MEWBOURNE
OIL COMPANY

Mewbourne Oil Company

Lea County, NM
Toro 36 B3DM State No. 1H
No. 1H
Original Hole

Design: Original Hole

EOW Report

16 June, 2015

INVELL INC

MEWBOURNE OIL COMPANY

Mewbourne Oil Company
Project: Lea County, NM
Site: Toro 36 B3DM State No. 1H
Well: No. 1H
Wellbore: Original Hole
Design: Plan #3
Lat: 32° 16' 3.574 N
Long: 103° 25' 46.793 W
Pad GL: 3402.00
KB: WELL @ 3422.00usft (Patterson 250)

INTEQ INC

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
10830.00	3.38	266.54	10793.63	260.06	251.10	0.00	0.00	-239.77
11144.06	3.38	266.54	11107.14	258.94	232.62	0.00	0.00	-240.09
11895.39	90.25	178.11	11583.00	-221.30	220.27	12.00	-88.42	237.74
16426.82	90.25	178.11	11563.00	-4750.20	370.09	0.00	0.00	4764.59

WELL DETAILS: No. 1H

Ground Level: 3402.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	462268.30	779320.70	32° 16' 3.574 N	103° 25' 46.793 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Toro No. 1H TD/PBHL	11563.00	-4750.20	370.09	457518.11	779690.79	32° 15' 16.540 N	103° 25' 42.949 W

PROJECT DETAILS: Lea County, NM

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

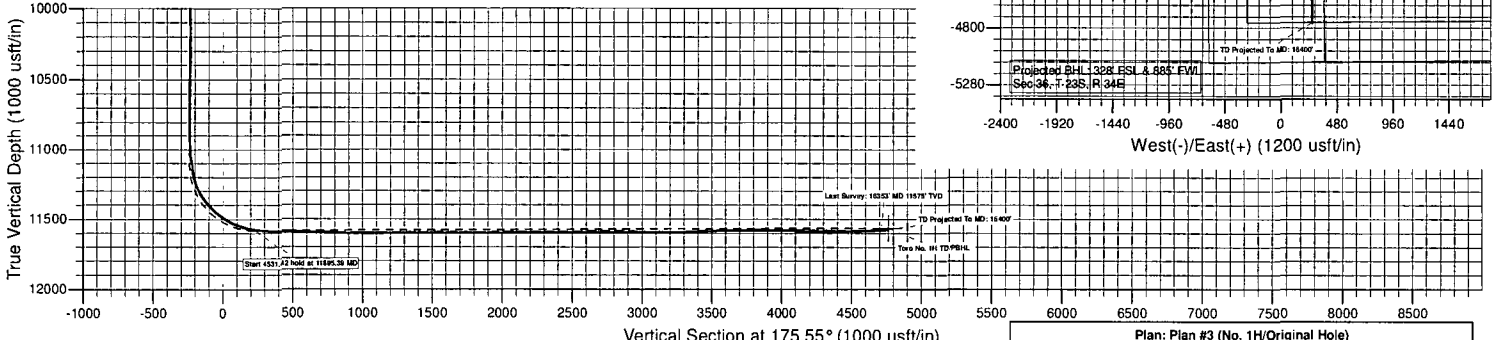
System Datum: Mean Sea Level

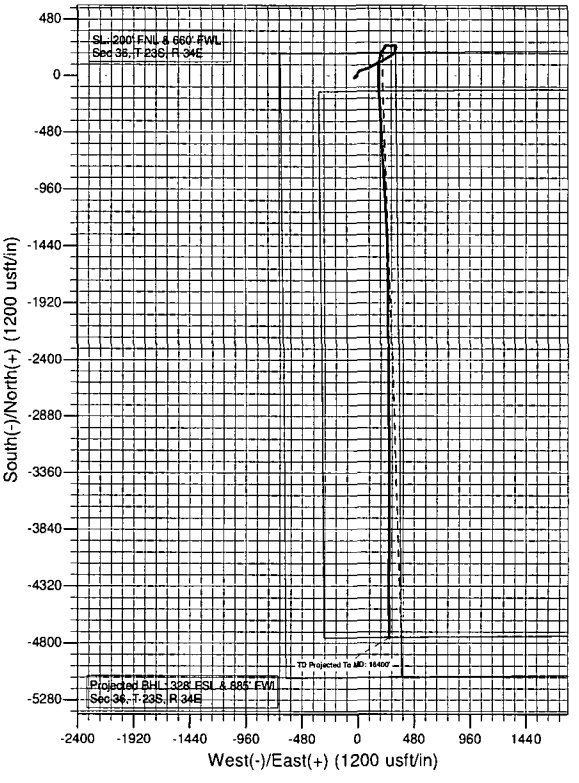
T G M

Azimuths to Grid North
True North: -0.48°
Magnetic North: 6.56°

Magnetic Field
Strength: 48266.6snT
Dip Angle: 60.15°
Date: 05/12/2015
Model: IGRF2010

NOTE: All Lease lines and Hard lines are estimates only and are subject to the customers' approval.





Plan: Plan #3 (No. 1H/Original Hole)

Created By: Chris LeMaster Date: 13:08, June 16 2015

Company:	Mewbourne Oil Company	**Local Co-ordinate Reference:**	Well No. 1H
Project:	Lea County, NM	**TVD Reference:**	WELL @ 3422.00usft (Patterson 250)
Site:	Toro 36 B3DM State No. 1H	**MD Reference:**	WELL @ 3422.00usft (Patterson 250)
Well:	No. 1H	**North Reference:**	Grid
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Original Hole	**Database:**	Inwell D

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

Site	Toro 36 B3DM State No. 1H				
Site Position:		**Northing:**	462,268.30 usft	**Latitude:**	32° 16' 3.574 N
From:	Map	**Easting:**	779,320.70 usft	**Longitude:**	103° 25' 46.793 W
Position Uncertainty:	3.30 usft	**Slot Radius:**	13-3/16"	**Grid Convergence:**	0.48 °

Well	No. 1H					
Well Position	**+N/-S**	0.00 usft	**Northing:**	462,268.30 usft	**Latitude:**	32° 16' 3.574 N
	+E/-W	0.00 usft	**Easting:**	779,320.70 usft	**Longitude:**	103° 25' 46.793 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,402.00 usft

Wellbore	Original Hole				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	05/12/15	7.04	60.15	48,267

Design	Original Hole				
Audit Notes:					
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.00	0.00	0.00	175.55	

Survey Program **Date** 06/10/15

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.00	10,830.00	Gyro (Original Hole)	MWD	MWD - Standard
10,895.00	16,400.00	MWD (Original Hole)	MWD	MWD - Standard

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Build (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.23	84.98	100.00	0.02	0.20	0.00	0.23
200.00	0.27	26.26	200.00	0.25	0.50	-0.21	0.04
300.00	0.34	74.69	300.00	0.54	0.89	-0.47	0.07
400.00	0.32	219.61	400.00	0.40	1.00	-0.32	-0.02
500.00	1.38	219.86	499.98	-0.74	0.05	0.74	1.06
600.00	2.23	224.69	599.93	-3.05	-2.09	2.88	0.85
700.00	2.43	232.11	699.85	-5.73	-5.13	5.32	0.20
800.00	2.50	233.88	799.76	-8.32	-8.56	7.63	0.07
900.00	2.49	246.87	899.67	-10.46	-12.32	9.47	-0.01
1,000.00	2.57	254.55	999.57	-11.91	-16.48	10.60	0.08

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Well:	No. 1H	**North Reference:**	Grid
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Original Hole	**Database:**	Inwell D

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Build (°/100usft)
1,100.00	1.36	258.83	1,099.51	-12.74	-19.81	11.16	-1.21
1,200.00	1.03	276.41	1,199.49	-12.87	-21.86	11.13	-0.33
1,300.00	0.99	279.33	1,299.47	-12.63	-23.61	10.76	-0.04
1,400.00	0.80	261.44	1,399.46	-12.59	-25.15	10.60	-0.19
1,500.00	0.69	213.91	1,499.45	-13.19	-26.18	11.12	-0.11
1,600.00	0.49	191.34	1,599.45	-14.11	-26.60	12.01	-0.20
1,700.00	0.40	178.09	1,699.44	-14.88	-26.67	12.77	-0.09
1,800.00	0.08	140.97	1,799.44	-15.28	-26.62	13.17	-0.32
1,900.00	0.39	71.92	1,899.44	-15.23	-26.25	13.15	0.31
2,000.00	0.43	55.46	1,999.44	-14.91	-25.62	12.88	0.04
2,100.00	0.98	39.10	2,099.43	-14.04	-24.77	12.07	0.55
2,200.00	1.61	36.26	2,199.40	-12.24	-23.40	10.39	0.63
2,300.00	2.04	35.63	2,299.35	-9.66	-21.53	7.96	0.43
2,400.00	2.32	35.82	2,399.28	-6.57	-19.31	5.06	0.28
2,500.00	2.45	35.48	2,499.19	-3.19	-16.88	1.87	0.13
2,600.00	2.45	34.93	2,599.10	0.30	-14.42	-1.42	0.00
2,700.00	2.47	34.50	2,699.01	3.83	-11.97	-4.75	0.02
2,800.00	3.02	34.70	2,798.90	7.77	-9.25	-8.46	0.55
2,900.00	3.75	36.94	2,898.72	12.55	-5.79	-12.96	0.73
3,000.00	3.92	37.34	2,998.50	17.88	-1.75	-17.96	0.17
3,100.00	3.79	37.60	3,098.27	23.22	2.34	-22.97	-0.13
3,200.00	3.33	31.56	3,198.08	28.31	5.88	-27.77	-0.46
3,300.00	2.83	28.65	3,297.93	32.95	8.58	-32.19	-0.50
3,400.00	2.30	28.18	3,397.83	36.89	10.71	-35.94	-0.53
3,500.00	2.33	32.83	3,497.75	40.36	12.76	-39.25	0.03
3,600.00	3.79	62.62	3,597.61	43.59	16.80	-42.16	1.46
3,700.00	5.25	77.07	3,697.30	46.14	24.19	-44.12	1.46
3,800.00	6.76	77.70	3,796.75	48.41	34.40	-45.60	1.51
3,900.00	9.07	73.16	3,895.79	51.95	47.70	-48.09	2.31
4,000.00	10.65	70.65	3,994.31	57.30	63.96	-52.16	1.58
4,100.00	10.72	68.50	4,092.58	63.77	81.33	-57.26	0.07
4,200.00	11.04	66.84	4,190.78	70.94	98.79	-63.06	0.32
4,300.00	12.65	63.91	4,288.65	79.52	117.43	-70.17	1.61
4,400.00	13.69	61.35	4,386.02	90.01	137.65	-79.06	1.04
4,500.00	13.93	60.39	4,483.13	101.63	158.50	-89.03	0.24
4,600.00	13.61	61.53	4,580.25	113.19	179.31	-98.94	-0.32
4,700.00	13.34	62.56	4,677.50	124.11	199.89	-108.23	-0.27
4,800.00	11.94	63.84	4,775.07	133.99	219.41	-116.56	-1.40
4,900.00	10.69	63.03	4,873.13	142.76	236.96	-123.94	-1.25
5,000.00	9.90	59.44	4,971.52	151.34	252.63	-131.28	-0.79
5,100.00	9.61	56.51	5,070.07	160.31	267.00	-139.11	-0.29
5,200.00	7.49	54.88	5,168.96	168.67	279.29	-146.49	-2.12
5,300.00	5.34	53.89	5,268.32	175.16	288.38	-152.26	-2.15
5,400.00	4.71	52.58	5,367.94	180.40	295.40	-156.94	-0.63

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Well:	No. 1H	**North Reference:**	Grid
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Original Hole	**Database:**	Inwell D

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Build (°/100usft)
5,500.00	4.20	48.80	5,467.64	185.31	301.42	-161.36	-0.51
5,600.00	4.04	44.35	5,567.38	190.24	306.64	-165.87	-0.16
5,700.00	3.68	41.46	5,667.15	195.16	311.22	-170.43	-0.36
5,800.00	3.58	39.74	5,766.95	199.97	315.34	-174.90	-0.10
5,900.00	3.06	32.24	5,866.78	204.63	318.76	-179.28	-0.52
6,000.00	2.43	30.56	5,966.67	208.71	321.26	-183.15	-0.63
6,100.00	2.06	21.93	6,066.59	212.20	323.01	-186.50	-0.37
6,200.00	1.82	18.31	6,166.54	215.38	324.18	-189.57	-0.24
6,300.00	1.60	11.45	6,266.49	218.25	324.96	-192.38	-0.22
6,400.00	1.35	6.79	6,366.46	220.79	325.38	-194.88	-0.25
6,500.00	1.28	8.36	6,466.43	223.07	325.68	-197.12	-0.07
6,600.00	1.29	4.06	6,566.41	225.29	325.92	-199.33	0.01
6,700.00	1.28	11.03	6,666.38	227.51	326.21	-201.52	-0.01
6,800.00	1.06	5.40	6,766.36	229.53	326.51	-203.50	-0.22
6,900.00	0.99	6.16	6,866.34	231.31	326.69	-205.26	-0.07
7,000.00	0.87	354.60	6,966.33	232.92	326.72	-206.87	-0.12
7,100.00	0.82	352.72	7,066.32	234.39	326.55	-208.35	-0.05
7,200.00	0.81	343.65	7,166.31	235.78	326.26	-209.75	-0.01
7,300.00	0.58	325.80	7,266.30	236.87	325.78	-210.88	-0.23
7,400.00	0.49	323.40	7,366.30	237.64	325.24	-211.68	-0.09
7,500.00	0.54	296.36	7,466.29	238.19	324.56	-212.29	0.05
7,600.00	0.28	241.34	7,566.29	238.28	323.93	-212.43	-0.26
7,700.00	0.13	174.52	7,666.29	238.05	323.72	-212.22	-0.15
7,800.00	0.37	71.27	7,766.29	238.04	324.04	-212.18	0.24
7,900.00	0.67	80.48	7,866.29	238.24	324.92	-212.31	0.30
8,000.00	0.78	82.88	7,966.28	238.42	326.17	-212.40	0.11
8,100.00	0.55	82.33	8,066.27	238.57	327.33	-212.46	-0.23
8,200.00	0.69	77.69	8,166.27	238.76	328.39	-212.56	0.14
8,300.00	0.72	84.64	8,266.26	238.95	329.60	-212.66	0.03
8,400.00	0.46	79.78	8,366.25	239.08	330.62	-212.71	-0.26
8,500.00	0.19	64.89	8,466.25	239.22	331.17	-212.81	-0.27
8,600.00	0.34	57.85	8,566.25	239.45	331.57	-213.00	0.15
8,700.00	0.82	79.99	8,666.24	239.73	332.53	-213.21	0.48
8,800.00	0.64	65.78	8,766.24	240.09	333.74	-213.47	-0.18
8,900.00	0.80	349.96	8,866.23	241.00	334.13	-214.35	0.16
9,000.00	1.41	343.51	8,966.21	242.87	333.66	-216.25	0.61
9,100.00	2.56	335.26	9,066.15	246.08	332.37	-219.55	1.15
9,200.00	2.65	337.10	9,166.05	250.24	330.54	-223.84	0.09
9,300.00	2.16	331.79	9,265.96	254.03	328.75	-227.75	-0.49
9,400.00	2.05	320.89	9,365.89	257.07	326.73	-230.95	-0.11
9,500.00	2.25	315.12	9,465.82	259.85	324.22	-233.91	0.20
9,600.00	2.30	292.86	9,565.74	262.02	320.98	-236.33	0.05
9,700.00	2.69	267.09	9,665.65	262.68	316.79	-237.31	0.39
9,800.00	3.77	258.80	9,765.49	261.93	311.22	-236.99	1.08
9,900.00	3.69	254.05	9,865.28	260.40	304.90	-235.96	-0.08

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Design:	Original Hole	**Database:**	Inwell D

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Build (°/100usft)
10,000.00	2.88	253.70	9,965.12	258.81	299.40	-234.80	-0.81
10,100.00	2.74	252.08	10,065.00	257.37	294.71	-233.73	-0.14
10,200.00	2.54	259.07	10,164.89	256.22	290.26	-232.93	-0.20
10,300.00	3.05	275.62	10,264.77	256.06	285.44	-233.14	0.51
10,400.00	3.97	279.70	10,364.58	256.90	279.38	-234.45	0.92
10,500.00	4.20	284.48	10,464.33	258.40	272.42	-236.49	0.23
10,600.00	4.09	272.45	10,564.07	259.47	265.31	-238.10	-0.11
10,700.00	3.54	275.93	10,663.85	259.94	258.68	-239.09	-0.55
10,800.00	3.20	267.68	10,763.68	260.15	252.82	-239.75	-0.34
10,830.00	3.38	266.54	10,793.63	260.06	251.10	-239.79	0.60
10,895.00	3.60	258.80	10,858.51	259.55	247.18	-239.59	0.34
10,927.00	3.70	253.20	10,890.44	259.05	245.21	-239.25	0.31
10,958.00	3.60	224.40	10,921.38	258.07	243.57	-238.39	-0.32
10,990.00	3.80	219.50	10,953.31	256.53	242.19	-236.97	0.62
11,021.00	3.70	219.40	10,984.25	254.97	240.91	-235.51	-0.32
11,053.00	3.70	220.40	11,016.18	253.38	239.58	-234.03	0.00
11,085.00	5.60	214.90	11,048.07	251.32	238.02	-232.09	5.94
11,116.00	8.70	210.90	11,078.83	248.06	235.95	-229.01	10.00
11,148.00	10.70	213.80	11,110.37	243.52	233.05	-224.70	6.25
11,180.00	10.80	217.80	11,141.81	238.68	229.56	-220.15	0.31
11,211.00	13.40	215.50	11,172.12	233.46	225.70	-215.24	8.39
11,243.00	16.40	214.30	11,203.04	226.71	221.00	-208.88	9.37
11,275.00	19.70	211.60	11,233.46	218.38	215.62	-200.99	10.31
11,306.00	24.00	206.40	11,262.23	208.28	210.08	-191.35	13.87
11,338.00	29.00	200.60	11,290.86	195.18	204.45	-178.72	15.62
11,369.00	33.10	197.10	11,317.42	180.04	199.32	-164.04	13.23
11,401.00	35.80	194.00	11,343.81	162.61	194.48	-147.03	8.44
11,432.00	38.80	192.10	11,368.46	144.31	190.25	-129.11	9.68
11,464.00	41.30	189.50	11,392.96	124.09	186.40	-109.25	7.81
11,496.00	44.40	185.90	11,416.42	102.53	183.51	-87.98	9.69
11,527.00	48.40	184.40	11,437.79	80.17	181.51	-65.85	12.90
11,559.00	51.10	182.70	11,458.47	55.80	180.00	-41.67	8.44
11,590.00	53.00	180.80	11,477.53	31.37	179.26	-17.37	6.13
11,622.00	56.40	179.20	11,496.02	5.26	179.27	8.67	10.62
11,653.00	60.20	179.30	11,512.31	-21.11	179.61	34.98	12.26
11,685.00	65.20	178.20	11,526.98	-49.53	180.24	63.36	15.62
11,716.00	68.50	177.30	11,539.17	-78.01	181.36	91.84	10.65
11,748.00	71.50	176.70	11,550.11	-108.03	182.93	121.90	9.37
11,780.00	74.70	176.90	11,559.41	-138.60	184.64	152.51	10.00
11,811.00	78.10	175.60	11,566.70	-168.66	186.62	182.63	10.97
11,843.00	81.00	175.60	11,572.50	-200.03	189.03	214.10	9.06
11,874.00	83.30	175.60	11,576.74	-230.65	191.39	244.80	7.42
11,883.00	83.80	175.80	11,577.75	-239.57	192.06	253.75	5.56
11,959.00	87.50	176.60	11,583.51	-315.17	197.08	329.51	4.87

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Design:	Original Hole	**Database:**	Inwell D

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Build (°/100usft)
11,991.00	87.70	177.00	11,584.85	-347.09	198.86	361.47	0.62
12,022.00	88.10	177.00	11,585.99	-378.03	200.48	392.44	1.29
12,054.00	88.70	177.30	11,586.88	-409.97	202.07	424.42	1.87
12,117.00	88.00	177.10	11,588.70	-472.87	205.15	487.36	-1.11
12,180.00	88.00	177.40	11,590.90	-535.76	208.17	550.30	0.00
12,275.00	88.40	177.40	11,593.88	-630.62	212.48	645.20	0.42
12,370.00	88.80	177.20	11,596.20	-725.48	216.95	740.13	0.42
12,465.00	89.30	177.20	11,597.78	-820.36	221.59	835.08	0.53
12,560.00	89.50	177.10	11,598.77	-915.23	226.31	930.03	0.21
12,655.00	90.20	176.80	11,599.02	-1,010.10	231.37	1,025.00	0.74
12,750.00	90.90	176.40	11,598.11	-1,104.93	237.00	1,119.98	0.74
12,844.00	89.80	177.20	11,597.53	-1,198.78	242.25	1,213.96	-1.17
12,939.00	91.20	177.10	11,596.70	-1,293.65	246.97	1,308.91	1.47
13,034.00	90.80	178.10	11,595.05	-1,388.55	250.95	1,403.84	-0.42
13,129.00	89.80	179.60	11,594.55	-1,483.53	252.86	1,498.67	-1.05
13,224.00	89.70	178.70	11,594.96	-1,578.52	254.27	1,593.49	-0.11
13,319.00	90.70	179.20	11,594.63	-1,673.50	256.01	1,688.32	1.05
13,414.00	90.30	180.00	11,593.80	-1,768.49	256.67	1,783.07	-0.42
13,509.00	90.50	179.60	11,593.14	-1,863.49	257.00	1,877.81	0.21
13,604.00	90.70	179.70	11,592.14	-1,958.48	257.58	1,972.56	0.21
13,698.00	91.10	179.50	11,590.67	-2,052.47	258.24	2,066.32	0.43
13,793.00	89.50	179.70	11,590.17	-2,147.46	258.90	2,161.07	-1.68
13,888.00	89.20	179.60	11,591.25	-2,242.45	259.48	2,255.82	-0.32
13,983.00	90.20	180.80	11,591.75	-2,337.45	259.15	2,350.51	1.05
14,078.00	90.50	180.40	11,591.17	-2,432.44	258.16	2,445.14	0.32
14,173.00	90.90	180.30	11,590.00	-2,527.43	257.57	2,539.80	0.42
14,269.00	91.70	179.30	11,587.83	-2,623.40	257.91	2,635.51	0.83
14,364.00	90.40	179.60	11,586.09	-2,718.38	258.82	2,730.27	-1.37
14,459.00	90.60	180.30	11,585.26	-2,813.38	258.90	2,824.98	0.21
14,554.00	86.80	178.60	11,587.41	-2,908.33	259.81	2,919.72	-4.00
14,649.00	88.30	178.90	11,591.47	-3,003.21	261.89	3,014.48	1.58
14,744.00	90.00	179.60	11,592.88	-3,098.19	263.13	3,109.27	1.79
14,838.00	90.10	179.40	11,592.80	-3,192.19	263.95	3,203.04	0.11
14,933.00	92.00	180.00	11,591.06	-3,287.17	264.45	3,297.78	2.00
15,028.00	93.20	180.00	11,586.75	-3,382.07	264.45	3,392.39	1.26
15,123.00	91.90	180.10	11,582.52	-3,476.97	264.36	3,487.00	-1.37
15,218.00	91.30	180.10	11,579.87	-3,571.93	264.20	3,581.66	-0.63
15,312.00	90.80	179.80	11,578.15	-3,665.92	264.28	3,675.37	-0.53
15,407.00	91.00	179.30	11,576.66	-3,760.90	265.03	3,770.13	0.21
15,502.00	89.80	179.70	11,575.99	-3,855.89	265.85	3,864.90	-1.26
15,597.00	88.80	180.60	11,577.15	-3,950.88	265.61	3,959.58	-1.05
15,692.00	89.00	180.90	11,578.98	-4,045.86	264.36	4,054.17	0.21
15,786.00	89.40	180.60	11,580.29	-4,139.84	263.13	4,147.78	0.43
15,881.00	89.40	180.10	11,581.28	-4,234.83	262.55	4,242.44	0.00

Company:	Mewbourne Oil Company	**Local Co-ordinate Reference:**	Well No. 1H
Project:	Lea County, NM	**TVD Reference:**	WELL @ 3422.00usft (Patterson 250)
Site:	Toro 36 B3DM State No. 1H	**MD Reference:**	WELL @ 3422.00usft (Patterson 250)
Well:	No. 1H	**North Reference:**	Grid
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Original Hole	**Database:**	Inwell D

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Build (°/100usft)
15,976.00	89.90	180.00	11,581.86	-4,329.83	262.47	4,337.14	0.53
16,071.00	89.50	179.80	11,582.36	-4,424.83	262.63	4,431.87	-0.42
16,165.00	90.30	179.20	11,582.53	-4,518.82	263.46	4,525.64	0.85
16,260.00	92.80	179.80	11,579.96	-4,613.78	264.28	4,620.38	2.63
16,353.00	93.30	179.80	11,575.01	-4,706.65	264.61	4,712.99	0.54
Last Survey: 16353' MD 11575' TVD							
16,397.54	93.30	179.80	11,572.44	-4,751.11	264.76	4,757.33	0.00
Toro No. 1H TD/PBHL							
16,400.00	93.30	179.80	11,572.30	-4,753.57	264.77	4,759.78	0.00
TD Projected To MD: 16400'							

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
16,353.00	11,575.01	-4,706.65	264.61	Last Survey: 16353' MD 11575' TVD
16,400.00	11,572.30	-4,753.57	264.77	TD Projected To MD: 16400'

Checked By: _____ Approved By: _____ Date: _____

Company: Mewbourne
Lease/Well: Toro 36 B3DM State/1H

Rig Name: Patterson 250
State/County: New Mexico/Lea
VS-Azi: 0.00 Degrees
Latitude: 32.26765, Longitude: -103.42966
Grid Convergence Applied = -0.48 degs
Grid North = True North -0.48 degs

Depth Reference : RKB= 26.6

DRILLOG HA GYRO SURVEY CALCULATIONS
Filename: toro 36 b3dm state 1h-de_01.ut
Minimum Curvature Method
Report Date/Time: 6/5/2015 / 10:16

VES Survey International
Ft. Worth, Texas
817-741-3610
Surveyor: Gregg Wilson
Toro 36 B3DM State 1H / API 30-025-42436

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.23	84.98	100.00	0.02	0.20	0.02	0.20	84.98	0.23
200.00	0.27	26.26	200.00	0.24	0.50	0.24	0.55	63.95	0.24
300.00	0.34	74.69	300.00	0.53	0.88	0.53	1.03	59.10	0.26
400.00	0.32	219.61	400.00	0.39	0.99	0.39	1.07	68.39	0.63
500.00	1.38	219.86	499.98	-0.75	0.04	-0.75	0.75	176.85	1.06
600.00	2.23	224.69	599.93	-3.06	-2.10	-3.06	3.71	214.49	0.86
700.00	2.43	232.11	699.85	-5.74	-5.14	-5.74	7.70	221.84	0.36
800.00	2.50	233.88	799.76	-8.32	-8.57	-8.32	11.95	225.84	0.11
900.00	2.49	246.87	899.67	-10.46	-12.33	-10.46	16.17	229.68	0.56
1000.00	2.57	254.55	999.57	-11.91	-16.48	-11.91	20.34	234.15	0.35
1100.00	1.36	258.83	1099.51	-12.74	-19.81	-12.74	23.55	237.25	1.22
1200.00	1.03	276.41	1199.49	-12.87	-21.86	-12.87	25.37	239.52	0.49
1300.00	0.99	279.33	1299.47	-12.63	-23.60	-12.63	26.77	241.85	0.07
1400.00	0.80	261.44	1399.46	-12.59	-25.14	-12.59	28.12	243.40	0.34
1500.00	0.69	213.91	1499.45	-13.20	-26.17	-13.20	29.31	243.24	0.61
1600.00	0.49	191.34	1599.45	-14.12	-26.59	-14.12	30.11	242.04	0.31

VES Survey Date: 5/30/2015

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1700.00	0.40	178.09	1699.44	-14.88	-26.66	-14.88	30.54	240.83	0.14
1800.00	0.08	140.97	1799.44	-15.29	-26.61	-15.29	30.69	240.12	0.34
1900.00	0.39	71.92	1899.44	-15.24	-26.24	-15.24	30.34	239.86	0.36
2000.00	0.43	55.46	1999.44	-14.92	-25.61	-14.92	29.64	239.78	0.12
2100.00	0.98	39.10	2099.43	-14.04	-24.77	-14.04	28.47	240.44	0.58
2200.00	1.61	36.26	2199.40	-12.25	-23.40	-12.25	26.41	242.37	0.64
2300.00	2.04	35.63	2299.35	-9.67	-21.53	-9.67	23.61	245.81	0.43
2400.00	2.32	35.82	2399.28	-6.59	-19.31	-6.59	20.41	251.16	0.28
2500.00	2.45	35.48	2499.20	-3.21	-16.89	-3.21	17.19	259.24	0.13
2600.00	2.45	34.93	2599.10	0.28	-14.43	0.28	14.43	271.12	0.02
2700.00	2.47	34.50	2699.01	3.81	-11.98	3.81	12.57	287.63	0.02
2800.00	3.02	34.70	2798.90	7.75	-9.27	7.75	12.08	309.90	0.55
2900.00	3.75	36.94	2898.72	12.52	-5.80	12.52	13.80	335.14	0.74
3000.00	3.92	37.34	2998.50	17.85	-1.76	17.85	17.94	354.35	0.18
3100.00	3.79	37.60	3098.27	23.19	2.33	23.19	23.31	5.73	0.13
3200.00	3.33	31.56	3198.08	28.29	5.87	28.29	28.89	11.71	0.59
3300.00	2.83	28.65	3297.93	32.93	8.57	32.93	34.03	14.59	0.53
3400.00	2.30	28.18	3397.83	36.87	10.70	36.87	38.39	16.19	0.54
3500.00	2.33	32.83	3497.75	40.34	12.75	40.34	42.31	17.54	0.19
3600.00	3.79	62.62	3597.61	43.57	16.79	43.57	46.69	21.07	2.11
3700.00	5.25	77.07	3697.30	46.11	24.18	46.11	52.07	27.68	1.85
3800.00	6.76	77.70	3796.75	48.39	34.40	48.39	59.37	35.41	1.51
3900.00	9.07	73.16	3895.79	51.93	47.70	51.93	70.51	42.57	2.39
4000.00	10.65	70.65	3994.31	57.28	63.97	57.28	85.86	48.16	1.64
4100.00	10.72	68.50	4092.58	63.75	81.35	63.75	103.35	51.92	0.40
4200.00	11.04	66.84	4190.78	70.93	98.81	70.93	121.63	54.33	0.45
4300.00	12.65	63.91	4288.65	79.51	117.45	79.51	141.83	55.90	1.72
4400.00	13.69	61.35	4386.01	90.00	137.67	90.00	164.48	56.82	1.19
4500.00	13.93	60.39	4483.12	101.63	158.52	101.63	188.30	57.34	0.33
4600.00	13.61	61.53	4580.25	113.18	179.33	113.18	212.06	57.74	0.42
4700.00	13.34	62.56	4677.50	124.10	199.91	124.10	235.30	58.17	0.36
4800.00	11.94	63.84	4775.07	133.98	219.43	133.98	257.10	58.59	1.43
4900.00	10.69	63.03	4873.13	142.75	236.98	142.75	276.65	58.94	1.26
5000.00	9.90	59.44	4971.52	151.33	252.65	151.33	294.50	59.08	1.01
5100.00	9.61	56.51	5070.07	160.31	267.01	160.31	311.44	59.02	0.58
5200.00	7.49	54.88	5168.95	168.66	279.31	168.66	326.28	58.87	2.13
5300.00	5.34	53.89	5268.32	175.15	288.40	175.15	337.42	58.73	2.15
5400.00	4.71	52.58	5367.94	180.39	295.41	180.39	346.13	58.59	0.64
5500.00	4.20	48.80	5467.63	185.29	301.43	185.29	353.83	58.42	0.58

VES Survey Date: 5/30/2015

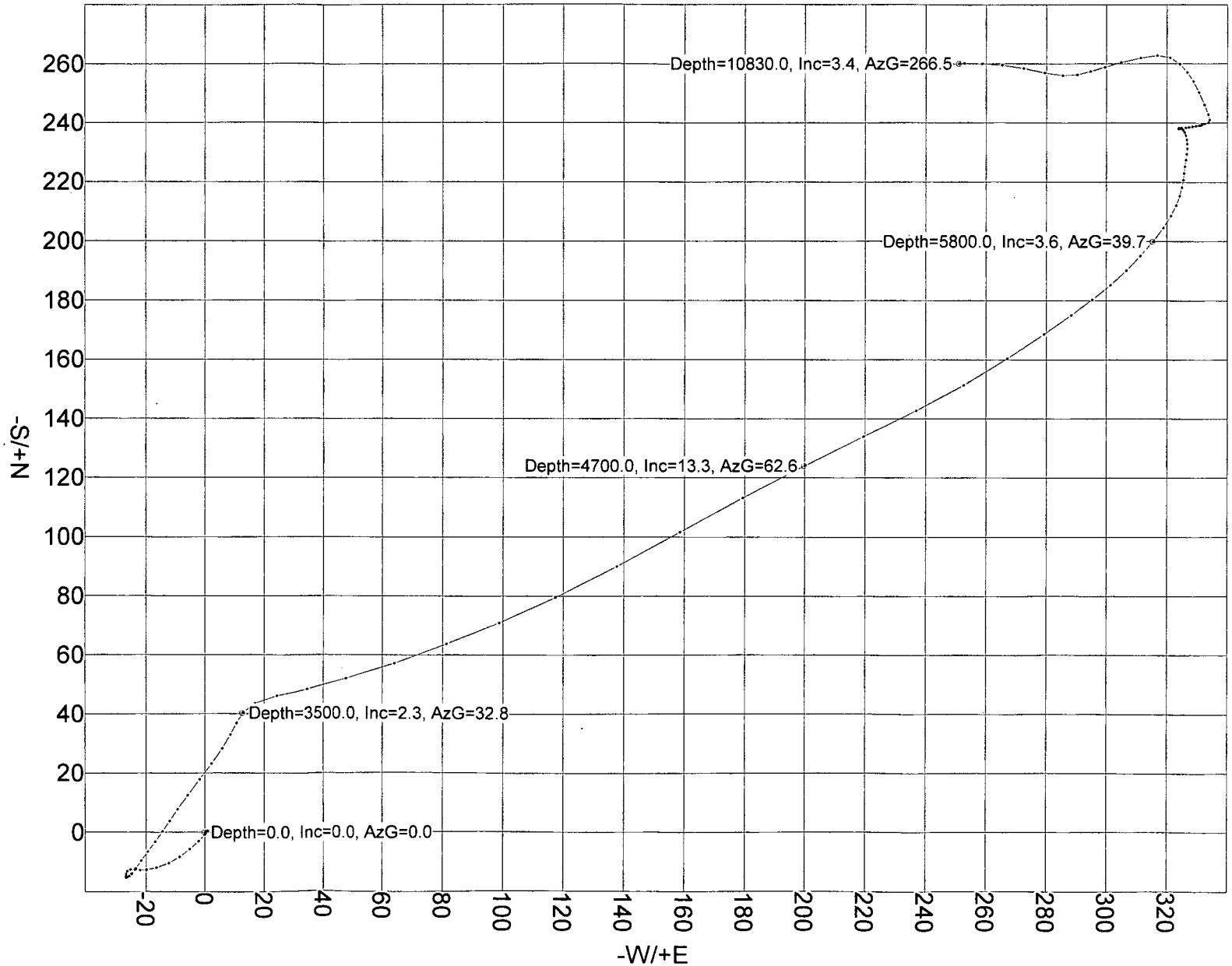
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5600.00	4.04	44.35	5567.38	190.23	306.65	190.23	360.86	58.19	0.36
5700.00	3.68	41.46	5667.15	195.15	311.24	195.15	367.36	57.91	0.41
5800.00	3.58	39.74	5766.95	199.96	315.36	199.96	373.41	57.62	0.14
5900.00	3.06	32.24	5866.78	204.62	318.78	204.62	378.80	57.30	0.68
6000.00	2.43	30.56	5966.67	208.70	321.28	208.70	383.12	56.99	0.63
6100.00	2.06	21.93	6066.59	212.20	323.03	212.20	386.50	56.70	0.50
6200.00	1.82	18.31	6166.53	215.38	324.21	215.38	389.23	56.40	0.27
6300.00	1.60	11.45	6266.49	218.25	324.98	218.25	391.47	56.12	0.30
6400.00	1.35	6.79	6366.45	220.79	325.40	220.79	393.23	55.84	0.27
6500.00	1.28	8.36	6466.43	223.07	325.70	223.07	394.77	55.59	0.08
6600.00	1.29	4.06	6566.40	225.30	325.94	225.30	396.23	55.35	0.10
6700.00	1.28	11.03	6666.38	227.52	326.23	227.52	397.73	55.11	0.16
6800.00	1.06	5.40	6766.36	229.53	326.54	229.53	399.14	54.90	0.24
6900.00	0.99	6.16	6866.34	231.32	326.72	231.32	400.31	54.70	0.07
7000.00	0.87	354.60	6966.33	232.93	326.74	232.93	401.26	54.52	0.22
7100.00	0.82	352.72	7066.32	234.39	326.57	234.39	401.98	54.33	0.06
7200.00	0.81	343.65	7166.31	235.78	326.28	235.78	402.56	54.15	0.13
7300.00	0.58	325.80	7266.30	236.88	325.80	236.88	402.81	53.98	0.31
7400.00	0.49	323.40	7366.29	237.65	325.26	237.65	402.83	53.85	0.09
7500.00	0.54	296.36	7466.29	238.20	324.58	238.20	402.61	53.73	0.24
7600.00	0.28	241.34	7566.29	238.29	323.94	238.29	402.15	53.66	0.44
7700.00	0.13	174.52	7666.29	238.07	323.74	238.07	401.85	53.67	0.26
7800.00	0.37	71.27	7766.29	238.06	324.05	238.06	402.10	53.70	0.41
7900.00	0.67	80.48	7866.28	238.25	324.93	238.25	402.92	53.75	0.32
8000.00	0.78	82.88	7966.27	238.44	326.18	238.44	404.04	53.83	0.11
8100.00	0.55	82.33	8066.27	238.58	327.34	238.58	405.06	53.91	0.22
8200.00	0.69	77.69	8166.26	238.78	328.40	238.78	406.03	53.98	0.14
8300.00	0.72	84.64	8266.25	238.96	329.61	238.96	407.12	54.06	0.09
8400.00	0.46	79.78	8366.25	239.09	330.64	239.09	408.03	54.13	0.26
8500.00	0.19	64.89	8466.25	239.24	331.19	239.24	408.56	54.16	0.29
8600.00	0.34	57.85	8566.25	239.46	331.59	239.46	409.01	54.16	0.16
8700.00	0.82	79.99	8666.24	239.75	332.54	239.75	409.96	54.21	0.52
8800.00	0.64	65.78	8766.23	240.10	333.76	240.10	411.15	54.27	0.25
8900.00	0.80	349.96	8866.23	241.02	334.14	241.02	412.00	54.20	0.90
9000.00	1.41	343.51	8966.21	242.89	333.67	242.89	412.72	53.95	0.62
9100.00	2.56	335.26	9066.15	246.10	332.39	246.10	413.58	53.48	1.18
9200.00	2.65	337.10	9166.04	250.26	330.55	250.26	414.60	52.87	0.13
9300.00	2.16	331.79	9265.95	254.05	328.76	254.05	415.48	52.31	0.54
9400.00	2.05	320.89	9365.89	257.09	326.75	257.09	415.77	51.80	0.41

VES Survey Date: 5/30/2015

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
9500.00	2.25	315.12	9465.82	259.87	324.23	259.87	415.53	51.29	0.30
9600.00	2.30	292.86	9565.74	262.04	321.00	262.04	414.38	50.77	0.88
9700.00	2.69	267.09	9665.65	262.70	316.81	262.70	411.56	50.33	1.18
9800.00	3.77	258.80	9765.49	261.95	311.24	261.95	406.80	49.92	1.17
9900.00	3.69	254.05	9865.28	260.42	304.92	260.42	401.00	49.50	0.32
10000.00	2.88	253.70	9965.11	258.83	299.41	258.83	395.78	49.16	0.81
10100.00	2.74	252.08	10064.99	257.39	294.73	257.39	391.30	48.87	0.16
10200.00	2.54	259.07	10164.89	256.24	290.28	256.24	387.19	48.56	0.38
10300.00	3.05	275.62	10264.77	256.08	285.46	256.08	383.49	48.11	0.95
10400.00	3.97	279.70	10364.58	256.92	279.40	256.92	379.57	47.40	0.95
10500.00	4.20	284.48	10464.33	258.42	272.44	258.42	375.50	46.51	0.41
10600.00	4.09	272.45	10564.07	259.49	265.33	259.49	371.13	45.64	0.88
10700.00	3.54	275.93	10663.84	259.96	258.70	259.96	366.75	44.86	0.59
10800.00	3.20	267.68	10763.67	260.17	252.84	260.17	362.79	44.18	0.59
10830.00	3.38	266.54	10793.62	260.08	251.12	260.08	361.53	44.00	0.65

VES Survey Date: 5/30/2015

VES Survey International
Ft. Worth, Texas
817-741-3610
Surveyor: Gregg Wilson
Toro 36 B3DM State 1H / API 30-025-42436



VES Survey Date: 5/30/2015