53	0.53	0.00	
14,037.00	88.80	180.90	10,913.14	-3,350.33	121.26	3,351.16	0.61	-0.53	0.32	
14,131.00	89.10	180.10	10,914.87	-3,444.31	120.44	3,445.13	0.91	0.32	-0.85	
14,226.00	89.40	179.20	10,916.11	-3,539.30	121.02	3,540.12	1.00	0.32	-0.95	
14,320.00	88.30	177.70	10,918.00	-3,633.24	123.56	3,634.08	1.98	-1.17	-1.60	
14,415.00	89.40	178.00	10,919.90	-3,728.15	127.12	3,729.02	1.20	1.16	0.32	
14,509.00	90.10	178.40	10,920.31	-3,822.11	130.07	3,822.99	0.86	0.74	0.43	
14,604.00	90.50	178.30	10,919.81	-3,917.06	132.81	3,917.97	0.43	0.42	-0.11	
14,698.00	89.80	179.60	10,919.57	-4,011.05	134.53	4,011.96	1.57	-0.74	1.38	
14,793.00	89.50	180.10	10,920.15	-4,106.04	134.78	4,106.96	0.61	-0.32	0.53	
14,887.00	90.20	180.20	10,920.39	-4,200.04	134.53	4,200.95	0.75	0.74	0.11	
14,982.00	90.70	179.60	10,919.65	-4,295.04	134.70	4,295.95	0.82	0.53	-0.63	
15,076.00	90.40	179.80	10,918.75	-4,389.03	135.19	4,389.94	0.38	-0.32	0.21	
15,171.00	89.50	179.50	10,918.83	-4,484.03	135.77	4,484.94	1.00	-0.95	-0.32	
15,245.00	89.00	178.70	10,919.80	-4,558.01	136.93	4,558.93	1.27	-0.68	-1.08	
Last ST01 Svy										
15,305.56	89.00	178.70	10,920.85	-4,618.54	138.31	4,619.47	0.00	0.00	0.00	
#2H Plat BHL										
15,307.00	89.00	178.70	10,920.88	-4,619.99	138.34	4,620.91	0.00	0.00	0.00	
Projection to BHL - #2H Lateral PBHL-Shifted East										

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,136.00	10,134.27	4.89	-28.14	Tie on Aim Pilot Svys
10,234.00	10,232.24	5.06	-27.07	First ST01 Svy
15,245.00	10,919.80	-4,558.01	136.93	Last ST01 Svy
15,307.00	10,920.88	-4,619.99	138.34	Projection to BHL

Checked By: _____ Approved By: _____ Date: _____

Marshall & Winston, Inc.

**Lea County, New Mexico
Loco Dinero 36 #2H
#2H**

HOBBS OCD

AUG 29 2016

RECEIVED

Lateral ST01

Design: Lateral ST01

Survey Report - Geographic

20 August, 2016



Aim Directional Services
Survey Report - Geographic



Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Site Loco Dinero 36 #2H
Project:	Lea County, New Mexico	TVD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	Lateral ST01	Survey Calculation Method:	Minimum Curvature
Design:	Lateral ST01	Database:	EDM 5000.1 Single User Db

Project	Lea County, New Mexico		
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		Loco Dinero 36 #2H			
Site Position:		Northing:	525,281.90 usft	Latitude:	32° 26' 29.333 N
From:	Map	Easting:	751,166.10 usft	Longitude:	103° 31' 9.094 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.44 °

Well	#2H					
Well Position	+N/-S	0.00 usft	Northing:	525,281.90 usft	Latitude:	32° 26' 29.333 N
	+E/-W	0.00 usft	Easting:	751,166.10 usft	Longitude:	103° 31' 9.094 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,644.00 usft

Wellbore	Lateral ST01				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/11/2016	6.92	60.35	48,418

Design	Lateral ST01				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	10,136.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	179.56	

Survey Program	Date	8/20/2016			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	5,435.00	2nd Phoenix Gyro Svys (Pilot)	Gyroscope	Gyroscope	
5,633.00	10,136.00	2nd Aim MWD Pilot Svys (Pilot)	MWD+HDGM	OWSG MWD + HDGM	
10,234.00	15,307.00	Aim ST01 Svys (Lateral ST01)	MWD+HDGM	OWSG MWD + HDGM	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	525,281.90	751,166.10	32° 26' 29.333 N	103° 31' 9.094 W	
100.00	0.53	77.01	100.00	0.10	0.45	525,282.01	751,166.55	32° 26' 29.334 N	103° 31' 9.089 W	
200.00	0.64	122.30	199.99	-0.09	1.37	525,281.81	751,167.47	32° 26' 29.332 N	103° 31' 9.078 W	
300.00	0.41	161.88	299.99	-0.73	1.96	525,281.17	751,168.05	32° 26' 29.325 N	103° 31' 9.072 W	
400.00	0.44	167.69	399.99	-1.44	2.15	525,280.46	751,168.25	32° 26' 29.318 N	103° 31' 9.069 W	
500.00	0.54	208.65	499.98	-2.23	2.01	525,279.67	751,168.10	32° 26' 29.310 N	103° 31' 9.071 W	
600.00	0.66	197.21	599.98	-3.20	1.61	525,278.71	751,167.71	32° 26' 29.301 N	103° 31' 9.076 W	
700.00	0.63	193.36	699.97	-4.28	1.31	525,277.62	751,167.41	32° 26' 29.290 N	103° 31' 9.080 W	
800.00	0.63	198.54	799.97	-5.34	1.01	525,276.56	751,167.11	32° 26' 29.280 N	103° 31' 9.083 W	
900.00	0.69	206.00	899.96	-6.40	0.57	525,275.50	751,166.67	32° 26' 29.269 N	103° 31' 9.088 W	

Aim Directional Services

Survey Report - Geographic



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Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	Lateral ST01	Survey Calculation Method:	Minimum Curvature
Design:	Lateral ST01	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,000.00	0.88	219.24	999.95	-7.54	-0.18	525,274.37	751,165.92	32° 26' 29.258 N	103° 31' 9.097 W
1,100.00	0.82	225.66	1,099.94	-8.63	-1.18	525,273.27	751,164.92	32° 26' 29.247 N	103° 31' 9.109 W
1,200.00	0.73	252.86	1,199.93	-9.32	-2.30	525,272.58	751,163.80	32° 26' 29.241 N	103° 31' 9.122 W
1,300.00	0.71	210.75	1,299.92	-10.04	-3.22	525,271.86	751,162.87	32° 26' 29.233 N	103° 31' 9.133 W
1,400.00	0.84	227.61	1,399.91	-11.07	-4.08	525,270.84	751,162.02	32° 26' 29.223 N	103° 31' 9.143 W
1,500.00	0.68	240.19	1,499.91	-11.85	-5.14	525,270.05	751,160.96	32° 26' 29.216 N	103° 31' 9.155 W
1,600.00	0.82	240.22	1,599.90	-12.51	-6.27	525,269.40	751,159.82	32° 26' 29.209 N	103° 31' 9.169 W
1,700.00	0.86	246.01	1,699.89	-13.17	-7.58	525,268.74	751,158.52	32° 26' 29.203 N	103° 31' 9.184 W
1,800.00	0.58	244.04	1,799.88	-13.69	-8.72	525,268.21	751,157.38	32° 26' 29.198 N	103° 31' 9.197 W
1,900.00	0.42	307.58	1,899.87	-13.69	-9.47	525,268.21	751,156.63	32° 26' 29.198 N	103° 31' 9.206 W
2,000.00	0.27	328.05	1,999.87	-13.27	-9.88	525,268.63	751,156.22	32° 26' 29.202 N	103° 31' 9.211 W
2,100.00	0.16	35.34	2,099.87	-12.95	-9.92	525,268.95	751,156.17	32° 26' 29.205 N	103° 31' 9.211 W
2,200.00	0.18	38.70	2,199.87	-12.72	-9.75	525,269.19	751,156.35	32° 26' 29.207 N	103° 31' 9.209 W
2,300.00	0.27	289.93	2,299.87	-12.51	-9.87	525,269.39	751,156.23	32° 26' 29.210 N	103° 31' 9.211 W
2,400.00	0.21	314.64	2,399.87	-12.30	-10.22	525,269.60	751,155.88	32° 26' 29.212 N	103° 31' 9.215 W
2,500.00	0.36	258.68	2,499.87	-12.24	-10.66	525,269.66	751,155.44	32° 26' 29.212 N	103° 31' 9.220 W
2,600.00	0.05	252.48	2,599.87	-12.31	-11.01	525,269.59	751,155.09	32° 26' 29.212 N	103° 31' 9.224 W
2,700.00	0.12	30.88	2,699.87	-12.24	-11.00	525,269.67	751,155.10	32° 26' 29.212 N	103° 31' 9.224 W
2,800.00	0.15	150.68	2,799.87	-12.26	-10.88	525,269.64	751,155.22	32° 26' 29.212 N	103° 31' 9.222 W
2,900.00	0.27	81.29	2,899.87	-12.34	-10.58	525,269.56	751,155.52	32° 26' 29.211 N	103° 31' 9.219 W
3,000.00	0.74	43.96	2,999.86	-11.84	-9.90	525,270.06	751,156.20	32° 26' 29.216 N	103° 31' 9.211 W
3,100.00	1.16	50.25	3,099.85	-10.73	-8.67	525,271.18	751,157.42	32° 26' 29.227 N	103° 31' 9.197 W
3,200.00	1.61	61.04	3,199.82	-9.40	-6.67	525,272.50	751,159.43	32° 26' 29.240 N	103° 31' 9.173 W
3,300.00	1.60	64.55	3,299.78	-8.12	-4.18	525,273.78	751,161.92	32° 26' 29.253 N	103° 31' 9.144 W
3,400.00	1.58	56.52	3,399.74	-6.76	-1.77	525,275.14	751,164.33	32° 26' 29.266 N	103° 31' 9.116 W
3,500.00	1.39	43.16	3,499.71	-5.11	0.21	525,276.79	751,166.31	32° 26' 29.282 N	103° 31' 9.092 W
3,600.00	1.58	50.52	3,599.68	-3.35	2.11	525,278.55	751,168.20	32° 26' 29.299 N	103° 31' 9.070 W
3,700.00	0.96	9.13	3,699.65	-1.65	3.30	525,280.25	751,169.40	32° 26' 29.316 N	103° 31' 9.056 W
3,800.00	1.00	343.87	3,799.64	0.02	3.19	525,281.92	751,169.29	32° 26' 29.333 N	103° 31' 9.057 W
3,900.00	1.12	346.81	3,899.62	1.81	2.73	525,283.71	751,168.83	32° 26' 29.350 N	103° 31' 9.062 W
4,000.00	1.26	343.50	3,999.60	3.81	2.19	525,285.72	751,168.29	32° 26' 29.370 N	103° 31' 9.069 W
4,100.00	1.25	341.70	4,099.58	5.90	1.54	525,287.80	751,167.64	32° 26' 29.391 N	103° 31' 9.076 W
4,200.00	1.33	340.77	4,199.55	8.03	0.81	525,289.94	751,166.91	32° 26' 29.412 N	103° 31' 9.084 W
4,300.00	1.80	328.99	4,299.51	10.48	-0.38	525,292.38	751,165.72	32° 26' 29.436 N	103° 31' 9.098 W
4,400.00	1.98	331.62	4,399.46	13.34	-2.01	525,295.24	751,164.09	32° 26' 29.465 N	103° 31' 9.117 W
4,500.00	2.01	336.80	4,499.40	16.47	-3.52	525,298.38	751,162.58	32° 26' 29.496 N	103° 31' 9.134 W
4,600.00	1.89	335.79	4,599.34	19.59	-4.89	525,301.49	751,161.21	32° 26' 29.527 N	103° 31' 9.150 W
4,700.00	1.93	333.83	4,699.29	22.61	-6.31	525,304.51	751,159.79	32° 26' 29.557 N	103° 31' 9.166 W
4,800.00	1.49	333.79	4,799.24	25.28	-7.62	525,307.18	751,158.47	32° 26' 29.583 N	103° 31' 9.181 W
4,900.00	1.75	322.44	4,899.20	27.66	-9.13	525,309.56	751,156.97	32° 26' 29.607 N	103° 31' 9.198 W
5,000.00	1.54	328.83	4,999.16	30.02	-10.75	525,311.92	751,155.34	32° 26' 29.630 N	103° 31' 9.217 W
5,100.00	1.31	340.00	5,099.13	32.24	-11.84	525,314.15	751,154.26	32° 26' 29.653 N	103° 31' 9.230 W
5,200.00	1.13	342.83	5,199.11	34.26	-12.52	525,316.16	751,153.57	32° 26' 29.673 N	103° 31' 9.238 W
5,300.00	0.94	343.36	5,299.09	35.99	-13.05	525,317.89	751,153.05	32° 26' 29.690 N	103° 31' 9.243 W
5,400.00	0.80	348.25	5,399.08	37.46	-13.42	525,319.36	751,152.67	32° 26' 29.704 N	103° 31' 9.248 W
5,435.00	0.67	6.00	5,434.08	37.90	-13.45	525,319.80	751,152.64	32° 26' 29.709 N	103° 31' 9.248 W
5,633.00	0.80	45.10	5,632.06	40.03	-12.35	525,321.93	751,153.74	32° 26' 29.730 N	103° 31' 9.235 W
5,788.00	0.80	55.70	5,787.05	41.40	-10.69	525,323.30	751,155.40	32° 26' 29.743 N	103° 31' 9.216 W
5,882.00	0.80	37.30	5,881.04	42.29	-9.75	525,324.19	751,156.34	32° 26' 29.752 N	103° 31' 9.204 W
6,071.00	0.70	47.00	6,070.02	44.13	-8.11	525,326.03	751,157.99	32° 26' 29.770 N	103° 31' 9.185 W
6,260.00	0.80	48.10	6,259.00	45.80	-6.28	525,327.70	751,159.81	32° 26' 29.786 N	103° 31' 9.164 W
6,355.00	0.70	139.30	6,354.00	45.80	-5.41	525,327.70	751,160.69	32° 26' 29.786 N	103° 31' 9.154 W
6,449.00	0.70	169.30	6,447.99	44.80	-4.93	525,326.70	751,161.17	32° 26' 29.776 N	103° 31' 9.148 W
6,544.00	0.90	153.30	6,542.98	43.57	-4.49	525,325.47	751,161.61	32° 26' 29.764 N	103° 31' 9.143 W
6,638.00	0.60	175.10	6,636.97	42.42	-4.11	525,324.32	751,161.98	32° 26' 29.753 N	103° 31' 9.139 W

Aim Directional Services

Survey Report - Geographic



Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Site Loco Dinero 36 #2H
Project:	Lea County, New Mexico	TVD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	Lateral ST01	Survey Calculation Method:	Minimum Curvature
Design:	Lateral ST01	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,733.00	0.80	166.20	6,731.97	41.28	-3.91	525,323.18	751,162.18	32° 26' 29.741 N	103° 31' 9.136 W
6,922.00	0.70	161.00	6,920.95	38.90	-3.22	525,320.80	751,162.88	32° 26' 29.718 N	103° 31' 9.129 W
7,111.00	0.70	161.20	7,109.94	36.72	-2.47	525,318.62	751,163.62	32° 26' 29.696 N	103° 31' 9.120 W
7,300.00	1.10	162.50	7,298.91	33.89	-1.56	525,315.80	751,164.54	32° 26' 29.668 N	103° 31' 9.110 W
7,489.00	1.10	166.90	7,487.88	30.40	-0.60	525,312.30	751,165.50	32° 26' 29.633 N	103° 31' 9.099 W
7,678.00	0.90	174.10	7,676.85	27.15	-0.04	525,309.06	751,166.06	32° 26' 29.601 N	103° 31' 9.092 W
7,867.00	1.10	159.60	7,865.82	23.98	0.75	525,305.88	751,166.85	32° 26' 29.570 N	103° 31' 9.084 W
8,057.00	1.00	178.30	8,055.79	20.61	1.43	525,302.51	751,167.53	32° 26' 29.536 N	103° 31' 9.076 W
8,246.00	0.80	171.80	8,244.77	17.66	1.67	525,299.56	751,167.77	32° 26' 29.507 N	103° 31' 9.073 W
8,435.00	0.80	188.90	8,433.75	15.05	1.66	525,296.95	751,167.75	32° 26' 29.481 N	103° 31' 9.074 W
8,624.00	0.90	184.70	8,622.73	12.26	1.33	525,294.17	751,167.43	32° 26' 29.454 N	103° 31' 9.078 W
8,813.00	1.00	208.70	8,811.70	9.34	0.42	525,291.24	751,166.51	32° 26' 29.425 N	103° 31' 9.089 W
9,002.00	1.10	216.90	9,000.67	6.44	-1.47	525,288.34	751,164.63	32° 26' 29.396 N	103° 31' 9.111 W
9,191.00	1.30	237.30	9,189.63	3.83	-4.36	525,285.73	751,161.74	32° 26' 29.371 N	103° 31' 9.145 W
9,380.00	1.50	235.30	9,378.57	1.27	-8.20	525,283.17	751,157.90	32° 26' 29.346 N	103° 31' 9.190 W
9,569.00	1.90	267.10	9,567.49	-0.30	-13.36	525,281.60	751,152.74	32° 26' 29.331 N	103° 31' 9.250 W
9,758.00	1.30	298.10	9,756.42	0.55	-18.38	525,282.45	751,147.72	32° 26' 29.339 N	103° 31' 9.309 W
9,947.00	1.80	296.30	9,945.35	2.87	-22.93	525,284.78	751,143.16	32° 26' 29.363 N	103° 31' 9.362 W
10,136.00	1.60	285.30	10,134.27	4.89	-28.14	525,286.79	751,137.96	32° 26' 29.383 N	103° 31' 9.422 W
Tie on Aim Pilot Svys									
10,234.00	2.80	94.50	10,232.24	5.06	-27.07	525,286.96	751,139.03	32° 26' 29.385 N	103° 31' 9.410 W
First ST01 Svy									
10,266.00	5.20	88.00	10,264.16	5.05	-24.84	525,286.95	751,141.25	32° 26' 29.384 N	103° 31' 9.384 W
10,294.00	8.10	102.30	10,291.97	4.67	-21.65	525,286.57	751,144.45	32° 26' 29.380 N	103° 31' 9.347 W
10,329.00	11.90	104.80	10,326.43	3.23	-15.75	525,285.13	751,150.35	32° 26' 29.366 N	103° 31' 9.278 W
10,360.00	15.20	105.90	10,356.57	1.29	-8.75	525,283.20	751,157.35	32° 26' 29.346 N	103° 31' 9.196 W
10,389.00	17.60	108.40	10,384.38	-1.13	-0.93	525,280.77	751,165.17	32° 26' 29.321 N	103° 31' 9.105 W
10,423.00	19.90	116.50	10,416.58	-5.34	9.13	525,276.56	751,175.23	32° 26' 29.279 N	103° 31' 8.988 W
10,455.00	21.80	123.60	10,446.49	-11.06	18.96	525,270.85	751,185.05	32° 26' 29.222 N	103° 31' 8.874 W
10,484.00	22.90	129.10	10,473.32	-17.60	27.82	525,264.31	751,193.92	32° 26' 29.156 N	103° 31' 8.771 W
10,534.00	25.10	139.70	10,519.01	-31.83	42.24	525,250.07	751,208.34	32° 26' 29.014 N	103° 31' 8.604 W
10,578.00	27.10	148.20	10,558.54	-47.47	53.56	525,234.43	751,219.66	32° 26' 28.859 N	103° 31' 8.474 W
10,628.00	30.70	156.30	10,602.32	-68.85	64.70	525,213.05	751,230.80	32° 26' 28.646 N	103° 31' 8.346 W
10,673.00	33.10	161.20	10,640.53	-91.01	73.28	525,190.89	751,239.38	32° 26' 28.427 N	103° 31' 8.247 W
10,723.00	37.30	162.90	10,681.38	-118.43	82.14	525,163.48	751,248.24	32° 26' 28.155 N	103° 31' 8.147 W
10,767.00	40.40	165.10	10,715.64	-144.96	89.73	525,136.95	751,255.82	32° 26' 27.891 N	103° 31' 8.060 W
10,801.00	43.00	165.60	10,741.02	-166.84	95.45	525,115.07	751,261.54	32° 26' 27.675 N	103° 31' 7.996 W
10,833.00	45.40	166.90	10,763.96	-188.50	100.74	525,093.40	751,266.84	32° 26' 27.460 N	103° 31' 7.936 W
10,853.00	47.50	167.90	10,777.74	-202.65	103.90	525,079.25	751,270.00	32° 26' 27.320 N	103° 31' 7.900 W
10,888.00	51.20	168.20	10,800.54	-228.63	109.40	525,053.28	751,275.49	32° 26' 27.062 N	103° 31' 7.838 W
10,919.00	54.90	168.20	10,819.17	-252.87	114.46	525,029.03	751,280.56	32° 26' 26.822 N	103° 31' 7.781 W
10,948.00	57.90	169.20	10,835.22	-276.56	119.19	525,005.35	751,285.29	32° 26' 26.587 N	103° 31' 7.728 W
10,982.00	62.80	170.80	10,852.03	-305.65	124.31	524,976.26	751,290.41	32° 26' 26.299 N	103° 31' 7.671 W
11,014.00	66.80	173.40	10,865.66	-334.32	128.28	524,947.58	751,294.37	32° 26' 26.015 N	103° 31' 7.627 W
11,043.00	70.20	175.20	10,876.28	-361.16	130.95	524,920.74	751,297.05	32° 26' 25.749 N	103° 31' 7.599 W
11,077.00	72.70	176.60	10,887.10	-393.31	133.25	524,888.59	751,299.35	32° 26' 25.431 N	103° 31' 7.575 W
#2H Pilot PBHL									
11,108.00	75.70	177.00	10,895.54	-423.09	134.92	524,858.81	751,301.01	32° 26' 25.136 N	103° 31' 7.558 W
11,137.00	79.30	177.60	10,901.82	-451.37	136.25	524,830.54	751,302.35	32° 26' 24.856 N	103° 31' 7.545 W
11,171.00	84.30	178.30	10,906.66	-484.99	137.45	524,796.92	751,303.55	32° 26' 24.523 N	103° 31' 7.534 W
11,200.00	89.00	178.80	10,908.36	-513.92	138.18	524,767.98	751,304.28	32° 26' 24.237 N	103° 31' 7.528 W
11,294.00	89.40	178.70	10,909.67	-607.89	140.24	524,674.02	751,306.33	32° 26' 23.307 N	103° 31' 7.512 W
11,389.00	89.40	179.30	10,910.67	-702.87	141.89	524,579.04	751,307.99	32° 26' 22.367 N	103° 31' 7.501 W
11,483.00	90.00	180.40	10,911.16	-796.86	142.14	524,485.04	751,308.24	32° 26' 21.437 N	103° 31' 7.507 W
11,578.00	89.50	180.00	10,911.57	-891.86	141.81	524,390.04	751,307.90	32° 26' 20.497 N	103° 31' 7.519 W

Aim Directional Services

Survey Report - Geographic



Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Site Loco Dinero 36 #2H
Project:	Lea County, New Mexico	TVD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	Lateral ST01	Survey Calculation Method:	Minimum Curvature
Design:	Lateral ST01	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,673.00	89.60	180.20	10,912.32	-986.86	141.64	524,295.04	751,307.74	32° 26' 19.557 N	103° 31' 7.530 W
11,767.00	90.10	181.20	10,912.56	-1,080.85	140.49	524,201.05	751,306.59	32° 26' 18.627 N	103° 31' 7.551 W
11,862.00	90.20	180.70	10,912.32	-1,175.84	138.92	524,106.07	751,305.01	32° 26' 17.687 N	103° 31' 7.578 W
11,956.00	90.90	180.70	10,911.41	-1,269.82	137.77	524,012.08	751,303.87	32° 26' 16.757 N	103° 31' 7.600 W
12,051.00	90.40	180.90	10,910.34	-1,364.81	136.44	523,917.09	751,302.54	32° 26' 15.817 N	103° 31' 7.624 W
12,145.00	90.30	181.40	10,909.76	-1,458.79	134.56	523,823.12	751,300.65	32° 26' 14.888 N	103° 31' 7.654 W
12,240.00	90.90	181.40	10,908.77	-1,553.75	132.24	523,728.15	751,298.33	32° 26' 13.948 N	103° 31' 7.690 W
12,334.00	90.90	181.60	10,907.29	-1,647.71	129.78	523,634.19	751,295.87	32° 26' 13.019 N	103° 31' 7.727 W
12,429.00	90.80	181.80	10,905.88	-1,742.66	126.96	523,539.25	751,293.05	32° 26' 12.079 N	103° 31' 7.768 W
12,524.00	89.70	181.50	10,905.47	-1,837.61	124.22	523,444.29	751,290.32	32° 26' 11.140 N	103° 31' 7.809 W
12,618.00	89.80	180.90	10,905.88	-1,931.59	122.25	523,350.31	751,288.35	32° 26' 10.210 N	103° 31' 7.840 W
12,713.00	89.20	179.90	10,906.71	-2,026.59	121.59	523,255.32	751,287.69	32° 26' 9.270 N	103° 31' 7.856 W
12,808.00	89.20	179.30	10,908.03	-2,121.57	122.25	523,160.33	751,288.35	32° 26' 8.330 N	103° 31' 7.857 W
12,902.00	88.70	179.90	10,909.75	-2,215.55	122.91	523,066.35	751,289.01	32° 26' 7.400 N	103° 31' 7.857 W
12,997.00	89.50	179.80	10,911.25	-2,310.54	123.16	522,971.36	751,289.26	32° 26' 6.460 N	103° 31' 7.863 W
13,091.00	89.50	179.40	10,912.07	-2,404.54	123.81	522,877.37	751,289.91	32° 26' 5.530 N	103° 31' 7.864 W
13,186.00	89.00	178.70	10,913.31	-2,499.51	125.39	522,782.39	751,291.49	32° 26' 4.590 N	103° 31' 7.854 W
13,280.00	88.80	178.60	10,915.12	-2,593.47	127.60	522,688.43	751,293.70	32° 26' 3.660 N	103° 31' 7.836 W
13,375.00	90.50	180.20	10,915.70	-2,688.46	128.60	522,593.45	751,294.70	32° 26' 2.721 N	103° 31' 7.833 W
13,470.00	90.70	180.90	10,914.70	-2,783.45	127.69	522,498.46	751,293.78	32° 26' 1.781 N	103° 31' 7.852 W
13,564.00	90.90	180.40	10,913.39	-2,877.43	126.62	522,404.47	751,292.72	32° 26' 0.851 N	103° 31' 7.873 W
13,659.00	91.00	180.10	10,911.81	-2,972.42	126.21	522,309.49	751,292.30	32° 25' 59.911 N	103° 31' 7.886 W
13,753.00	91.20	181.30	10,910.01	-3,066.39	125.06	522,215.51	751,291.15	32° 25' 58.981 N	103° 31' 7.908 W
13,848.00	88.80	180.60	10,910.01	-3,161.37	123.48	522,120.53	751,289.58	32° 25' 58.041 N	103° 31' 7.935 W
13,942.00	89.30	180.60	10,911.57	-3,255.35	122.50	522,026.55	751,288.60	32° 25' 57.112 N	103° 31' 7.955 W
14,037.00	88.80	180.90	10,913.14	-3,350.33	121.26	521,931.57	751,287.35	32° 25' 56.172 N	103° 31' 7.978 W
14,131.00	89.10	180.10	10,914.87	-3,444.31	120.44	521,837.59	751,286.53	32° 25' 55.242 N	103° 31' 7.996 W
14,226.00	89.40	179.20	10,916.11	-3,539.30	121.02	521,742.60	751,287.11	32° 25' 54.302 N	103° 31' 7.997 W
14,320.00	88.30	177.70	10,918.00	-3,633.24	123.56	521,648.66	751,289.65	32° 25' 53.372 N	103° 31' 7.976 W
14,415.00	89.40	178.00	10,919.90	-3,728.15	127.12	521,553.75	751,293.22	32° 25' 52.433 N	103° 31' 7.943 W
14,509.00	90.10	178.40	10,920.31	-3,822.11	130.07	521,459.80	751,296.17	32° 25' 51.503 N	103° 31' 7.917 W
14,604.00	90.50	178.30	10,919.81	-3,917.06	132.81	521,364.84	751,298.91	32° 25' 50.563 N	103° 31' 7.893 W
14,698.00	89.80	179.60	10,919.57	-4,011.05	134.53	521,270.86	751,300.63	32° 25' 49.633 N	103° 31' 7.882 W
14,793.00	89.50	180.10	10,920.15	-4,106.04	134.78	521,175.86	751,300.88	32° 25' 48.693 N	103° 31' 7.887 W
14,887.00	90.20	180.20	10,920.39	-4,200.04	134.53	521,081.86	751,300.63	32° 25' 47.763 N	103° 31' 7.898 W
14,982.00	90.70	179.60	10,919.65	-4,295.04	134.70	520,986.86	751,300.80	32° 25' 46.823 N	103° 31' 7.905 W
15,076.00	90.40	179.80	10,918.75	-4,389.03	135.19	520,892.87	751,301.29	32° 25' 45.893 N	103° 31' 7.907 W
15,171.00	89.50	179.50	10,918.83	-4,484.03	135.77	520,797.87	751,301.87	32° 25' 44.953 N	103° 31' 7.909 W
15,245.00	89.00	178.70	10,919.80	-4,558.01	136.93	520,723.89	751,303.03	32° 25' 44.221 N	103° 31' 7.902 W
Last ST01 Svy									
15,305.56	89.00	178.70	10,920.85	-4,618.54	138.31	520,663.36	751,304.40	32° 25' 43.621 N	103° 31' 7.892 W
#2H Plat BHL									
15,307.00	89.00	178.70	10,920.88	-4,619.99	138.34	520,661.91	751,304.44	32° 25' 43.607 N	103° 31' 7.891 W
Projection to BHL - #2H Lateral PBHL-Shifted East									

Aim Directional Services
Survey Report - Geographic



Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Site Loco Dinero 36 #2H
Project:	Lea County, New Mexico	TVD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	Lateral ST01	Survey Calculation Method:	Minimum Curvature
Design:	Lateral ST01	Database:	EDM 5000.1 Single User Db

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,136.00	10,134.27	4.89	-28.14	Tie on Aim Pilot Svys
10,234.00	10,232.24	5.06	-27.07	First ST01 Svy
15,245.00	10,919.80	-4,558.01	136.93	Last ST01 Svy
15,307.00	10,920.88	-4,619.99	138.34	Projection to BHL

Checked By: _____	Approved By: _____	Date: _____
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Survey Report

Service Company: AIM Directional Services, LLC

Location: Eunice, NM

HOBBS OCD

Well: Loco Dinero 36 #2H (R2)

Rig: McVay #10

AUG 29 2016

API or UWI: 30-025-41856

Job Number: WT-16-059

State: New Mexico

Operating Company: Marshall & Winston Inc.

RECEIVED

County: Lea Co., New Mexico

Magnetic Declination: 6.48

Country: USA

Proposed Azimuth: 179.56

Comment

North Reference: GRID

Latitude: 32.2629333

Longitude: -103.319094

Tie-In Data

MD	Inclination	Azimuth	TVD	NS	EW
0.00	0.00	0.00	0.00	0.00	0.00

Survey Data

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
100.00	0.53	77.01	100.00	0.10	0.45	77.01	0.46	-0.10	0.53
200.00	0.64	122.30	199.99	-0.09	1.37	93.77	1.38	0.10	0.46
300.00	0.41	161.88	299.99	-0.73	1.96	110.43	2.09	0.74	0.42
400.00	0.44	167.69	399.99	-1.44	2.15	123.89	2.59	1.46	0.05
500.00	0.54	208.65	499.98	-2.23	2.01	138.07	3.00	2.25	0.36
600.00	0.66	197.21	599.98	-3.20	1.61	153.27	3.58	3.21	0.17
700.00	0.63	193.36	699.97	-4.28	1.31	162.96	4.48	4.29	0.05
800.00	0.63	198.54	799.97	-5.34	1.01	169.28	5.43	5.35	0.06
900.00	0.69	206.00	899.96	-6.40	0.57	174.90	6.43	6.40	0.10
1000.00	0.88	219.24	999.95	-7.54	-0.18	181.36	7.54	7.53	0.26
1100.00	0.82	225.66	1099.94	-8.63	-1.18	187.76	8.71	8.62	0.11
1200.00	0.73	252.86	1199.93	-9.32	-2.30	193.84	9.60	9.30	0.37
1300.00	0.71	210.75	1299.92	-10.04	-3.22	197.79	10.54	10.01	0.52
1400.00	0.84	227.61	1399.91	-11.07	-4.08	200.24	11.79	11.03	0.26
1500.00	0.68	240.19	1499.91	-11.85	-5.14	203.43	12.92	11.82	0.23
1600.00	0.82	240.22	1599.90	-12.51	-6.27	206.64	13.99	12.46	0.14
1700.00	0.86	246.01	1699.89	-13.17	-7.58	209.93	15.19	13.11	0.09
1800.00	0.58	244.04	1799.88	-13.69	-8.72	212.49	16.23	13.63	0.28
1900.00	0.42	307.58	1899.87	-13.69	-9.47	214.66	16.64	13.62	0.54
2000.00	0.27	328.05	1999.87	-13.27	-9.88	216.68	16.54	13.19	0.19
2100.00	0.16	35.34	2099.87	-12.95	-9.92	217.46	16.32	12.88	0.26

2200.00	0.18	38.70	2199.87	-12.72	-9.75	217.46	16.02	12.64	0.02
2300.00	0.27	289.93	2299.87	-12.51	-9.87	218.26	15.94	12.44	0.37
2400.00	0.21	314.64	2399.87	-12.30	-10.22	219.71	16.00	12.23	0.12
2500.00	0.36	258.68	2499.87	-12.24	-10.66	221.06	16.23	12.16	0.30
2600.00	0.05	252.48	2599.87	-12.31	-11.01	221.80	16.52	12.23	0.31
2700.00	0.12	30.88	2699.87	-12.24	-11.00	221.95	16.45	12.15	0.16
2800.00	0.15	150.68	2799.87	-12.26	-10.88	221.58	16.39	12.18	0.23
2900.00	0.27	81.29	2899.87	-12.34	-10.58	220.62	16.25	12.26	0.26
3000.00	0.74	43.96	2999.86	-11.84	-9.90	219.91	15.43	11.76	0.55
3100.00	1.16	50.25	3099.85	-10.73	-8.67	218.96	13.79	10.66	0.43
3200.00	1.61	61.04	3199.82	-9.40	-6.67	215.35	11.52	9.35	0.52
3300.00	1.60	64.55	3299.78	-8.12	-4.18	207.23	9.13	8.09	0.10
3400.00	1.58	56.52	3399.74	-6.76	-1.77	194.65	6.98	6.74	0.22
3500.00	1.39	43.16	3499.71	-5.11	0.21	177.61	5.12	5.11	0.39
3600.00	1.58	50.52	3599.68	-3.35	2.11	147.84	3.96	3.37	0.27
3700.00	0.96	9.13	3699.65	-1.65	3.30	116.50	3.69	1.67	1.07
3800.00	1.00	343.87	3799.64	0.02	3.19	89.68	3.19	0.01	0.43
3900.00	1.12	346.81	3899.62	1.81	2.73	56.48	3.27	-1.79	0.13
4000.00	1.26	343.50	3999.60	3.81	2.19	29.91	4.40	-3.80	0.16
4100.00	1.25	341.70	4099.58	5.90	1.54	14.61	6.10	-5.89	0.04
4200.00	1.33	340.77	4199.55	8.03	0.81	5.79	8.08	-8.03	0.08
4300.00	1.80	328.99	4299.51	10.48	-0.38	357.94	10.48	-10.48	0.57
4400.00	1.98	331.62	4399.46	13.34	-2.01	351.44	13.49	-13.36	0.20
4500.00	2.01	336.80	4499.40	16.47	-3.52	347.94	16.85	-16.50	0.18
4600.00	1.89	335.79	4599.34	19.59	-4.89	345.99	20.19	-19.63	0.12
4700.00	1.93	333.83	4699.29	22.61	-6.31	344.41	23.47	-22.65	0.08
4800.00	1.49	333.79	4799.24	25.28	-7.62	343.22	26.41	-25.34	0.44
4900.00	1.75	322.44	4899.20	27.66	-9.13	341.74	29.13	-27.73	0.41
5000.00	1.54	328.83	4999.16	30.02	-10.75	340.29	31.89	-30.10	0.28
5100.00	1.31	340.00	5099.13	32.24	-11.84	339.84	34.35	-32.33	0.36
5200.00	1.13	342.83	5199.11	34.26	-12.52	339.92	36.48	-34.36	0.19
5300.00	0.94	343.36	5299.09	35.99	-13.05	340.07	38.28	-36.09	0.19
5400.00	0.80	348.25	5399.08	37.46	-13.42	340.28	39.79	-37.56	0.16
5435.00	0.67	6.00	5434.08	37.90	-13.45	340.46	40.22	-38.00	0.74
5633.00	0.80	45.10	5632.06	40.03	-12.35	342.85	41.89	-40.12	0.26
5788.00	0.80	55.70	5787.05	41.40	-10.69	345.52	42.76	-41.48	0.10
5882.00	0.80	37.30	5881.04	42.29	-9.75	347.01	43.40	-42.37	0.27
6071.00	0.70	47.00	6070.02	44.13	-8.11	349.59	44.87	-44.19	0.09
6260.00	0.80	48.10	6259.00	45.80	-6.28	352.19	46.23	-45.85	0.05
6355.00	0.70	139.30	6354.00	45.80	-5.41	353.26	46.12	-45.84	1.13
6449.00	0.70	169.30	6447.99	44.80	-4.93	353.72	45.07	-44.84	0.39
6544.00	0.90	153.30	6542.98	43.57	-4.49	354.12	43.80	-43.60	0.31

6638.00	0.60	175.10	6636.97	42.42	-4.11	354.46	42.61	-42.45	0.44
6733.00	0.80	166.20	6731.97	41.28	-3.91	354.59	41.46	-41.30	0.24
6922.00	0.70	161.00	6920.95	38.90	-3.22	355.27	39.04	-38.93	0.06
7111.00	0.70	161.20	7109.94	36.72	-2.47	356.15	36.80	-36.74	0.00
7300.00	1.10	162.50	7298.91	33.89	-1.56	357.37	33.93	-33.91	0.21
7489.00	1.10	166.90	7487.88	30.40	-0.60	358.87	30.40	-30.40	0.04
7678.00	0.90	174.10	7676.85	27.15	-0.04	359.92	27.15	-27.15	0.12
7867.00	1.10	159.60	7865.82	23.98	0.75	1.79	23.99	-23.97	0.17
8057.00	1.00	178.30	8055.79	20.61	1.43	3.98	20.66	-20.60	0.19
8246.00	0.80	171.80	8244.77	17.66	1.67	5.41	17.74	-17.64	0.12
8435.00	0.80	188.90	8433.75	15.05	1.66	6.28	15.14	-15.03	0.13
8624.00	0.90	184.70	8622.73	12.26	1.33	6.19	12.34	-12.25	0.06
8813.00	1.00	208.70	8811.70	9.34	0.42	2.55	9.35	-9.33	0.22
9002.00	1.10	216.50	9000.67	6.43	-1.46	347.25	6.60	-6.44	0.09
9191.00	1.30	237.30	9189.63	3.82	-4.34	311.34	5.78	-3.85	0.25
9380.00	1.50	235.30	9378.57	1.25	-8.18	278.69	8.27	-1.31	0.11
9569.00	1.90	267.10	9567.49	-0.32	-13.34	268.64	13.34	0.21	0.53
9758.00	1.30	298.10	9756.42	0.53	-18.36	271.67	18.37	-0.68	0.55
9947.00	1.80	296.30	9945.35	2.86	-22.91	277.11	23.09	-3.04	0.27
10136.00	1.60	285.30	10134.27	4.87	-28.12	279.83	28.54	-5.09	0.20
10234.00	2.80	94.50	10232.24	5.04	-27.05	280.56	27.52	-5.25	4.47
10266.00	5.20	88.00	10264.16	5.03	-24.82	281.46	25.33	-5.22	7.62
10294.00	8.10	102.30	10291.97	4.66	-21.63	282.15	22.12	-4.82	11.85
10329.00	11.90	104.80	10326.43	3.21	-15.73	281.54	16.05	-3.33	10.93
10360.00	15.20	105.90	10356.57	1.28	-8.73	278.34	8.82	-1.35	10.68
10389.00	17.60	108.40	10384.38	-1.15	-0.91	218.37	1.46	1.14	8.62
10423.00	19.90	116.50	10416.58	-5.35	9.15	120.32	10.60	5.42	10.20
10455.00	21.80	123.60	10446.49	-11.07	18.98	120.26	21.97	11.22	9.87
10484.00	22.90	129.10	10473.32	-17.61	27.84	122.31	32.94	17.82	8.14
10534.00	25.10	139.70	10519.01	-31.84	42.26	127.00	52.91	32.17	9.66
10578.00	27.10	148.20	10558.54	-47.48	53.58	131.55	71.59	47.90	9.63
10628.00	30.70	156.30	10602.32	-68.87	64.72	136.78	94.51	69.36	10.62
10673.00	33.10	161.20	10640.53	-91.02	73.30	141.16	116.87	91.58	7.84
10723.00	37.30	162.90	10681.38	-118.44	82.16	145.25	144.15	119.07	8.62
10767.00	40.40	165.10	10715.64	-144.97	89.75	148.24	170.50	145.66	7.71
10801.00	43.00	165.60	10741.02	-166.85	95.47	150.22	192.23	167.58	7.71
10833.00	45.40	166.90	10763.96	-188.52	100.76	151.88	213.76	189.29	8.02
10853.00	47.50	167.90	10777.74	-202.67	103.92	152.85	227.76	203.46	11.11
10888.00	51.20	168.20	10800.54	-228.64	109.42	154.43	253.47	229.47	10.59
10919.00	54.90	168.20	10819.17	-252.89	114.48	155.64	277.59	253.76	11.94
10948.00	57.90	169.20	10835.22	-276.57	119.21	156.68	301.17	277.48	10.74
10982.00	62.80	170.80	10852.03	-305.66	124.33	157.87	329.98	306.61	14.98

11014.00	66.80	173.40	10865.66	-334.33	128.30	159.01	358.11	335.31	14.50
11043.00	70.20	175.20	10876.28	-361.18	130.97	160.07	384.19	362.17	13.07
11077.00	72.70	176.60	10887.10	-393.33	133.27	161.28	415.29	394.34	8.32
11108.00	75.70	177.00	10895.54	-423.10	134.94	162.31	444.10	424.13	9.76
11137.00	79.30	177.60	10901.82	-451.38	136.27	163.20	471.50	452.41	12.58
11171.00	84.30	178.30	10906.66	-485.00	137.47	164.17	504.11	486.04	14.85
11200.00	89.00	178.80	10908.36	-513.93	138.21	164.95	532.19	514.98	16.30
11294.00	89.40	178.70	10909.67	-607.90	140.26	167.01	623.87	608.96	0.44
11389.00	89.40	179.30	10910.67	-702.88	141.91	168.59	717.06	703.95	0.63
11483.00	90.00	180.40	10911.16	-796.88	142.16	169.89	809.46	797.95	1.33
11578.00	89.50	180.00	10911.57	-891.88	141.83	170.96	903.08	892.94	0.67
11673.00	89.60	180.20	10912.32	-986.87	141.66	171.83	996.99	987.93	0.24
11767.00	90.10	181.20	10912.56	-1080.86	140.51	172.59	1089.96	1081.91	1.19
11862.00	90.20	180.70	10912.32	-1175.85	138.94	173.26	1184.03	1176.88	0.54
11956.00	90.90	180.70	10911.41	-1269.84	137.79	173.81	1277.29	1270.86	0.74
12051.00	90.40	180.90	10910.34	-1364.82	136.46	174.29	1371.63	1365.83	0.57
12145.00	90.30	181.40	10909.76	-1458.80	134.58	174.73	1465.00	1459.79	0.54
12240.00	90.90	181.40	10908.77	-1553.77	132.26	175.13	1559.39	1554.74	0.63
12334.00	90.90	181.60	10907.29	-1647.72	129.80	175.50	1652.83	1648.67	0.21
12429.00	90.80	181.80	10905.88	-1742.67	126.98	175.83	1747.29	1743.60	0.24
12524.00	89.70	181.50	10905.47	-1837.63	124.24	176.13	1841.83	1838.53	1.20
12618.00	89.80	180.90	10905.88	-1931.61	122.27	176.38	1935.47	1932.49	0.65
12713.00	89.20	179.90	10906.71	-2026.60	121.61	176.57	2030.25	2027.47	1.23
12808.00	89.20	179.30	10908.03	-2121.59	122.27	176.70	2125.11	2122.46	0.63
12902.00	88.70	179.90	10909.75	-2215.57	122.93	176.82	2218.98	2216.45	0.83
12997.00	89.50	179.80	10911.25	-2310.56	123.18	176.95	2313.84	2311.43	0.85
13091.00	89.50	179.40	10912.07	-2404.55	123.84	177.05	2407.74	2405.43	0.43
13186.00	89.00	178.70	10913.31	-2499.53	125.41	177.13	2502.67	2500.42	0.91
13280.00	88.80	178.60	10915.12	-2593.48	127.62	177.18	2596.62	2594.39	0.24
13375.00	90.50	180.20	10915.70	-2688.47	128.62	177.26	2691.55	2689.38	2.46
13470.00	90.70	180.90	10914.70	-2783.46	127.71	177.37	2786.39	2784.36	0.77
13564.00	90.90	180.40	10913.39	-2877.45	126.64	177.48	2880.23	2878.33	0.57
13659.00	91.00	180.10	10911.81	-2972.43	126.23	177.57	2975.11	2973.31	0.33
13753.00	91.20	181.30	10910.01	-3066.41	125.08	177.66	3068.96	3067.28	1.29
13848.00	88.80	180.60	10910.01	-3161.38	123.50	177.76	3163.80	3162.24	2.63
13942.00	89.30	180.60	10911.57	-3255.37	122.52	177.84	3257.67	3256.21	0.53
14037.00	88.80	180.90	10913.14	-3350.34	121.28	177.93	3352.54	3351.18	0.61
14131.00	89.10	180.10	10914.86	-3444.32	120.46	178.00	3446.43	3445.15	0.91
14226.00	89.40	179.20	10916.11	-3539.31	121.04	178.04	3541.38	3540.14	1.00
14320.00	88.30	177.70	10917.99	-3633.26	123.58	178.05	3635.36	3634.10	1.98
14415.00	89.40	178.00	10919.90	-3728.17	127.14	178.05	3730.34	3729.04	1.20
14509.00	90.10	178.40	10920.31	-3822.12	130.09	178.05	3824.33	3823.01	0.86

14604.00	90.50	178.30	10919.81	-3917.08	132.83	178.06	3919.33	3917.98	0.43
14698.00	89.80	179.60	10919.57	-4011.06	134.55	178.08	4013.32	4011.98	1.57
14793.00	89.50	180.10	10920.15	-4106.06	134.80	178.12	4108.27	4106.97	0.61
14887.00	90.20	180.20	10920.39	-4200.06	134.55	178.17	4202.21	4200.97	0.75
14982.00	90.70	179.60	10919.65	-4295.05	134.72	178.20	4297.17	4295.96	0.82
15076.00	90.40	179.80	10918.75	-4389.05	135.21	178.24	4391.13	4389.96	0.38
15171.00	89.50	179.50	10918.83	-4484.04	135.79	178.27	4486.10	4484.96	1.00
15245.00	89.00	178.70	10919.80	-4558.03	136.95	178.28	4560.09	4558.95	1.27



PHOENIX

TECHNOLOGY SERVICES USA INC.

Celebrating 20 Years of Focused Solutions

3610 Elkins Road, Midland, Texas 79705 T. 432.684.0057 F. 432.686.7964 www.phxtech.com

August 4, 2016

HOBBS OCD

AUG 29 2016

RECEIVED

Oil Conservation Division
State of New Mexico
1625 N. French Drive
District 1 - Hobbs
Hobbs, New Mexico 88240

Dear District 1 - Hobbs

Re: Marshall & Winston, Inc.
Loco Dinero 36 #2H
Lea County, NM
API #30-025-41856
Job No. 1610314

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. (P-5 No. 664171). Other information required by your office is as follows:

Name & Title of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Noe Garza	2H	0	5435	07/19/16	07/19/16	Gyro

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Claudia Carreon
Operations Administrator

✓

SURVEY CERTIFICATION FORM

3610 Elkins Road Midland, TX 79705 t:432-684-0057 f: 432-686-7964



PHOENIX
TECHNOLOGY SERVICES

AUG 29 2016

RECEIVED

Company: Marshall & Winston

Job #: 1610314

Well Name: Loco Dinero 36 # 2H

County/State: Lea Co., New Mexico

Survey Instrument Type: North Seek Rate Gyro

API # 30-025-41856

TIE-IN DATA

Measure Depth (ft)	Vertical Depth (ft)	Inclination (°)	Azimuth (°)	N-S Coordinates	E-W Coordinates	Data Source
0	0	0	0	0	0	Surface

First Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2016-07-19	0	0	0

Last Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2016-07-19	5435	0.67	6

Projected TD Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
0	0	0	0

Grid Correction
-0.44

Gyro Operator: Phoenix Technology Services USA Ltd.

Gyro Supervisor: Jaime Stephenson

To the best of my knowledge I certify this survey data to be correct and true

Date: 07-19-16

Print Name: Noe Garza

Signature: 

AUG 29 2016



Company: Marshall & Winston
Well: Loco Dinero 36 # 2H
Location: Lea Co., New Mexico
Rig: McVay 10

Job Number: 1610314
Grid Corr.: -0.44
Lat: 32.44
Long: -103.52

Date: 07-19-16
Calculation Method: Minimum Curvature
Proposed Azimuth: 19.5 Feet
RKB - MSL in feet: Surface
Tie Into: Surface

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
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Enter Tie-In Survey on Line 10

FIELD COPY, NON-DEFINITIVE

TIE IN	0			0	0	0	0	0					
Gyro	100.00	0.53	77.01	100	100.00	0.10	0.10 N	0.45 E	0.46	77.01	0.53	0.53	77.01
	200.00	0.64	122.30	100	199.99	-0.09	0.09 S	1.37 E	1.38	93.77	0.46	0.11	45.29
	300.00	0.41	161.88	100	299.99	-0.73	0.73 S	1.96 E	2.09	110.43	0.42	-0.23	39.58
	400.00	0.44	167.69	100	399.99	-1.44	1.44 S	2.15 E	2.59	123.89	0.05	0.03	5.81
	500.00	0.54	208.65	100	499.98	-2.23	2.23 S	2.01 E	3.00	138.07	0.36	0.10	40.96
	600.00	0.66	197.21	100	599.98	-3.20	3.20 S	1.61 E	3.58	153.27	0.17	0.12	-11.44
	700.00	0.63	193.36	100	699.97	-4.28	4.28 S	1.31 E	4.48	162.96	0.05	-0.03	-3.85
	800.00	0.63	198.54	100	799.97	-5.34	5.34 S	1.01 E	5.43	169.28	0.06	0.00	5.18
	900.00	0.69	206.00	100	899.96	-6.40	6.40 S	0.57 E	6.43	174.90	0.10	0.06	7.46
	1000.00	0.88	219.24	100	999.95	-7.54	7.54 S	0.18 W	7.54	181.36	0.26	0.19	13.24
	1100.00	0.82	225.66	100	1099.94	-8.63	8.63 S	1.18 W	8.71	187.76	0.11	-0.06	6.42
	1200.00	0.73	252.86	100	1199.93	-9.32	9.32 S	2.30 W	9.60	193.84	0.37	-0.09	27.20
	1300.00	0.71	210.75	100	1299.92	-10.04	10.04 S	3.22 W	10.54	197.79	0.52	-0.02	-42.11
	1400.00	0.84	227.61	100	1399.91	-11.07	11.07 S	4.08 W	11.79	200.24	0.26	0.13	16.86
	1500.00	0.68	240.19	100	1499.90	-11.85	11.85 S	5.14 W	12.92	203.43	0.23	-0.16	12.58
	1600.00	0.82	240.22	100	1599.90	-12.51	12.51 S	6.27 W	13.99	206.64	0.14	0.14	0.03
	1700.00	0.86	246.01	100	1699.89	-13.17	13.17 S	7.58 W	15.19	209.93	0.09	0.04	5.79
	1800.00	0.58	244.04	100	1799.88	-13.69	13.69 S	8.72 W	16.23	212.49	0.28	-0.28	-1.97
	1900.00	0.42	307.58	100	1899.87	-13.69	13.69 S	9.47 W	16.64	214.66	0.54	-0.16	63.54
	2000.00	0.27	328.05	100	1999.87	-13.27	13.27 S	9.88 W	16.54	216.68	0.19	-0.15	20.47
	2100.00	0.16	35.34	100	2099.87	-12.95	12.95 S	9.92 W	16.32	217.46	0.26	-0.11	-292.71
	2200.00	0.18	38.70	100	2199.87	-12.72	12.72 S	9.75 W	16.02	217.46	0.02	0.02	3.36
	2300.00	0.27	289.93	100	2299.87	-12.51	12.51 S	9.87 W	15.94	218.26	0.37	0.09	251.23
	2400.00	0.21	314.64	100	2399.87	-12.30	12.30 S	10.22 W	16.00	219.71	0.12	-0.06	24.71
	2500.00	0.36	258.68	100	2499.87	-12.24	12.24 S	10.66 W	16.23	221.06	0.30	0.15	-55.96
	2600.00	0.05	252.48	100	2599.87	-12.31	12.31 S	11.01 W	16.52	221.80	0.31	-0.31	-6.20
	2700.00	0.12	30.88	100	2699.87	-12.24	12.24 S	11.00 W	16.45	221.95	0.16	0.07	-221.60



PHOENIX
TECHNOLOGY SERVICES

Company: Marshall & Winston
Well: Loco Dinero 36 # 2H
Location: Lea Co., New Mexico
Rig: McVay 10

Job Number: 1610314
Grid Corr.: -0.44
Lat: 32.44
Long: -103.52

Calculation Method: Minimum Curvature
Proposed Azimuth: 19.5 Feet
RKB - MSL in feet: Surface
Tie Into: _____

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
	2800.00	0.15	150.68	100	2799.87	-12.26	12.26 S	10.88 W	16.39	221.58	0.23	0.03	119.80
	2900.00	0.27	81.29	100	2899.87	-12.34	12.34 S	10.58 W	16.25	220.62	0.26	0.12	-69.39
	3000.00	0.74	43.96	100	2999.86	-11.84	11.84 S	9.90 W	15.43	219.91	0.55	0.47	-37.33
	3100.00	1.16	50.25	100	3099.85	-10.73	10.73 S	8.67 W	13.79	218.96	0.43	0.42	6.29
	3200.00	1.61	61.04	100	3199.82	-9.40	9.40 S	6.67 W	11.52	215.35	0.52	0.45	10.79
	3300.00	1.60	64.55	100	3299.78	-8.12	8.12 S	4.18 W	9.13	207.23	0.10	-0.01	3.51
	3400.00	1.58	56.52	100	3399.74	-6.76	6.76 S	1.77 W	6.98	194.65	0.22	-0.02	-8.03
	3500.00	1.39	43.16	100	3499.71	-5.11	5.11 S	0.21 E	5.12	177.61	0.39	-0.19	-13.36
	3600.00	1.58	50.52	100	3599.68	-3.35	3.35 S	2.11 E	3.96	147.84	0.27	0.19	7.36
	3700.00	0.96	9.13	100	3699.65	-1.65	1.65 S	3.30 E	3.69	116.50	1.07	-0.62	-41.39
	3800.00	1.00	343.87	100	3799.64	0.02	0.02 N	3.19 E	3.19	89.68	0.43	0.04	334.74
	3900.00	1.12	346.81	100	3899.62	1.81	1.81 N	2.73 E	3.27	56.48	0.13	0.12	2.94
	4000.00	1.26	343.50	100	3999.60	3.81	3.81 N	2.19 E	4.40	29.91	0.16	0.14	-3.31
	4100.00	1.25	341.70	100	4099.58	5.90	5.90 N	1.54 E	6.10	14.61	0.04	-0.01	-1.80
	4200.00	1.33	340.77	100	4199.55	8.03	8.03 N	0.81 E	8.08	5.79	0.08	0.08	-0.93
	4300.00	1.80	328.99	100	4299.51	10.48	10.48 N	0.38 W	10.48	357.94	0.57	0.47	-11.78
	4400.00	1.98	331.62	100	4399.46	13.34	13.34 N	2.01 W	13.49	351.44	0.20	0.18	2.63
	4500.00	2.01	336.80	100	4499.40	16.47	16.47 N	3.52 W	16.85	347.94	0.18	0.03	5.18
	4600.00	1.89	335.79	100	4599.34	19.59	19.59 N	4.89 W	20.19	345.99	0.12	-0.12	-1.01
	4700.00	1.93	333.83	100	4699.28	22.61	22.61 N	6.31 W	23.47	344.41	0.08	0.04	-1.96
	4800.00	1.49	333.79	100	4799.24	25.28	25.28 N	7.62 W	26.41	343.22	0.44	-0.44	-0.04
	4900.00	1.75	322.44	100	4899.20	27.66	27.66 N	9.13 W	29.13	341.74	0.41	0.26	-11.35
	5000.00	1.54	328.83	100	4999.16	30.02	30.02 N	10.75 W	31.89	340.29	0.28	-0.21	6.39
	5100.00	1.31	340.00	100	5099.13	32.24	32.24 N	11.84 W	34.35	339.84	0.36	-0.23	11.17
	5200.00	1.13	342.83	100	5199.10	34.26	34.26 N	12.52 W	36.48	339.92	0.19	-0.18	2.83
	5300.00	0.94	343.36	100	5299.09	35.99	35.99 N	13.05 W	38.28	340.07	0.19	-0.19	0.53
	5400.00	0.80	348.25	100	5399.08	37.46	37.46 N	13.42 W	39.79	340.28	0.16	-0.14	4.89
	5435.00	0.67	6.00	35	5434.07	37.90	37.90 N	13.45 W	40.22	340.46	0.74	-0.37	-977.86

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

HOBBES CCD

AUG 29 2016

RECEIVED

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

HOBBES CCD

MAY 13 2014

RECEIVED

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-41856	Pool Code 96781	Pool Name WC-025 G-09 5213335I; WC
Property Code	Property Name LOCO DINERO 36	Well Number 2H
OGRID No. 14187	Operator Name MARSHAL & WINSTON, INC	Elevation 3644'

Surface Location									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	36	21-S	33-E		330	NORTH	660	EAST	LEA

Bottom Hole Location If Different From Surface									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	36	21-S	33-E		330	SOUTH	660	EAST	LEA
Dedicated Acres 160		Joint or Infill	Consolidation Code	Order No.					

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=525281.9 N X=751166.1 E LAT.=32.441481' N LONG.=103.519193' W BOTTOM HOLE LOCATION Y=520660.2 N X=751201.4 E	CORNER COORDINATES TABLE <table border="1"><tr><td>A</td><td>-</td><td>Y=525607.5 N, X=750502.6 E</td></tr><tr><td>B</td><td>-</td><td>Y=525616.2 N, X=751823.6 E</td></tr><tr><td>C</td><td>-</td><td>Y=520326.6 N, X=750544.8 E</td></tr><tr><td>D</td><td>-</td><td>Y=520334.1 N, X=751864.0 E</td></tr></table>	A	-	Y=525607.5 N, X=750502.6 E	B	-	Y=525616.2 N, X=751823.6 E	C	-	Y=520326.6 N, X=750544.8 E	D	-	Y=520334.1 N, X=751864.0 E	GRID AZ.=179°33'38" HORIZ. DIST.=4622.8'	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Vernon D. Dyer</i> 5-12-2014 Signature Date VERNON D. DYER Printed Name <i>vdycroft@cablcone.net</i> E-mail Address SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. APRIL 24, 2014 Date of Survey Signature of Professional Surveyor: RONALD J. EIDSON 3239 Certificate Number ACK NEW MEXICO JWSC W.O.: 14.11.0462
A	-	Y=525607.5 N, X=750502.6 E													
B	-	Y=525616.2 N, X=751823.6 E													
C	-	Y=520326.6 N, X=750544.8 E													
D	-	Y=520334.1 N, X=751864.0 E													

MAY 20 2014

PM