



KB: 3190.00
GL: 3163.00

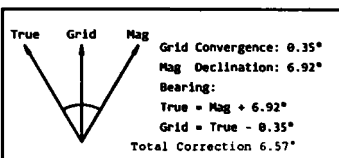
**MEWBOURNE
OIL COMPANY**

Mewbourne Oil Company
Red Hills West 21 W0AP Fed Com #3H
Lea Co, NM
Plan P1:V4

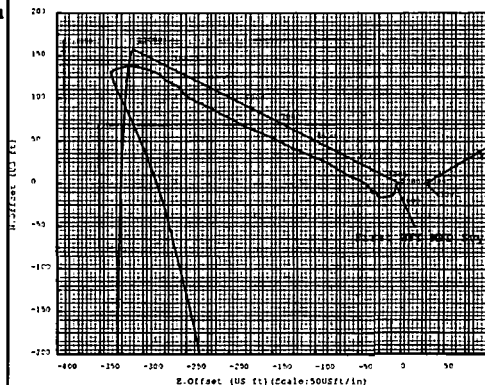


Weatherford

Plan vs Actual



Plan Data for Red Hills West 21 W0AP Fed Com #3H
Field: Mewbourne Oil Company (Nad 83 NMEZ)
Map Unit: USFt Vertical Reference Datum (VRD): Mean Sea Level
Projected Coordinate System: NAD83 / New Mexico East (ftUS)
Site: Red Hills West 21 Pad
Unit: USFet TVD Reference:
Company Name: Mewbourne Oil Company
Position: Northing: 377117.88USFt Latitude: 32.035059°
Easting: 745835.08USFt Longitude: -103.673394°
North Reference: Grid Grid Convergence: 0.35°
Elevation Above VRD: 3161.08USFt
Comment: Lea County, New Mexico
Slot: Red Hills West 21 W0AP Fed Com #3H
Position:
Offset is from Slot centre
+N/-S: -0.20USFt Northing: 377117.68USFt Latitude: 32.035059°
+E/-W: -29.50USFt Easting: 745805.58USFt Longitude: -103.673489°
Elevation Above VRD: 3163.08USFt
Well: Red Hills West 21 W0AP Fed Com #3H
Type: Main-Well
File Number: 13491869
Plan Folder: P1 Plan: P1:V4
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.00USFt Azimuth: 183.40°
+E/-W: 0.00USFt
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
bgm2018 47703(n) 6.92° 59.80° 2018-11-15
Comment: Patterson 217



Plan Data for Red Hills West 21 W0AP Fed Com #3H

Casing Point Information:
Position offsets from Slot centre

Name	MD	TVD	+N/-S	+E/-W	Northing	Easting
13 3/8 in	575.00	575.00	0.00	-0.00	377117.60	745805.50
9 5/8 in	4360.00	4350.29	14.98	-29.55	377132.58	745775.95
7 in	12011.40	11827.87	-239.14	-329.52	376878.46	745475.98

Plan Data for Red Hills West 21 W0AP Fed Com #3H

Target Set Information:
Name: RH421M3H
Position offsets from Slot centre

Name	TVD	Elevation	+N/-S	+E/-W	Northing	Easting
3H PBHL	11881.00	-8691.00	-5066.73	-300.28	372050.87	745595.22

Plan Data for Red Hills West 21 W0AP Fed Com #3H

Plan Point Information:
Dogleg Severity Unit: °/100.00ft Position offsets from Slot centre

MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	DLS	Comments
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)	
0.00	0.00	0.00	0.00	-0.00	-0.00	377117.60	745805.50	-0.00	0.00	
3500.00	0.00	0.00	3500.00	0.00	-0.00	377117.60	745805.50	-0.00	0.00	Hudge
3760.12	2.60	296.89	3760.03	2.67	-5.27	377120.27	745800.23	-2.35	1.00	Hold
11179.27	2.60	296.89	11271.44	156.98	-309.63	377274.58	745495.87	-138.34	0.00	WOP
12188.08	89.69	179.64	11855.82	-412.89	-329.52	376704.71	745475.98	431.71	10.00	Landing Pt
16842.08	89.69	179.64	11881.00	-5066.73	-300.28	372050.87	745595.22	5075.62	0.00	3H PBHL

HOBS OCD
MAY 15 2019
RECEIVED

Drawing By: Ty Hardin Date: 24 October 2018
Office Name: Drilling Services - Houston
Address: 11181 Cutten Road
Houston, TX 77066
Phone: Office: +1.832.955.0032 | Cell: +1.713.882.8256



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End of Well Report

Mewbourne Oil Company

Rig: Patterson 217
Well: Red Hills West 21 W0AP Fed Com #3H
County: Lea
State: New Mexico
Date: 29-Nov-2018
Report By: Ty Hardin

Start Date: 5-Nov-2018
End Date: 28-Nov-2018



MEWBOURNE
OIL COMPANY



CONTENTS

1. WELL PLAN
2. PLAN VS ACTUAL & SURVEYS
3. PERFORMANCE CHARTS
4. DAILY REPORTS
5. BHA REPORTS
6. SLIDE SHEETS
7. ADDITIONAL INFORMATION

WELL PLAN

SECTION 1

5D Plan Report



MEWBOURNE
OIL COMPANY

5D Plan Report

Mewbourne Oil Company**Field Name:** *Mewbourne Oil Company (Nad 83 NMEZ)***Site Name:** *Red Hills West 21 Pad***Well Name:** *Red Hills West 21 W0AP Fed Com #3H***File number:** *13491869***Plan:** *P1:V4*

31 October 2018

**Weatherford®**



Red Hills West 21 WOAP Fed Com #3H

Field Name: Mewbourne Oil Company (Nad 83 NMEZ)	Map Units: US ft		Company Name: Mewbourne Oil Company	
	Vertical Reference Datum (VRD): Mean Sea Level			
	Projected Coordinate System: NAD83 / New Mexico East (ftUS)			
	Comment:			
Site: Red Hills West 21 Pad	Units: US ft	North Reference: Grid	Convergence Angle: 0.35	
	Position:	Northing: 377117.80 US ft	Latitude: 32.035059459	
		Easting: 745835.00 US ft	Longitude: -103.673393776	
	Elevation above MSL: 3161.00 US ft			
Comment: Lea County, New Mexico				
Slot: Red Hills West 21 WOAP Fed Com #3H	Position (Relative to Site Centre)			
	+N/-S: -0.20 US ft	Northing: 377117.60 US ft	Latitude: 32.035059404	
	+E/-W: -29.50 US ft	Easting: 745805.50 US ft	Longitude: -103.673488975	
	Slot TVD Reference: Ground Elevation			
	Elevation above MSL: 3163.00 US ft			
Well: Red Hills West 21 WOAP Fed Com #3H	Type: Main well		UWI:	Plan: P1:V4
	File Number: 13491869	Comment: Patterson 217		
	Closure Distance: 5075.62 US ft		Closure Azimuth: 183.39°	
	Vertical Section: Position of Origin (Relative to Slot centre)			
	+N/-S: 0.00 US ft		+E/-W: 0.00 US ft	Az: 183.40°
	Magnetic Parameters:			
	Model: bggm2018	Field Strength: 47703.3nT	Declination: 6.92°	Dip: 59.80° Date: 15/Nov/2018

Drill floor: Plan: P1:V4

Rig Height (Drill Floor): 27.00 US ft **Elevation above MSL:** 3190.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00°

Target set: RHW21W3H Comment:

Target Name:	Shape:	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)	C. Pt. Distance (US ft)	Comment
3H PBHL	Point	11881.00	-5066.73	-300.28	372050.87	745505.22	0.00	

Casing Points: (Relative to Slot centre) (TVD relative to Drill Floor)

Name	ID (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)
13 3/8 in	575.00	0.00	0.00	575.00	0.00	-0.00	377117.60	745805.50
9 5/8 in	4360.00	2.60	296.89	4359.29	14.98	-29.55	377132.58	745775.95
7 in	12011.40	72.04	180.38	11827.87	-239.14	-329.52	376878.46	745475.98

Wellpath created using minimum curvature.

SD Plan Report

Tie Point:
MD: 0.00USFt **Inclination:** 0.00° **Azimuth:** 0.00° **TVD:** 0.00USFt **North Offset:** 0.00USFt **East Offset:** -0.00USFt

Salient Points: (Relative to Slot centre)(TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	H. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
0.00	0.00	0.00	0.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
3500.00	0.00	0.00	3500.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	Nudge
3760.12	2.60	296.89	3760.03	-2.35	2.67	-5.27	377120.27	745800.23	1.00	Hold
11279.27	2.60	296.89	11271.44	-138.34	156.98	-309.63	377274.58	745495.87	0.00	KOP
12188.08	89.69	179.64	11855.82	431.71	-412.89	-329.52	376704.71	745475.98	10.00	Landing Pt
16842.08	89.69	179.64	11881.00	5075.62	-5066.73	-300.28	372050.87	745505.22	0.00	3H PBHL

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	H. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
0.00	0.00	0.00	0.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
100.00	0.00	0.00	100.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
200.00	0.00	0.00	200.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
300.00	0.00	0.00	300.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
400.00	0.00	0.00	400.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
500.00	0.00	0.00	500.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
575.00	0.00	0.00	575.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	13 3/8 in
600.00	0.00	0.00	600.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
700.00	0.00	0.00	700.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
800.00	0.00	0.00	800.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
900.00	0.00	0.00	900.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
1000.00	0.00	0.00	1000.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
1100.00	0.00	0.00	1100.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
1200.00	0.00	0.00	1200.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
1300.00	0.00	0.00	1300.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
1400.00	0.00	0.00	1400.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
1500.00	0.00	0.00	1500.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
1600.00	0.00	0.00	1600.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
1700.00	0.00	0.00	1700.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
1800.00	0.00	0.00	1800.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
1900.00	0.00	0.00	1900.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
2000.00	0.00	0.00	2000.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
2100.00	0.00	0.00	2100.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
2200.00	0.00	0.00	2200.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
2300.00	0.00	0.00	2300.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
2400.00	0.00	0.00	2400.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
2500.00	0.00	0.00	2500.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
2600.00	0.00	0.00	2600.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
2700.00	0.00	0.00	2700.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
2800.00	0.00	0.00	2800.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
2900.00	0.00	0.00	2900.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
3000.00	0.00	0.00	3000.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
3100.00	0.00	0.00	3100.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
3200.00	0.00	0.00	3200.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
3300.00	0.00	0.00	3300.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
3400.00	0.00	0.00	3400.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	
3500.00	0.00	0.00	3500.00	-0.00	0.00	-0.00	377117.60	745805.50	0.00	Nudge
3600.00	1.00	296.89	3599.99	-0.35	0.39	-0.78	377117.99	745804.72	1.00	
3700.00	2.00	296.89	3699.96	-1.39	1.58	-3.11	377119.18	745802.39	1.00	
3760.12	2.60	296.89	3760.03	-2.35	2.67	-5.27	377120.27	745800.23	1.00	Hold
3800.00	2.60	296.89	3799.87	-3.07	3.49	-6.88	377121.09	745798.62	0.00	
3900.00	2.60	296.89	3899.77	-4.88	5.54	-10.93	377123.14	745794.57	0.00	
4000.00	2.60	296.89	3999.66	-6.69	7.59	-14.98	377125.19	745790.52	0.00	
4100.00	2.60	296.89	4099.56	-8.50	9.64	-19.02	377127.24	745786.48	0.00	
4200.00	2.60	296.89	4199.46	-10.31	11.70	-23.07	377129.30	745782.43	0.00	
4300.00	2.60	296.89	4299.35	-12.12	13.75	-27.12	377131.35	745778.38	0.00	

5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
ID (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	H. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
4360.00	2.60	296.89	4359.29	-13.20	14.98	-29.55	377132.58	745775.95	0.00	9 5/8 in
4400.00	2.60	296.89	4399.25	-13.93	15.80	-31.17	377133.40	745774.33	0.00	
4500.00	2.60	296.89	4499.15	-15.73	17.85	-35.21	377135.45	745770.29	0.00	
4600.00	2.60	296.89	4599.05	-17.54	19.91	-39.26	377137.51	745766.24	0.00	
4700.00	2.60	296.89	4698.94	-19.35	21.96	-43.31	377139.56	745762.19	0.00	
4800.00	2.60	296.89	4798.84	-21.16	24.01	-47.36	377141.61	745758.14	0.00	
4900.00	2.60	296.89	4898.74	-22.97	26.06	-51.41	377143.66	745754.09	0.00	
5000.00	2.60	296.89	4998.63	-24.78	28.12	-55.45	377145.72	745750.05	0.00	
5100.00	2.60	296.89	5098.53	-26.59	30.17	-59.50	377147.77	745746.00	0.00	
5200.00	2.60	296.89	5198.43	-28.39	32.22	-63.55	377149.82	745741.95	0.00	
5300.00	2.60	296.89	5298.32	-30.20	34.27	-67.60	377151.87	745737.90	0.00	
5400.00	2.60	296.89	5398.22	-32.01	36.32	-71.64	377153.92	745733.86	0.00	
5500.00	2.60	296.89	5498.12	-33.82	38.38	-75.69	377155.98	745729.81	0.00	
5600.00	2.60	296.89	5598.01	-35.63	40.43	-79.74	377158.03	745725.76	0.00	
5700.00	2.60	296.89	5697.91	-37.44	42.48	-83.79	377160.08	745721.71	0.00	
5800.00	2.60	296.89	5797.81	-39.25	44.53	-87.84	377162.13	745717.66	0.00	
5900.00	2.60	296.89	5897.71	-41.05	46.59	-91.88	377164.19	745713.62	0.00	
6000.00	2.60	296.89	5997.60	-42.86	48.64	-95.93	377166.24	745709.57	0.00	
6100.00	2.60	296.89	6097.50	-44.67	50.69	-99.98	377168.29	745705.52	0.00	
6200.00	2.60	296.89	6197.40	-46.48	52.74	-104.03	377170.34	745701.47	0.00	
6300.00	2.60	296.89	6297.29	-48.29	54.79	-108.07	377172.39	745697.43	0.00	
6400.00	2.60	296.89	6397.19	-50.10	56.85	-112.12	377174.45	745693.38	0.00	
6500.00	2.60	296.89	6497.09	-51.91	58.90	-116.17	377176.50	745689.33	0.00	
6600.00	2.60	296.89	6596.98	-53.71	60.95	-120.22	377178.55	745685.28	0.00	
6700.00	2.60	296.89	6696.88	-55.52	63.00	-124.27	377180.60	745681.23	0.00	
6800.00	2.60	296.89	6796.78	-57.33	65.06	-128.31	377182.66	745677.19	0.00	
6900.00	2.60	296.89	6896.68	-59.14	67.11	-132.36	377184.71	745673.14	0.00	
7000.00	2.60	296.89	6996.57	-60.95	69.16	-136.41	377186.76	745669.09	0.00	
7100.00	2.60	296.89	7096.47	-62.76	71.21	-140.46	377188.81	745665.04	0.00	
7200.00	2.60	296.89	7196.37	-64.57	73.27	-144.50	377190.87	745661.00	0.00	
7300.00	2.60	296.89	7296.26	-66.37	75.32	-148.55	377192.92	745656.95	0.00	
7400.00	2.60	296.89	7396.16	-68.18	77.37	-152.60	377194.97	745652.90	0.00	
7500.00	2.60	296.89	7496.06	-69.99	79.42	-156.65	377197.02	745648.85	0.00	
7600.00	2.60	296.89	7595.95	-71.80	81.47	-160.70	377199.07	745644.80	0.00	
7700.00	2.60	296.89	7695.85	-73.61	83.53	-164.74	377201.13	745640.76	0.00	
7800.00	2.60	296.89	7795.75	-75.42	85.58	-168.79	377203.18	745636.71	0.00	
7900.00	2.60	296.89	7895.65	-77.23	87.63	-172.84	377205.23	745632.66	0.00	
8000.00	2.60	296.89	7995.54	-79.04	89.68	-176.89	377207.28	745628.61	0.00	
8100.00	2.60	296.89	8095.44	-80.84	91.74	-180.94	377209.34	745624.56	0.00	
8200.00	2.60	296.89	8195.34	-82.65	93.79	-184.98	377211.39	745620.52	0.00	
8300.00	2.60	296.89	8295.23	-84.46	95.84	-189.03	377213.44	745616.47	0.00	
8400.00	2.60	296.89	8395.13	-86.27	97.89	-193.08	377215.49	745612.42	0.00	
8500.00	2.60	296.89	8495.03	-88.08	99.94	-197.13	377217.54	745608.37	0.00	
8600.00	2.60	296.89	8594.92	-89.89	102.00	-201.17	377219.60	745604.33	0.00	
8700.00	2.60	296.89	8694.82	-91.70	104.05	-205.22	377221.65	745600.28	0.00	
8800.00	2.60	296.89	8794.72	-93.50	106.10	-209.27	377223.70	745596.23	0.00	
8900.00	2.60	296.89	8894.61	-95.31	108.15	-213.32	377225.75	745592.18	0.00	
9000.00	2.60	296.89	8994.51	-97.12	110.21	-217.37	377227.81	745588.13	0.00	
9100.00	2.60	296.89	9094.41	-98.93	112.26	-221.41	377229.86	745584.09	0.00	
9200.00	2.60	296.89	9194.31	-100.74	114.31	-225.46	377231.91	745580.04	0.00	
9300.00	2.60	296.89	9294.20	-102.55	116.36	-229.51	377233.96	745575.99	0.00	
9400.00	2.60	296.89	9394.10	-104.36	118.42	-233.56	377236.02	745571.94	0.00	
9500.00	2.60	296.89	9494.00	-106.16	120.47	-237.60	377238.07	745567.90	0.00	
9600.00	2.60	296.89	9593.89	-107.97	122.52	-241.65	377240.12	745563.85	0.00	
9700.00	2.60	296.89	9693.79	-109.78	124.57	-245.70	377242.17	745559.80	0.00	
9800.00	2.60	296.89	9793.69	-111.59	126.62	-249.75	377244.22	745555.75	0.00	
9900.00	2.60	296.89	9893.58	-113.40	128.68	-253.80	377246.28	745551.70	0.00	
10000.00	2.60	296.89	9993.48	-115.21	130.73	-257.84	377248.33	745547.66	0.00	
10100.00	2.60	296.89	10093.38	-117.02	132.78	-261.89	377250.38	745543.61	0.00	

SD Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)										Comment
HD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	H. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	
10200.00	2.60	296.89	10193.28	-118.82	134.83	-265.94	377252.43	745539.56	0.00	
10300.00	2.60	296.89	10293.17	-120.63	136.89	-269.99	377254.49	745535.51	0.00	
10400.00	2.60	296.89	10393.07	-122.44	138.94	-274.03	377256.54	745531.47	0.00	
10500.00	2.60	296.89	10492.97	-124.25	140.99	-278.08	377258.59	745527.42	0.00	
10600.00	2.60	296.89	10592.86	-126.06	143.04	-282.13	377260.64	745523.37	0.00	
10700.00	2.60	296.89	10692.76	-127.87	145.09	-286.18	377262.69	745519.32	0.00	
10800.00	2.60	296.89	10792.66	-129.68	147.15	-290.23	377264.75	745515.27	0.00	
10900.00	2.60	296.89	10892.55	-131.48	149.20	-294.27	377266.80	745511.23	0.00	
11000.00	2.60	296.89	10992.45	-133.29	151.25	-298.32	377268.85	745507.18	0.00	
11100.00	2.60	296.89	11092.35	-135.10	153.30	-302.37	377270.90	745503.13	0.00	
11200.00	2.60	296.89	11192.24	-136.91	155.36	-306.42	377272.96	745499.08	0.00	
11279.27	2.60	296.89	11271.44	-138.34	156.98	-309.63	377274.58	745495.87	0.00	KOP
11300.00	2.47	248.75	11292.15	-138.34	157.03	-310.46	377274.63	745495.04	10.00	
11400.00	11.12	191.48	11391.41	-127.87	146.77	-314.40	377264.37	745491.10	10.00	
11500.00	21.00	185.67	11487.39	-100.34	119.42	-318.10	377237.02	745487.40	10.00	
11600.00	30.96	183.49	11577.18	-56.60	75.80	-321.45	377193.40	745484.05	10.00	
11700.00	40.94	182.30	11658.03	2.02	17.24	-324.33	377134.84	745481.17	10.00	
11800.00	50.92	181.51	11727.50	73.75	-54.47	-326.67	377063.13	745478.83	10.00	
11900.00	60.91	180.92	11783.47	156.40	-137.17	-328.39	376980.43	745477.11	10.00	
12000.00	70.90	180.43	11824.25	247.47	-228.33	-329.45	376889.27	745476.05	10.00	
12011.40	72.04	180.38	11827.87	258.26	-239.14	-329.52	376878.46	745475.98	10.00	7 in
12100.00	80.89	180.00	11848.59	344.18	-325.19	-329.80	376792.41	745475.70	10.00	
12188.08	89.69	179.64	11855.82	431.71	-412.89	-329.52	376704.71	745475.98	10.00	Landing Pt
12200.00	89.69	179.64	11855.88	443.60	-424.81	-329.45	376692.79	745476.05	0.00	
12300.00	89.69	179.64	11856.43	543.38	-524.80	-328.82	376592.80	745476.68	0.00	
12400.00	89.69	179.64	11856.97	643.17	-624.80	-328.19	376492.80	745477.31	0.00	
12500.00	89.69	179.64	11857.51	742.95	-724.80	-327.56	376392.80	745477.94	0.00	
12600.00	89.69	179.64	11858.05	842.73	-824.79	-326.93	376292.81	745478.57	0.00	
12700.00	89.69	179.64	11858.59	942.52	-924.79	-326.30	376192.81	745479.20	0.00	
12800.00	89.69	179.64	11859.13	1042.30	-1024.79	-325.68	376092.81	745479.82	0.00	
12900.00	89.69	179.64	11859.67	1142.08	-1124.78	-325.05	375992.82	745480.45	0.00	
13000.00	89.69	179.64	11860.21	1241.86	-1224.78	-324.42	375892.82	745481.08	0.00	
13100.00	89.69	179.64	11860.75	1341.65	-1324.78	-323.79	375792.82	745481.71	0.00	
13200.00	89.69	179.64	11861.29	1441.43	-1424.77	-323.16	375692.83	745482.34	0.00	
13300.00	89.69	179.64	11861.84	1541.21	-1524.77	-322.54	375592.83	745482.96	0.00	
13400.00	89.69	179.64	11862.38	1641.00	-1624.77	-321.91	375492.83	745483.59	0.00	
13500.00	89.69	179.64	11862.92	1740.78	-1724.76	-321.28	375392.84	745484.22	0.00	
13600.00	89.69	179.64	11863.46	1840.56	-1824.76	-320.65	375292.84	745484.85	0.00	
13700.00	89.69	179.64	11864.00	1940.35	-1924.76	-320.02	375192.84	745485.48	0.00	
13800.00	89.69	179.64	11864.54	2040.13	-2024.75	-319.39	375092.85	745486.11	0.00	
13900.00	89.69	179.64	11865.08	2139.91	-2124.75	-318.77	374992.85	745486.73	0.00	
14000.00	89.69	179.64	11865.62	2239.70	-2224.75	-318.14	374892.85	745487.36	0.00	
14100.00	89.69	179.64	11866.16	2339.48	-2324.74	-317.51	374792.86	745487.99	0.00	
14200.00	89.69	179.64	11866.70	2439.26	-2424.74	-316.88	374692.86	745488.62	0.00	
14300.00	89.69	179.64	11867.25	2539.05	-2524.74	-316.25	374592.86	745489.25	0.00	
14400.00	89.69	179.64	11867.79	2638.83	-2624.73	-315.62	374492.87	745489.88	0.00	
14500.00	89.69	179.64	11868.33	2738.61	-2724.73	-315.00	374392.87	745490.50	0.00	
14600.00	89.69	179.64	11868.87	2838.40	-2824.73	-314.37	374292.87	745491.13	0.00	
14700.00	89.69	179.64	11869.41	2938.18	-2924.72	-313.74	374192.88	745491.76	0.00	
14800.00	89.69	179.64	11869.95	3037.96	-3024.72	-313.11	374092.88	745492.39	0.00	
14900.00	89.69	179.64	11870.49	3137.75	-3124.72	-312.48	373992.88	745493.02	0.00	
15000.00	89.69	179.64	11871.03	3237.53	-3224.71	-311.85	373892.89	745493.65	0.00	
15100.00	89.69	179.64	11871.57	3337.31	-3324.71	-311.23	373792.89	745494.27	0.00	
15200.00	89.69	179.64	11872.12	3437.10	-3424.70	-310.60	373692.90	745494.90	0.00	
15300.00	89.69	179.64	11872.66	3536.88	-3524.70	-309.97	373592.90	745495.53	0.00	
15400.00	89.69	179.64	11873.20	3636.66	-3624.70	-309.34	373492.90	745496.16	0.00	
15500.00	89.69	179.64	11873.74	3736.45	-3724.69	-308.71	373392.91	745496.79	0.00	
15600.00	89.69	179.64	11874.28	3836.23	-3824.69	-308.08	373292.91	745497.42	0.00	
15700.00	89.69	179.64	11874.82	3936.01	-3924.69	-307.46	373192.91	745498.04	0.00	



Weatherford

Drilling Services
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241

Date: November 27, 2018

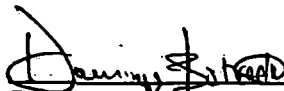
Attention: Kyle Freidenbloom

Re: Mewbourne Oil Company
Well: Red Hills West 21 W0AP Fed Com #3H
Lea County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

<u>Name & Title Of Surveyor</u>	<u>Well Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Domingo Estrada MWD Ops. Coordinator	3H	758 MD 16,754 MD	11/8/2018 11/27/2018	Measurement While Drilling

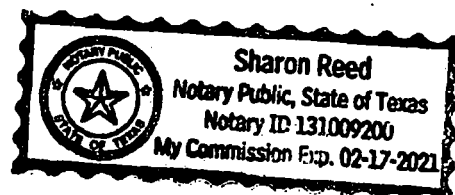
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


Domingo Estrada
MWD Ops. Coordinator

On this, the 28th day of November, 2018, before me a notary public, the undersigned officer, personally appeared Domingo Estrada, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.


Notary Public





MEWBOURNE
OIL COMPANY

5D Survey Report

Mewbourne Oil Company

Field Name: *Mewbourne Oil Company (Nad 83 NMEZ)*

Site Name: *Red Hills West 21 Pad*

Well Name: *Red Hills West 21 W0AP Fed Com #3H*

File number: *13491869*

Survey: *Definitive survey*

27 November 2018



Weatherford®



Red Hills West 21 W0AP Fed Com #3H

Field Name: Mewbourne Oil Company (Nad 83 NMEZ)	Map Units: US ft		Company Name: Mewbourne Oil Company	
	Vertical Reference Datum (VRD): Mean Sea Level			
	Projected Coordinate System: NAD83 / New Mexico East (ftUS)			
	Comment:			
Site: Red Hills West 21 Pad	Units: US ft	North Reference: Grid	Convergence Angle: 0.35	
	Position:	Northing: 377117.80 US ft	Latitude: 32.035059459	
		Easting: 745835.00 US ft	Longitude: -103.673393776	
	Elevation above MSL: 3161.00 US ft		Comment: Lea County, New Mexico	
Slot: Red Hills West 21 W0AP Fed Com #3H	Position (Relative to Site Centre)			
	+N/-S: -0.20 US ft	Northing: 377117.60 US ft	Latitude: 32.035059404	
	+E/-W: -29.50 US ft	Easting: 745805.50 US ft	Longitude: -103.673488975	
	Slot TVD Reference: Ground Elevation			
	Elevation above MSL: 3163.00 US ft			
	Comment:			
Well: Red Hills West 21 W0AP Fed Com #3H	Type: Main well		UWI:	
	File Number: 13491869	Comment: Patterson 217		
	Closure Distance: 5071.71 US ft		Closure Azimuth: 183.44°	
	Vertical Section: Position of Origin (Relative to Slot centre)			
	+N/-S: 0.00 US ft	+E/-W: 0.00 US ft	Az: 183.40°	

Drill floor: Survey Name: Definitive Survey
Rig Height (Drill Floor): 27.00 US ft **Elevation above MSL:** 3190.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00°

Survey Name: Definitive Survey				
Date: 15/Oct/2018	Survey Tool: See Survey Tool Ranges below.	Comment:	Company:	
Magnetic Model:				
Model Name: bggm2018	Date: 15/Nov/2018	Field Strength: 47703.3nT	Declination: 6.92°	Dip: 59.80°
Tie Point:				
MD: 0.00 US ft	Inclination: 0.00°	Azimuth: 0.00°	TVD: 0.00 US ft	North Offset: 0.00 US ft East Offset: -0.00 US ft

Survey Tool Ranges:			
Name	Start MD(USFt)	End MD(USFt)	Source Survey
GYRO-NS_OW	0.00	685.00	Phoenix Gyro
MWD	685.00	4327.00	MWD 1
MWD	4327.00	10527.00	MWD 2

Survey Tool Ranges:

Name	Start MD(US Ft)	End MD(US Ft)	Source Survey
MWD	10527.00	11183.00	MWD 3
MWD	11183.00	11996.00	MWD 4
MWD	11996.00	14663.00	MWD 5
MWD	14663.00	16820.00	MWD 6

Wellpath created using minimum curvature.

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)

MD (US Ft)	Inc (°)	Az (°)	TVD (US Ft)	VS (US Ft)	H.Offset (US Ft)	E.Offset (US Ft)	DLS (°/100US Ft)	Northing (US Ft)	Easting (US Ft)	Comment
685.00	0.87	221.11	684.97	1.25	-1.01	-4.05	0.22	377116.59	745801.45	Tie on Phoenix Gyro First WFT MWD Svy
758.00	1.67	194.92	757.95	2.73	-2.45	-4.69	1.33	377115.15	745800.81	
856.00	1.75	197.45	855.91	5.58	-5.26	-5.50	0.11	377112.34	745800.00	
1046.00	1.44	185.63	1045.84	10.78	-10.40	-6.61	0.24	377107.20	745798.89	
1235.00	1.68	248.48	1234.78	14.32	-13.78	-9.42	0.87	377103.82	745796.08	
1425.00	2.00	259.13	1424.68	16.31	-15.43	-15.27	0.25	377102.17	745790.23	
1614.00	1.41	262.35	1613.60	17.57	-16.36	-20.81	0.32	377101.24	745784.69	
1804.00	0.89	303.46	1803.56	17.28	-15.86	-24.36	0.50	377101.74	745781.14	
1994.00	1.07	328.53	1993.53	15.08	-13.53	-26.51	0.24	377104.07	745778.99	
2184.00	0.70	325.86	2183.51	12.71	-11.06	-28.09	0.20	377106.54	745777.41	
2373.00	0.56	325.79	2372.50	11.06	-9.34	-29.26	0.07	377108.26	745776.24	
2563.00	0.43	256.44	2562.49	10.53	-8.74	-30.47	0.30	377108.86	745775.03	
2753.00	0.51	250.63	2752.49	11.07	-9.19	-31.97	0.05	377108.41	745773.53	
2942.00	0.42	210.32	2941.48	12.01	-10.06	-33.11	0.18	377107.54	745772.39	
3132.00	0.45	125.94	3131.48	13.03	-11.10	-32.86	0.31	377106.50	745772.64	
3322.00	0.53	71.94	3321.47	13.11	-11.27	-31.42	0.24	377106.33	745774.08	
3513.00	0.60	328.13	3512.47	11.97	-10.15	-31.10	0.47	377107.45	745774.40	
3702.00	2.89	317.29	3701.37	7.86	-5.80	-34.86	1.22	377111.80	745770.64	
3892.00	1.99	309.77	3891.19	2.58	-0.17	-40.64	0.50	377117.43	745764.86	
4082.00	3.48	294.03	4080.97	-1.40	4.28	-48.45	0.87	377121.88	745757.05	
4272.00	1.66	285.70	4270.78	-4.02	7.38	-56.36	0.98	377124.98	745749.14	
4327.00	1.69	290.03	4325.75	-4.42	7.87	-57.89	0.24	377125.47	745747.61	
4474.00	2.21	302.10	4472.67	-6.41	10.12	-62.33	0.45	377127.72	745743.17	
4664.00	2.68	303.40	4662.49	-10.39	14.51	-69.14	0.25	377132.11	745736.36	
4853.00	2.45	300.53	4851.30	-14.44	19.00	-76.31	0.14	377136.60	745729.19	
5043.00	2.35	299.54	5041.14	-18.00	22.98	-83.20	0.06	377140.58	745722.30	
5232.00	3.15	293.31	5229.92	-21.48	26.94	-91.34	0.45	377144.54	745714.16	
5422.00	3.23	293.02	5419.62	-25.06	31.10	-101.06	0.04	377148.70	745704.44	
5613.00	3.30	293.04	5610.31	-28.71	35.36	-111.07	0.04	377152.96	745694.43	
5802.00	3.36	292.15	5799.00	-32.32	39.58	-121.21	0.04	377157.18	745684.29	
5991.00	3.39	296.68	5987.67	-36.31	44.17	-131.33	0.14	377161.77	745674.17	
6181.00	3.17	297.83	6177.36	-40.70	49.15	-140.99	0.12	377166.75	745664.51	
6371.00	3.23	295.44	6367.06	-44.88	53.90	-150.47	0.08	377171.50	745655.03	
6560.00	3.32	294.19	6555.75	-48.82	58.43	-160.27	0.06	377176.03	745645.23	
6749.00	3.42	292.56	6744.42	-52.62	62.84	-170.47	0.07	377180.44	745635.03	
6939.00	3.40	288.77	6934.09	-55.97	66.82	-181.04	0.12	377184.42	745624.46	
7129.00	2.41	309.14	7123.85	-59.80	71.16	-189.47	0.75	377188.76	745616.03	
7318.00	2.17	295.65	7312.70	-63.47	75.21	-195.78	0.31	377192.81	745609.72	
7507.00	2.20	291.73	7501.56	-65.97	78.11	-202.38	0.08	377195.71	745603.12	
7696.00	2.90	303.01	7690.37	-69.47	82.05	-209.75	0.45	377199.65	745595.75	
7886.00	2.65	299.87	7880.15	-73.80	86.86	-217.59	0.15	377204.46	745587.91	
8074.00	2.45	291.48	8067.96	-76.99	90.50	-225.10	0.22	377208.10	745580.40	
8263.00	2.75	297.06	8256.77	-80.06	94.04	-232.90	0.21	377211.64	745572.60	
8451.00	2.52	291.48	8444.57	-83.15	97.60	-240.76	0.18	377215.20	745564.74	
8640.00	2.35	308.67	8633.40	-86.68	101.55	-247.65	0.40	377219.15	745557.85	
8830.00	2.32	323.64	8823.25	-91.89	107.08	-252.97	0.32	377224.68	745552.53	
9019.00	1.25	325.15	9012.15	-96.45	111.85	-256.42	0.57	377229.45	745549.08	
9208.00	2.69	298.01	9201.04	-99.91	115.62	-261.51	0.89	377233.22	745543.99	

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
ID (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N. Offset (US ft)	E. Offset (US ft)	DLS (°/100US ft)	Northing (US ft)	Easting (US ft)	Comment
9397.00	2.32	288.52	9389.86	-102.76	118.92	-269.06	0.29	377236.52	745536.44	
9586.00	2.14	320.85	9578.72	-106.35	122.87	-274.91	0.66	377240.47	745530.59	
9776.00	1.99	307.52	9768.60	-110.82	127.63	-279.77	0.26	377245.23	745525.73	
9966.00	2.47	291.13	9958.46	-113.91	131.12	-286.20	0.42	377248.72	745519.30	
10156.00	3.46	288.89	10148.20	-116.69	134.45	-295.45	0.52	377252.05	745510.05	
10345.00	2.95	283.63	10336.91	-119.08	137.44	-305.57	0.31	377255.04	745499.93	
10527.00	3.46	264.82	10518.63	-119.09	138.05	-315.59	0.64	377255.65	745489.91	
10724.00	1.40	247.19	10715.44	-117.14	136.58	-323.73	1.10	377254.18	745481.77	
10914.00	1.62	253.11	10905.37	-115.19	134.90	-328.44	0.14	377252.50	745477.06	
11104.00	1.57	242.13	11095.30	-112.90	132.90	-333.31	0.16	377250.50	745472.19	
11183.00	1.60	240.41	11174.27	-111.74	131.85	-335.23	0.07	377249.45	745470.27	
11229.00	1.55	235.53	11220.25	-111.01	131.19	-336.30	0.31	377248.79	745469.20	
11260.00	2.08	186.84	11251.24	-110.19	130.39	-336.71	5.07	377247.99	745468.79	
11292.00	4.37	163.75	11283.19	-108.46	128.64	-336.44	8.09	377246.24	745469.06	
11324.00	6.75	161.33	11315.04	-105.57	125.69	-335.50	7.47	377243.29	745470.00	
11356.00	9.26	162.16	11346.72	-101.43	121.46	-334.11	7.85	377239.06	745471.39	
11387.00	11.79	160.05	11377.20	-96.19	116.10	-332.26	8.25	377233.70	745473.24	
11419.00	14.07	156.26	11408.38	-89.73	109.47	-329.58	7.60	377227.07	745475.92	
11450.00	17.13	154.49	11438.24	-82.38	101.90	-326.09	9.99	377219.50	745479.41	
11482.00	20.62	153.79	11468.51	-73.35	92.59	-321.57	10.93	377210.19	745483.93	
11513.00	23.45	154.16	11497.25	-63.22	82.14	-316.47	9.14	377199.74	745489.03	
11545.00	26.92	155.92	11526.20	-51.24	69.79	-310.74	11.09	377187.39	745494.76	
11576.00	30.23	156.83	11553.42	-38.03	56.20	-304.81	10.77	377173.80	745500.69	
11608.00	33.16	158.17	11580.65	-22.90	40.67	-298.38	9.42	377158.27	745507.12	
11640.00	36.44	160.53	11606.92	-6.22	23.58	-291.96	11.08	377141.18	745513.54	
11671.00	39.56	160.43	11631.35	11.35	5.59	-285.58	10.07	377123.19	745519.92	
11703.00	42.79	161.68	11655.43	30.84	-14.33	-278.75	10.42	377103.27	745526.75	
11734.00	45.69	165.06	11677.64	51.16	-35.05	-272.58	12.05	377082.55	745532.92	
11765.00	48.66	166.50	11698.71	72.82	-57.09	-267.00	10.17	377060.51	745538.50	
11797.00	52.09	166.85	11719.11	96.43	-81.07	-261.32	10.75	377036.53	745544.18	
11829.00	55.99	166.15	11737.90	121.20	-106.25	-255.27	12.32	377011.35	745550.23	
11861.00	59.63	166.18	11754.95	147.06	-132.54	-248.80	11.38	376985.06	745556.70	
11892.00	62.66	167.73	11769.91	173.10	-158.99	-242.68	10.71	376958.61	745562.82	
11924.00	65.48	169.02	11783.90	200.89	-187.17	-236.88	9.53	376930.43	745568.62	
11955.00	68.81	170.61	11795.94	228.66	-215.29	-231.84	11.74	376902.31	745573.66	
11987.00	72.35	172.54	11806.58	258.19	-245.13	-227.42	12.44	376872.47	745578.08	
11996.00	73.75	173.69	11809.20	266.66	-253.68	-226.39	19.78	376863.92	745579.11	
12075.00	78.24	180.12	11828.33	342.76	-330.16	-222.30	9.73	376787.44	745583.20	
12106.00	79.51	182.67	11834.31	373.16	-360.56	-223.04	9.05	376757.04	745582.46	
12138.00	82.42	186.50	11839.34	404.74	-392.06	-225.57	14.91	376725.54	745579.93	
12170.00	85.66	188.63	11842.66	436.48	-423.60	-229.76	12.10	376694.00	745575.74	
12202.00	87.13	189.90	11844.68	468.25	-455.12	-234.90	6.07	376662.48	745570.60	
12297.00	89.65	190.66	11847.35	562.52	-548.55	-251.85	2.77	376569.05	745553.65	
12392.00	91.05	191.61	11846.76	656.65	-641.75	-270.19	1.78	376475.85	745535.31	
12487.00	88.60	189.90	11847.05	750.86	-735.07	-287.92	3.14	376382.53	745517.58	
12582.00	88.11	185.68	11849.78	845.52	-829.14	-300.79	4.47	376288.46	745504.71	
12676.00	86.92	184.42	11853.86	939.39	-922.68	-309.05	1.84	376194.92	745496.45	
12770.00	88.95	182.52	11857.25	1033.31	-1016.44	-314.74	2.96	376101.16	745490.76	
12865.00	88.46	181.37	11859.39	1128.26	-1111.36	-317.96	1.32	376006.24	745487.54	
12960.00	87.97	181.90	11862.35	1223.17	-1206.27	-320.67	0.76	375911.33	745484.83	
13054.00	91.12	182.12	11863.10	1317.12	-1300.20	-323.97	3.36	375817.40	745481.53	
13149.00	89.86	183.64	11862.29	1412.11	-1395.07	-328.74	2.08	375722.53	745476.76	
13243.00	89.44	183.36	11862.86	1506.11	-1488.89	-334.48	0.54	375628.71	745471.02	
13338.00	89.93	184.60	11863.38	1601.10	-1583.66	-341.07	1.40	375533.94	745464.43	
13433.00	88.53	178.90	11864.66	1696.01	-1678.57	-343.97	6.18	375439.03	745461.53	
13527.00	89.44	171.41	11866.33	1788.96	-1772.15	-336.04	8.03	375345.45	745469.46	
13622.00	91.89	173.82	11865.23	1882.26	-1866.34	-323.83	3.62	375251.26	745481.67	
13716.00	89.30	176.08	11864.25	1975.22	-1959.96	-315.56	3.66	375157.64	745489.94	
13811.00	91.33	178.13	11863.73	2069.64	-2054.82	-310.76	3.04	375062.78	745494.74	

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
ID (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N. Offset (US ft)	E. Offset (US ft)	DLS (%/100US ft)	Northing (US ft)	Easting (US ft)	Comment
13906.00	90.21	176.31	11862.45	2164.07	-2149.70	-306.15	2.25	374967.90	745499.35	
14000.00	89.44	179.11	11862.74	2257.60	-2243.61	-302.40	3.09	374873.99	745503.10	
14095.00	90.49	182.21	11862.80	2352.47	-2338.59	-303.49	3.45	374779.01	745502.01	
14189.00	89.02	180.61	11863.20	2446.41	-2432.56	-305.80	2.31	374685.04	745499.70	
14284.00	91.19	179.84	11863.02	2541.26	-2527.55	-306.18	2.42	374590.05	745499.32	
14379.00	89.93	178.97	11862.09	2636.02	-2622.54	-305.19	1.61	374495.06	745500.31	
14474.00	88.46	177.55	11863.43	2730.62	-2717.48	-302.31	2.15	374400.12	745503.19	
14568.00	91.96	178.18	11863.09	2824.17	-2811.40	-298.81	3.78	374306.20	745506.69	
14663.00	91.12	178.36	11860.53	2918.76	-2906.32	-295.94	0.90	374211.28	745509.56	
14758.00	90.63	178.49	11859.08	3013.39	-3001.27	-293.33	0.53	374116.33	745512.17	
14853.00	91.61	179.55	11857.22	3108.09	-3096.24	-291.70	1.52	374021.36	745513.80	
14948.00	92.31	179.77	11853.98	3202.83	-3191.18	-291.14	0.77	373926.42	745514.36	
15043.00	92.24	180.04	11850.20	3297.58	-3286.10	-290.98	0.29	373831.50	745514.52	
15138.00	88.81	181.45	11849.33	3392.46	-3381.08	-292.22	3.90	373736.52	745513.28	
15232.00	87.48	181.51	11852.38	3486.35	-3474.99	-294.64	1.42	373642.61	745510.86	
15326.00	87.20	181.70	11856.74	3580.20	-3568.86	-297.27	0.36	373548.74	745508.23	
15421.00	88.18	179.59	11860.57	3675.01	-3663.77	-298.34	2.45	373453.83	745507.16	
15514.00	91.12	179.21	11861.14	3767.77	-3756.75	-297.37	3.19	373360.85	745508.13	
15609.00	91.47	179.50	11858.99	3862.51	-3851.72	-296.30	0.48	373265.88	745509.20	
15704.00	91.54	179.77	11856.49	3957.27	-3946.68	-295.69	0.29	373170.92	745509.81	
15798.00	90.77	180.43	11854.60	4051.10	-4040.66	-295.86	1.08	373076.94	745509.64	
15892.00	90.14	181.08	11853.85	4144.99	-4134.65	-297.10	0.96	372982.95	745508.40	
15987.00	89.37	180.65	11854.26	4239.90	-4229.64	-298.53	0.93	372887.96	745506.97	
16081.00	89.16	180.83	11855.47	4333.79	-4323.62	-299.74	0.29	372793.98	745505.76	
16176.00	90.35	179.92	11855.87	4428.65	-4418.62	-300.37	1.58	372698.98	745505.13	
16270.00	90.77	180.33	11854.95	4522.49	-4512.61	-300.57	0.62	372604.99	745504.93	
16365.00	89.44	180.49	11854.78	4617.36	-4607.61	-301.25	1.41	372509.99	745504.25	
16459.00	89.16	180.18	11855.93	4711.22	-4701.60	-301.80	0.44	372416.00	745503.70	
16554.00	90.77	180.52	11855.98	4806.08	-4796.59	-302.38	1.73	372321.01	745503.12	
16648.00	90.49	179.98	11854.95	4899.93	-4890.59	-302.79	0.65	372227.01	745502.71	
16743.00	89.44	180.34	11855.01	4994.78	-4985.58	-303.06	1.17	372132.02	745502.44	
16754.00	89.23	181.10	11855.14	5005.77	-4996.58	-303.19	7.17	372121.02	745502.31	Last WFT MWD Svy
16820.00	89.23	181.10	11856.02	5071.71	-5062.56	-304.46	0.00	372055.04	745501.04	TD @ 16,820.0/PTB



MEWBOURNE
OIL COMPANY

5D Survey Report

Mewbourne Oil Company

Field Name: *Mewbourne Oil Company (Nad 83 NMEZ)*

Site Name: *Red Hills West 21 Pad*

Well Name: *Red Hills West 21 WOAP Fed Com #3H*

File number: *13491869*

Survey: *Definitive survey*

27 November 2018



Weatherford®



Red Hills West 21 WOAP Fed Com #3H

Field Name: Mewbourne Oil Company (Nad 83 NMEZ)	Map Units: US ft		Company Name: Mewbourne Oil Company	
	Vertical Reference Datum (VRD): Mean Sea Level			
	Projected Coordinate System: NAD83 / New Mexico East (ftUS)			
	Comment:			
Site: Red Hills West 21 Pad	Units: US ft	North Reference: Grid	Convergence Angle: 0.35	
	Position:	Northing: 377117.80 US ft	Latitude: 32.035059459	
		Easting: 745835.00 US ft	Longitude: -103.673393776	
	Elevation above MSL: 3161.00 US ft		Comment: Lea County, New Mexico	
Slot: Red Hills West 21 WOAP Fed Com #3H	Position (Relative to Site Centre)			
	+N/-S: -0.20 US ft	Northing: 377117.60 US ft	Latitude: 32.035059404	
	+E/-W: -29.50 US ft	Easting: 745805.50 US ft	Longitude: -103.673488975	
	Slot TVD Reference: Ground Elevation			
	Elevation above MSL: 3163.00 US ft			
Well: Red Hills West 21 WOAP Fed Com #3H	Type: Main well		UWI:	
	File Number: 13491869	Comment: Patterson 217		
	Closure Distance: 5071.71 US ft		Closure Azimuth: 183.44°	
	Vertical Section: Position of Origin (Relative to Slot centre)			
	+N/-S: 0.00 US ft	+E/-W: 0.00 US ft	Az: 183.40°	

Drill floor: Survey Name: Definitive Survey
Rig Height (Drill Floor): 27.00 US ft **Elevation above MSL:** 3190.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00°

Survey Name: Definitive Survey

Date: 15/Oct/2018 **Survey Tool:** See Survey **Comment:** **Company:**
Tool Ranges below.

Magnetic Model:

Model Name: bggm2018 **Date:** 15/Nov/2018 **Field Strength:** 47703.3nT **Declination:** 6.92° **Dip:** 59.80°

Tie Point:

MD: 0.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00° **TVD:** 0.00 US ft **North Offset:** 0.00 US ft **East Offset:** -0.00 US ft

Survey Tool Ranges:

Name	Start MD(USft)	End MD(USft)	Source Survey
GYRO-NS_OW	0.00	685.00	Phoenix Gyro
MWD	685.00	4327.00	MWD 1
MWD	4327.00	10527.00	MWD 2

SD Survey Report

Survey Tool Ranges:			
Name	Start MD(USFt)	End MD(USFt)	Source Survey
MWD	10527.00	11183.00	MWD 3
MWD	11183.00	11996.00	MWD 4
MWD	11996.00	14663.00	MWD 5
MWD	14663.00	16820.00	MWD 6

Wellpath created using minimum curvature.

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	H. Offset (US ft)	E. Offset (US ft)	DLS (°/100US ft)	Northing (US ft)	Easting (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	377117.60	745805.50	
99.00	0.37	345.34	99.00	-0.30	0.31	-0.08	0.37	377117.91	745805.42	
199.00	0.36	304.15	199.00	-0.77	0.80	-0.42	0.26	377118.40	745805.08	
299.00	0.61	245.80	298.99	-0.69	0.76	-1.17	0.52	377118.36	745804.33	
399.00	0.54	297.32	398.99	-0.63	0.75	-2.07	0.50	377118.35	745803.43	
499.00	0.33	172.93	498.99	-0.54	0.68	-2.46	0.78	377118.28	745803.04	
599.00	0.93	232.66	598.98	0.27	-0.09	-3.07	0.82	377117.51	745802.43	
685.00	0.87	221.11	684.97	1.25	-1.01	-4.05	0.22	377116.59	745801.45	
758.00	1.67	194.92	757.95	2.73	-2.45	-4.69	1.33	377115.15	745800.81	First WFT MWD Svy
856.00	1.75	197.45	855.91	5.58	-5.26	-5.50	0.11	377112.34	745800.00	
1046.00	1.44	185.63	1045.84	10.78	-10.40	-6.61	0.24	377107.20	745798.89	
1235.00	1.68	248.48	1234.78	14.32	-13.78	-9.42	0.87	377103.82	745796.08	
1425.00	2.00	259.13	1424.68	16.31	-15.43	-15.27	0.25	377102.17	745790.23	
1614.00	1.41	262.35	1613.60	17.57	-16.36	-20.81	0.32	377101.24	745784.69	
1804.00	0.89	303.46	1803.56	17.28	-15.86	-24.36	0.50	377101.74	745781.14	
1994.00	1.07	328.53	1993.53	15.08	-13.53	-26.51	0.24	377104.07	745778.99	
2184.00	0.70	325.86	2183.51	12.71	-11.06	-28.09	0.20	377106.54	745777.41	
2373.00	0.56	325.79	2372.50	11.06	-9.34	-29.26	0.07	377108.26	745776.24	
2563.00	0.43	256.44	2562.49	10.53	-8.74	-30.47	0.30	377108.86	745775.03	
2753.00	0.51	250.63	2752.49	11.07	-9.19	-31.97	0.05	377108.41	745773.53	
2942.00	0.42	210.32	2941.48	12.01	-10.06	-33.11	0.18	377107.54	745772.39	
3132.00	0.45	125.94	3131.48	13.03	-11.10	-32.86	0.31	377106.50	745772.64	
3322.00	0.53	71.94	3321.47	13.11	-11.27	-31.42	0.24	377106.33	745774.08	
3513.00	0.60	328.13	3512.47	11.97	-10.15	-31.10	0.47	377107.45	745774.40	
3702.00	2.89	317.29	3701.37	7.86	-5.80	-34.86	1.22	377111.80	745770.64	
3892.00	1.99	309.77	3891.19	2.58	-0.17	-40.64	0.50	377117.43	745764.86	
4082.00	3.48	294.03	4080.97	-1.40	4.28	-48.45	0.87	377121.88	745757.05	
4272.00	1.66	285.70	4270.78	-4.02	7.38	-56.36	0.98	377124.98	745749.14	
4327.00	1.69	290.03	4325.75	-4.42	7.87	-57.89	0.24	377125.47	745747.61	
4474.00	2.21	302.10	4472.67	-6.41	10.12	-62.33	0.45	377127.72	745743.17	
4664.00	2.68	303.40	4662.49	-10.39	14.51	-69.14	0.25	377132.11	745736.36	
4853.00	2.45	300.53	4851.30	-14.44	19.00	-76.31	0.14	377136.60	745729.19	
5043.00	2.35	299.54	5041.14	-18.00	22.98	-83.20	0.06	377140.58	745722.30	
5232.00	3.15	293.31	5229.92	-21.48	26.94	-91.34	0.45	377144.54	745714.16	
5422.00	3.23	293.02	5419.62	-25.06	31.10	-101.06	0.04	377148.70	745704.44	
5613.00	3.30	293.04	5610.31	-28.71	35.36	-111.07	0.04	377152.96	745694.43	
5802.00	3.36	292.15	5799.00	-32.32	39.58	-121.21	0.04	377157.18	745684.29	
5991.00	3.39	296.68	5987.67	-36.31	44.17	-131.33	0.14	377161.77	745674.17	
6181.00	3.17	297.83	6177.36	-40.70	49.15	-140.99	0.12	377166.75	745664.51	
6371.00	3.23	295.44	6367.06	-44.88	53.90	-150.47	0.08	377171.50	745655.03	
6560.00	3.32	294.19	6555.75	-48.82	58.43	-160.27	0.06	377176.03	745645.23	
6749.00	3.42	292.56	6744.42	-52.62	62.84	-170.47	0.07	377180.44	745635.03	
6939.00	3.40	288.77	6934.09	-55.97	66.82	-181.04	0.12	377184.42	745624.46	
7129.00	2.41	309.14	7123.85	-59.80	71.16	-189.47	0.75	377188.76	745616.03	
7318.00	2.17	295.65	7312.70	-63.47	75.21	-195.78	0.31	377192.81	745609.72	
7507.00	2.20	291.73	7501.56	-65.97	78.11	-202.38	0.08	377195.71	745603.12	
7696.00	2.90	303.01	7690.37	-69.47	82.05	-209.75	0.45	377199.65	745595.75	
7886.00	2.65	299.87	7880.15	-73.80	86.86	-217.59	0.15	377204.46	745587.91	
8074.00	2.45	291.48	8067.96	-76.99	90.50	-225.10	0.22	377208.10	745580.40	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	H. Offset (US ft)	E. Offset (US ft)	DLS (%/100US ft)	Northing (US ft)	Easting (US ft)	Comment
8263.00	2.75	297.06	8256.77	-80.06	94.04	-232.90	0.21	377211.64	745572.60	
8451.00	2.52	291.48	8444.57	-83.15	97.60	-240.76	0.18	377215.20	745564.74	
8640.00	2.35	308.67	8633.40	-86.68	101.55	-247.65	0.40	377219.15	745557.85	
8830.00	2.32	323.64	8823.25	-91.89	107.08	-252.97	0.32	377224.68	745552.53	
9019.00	1.25	325.15	9012.15	-96.45	111.85	-256.42	0.57	377229.45	745549.08	
9208.00	2.69	298.01	9201.04	-99.91	115.62	-261.51	0.89	377233.22	745543.99	
9397.00	2.32	288.52	9389.86	-102.76	118.92	-269.06	0.29	377236.52	745536.44	
9586.00	2.14	320.85	9578.72	-106.35	122.87	-274.91	0.66	377240.47	745530.59	
9776.00	1.99	307.52	9768.60	-110.82	127.63	-279.77	0.26	377245.23	745525.73	
9966.00	2.47	291.13	9958.46	-113.91	131.12	-286.20	0.42	377248.72	745519.30	
10156.00	3.46	288.89	10148.20	-116.69	134.45	-295.45	0.52	377252.05	745510.05	
10345.00	2.95	283.63	10336.91	-119.08	137.44	-305.57	0.31	377255.04	745499.93	
10527.00	3.46	264.82	10518.63	-119.09	138.05	-315.59	0.64	377255.65	745489.91	
10724.00	1.40	247.19	10715.44	-117.14	136.58	-323.73	1.10	377254.18	745481.77	
10914.00	1.62	253.11	10905.37	-115.19	134.90	-328.44	0.14	377252.50	745477.06	
11104.00	1.57	242.13	11095.30	-112.90	132.90	-333.31	0.16	377250.50	745472.19	
11183.00	1.60	240.41	11174.27	-111.74	131.85	-335.23	0.07	377249.45	745470.27	
11229.00	1.55	235.53	11220.25	-111.01	131.19	-336.30	0.31	377248.79	745469.20	
11260.00	2.08	186.84	11251.24	-110.19	130.39	-336.71	5.07	377247.99	745468.79	
11292.00	4.37	163.75	11283.19	-108.46	128.64	-336.44	8.09	377246.24	745469.06	
11324.00	6.75	161.33	11315.04	-105.57	125.69	-335.50	7.47	377243.29	745470.00	
11356.00	9.26	162.16	11346.72	-101.43	121.46	-334.11	7.85	377239.06	745471.39	
11387.00	11.79	160.05	11377.20	-96.19	116.10	-332.26	8.25	377233.70	745473.24	
11419.00	14.07	156.26	11408.38	-89.73	109.47	-329.58	7.60	377227.07	745475.92	
11450.00	17.13	154.49	11438.24	-82.38	101.90	-326.09	9.99	377219.50	745479.41	
11482.00	20.62	153.79	11468.51	-73.35	92.59	-321.57	10.93	377210.19	745483.93	
11513.00	23.45	154.16	11497.25	-63.22	82.14	-316.47	9.14	377199.74	745489.03	
11545.00	26.92	155.92	11526.20	-51.24	69.79	-310.74	11.09	377187.39	745494.76	
11576.00	30.23	156.83	11553.42	-38.03	56.20	-304.81	10.77	377173.80	745500.69	
11608.00	33.16	158.17	11580.65	-22.90	40.67	-298.38	9.42	377158.27	745507.12	
11640.00	36.44	160.53	11606.92	-6.22	23.58	-291.96	11.08	377141.18	745513.54	
11671.00	39.56	160.43	11631.35	11.35	5.59	-285.58	10.07	377123.19	745519.92	
11703.00	42.79	161.68	11655.43	30.84	-14.33	-278.75	10.42	377103.27	745526.75	
11734.00	45.69	165.06	11677.64	51.16	-35.05	-272.58	12.05	377082.55	745532.92	
11765.00	48.66	166.50	11698.71	72.82	-57.09	-267.00	10.17	377060.51	745538.50	
11797.00	52.09	166.85	11719.11	96.43	-81.07	-261.32	10.75	377036.53	745544.18	
11829.00	55.99	166.15	11737.90	121.20	-106.25	-255.27	12.32	377011.35	745550.23	
11861.00	59.63	166.18	11754.95	147.06	-132.54	-248.80	11.38	376985.06	745556.70	
11892.00	62.66	167.73	11769.91	173.10	-158.99	-242.68	10.71	376958.61	745562.82	
11924.00	65.48	169.02	11783.90	200.89	-187.17	-236.88	9.53	376930.43	745568.62	
11955.00	68.81	170.61	11795.94	228.66	-215.29	-231.84	11.74	376902.31	745573.66	
11987.00	72.35	172.54	11806.58	258.19	-245.13	-227.42	12.44	376872.47	745578.08	
11996.00	73.75	173.69	11809.20	266.66	-253.68	-226.39	19.78	376863.92	745579.11	
12075.00	78.24	180.12	11828.33	342.76	-330.16	-222.30	9.73	376787.44	745583.20	
12106.00	79.51	182.67	11834.31	373.16	-360.56	-223.04	9.05	376757.04	745582.46	
12138.00	82.42	186.50	11839.34	404.74	-392.06	-225.57	14.91	376725.54	745579.93	
12170.00	85.66	188.63	11842.66	436.48	-423.60	-229.76	12.10	376694.00	745575.74	
12202.00	87.13	189.90	11844.68	468.25	-455.12	-234.90	6.07	376662.48	745570.60	
12297.00	89.65	190.66	11847.35	562.52	-548.55	-251.85	2.77	376569.05	745553.65	
12392.00	91.05	191.61	11846.76	656.65	-641.75	-270.19	1.78	376475.85	745535.31	
12487.00	88.60	189.90	11847.05	750.86	-735.07	-287.92	3.14	376382.53	745517.58	
12582.00	88.11	185.68	11849.78	845.52	-829.14	-300.79	4.47	376288.46	745504.71	
12676.00	86.92	184.42	11853.86	939.39	-922.68	-309.05	1.84	376194.92	745496.45	
12770.00	88.95	182.52	11857.25	1033.31	-1016.44	-314.74	2.96	376101.16	745490.76	
12865.00	88.46	181.37	11859.39	1128.26	-1111.36	-317.96	1.32	376006.24	745487.54	
12960.00	87.97	181.90	11862.35	1223.17	-1206.27	-320.67	0.76	375911.33	745484.83	
13054.00	91.12	182.12	11863.10	1317.12	-1300.20	-323.97	3.36	375817.40	745481.53	
13149.00	89.86	183.64	11862.29	1412.11	-1395.07	-328.74	2.08	375722.53	745476.76	
13243.00	89.44	183.36	11862.86	1506.11	-1488.89	-334.48	0.54	375628.71	745471.02	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (%/100US ft)	Northing (US ft)	Easting (US ft)	Comment
13338.00	89.93	184.60	11863.38	1601.10	-1583.66	-341.07	1.40	375533.94	745464.43	
13433.00	88.53	178.90	11864.66	1696.01	-1678.57	-343.97	6.18	375439.03	745461.53	
13527.00	89.44	171.41	11866.33	1788.96	-1772.15	-336.04	8.03	375345.45	745469.46	
13622.00	91.89	173.82	11865.23	1882.26	-1866.34	-323.83	3.62	375251.26	745481.67	
13716.00	89.30	176.08	11864.25	1975.22	-1959.96	-315.56	3.66	375157.64	745489.94	
13811.00	91.33	178.13	11863.73	2069.64	-2054.82	-310.76	3.04	375062.78	745494.74	
13906.00	90.21	176.31	11862.45	2164.07	-2149.70	-306.15	2.25	374967.90	745499.35	
14000.00	89.44	179.11	11862.74	2257.60	-2243.61	-302.40	3.09	374873.99	745503.10	
14095.00	90.49	182.21	11862.80	2352.47	-2338.59	-303.49	3.45	374779.01	745502.01	
14189.00	89.02	180.61	11863.20	2446.41	-2432.56	-305.80	2.31	374685.04	745499.70	
14284.00	91.19	179.84	11863.02	2541.26	-2527.55	-306.18	2.42	374590.05	745499.32	
14379.00	89.93	178.97	11862.09	2636.02	-2622.54	-305.19	1.61	374495.06	745500.31	
14474.00	88.46	177.55	11863.43	2730.62	-2717.48	-302.31	2.15	374400.12	745503.19	
14568.00	91.96	178.18	11863.09	2824.17	-2811.40	-298.81	3.78	374306.20	745506.69	
14663.00	91.12	178.36	11860.53	2918.76	-2906.32	-295.94	0.90	374211.28	745509.56	
14758.00	90.63	178.49	11859.08	3013.39	-3001.27	-293.33	0.53	374116.33	745512.17	
14853.00	91.61	179.55	11857.22	3108.09	-3096.24	-291.70	1.52	374021.36	745513.80	
14948.00	92.31	179.77	11853.98	3202.83	-3191.18	-291.14	0.77	373926.42	745514.36	
15043.00	92.24	180.04	11850.20	3297.58	-3286.10	-290.98	0.29	373831.50	745514.52	
15138.00	88.81	181.45	11849.33	3392.46	-3381.08	-292.22	3.90	373736.52	745513.28	
15232.00	87.48	181.51	11852.38	3486.35	-3474.99	-294.64	1.42	373642.61	745510.86	
15326.00	87.20	181.70	11856.74	3580.20	-3568.86	-297.27	0.36	373548.74	745508.23	
15421.00	88.18	179.59	11860.57	3675.01	-3663.77	-298.34	2.45	373453.83	745507.16	
15514.00	91.12	179.21	11861.14	3767.77	-3756.75	-297.37	3.19	373360.85	745508.13	
15609.00	91.47	179.50	11858.99	3862.51	-3851.72	-296.30	0.48	373265.88	745509.20	
15704.00	91.54	179.77	11856.49	3957.27	-3946.68	-295.69	0.29	373170.92	745509.81	
15798.00	90.77	180.43	11854.60	4051.10	-4040.66	-295.86	1.08	373076.94	745509.64	
15892.00	90.14	181.08	11853.85	4144.99	-4134.65	-297.10	0.96	372982.95	745508.40	
15987.00	89.37	180.65	11854.26	4239.90	-4229.64	-298.53	0.93	372887.96	745506.97	
16081.00	89.16	180.83	11855.47	4333.79	-4323.62	-299.74	0.29	372793.98	745505.76	
16176.00	90.35	179.92	11855.87	4428.65	-4418.62	-300.37	1.58	372698.98	745505.13	
16270.00	90.77	180.33	11854.95	4522.49	-4512.61	-300.57	0.62	372604.99	745504.93	
16365.00	89.44	180.49	11854.78	4617.36	-4607.61	-301.25	1.41	372509.99	745504.25	
16459.00	89.16	180.18	11855.93	4711.22	-4701.60	-301.80	0.44	372416.00	745503.70	
16554.00	90.77	180.52	11855.98	4806.08	-4796.59	-302.38	1.73	372321.01	745503.12	
16648.00	90.49	179.98	11854.95	4899.93	-4890.59	-302.79	0.65	372227.01	745502.71	
16743.00	89.44	180.34	11855.01	4994.78	-4985.58	-303.06	1.17	372132.02	745502.44	
16754.00	89.23	181.10	11855.14	5005.77	-4996.58	-303.19	7.17	372121.02	745502.31	Last WFT MWD Svy
16820.00	89.23	181.10	11856.02	5071.71	-5062.56	-304.46	0.00	372055.04	745501.04	TD @ 16,820.0/PTB