

Marshall & Winston, Inc.

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

HOBBS OCD

AUG 18 2016

RECEIVED



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target	Annotation
1	10136.00	1.60	285.30	10134.27	4.89	-28.14	0.00	0.00	-5.10		Tie on Pilot Surveys
2	10164.00	1.66	286.63	10162.26	5.11	-28.90	0.25	32.90	-5.33		Top of Whipstock
3	10179.00	1.34	110.00	10177.26	5.11	-28.95	20.00	-178.49	-5.33		Bottom of Whipstock - Hold
4	10259.58	1.34	110.00	10257.81	4.46	-27.18	0.00	0.00	-4.67		KOP-Build 10°dls
5	10398.17	15.20	110.00	10394.63	-2.34	-8.49	10.00	0.00	2.27		Build/Turn 10°dls
6	11246.73	90.00	180.00	10900.00	-573.00	120.51	10.00	70.65	573.91		LP-Hold 90°Inc@179.60°Az
7	15294.81	90.00	180.00	10900.00	-4621.08	120.30	0.00	0.00	4621.87	#2H Lateral PBHL-Shifted East	PBHL-#2H Shifted

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	North	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

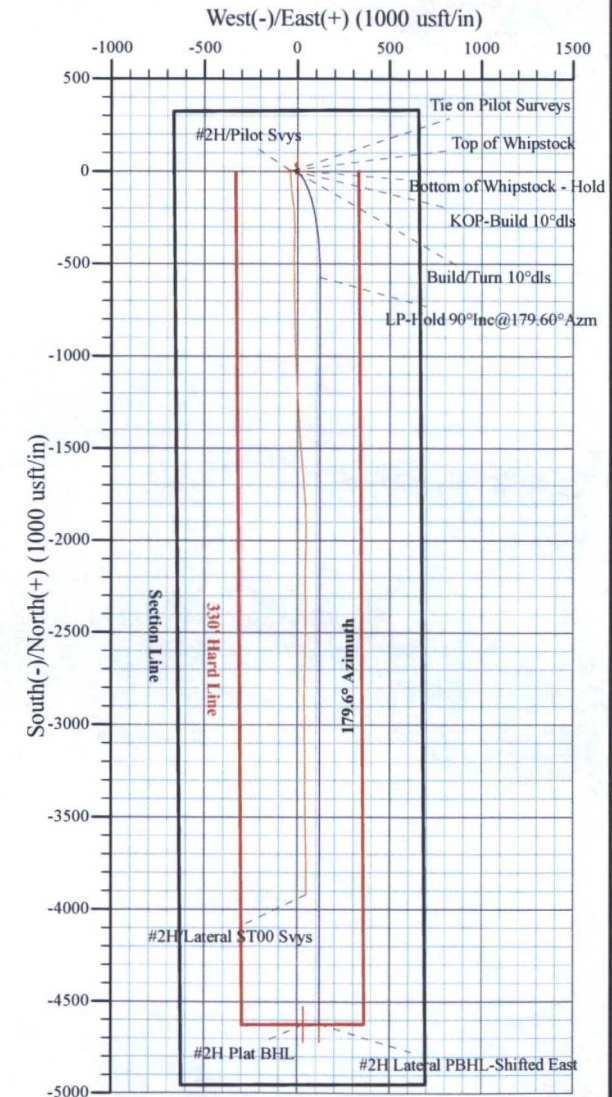
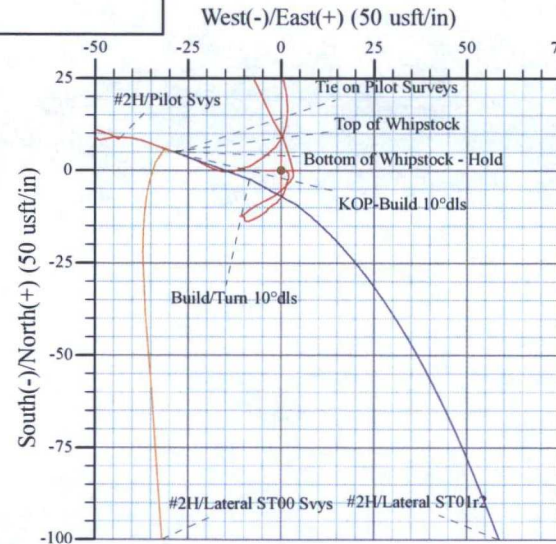
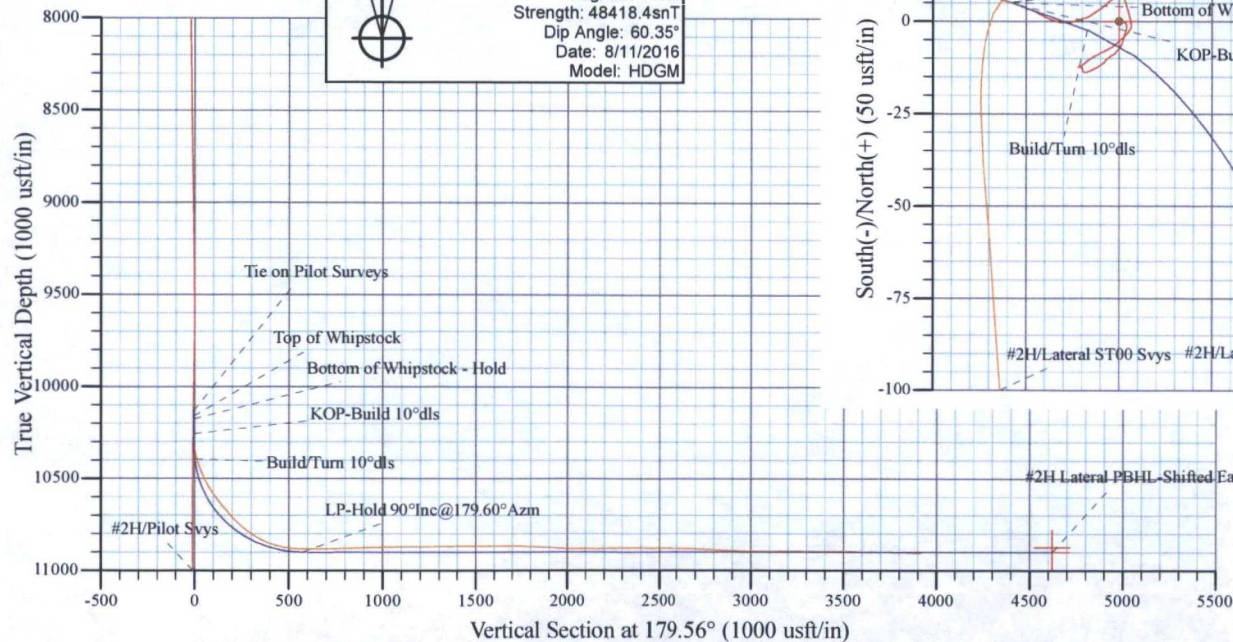
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001

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



300.25. 41856

Aim Directional Services

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Loco Dinero 36 #2H
Company:	Marshall & Winston, Inc.	TVD Reference:	WELL @ 3662.00usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site:	Loco Dinero 36 #2H	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral ST01		
Design:	Lateral ST01r2		

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 ST01r2			
Audit Notes:				
Version:	Phase:	PROTOTYPE	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

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
10,136.00	1.60	285.30	10,134.27	4.89	-28.14	0.00	0.00	0.00	0.00	
10,164.00	1.66	286.63	10,162.26	5.11	-28.90	0.25	0.21	4.75	32.90	
10,179.00	1.34	110.00	10,177.26	5.11	-28.95	20.00	-2.12	-1,177.53	-178.49	
10,259.58	1.34	110.00	10,257.82	4.46	-27.18	0.00	0.00	0.00	0.00	
10,398.17	15.20	110.00	10,394.63	-2.34	-8.49	10.00	10.00	0.00	0.00	
11,246.73	90.00	180.00	10,900.00	-573.00	120.51	10.00	8.81	8.25	70.65	
15,294.81	90.00	180.00	10,900.00	-4,621.08	120.30	0.00	0.00	0.00	0.00	#2H Lateral PBHL-!

Aim Directional Services

Planning Report



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Company:	Marshall & Winston, Inc.	TVD Reference:	WELL @ 3662.00usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site:	Loco Dinero 36 #2H	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral ST01		
Design:	Lateral ST01r2		

Planned 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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.53	77.01	100.00	0.10	0.45	-0.10	0.53	0.53	0.00
200.00	0.64	122.30	199.99	-0.09	1.37	0.10	0.46	0.11	45.29
300.00	0.41	161.88	299.99	-0.73	1.96	0.74	0.42	-0.23	39.58
400.00	0.44	167.69	399.99	-1.44	2.15	1.46	0.05	0.03	5.81
500.00	0.54	208.65	499.98	-2.23	2.01	2.25	0.36	0.10	40.96
600.00	0.66	197.21	599.98	-3.20	1.61	3.21	0.17	0.12	-11.44
700.00	0.63	193.36	699.97	-4.28	1.31	4.29	0.05	-0.03	-3.85
800.00	0.63	198.54	799.97	-5.34	1.01	5.35	0.06	0.00	5.18
900.00	0.69	206.00	899.96	-6.40	0.57	6.40	0.10	0.06	7.46
1,000.00	0.88	219.24	999.95	-7.54	-0.18	7.53	0.26	0.19	13.24
1,100.00	0.82	225.66	1,099.94	-8.63	-1.18	8.62	0.11	-0.06	6.42
1,200.00	0.73	252.86	1,199.93	-9.32	-2.30	9.30	0.37	-0.09	27.20
1,300.00	0.71	210.75	1,299.92	-10.04	-3.22	10.01	0.52	-0.02	-42.11
1,400.00	0.84	227.61	1,399.91	-11.07	-4.08	11.03	0.26	0.13	16.86
1,500.00	0.68	240.19	1,499.91	-11.85	-5.14	11.82	0.23	-0.16	12.58
1,600.00	0.82	240.22	1,599.90	-12.51	-6.27	12.46	0.14	0.14	0.03
1,700.00	0.86	246.01	1,699.89	-13.17	-7.58	13.11	0.09	0.04	5.79
1,800.00	0.58	244.04	1,799.88	-13.69	-8.72	13.63	0.28	-0.28	-1.97
1,900.00	0.42	307.58	1,899.87	-13.69	-9.47	13.62	0.54	-0.16	63.54
2,000.00	0.27	328.05	1,999.87	-13.27	-9.88	13.19	0.19	-0.15	20.47
2,100.00	0.16	35.34	2,099.87	-12.95	-9.92	12.88	0.26	-0.11	67.29
2,200.00	0.18	38.70	2,199.87	-12.72	-9.75	12.64	0.02	0.02	3.36
2,300.00	0.27	289.93	2,299.87	-12.51	-9.87	12.44	0.37	0.09	-108.77
2,400.00	0.21	314.64	2,399.87	-12.30	-10.22	12.23	0.12	-0.06	24.71
2,500.00	0.36	258.68	2,499.87	-12.24	-10.66	12.16	0.30	0.15	-55.96
2,600.00	0.05	252.48	2,599.87	-12.31	-11.01	12.23	0.31	-0.31	-6.20
2,700.00	0.12	30.88	2,699.87	-12.24	-11.00	12.15	0.16	0.07	138.40
2,800.00	0.15	150.68	2,799.87	-12.26	-10.88	12.18	0.23	0.03	119.80
2,900.00	0.27	81.29	2,899.87	-12.34	-10.58	12.26	0.26	0.12	-69.39
3,000.00	0.74	43.96	2,999.86	-11.84	-9.90	11.76	0.55	0.47	-37.33
3,100.00	1.16	50.25	3,099.85	-10.73	-8.67	10.66	0.43	0.42	6.29
3,200.00	1.61	61.04	3,199.82	-9.40	-6.67	9.35	0.52	0.45	10.79
3,300.00	1.60	64.55	3,299.78	-8.12	-4.18	8.09	0.10	-0.01	3.51
3,400.00	1.58	56.52	3,399.74	-6.76	-1.77	6.74	0.22	-0.02	-8.03
3,500.00	1.39	43.16	3,499.71	-5.11	0.21	5.11	0.39	-0.19	-13.36
3,600.00	1.58	50.52	3,599.68	-3.35	2.11	3.37	0.27	0.19	7.36
3,700.00	0.96	9.13	3,699.65	-1.65	3.30	1.67	1.07	-0.62	-41.39
3,800.00	1.00	343.87	3,799.64	0.02	3.19	0.01	0.43	0.04	-25.26
3,900.00	1.12	346.81	3,899.62	1.81	2.73	-1.79	0.13	0.12	2.94
4,000.00	1.26	343.50	3,999.60	3.81	2.19	-3.80	0.16	0.14	-3.31
4,100.00	1.25	341.70	4,099.58	5.90	1.54	-5.89	0.04	-0.01	-1.80
4,200.00	1.33	340.77	4,199.55	8.03	0.81	-8.03	0.08	0.08	-0.93
4,300.00	1.80	328.99	4,299.51	10.48	-0.38	-10.48	0.57	0.47	-11.78
4,400.00	1.98	331.62	4,399.46	13.34	-2.01	-13.36	0.20	0.18	2.63
4,500.00	2.01	336.80	4,499.40	16.47	-3.52	-16.50	0.18	0.03	5.18
4,600.00	1.89	335.79	4,599.34	19.59	-4.89	-19.63	0.12	-0.12	-1.01
4,700.00	1.93	333.83	4,699.29	22.61	-6.31	-22.65	0.08	0.04	-1.96
4,800.00	1.49	333.79	4,799.24	25.28	-7.62	-25.34	0.44	-0.44	-0.04
4,900.00	1.75	322.44	4,899.20	27.66	-9.13	-27.73	0.41	0.26	-11.35
5,000.00	1.54	328.83	4,999.16	30.02	-10.75	-30.10	0.28	-0.21	6.39
5,100.00	1.31	340.00	5,099.13	32.24	-11.84	-32.33	0.36	-0.23	11.17
5,200.00	1.13	342.83	5,199.11	34.26	-12.52	-34.36	0.19	-0.18	2.83
5,300.00	0.94	343.36	5,299.09	35.99	-13.05	-36.09	0.19	-0.19	0.53

Aim Directional Services

Planning Report



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Project:	Lea County, New Mexico	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site:	Loco Dinero 36 #2H	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral ST01		
Design:	Lateral ST01r2		

Planned 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)
5,400.00	0.80	348.25	5,399.08	37.46	-13.42	-37.56	0.16	-0.14	4.89
5,435.00	0.67	6.00	5,434.08	37.90	-13.45	-38.00	0.74	-0.37	50.71
5,633.00	0.80	45.10	5,632.06	40.03	-12.35	-40.12	0.26	0.07	19.75
5,788.00	0.80	55.70	5,787.05	41.40	-10.69	-41.48	0.10	0.00	6.84
5,882.00	0.80	37.30	5,881.04	42.29	-9.75	-42.37	0.27	0.00	-19.57
6,071.00	0.70	47.00	6,070.02	44.13	-8.11	-44.19	0.09	-0.05	5.13
6,260.00	0.80	48.10	6,259.00	45.80	-6.28	-45.85	0.05	0.05	0.58
6,355.00	0.70	139.30	6,354.00	45.80	-5.41	-45.84	1.13	-0.11	96.00
6,449.00	0.70	169.30	6,447.99	44.80	-4.93	-44.84	0.39	0.00	31.91
6,544.00	0.90	153.30	6,542.98	43.57	-4.49	-43.60	0.31	0.21	-16.84
6,638.00	0.60	175.10	6,636.97	42.42	-4.11	-42.45	0.44	-0.32	23.19
6,733.00	0.80	166.20	6,731.97	41.28	-3.91	-41.30	0.24	0.21	-9.37
6,922.00	0.70	161.00	6,920.95	38.90	-3.22	-38.93	0.06	-0.05	-2.75
7,111.00	0.70	161.20	7,109.94	36.72	-2.47	-36.74	0.00	0.00	0.11
7,300.00	1.10	162.50	7,298.91	33.89	-1.56	-33.91	0.21	0.21	0.69
7,489.00	1.10	166.90	7,487.88	30.40	-0.60	-30.40	0.04	0.00	2.33
7,678.00	0.90	174.10	7,676.85	27.15	-0.04	-27.15	0.12	-0.11	3.81
7,867.00	1.10	159.60	7,865.82	23.98	0.75	-23.97	0.17	0.11	-7.67
8,057.00	1.00	178.30	8,055.79	20.61	1.43	-20.60	0.19	-0.05	9.84
8,246.00	0.80	171.80	8,244.77	17.66	1.67	-17.64	0.12	-0.11	-3.44
8,435.00	0.80	188.90	8,433.75	15.05	1.66	-15.03	0.13	0.00	9.05
8,624.00	0.90	184.70	8,622.73	12.26	1.33	-12.25	0.06	0.05	-2.22
8,813.00	1.00	208.70	8,811.70	9.34	0.42	-9.33	0.22	0.05	12.70
9,002.00	1.10	216.90	9,000.67	6.44	-1.47	-6.45	0.10	0.05	4.34
9,191.00	1.30	237.30	9,189.63	3.83	-4.36	-3.87	0.25	0.11	10.79
9,380.00	1.50	235.30	9,378.57	1.27	-8.20	-1.33	0.11	0.11	-1.06
9,569.00	1.90	267.10	9,567.49	-0.30	-13.36	0.20	0.53	0.21	16.83
9,758.00	1.30	298.10	9,756.42	0.55	-18.38	-0.69	0.55	-0.32	16.40
9,947.00	1.80	296.30	9,945.35	2.87	-22.93	-3.05	0.27	0.26	-0.95
10,136.00	1.60	285.30	10,134.27	4.89	-28.14	-5.10	0.20	-0.11	-5.82
Tie on Pilot Surveys									
10,164.00	1.66	286.63	10,162.26	5.11	-28.90	-5.33	0.25	0.21	4.75
Top of Whipstock									
10,175.00	0.54	112.75	10,173.26	5.13	-29.01	-5.35	20.00	-10.16	-1,580.72
10,179.00	1.34	110.00	10,177.26	5.11	-28.95	-5.33	20.00	19.97	-68.77
Bottom of Whipstock - Hold									
10,200.00	1.34	110.00	10,198.25	4.94	-28.49	-5.16	0.00	0.00	0.00
10,259.58	1.34	110.00	10,257.82	4.46	-27.18	-4.67	0.00	0.00	0.00
KOP-Build 10°dls									
10,300.00	5.38	110.00	10,298.16	3.65	-24.95	-3.84	10.00	10.00	0.00
10,350.00	10.38	110.00	10,347.67	1.31	-18.51	-1.45	10.00	10.00	0.00
10,398.17	15.20	110.00	10,394.63	-2.34	-8.49	2.27	10.00	10.00	0.00
Build/Turn 10°dls									
10,400.00	15.26	110.66	10,396.40	-2.51	-8.04	2.44	10.02	3.37	35.90
10,450.00	17.59	126.38	10,444.37	-9.31	4.21	9.35	10.00	4.66	31.44
10,500.00	20.86	137.93	10,491.60	-20.41	16.27	20.54	10.00	6.53	23.11
10,550.00	24.69	146.27	10,537.70	-35.72	28.04	35.93	10.00	7.66	16.67
10,600.00	28.86	152.41	10,582.34	-55.11	39.44	55.41	10.00	8.34	12.28
10,650.00	33.25	157.08	10,625.17	-78.44	50.37	78.83	10.00	8.77	9.35
10,700.00	37.77	160.76	10,665.87	-105.54	60.76	106.00	10.00	9.04	7.36
10,750.00	42.38	163.76	10,704.12	-136.19	70.52	136.73	10.00	9.23	5.99
10,800.00	47.06	166.26	10,739.64	-170.17	79.59	170.78	10.00	9.36	5.01
10,850.00	51.79	168.41	10,772.15	-207.22	87.89	207.89	10.00	9.45	4.30

Aim Directional Services

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Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral ST01		
Design:	Lateral ST01r2		

Planned 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)
10,900.00	56.55	170.29	10,801.42	-247.05	95.36	247.77	10.00	9.52	3.77
10,950.00	61.34	171.98	10,827.20	-289.36	101.94	290.13	10.00	9.57	3.38
11,000.00	66.14	173.52	10,849.32	-333.82	107.58	334.64	10.00	9.61	3.08
11,050.00	70.96	174.95	10,867.60	-380.11	112.25	380.96	10.00	9.64	2.86
11,100.00	75.79	176.30	10,881.90	-427.87	115.90	428.75	10.00	9.66	2.70
11,150.00	80.63	177.59	10,892.11	-476.73	118.50	477.62	10.00	9.68	2.58
11,200.00	85.47	178.84	10,898.16	-526.32	120.04	527.23	10.00	9.68	2.51
11,246.73	90.00	180.00	10,900.00	-573.00	120.51	573.91	10.00	9.69	2.48
LP-Hold 90°Inc@179.60°Az									
11,300.00	90.00	180.00	10,900.00	-626.27	120.51	627.18	0.00	0.00	0.00
11,400.00	90.00	180.00	10,900.00	-726.27	120.50	727.17	0.00	0.00	0.00
11,500.00	90.00	180.00	10,900.00	-826.27	120.50	827.17	0.00	0.00	0.00
11,600.00	90.00	180.00	10,900.00	-926.27	120.49	927.17	0.00	0.00	0.00
11,700.00	90.00	180.00	10,900.00	-1,026.27	120.49	1,027.17	0.00	0.00	0.00
11,800.00	90.00	180.00	10,900.00	-1,126.27	120.48	1,127.16	0.00	0.00	0.00
11,900.00	90.00	180.00	10,900.00	-1,226.27	120.48	1,227.16	0.00	0.00	0.00
12,000.00	90.00	180.00	10,900.00	-1,326.27	120.47	1,327.16	0.00	0.00	0.00
12,100.00	90.00	180.00	10,900.00	-1,426.27	120.47	1,427.15	0.00	0.00	0.00
12,200.00	90.00	180.00	10,900.00	-1,526.27	120.46	1,527.15	0.00	0.00	0.00
12,300.00	90.00	180.00	10,900.00	-1,626.27	120.46	1,627.15	0.00	0.00	0.00
12,400.00	90.00	180.00	10,900.00	-1,726.27	120.45	1,727.14	0.00	0.00	0.00
12,500.00	90.00	180.00	10,900.00	-1,826.27	120.45	1,827.14	0.00	0.00	0.00
12,600.00	90.00	180.00	10,900.00	-1,926.27	120.44	1,927.14	0.00	0.00	0.00
12,700.00	90.00	180.00	10,900.00	-2,026.27	120.43	2,027.14	0.00	0.00	0.00
12,800.00	90.00	180.00	10,900.00	-2,126.27	120.43	2,127.13	0.00	0.00	0.00
12,900.00	90.00	180.00	10,900.00	-2,226.27	120.42	2,227.13	0.00	0.00	0.00
13,000.00	90.00	180.00	10,900.00	-2,326.27	120.42	2,327.13	0.00	0.00	0.00
13,100.00	90.00	180.00	10,900.00	-2,426.27	120.41	2,427.12	0.00	0.00	0.00
13,200.00	90.00	180.00	10,900.00	-2,526.27	120.41	2,527.12	0.00	0.00	0.00
13,300.00	90.00	180.00	10,900.00	-2,626.27	120.40	2,627.12	0.00	0.00	0.00
13,400.00	90.00	180.00	10,900.00	-2,726.27	120.40	2,727.11	0.00	0.00	0.00
13,500.00	90.00	180.00	10,900.00	-2,826.27	120.39	2,827.11	0.00	0.00	0.00
13,600.00	90.00	180.00	10,900.00	-2,926.27	120.39	2,927.11	0.00	0.00	0.00
13,700.00	90.00	180.00	10,900.00	-3,026.27	120.38	3,027.11	0.00	0.00	0.00
13,800.00	90.00	180.00	10,900.00	-3,126.27	120.38	3,127.10	0.00	0.00	0.00
13,900.00	90.00	180.00	10,900.00	-3,226.27	120.37	3,227.10	0.00	0.00	0.00
14,000.00	90.00	180.00	10,900.00	-3,326.27	120.37	3,327.10	0.00	0.00	0.00
14,100.00	90.00	180.00	10,900.00	-3,426.27	120.36	3,427.09	0.00	0.00	0.00
14,200.00	90.00	180.00	10,900.00	-3,526.27	120.36	3,527.09	0.00	0.00	0.00
14,300.00	90.00	180.00	10,900.00	-3,626.27	120.35	3,627.09	0.00	0.00	0.00
14,400.00	90.00	180.00	10,900.00	-3,726.27	120.34	3,727.08	0.00	0.00	0.00
14,500.00	90.00	180.00	10,900.00	-3,826.27	120.34	3,827.08	0.00	0.00	0.00
14,600.00	90.00	180.00	10,900.00	-3,926.27	120.33	3,927.08	0.00	0.00	0.00
14,700.00	90.00	180.00	10,900.00	-4,026.27	120.33	4,027.08	0.00	0.00	0.00
14,800.00	90.00	180.00	10,900.00	-4,126.27	120.32	4,127.07	0.00	0.00	0.00
14,900.00	90.00	180.00	10,900.00	-4,226.27	120.32	4,227.07	0.00	0.00	0.00
15,000.00	90.00	180.00	10,900.00	-4,326.27	120.31	4,327.07	0.00	0.00	0.00
15,100.00	90.00	180.00	10,900.00	-4,426.27	120.31	4,427.06	0.00	0.00	0.00
15,200.00	90.00	180.00	10,900.00	-4,526.27	120.30	4,527.06	0.00	0.00	0.00
15,294.81	90.00	180.00	10,900.00	-4,621.08	120.30	4,621.87	0.00	0.00	0.00
PBHL-#2H Shifted									

Aim Directional Services

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Loco Dinero 36 #2H
Company:	Marshall & Winston, Inc.	TVD Reference:	WELL @ 3662.00usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site:	Loco Dinero 36 #2H	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral ST01		
Design:	Lateral ST01r2		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
#2H Plat BHL - plan misses target center by 88.89usft at 15294.81usft MD (10900.00 TVD, -4621.08 N, 120.30 E) - Point	0.00	0.00	10,874.00	-4,621.70	35.30	520,660.20	751,201.40	32° 25' 43.598 N	103° 31' 9.094 W
#2H Lateral PBHL-Sh - plan hits target center - Point	0.00	0.00	10,900.00	-4,621.08	120.30	520,660.82	751,286.39	32° 25' 43.598 N	103° 31' 8.102 W
#2H Pilot PBHL - plan misses target center by 1485.36usft at 11088.43usft MD (10878.95 TVD, -416.70 N, 115.14 E) - Point	0.00	0.00	12,300.00	0.00	0.00	525,281.90	751,166.10	32° 26' 29.333 N	103° 31' 9.094 W

Plan 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 Pilot Surveys
10,164.00	10,162.26	5.11	-28.90	Top of Whipstock
10,179.00	10,177.26	5.11	-28.95	Bottom of Whipstock - Hold
10,259.58	10,257.82	4.46	-27.18	KOP-Build 10°dls
10,398.17	10,394.63	-2.34	-8.49	Build/Turn 10°dls
11,246.73	10,900.00	-573.00	120.51	LP-Hold 90°Inc@179.60°Az
15,294.81	10,900.00	-4,621.08	120.30	PBHL-#2H Shifted

HOBBS OCD

AUG 18 2016

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Marshall & Winston, Inc.

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

**Lateral ST01
Lateral ST01r2**

Anticollision Report

12 August, 2016



Aim Directional Services

Anticollision 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)
Reference Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral ST01	Database:	EDM 5000.1 Single User Db
Reference Design:	Lateral ST01r2	Offset TVD Reference:	Offset Datum

Reference	Lateral ST01r2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,787.50 us	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 8/12/2016			
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
10,136.00	15,294.23	Lateral ST01r2 (Lateral ST01)	MWD+HDGM	OWSG MWD + HDGM

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Loco Dinero 36 #2H						
#2H - Lateral ST00 - Lateral ST00 Svys	10,136.00	10,136.00	0.33	0.33	10,000.000	CC
#2H - Lateral ST00 - Lateral ST00 Svys	14,592.81	14,543.00	71.35	-15.70	0.820	Level 1, ES, SF
#2H - Pilot - Pilot Svys	10,136.00	10,136.00	0.33	0.33	10,000.000	CC, ES
#2H - Pilot - Pilot Svys	10,200.00	10,199.96	1.51	1.11	3.756	SF

Offset Design Loco Dinero 36 #2H - #2H - Lateral ST00 - Lateral ST00 Svys													
Survey Program: 100-Gyroscope, 5633-MWD+HDGM, 10225-MWD+HDGM													
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor	Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,136.00	10,134.28	10,136.00	10,134.27	0.00	0.00	-0.36	4.89	-28.14	0.33	0.33	0.00	N/A	CC
10,200.00	10,198.25	10,199.97	10,198.21	0.12	0.12	176.81	5.36	-29.86	1.44	1.03	0.41	3.494	
10,300.00	10,298.16	10,299.72	10,297.88	0.12	0.18	163.96	4.21	-32.80	7.88	7.31	0.57	13.842	
10,400.00	10,396.40	10,396.57	10,393.05	0.17	0.23	138.01	-12.50	-36.77	30.60	29.36	1.25	24.538	
10,500.00	10,491.60	10,491.95	10,482.70	0.40	0.40	102.89	-44.77	-35.89	58.25	56.38	1.87	31.168	
10,600.00	10,582.34	10,584.92	10,564.63	0.95	0.52	86.30	-88.48	-32.81	81.52	79.36	2.16	37.706	
10,700.00	10,665.87	10,682.16	10,643.69	1.50	0.63	78.35	-144.75	-27.54	99.13	96.53	2.60	38.127	
10,800.00	10,739.64	10,776.90	10,715.79	2.09	0.65	76.60	-205.63	-19.40	107.82	104.90	2.92	36.875	
10,900.00	10,801.42	10,865.03	10,776.27	2.71	0.85	78.64	-269.55	-16.18	116.53	113.70	2.83	41.125	
11,000.00	10,849.32	10,954.34	10,826.08	3.34	1.23	81.11	-343.53	-16.69	126.80	124.49	2.31	54.834	
11,100.00	10,881.90	11,053.12	10,863.97	3.96	1.65	82.76	-434.54	-17.03	134.30	130.80	3.50	38.372	
11,200.00	10,898.16	11,147.63	10,880.85	4.55	2.21	82.85	-527.34	-16.41	137.55	133.08	4.46	30.817	
11,300.00	10,900.00	11,244.90	10,883.11	5.10	2.86	83.01	-624.54	-17.34	138.89	133.21	5.68	24.447	
11,400.00	10,900.00	11,350.05	10,881.64	5.68	3.66	82.35	-729.66	-16.21	137.98	130.57	7.41	18.615	
11,500.00	10,900.00	11,449.91	10,879.17	6.30	4.50	81.14	-829.44	-13.10	135.25	126.23	9.03	14.981	
11,600.00	10,900.00	11,548.85	10,875.36	7.00	5.40	79.39	-928.28	-11.10	133.89	123.19	10.70	12.513	
11,700.00	10,900.00	11,652.71	10,873.37	7.76	6.41	78.25	-1,032.06	-7.52	130.87	118.18	12.69	10.313	
11,800.00	10,900.00	11,753.33	10,870.73	8.59	7.45	76.51	-1,132.46	-1.57	125.66	111.06	14.61	8.603	
11,900.00	10,900.00	11,852.32	10,869.78	9.49	8.52	75.56	-1,231.34	3.10	121.31	104.73	16.58	7.316	
12,000.00	10,900.00	11,953.64	10,868.14	10.45	9.65	74.15	-1,332.51	8.27	116.80	98.15	18.66	6.261	
12,100.00	10,900.00	12,054.72	10,867.94	11.46	10.82	73.13	-1,433.39	14.72	110.73	89.93	20.80	5.323	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Aim Directional Services

Anticollision 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)
Reference Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral ST01	Database:	EDM 5000.1 Single User Db
Reference Design:	Lateral ST01r2	Offset TVD Reference:	Offset Datum

Offset Design Loco Dinero 36 #2H - #2H - Lateral ST00 - Lateral ST00 Svys											Offset Site Error: 0.00 usft		
Survey Program: 100-Gyroscope, 5633-MWD+HDGM, 10225-MWD+HDGM											Offset Well Error: 0.00 usft		
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,200.00	10,900.00	12,155.53	10,867.83	12.53	12.03	71.91	-1,533.93	21.99	103.87	80.92	22.95	4.525	
12,300.00	10,900.00	12,255.90	10,866.18	13.63	13.27	69.34	-1,633.90	30.74	96.18	71.26	24.93	3.858	
12,400.00	10,900.00	12,356.23	10,867.50	14.77	14.53	68.21	-1,733.87	39.13	87.91	60.82	27.09	3.245	
12,500.00	10,900.00	12,453.57	10,871.54	15.95	15.76	69.25	-1,830.91	45.32	80.47	50.93	29.53	2.725	
12,600.00	10,900.00	12,551.06	10,876.99	17.14	16.98	72.44	-1,928.22	47.73	76.29	43.97	32.32	2.361	
12,659.89	10,900.00	12,609.08	10,880.07	17.88	17.70	74.70	-1,986.16	47.60	75.51	41.52	33.99	2.222	
12,700.00	10,900.00	12,647.95	10,881.48	18.37	18.19	75.86	-2,024.99	46.89	75.85	40.81	35.04	2.165	
12,800.00	10,900.00	12,747.89	10,882.42	19.61	19.44	76.91	-2,124.90	44.78	77.67	40.02	37.66	2.063	
12,900.00	10,900.00	12,847.94	10,879.88	20.87	20.71	75.34	-2,224.90	43.50	79.52	39.58	39.94	1.991	
13,000.00	10,900.00	12,950.69	10,877.90	22.15	22.04	73.76	-2,327.62	44.53	79.06	36.69	42.37	1.866	
13,058.84	10,900.00	13,008.18	10,878.14	22.91	22.79	73.84	-2,385.10	44.97	78.55	34.75	43.80	1.793	
13,100.00	10,900.00	13,048.83	10,878.74	23.44	23.32	74.34	-2,425.75	44.59	78.75	33.84	44.91	1.753	
13,200.00	10,900.00	13,149.02	10,878.98	24.74	24.64	74.63	-2,525.94	43.96	79.29	31.75	47.54	1.668	
13,300.00	10,900.00	13,248.92	10,880.10	26.05	25.96	75.53	-2,625.82	43.28	79.65	29.36	50.29	1.584	
13,400.00	10,900.00	13,348.33	10,883.72	27.37	27.27	78.36	-2,725.15	41.35	80.71	27.36	53.35	1.513	
13,500.00	10,900.00	13,448.91	10,889.87	28.71	28.61	82.92	-2,825.51	38.87	82.15	25.50	56.65	1.450	Level 3
13,600.00	10,900.00	13,550.57	10,895.01	30.05	29.97	86.51	-2,927.03	38.48	82.07	22.32	59.75	1.374	Level 3
13,700.00	10,900.00	13,651.53	10,897.42	31.39	31.35	88.16	-3,027.95	39.98	80.46	17.85	62.60	1.285	Level 3
13,800.00	10,900.00	13,750.72	10,896.53	32.75	32.71	87.47	-3,127.11	41.96	78.50	13.24	65.26	1.203	Level 2
13,860.90	10,900.00	13,810.80	10,895.14	33.57	33.53	86.44	-3,187.17	42.28	78.24	11.44	66.81	1.171	Level 2
13,900.00	10,900.00	13,849.67	10,894.98	34.10	34.06	86.33	-3,226.04	42.23	78.30	10.45	67.85	1.154	Level 2
14,000.00	10,900.00	13,950.00	10,896.67	35.47	35.43	87.57	-3,326.35	41.85	78.59	7.90	70.69	1.112	Level 2
14,100.00	10,900.00	14,051.23	10,896.65	36.84	36.83	87.53	-3,427.58	42.68	77.76	4.25	73.51	1.058	Level 2
14,200.00	10,900.00	14,151.37	10,896.44	38.21	38.22	87.31	-3,527.69	44.63	75.83	-0.44	76.27	0.994	Level 1
14,300.00	10,900.00	14,251.53	10,898.33	39.59	39.61	88.70	-3,627.82	46.51	73.87	-5.25	79.12	0.934	Level 1
14,400.00	10,900.00	14,350.79	10,899.95	40.97	41.00	89.96	-3,727.05	48.13	72.22	-9.68	81.89	0.882	Level 1
14,469.68	10,900.00	14,419.71	10,901.79	41.94	41.96	91.43	-3,795.95	48.54	71.83	-11.95	83.78	0.857	Level 1
14,500.00	10,900.00	14,449.70	10,902.94	42.36	42.37	92.34	-3,825.91	48.50	71.91	-12.67	84.57	0.850	Level 1
14,592.81	10,900.00	14,543.00	10,905.95	43.65	43.68	94.78	-3,919.16	49.24	71.35	-15.70	87.04	0.820	Level 1, ES, SF
14,600.00	10,900.00	14,543.00	10,905.95	43.75	43.68	94.78	-3,919.16	49.24	71.70	-14.58	86.28	0.831	Level 1
14,700.00	10,900.00	14,543.00	10,905.95	45.14	43.68	94.78	-3,919.16	49.24	128.70	83.14	45.56	2.825	
14,800.00	10,900.00	14,543.00	10,905.95	46.53	43.68	94.78	-3,919.16	49.24	219.05	193.67	25.38	8.630	
14,900.00	10,900.00	14,543.00	10,905.95	47.93	43.68	94.78	-3,919.16	49.24	315.29	298.52	16.77	18.800	
15,000.00	10,900.00	14,543.00	10,905.95	49.33	43.68	94.78	-3,919.16	49.24	413.31	401.08	12.23	33.784	
15,100.00	10,900.00	14,543.00	10,905.95	50.73	43.68	94.78	-3,919.16	49.24	512.10	502.57	9.53	53.724	
15,200.00	10,900.00	14,543.00	10,905.95	52.14	43.68	94.78	-3,919.16	49.24	611.29	603.47	7.82	78.207	
15,294.81	10,900.00	14,543.00	10,905.95	53.26	43.68	94.78	-3,919.16	49.24	705.54	694.01	11.52	61.237	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Aim Directional Services

Anticollision 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)
Reference Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral ST01	Database:	EDM 5000.1 Single User Db
Reference Design:	Lateral ST01r2	Offset TVD Reference:	Offset Datum

Offset Design Loco Dinero 36 #2H - #2H - Pilot - Pilot Svys													Offset Site Error:	0.00 usft
Survey Program: 100-Gyroscope, 5633-MVWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)						
10,136.00	10,134.28	10,136.00	10,134.27	0.00	0.00	-0.36	4.89	-28.14	0.33	0.33	0.00	N/A	CC, ES	
10,200.00	10,198.25	10,199.96	10,198.21	0.12	0.22	178.62	5.42	-29.92	1.51	1.11	0.40	3.756	SF	
10,300.00	10,298.16	10,299.68	10,297.87	0.12	0.56	179.76	6.52	-32.92	8.48	7.77	0.71	11.997		
10,400.00	10,396.40	10,397.48	10,395.62	0.17	0.89	179.44	7.66	-35.79	29.56	28.41	1.16	25.528		
10,500.00	10,491.60	10,492.60	10,490.72	0.40	1.22	158.70	8.27	-37.63	61.06	59.70	1.36	44.796		
10,600.00	10,582.34	10,583.03	10,581.14	0.95	1.53	153.67	8.51	-38.78	100.83	98.51	2.32	43.477		
10,700.00	10,665.87	10,665.97	10,664.08	1.50	1.81	152.52	8.72	-39.94	152.31	149.16	3.15	48.343		
10,800.00	10,739.64	10,738.99	10,737.08	2.09	2.07	151.25	8.91	-41.10	215.97	212.08	3.90	55.440		
10,900.00	10,801.42	10,799.93	10,798.01	2.71	2.28	148.18	9.02	-42.31	290.75	286.23	4.52	64.282		
11,000.00	10,849.32	10,847.13	10,845.21	3.34	2.44	141.69	9.08	-43.42	374.71	369.69	5.01	74.741		
11,100.00	10,881.90	10,879.22	10,877.28	3.96	2.55	128.61	9.11	-44.25	465.42	460.07	5.35	86.972		
11,200.00	10,898.16	10,895.38	10,893.44	4.55	2.61	103.80	9.12	-44.70	560.23	554.70	5.53	101.277		
11,300.00	10,900.00	10,897.27	10,895.32	5.10	2.62	88.38	9.12	-44.75	656.55	650.98	5.56	118.015		
11,400.00	10,900.00	10,897.24	10,895.29	5.68	2.62	88.37	9.12	-44.75	753.74	748.19	5.55	135.853		
11,500.00	10,900.00	10,897.21	10,895.26	6.30	2.62	88.36	9.12	-44.75	851.59	846.06	5.53	154.101		
11,600.00	10,900.00	10,897.18	10,895.23	7.00	2.62	88.35	9.12	-44.75	949.88	944.38	5.50	172.716		
11,700.00	10,900.00	10,897.15	10,895.20	7.76	2.61	88.34	9.12	-44.75	1,048.50	1,043.03	5.47	191.673		
11,800.00	10,900.00	10,897.11	10,895.17	8.59	2.61	88.33	9.12	-44.75	1,147.36	1,141.92	5.44	210.962		
11,900.00	10,900.00	10,897.08	10,895.14	9.49	2.61	88.31	9.12	-44.74	1,246.40	1,240.99	5.41	230.583		
12,000.00	10,900.00	10,897.05	10,895.11	10.45	2.61	88.30	9.12	-44.74	1,345.58	1,340.21	5.37	250.538		
12,100.00	10,900.00	10,897.02	10,895.07	11.46	2.61	88.29	9.12	-44.74	1,444.87	1,439.54	5.33	270.838		
12,200.00	10,900.00	10,896.99	10,895.04	12.53	2.61	88.28	9.12	-44.74	1,544.26	1,538.96	5.30	291.499		
12,300.00	10,900.00	10,896.96	10,895.01	13.63	2.61	88.27	9.12	-44.74	1,643.72	1,638.46	5.26	312.541		
12,400.00	10,900.00	10,896.92	10,894.98	14.77	2.61	88.26	9.12	-44.74	1,743.24	1,738.02	5.22	333.992		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

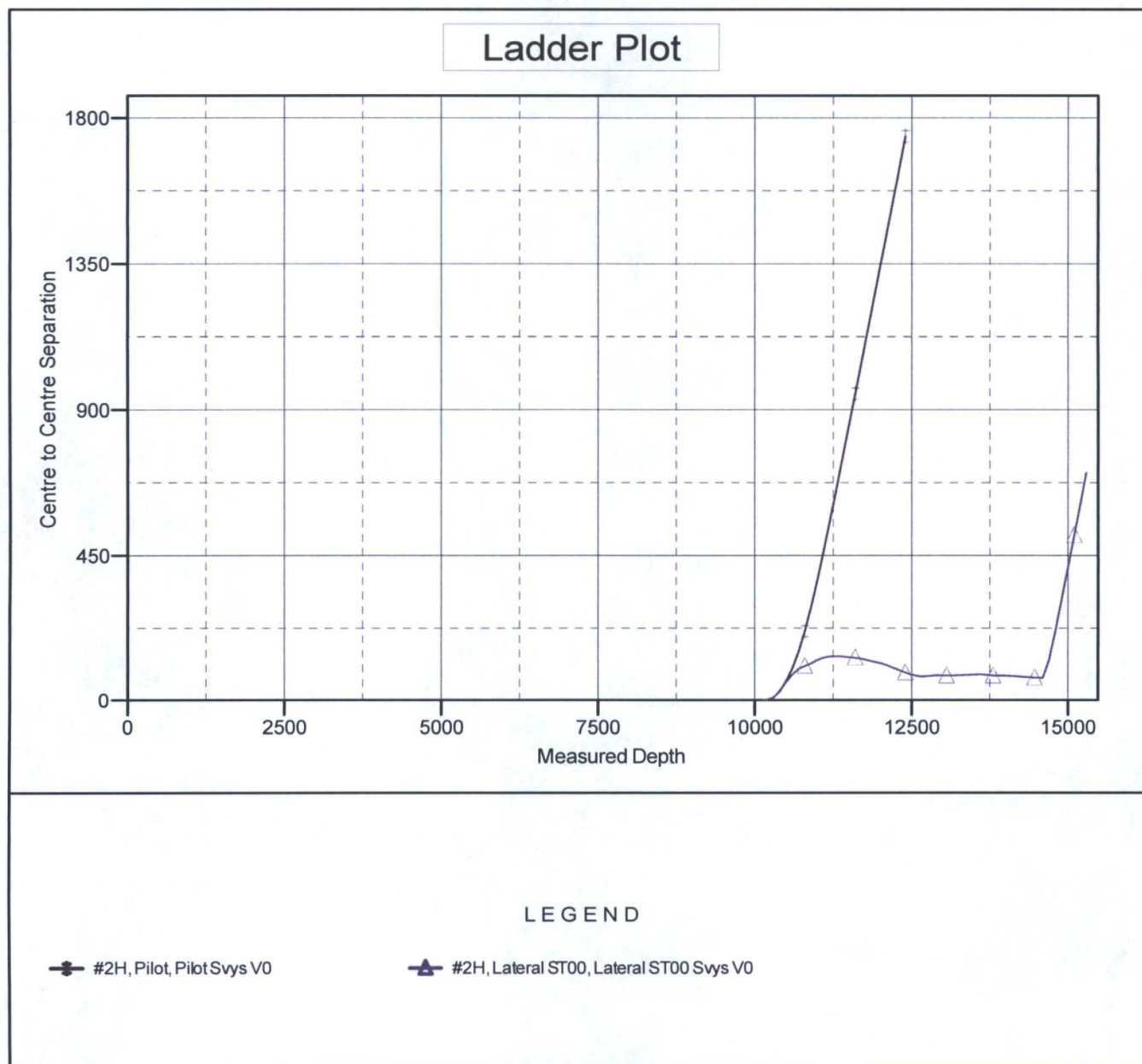
Aim Directional Services

Anticollision 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)
Reference Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral ST01	Database:	EDM 5000.1 Single User Db
Reference Design:	Lateral ST01r2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3662.00usft (Original Well E Coordinates are relative to: Loco Dinero 36 #2H
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.44°



Aim Directional Services

Anticollision 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)
Reference Site:	Loco Dinero 36 #2H	MD Reference:	WELL @ 3662.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral ST01	Database:	EDM 5000.1 Single User Db
Reference Design:	Lateral ST01r2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3662.00usft (Original Well ECoordinates are relative to: Loco Dinero 36 #2H

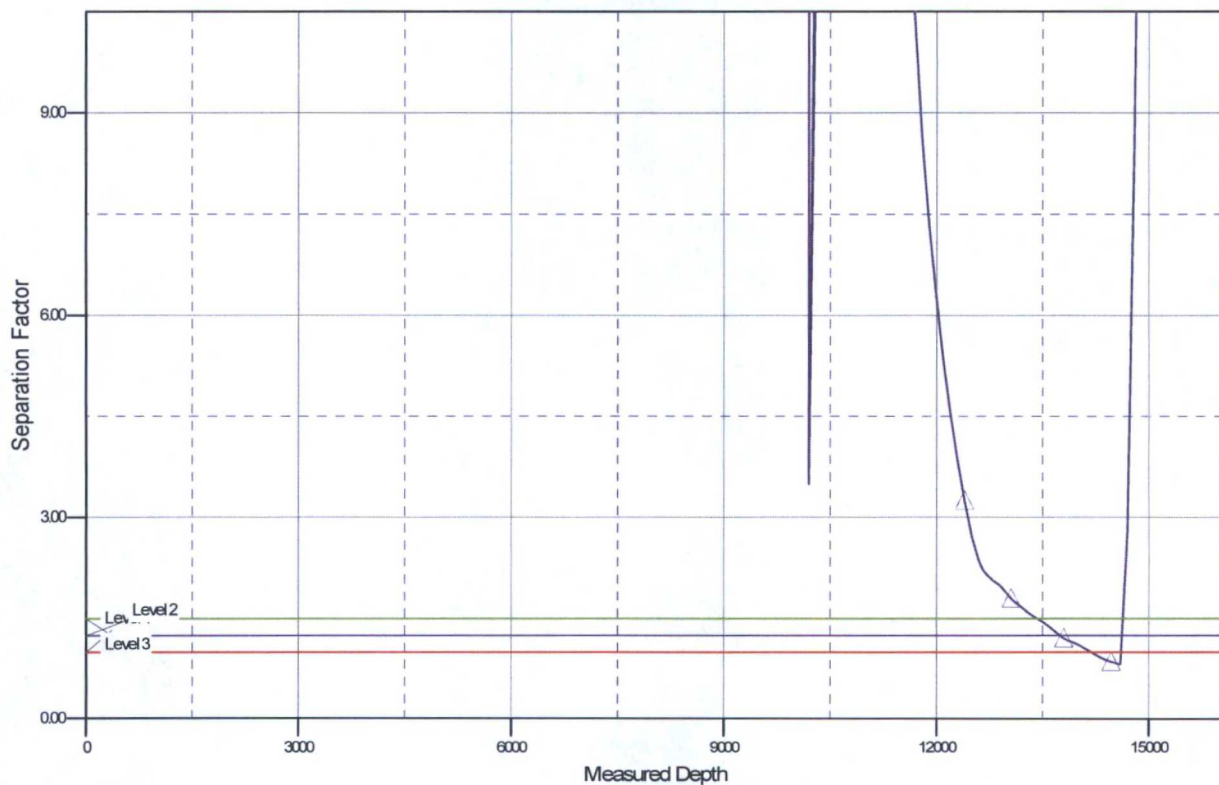
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.44°

Separation Factor Plot



LEGEND

— #2H, Pilot, Pilot Svys V0

— #2H, Lateral ST00, Lateral ST00 Svys V0

AUG 18 2016

Marshall Winston - Loco Dinero 36 #2H Lateral ST01r2 Planned Svys.txt

MD	INCL	AZIMUTH	TVD	N(+)	E(+)	VS	DLS°
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0	0.53	77.01	100.00	0.10	0.45	-0.10	0.53
200.0	0.64	122.30	199.99	-0.09	1.37	0.10	0.46
300.0	0.41	161.88	299.99	-0.73	1.96	0.74	0.42
400.0	0.44	167.69	399.99	-1.44	2.15	1.46	0.05
500.0	0.54	208.65	499.98	-2.23	2.01	2.25	0.36
600.0	0.66	197.21	599.98	-3.20	1.61	3.21	0.17
700.0	0.63	193.36	699.97	-4.28	1.31	4.29	0.05
800.0	0.63	198.54	799.97	-5.34	1.01	5.35	0.06
900.0	0.69	206.00	899.96	-6.40	0.57	6.40	0.10
1000.0	0.88	219.24	999.95	-7.54	-0.18	7.53	0.26
1100.0	0.82	225.66	1099.94	-8.63	-1.18	8.62	0.11
1200.0	0.73	252.86	1199.93	-9.32	-2.30	9.30	0.37
1300.0	0.71	210.75	1299.92	-10.04	-3.22	10.01	0.52
1400.0	0.84	227.61	1399.91	-11.07	-4.08	11.03	0.26
1500.0	0.68	240.19	1499.91	-11.85	-5.14	11.82	0.23
1600.0	0.82	240.22	1599.90	-12.51	-6.27	12.46	0.14
1700.0	0.86	246.01	1699.89	-13.17	-7.58	13.11	0.09
1800.0	0.58	244.04	1799.88	-13.69	-8.72	13.63	0.28
1900.0	0.42	307.58	1899.87	-13.69	-9.47	13.62	0.54
2000.0	0.27	328.05	1999.87	-13.27	-9.88	13.19	0.19
2100.0	0.16	35.34	2099.87	-12.95	-9.92	12.88	0.26
2200.0	0.18	38.70	2199.87	-12.72	-9.75	12.64	0.02
2300.0	0.27	289.93	2299.87	-12.51	-9.87	12.44	0.37
2400.0	0.21	314.64	2399.87	-12.30	-10.22	12.23	0.12
2500.0	0.36	258.68	2499.87	-12.24	-10.66	12.16	0.30
2600.0	0.05	252.48	2599.87	-12.31	-11.01	12.23	0.31
2700.0	0.12	30.88	2699.87	-12.24	-11.00	12.15	0.16
2800.0	0.15	150.68	2799.87	-12.26	-10.88	12.18	0.23
2900.0	0.27	81.29	2899.87	-12.34	-10.58	12.26	0.26
3000.0	0.74	43.96	2999.86	-11.84	-9.90	11.76	0.55
3100.0	1.16	50.25	3099.85	-10.73	-8.67	10.66	0.43
3200.0	1.61	61.04	3199.82	-9.40	-6.67	9.35	0.52
3300.0	1.60	64.55	3299.78	-8.12	-4.18	8.09	0.10
3400.0	1.58	56.52	3399.74	-6.76	-1.77	6.74	0.22
3500.0	1.39	43.16	3499.71	-5.11	0.21	5.11	0.39
3600.0	1.58	50.52	3599.68	-3.35	2.11	3.37	0.27
3700.0	0.96	9.13	3699.65	-1.65	3.30	1.67	1.07
3800.0	1.00	343.87	3799.64	0.02	3.19	0.01	0.43
3900.0	1.12	346.81	3899.62	1.81	2.73	-1.79	0.13
4000.0	1.26	343.50	3999.60	3.81	2.19	-3.80	0.16
4100.0	1.25	341.70	4099.58	5.90	1.54	-5.89	0.04
4200.0	1.33	340.77	4199.55	8.03	0.81	-8.03	0.08
4300.0	1.80	328.99	4299.51	10.48	-0.38	-10.48	0.57
4400.0	1.98	331.62	4399.46	13.34	-2.01	-13.36	0.20
4500.0	2.01	336.80	4499.40	16.47	-3.52	-16.50	0.18
4600.0	1.89	335.79	4599.34	19.59	-4.89	-19.63	0.12

	Marshall	Winston	- Loco Dinero	36 #2H Lateral	ST01r2	Planned	Svys.txt
4700.0	1.93	333.83	4699.29	22.61	-6.31	-22.65	0.08
4800.0	1.49	333.79	4799.24	25.28	-7.62	-25.34	0.44
4900.0	1.75	322.44	4899.20	27.66	-9.13	-27.73	0.41
5000.0	1.54	328.83	4999.16	30.02	-10.75	-30.10	0.28
5100.0	1.31	340.00	5099.13	32.24	-11.84	-32.33	0.36
5200.0	1.13	342.83	5199.11	34.26	-12.52	-34.36	0.19
5300.0	0.94	343.36	5299.09	35.99	-13.05	-36.09	0.19
5400.0	0.80	348.25	5399.08	37.46	-13.42	-37.56	0.16
5435.0	0.67	6.00	5434.08	37.90	-13.45	-38.00	0.74
5633.0	0.80	45.10	5632.06	40.03	-12.35	-40.12	0.26
5788.0	0.80	55.70	5787.05	41.40	-10.69	-41.48	0.10
5882.0	0.80	37.30	5881.04	42.29	-9.75	-42.37	0.27
6071.0	0.70	47.00	6070.02	44.13	-8.11	-44.19	0.09
6260.0	0.80	48.10	6259.00	45.80	-6.28	-45.85	0.05
6355.0	0.70	139.30	6354.00	45.80	-5.41	-45.84	1.13
6449.0	0.70	169.30	6447.99	44.80	-4.93	-44.84	0.39
6544.0	0.90	153.30	6542.98	43.57	-4.49	-43.60	0.31
6638.0	0.60	175.10	6636.97	42.42	-4.11	-42.45	0.44
6733.0	0.80	166.20	6731.97	41.28	-3.91	-41.30	0.24
6922.0	0.70	161.00	6920.95	38.90	-3.22	-38.93	0.06
7111.0	0.70	161.20	7109.94	36.72	-2.47	-36.74	0.00
7300.0	1.10	162.50	7298.91	33.89	-1.56	-33.91	0.21
7489.0	1.10	166.90	7487.88	30.40	-0.60	-30.40	0.04
7678.0	0.90	174.10	7676.85	27.15	-0.04	-27.15	0.12
7867.0	1.10	159.60	7865.82	23.98	0.75	-23.97	0.17
8057.0	1.00	178.30	8055.79	20.61	1.43	-20.60	0.19
8246.0	0.80	171.80	8244.77	17.66	1.67	-17.64	0.12
8435.0	0.80	188.90	8433.75	15.05	1.66	-15.03	0.13
8624.0	0.90	184.70	8622.73	12.26	1.33	-12.25	0.06
8813.0	1.00	208.70	8811.70	9.34	0.42	-9.33	0.22
9002.0	1.10	216.90	9000.67	6.44	-1.47	-6.45	0.10
9191.0	1.30	237.30	9189.63	3.83	-4.36	-3.87	0.25
9380.0	1.50	235.30	9378.57	1.27	-8.20	-1.33	0.11
9569.0	1.90	267.10	9567.49	-0.30	-13.36	0.20	0.53
9758.0	1.30	298.10	9756.42	0.55	-18.38	-0.69	0.55
9947.0	1.80	296.30	9945.35	2.87	-22.93	-3.05	0.27
10136.0	1.60	285.30	10134.27	4.89	-28.14	-5.10	0.20
10164.0	1.66	286.63	10162.26	5.11	-28.90	-5.33	0.25
10175.0	0.54	112.75	10173.26	5.13	-29.01	-5.35	20.00
10179.0	1.34	110.00	10177.26	5.11	-28.95	-5.33	20.00
10200.0	1.34	110.00	10198.25	4.94	-28.49	-5.16	0.00
10259.6	1.34	110.00	10257.81	4.46	-27.18	-4.67	0.00
10300.0	5.38	110.00	10298.16	3.65	-24.95	-3.84	10.00
10350.0	10.38	110.00	10347.67	1.31	-18.51	-1.45	10.00
10398.2	15.20	110.00	10394.63	-2.34	-8.49	2.27	10.00
10400.0	15.26	110.66	10396.40	-2.51	-8.04	2.44	10.00
10450.0	17.59	126.38	10444.37	-9.31	4.21	9.35	10.00
10500.0	20.86	137.93	10491.60	-20.41	16.27	20.54	10.00

Marshall Winston - Loco Dinero 36 #2H Lateral ST01r2 Planned Svys.txt

10550.0	24.69	146.27	10537.70	-35.72	28.04	35.93	10.00
10600.0	28.86	152.41	10582.34	-55.11	39.44	55.41	10.00
10650.0	33.25	157.08	10625.17	-78.44	50.37	78.83	10.00
10700.0	37.77	160.76	10665.87	-105.54	60.76	106.00	10.00
10750.0	42.38	163.76	10704.12	-136.19	70.52	136.73	10.00
10800.0	47.06	166.26	10739.64	-170.17	79.59	170.78	10.00
10850.0	51.79	168.41	10772.15	-207.22	87.89	207.89	10.00
10900.0	56.55	170.29	10801.42	-247.05	95.36	247.77	10.00
10950.0	61.34	171.98	10827.20	-289.36	101.94	290.13	10.00
11000.0	66.14	173.52	10849.32	-333.82	107.58	334.64	10.00
11050.0	70.96	174.95	10867.60	-380.11	112.25	380.96	10.00
11100.0	75.79	176.30	10881.90	-427.87	115.90	428.75	10.00
11150.0	80.63	177.59	10892.11	-476.73	118.50	477.62	10.00
11200.0	85.47	178.84	10898.16	-526.32	120.04	527.23	10.00
11246.7	90.00	180.00	10900.00	-573.00	120.51	573.91	10.00
11300.0	90.00	180.00	10900.00	-626.27	120.51	627.18	0.00
11400.0	90.00	180.00	10900.00	-726.27	120.50	727.17	0.00
11500.0	90.00	180.00	10900.00	-826.27	120.50	827.17	0.00
11600.0	90.00	180.00	10900.00	-926.27	120.49	927.17	0.00
11700.0	90.00	180.00	10900.00	-1026.27	120.49	1027.17	0.00
11800.0	90.00	180.00	10900.00	-1126.27	120.48	1127.16	0.00
11900.0	90.00	180.00	10900.00	-1226.27	120.48	1227.16	0.00
12000.0	90.00	180.00	10900.00	-1326.27	120.47	1327.16	0.00
12100.0	90.00	180.00	10900.00	-1426.27	120.47	1427.15	0.00
12200.0	90.00	180.00	10900.00	-1526.27	120.46	1527.15	0.00
12300.0	90.00	180.00	10900.00	-1626.27	120.46	1627.15	0.00
12400.0	90.00	180.00	10900.00	-1726.27	120.45	1727.14	0.00
12500.0	90.00	180.00	10900.00	-1826.27	120.45	1827.14	0.00
12600.0	90.00	180.00	10900.00	-1926.27	120.44	1927.14	0.00
12700.0	90.00	180.00	10900.00	-2026.27	120.43	2027.14	0.00
12800.0	90.00	180.00	10900.00	-2126.27	120.43	2127.13	0.00
12900.0	90.00	180.00	10900.00	-2226.27	120.42	2227.13	0.00
13000.0	90.00	180.00	10900.00	-2326.27	120.42	2327.13	0.00
13100.0	90.00	180.00	10900.00	-2426.27	120.41	2427.12	0.00
13200.0	90.00	180.00	10900.00	-2526.27	120.41	2527.12	0.00
13300.0	90.00	180.00	10900.00	-2626.27	120.40	2627.12	0.00
13400.0	90.00	180.00	10900.00	-2726.27	120.40	2727.11	0.00
13500.0	90.00	180.00	10900.00	-2826.27	120.39	2827.11	0.00
13600.0	90.00	180.00	10900.00	-2926.27	120.39	2927.11	0.00
13700.0	90.00	180.00	10900.00	-3026.27	120.38	3027.11	0.00
13800.0	90.00	180.00	10900.00	-3126.27	120.38	3127.10	0.00
13900.0	90.00	180.00	10900.00	-3226.27	120.37	3227.10	0.00
14000.0	90.00	180.00	10900.00	-3326.27	120.37	3327.10	0.00
14100.0	90.00	180.00	10900.00	-3426.27	120.36	3427.09	0.00
14200.0	90.00	180.00	10900.00	-3526.27	120.36	3527.09	0.00
14300.0	90.00	180.00	10900.00	-3626.27	120.35	3627.09	0.00
14400.0	90.00	180.00	10900.00	-3726.27	120.34	3727.08	0.00
14500.0	90.00	180.00	10900.00	-3826.27	120.34	3827.08	0.00

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14600.0	90.00	180.00	10900.00	-3926.27	120.33	3927.08	0.00
14700.0	90.00	180.00	10900.00	-4026.27	120.33	4027.08	0.00
14800.0	90.00	180.00	10900.00	-4126.27	120.32	4127.07	0.00
14900.0	90.00	180.00	10900.00	-4226.27	120.32	4227.07	0.00
15000.0	90.00	180.00	10900.00	-4326.27	120.31	4327.07	0.00
15100.0	90.00	180.00	10900.00	-4426.27	120.31	4427.06	0.00
15200.0	90.00	180.00	10900.00	-4526.27	120.30	4527.06	0.00
15294.8	90.00	180.00	10900.00	-4621.08	120.30	4621.87	0.00