

OPERATOR
WELL/LEASE
COUNTY

Mewbourne Oil Company
Speedwagon 27 W2DM Fee 001H
Eddy, New Mexico

231-0023

STATE OF NEW MEXICO
DEVIATION REPORT

30-015-42695

275	1.90
465	1.10
2,545	0.88
2,633	1.32
2,730	1.06
2,823	1.06
2,923	1.14
3,017	0.62
4,310	0.62
4,783	0.18
5,256	0.53
5,571	0.44
5,665	0.44
5,759	0.44
5,854	0.70
5,948	0.62
6,042	0.79
6,326	0.62
6,421	0.88
6,515	2.37
6,610	2.46
6,705	1.93
6,800	0.70
7,806	2.55
8,256	0.97
8,407	1.06
8,502	1.32
8,597	0.88
8,692	1.06
8,787	1.14
8,881	1.14
9,605	0.53

NM OIL CONSERVATION
ARTESIA DISTRICT
APR 07 2016
RECEIVED

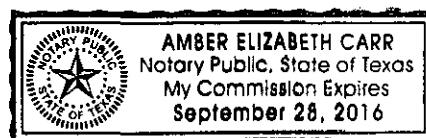
STATE OF TEXAS

COUNTY OF MIDLAND

BY: *Dora Garcia*

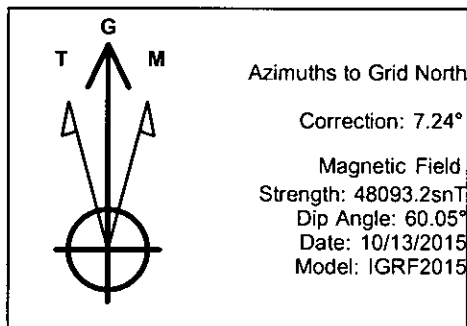
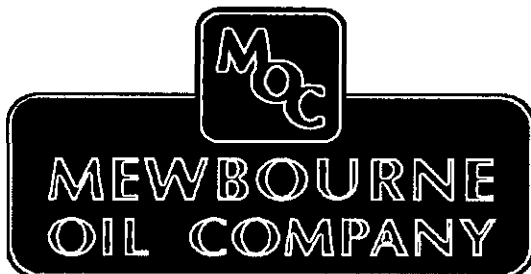
The foregoing instrument was acknowledged before me on
Dora Garcia on behalf of Patterson-UTI Drilling Company LLC.

Amber Elizabeth Carr
Notary Public for Midland County, Texas
My Commission Expires:



Company Name: Mawbourne Oil Company
 Speedwagon 27 W2DM Fee #1H
 Eddy County, New Mexico
 Rig: Patterson #231
 Created By: Shane Robbins
 Date: 11/30/2015

Speedwagon 27 W2DM Fee #1H
 Eddy County, New Mexico
 Q150804 & WT-150688
 Design #2

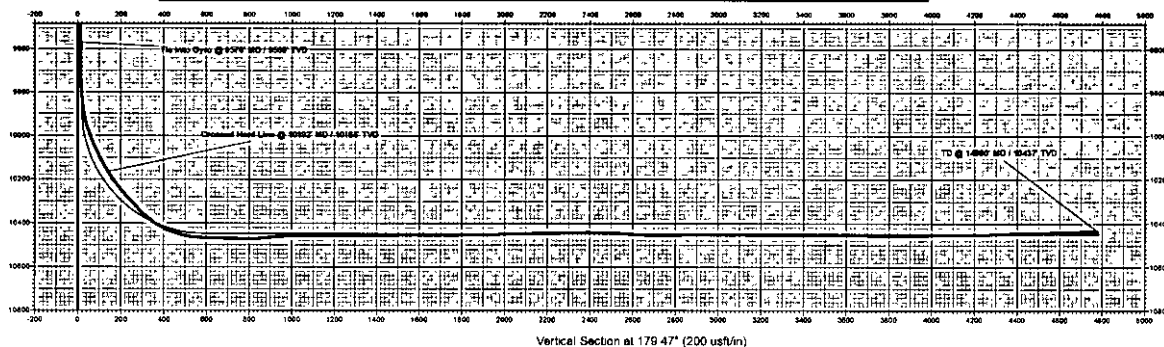
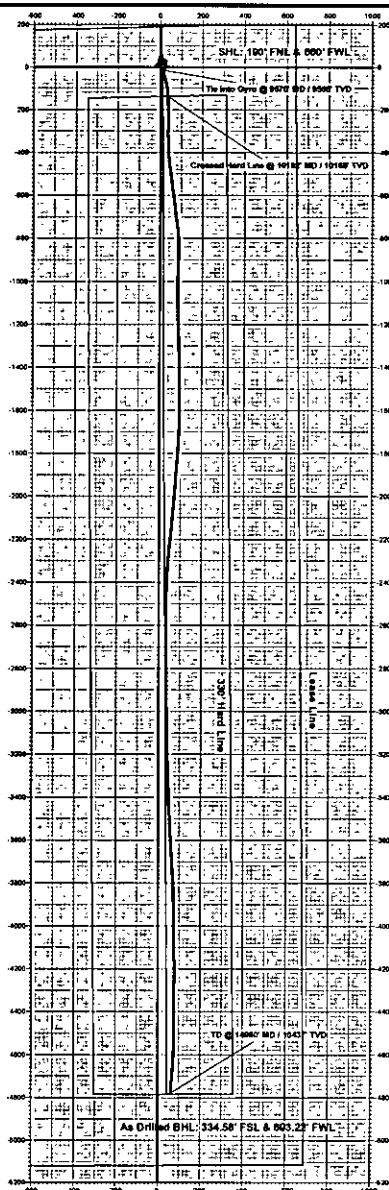


PROJECT DETAILS: Eddy County, New Mexico	
Geodetic System:	US State Plane 1927 (Exact solution)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	New Mexico East 3001
System Datum:	Mean Sea Level

WELL DETAILS: Speedwagon 27 W2DM Fee #1H					
		Ground Level:	3034.0		
+N-S	+E-W	Northing	Easting	Latitude	Longitude
0.0	0.0	490995.90	577949.60	32° 10' 58.624 N	104° 4' 51.964 W

DESIGN TARGET DETAILS						
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude
PBHL Speedwagon 27 W2DM Fee #1H 10448.0	-4786.2	44.3		461900.06	577964.12	32° 10' 10.667 N
- plan hits target center						104° 4' 51.576 W

ANNOTATIONS									
MD	Inch	API	TVD	+N-S	+E-W	Vsect	Departure	Annotation	
9576.0	0.71	179.92	9568.2	-13.6	8.8	13.7	157.8	Tie Into Gyro @ 9570' MD / 9568' TVD	
10192.2	32.33	176.92	10164.9	-137.7	33.5	138.0	285.5	Crossed Hard Line @ 10192' MD / 10165' TVD	
14960.0	90.90	184.80	10436.5	-4779.4	68.9	4779.5	4834.7	TD @ 14960' MD / 10437' TVD	



Vertical Section at 179.47° (200 usf/in)

Mewbourne Oil Company

Eddy County, New Mexico

Sec 27, T23S, R28E

Speedwagon 27 W2DM Fee #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

30 November, 2015



HP Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Speedwagon 27 W2DM Fee #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3054.0usft (Patterson #231)
Site:	Sec 27, T23S, R28E	MD Reference:	WELL @ 3054.0usft (Patterson #231)
Well:	Speedwagon 27 W2DM Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

Project	Eddy 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	Sec 27, T23S, R28E		
Site Position:		Northing:	466,685.90 usft
From:	Map	Easting:	577,949.80 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 16' 58.024 N
		Longitude:	104° 4' 51.964 W
		Grid Convergence:	0.13 °

Well	Speedwagon 27 W2DM Fee #1H		
Well Position	+N/-S	0.0 usft	Northing: 466,685.90 usft
	+E/-W	0.0 usft	Easting: 577,949.80 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 16' 58.024 N
		Longitude:	104° 4' 51.964 W
		Ground Level:	3,034.0 usft

Wellbore	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/13/2015	7.37	60.05	48,093

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

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.47

Survey Program	Date	11/30/2015
From (usft)	To (usft)	Survey (Wellbore)
100.0	9,570.0	GYRO (Wellbore #1)
9,711.0	14,960.0	MWD (Wellbore #1)
Tool Name	Description	
Good_gyro	Good Gyro	
MWD default	MWD - Standard	

Survey	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	100.0	1.25	359.35	100.0	1.1	0.0	-1.1	1.25	1.25	0.00
	200.0	1.51	354.46	200.0	3.5	-0.2	-3.5	0.29	0.26	-4.89
	300.0	2.09	355.52	299.9	6.6	-0.4	-6.6	0.58	0.58	1.06
	400.0	1.52	2.71	399.9	9.8	-0.5	-9.8	0.61	-0.57	7.19
	500.0	1.71	18.90	499.8	12.5	0.0	-12.5	0.49	0.19	16.19
	600.0	1.60	27.41	599.8	15.2	1.2	-15.1	0.27	-0.11	8.51
	700.0	1.43	14.99	699.7	17.6	2.1	-17.6	0.37	-0.17	-12.42
	800.0	1.12	18.90	799.7	19.7	2.8	-19.7	0.32	-0.31	3.91
	900.0	1.63	23.36	899.7	22.0	3.7	-21.9	0.52	0.51	4.46

HP Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Speedwagon 27 W2DM Fee #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3054.0usft (Patterson #231)
Site:	Sec 27, T23S, R28E	MD Reference:	WELL @ 3054.0usft (Patterson #231)
Well:	Speedwagon 27 W2DM Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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)
1,000.0	1.61	22.33	999.7	24.6	4.8	-24.5	0.04	-0.02	-1.03
1,100.0	1.01	8.77	1,099.6	26.7	5.4	-26.7	0.67	-0.60	-13.56
1,200.0	1.08	355.94	1,199.6	28.5	5.5	-28.5	0.24	0.07	-12.83
1,300.0	0.53	329.40	1,299.6	29.9	5.2	-29.8	0.65	-0.55	-26.54
1,400.0	0.41	322.81	1,399.6	30.6	4.7	-30.5	0.13	-0.12	-6.59
1,500.0	0.39	55.08	1,499.6	31.0	4.8	-31.0	0.58	-0.02	92.27
1,600.0	0.98	316.38	1,599.6	31.9	4.5	-31.8	1.11	0.59	-98.70
1,700.0	0.86	305.29	1,699.6	32.9	3.3	-32.9	0.21	-0.12	-11.09
1,800.0	0.56	324.32	1,799.6	33.7	2.4	-33.7	0.38	-0.30	19.03
1,900.0	0.77	356.25	1,899.6	34.8	2.1	-34.8	0.42	0.21	31.93
2,000.0	0.24	299.55	1,999.6	35.6	1.8	-35.6	0.67	-0.53	-56.70
2,100.0	0.54	60.92	2,099.6	35.9	2.1	-35.9	0.70	0.30	121.37
2,200.0	0.16	4.03	2,199.6	36.3	2.5	-36.3	0.47	-0.38	-56.89
2,300.0	0.90	147.33	2,299.6	35.8	2.9	-35.7	1.03	0.74	143.30
2,400.0	1.03	107.23	2,399.5	34.8	4.2	-34.8	0.67	0.13	-40.10
2,500.0	1.16	104.35	2,499.5	34.3	6.0	-34.3	0.14	0.13	-2.88
2,600.0	1.03	94.81	2,599.5	34.0	7.9	-33.9	0.22	-0.13	-9.54
2,700.0	0.88	86.99	2,699.5	34.0	9.6	-33.9	0.20	-0.15	-7.82
2,800.0	1.30	116.46	2,799.5	33.5	11.4	-33.4	0.69	0.42	29.47
2,900.0	1.29	111.38	2,899.4	32.6	13.4	-32.4	0.12	-0.01	-5.08
3,000.0	1.21	100.50	2,999.4	32.0	15.5	-31.8	0.25	-0.08	-10.88
3,100.0	1.05	89.36	3,099.4	31.8	17.5	-31.6	0.27	-0.16	-11.14
3,200.0	1.05	86.84	3,199.4	31.9	19.3	-31.7	0.05	0.00	-2.52
3,300.0	0.65	108.80	3,299.4	31.7	20.7	-31.5	0.51	-0.40	21.96
3,400.0	0.63	120.04	3,399.4	31.3	21.8	-31.1	0.13	-0.02	11.24
3,500.0	0.28	84.75	3,499.4	31.0	22.5	-30.8	0.43	-0.35	-35.29
3,600.0	0.83	75.86	3,599.4	31.2	23.4	-31.0	0.56	0.55	-8.89
3,700.0	0.43	48.80	3,699.4	31.6	24.4	-31.4	0.49	-0.40	-27.06
3,800.0	0.26	37.02	3,799.4	32.1	24.8	-31.8	0.18	-0.17	-11.78
3,900.0	0.01	33.35	3,899.4	32.2	25.0	-32.0	0.25	-0.25	-3.67
4,000.0	0.48	187.05	3,999.4	31.8	24.9	-31.6	0.49	0.47	153.70
4,100.0	0.62	153.18	4,099.3	30.9	25.1	-30.7	0.35	0.14	-33.87
4,200.0	0.05	318.07	4,199.3	30.5	25.3	-30.3	0.67	-0.57	164.89
4,300.0	0.77	249.56	4,299.3	30.3	24.7	-30.1	0.75	0.72	-68.51
4,400.0	0.67	151.83	4,399.3	29.5	24.3	-29.3	1.09	-0.10	-97.73
4,500.0	0.21	273.02	4,499.3	29.0	24.4	-28.8	0.80	-0.46	121.19
4,600.0	0.73	188.79	4,599.3	28.4	24.1	-28.2	0.74	0.52	-84.23
4,700.0	0.19	222.18	4,699.3	27.7	23.9	-27.4	0.58	-0.54	33.39
4,800.0	0.37	97.70	4,799.3	27.5	24.1	-27.3	0.50	0.18	-124.48
4,900.0	0.55	81.58	4,899.3	27.5	24.9	-27.3	0.22	0.18	-16.12
5,000.0	0.38	66.82	4,999.3	27.7	25.7	-27.5	0.21	-0.17	-14.76
5,100.0	0.48	243.39	5,099.3	27.7	25.6	-27.4	0.86	0.10	176.57
5,200.0	0.61	164.77	5,199.3	27.0	25.4	-26.7	0.70	0.13	-78.62

HP Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Speedwagon 27 W2DM Fee #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3054.0usft (Patterson #231)
Site:	Sec 27, T23S, R28E	MD Reference:	WELL @ 3054.0usft (Patterson #231)
Well:	Speedwagon 27 W2DM Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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)	
5,300.0	0.41	225.59	5,299.3	26.2	25.3	-26.0	0.54	-0.20	60.82	
5,400.0	0.52	240.07	5,399.3	25.7	24.6	-25.5	0.16	0.11	14.48	
5,500.0	0.23	306.39	5,499.3	25.6	24.1	-25.4	0.48	-0.29	66.32	
5,600.0	0.14	22.41	5,599.3	25.8	24.0	-25.6	0.24	-0.09	76.02	
5,700.0	0.35	298.80	5,699.3	26.1	23.7	-25.9	0.36	0.21	-83.61	
5,800.0	0.54	236.18	5,799.3	26.0	23.1	-25.8	0.49	0.19	-62.62	
5,900.0	0.10	54.87	5,899.3	25.8	22.8	-25.6	0.64	-0.44	178.69	
6,000.0	0.64	177.29	5,999.3	25.3	22.9	-25.1	0.70	0.54	122.42	
6,100.0	0.59	163.58	6,099.3	24.2	23.0	-24.0	0.15	-0.05	-13.71	
6,200.0	0.12	290.36	6,199.3	23.8	23.1	-23.5	0.67	-0.47	126.78	
6,300.0	0.64	231.59	6,299.3	23.5	22.5	-23.2	0.59	0.52	-58.77	
6,400.0	0.70	240.04	6,399.3	22.8	21.6	-22.6	0.12	0.06	8.45	
6,500.0	1.26	265.92	6,499.3	22.4	20.0	-22.2	0.70	0.56	25.88	
6,600.0	2.58	287.86	6,599.2	23.0	16.7	-22.9	1.49	1.32	21.94	
6,700.0	2.05	291.40	6,699.1	24.4	12.9	-24.3	0.55	-0.53	3.54	
6,800.0	1.18	294.83	6,799.1	25.5	10.3	-25.4	0.87	-0.87	3.43	
6,900.0	0.79	260.05	6,899.1	25.8	8.7	-25.7	0.70	-0.39	-34.78	
7,000.0	1.04	230.15	6,999.1	25.1	7.3	-25.0	0.53	0.25	-29.90	
7,100.0	1.07	233.03	7,099.0	23.9	5.9	-23.9	0.06	0.03	2.88	
7,200.0	1.05	198.72	7,199.0	22.5	4.8	-22.5	0.63	-0.02	-34.31	
7,300.0	0.62	137.44	7,299.0	21.2	4.9	-21.2	0.93	-0.43	-61.28	
7,400.0	0.63	102.07	7,399.0	20.7	5.8	-20.7	0.38	0.01	-35.37	
7,500.0	0.91	71.84	7,499.0	20.9	7.1	-20.8	0.48	0.28	-30.23	
7,600.0	1.06	86.73	7,599.0	21.2	8.8	-21.1	0.30	0.15	14.89	
7,700.0	3.30	131.25	7,698.9	19.3	11.9	-19.2	2.65	2.24	44.52	
7,800.0	3.17	138.49	7,798.8	15.3	15.9	-15.2	0.43	-0.13	7.24	
7,900.0	2.48	152.75	7,898.6	11.3	18.7	-11.2	0.98	-0.69	14.26	
8,000.0	2.54	168.48	7,998.5	7.2	20.1	-7.1	0.69	0.06	15.73	
8,100.0	2.45	193.97	8,098.5	3.0	20.0	-2.8	1.10	-0.09	25.49	
8,200.0	2.05	179.36	8,198.4	-0.9	19.6	1.0	0.70	-0.40	-14.61	
8,300.0	1.27	202.20	8,298.3	-3.7	19.2	3.9	1.01	-0.78	22.84	
8,400.0	1.26	246.45	8,398.3	-5.1	17.7	5.3	0.95	-0.01	44.25	
8,500.0	1.25	240.37	8,498.3	-6.1	15.8	6.3	0.13	-0.01	-6.08	
8,600.0	1.44	236.71	8,598.3	-7.3	13.8	7.5	0.21	0.19	-3.66	
8,700.0	1.33	245.32	8,698.2	-8.5	11.7	8.6	0.24	-0.11	8.61	
8,800.0	0.71	265.19	8,798.2	-9.1	10.0	9.1	0.70	-0.62	19.87	
8,900.0	0.81	328.31	8,898.2	-8.5	9.0	8.6	0.80	0.10	63.12	
9,000.0	1.03	124.49	8,998.2	-8.4	9.4	8.5	1.80	0.22	156.18	
9,100.0	0.55	216.18	9,098.2	-9.3	9.8	9.4	1.18	-0.48	91.69	
9,200.0	0.42	237.96	9,198.2	-9.9	9.2	10.0	0.22	-0.13	21.78	
9,300.0	0.83	175.34	9,298.2	-10.8	9.0	10.9	0.74	0.41	-62.62	
9,400.0	0.30	209.14	9,398.2	-11.8	8.9	11.8	0.60	-0.53	33.80	
9,500.0	0.81	181.14	9,498.2	-12.7	8.8	12.8	0.56	0.51	-28.00	

HP Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Speedwagon 27 W2DM Fee #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3054.0usft (Patterson #231)
Site:	Sec 27, T23S, R28E	MD Reference:	WELL @ 3054.0usft (Patterson #231)
Well:	Speedwagon 27 W2DM Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Tie into Gyro @ 9570' MD / 9568' TVD									
9,570.0	0.71	179.92	9,568.2	-13.6	8.8	13.7	0.14	-0.14	-1.74
9,711.0	0.20	263.50	9,709.2	-14.5	8.5	14.6	0.51	-0.36	59.28
9,743.0	0.10	289.00	9,741.2	-14.5	8.4	14.6	0.37	-0.31	79.69
9,774.0	0.60	159.50	9,772.2	-14.7	8.5	14.7	2.16	1.61	-417.74
9,806.0	2.50	153.10	9,804.2	-15.4	8.9	15.5	5.95	5.94	-20.00
9,838.0	6.00	154.50	9,836.1	-17.6	9.9	17.7	10.94	10.94	4.38
9,869.0	9.10	159.30	9,866.8	-21.3	11.5	21.4	10.20	10.00	15.48
9,901.0	11.30	164.60	9,898.3	-26.7	13.2	26.8	7.47	6.88	16.56
9,933.0	14.50	163.20	9,929.5	-33.6	15.2	33.7	10.05	10.00	-4.38
9,964.0	17.10	165.30	9,959.3	-41.7	17.4	41.9	8.59	8.39	6.77
9,996.0	19.80	165.80	9,989.7	-51.5	20.0	51.7	8.45	8.44	1.56
10,027.0	22.70	166.10	10,018.5	-62.4	22.7	62.6	9.36	9.35	0.97
10,058.0	25.10	167.20	10,046.9	-74.6	25.6	74.9	7.87	7.74	3.55
10,090.0	26.80	168.40	10,075.7	-88.3	28.5	88.6	5.56	5.31	3.75
10,122.0	27.90	173.90	10,104.1	-102.8	30.8	103.1	8.61	3.44	17.19
10,153.0	29.50	175.60	10,131.3	-117.7	32.1	118.0	5.79	5.16	5.48
10,185.0	31.70	176.30	10,158.8	-133.9	33.3	134.2	6.96	6.88	2.19
Crossed Hard Line @ 10192' MD / 10165' TVD									
10,192.2	32.33	176.62	10,164.9	-137.7	33.5	138.0	9.00	8.69	4.43
10,216.0	34.40	177.60	10,184.8	-150.8	34.2	151.1	9.00	8.71	4.12
10,248.0	36.90	178.40	10,210.8	-169.4	34.8	169.7	7.95	7.81	2.50
10,279.0	38.60	176.90	10,235.3	-188.4	35.6	188.7	6.23	5.48	-4.84
10,311.0	40.80	179.10	10,259.9	-208.8	36.3	209.1	8.16	6.88	6.88
10,342.0	43.30	178.60	10,282.9	-229.6	36.7	229.9	8.14	8.06	-1.61
10,374.0	43.40	180.70	10,306.2	-251.5	36.9	251.9	4.52	0.31	6.56
10,405.0	44.50	183.40	10,328.5	-273.0	36.1	273.3	7.01	3.55	8.71
10,439.0	46.90	181.40	10,352.3	-297.3	35.1	297.6	8.22	7.06	-5.88
10,470.0	50.70	180.70	10,372.7	-320.7	34.7	321.0	12.38	12.26	-2.26
10,502.0	54.10	177.00	10,392.2	-346.0	35.2	346.3	14.03	10.63	-11.56
10,534.0	58.50	177.20	10,410.0	-372.6	36.5	372.9	13.76	13.75	0.63
10,565.0	64.10	177.80	10,424.9	-399.7	37.7	400.1	18.14	18.06	1.94
10,597.0	68.60	173.90	10,437.7	-428.9	39.9	429.3	17.95	14.06	-12.19
10,628.0	73.60	172.60	10,447.7	-458.1	43.3	458.4	16.61	16.13	-4.19
10,730.0	85.50	171.20	10,466.2	-557.2	57.4	557.7	11.74	11.67	-1.37
10,761.0	88.50	172.60	10,467.8	-587.8	61.8	588.4	10.68	9.68	4.52
10,792.0	89.00	173.40	10,468.5	-618.6	65.6	619.2	3.04	1.61	2.58
10,824.0	88.30	173.00	10,469.3	-650.4	69.4	651.0	2.52	-2.19	-1.25
10,855.0	88.60	172.80	10,470.1	-681.1	73.2	681.8	1.16	0.97	-0.65
10,887.0	88.60	172.10	10,470.9	-712.8	77.4	713.5	2.19	0.00	-2.19
10,919.0	87.60	172.80	10,471.9	-744.5	81.6	745.2	3.81	-3.13	2.19
10,950.0	89.00	175.10	10,472.9	-775.3	84.9	776.1	8.68	4.52	7.42
10,981.0	92.20	177.80	10,472.5	-806.3	86.8	807.0	13.51	10.32	8.71
11,013.0	94.10	179.30	10,470.8	-838.2	87.6	839.0	7.56	5.94	4.69

HP Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Speedwagon 27 W2DM Fee #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3054.0usft (Patterson #231)
Site:	Sec 27, T23S, R28E	MD Reference:	WELL @ 3054.0usft (Patterson #231)
Well:	Speedwagon 27 W2DM Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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)
11,044.0	95.20	181.80	10,468.3	-869.1	87.3	869.9	8.79	3.55	8.06
11,076.0	95.10	181.80	10,465.4	-901.0	86.3	901.7	0.31	-0.31	0.00
11,108.0	95.10	181.10	10,462.5	-932.8	85.5	933.6	2.18	0.00	-2.19
11,139.0	93.10	181.30	10,460.3	-963.7	84.8	964.5	6.48	-6.45	0.65
11,171.0	91.10	180.60	10,459.2	-995.7	84.3	996.4	6.62	-6.25	-2.19
11,202.0	91.10	179.90	10,458.6	-1,026.7	84.2	1,027.4	2.26	0.00	-2.26
11,234.0	91.10	180.40	10,457.9	-1,058.7	84.1	1,059.4	1.56	0.00	1.56
11,297.0	89.70	179.70	10,457.5	-1,121.7	84.0	1,122.4	2.48	-2.22	-1.11
11,328.0	89.50	176.90	10,457.7	-1,152.7	85.0	1,153.4	9.06	-0.65	-9.03
11,360.0	90.40	178.30	10,457.7	-1,184.6	86.3	1,185.4	5.20	2.81	4.38
11,391.0	91.90	178.40	10,457.1	-1,215.6	87.2	1,216.4	4.85	4.84	0.32
11,423.0	89.40	177.80	10,456.8	-1,247.6	88.3	1,248.4	8.03	-7.81	-1.88
11,455.0	89.10	177.20	10,457.2	-1,279.6	89.6	1,280.3	2.10	-0.94	-1.88
11,486.0	89.20	177.00	10,457.6	-1,310.5	91.2	1,311.3	0.72	0.32	-0.65
11,581.0	90.10	178.80	10,458.2	-1,405.4	94.7	1,406.3	2.12	0.95	1.89
11,613.0	92.60	180.70	10,457.5	-1,437.4	94.8	1,438.3	9.81	7.81	5.94
11,676.0	90.40	178.80	10,455.8	-1,500.4	95.1	1,501.2	4.61	-3.49	-3.02
11,739.0	89.00	179.10	10,456.1	-1,563.4	96.3	1,564.2	2.27	-2.22	0.48
11,771.0	92.60	181.80	10,455.7	-1,595.4	96.0	1,596.2	14.06	11.25	8.44
11,834.0	88.20	181.30	10,455.3	-1,658.3	94.3	1,659.1	7.03	-6.98	-0.79
11,865.0	88.50	181.40	10,456.2	-1,689.3	93.6	1,690.1	1.02	0.97	0.32
11,929.0	91.70	184.60	10,456.0	-1,753.2	90.2	1,754.0	7.07	5.00	5.00
11,960.0	91.40	184.90	10,455.2	-1,784.1	87.7	1,784.8	1.37	-0.97	0.97
11,991.0	90.10	183.90	10,454.8	-1,815.0	85.3	1,815.7	5.29	-4.19	-3.23
12,055.0	90.00	183.70	10,454.7	-1,878.9	81.0	1,879.5	0.35	-0.16	-0.31
12,086.0	92.50	184.30	10,454.1	-1,909.8	78.9	1,910.4	8.29	8.06	1.94
12,149.0	93.10	185.10	10,451.0	-1,972.5	73.7	1,973.1	1.59	0.95	1.27
12,181.0	90.90	184.30	10,449.9	-2,004.4	71.1	2,004.9	7.31	-6.88	-2.50
12,213.0	91.40	185.30	10,449.2	-2,036.2	68.4	2,036.8	3.49	1.56	3.13
12,244.0	92.10	185.70	10,448.3	-2,067.1	65.5	2,067.6	2.60	2.26	1.29
12,307.0	90.20	185.70	10,447.0	-2,129.8	59.2	2,130.2	3.02	-3.02	0.00
12,339.0	89.30	187.40	10,447.2	-2,161.5	55.6	2,162.0	6.01	-2.81	5.31
12,433.0	91.40	184.10	10,446.6	-2,255.1	46.1	2,255.4	4.16	2.23	-3.51
12,527.0	91.70	183.90	10,444.0	-2,348.8	39.6	2,349.1	0.38	0.32	-0.21
12,622.0	87.60	180.70	10,444.6	-2,443.7	35.8	2,443.9	5.47	-4.32	-3.37
12,716.0	88.60	181.30	10,447.7	-2,537.6	34.1	2,537.8	1.24	1.06	0.64
12,779.0	85.90	180.20	10,450.8	-2,600.5	33.3	2,600.7	4.63	-4.29	-1.75
12,811.0	87.10	180.20	10,452.7	-2,632.5	33.2	2,632.7	3.75	3.75	0.00
12,905.0	90.60	179.30	10,454.6	-2,726.4	33.6	2,726.6	3.84	3.72	-0.96
13,000.0	90.90	179.00	10,453.4	-2,821.4	35.0	2,821.6	0.45	0.32	-0.32
13,095.0	90.30	179.90	10,452.4	-2,916.4	35.9	2,916.6	1.14	-0.63	0.95
13,189.0	88.40	178.40	10,453.4	-3,010.4	37.3	3,010.6	2.58	-2.02	-1.60
13,284.0	91.00	179.50	10,453.9	-3,105.3	39.1	3,105.6	2.97	2.74	1.16

HP Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Speedwagon 27 W2DM Fee #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3054.0usft (Patterson #231)
Site:	Sec 27, T23S, R28E	MD Reference:	WELL @ 3054.0usft (Patterson #231)
Well:	Speedwagon 27 W2DM Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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)	
13,379.0	88.60	177.80	10,454.3	-3,200.3	41.3	3,200.6	3.10	-2.53	-1.79	
13,473.0	88.80	178.30	10,456.4	-3,294.2	44.5	3,294.5	0.57	0.21	0.53	
13,568.0	91.30	177.40	10,456.3	-3,389.2	48.1	3,389.5	2.80	2.63	-0.95	
13,662.0	90.50	177.90	10,454.8	-3,483.1	51.9	3,483.4	1.00	-0.85	0.53	
13,787.0	89.40	176.00	10,454.9	-3,607.9	58.6	3,608.3	1.76	-0.88	-1.52	
13,881.0	88.10	176.00	10,457.0	-3,701.6	65.1	3,702.1	1.38	-1.38	0.00	
13,945.0	87.90	176.70	10,459.2	-3,765.5	69.2	3,765.9	1.14	-0.31	1.09	
13,976.0	90.10	177.60	10,459.8	-3,796.4	70.7	3,796.9	7.67	7.10	2.90	
14,070.0	92.30	180.40	10,457.8	-3,890.4	72.4	3,890.9	3.79	2.34	2.98	
14,165.0	91.10	178.80	10,455.0	-3,985.3	73.0	3,985.8	2.10	-1.26	-1.68	
14,259.0	90.60	178.30	10,453.6	-4,079.3	75.4	4,079.8	0.75	-0.53	-0.53	
14,354.0	90.80	179.70	10,452.4	-4,174.2	77.1	4,174.8	1.49	0.21	1.47	
14,449.0	91.30	180.70	10,450.7	-4,269.2	76.7	4,269.8	1.18	0.53	1.05	
14,544.0	92.50	179.70	10,447.5	-4,364.2	76.4	4,364.7	1.64	1.26	-1.05	
14,638.0	90.10	180.20	10,445.4	-4,458.1	76.5	4,458.7	2.61	-2.55	0.53	
14,733.0	92.30	181.10	10,443.4	-4,553.1	75.4	4,553.6	2.50	2.32	0.95	
14,827.0	92.30	184.80	10,439.6	-4,646.9	70.6	4,647.3	3.93	0.00	3.94	
14,910.0	90.90	184.40	10,437.3	-4,729.6	63.9	4,730.0	1.75	-1.69	-0.48	
TD @ 14960' MD / 10437' TVD										
14,960.0	90.90	184.80	10,436.5	-4,779.4	59.9	4,779.8	0.80	0.00	0.80	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
9,570.0	9,568.2	-13.6	8.8	Tie into Gyro @ 9570' MD / 9568' TVD	
10,192.2	10,164.9	-137.7	33.5	Crossed Hard Line @ 10192' MD / 10165' TVD	
14,960.0	10,436.5	-4,779.4	59.9	TD @ 14960' MD / 10437' TVD	

Checked By: _____ Approved By: _____ Date: _____