

OPERATOR MEWBOURNE OIL COMPANY
WELL/LEASE MALAGA 30MP FED COM 1H
COUNTY EDDY

045-0095

STATE OF NEW MEXICO
DEVIATION REPORT

30 015 41461

203	0.46	4,644	0.60
763	3.00	4,971	0.80
884	3.40	5,658	1.40
1,168	3.70	5,977	1.40
1,232	3.60	6,252	1.60
1,264	3.40	6,613	2.00
1,327	2.80	6,771	1.90
1,422	3.80	6,928	3.10
1,454	3.60	7,400	0.40
1,581	3.10	7,559	0.60
1,613	3.10	7,778	1.10
1,644	2.90		
1,676	3.00		
1,760	2.61		
1,835	2.60		
2,073	2.30		
2,137	1.70		
2,191	2.10		
2,223	2.20		
2,286	2.20		
2,318	2.50		
2,704	3.20		
2,821	2.40		
2,915	2.20		
3,000	1.80		
3,106	1.80		
3,202	1.50		
3,329	1.40		
3,582	1.10		
3,753	0.90		
3,880	0.90		
4,006	0.70		
4,134	0.90		
4,251	0.70		
4,388	0.80		



BY:

[Signature]

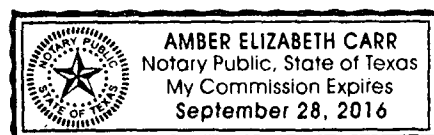
STATE OF TEXAS

COUNTY OF MIDLAND

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

7/24/13, by

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





SURVEY CALCULATION PROGRAM

v1.00.02

OPERATOR:	MEWBOURNE		Supervisors:		
WELL:	MALAGA 30 MP FED COM #1H		CLAYTON THOMAS		
LOCATION:	EDDY COUNTY, NM		RANDALL SKIPWORTH		
JOB NUMBER:	WL-13569	API #:	30-015-41461		
COMMENTS:					
DISPLACEMENT OF 206.93FT AT 196.43 DEGREES			MAG DEC. (-/+)	7.38E	
			GRID CORR. (-/+)		
			TOTAL CORR. (-/+)	7.38E	
DATE: 7-17-13			TIME: 3:00 PM		
MINIMUM CURVATURE CALCULATIONS(SPE-3362)			PROPOSED DIRECTION	100.03	TARGET TRACKING
					TO CENTER
SVY	MD	INC	TRUE		
NUM			AZM	TVD	SECT
					N-S
					E-W
					DLS/
					100
					ABOVE(+)
					RIGHT(+)
					BELOW(-)
					LEFT(-)

TIE

1	100	0.42	335.12	100.00	-0.21	0.33	-0.15	0.4	-100.0	-0.3
2	200	0.76	243.96	200.00	-0.96	0.37	-0.90	0.9	-200.0	-0.2
3	300	2.67	183.07	299.95	-1.21	-2.24	-1.63	2.4	-300.0	2.5
4	400	2.74	186.93	399.84	-0.80	-6.94	-2.04	0.2	-399.8	7.2
5	500	2.85	192.13	499.72	-0.76	-11.75	-2.85	0.3	-499.7	12.1
6	600	3.01	195.14	599.59	-1.08	-16.71	-4.06	0.2	-599.6	17.2
7	700	2.96	196.70	699.45	-1.62	-21.72	-5.48	0.1	-699.5	22.3
8	800	3.03	203.67	799.32	-2.54	-26.61	-7.29	0.4	-799.3	27.5
9	900	3.03	205.74	899.18	-3.88	-31.41	-9.50	0.1	-899.2	32.6
10	1000	3.10	210.70	999.04	-5.55	-36.12	-12.02	0.3	-999.0	37.7
11	1100	3.25	212.30	1098.88	-7.58	-40.84	-14.92	0.2	-1098.9	42.8
12	1200	3.16	212.67	1198.73	-9.71	-45.56	-17.92	0.1	-1198.7	48.0
13	1300	3.22	208.45	1298.57	-11.66	-50.35	-20.75	0.2	-1298.6	53.2
14	1400	3.21	209.71	1398.41	-13.49	-55.25	-23.47	0.1	-1398.4	58.5
15	1500	2.95	210.54	1498.27	-15.34	-59.89	-26.17	0.3	-1498.3	63.5
16	1600	2.70	211.23	1598.15	-17.09	-64.12	-28.70	0.3	-1598.1	68.1
17	1700	2.60	211.96	1698.04	-18.79	-68.06	-31.12	0.1	-1698.0	72.4
18	1800	2.47	227.10	1797.94	-20.94	-71.45	-33.90	0.7	-1797.9	76.3
19	1900	2.37	213.87	1897.86	-23.07	-74.64	-36.63	0.6	-1897.9	79.9
20	2000	2.02	201.97	1997.78	-24.27	-77.99	-38.44	0.6	-1997.8	83.5
21	2100	2.26	191.28	2097.71	-24.68	-81.56	-39.49	0.5	-2097.7	87.2
22	2200	1.75	193.11	2197.65	-24.80	-84.98	-40.22	0.5	-2197.7	90.7
23	2300	2.10	161.80	2297.60	-24.02	-88.21	-39.99	1.1	-2297.6	93.8
24	2400	2.81	154.12	2397.51	-21.71	-92.15	-38.35	0.8	-2397.5	97.4
25	2500	3.27	151.53	2497.36	-18.50	-96.86	-35.92	0.5	-2497.4	101.6
26	2600	3.18	154.59	2597.21	-15.12	-101.88	-33.37	0.2	-2597.2	106.1
27	2700	2.71	155.42	2697.07	-12.17	-106.53	-31.20	0.5	-2697.1	110.3
28	2800	2.28	157.22	2796.98	-9.75	-110.52	-29.44	0.4	-2797.0	114.0
29	2900	1.89	155.43	2896.91	-7.73	-113.85	-27.99	0.4	-2896.9	117.0
30	3000	1.84	158.05	2996.86	-5.95	-116.84	-26.70	0.1	-2996.9	119.7
31	3100	1.53	156.54	3096.82	-4.36	-119.55	-25.57	0.3	-3096.8	122.2
32	3200	1.61	165.16	3196.78	-3.03	-122.13	-24.68	0.2	-3196.8	124.6
33	3300	0.92	180.26	3296.75	-2.30	-124.30	-24.32	0.8	-3296.8	126.6
34	3400	0.85	180.29	3396.74	-2.04	-125.84	-24.33	0.1	-3396.7	128.2
35	3500	1.19	159.04	3496.73	-1.38	-127.55	-23.96	0.5	-3496.7	129.8
36	3600	0.90	179.72	3596.71	-0.71	-129.31	-23.59	0.5	-3596.7	131.4
37	3700	0.55	202.50	3696.70	-0.67	-130.53	-23.77	0.4	-3696.7	132.7
38	3800	1.08	215.95	3796.69	-1.19	-131.74	-24.50	0.6	-3796.7	134.0
39	3900	0.66	196.04	3896.68	-1.66	-133.06	-25.22	0.5	-3896.7	135.4
40	4000	0.78	199.86	3996.67	-1.83	-134.25	-25.61	0.1	-3996.7	136.7



SURVEY CALCULATION PROGRAM

v1.00.02

OPERATOR:	MEWBORNE		Supervisors:	
WELL:	MALAGA 30 MP FED COM #1H		CLAYTON THOMAS	
LOCATION:	EDDY COUNTY, NM		RANDALL SKIPWORTH	
JOB NUMBER:	WL-13569	API #:	30-015-41461	
COMMENTS:				
DISPLACEMENT OF 206.93FT AT 196.43 DEGREES			MAG DEC.(-/+)	7.38E
			GRID CORR.(-/+)	
			TOTAL CORR.(-/+)	7.38E
DATE: 7-17-13		TIME: 3:00 PM		

MINIMUM CURVATURE CALCULATIONS(SPE-3362) PROPOSED DIRECTION									100.03	TARGET TRACKING	
										TO CENTER	
SVY			TRUE						DLS/	ABOVE(+)	RIGHT(+)
NUM	MD	INC	AZM	TVD	SECT	N-S	E-W	100		BELOW(-)	LEFT(-)
41	4100	0.43	270.26	4096.67	-2.32	-134.89	-26.21	0.8		-4096.7	137.4
42	4200	0.80	214.94	4196.66	-2.98	-135.46	-26.99	0.7		-4196.7	138.1
43	4300	0.80	211.42	4296.65	-3.53	-136.63	-27.75	0.0		-4296.7	139.4
44	4400	0.89	218.29	4396.64	-4.15	-137.83	-28.60	0.1		-4396.6	140.7
45	4500	0.90	222.84	4496.63	-4.95	-139.02	-29.61	0.1		-4496.6	142.1
46	4600	0.68	187.45	4596.62	-5.35	-140.18	-30.22	0.5		-4596.6	143.3
47	4700	0.54	154.01	4696.62	-5.04	-141.20	-30.09	0.4		-4696.6	144.3
48	4800	0.66	167.48	4796.61	-4.55	-142.18	-29.76	0.2		-4796.6	145.2
49	4900	0.94	212.14	4896.60	-4.63	-143.44	-30.07	0.7		-4896.6	146.5
50	5000	1.15	204.95	4996.58	-5.20	-145.04	-30.93	0.2		-4996.6	148.2
51	5100	1.00	233.11	5096.57	-6.05	-146.48	-32.06	0.5		-5096.6	149.8
52	5200	1.24	207.93	5196.55	-6.98	-147.96	-33.26	0.5		-5196.5	151.5
53	5300	0.97	227.59	5296.53	-7.83	-149.48	-34.39	0.5		-5296.5	153.2
54	5400	1.45	240.95	5396.51	-9.33	-150.67	-36.12	0.6		-5396.5	154.7
55	5500	1.54	223.83	5496.47	-11.06	-152.25	-38.16	0.5		-5496.5	156.6
56	5600	1.21	218.33	5596.45	-12.31	-154.05	-39.74	0.4		-5596.4	158.6
57	5700	1.21	217.70	5696.42	-13.30	-155.71	-41.05	0.0		-5696.4	160.5
58	5800	1.43	213.44	5796.40	-14.28	-157.59	-42.38	0.2		-5796.4	162.6
59	5900	1.37	207.71	5896.37	-15.14	-159.69	-43.62	0.2		-5896.4	164.8
60	6000	1.27	202.95	5996.34	-15.75	-161.77	-44.61	0.1		-5996.3	167.1
61	6100	1.02	219.98	6096.32	-16.45	-163.47	-45.61	0.4		-6096.3	168.9
62	6200	1.43	199.25	6196.30	-17.09	-165.33	-46.60	0.6		-6196.3	170.9
63	6300	1.73	203.04	6296.26	-17.63	-167.90	-47.60	0.3		-6296.3	173.6
64	6400	1.77	197.45	6396.2	-18.2	-170.8	-48.7	0.2		-6396.2	176.6
65	6500	1.71	189.08	6496.2	-18.3	-173.7	-49.4	0.3		-6496.2	179.6
66	6600	1.89	192.41	6596.1	-18.4	-176.8	-49.9	0.2		-6596.1	182.8
67	6700	1.87	210.59	6696.1	-19.0	-179.8	-51.1	0.6		-6696.1	186.0
68	6800	2.49	239.06	6796.0	-21.2	-182.3	-53.8	1.2		-6796.0	188.9
69	6900	3.10	240.00	6895.9	-25.0	-184.8	-58.0	0.6		-6895.9	192.1
70	7000	2.02	223.10	6995.8	-28.0	-187.4	-61.6	1.3		-6995.8	195.3
71	7100	1.07	192.80	7095.7	-29.0	-189.6	-63.0	1.2		-7095.7	197.7
72	7200	0.97	166.02	7195.7	-28.7	-191.4	-63.0	0.5		-7195.7	199.4
73	7300	0.38	204.06	7295.7	-28.4	-192.5	-62.9	0.7		-7295.7	200.5
74	7400	0.34	229.84	7395.7	-28.7	-193.0	-63.3	0.2		-7395.7	201.1
75	7500	0.36	124.67	7495.7	-28.6	-193.4	-63.2	0.6		-7495.7	201.4
76	7600	1.42	144.80	7595.7	-27.4	-194.5	-62.3	1.1		-7595.7	202.4
77	7700	3.10	134.03	7695.6	-24.3	-197.4	-59.6	1.7		-7695.6	204.8
78	7730	2.70	133.66	7725.6	-23.1	-198.5	-58.5	1.3		-7725.6	205.6



SURVEY CALCULATION PROGRAM

v1.00.02

OPERATOR:	MEWBOURNE		Supervisors:							
WELL:	MALAGA 30 MP FED COM #1H		CLAYTON THOMAS							
LOCATION:	EDDY COUNTY, NM		RANDALL SKIPWORTH							
JOB NUMBER:	WL-13569	API #:	30-015-41461							
COMMENTS:										
DISPLACEMENT OF 206.93FT AT 196.43 DEGREES			MAG DEC. (-/+)	7.38E						
			GRID CORR. (-/+)							
			TOTAL CORR. (-/+)	7.38E						
DATE: 7-17-13		TIME: 3:00 PM								
MINIMUM CURVATURE CALCULATIONS(SPE-3362) PROPOSED DIRECTION			100.03	TARGET TRACKING TO CENTER						
SVY	TRUE		DLS/	ABOVE(+)	RIGHT(+)					
NUM	MD	INC	AZM	TVD	SECT	N-S	E-W	100	BELOW(-)	LEFT(-)

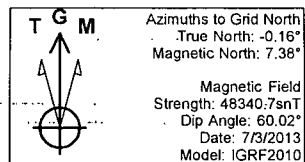


COMPANY: Mewbourne Oil Company
WELL: Malaga 30 MP Federal Com #1H
COUNTY: EDDY COUNTY, NM (NAD27)
DATUM: NAD 1927 (NADCON CONUS)



RIG: Patterson 45
GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 7.38°

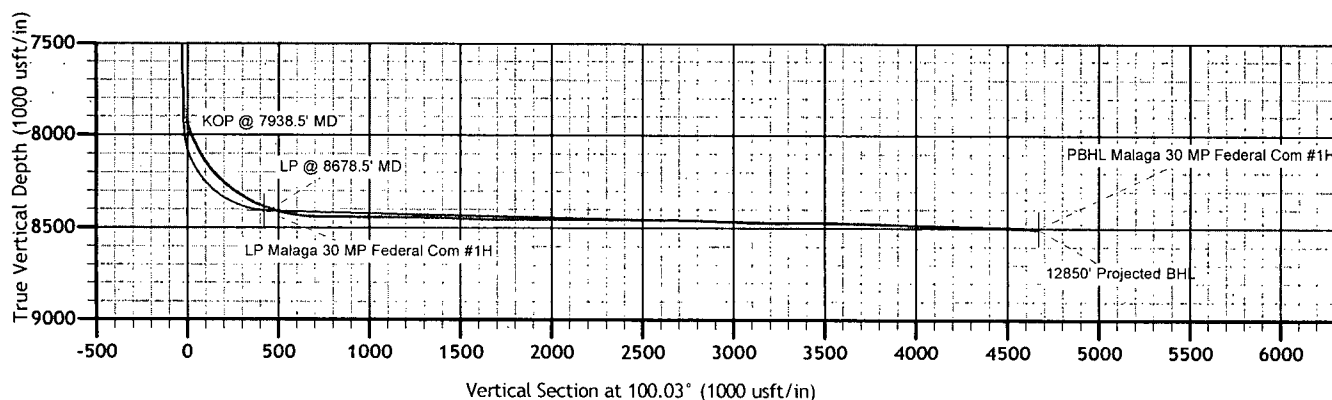
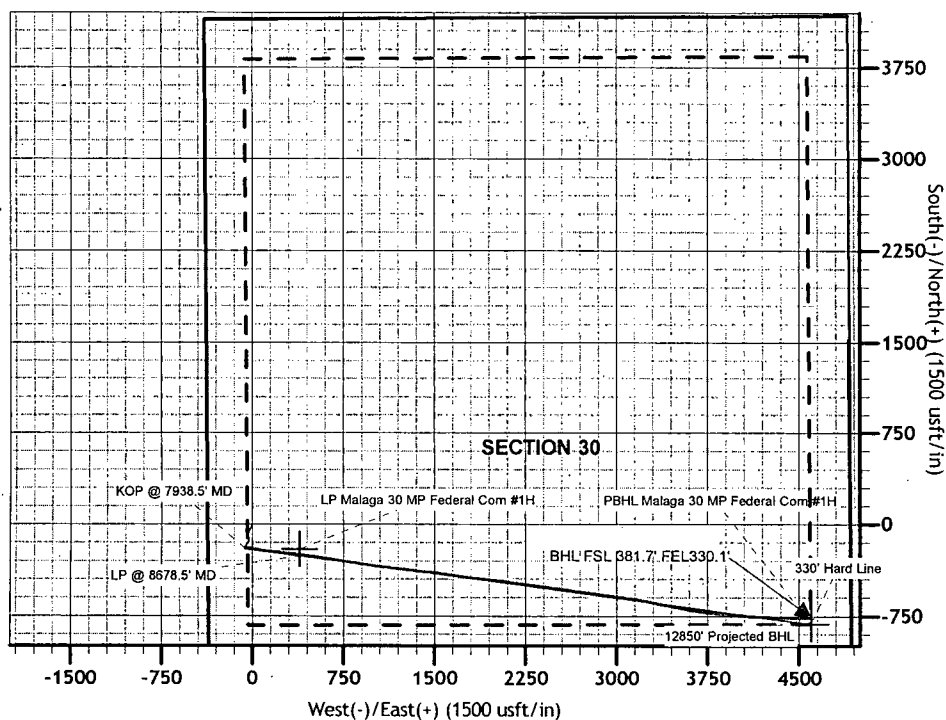
OFFICE: 936.582.7296



GEODETTIC ZONE: New Mexico East 3001					
WELL @ 2940.0usft (Patterson 45)					
GROUND ELEVATION: 2920.0					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	430864.50	593665.10	32° 11' 3.124 N	104° 1' 50.075 W

Slot

PLAN SECTIONS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	7730.0	2.70	133.66	7725.6	-198.5	-58.5	0.00	0.00	-23.1	
2	7865.0	0.00	133.66	7860.5	-200.7	-56.2	2.00	180.00	-20.4	
3	7938.5	0.00	133.66	7934.0	-200.7	-56.2	0.00	133.66	-20.4	
4	8678.5	88.80	97.50	8411.4	-261.7	407.2	12.00	97.50	446.6	
5	12907.7	88.80	97.50	8500.0	-813.6	4599.4	0.00	0.00	4670.8	PBHL Malaga 30 MP Federal Com #1H



Mewbourne Oil Company

EDDY COUNTY, NM (NAD27)

SECTION 30

Malaga 30 MP Federal Com #1H

Wellbore #1

Design: Wellbore #1

Standard Survey Report

29 July, 2013



Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Malaga 30 MP Federal Com #1H
Project:	EDDY COUNTY, NM (NAD27)	TVD Reference:	WELL @ 2940.0usft (Patterson 45)
Site:	SECTION 30	MD Reference:	WELL @ 2940.0usft (Patterson 45)
Well:	Malaga 30 MP Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	EDDY COUNTY, NM (NAD27), NM-EAST		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	SECTION 30		
Site Position:		Northing:	430,864.50 usft
From:	Map	Easting:	593,665.10 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 11' 3.124 N
		Longitude:	104° 1' 50.075 W
		Grid Convergence:	0.16 °

Well	Malaga 30 MP Federal Com #1H		
Well Position	+N/-S	0.0 usft	Northing: 430,864.50 usft
	+E/-W	0.0 usft	Easting: 593,665.10 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 11' 3.124 N
		Longitude:	104° 1' 50.075 W
		Ground Level:	2,920.0 usft

Wellbore	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/3/2013	7.54	60.02	48,341

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	100.03

Survey Program		Date	7/29/2013	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	7,730.0	Survey #1 (Wellbore #1)	SRG-GYRO-MS	surface readout gyro multishot
7,808.0	12,850.0	Survey #2 (Wellbore #1)	MWD	MWD - Standard

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	0.42	335.12	100.0	0.3	-0.2	-0.2	0.42	0.42	0.00
200.0	0.76	243.96	200.0	0.4	-0.9	-1.0	0.88	0.34	-91.16
300.0	2.67	183.07	300.0	-2.2	-1.6	-1.2	2.39	1.91	-60.89
400.0	2.74	186.93	399.8	-6.9	-2.0	-0.8	0.20	0.07	3.86
500.0	2.85	192.13	499.7	-11.7	-2.8	-0.8	0.28	0.11	5.20
600.0	3.01	195.14	599.6	-16.7	-4.1	-1.1	0.22	0.16	3.01
700.0	2.96	196.70	699.5	-21.7	-5.5	-1.6	0.10	-0.05	1.56
800.0	3.03	203.67	799.3	-26.6	-7.3	-2.5	0.37	0.07	6.97
900.0	3.03	205.74	899.2	-31.4	-9.5	-3.9	0.11	0.00	2.07

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well: Malaga 30 MP Federal Com #1H
Project:	EDDY COUNTY, NM (NAD27)	TVD Reference:	WELL @ 2940.0usft (Patterson 45)
Site:	SECTION 30	MD Reference:	WELL @ 2940.0usft (Patterson 45)
Well:	Malaga 30 MP Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM:5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.0	3.10	210.70	999.0	-36.1	-12.0	-5.6	0.27	0.07	4.96
1,100.0	3.25	212.30	1,098.9	-40.8	-14.9	-7.6	0.17	0.15	1.60
1,200.0	3.16	212.67	1,198.7	-45.6	-17.9	-9.7	0.09	-0.09	0.37
1,300.0	3.22	208.45	1,298.6	-50.3	-20.7	-11.7	0.24	0.06	-4.22
1,400.0	3.21	209.71	1,398.4	-55.2	-23.5	-13.5	0.07	-0.01	1.26
1,500.0	2.95	210.54	1,498.3	-59.9	-26.2	-15.3	0.26	-0.26	0.83
1,600.0	2.70	211.23	1,598.1	-64.1	-28.7	-17.1	0.25	-0.25	0.69
1,700.0	2.60	211.96	1,698.0	-68.1	-31.1	-18.8	0.11	-0.10	0.73
1,800.0	2.47	227.10	1,797.9	-71.5	-33.9	-20.9	0.68	-0.13	15.14
1,900.0	2.37	213.87	1,897.9	-74.6	-36.6	-23.1	0.57	-0.10	-13.23
2,000.0	2.02	201.97	1,997.8	-78.0	-38.4	-24.3	0.57	-0.35	-11.90
2,100.0	2.26	191.28	2,097.7	-81.6	-39.5	-24.7	0.46	0.24	-10.69
2,200.0	1.75	193.11	2,197.7	-85.0	-40.2	-24.8	0.51	-0.51	1.83
2,300.0	2.10	161.80	2,297.6	-88.2	-40.0	-24.0	1.09	0.35	-31.31
2,400.0	2.81	154.12	2,397.5	-92.2	-38.4	-21.7	0.78	0.71	-7.68
2,500.0	3.27	151.53	2,497.4	-96.9	-35.9	-18.5	0.48	0.46	-2.59
2,600.0	3.18	154.59	2,597.2	-101.9	-33.4	-15.1	0.19	-0.09	3.06
2,700.0	2.71	155.42	2,697.1	-106.5	-31.2	-12.2	0.47	-0.47	0.83
2,800.0	2.28	157.22	2,797.0	-110.5	-29.4	-9.7	0.44	-0.43	1.80
2,900.0	1.89	155.43	2,896.9	-113.8	-28.0	-7.7	0.40	-0.39	-1.79
3,000.0	1.84	158.05	2,996.9	-116.8	-26.7	-5.9	0.10	-0.05	2.62
3,100.0	1.53	156.54	3,096.8	-119.6	-25.6	-4.4	0.31	-0.31	-1.51
3,200.0	1.61	165.16	3,196.8	-122.1	-24.7	-3.0	0.25	0.08	8.62
3,300.0	0.92	180.26	3,296.8	-124.3	-24.3	-2.3	0.76	-0.69	15.10
3,400.0	0.85	180.29	3,396.7	-125.8	-24.3	-2.0	0.07	-0.07	0.03
3,500.0	1.19	159.04	3,496.7	-127.6	-24.0	-1.4	0.50	0.34	-21.25
3,600.0	0.90	179.72	3,596.7	-129.3	-23.6	-0.7	0.47	-0.29	20.68
3,700.0	0.55	202.50	3,696.7	-130.5	-23.8	-0.7	0.45	-0.35	22.78
3,800.0	1.08	215.95	3,796.7	-131.7	-24.5	-1.2	0.56	0.53	13.45
3,900.0	0.66	196.04	3,896.7	-133.1	-25.2	-1.7	0.51	-0.42	-19.91
4,000.0	0.78	199.86	3,996.7	-134.3	-25.6	-1.8	0.13	0.12	3.82
4,100.0	0.43	270.26	4,096.7	-134.9	-26.2	-2.3	0.75	-0.35	70.40
4,200.0	0.80	214.94	4,196.7	-135.5	-27.0	-3.0	0.66	0.37	-55.32
4,300.0	0.80	211.42	4,296.7	-136.6	-27.8	-3.5	0.05	0.00	-3.52
4,400.0	0.89	218.29	4,396.6	-137.8	-28.6	-4.2	0.14	0.09	6.87
4,500.0	0.90	222.84	4,496.6	-139.0	-29.6	-4.9	0.07	0.01	4.55
4,600.0	0.68	187.45	4,596.6	-140.2	-30.2	-5.3	0.52	-0.22	-35.39
4,700.0	0.54	154.01	4,696.6	-141.2	-30.1	-5.0	0.38	-0.14	-33.44
4,800.0	0.66	167.48	4,796.6	-142.2	-29.8	-4.5	0.18	0.12	13.47
4,900.0	0.94	212.14	4,896.6	-143.4	-30.1	-4.6	0.66	0.28	44.66
5,000.0	1.15	204.95	4,996.6	-145.0	-30.9	-5.2	0.25	0.21	-7.19
5,100.0	1.00	233.11	5,096.6	-146.5	-32.1	-6.1	0.54	-0.15	28.16
5,200.0	1.24	207.93	5,196.5	-148.0	-33.3	-7.0	0.54	0.24	-25.18

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Malaga 30 MP Federal Com #1H
Project:	EDDY COUNTY, NM (NAD27)	TVD Reference:	WELL @ 2940.0usft (Patterson 45)
Site:	SECTION 30	MD Reference:	WELL @ 2940.0usft (Patterson 45)
Well:	Malaga 30 MP Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	0.97	227.59	5,296.5	-149.5	-34.4	-7.8	0.46	-0.27	19.66
5,400.0	1.45	240.95	5,396.5	-150.7	-36.1	-9.3	0.55	0.48	13.36
5,500.0	1.54	223.83	5,496.5	-152.3	-38.2	-11.1	0.45	0.09	-17.12
5,600.0	1.21	218.33	5,596.4	-154.0	-39.7	-12.3	0.36	-0.33	-5.50
5,700.0	1.21	217.70	5,696.4	-155.7	-41.0	-13.3	0.01	0.00	-0.63
5,800.0	1.43	213.44	5,796.4	-157.6	-42.4	-14.3	0.24	0.22	-4.26
5,900.0	1.37	207.71	5,896.4	-159.7	-43.6	-15.1	0.15	-0.06	-5.73
6,000.0	1.27	202.95	5,996.3	-161.8	-44.6	-15.8	0.15	-0.10	-4.76
6,100.0	1.02	219.98	6,096.3	-163.5	-45.6	-16.4	0.42	-0.25	17.03
6,200.0	1.43	199.25	6,196.3	-165.3	-46.6	-17.1	0.60	0.41	-20.73
6,300.0	1.73	203.04	6,296.3	-167.9	-47.6	-17.6	0.32	0.30	3.79
6,400.0	1.77	197.45	6,396.2	-170.8	-48.7	-18.2	0.18	0.04	-5.59
6,500.0	1.71	189.08	6,496.2	-173.7	-49.4	-18.3	0.26	-0.06	-8.37
6,600.0	1.89	192.41	6,596.1	-176.8	-49.9	-18.4	0.21	0.18	3.33
6,700.0	1.87	210.59	6,696.1	-179.8	-51.1	-19.0	0.59	-0.02	18.18
6,800.0	2.49	239.06	6,796.0	-182.3	-53.8	-21.2	1.23	0.62	28.47
6,900.0	3.10	240.00	6,895.9	-184.8	-58.0	-25.0	0.61	0.61	0.94
7,000.0	2.02	223.10	6,995.8	-187.4	-61.6	-28.0	1.31	-1.08	-16.90
7,100.0	1.07	192.80	7,095.7	-189.6	-63.0	-29.0	1.22	-0.95	-30.30
7,200.0	0.97	166.02	7,195.7	-191.4	-63.0	-28.7	0.48	-0.10	-26.78
7,300.0	0.38	204.06	7,295.7	-192.5	-62.9	-28.4	0.71	-0.59	38.04
7,400.0	0.34	229.84	7,395.7	-193.0	-63.3	-28.7	0.17	-0.04	25.78
7,500.0	0.36	124.67	7,495.7	-193.4	-63.2	-28.6	0.56	0.02	-105.17
7,600.0	1.42	144.80	7,595.7	-194.5	-62.3	-27.4	1.09	1.06	20.13
7,700.0	3.10	134.03	7,695.6	-197.4	-59.6	-24.3	1.73	1.68	-10.77
7,730.0	2.70	133.66	7,725.6	-198.5	-58.5	-23.1	1.33	-1.33	-1.23
7,808.0	1.90	80.90	7,803.5	-199.6	-55.9	-20.3	2.78	-1.03	-67.64
7,840.0	6.00	82.90	7,835.4	-199.3	-53.7	-18.2	12.82	12.81	6.25
7,872.0	10.30	82.10	7,867.1	-198.7	-49.2	-13.9	13.44	13.44	-2.50
7,904.0	12.20	82.90	7,898.5	-197.8	-43.0	-7.9	5.96	5.94	2.50
7,935.0	14.40	87.70	7,928.7	-197.3	-35.9	-1.0	7.93	7.10	15.48
7,967.0	17.90	93.10	7,959.4	-197.4	-27.1	7.7	11.89	10.94	16.88
7,999.0	21.80	94.70	7,989.5	-198.1	-16.2	18.5	12.30	12.19	5.00
8,030.0	24.30	95.10	8,018.0	-199.2	-4.1	30.6	8.08	8.06	1.29
8,062.0	26.10	96.30	8,047.0	-200.5	9.4	44.2	5.85	5.63	3.75
8,094.0	28.20	101.00	8,075.4	-202.8	23.9	58.8	9.38	6.56	14.69
8,126.0	30.20	103.00	8,103.4	-206.0	39.1	74.4	6.95	6.25	6.25
8,158.0	32.70	103.10	8,130.7	-209.8	55.4	91.1	7.81	7.81	0.31
8,189.0	36.00	100.60	8,156.3	-213.4	72.5	108.6	11.58	10.65	-8.06
8,221.0	40.10	98.00	8,181.5	-216.5	92.0	128.3	13.75	12.81	-8.13
8,253.0	43.00	96.50	8,205.4	-219.2	113.0	149.5	9.58	9.06	-4.69
8,285.0	45.50	96.00	8,228.3	-221.6	135.2	171.7	7.89	7.81	-1.56
8,316.0	48.50	95.80	8,249.5	-224.0	157.8	194.4	9.69	9.68	-0.65

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well: Malaga 30 MP Federal Com #1H
Project:	EDDY COUNTY, NM (NAD27)	TVD Reference:	WELL @ 2940.0usft (Patterson 45)
Site:	SECTION 30	MD Reference:	WELL @ 2940.0usft (Patterson 45)
Well:	Malaga 30 MP Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey/Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,348.0	52.10	95.70	8,269.9	-226.4	182.2	218.9	11.25	11.25	-0.31	
8,380.0	54.50	95.70	8,289.0	-229.0	207.8	244.5	7.50	7.50	0.00	
8,412.0	55.00	95.70	8,307.5	-231.6	233.8	270.5	1.56	1.56	0.00	
8,443.0	56.60	96.10	8,324.9	-234.2	259.3	296.1	5.27	5.16	1.29	
8,475.0	59.80	96.50	8,341.8	-237.2	286.3	323.2	10.06	10.00	1.25	
8,507.0	63.30	96.90	8,357.0	-240.5	314.3	351.3	10.99	10.94	1.25	
8,539.0	65.80	96.40	8,370.8	-243.8	342.9	380.2	7.94	7.81	-1.56	
8,570.0	67.70	96.70	8,383.0	-247.1	371.2	408.6	6.19	6.13	0.97	
8,602.0	70.30	97.10	8,394.5	-250.7	400.9	438.4	8.21	8.13	1.25	
8,634.0	72.00	97.30	8,404.8	-254.4	430.9	468.7	5.35	5.31	0.63	
8,666.0	74.10	97.60	8,414.1	-258.4	461.3	499.2	6.62	6.56	0.94	
8,698.0	78.00	97.90	8,421.9	-262.6	492.1	530.3	12.22	12.19	0.94	
8,729.0	80.20	98.30	8,427.7	-266.9	522.2	560.7	7.21	7.10	1.29	
8,761.0	81.50	98.70	8,432.8	-271.6	553.4	592.3	4.25	4.06	1.25	
8,867.0	89.60	99.90	8,441.0	-288.6	657.6	697.9	7.72	7.64	1.13	
8,931.0	89.60	99.50	8,441.5	-299.4	720.7	761.9	0.62	0.00	-0.63	
8,994.0	89.50	98.70	8,442.0	-309.4	782.9	824.8	1.28	-0.16	-1.27	
9,058.0	88.90	98.50	8,442.9	-318.9	846.2	888.8	0.99	-0.94	-0.31	
9,120.0	89.80	98.40	8,443.6	-328.1	907.5	950.8	1.46	1.45	-0.16	
9,183.0	90.70	99.00	8,443.3	-337.6	969.8	1,013.8	1.72	1.43	0.95	
9,247.0	89.70	97.70	8,443.1	-346.9	1,033.1	1,077.7	2.56	-1.56	-2.03	
9,310.0	89.40	96.70	8,443.6	-354.8	1,095.6	1,140.7	1.66	-0.48	-1.59	
9,373.0	89.50	96.50	8,444.2	-362.0	1,158.2	1,203.5	0.35	0.16	-0.32	
9,436.0	89.10	95.70	8,444.9	-368.7	1,220.8	1,266.4	1.42	-0.63	-1.27	
9,499.0	88.70	96.50	8,446.1	-375.4	1,283.5	1,329.2	1.42	-0.63	1.27	
9,563.0	89.00	97.40	8,447.4	-383.1	1,347.0	1,393.1	1.48	0.47	1.41	
9,626.0	88.10	95.40	8,449.0	-390.2	1,409.6	1,456.0	3.48	-1.43	-3.17	
9,689.0	88.20	96.10	8,451.1	-396.5	1,472.2	1,518.8	1.12	0.16	1.11	
9,752.0	88.90	97.60	8,452.6	-404.0	1,534.7	1,581.6	2.63	1.11	2.38	
9,816.0	88.70	98.10	8,454.0	-412.7	1,598.1	1,645.6	0.84	-0.31	0.78	
9,879.0	90.00	98.30	8,454.7	-421.7	1,660.5	1,708.6	2.09	2.06	0.32	
9,942.0	90.40	98.20	8,454.5	-430.8	1,722.8	1,771.5	0.65	0.63	-0.16	
10,006.0	89.50	96.60	8,454.5	-439.0	1,786.3	1,835.4	2.87	-1.41	-2.50	
10,069.0	89.80	96.30	8,454.9	-446.1	1,848.9	1,898.3	0.67	0.48	-0.48	
10,132.0	89.80	96.00	8,455.1	-452.8	1,911.5	1,961.2	0.48	0.00	-0.48	
10,195.0	89.80	95.50	8,455.4	-459.1	1,974.2	2,024.0	0.79	0.00	-0.79	
10,258.0	90.00	96.50	8,455.5	-465.7	2,036.9	2,086.8	1.62	0.32	1.59	
10,322.0	90.50	98.50	8,455.2	-474.1	2,100.3	2,150.8	3.22	0.78	3.13	
10,385.0	90.90	98.10	8,454.4	-483.2	2,162.7	2,213.7	0.90	0.63	-0.63	
10,448.0	89.50	97.70	8,454.2	-491.8	2,225.1	2,276.7	2.31	-2.22	-0.63	
10,511.0	88.80	96.80	8,455.1	-499.8	2,287.5	2,339.6	1.81	-1.11	-1.43	
10,575.0	89.10	96.50	8,456.3	-507.2	2,351.1	2,403.5	0.66	0.47	-0.47	
10,638.0	89.80	98.30	8,456.9	-515.3	2,413.6	2,466.4	3.07	1.11	2.86	
10,701.0	89.90	98.20	8,457.1	-524.3	2,475.9	2,529.4	0.22	0.16	-0.16	

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Malaga 30 MP Federal Com #1H
Project:	EDDY COUNTY, NM (NAD27)	TVD Reference:	WELL @ 2940.0usft (Patterson 45)
Site:	SECTION 30	MD Reference:	WELL @ 2940.0usft (Patterson 45)
Well:	Malaga 30 MP Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM5000.1 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)
10,765.0	89.50	97.30	8,457.4	-533.0	2,539.3	2,593.3	1.54	-0.63	-1.41
10,828.0	89.10	97.60	8,458.2	-541.1	2,601.8	2,656.3	0.79	-0.63	0.48
10,891.0	88.70	96.80	8,459.4	-549.0	2,664.3	2,719.2	1.42	-0.63	-1.27
10,955.0	88.70	97.30	8,460.8	-556.9	2,727.8	2,783.1	0.78	0.00	0.78
11,018.0	88.70	98.70	8,462.3	-565.6	2,790.2	2,846.0	2.22	0.00	2.22
11,081.0	88.40	98.00	8,463.9	-574.8	2,852.5	2,909.0	1.21	-0.48	-1.11
11,144.0	87.90	97.30	8,465.9	-583.2	2,914.9	2,971.9	1.36	-0.79	-1.11
11,207.0	88.40	98.20	8,467.9	-591.7	2,977.3	3,034.8	1.63	0.79	1.43
11,270.0	88.10	97.30	8,469.9	-600.2	3,039.7	3,097.7	1.51	-0.48	-1.43
11,333.0	88.10	97.60	8,472.0	-608.3	3,102.1	3,160.6	0.48	0.00	0.48
11,397.0	88.50	98.30	8,473.9	-617.2	3,165.4	3,224.6	1.26	0.63	1.09
11,460.0	91.30	101.40	8,474.0	-627.9	3,227.5	3,287.5	6.63	4.44	4.92
11,523.0	91.70	101.20	8,472.3	-640.3	3,289.3	3,350.5	0.71	0.63	-0.32
11,586.0	90.90	99.90	8,470.9	-651.8	3,351.2	3,413.5	2.42	-1.27	-2.06
11,649.0	89.50	101.40	8,470.7	-663.5	3,413.1	3,476.5	3.26	-2.22	2.38
11,712.0	88.70	100.50	8,471.7	-675.4	3,474.9	3,539.5	1.91	-1.27	-1.43
11,776.0	88.70	100.50	8,473.1	-687.1	3,537.8	3,603.4	0.00	0.00	0.00
11,839.0	89.60	100.70	8,474.0	-698.7	3,599.8	3,666.4	1.46	1.43	0.32
11,902.0	88.40	97.50	8,475.1	-708.6	3,662.0	3,729.4	5.42	-1.90	-5.08
11,965.0	88.40	96.60	8,476.9	-716.4	3,724.4	3,792.3	1.43	0.00	-1.43
12,029.0	87.30	95.90	8,479.3	-723.3	3,788.0	3,856.1	2.04	-1.72	-1.09
12,092.0	87.30	95.30	8,482.3	-729.5	3,850.7	3,918.8	0.95	0.00	-0.95
12,155.0	87.40	95.00	8,485.2	-735.1	3,913.3	3,981.6	0.50	0.16	-0.48
12,218.0	88.50	94.60	8,487.4	-740.4	3,976.1	4,044.2	1.86	1.75	-0.63
12,281.0	88.20	93.40	8,489.2	-744.8	4,038.9	4,106.9	1.96	-0.48	-1.90
12,345.0	89.30	93.60	8,490.6	-748.7	4,102.8	4,170.4	1.75	1.72	0.31
12,408.0	89.60	92.80	8,491.2	-752.2	4,165.7	4,233.0	1.36	0.48	-1.27
12,471.0	87.90	92.50	8,492.6	-755.1	4,228.6	4,295.5	2.74	-2.70	-0.48
12,535.0	87.80	91.80	8,495.0	-757.5	4,292.5	4,358.8	1.10	-0.16	-1.09
12,598.0	88.60	91.80	8,497.0	-759.5	4,355.4	4,421.1	1.27	1.27	0.00
12,661.0	88.30	91.10	8,498.7	-761.1	4,418.4	4,483.4	1.21	-0.48	-1.11
12,724.0	88.00	90.30	8,500.7	-761.9	4,481.3	4,545.5	1.36	-0.48	-1.27
12,787.0	88.50	90.70	8,502.7	-762.4	4,544.3	4,607.6	1.02	0.79	0.63
12,806.0	88.70	90.40	8,503.1	-762.6	4,563.3	4,626.4	1.90	1.05	-1.58
12,850.0	88.70	90.40	8,504.1	-762.9	4,607.3	4,669.7	0.00	0.00	0.00

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
12,850.0	8,504.1	-762.9	4,607.3	12850' Projected BHL

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Malaga 30 MP Federal Com #1H
Project:	EDDY COUNTY, NM (NAD27)	TVD Reference:	WELL @ 2940.0usft (Patterson 45)
Site:	SECTION 30	MD Reference:	WELL @ 2940.0usft (Patterson 45)
Well:	Malaga 30 MP Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Operating Company Mewbourne
 Well Name & Number Malaga 30 MP Fed Com #1H
 Sales Ticket Number 0005682129-1
 Date 7/27/2013

Company Rep Russell Berryman
 Field Pierce Crossing
 BOT Service Rep John Davis
 District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse			
Casing	7.000	26.00	P-110	6.276	6.151	LT&C	0.03826	8,821.00	9,960	6,230			
Top Liner	4.500	13.50	338000	3.920	3.795	LT&C	0.01492	4,211.62	4,525	10,680			
Bot Liner													
TVD		8,503.00		KOP		7,938.00		Open Hole	6.125	Casing Vol. (bbl)	329.4		
Carry Fluid Weight (ppg)		8.6		Propan Content (ppa)					Max Drill Out Size		0		
	Comm. Number		Description			Depth	Length	OD	ID	Ball Seat ID	Shear Press	Max Rate (BPM)	Displ (BBL)
Liner Top	1		JR Setting Sleeve - RH Profile			8608.38							

Zone Length													
20	417.5	JR Sleeve S3 Hyd Set Packer				8608.38	8.25	5.813	3.875				
		4-1/2-13.5 LTC pup joint				8616.63	6.02	5.000	3.920				
		7 Joints of 4-1/2-13.5 LTC Casing				8622.65	277.34	5.000	3.920				
19	209.3	3.625 EX Frac Sleeve				8899.99	2.40	5.750		3.525	2286	306	329
		3 Joint of 4-1/2-13.5 LTC Casing				8902.39	119.59	5.000	3.920				
		Baker Open Hole Packer				9021.98	3.68	5.820	3.875		2154		
18	208.4	2 Joints of 4-1/2-13.5 LTC Casing				9025.87	79.55	5.000	3.920				
		3.500 EX Frac Sleeve				9105.42	2.40	5.750		3.400	2286	285	329
		3 Joint of 4-1/2-13.5 LTC Casing				9107.82	119.57	5.000	3.920				
17	210.8	Baker Open Hole Packer				9227.56	3.68	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing				9231.28	79.30	5.000	3.920				
		3.375 EX Frac Sleeve				9310.58	2.40	5.750		3.275	2286	265	329
16	208.7	3 Joint of 4-1/2-13.5 LTC Casing				9312.98	118.96	5.000	3.920				
		Baker Open Hole Packer				9431.94	3.68	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing				9435.83	82.24	5.000	3.920				
15	211.7	3.250 EX Frac Sleeve				9518.07	2.40	5.750		3.150	2286	245	329
		3 Joint of 4-1/2-13.5 LTC Casing				9520.47	118.38	5.000	3.920				
		Baker Open Hole Packer				9638.65	3.68	5.820	3.875		2154		
14	210.4	2 Joints of 4-1/2-13.5 LTC Casing				9642.74	79.53	5.000	3.920				
		3.125 EX Frac Sleeve				9722.27	2.40	5.750		3.025	2286	226	329
		3 Joints of 4-1/2-13.5 LTC Casing				9724.67	119.01	5.000	3.920				
13	213.6	Baker Open Hole Packer				9843.68	3.68	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing				9847.57	79.62	5.000	3.920				
		3.000 EX Frac sleeve				9927.19	2.40	5.750		2.900	2286	207	329
12		3 Joint of 4-1/2-13.5 LTC Casing				9929.59	121.91	5.000	3.920				
		Baker Open Hole Packer				10051.60	3.68	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing				10055.39	79.88	5.000	3.920				
11		2.875 EX Frac Sleeve				10135.27	2.40	5.750		2.775	2286	190	329
		3 Joints of 4-1/2-13.5 LTC Casing				10137.67	120.32	5.000	3.920				
		Baker Open Hole Packer				10257.99	3.68	5.820	3.875		2154		
10		2 Joints of 4-1/2-13.5 LTC Casing				10261.88	80.40	5.000	3.920				
		2.750 EX Frac Sleeve				10342.26	2.40	5.750		2.650	2286	173	329
		3 Joint of 4-1/2-13.5 LTC Casing				10344.68	122.99	5.000	3.920				
9		Baker Open Hole Packer				10497.87	3.68	5.820	3.875		2154		

Operating Company Mewbourne
Well Name & Number Malaga 30 MP Fed Com #1H
Sales Ticket Number 0005682129-1

Company Rep Russell Berryman
Field Pierce Crossing
BOT Service Rep John Davis
District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse	
Casing	7.000	26.00	P-110	6.276	6.151	LT&C	0.03826	8,821.00	9,960	6,230	
Top Liner	4.500	13.50	338000	3.920	3.795	LT&C	0.01492	4,211.62	4,525	10,680	
Bott Liner											
TVD		8,503.00		KOP		7,938.00	Open Hole		6.125	Casing Vol. (bbl)	329.4
Carry Fluid Weight (ppg)			8.6		Propan Content (ppa)				Max Drill Out Size		0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press	Max Rate (BPM)	Displ (BBL)
		2 Joints of 4-1/2-13.5 LTC Casing	10471.56	82.72	5.000	3.920				
12	12	2.625 EX Frac Sleeve	10554.28	2.40	5.750		2.525	2286	157	329
		3 Joints of 4-1/2-13.5 LTC Casing	10556.68	125.54	5.000	3.920				
218.4		Baker Open Hole Packer	10662.22	3.88	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	10686.11	86.16	5.000	3.920				
11	11	2.500 EX Frac Sleeve	10772.27	2.40	5.750		2.400	2286	142	329
		2 Joint of 4-1/2-13.5 LTC Casing	10774.67	87.05	5.000	3.920				
183.4		Baker Open Hole Packer	10861.72	3.88	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	10865.61	81.26	5.000	3.920				
10	10	2.375 EX Frac Sleeve	10946.87	2.40	5.750		2.275	2286	128	329
		3 Joints of 4-1/2-13.5 LTC Casing	10949.27	123.96	5.000	3.920				
215.4		Baker Open Hole Packer	11073.23	3.88	5.820	3.875		2154		
		2 Joint of 4-1/2-13.5 LTC Casing	11077.12	85.24	5.000	3.920				
9	9	2.250 EX Frac Sleeve	11162.36	2.40	5.750		2.150	2286	114	329
		3 Joints of 4-1/2-13.5 LTC Casing	11164.76	124.04	5.000	3.920				
219.5		Baker Open Hole Packer	11286.80	3.88	5.820	3.875		2154		
		2 Joint of 4-1/2-13.5 LTC Casing	11292.69	84.40	5.000	3.920				
8	8	2.125 EX Frac Sleeve	11377.09	2.40	5.750		2.025	2286	101	329
		3 Joints of 4-1/2-13.5 LTC Casing	11379.49	121.75	5.000	3.920				
216.3		Baker Open Hole Packer	11501.24	3.88	5.820	3.875		2154		
		2 Joint of 4-1/2-13.5 LTC Casing	11505.13	82.41	5.000	3.920				
7	7	2.000 EX Frac Sleeve	11587.54	2.40	5.750		1.900	2286	89	329
		3 Joints of 4-1/2-13.5 LTC Casing	11589.94	125.86	5.000	3.920				
218.5		Baker Open Hole Packer	11715.80	3.88	5.820	3.875		2154		
		2 Joint of 4-1/2-13.5 LTC Casing	11719.69	84.56	5.000	3.920				
6	6	1.875 EX Frac Sleeve	11804.25	2.40	5.750		1.775	2286	78	329
		2 Joints of 4-1/2-13.5 LTC Casing	11806.65	81.30	5.000	3.920				
176		Baker Open Hole Packer	11887.95	3.88	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	11891.84	84.61	5.000	3.920				
5	5	1.750 EX Frac Sleeve	11976.45	2.40	5.750		1.650	2286	67	329
		3 Joint of 4-1/2-13.5 LTC Casing	11978.85	126.17	5.000	3.920				
221		Baker Open Hole Packer	12106.02	3.88	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	12108.91	81.71	5.000	3.920				
4	4	1.625 EX Frac Sleeve	12190.62	2.40	5.750		1.525	2286	57	329
		3 Joints of 4-1/2-13.5 LTC Casing	12193.02	125.08	5.000	3.920				
217		Baker Open Hole Packer	12316.10	3.88	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	12321.99	75.61	5.000	3.920				
3	3	1.500 DBL Ball Frac Sleeve	12397.60	2.40	5.750		1.400	2286	48	329

Company Rep	Russell Berryman
Field	Pierce Crossing
BOT Service Rep	John Davis
District Location	Odessa, Texas, USA

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