

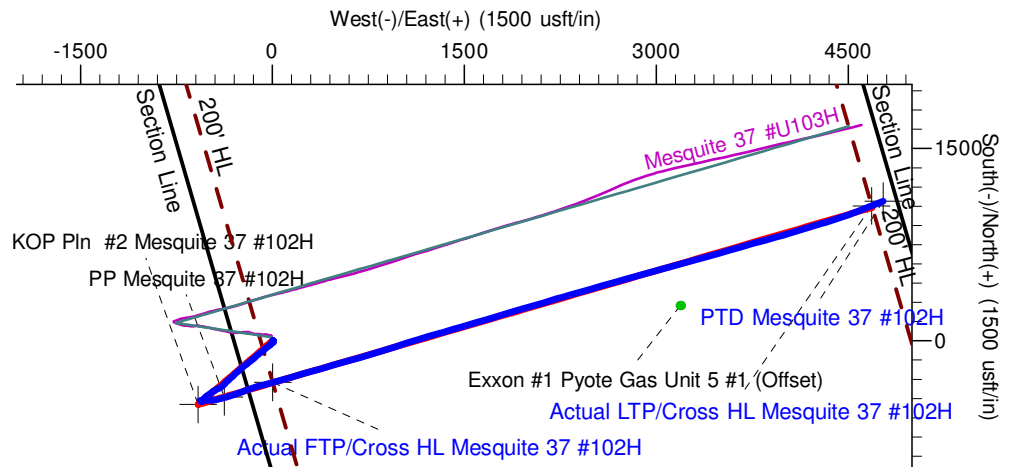
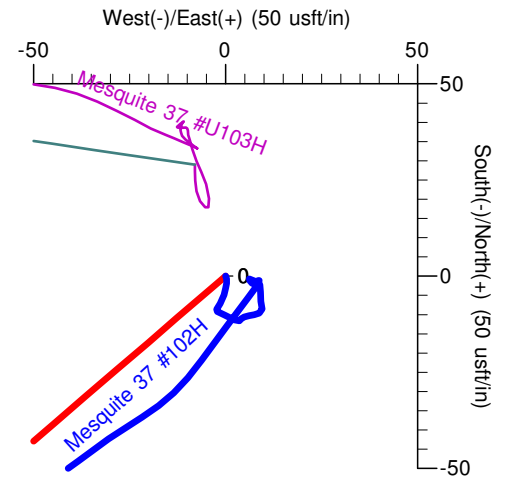


ABRAXAS PETROLEUM CORPORATION

Project: Ward County, TX
Site: Mesquite 37 Pad
Well: Mesquite 37 #102H
Wellbore: Wellbore #1
Design: Wellbore #1

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4926.00	4938.38	B/Anhydrite-T/Delaware
4941.00	4953.47	Bell Canyon
5726.00	5743.29	Cherry Canyon
6011.00	6030.05	Manzanita
6901.00	6925.52	Brushy Canyon
7931.00	7961.85	1st Bone Spring
8951.00	8988.12	2nd Bone Spring
10041.00	10082.30	3rd Bone Spring Lime
10556.00	10719.00	3rd Bone Spring Upper
10616.00	10957.97	3rd Bone Spring Up Target



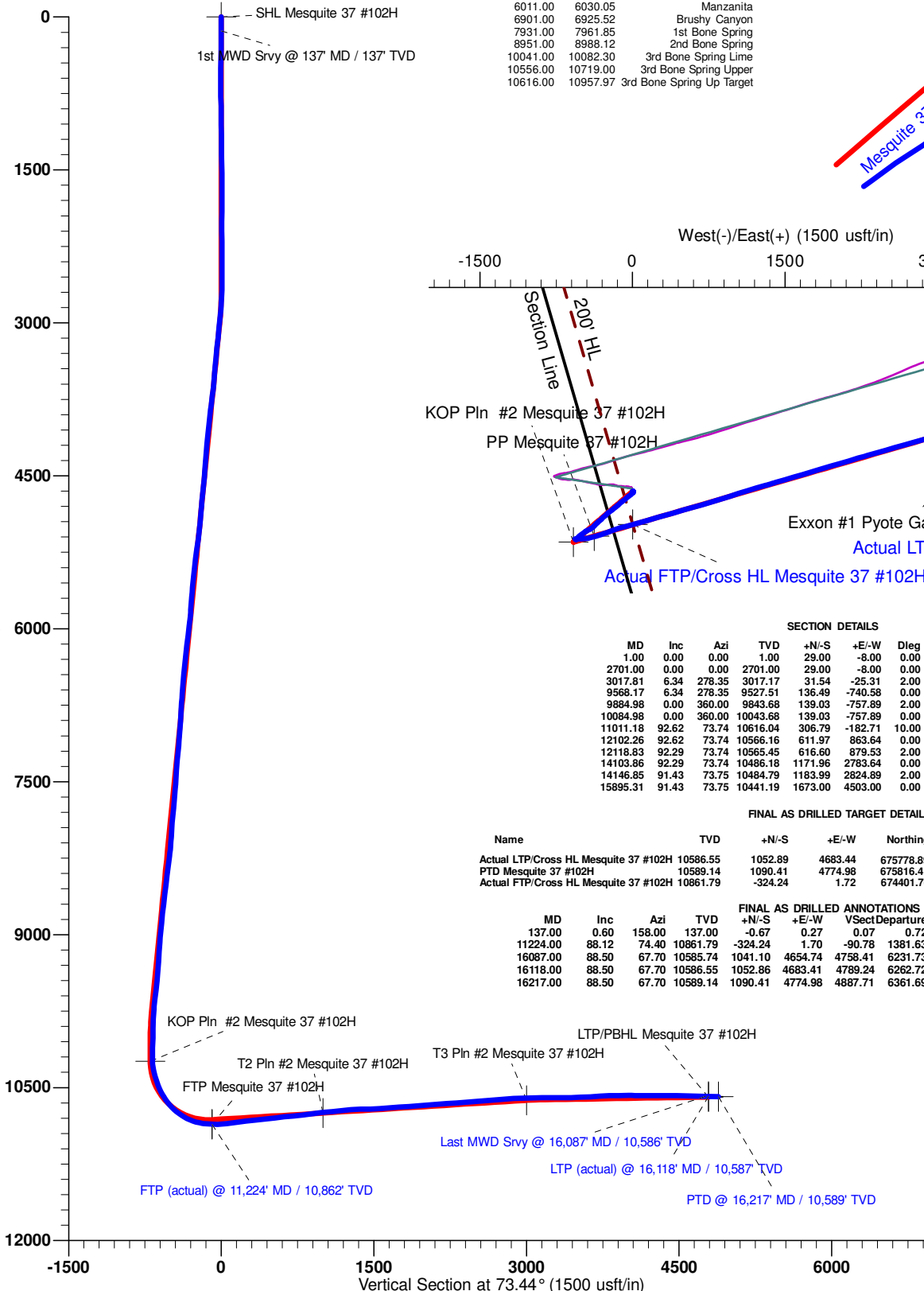
SECTION DETAILS											
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target		
1.00	0.00	0.00	1.00	29.00	-8.00	0.00	0.00	0.00			
2701.00	0.00	0.00	2701.00	29.00	-8.00	0.00	0.00	0.00			
3017.81	6.34	278.35	3017.17	31.54	-25.31	2.00	278.35	-15.91			
9568.17	6.34	278.35	9527.51	136.49	-740.58	0.00	0.00	-673.18			
9884.98	0.00	360.00	9843.68	139.03	-757.89	2.00	180.00	-689.09			
10084.98	0.00	360.00	10043.68	139.03	-757.89	0.00	0.00	-689.09			
11011.18	92.62	73.74	10616.04	306.79	-182.71	10.00	73.74	-89.94			
12102.26	92.62	73.74	10566.16	611.97	863.64	0.00	0.00	1000.00			
12118.83	92.29	73.74	10565.45	616.60	879.53	2.00	180.00	1016.55			
14103.86	92.29	73.74	10486.18	1171.96	2783.64	0.00	0.00	3000.00			
14146.85	91.43	73.75	10484.79	1183.99	2824.89	2.00	179.10	3042.97			
15895.31	91.43	73.75	10441.19	1673.00	4503.00	0.00	0.00	4790.88			

FINAL AS DRILLED TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Actual LTP/Cross HL Mesquite 37 #102H	10586.55	1052.89	4683.44	675778.89	1132879.44	31° 29' 41.88 N	103° 6' 56.40 W
PTD Mesquite 37 #102H	10589.14	1090.41	4774.98	675816.41	1132970.98	31° 29' 42.27 N	103° 6' 55.36 W
Actual FTP/Cross HL Mesquite 37 #102H	10861.79	-324.24	1.72	674401.76	1128197.72	31° 29' 27.09 N	103° 7' 50.06 W

FINAL AS DRILLED ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
137.00	0.60	158.00	137.00	-0.67	0.27	0.07	0.72	1st MWD Srvy @ 137' MD / 137' TVD
11224.00	88.12	74.40	10861.79	-324.24	1.70	-90.78	1381.63	FTP (actual) @ 11,224' MD / 10,862' TVD
16087.00	88.50	67.70	10585.74	1041.10	4654.74	4758.41	6231.73	Last MWD Srvy @ 16,087' MD / 10,586' TVD
16118.00	88.50	67.70	10586.55	1052.86	4683.41	4789.24	6262.72	LTP (actual) @ 16,118' MD / 10,587' TVD
16217.00	88.50	67.70	10589.14	1090.41	4774.98	4887.71	6361.69	PTD @ 16,217' MD / 10,589' TVD



Azimuths to Grid North
True North: 1.44°
Magnetic North: 8.59°
Magnetic Field
Strength: 47598.8snT
Dip Angle: 59.45°
Date: 05/31/2018
Model: HDGM

Design: Wellbore #1 (Mesquite 37 #102H/Wellbore #1)

Created By: Nephi Smith Date: 10:24, August 03 2018

PREMIER DIRECTIONAL DRILLING
363 N. Sam Houston Pkwy, Ste 300, Houston TX 77060
Phone: 281-673-4000



ABRAXAS PETROLEUM CORPORATION

**Ward County, TX
Mesquite 37 Pad
Mesquite 37 #102H**

Wellbore #1

Design: Wellbore #1

Standard Survey Report

03 August, 2018

Survey Report

Company:	ABRAXAS PETROLEUM CORPORATION	Local Co-ordinate Reference:	Well Mesquite 37 #102H
Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Project	Ward County, TX		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Texas Central 4203		

Site	Mesquite 37 Pad		
Site Position:		Northing:	674,726.00 usft
From:	Map	Easting:	1,128,196.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	31° 29' 30.30 N
		Longitude:	103° 7' 50.17 W
		Grid Convergence:	-1.44 °

Well	Mesquite 37 #102H		
Well Position	+N/-S	0.00 usft	Northing: 674,726.00 usft
	+E/-W	0.00 usft	Easting: 1,128,196.00 usft
Position Uncertainty	0.00 usft		Wellhead Elevation: usft
			Latitude: 31° 29' 30.30 N
			Longitude: 103° 7' 50.17 W
			Ground Level: 2,595.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	05/31/18	7.15	59.45	47,599

Design	Wellbore #1				
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	73.44	

Survey Program	Date	08/03/18			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
137.00	16,087.00	Survey #1 (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM	
16,217.00	16,217.00	Survey #2 (Wellbore #1)	Projection		

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
137.00	0.60	158.00	137.00	-0.67	0.27	0.07	0.44	0.44	0.00	
1st MWD Srvy @ 137' MD / 137' TVD										
230.00	0.90	195.00	229.99	-1.82	0.26	-0.27	0.60	0.32	39.78	
320.00	0.80	178.90	319.98	-3.13	0.09	-0.81	0.29	-0.11	-17.89	
411.00	1.50	203.40	410.96	-4.86	-0.37	-1.74	0.92	0.77	26.92	
505.00	1.50	205.60	504.93	-7.10	-1.39	-3.36	0.06	0.00	2.34	
596.00	0.70	227.40	595.91	-8.55	-2.31	-4.65	0.98	-0.88	23.96	
688.00	0.80	110.10	687.91	-9.15	-2.12	-4.64	1.39	0.11	-127.50	
781.00	1.90	119.20	780.88	-10.13	-0.17	-3.05	1.20	1.18	9.78	

Survey Report

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Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
874.00	1.50	113.20	873.84	-11.36	2.30	-1.04	0.47	-0.43	-6.45
966.00	0.40	47.60	965.83	-11.62	3.64	0.18	1.50	-1.20	-71.30
1,060.00	0.40	35.30	1,059.83	-11.13	4.07	0.73	0.09	0.00	-13.09
1,155.00	0.80	63.90	1,154.82	-10.56	4.86	1.65	0.51	0.42	30.11
1,250.00	0.80	89.30	1,249.81	-10.26	6.12	2.94	0.37	0.00	26.74
1,345.00	0.80	71.30	1,344.80	-10.04	7.41	4.24	0.26	0.00	-18.95
1,440.00	1.00	72.40	1,439.79	-9.58	8.83	5.73	0.21	0.21	1.16
1,533.00	1.00	353.60	1,532.78	-8.53	9.51	6.69	1.36	0.00	-84.73
1,627.00	1.50	349.40	1,626.76	-6.50	9.19	6.96	0.54	0.53	-4.47
1,722.00	1.50	8.20	1,721.73	-4.05	9.14	7.61	0.52	0.00	19.79
1,817.00	0.90	327.50	1,816.71	-2.19	8.92	7.92	1.06	-0.63	-42.84
1,911.00	1.40	290.80	1,910.69	-1.16	7.45	6.81	0.92	0.53	-39.04
2,006.00	0.20	273.50	2,005.68	-0.74	6.20	5.73	1.27	-1.26	-18.21
2,101.00	0.70	143.90	2,100.67	-1.20	6.37	5.77	0.89	0.53	-136.42
2,195.00	0.40	124.30	2,194.67	-1.85	6.98	6.17	0.37	-0.32	-20.85
2,286.00	0.50	55.50	2,285.67	-1.80	7.57	6.75	0.57	0.11	-75.60
2,394.00	0.30	36.10	2,393.67	-1.31	8.13	7.42	0.22	-0.19	-17.96
2,488.00	0.20	72.90	2,487.66	-1.06	8.43	7.78	0.20	-0.11	39.15
2,583.00	0.30	119.40	2,582.66	-1.13	8.80	8.12	0.23	0.11	48.95
2,678.00	1.20	216.40	2,677.66	-2.05	8.43	7.50	1.34	0.95	102.11
2,772.00	4.10	215.60	2,771.55	-5.58	5.89	4.06	3.09	3.09	-0.85
2,867.00	6.50	217.80	2,866.13	-12.59	0.62	-3.00	2.53	2.53	2.32
2,962.00	7.40	215.40	2,960.43	-21.83	-6.22	-12.19	1.00	0.95	-2.53
3,056.00	6.30	226.20	3,053.77	-30.33	-13.45	-21.54	1.80	-1.17	11.49
3,150.00	6.50	238.90	3,147.18	-36.65	-21.73	-31.28	1.52	0.21	13.51
3,245.00	6.10	235.00	3,241.61	-42.32	-30.47	-41.27	0.62	-0.42	-4.11
3,339.00	5.80	232.40	3,335.10	-48.09	-38.32	-50.44	0.43	-0.32	-2.77
3,434.00	5.10	235.40	3,429.67	-53.41	-45.60	-58.94	0.80	-0.74	3.16
3,528.00	4.90	226.60	3,523.32	-58.54	-51.96	-66.49	0.84	-0.21	-9.36
3,624.00	6.90	226.60	3,618.81	-65.32	-59.13	-75.29	2.08	2.08	0.00
3,718.00	8.00	232.10	3,712.01	-73.22	-68.39	-86.43	1.39	1.17	5.85
3,813.00	8.10	233.70	3,806.08	-81.24	-79.00	-98.88	0.26	0.11	1.68
3,908.00	6.90	232.40	3,900.26	-88.69	-88.92	-110.51	1.28	-1.26	-1.37
4,003.00	6.20	230.40	3,994.64	-95.44	-97.39	-120.56	0.77	-0.74	-2.11
4,098.00	5.90	234.20	4,089.11	-101.57	-105.31	-129.89	0.53	-0.32	4.00
4,193.00	5.60	231.70	4,183.63	-107.29	-112.90	-138.80	0.41	-0.32	-2.63
4,287.00	5.20	226.30	4,277.22	-113.08	-119.58	-146.85	0.69	-0.43	-5.74
4,382.00	4.50	222.80	4,371.88	-118.79	-125.23	-153.89	0.80	-0.74	-3.68
4,477.00	4.60	227.60	4,466.58	-124.09	-130.57	-160.53	0.41	0.11	5.05
4,572.00	6.50	229.30	4,561.13	-130.17	-137.46	-168.86	2.01	2.00	1.79
4,667.00	7.10	231.00	4,655.46	-137.37	-146.10	-179.20	0.67	0.63	1.79
4,761.00	6.00	228.10	4,748.84	-144.31	-154.27	-189.01	1.22	-1.17	-3.09
4,855.00	4.90	229.20	4,842.42	-150.21	-160.97	-197.11	1.18	-1.17	1.17

Survey Report

Company:	ABRAXAS PETROLEUM CORPORATION	Local Co-ordinate Reference:	Well Mesquite 37 #102H
Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,949.00	5.30	230.90	4,936.05	-155.57	-167.38	-204.78	0.45	0.43	1.81	
5,044.00	7.20	231.80	5,030.48	-162.02	-175.46	-214.36	2.00	2.00	0.95	
5,139.00	8.20	231.40	5,124.62	-169.93	-185.44	-226.18	1.05	1.05	-0.42	
5,234.00	8.20	233.80	5,218.65	-178.16	-196.20	-238.84	0.36	0.00	2.53	
5,328.00	7.60	233.30	5,311.76	-185.83	-206.59	-250.99	0.64	-0.64	-0.53	
5,423.00	6.80	233.60	5,406.01	-192.92	-216.16	-262.18	0.84	-0.84	0.32	
5,518.00	6.10	236.00	5,500.40	-199.08	-224.87	-272.28	0.79	-0.74	2.53	
5,613.00	5.70	231.70	5,594.90	-204.83	-232.75	-281.48	0.63	-0.42	-4.53	
5,707.00	4.50	230.50	5,688.53	-210.07	-239.26	-289.21	1.28	-1.28	-1.28	
5,802.00	4.80	223.00	5,783.22	-215.35	-244.85	-296.07	0.71	0.32	-7.89	
5,896.00	7.00	224.00	5,876.71	-222.34	-251.51	-304.45	2.34	2.34	1.06	
5,992.00	7.90	229.40	5,971.90	-230.85	-260.58	-315.57	1.19	0.94	5.62	
6,086.00	7.40	228.30	6,065.06	-239.08	-270.01	-326.95	0.55	-0.53	-1.17	
6,180.00	7.10	228.30	6,158.31	-246.97	-278.87	-337.69	0.32	-0.32	0.00	
6,275.00	6.90	227.00	6,252.60	-254.77	-287.42	-348.11	0.27	-0.21	-1.37	
6,370.00	6.20	225.30	6,346.98	-262.27	-295.24	-357.75	0.76	-0.74	-1.79	
6,465.00	6.00	221.80	6,441.45	-269.58	-302.20	-366.50	0.44	-0.21	-3.68	
6,560.00	5.20	229.10	6,535.99	-276.10	-308.76	-374.65	1.13	-0.84	7.68	
6,655.00	5.10	236.80	6,630.61	-281.23	-315.55	-382.62	0.73	-0.11	8.11	
6,751.00	4.10	231.80	6,726.30	-285.69	-321.82	-389.90	1.12	-1.04	-5.21	
6,845.00	3.20	232.90	6,820.11	-289.35	-326.55	-395.48	0.96	-0.96	1.17	
6,939.00	4.00	221.30	6,913.92	-293.39	-330.81	-400.71	1.15	0.85	-12.34	
7,034.00	4.70	222.90	7,008.65	-298.73	-335.64	-406.87	0.75	0.74	1.68	
7,128.00	5.50	225.20	7,102.28	-304.73	-341.46	-414.15	0.88	0.85	2.45	
7,223.00	6.80	234.10	7,196.73	-311.23	-349.25	-423.47	1.69	1.37	9.37	
7,318.00	5.10	231.00	7,291.22	-317.19	-357.09	-432.68	1.82	-1.79	-3.26	
7,412.00	4.20	223.00	7,384.91	-322.34	-362.68	-439.51	1.18	-0.96	-8.51	
7,507.00	4.30	218.80	7,479.65	-327.66	-367.29	-445.44	0.34	0.11	-4.42	
7,601.00	5.30	217.10	7,573.31	-333.87	-372.11	-451.84	1.07	1.06	-1.81	
7,695.00	6.00	224.30	7,666.86	-340.85	-378.16	-459.62	1.06	0.74	7.66	
7,790.00	6.60	229.80	7,761.29	-347.92	-385.80	-468.96	0.90	0.63	5.79	
7,885.00	5.10	232.40	7,855.79	-354.02	-393.32	-477.91	1.60	-1.58	2.74	
7,979.00	3.70	228.60	7,949.51	-358.58	-398.90	-484.56	1.52	-1.49	-4.04	
8,073.00	4.00	238.40	8,043.30	-362.30	-403.97	-490.48	0.77	0.32	10.43	
8,168.00	5.10	239.70	8,138.00	-366.17	-410.44	-497.78	1.16	1.16	1.37	
8,262.00	7.70	241.00	8,231.40	-371.33	-419.55	-507.99	2.77	2.77	1.38	
8,357.00	7.50	248.10	8,325.57	-376.73	-430.87	-520.38	1.01	-0.21	7.47	
8,452.00	7.20	244.90	8,419.79	-381.57	-442.02	-532.44	0.53	-0.32	-3.37	
8,546.00	7.30	241.90	8,513.04	-386.88	-452.62	-544.11	0.42	0.11	-3.19	
8,641.00	7.00	233.40	8,607.30	-393.17	-462.59	-555.47	1.16	-0.32	-8.95	
8,735.00	7.20	231.30	8,700.58	-400.27	-471.79	-566.30	0.35	0.21	-2.23	
8,830.00	6.70	232.00	8,794.88	-407.41	-480.80	-576.98	0.53	-0.53	0.74	
8,923.00	5.70	234.00	8,887.34	-413.46	-488.81	-586.38	1.10	-1.08	2.15	

Survey Report

Company:	ABRAXAS PETROLEUM CORPORATION	Local Co-ordinate Reference:	Well Mesquite 37 #102H
Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,018.00	5.60	239.70	8,981.88	-418.57	-496.63	-595.33	0.60	-0.11	6.00	
9,113.00	4.40	240.50	9,076.52	-422.71	-503.80	-603.39	1.27	-1.26	0.84	
9,206.00	4.20	231.50	9,169.25	-426.58	-509.57	-610.02	0.76	-0.22	-9.68	
9,301.00	3.70	228.00	9,264.03	-430.80	-514.58	-616.02	0.58	-0.53	-3.68	
9,395.00	4.60	230.60	9,357.78	-435.22	-519.74	-622.23	0.98	0.96	2.77	
9,490.00	7.00	224.20	9,452.29	-441.79	-526.72	-630.79	2.61	2.53	-6.74	
9,584.00	8.40	220.10	9,545.44	-451.15	-535.14	-641.53	1.60	1.49	-4.36	
9,678.00	8.00	220.30	9,638.48	-461.39	-543.79	-652.74	0.43	-0.43	0.21	
9,772.00	4.50	224.90	9,731.91	-468.99	-550.63	-661.46	3.76	-3.72	4.89	
9,867.00	2.20	252.30	9,826.74	-472.19	-555.00	-666.56	2.88	-2.42	28.84	
9,962.00	2.00	291.10	9,921.68	-472.14	-558.28	-669.69	1.48	-0.21	40.84	
10,056.00	1.90	311.50	10,015.63	-470.52	-560.98	-671.82	0.74	-0.11	21.70	
10,150.00	2.50	311.60	10,109.56	-468.13	-563.68	-673.72	0.64	0.64	0.11	
10,244.00	1.60	317.30	10,203.50	-465.80	-566.10	-675.38	0.98	-0.96	6.06	
10,276.00	0.90	54.60	10,235.49	-465.33	-566.20	-675.34	6.04	-2.19	304.06	
10,307.00	4.30	90.00	10,266.46	-465.19	-564.84	-674.00	11.63	10.97	114.19	
10,339.00	8.60	92.70	10,298.25	-465.30	-561.25	-670.59	13.47	13.44	8.44	
10,370.00	11.90	93.10	10,328.75	-465.58	-555.74	-665.39	10.65	10.65	1.29	
10,402.00	14.90	91.10	10,359.88	-465.84	-548.33	-658.36	9.48	9.37	-6.25	
10,433.00	16.00	90.90	10,389.75	-465.98	-540.07	-650.49	3.55	3.55	-0.65	
10,464.00	18.40	89.30	10,419.37	-465.99	-530.91	-641.70	7.89	7.74	-5.16	
10,496.00	20.40	88.50	10,449.55	-465.78	-520.28	-631.46	6.30	6.25	-2.50	
10,527.00	22.30	88.60	10,478.42	-465.50	-509.00	-620.56	6.13	6.13	0.32	
10,559.00	24.20	88.00	10,507.82	-465.12	-496.37	-608.35	5.98	5.94	-1.87	
10,591.00	26.90	86.20	10,536.69	-464.41	-482.59	-594.94	8.78	8.44	-5.62	
10,622.00	30.00	84.20	10,563.94	-463.16	-467.88	-580.48	10.46	10.00	-6.45	
10,654.00	33.10	82.30	10,591.21	-461.18	-451.26	-563.99	10.17	9.69	-5.94	
10,686.00	35.20	78.70	10,617.69	-458.21	-433.55	-546.17	9.11	6.56	-11.25	
10,717.00	37.30	75.70	10,642.69	-454.13	-415.69	-527.88	8.87	6.77	-9.68	
10,748.00	40.10	75.20	10,666.88	-449.26	-396.93	-508.51	9.09	9.03	-1.61	
10,780.00	42.80	74.00	10,690.87	-443.63	-376.51	-487.34	8.79	8.44	-3.75	
10,812.00	46.00	74.20	10,713.73	-437.50	-354.98	-464.95	10.01	10.00	0.62	
10,843.00	49.50	73.10	10,734.57	-431.04	-332.97	-442.01	11.59	11.29	-3.55	
10,875.00	53.40	71.90	10,754.51	-423.51	-309.11	-416.99	12.53	12.19	-3.75	
10,907.00	57.40	70.40	10,772.67	-414.99	-284.19	-390.68	13.08	12.50	-4.69	
10,938.00	60.40	69.70	10,788.68	-405.93	-259.24	-364.18	9.87	9.68	-2.26	
10,970.00	63.40	69.20	10,803.76	-396.02	-232.81	-336.03	9.48	9.37	-1.56	
11,001.00	66.50	69.70	10,816.88	-386.17	-206.52	-308.02	10.11	10.00	1.61	
11,033.00	71.20	71.20	10,828.42	-376.19	-178.40	-278.22	15.32	14.69	4.69	
11,065.00	75.30	72.80	10,837.64	-366.73	-149.26	-247.60	13.68	12.81	5.00	
11,097.00	78.20	74.30	10,844.98	-357.91	-119.39	-216.45	10.15	9.06	4.69	
11,128.00	79.00	74.20	10,851.11	-349.66	-90.15	-186.07	2.60	2.58	-0.32	
11,146.00	80.80	74.70	10,854.26	-344.91	-73.07	-168.35	10.37	10.00	2.78	
11,224.00	88.12	74.40	10,861.79	-324.24	1.70	-90.78	9.39	9.38	-0.39	

Survey Report

Company:	ABRAXAS PETROLEUM CORPORATION	Local Co-ordinate Reference:	Well Mesquite 37 #102H
Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
FTP (actual) @ 11,224' MD / 10,862' TVD									
11,276.00	93.00	74.20	10,861.28	-310.17	51.75	-38.81	9.39	9.38	-0.38
11,371.00	97.40	74.40	10,852.67	-284.58	142.80	55.77	4.64	4.63	0.21
11,465.00	97.00	73.90	10,840.89	-259.11	232.52	149.02	0.68	-0.43	-0.53
11,559.00	97.10	74.40	10,829.35	-233.63	322.26	242.30	0.54	0.11	0.53
11,654.00	96.30	74.20	10,818.27	-208.10	413.09	336.64	0.87	-0.84	-0.21
11,748.00	96.10	74.00	10,808.12	-182.50	502.96	430.09	0.30	-0.21	-0.21
11,842.00	96.40	74.20	10,797.88	-156.90	592.83	523.52	0.38	0.32	0.21
11,937.00	96.00	74.90	10,787.62	-131.74	683.86	617.95	0.84	-0.42	0.74
12,031.00	95.30	72.60	10,778.37	-105.56	773.66	711.48	2.55	-0.74	-2.45
12,127.00	97.10	72.00	10,768.00	-76.55	864.58	806.90	1.98	1.87	-0.62
12,222.00	97.80	72.10	10,755.68	-47.52	954.19	901.07	0.74	0.74	0.11
12,316.00	94.80	72.80	10,745.37	-19.35	1,043.26	994.47	3.28	-3.19	0.74
12,411.00	95.60	73.10	10,736.76	8.39	1,133.71	1,089.08	0.90	0.84	0.32
12,505.00	96.10	73.40	10,727.18	35.34	1,223.25	1,182.59	0.62	0.53	0.32
12,599.00	95.90	75.30	10,717.35	60.56	1,313.27	1,276.06	2.02	-0.21	2.02
12,694.00	90.20	73.20	10,712.30	86.30	1,404.53	1,370.87	6.39	-6.00	-2.21
12,788.00	91.50	73.50	10,710.90	113.23	1,494.58	1,464.86	1.42	1.38	0.32
12,883.00	94.00	73.90	10,706.35	139.86	1,585.64	1,559.74	2.66	2.63	0.42
12,977.00	93.80	72.90	10,699.95	166.65	1,675.52	1,653.52	1.08	-0.21	-1.06
13,072.00	94.10	73.80	10,693.41	193.81	1,766.32	1,748.29	1.00	0.32	0.95
13,166.00	93.90	73.70	10,686.85	220.05	1,856.34	1,842.06	0.24	-0.21	-0.11
13,261.00	94.90	73.60	10,679.56	246.71	1,947.23	1,936.78	1.06	1.05	-0.11
13,355.00	94.90	74.00	10,671.53	272.84	2,037.17	2,030.43	0.42	0.00	0.43
13,448.00	94.70	73.60	10,663.75	298.70	2,126.16	2,123.11	0.48	-0.22	-0.43
13,543.00	93.70	72.80	10,656.79	326.08	2,216.86	2,217.85	1.35	-1.05	-0.84
13,637.00	94.50	74.80	10,650.07	352.24	2,306.89	2,311.60	2.29	0.85	2.13
13,731.00	94.30	74.20	10,642.86	377.28	2,397.21	2,405.31	0.67	-0.21	-0.64
13,826.00	94.90	74.20	10,635.24	403.07	2,488.32	2,499.99	0.63	0.63	0.00
13,920.00	94.40	74.40	10,627.62	428.42	2,578.52	2,593.67	0.57	-0.53	0.21
14,015.00	94.70	74.10	10,620.08	454.12	2,669.66	2,688.36	0.45	0.32	-0.32
14,108.00	94.20	74.20	10,612.87	479.45	2,758.85	2,781.07	0.55	-0.54	0.11
14,202.00	92.20	74.50	10,607.62	504.76	2,849.22	2,874.91	2.15	-2.13	0.32
14,295.00	92.10	74.60	10,604.13	529.52	2,938.80	2,967.83	0.15	-0.11	0.11
14,389.00	91.40	74.70	10,601.26	554.39	3,029.40	3,061.76	0.75	-0.74	0.11
14,483.00	90.70	74.70	10,599.54	579.19	3,120.06	3,155.72	0.74	-0.74	0.00
14,577.00	90.20	74.30	10,598.80	604.31	3,210.63	3,249.70	0.68	-0.53	-0.43
14,672.00	89.80	74.10	10,598.80	630.18	3,302.05	3,344.70	0.47	-0.42	-0.21
14,767.00	91.60	74.40	10,597.64	655.96	3,393.47	3,439.68	1.92	1.89	0.32
14,861.00	92.40	74.30	10,594.36	681.31	3,483.93	3,533.61	0.86	0.85	-0.11
14,955.00	92.80	73.80	10,590.10	707.11	3,574.22	3,627.50	0.68	0.43	-0.53
15,049.00	93.30	74.20	10,585.09	732.98	3,664.45	3,721.36	0.68	0.53	0.43
15,143.00	92.00	74.50	10,580.75	758.31	3,754.86	3,815.25	1.42	-1.38	0.32

Survey Report

Company:	ABRAXAS PETROLEUM CORPORATION	Local Co-ordinate Reference:	Well Mesquite 37 #102H
Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,238.00	91.30	75.20	10,578.01	783.13	3,846.52	3,910.18	1.04	-0.74	0.74
15,333.00	89.60	74.90	10,577.27	807.64	3,938.30	4,005.14	1.82	-1.79	-0.32
15,427.00	88.20	72.90	10,579.07	833.70	4,028.59	4,099.11	2.60	-1.49	-2.13
15,521.00	89.60	73.20	10,580.88	861.09	4,118.49	4,193.09	1.52	1.49	0.32
15,616.00	90.40	73.20	10,580.88	888.55	4,209.43	4,288.09	0.84	0.84	0.00
15,710.00	91.10	73.20	10,579.65	915.72	4,299.41	4,382.08	0.74	0.74	0.00
15,804.00	88.70	71.30	10,579.81	944.37	4,388.93	4,476.04	3.26	-2.55	-2.02
15,899.00	89.10	71.30	10,581.63	974.83	4,478.89	4,570.96	0.42	0.42	0.00
15,993.00	88.70	69.20	10,583.44	1,006.58	4,567.34	4,664.79	2.27	-0.43	-2.23
16,087.00	88.50	67.70	10,585.74	1,041.10	4,654.74	4,758.41	1.61	-0.21	-1.60
Last MWD Srvy @ 16,087' MD / 10,586' TVD									
16,118.00	88.50	67.70	10,586.55	1,052.86	4,683.41	4,789.24	0.00	0.00	0.00
LTP (actual) @ 16,118' MD / 10,587' TVD									
16,217.00	88.50	67.70	10,589.14	1,090.41	4,774.98	4,887.71	0.00	0.00	0.00
PTD @ 16,217' MD / 10,589' TVD									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PP Mesquite 37 #102	0.00	360.00	0.00	-438.00	-377.00	674,288.00	1,127,819.00	31° 29' 25.87 N	103° 7' 54.40 W
- actual wellpath misses target center by 577.91usft at 1.39usft MD (1.39 TVD, 0.00 N, 0.00 E)									
- Point									
KOP Pln #2 Mesquite	0.00	360.00	10,243.13	-496.93	-579.77	674,229.07	1,127,616.23	31° 29' 25.23 N	103° 7' 56.72 W
- actual wellpath misses target center by 34.51usft at 10282.89usft MD (10242.38 TVD, -465.27 N, -566.06 E)									
- Point									
Actual LTP/Cross HL	0.00	360.00	10,586.55	1,052.89	4,683.44	675,778.89	1,132,879.44	31° 29' 41.88 N	103° 6' 56.40 W
- actual wellpath misses target center by 0.04usft at 16118.00usft MD (10586.55 TVD, 1052.86 N, 4683.41 E)									
- Point									
PTD Mesquite 37 #10	0.00	360.00	10,589.14	1,090.41	4,774.98	675,816.41	1,132,970.98	31° 29' 42.27 N	103° 6' 55.36 W
- actual wellpath hits target center									
- Point									
Actual FTP/Cross HL	0.00	0.00	10,861.79	-324.24	1.72	674,401.76	1,128,197.72	31° 29' 27.09 N	103° 7' 50.06 W
- actual wellpath hits target center									
- Point									

Survey Report

Company:	ABRAXAS PETROLEUM CORPORATION	Local Co-ordinate Reference:	Well Mesquite 37 #102H
Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
137.00	137.00	-0.67	0.27	1st MWD Srvy @ 137' MD / 137' TVD
11,224.00	10,861.79	-324.24	1.70	FTP (actual) @ 11,224' MD / 10,862' TVD
16,087.00	10,585.74	1,041.10	4,654.74	Last MWD Srvy @ 16,087' MD / 10,586' TVD
16,118.00	10,586.55	1,052.86	4,683.41	LTP (actual) @ 16,118' MD / 10,587' TVD
16,217.00	10,589.14	1,090.41	4,774.98	PTD @ 16,217' MD / 10,589' TVD

Checked By: _____	Approved By: _____	Date: _____
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ABRAXAS PETROLEUM CORP.

LEASE NAME & WELL NO.:

MESQUITE 37 #102H

TOPOGRAPHY & VEGETATION:

NATURAL MESQUITE PASTURE

NEAREST TOWN IN COUNTY:

±2.98 MILES SOUTHWEST FROM PYOTE, TEXAS

DESCRIPTION:

SHL/FTP/LTP/BHL: SECTION 37, BLOCK 16, UNIVERSITY LANDS SURVEY,
PP: SECTION 33, LEE F. FREEMAN SURVEY,
WARD COUNTY, TEXAS

SPECIAL NOTES:

Original Document Size: 8.5"x14"

All Coordinates are in NAD 27 TX-C Zone unless otherwise noted.

CERTIFICATION:

This well location shown on this permit plat was surveyed on the ground under my direct supervision. This plat is for Texas Railroad Commission permit purpose only and should not be considered a boundary survey.



Texas Reg. No.

5041



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

2003 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1963 OR (800) 787-1963 • FAX (432) 682-1748
WWW.TOPOGRAPHIC.COM

Texas FIRM Registration NO. 10042500

FILE NAME: LO_MESQUITE_37_#102H_REV3

Surface Hole Location:

2625' FSL & 289' FWL (SEC. 37)

SHL Ground Elevation: 2595'

X = 1128196 Y = 674726

LAT.: N 31.4917498 LONG.: W 103.1306032

NAD 83 TX-C ZONE

X = 1424662 Y = 10517302

LAT.: N 31.4918840 LONG.: W 103.1310420

Penetration Point:

2310' FSL & 195' FEL (SEC. 33)

X = 1127819 Y = 674288

LAT.: N 31.4905199 LONG.: W 103.1317765

First Take Point Location:

2310' FSL & 200' FWL (SEC. 37)

X = 1128199 Y = 674399

LAT.: N 31.4908501 LONG.: W 103.1305692

Last Take Point/

Bottom Hole Location:

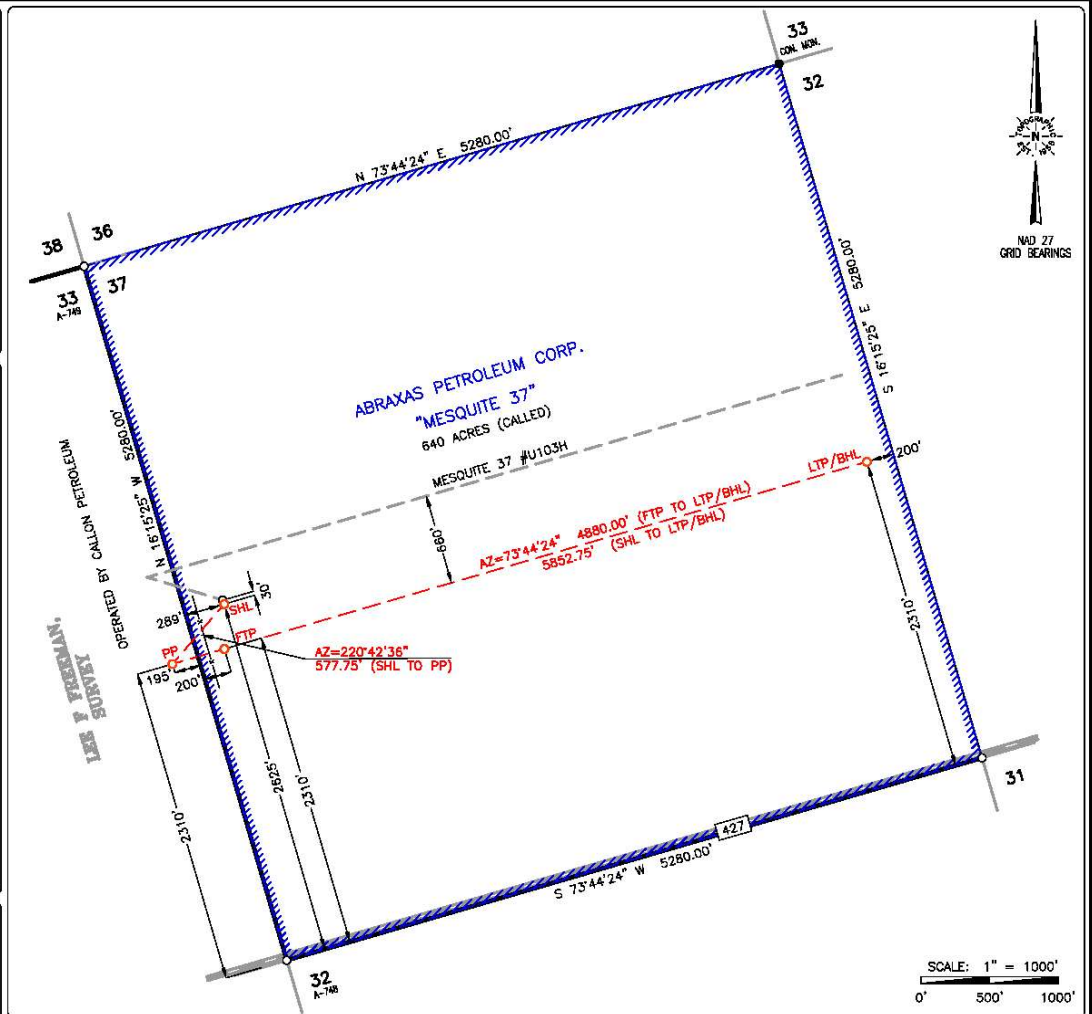
2310' FSL & 200' FEL (SEC. 37)

X = 1132883 Y = 675765

LAT.: N 31.4949285 LONG.: W 103.1156536

LEGEND

- Section Line
- Block Line
- Abstract Line
- Tract Line
- Lease Road
- County Road
- Unit/Lease Boundary
- Found Monument
- Set 1/2" Rebar w/cap
- Calculated Corner



Surveyed: 10/31/17

Scale: 1"=1000'

COGO: 575-120469

Drawn By: IC; 11/2/17

Revision: 3(IC) Date Revised: 2/15/18



Railroad Commission of Texas
Oil and Gas Division
P.O.Box 12967
Capitol Station
Austin TX, 78711

August 28, 2018

Attn: Pam Johns

Enclosed, please find the original and one copy of the surveys performed on the referenced well by Premier Directional Drilling, LLC (Operator No. 676002) supervised by Heath Angelle. Other information required by your office is as follows:

JOB NUMBER	M18263	CUSTOMER	Abraxas Petroleum Corporation
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WELL NAME	Mesquite 37 #102H	COUNTY & STATE	Ward County
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API WELL NUMBER	4247537465	PROPOSED DIRECTION	73.44
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TIE-IN DATA						
MEASURED DEPTH	VERTICAL DEPTH	INCLINATION	AZIMUTH	N-S	E-W	DATA SOURCE
.00 ft	.00 ft	0°	0°	.00 ft	.00 ft	(Surface)

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLINATION	AZIMUTH
6/13/2018	137 ft	.6°	158.°

SURVEY INSTRUMENT TYPE
Premier MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLINATION	AZIMUTH
8/1/2018	16,087 ft	88.5°	67.7°

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLINATION	AZIMUTH
8/1/2018	16,217 ft	88.5°	67.7°

Heath Angelle
MWD Coordinator
Premier Directional Drilling, LLC

TOTAL CORRECTION USED	8.59
DECLINATION OR GRID	Grid

MWD SUPERVISOR 1	Matt Walkoviak	DIRECTIONAL DRILLER 1	Brian Hancock
MWD SUPERVISOR 2	Dustin Westall	DIRECTIONAL DRILLER 2	Don Sims

A certified plat on which the bottom-hole location is oriented to the surface location is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Enclosures (Surveys and Plat)



363 N. Sam Houston Parkway E, Suite 300
Houston, TX 77060

August 28, 2018

State of Texas

County of Harris

I, Heath Angelle, certify that; I am employed by Premier Directional Drilling, LLC; that on the day(s) of June 13, 2018 – August 1, 2018 we conducted and/or supervised the taking of MWD surveys for Mesquite 37 #102H from a depth of 137.00 feet to a depth of 16,217.00 feet; that the data is true, correct, complete, and within the limitations of the tool as set forth by Premier Directional Drilling, LLC; that I am authorized and qualified to make this report; that this survey was conducted accordingly at the request of Abraxas Petroleum Corporation; that I reviewed this report and find it conforms to the principles and procedures as set forth by Premier Directional Drilling, LLC.

Heath Angelle
MWD Coordinator
Premier Directional Drilling, LLC



Final Well Report

**Mesquite 37 102H
Ward County, Texas**

**Prepared for
Mr. Kenny Johnson**



Section One

Direction Comparison Plot

Actual vs. Proposed

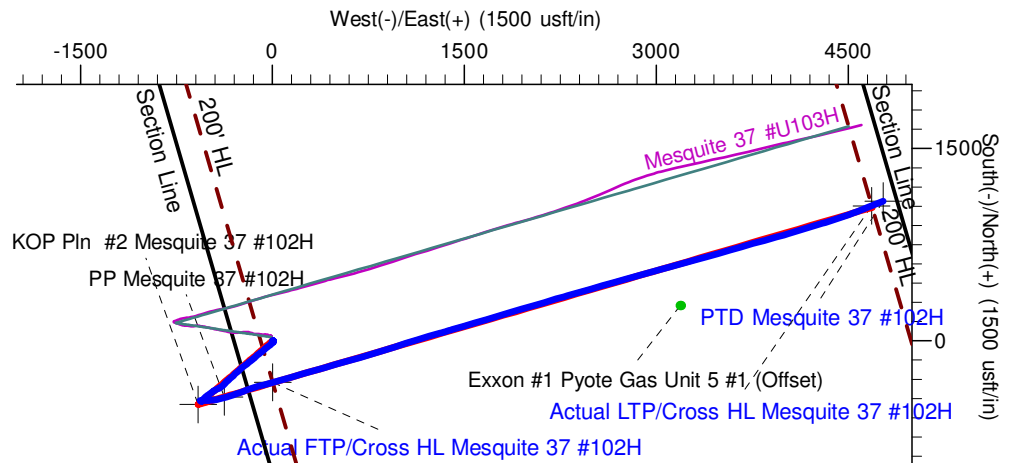
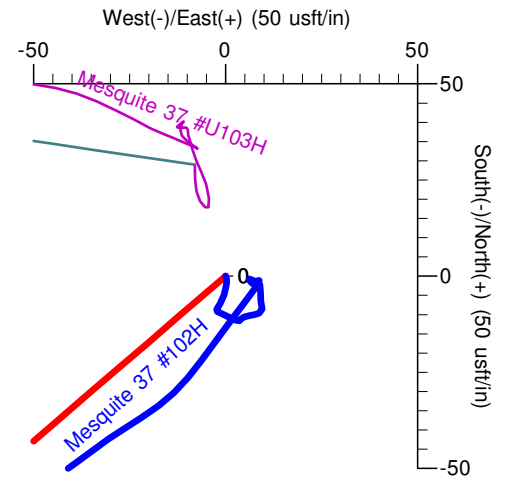


ABRAXAS PETROLEUM CORPORATION

Project: Ward County, TX
Site: Mesquite 37 Pad
Well: Mesquite 37 #102H
Wellbore: Wellbore #1
Design: Wellbore #1

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4926.00	4938.38	B/Anhydrite-T/Delaware
4941.00	4953.47	Bell Canyon
5726.00	5743.29	Cherry Canyon
6011.00	6030.05	Manzanita
6901.00	6925.52	Brushy Canyon
7931.00	7961.85	1st Bone Spring
8951.00	8988.12	2nd Bone Spring
10041.00	10082.30	3rd Bone Spring Lime
10556.00	10719.00	3rd Bone Spring Upper
10616.00	10957.97	3rd Bone Spring Up Target



SECTION DETAILS

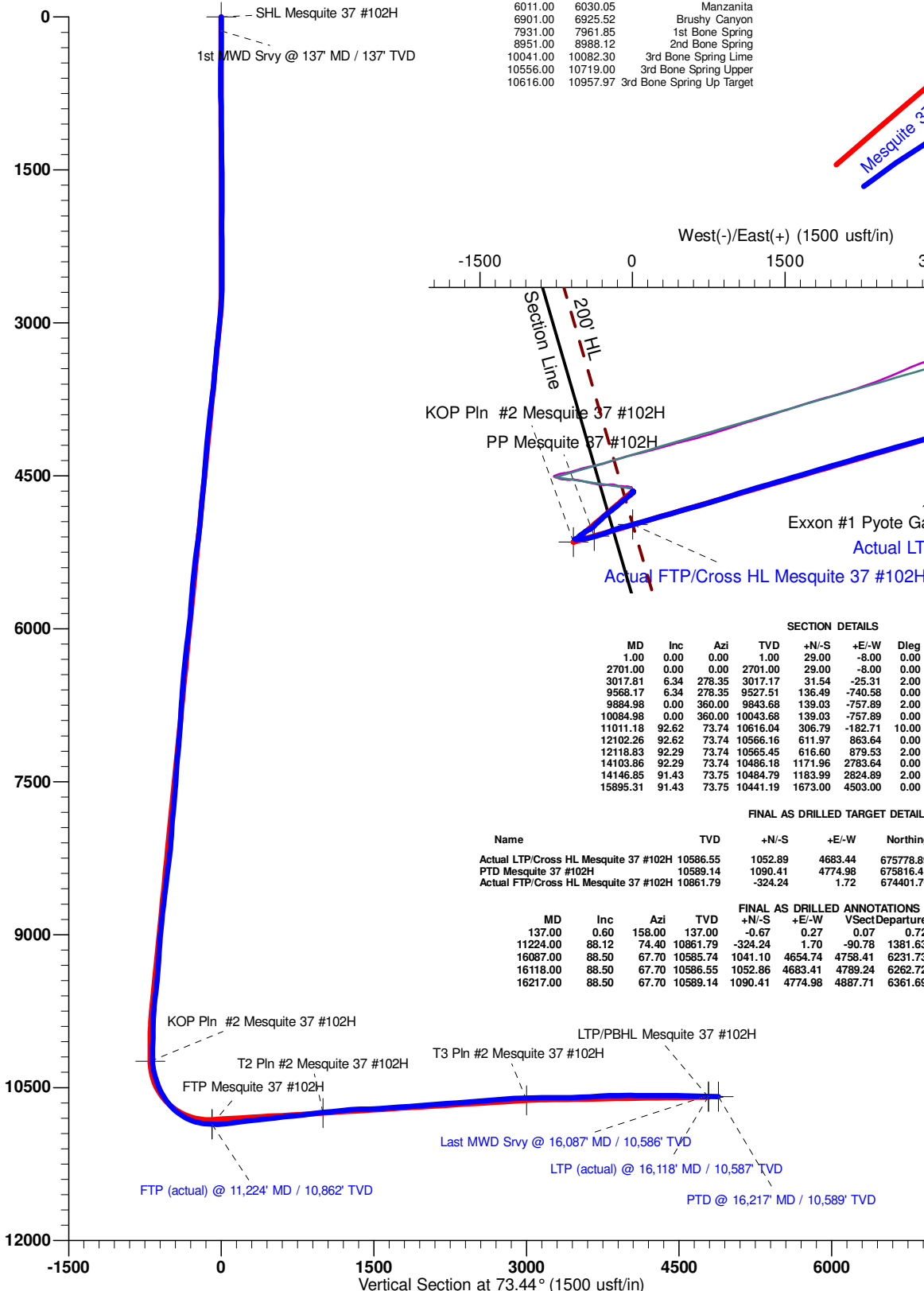
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1.00	0.00	0.00	1.00	29.00	-8.00	0.00	0.00	0.00	
2701.00	0.00	0.00	2701.00	29.00	-8.00	0.00	0.00	0.00	
3017.81	6.34	278.35	3017.17	31.54	-25.31	2.00	278.35	-15.91	
9568.17	6.34	278.35	9527.51	136.49	-740.58	0.00	0.00	-673.18	
9884.98	0.00	360.00	9843.68	139.03	-757.89	2.00	180.00	-689.09	
10084.98	0.00	360.00	10043.68	139.03	-757.89	0.00	0.00	-689.09	KOP Pln #2 Mesquite 37 #U103H
11011.18	92.62	73.74	10616.04	306.79	-182.71	10.00	73.74	-89.94	
12102.26	92.62	73.74	10566.16	611.97	863.64	0.00	0.00	1000.00	
12118.83	92.29	73.74	10565.45	616.60	879.53	2.00	180.00	1016.55	
14103.86	92.29	73.74	10486.18	1171.96	2783.64	0.00	0.00	3000.00	
14146.85	91.43	73.75	10484.79	1183.99	2824.89	2.00	179.10	3042.97	
15895.31	91.43	73.75	10441.19	1673.00	4503.00	0.00	0.00	4790.88	LTP/PBHL Mesquite 37 U103H

FINAL AS DRILLED TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Actual LTP/Cross HL Mesquite 37 #102H	10586.55	1052.89	4683.44	675778.89	1132879.44	31° 29' 41.88 N	103° 6' 56.40 W
PTD Mesquite 37 #102H	10589.14	1090.41	4774.98	675816.41	1132970.98	31° 29' 42.27 N	103° 6' 55.36 W
Actual FTP/Cross HL Mesquite 37 #102H	10861.79	-324.24	1.72	674401.76	1128197.72	31° 29' 27.09 N	103° 7' 50.06 W

FINAL AS DRILLED ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
137.00	0.60	158.00	137.00	-0.67	0.27	0.07	0.72	1st MWD Srvy @ 137' MD / 137' TVD
11224.00	88.12	74.40	10861.79	-324.24	1.70	-90.78	1381.63	FTP (actual) @ 11,224' MD / 10,862' TVD
16087.00	88.50	67.70	10585.74	1041.10	4654.74	4758.41	6231.73	Last MWD Srvy @ 16,087' MD / 10,586' TVD
16118.00	88.50	67.70	10586.55	1052.86	4683.41	4789.24	6262.72	LTP (actual) @ 16,118' MD / 10,587' TVD
16217.00	88.50	67.70	10589.14	1090.41	4774.98	4887.71	6361.69	PTD @ 16,217' MD / 10,589' TVD



Azimuths to Grid North
True North: 1.44°
Magnetic North: 8.59°

Magnetic Field
Strength: 47598.8snT
Dip Angle: 59.45°
Date: 05/31/2018
Model: HDGM

Design: Wellbore #1 (Mesquite 37 #102H/Wellbore #1)

Created By: Nephi Smith Date: 10:24, August 03 2018

PREMIER DIRECTIONAL DRILLING
363 N. Sam Houston Pkwy, Ste 300, Houston TX 77060
Phone: 281-673-4000



ABRAXAS PETROLEUM CORPORATION

**Ward County, TX
Mesquite 37 Pad
Mesquite 37 #102H**

Wellbore #1

Design: Wellbore #1

Standard Survey Report

03 August, 2018

Survey Report

Company:	ABRAXAS PETROLEUM CORPORATION	Local Co-ordinate Reference:	Well Mesquite 37 #102H
Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Project	Ward County, TX		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Texas Central 4203		

Site	Mesquite 37 Pad		
Site Position:		Northing:	674,726.00 usft
From:	Map	Easting:	1,128,196.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	31° 29' 30.30 N
		Longitude:	103° 7' 50.17 W
		Grid Convergence:	-1.44 °

Well	Mesquite 37 #102H		
Well Position	+N/-S	0.00 usft	Northing: 674,726.00 usft
	+E/-W	0.00 usft	Easting: 1,128,196.00 usft
Position Uncertainty	0.00 usft		Wellhead Elevation: usft
			Latitude: 31° 29' 30.30 N
			Longitude: 103° 7' 50.17 W
			Ground Level: 2,595.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	05/31/18	7.15	59.45	47,599

Design	Wellbore #1				
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	73.44	

Survey Program	Date	08/03/18			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
137.00	16,087.00	Survey #1 (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM	
16,217.00	16,217.00	Survey #2 (Wellbore #1)	Projection		

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
137.00	0.60	158.00	137.00	-0.67	0.27	0.07	0.44	0.44	0.00	
1st MWD Srvy @ 137' MD / 137' TVD										
230.00	0.90	195.00	229.99	-1.82	0.26	-0.27	0.60	0.32	39.78	
320.00	0.80	178.90	319.98	-3.13	0.09	-0.81	0.29	-0.11	-17.89	
411.00	1.50	203.40	410.96	-4.86	-0.37	-1.74	0.92	0.77	26.92	
505.00	1.50	205.60	504.93	-7.10	-1.39	-3.36	0.06	0.00	2.34	
596.00	0.70	227.40	595.91	-8.55	-2.31	-4.65	0.98	-0.88	23.96	
688.00	0.80	110.10	687.91	-9.15	-2.12	-4.64	1.39	0.11	-127.50	
781.00	1.90	119.20	780.88	-10.13	-0.17	-3.05	1.20	1.18	9.78	

Survey Report

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Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
874.00	1.50	113.20	873.84	-11.36	2.30	-1.04	0.47	-0.43	-6.45
966.00	0.40	47.60	965.83	-11.62	3.64	0.18	1.50	-1.20	-71.30
1,060.00	0.40	35.30	1,059.83	-11.13	4.07	0.73	0.09	0.00	-13.09
1,155.00	0.80	63.90	1,154.82	-10.56	4.86	1.65	0.51	0.42	30.11
1,250.00	0.80	89.30	1,249.81	-10.26	6.12	2.94	0.37	0.00	26.74
1,345.00	0.80	71.30	1,344.80	-10.04	7.41	4.24	0.26	0.00	-18.95
1,440.00	1.00	72.40	1,439.79	-9.58	8.83	5.73	0.21	0.21	1.16
1,533.00	1.00	353.60	1,532.78	-8.53	9.51	6.69	1.36	0.00	-84.73
1,627.00	1.50	349.40	1,626.76	-6.50	9.19	6.96	0.54	0.53	-4.47
1,722.00	1.50	8.20	1,721.73	-4.05	9.14	7.61	0.52	0.00	19.79
1,817.00	0.90	327.50	1,816.71	-2.19	8.92	7.92	1.06	-0.63	-42.84
1,911.00	1.40	290.80	1,910.69	-1.16	7.45	6.81	0.92	0.53	-39.04
2,006.00	0.20	273.50	2,005.68	-0.74	6.20	5.73	1.27	-1.26	-18.21
2,101.00	0.70	143.90	2,100.67	-1.20	6.37	5.77	0.89	0.53	-136.42
2,195.00	0.40	124.30	2,194.67	-1.85	6.98	6.17	0.37	-0.32	-20.85
2,286.00	0.50	55.50	2,285.67	-1.80	7.57	6.75	0.57	0.11	-75.60
2,394.00	0.30	36.10	2,393.67	-1.31	8.13	7.42	0.22	-0.19	-17.96
2,488.00	0.20	72.90	2,487.66	-1.06	8.43	7.78	0.20	-0.11	39.15
2,583.00	0.30	119.40	2,582.66	-1.13	8.80	8.12	0.23	0.11	48.95
2,678.00	1.20	216.40	2,677.66	-2.05	8.43	7.50	1.34	0.95	102.11
2,772.00	4.10	215.60	2,771.55	-5.58	5.89	4.06	3.09	3.09	-0.85
2,867.00	6.50	217.80	2,866.13	-12.59	0.62	-3.00	2.53	2.53	2.32
2,962.00	7.40	215.40	2,960.43	-21.83	-6.22	-12.19	1.00	0.95	-2.53
3,056.00	6.30	226.20	3,053.77	-30.33	-13.45	-21.54	1.80	-1.17	11.49
3,150.00	6.50	238.90	3,147.18	-36.65	-21.73	-31.28	1.52	0.21	13.51
3,245.00	6.10	235.00	3,241.61	-42.32	-30.47	-41.27	0.62	-0.42	-4.11
3,339.00	5.80	232.40	3,335.10	-48.09	-38.32	-50.44	0.43	-0.32	-2.77
3,434.00	5.10	235.40	3,429.67	-53.41	-45.60	-58.94	0.80	-0.74	3.16
3,528.00	4.90	226.60	3,523.32	-58.54	-51.96	-66.49	0.84	-0.21	-9.36
3,624.00	6.90	226.60	3,618.81	-65.32	-59.13	-75.29	2.08	2.08	0.00
3,718.00	8.00	232.10	3,712.01	-73.22	-68.39	-86.43	1.39	1.17	5.85
3,813.00	8.10	233.70	3,806.08	-81.24	-79.00	-98.88	0.26	0.11	1.68
3,908.00	6.90	232.40	3,900.26	-88.69	-88.92	-110.51	1.28	-1.26	-1.37
4,003.00	6.20	230.40	3,994.64	-95.44	-97.39	-120.56	0.77	-0.74	-2.11
4,098.00	5.90	234.20	4,089.11	-101.57	-105.31	-129.89	0.53	-0.32	4.00
4,193.00	5.60	231.70	4,183.63	-107.29	-112.90	-138.80	0.41	-0.32	-2.63
4,287.00	5.20	226.30	4,277.22	-113.08	-119.58	-146.85	0.69	-0.43	-5.74
4,382.00	4.50	222.80	4,371.88	-118.79	-125.23	-153.89	0.80	-0.74	-3.68
4,477.00	4.60	227.60	4,466.58	-124.09	-130.57	-160.53	0.41	0.11	5.05
4,572.00	6.50	229.30	4,561.13	-130.17	-137.46	-168.86	2.01	2.00	1.79
4,667.00	7.10	231.00	4,655.46	-137.37	-146.10	-179.20	0.67	0.63	1.79
4,761.00	6.00	228.10	4,748.84	-144.31	-154.27	-189.01	1.22	-1.17	-3.09
4,855.00	4.90	229.20	4,842.42	-150.21	-160.97	-197.11	1.18	-1.17	1.17

Survey Report

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Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,949.00	5.30	230.90	4,936.05	-155.57	-167.38	-204.78	0.45	0.43	1.81	
5,044.00	7.20	231.80	5,030.48	-162.02	-175.46	-214.36	2.00	2.00	0.95	
5,139.00	8.20	231.40	5,124.62	-169.93	-185.44	-226.18	1.05	1.05	-0.42	
5,234.00	8.20	233.80	5,218.65	-178.16	-196.20	-238.84	0.36	0.00	2.53	
5,328.00	7.60	233.30	5,311.76	-185.83	-206.59	-250.99	0.64	-0.64	-0.53	
5,423.00	6.80	233.60	5,406.01	-192.92	-216.16	-262.18	0.84	-0.84	0.32	
5,518.00	6.10	236.00	5,500.40	-199.08	-224.87	-272.28	0.79	-0.74	2.53	
5,613.00	5.70	231.70	5,594.90	-204.83	-232.75	-281.48	0.63	-0.42	-4.53	
5,707.00	4.50	230.50	5,688.53	-210.07	-239.26	-289.21	1.28	-1.28	-1.28	
5,802.00	4.80	223.00	5,783.22	-215.35	-244.85	-296.07	0.71	0.32	-7.89	
5,896.00	7.00	224.00	5,876.71	-222.34	-251.51	-304.45	2.34	2.34	1.06	
5,992.00	7.90	229.40	5,971.90	-230.85	-260.58	-315.57	1.19	0.94	5.62	
6,086.00	7.40	228.30	6,065.06	-239.08	-270.01	-326.95	0.55	-0.53	-1.17	
6,180.00	7.10	228.30	6,158.31	-246.97	-278.87	-337.69	0.32	-0.32	0.00	
6,275.00	6.90	227.00	6,252.60	-254.77	-287.42	-348.11	0.27	-0.21	-1.37	
6,370.00	6.20	225.30	6,346.98	-262.27	-295.24	-357.75	0.76	-0.74	-1.79	
6,465.00	6.00	221.80	6,441.45	-269.58	-302.20	-366.50	0.44	-0.21	-3.68	
6,560.00	5.20	229.10	6,535.99	-276.10	-308.76	-374.65	1.13	-0.84	7.68	
6,655.00	5.10	236.80	6,630.61	-281.23	-315.55	-382.62	0.73	-0.11	8.11	
6,751.00	4.10	231.80	6,726.30	-285.69	-321.82	-389.90	1.12	-1.04	-5.21	
6,845.00	3.20	232.90	6,820.11	-289.35	-326.55	-395.48	0.96	-0.96	1.17	
6,939.00	4.00	221.30	6,913.92	-293.39	-330.81	-400.71	1.15	0.85	-12.34	
7,034.00	4.70	222.90	7,008.65	-298.73	-335.64	-406.87	0.75	0.74	1.68	
7,128.00	5.50	225.20	7,102.28	-304.73	-341.46	-414.15	0.88	0.85	2.45	
7,223.00	6.80	234.10	7,196.73	-311.23	-349.25	-423.47	1.69	1.37	9.37	
7,318.00	5.10	231.00	7,291.22	-317.19	-357.09	-432.68	1.82	-1.79	-3.26	
7,412.00	4.20	223.00	7,384.91	-322.34	-362.68	-439.51	1.18	-0.96	-8.51	
7,507.00	4.30	218.80	7,479.65	-327.66	-367.29	-445.44	0.34	0.11	-4.42	
7,601.00	5.30	217.10	7,573.31	-333.87	-372.11	-451.84	1.07	1.06	-1.81	
7,695.00	6.00	224.30	7,666.86	-340.85	-378.16	-459.62	1.06	0.74	7.66	
7,790.00	6.60	229.80	7,761.29	-347.92	-385.80	-468.96	0.90	0.63	5.79	
7,885.00	5.10	232.40	7,855.79	-354.02	-393.32	-477.91	1.60	-1.58	2.74	
7,979.00	3.70	228.60	7,949.51	-358.58	-398.90	-484.56	1.52	-1.49	-4.04	
8,073.00	4.00	238.40	8,043.30	-362.30	-403.97	-490.48	0.77	0.32	10.43	
8,168.00	5.10	239.70	8,138.00	-366.17	-410.44	-497.78	1.16	1.16	1.37	
8,262.00	7.70	241.00	8,231.40	-371.33	-419.55	-507.99	2.77	2.77	1.38	
8,357.00	7.50	248.10	8,325.57	-376.73	-430.87	-520.38	1.01	-0.21	7.47	
8,452.00	7.20	244.90	8,419.79	-381.57	-442.02	-532.44	0.53	-0.32	-3.37	
8,546.00	7.30	241.90	8,513.04	-386.88	-452.62	-544.11	0.42	0.11	-3.19	
8,641.00	7.00	233.40	8,607.30	-393.17	-462.59	-555.47	1.16	-0.32	-8.95	
8,735.00	7.20	231.30	8,700.58	-400.27	-471.79	-566.30	0.35	0.21	-2.23	
8,830.00	6.70	232.00	8,794.88	-407.41	-480.80	-576.98	0.53	-0.53	0.74	
8,923.00	5.70	234.00	8,887.34	-413.46	-488.81	-586.38	1.10	-1.08	2.15	

Survey Report

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Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,018.00	5.60	239.70	8,981.88	-418.57	-496.63	-595.33	0.60	-0.11	6.00	
9,113.00	4.40	240.50	9,076.52	-422.71	-503.80	-603.39	1.27	-1.26	0.84	
9,206.00	4.20	231.50	9,169.25	-426.58	-509.57	-610.02	0.76	-0.22	-9.68	
9,301.00	3.70	228.00	9,264.03	-430.80	-514.58	-616.02	0.58	-0.53	-3.68	
9,395.00	4.60	230.60	9,357.78	-435.22	-519.74	-622.23	0.98	0.96	2.77	
9,490.00	7.00	224.20	9,452.29	-441.79	-526.72	-630.79	2.61	2.53	-6.74	
9,584.00	8.40	220.10	9,545.44	-451.15	-535.14	-641.53	1.60	1.49	-4.36	
9,678.00	8.00	220.30	9,638.48	-461.39	-543.79	-652.74	0.43	-0.43	0.21	
9,772.00	4.50	224.90	9,731.91	-468.99	-550.63	-661.46	3.76	-3.72	4.89	
9,867.00	2.20	252.30	9,826.74	-472.19	-555.00	-666.56	2.88	-2.42	28.84	
9,962.00	2.00	291.10	9,921.68	-472.14	-558.28	-669.69	1.48	-0.21	40.84	
10,056.00	1.90	311.50	10,015.63	-470.52	-560.98	-671.82	0.74	-0.11	21.70	
10,150.00	2.50	311.60	10,109.56	-468.13	-563.68	-673.72	0.64	0.64	0.11	
10,244.00	1.60	317.30	10,203.50	-465.80	-566.10	-675.38	0.98	-0.96	6.06	
10,276.00	0.90	54.60	10,235.49	-465.33	-566.20	-675.34	6.04	-2.19	304.06	
10,307.00	4.30	90.00	10,266.46	-465.19	-564.84	-674.00	11.63	10.97	114.19	
10,339.00	8.60	92.70	10,298.25	-465.30	-561.25	-670.59	13.47	13.44	8.44	
10,370.00	11.90	93.10	10,328.75	-465.58	-555.74	-665.39	10.65	10.65	1.29	
10,402.00	14.90	91.10	10,359.88	-465.84	-548.33	-658.36	9.48	9.37	-6.25	
10,433.00	16.00	90.90	10,389.75	-465.98	-540.07	-650.49	3.55	3.55	-0.65	
10,464.00	18.40	89.30	10,419.37	-465.99	-530.91	-641.70	7.89	7.74	-5.16	
10,496.00	20.40	88.50	10,449.55	-465.78	-520.28	-631.46	6.30	6.25	-2.50	
10,527.00	22.30	88.60	10,478.42	-465.50	-509.00	-620.56	6.13	6.13	0.32	
10,559.00	24.20	88.00	10,507.82	-465.12	-496.37	-608.35	5.98	5.94	-1.87	
10,591.00	26.90	86.20	10,536.69	-464.41	-482.59	-594.94	8.78	8.44	-5.62	
10,622.00	30.00	84.20	10,563.94	-463.16	-467.88	-580.48	10.46	10.00	-6.45	
10,654.00	33.10	82.30	10,591.21	-461.18	-451.26	-563.99	10.17	9.69	-5.94	
10,686.00	35.20	78.70	10,617.69	-458.21	-433.55	-546.17	9.11	6.56	-11.25	
10,717.00	37.30	75.70	10,642.69	-454.13	-415.69	-527.88	8.87	6.77	-9.68	
10,748.00	40.10	75.20	10,666.88	-449.26	-396.93	-508.51	9.09	9.03	-1.61	
10,780.00	42.80	74.00	10,690.87	-443.63	-376.51	-487.34	8.79	8.44	-3.75	
10,812.00	46.00	74.20	10,713.73	-437.50	-354.98	-464.95	10.01	10.00	0.62	
10,843.00	49.50	73.10	10,734.57	-431.04	-332.97	-442.01	11.59	11.29	-3.55	
10,875.00	53.40	71.90	10,754.51	-423.51	-309.11	-416.99	12.53	12.19	-3.75	
10,907.00	57.40	70.40	10,772.67	-414.99	-284.19	-390.68	13.08	12.50	-4.69	
10,938.00	60.40	69.70	10,788.68	-405.93	-259.24	-364.18	9.87	9.68	-2.26	
10,970.00	63.40	69.20	10,803.76	-396.02	-232.81	-336.03	9.48	9.37	-1.56	
11,001.00	66.50	69.70	10,816.88	-386.17	-206.52	-308.02	10.11	10.00	1.61	
11,033.00	71.20	71.20	10,828.42	-376.19	-178.40	-278.22	15.32	14.69	4.69	
11,065.00	75.30	72.80	10,837.64	-366.73	-149.26	-247.60	13.68	12.81	5.00	
11,097.00	78.20	74.30	10,844.98	-357.91	-119.39	-216.45	10.15	9.06	4.69	
11,128.00	79.00	74.20	10,851.11	-349.66	-90.15	-186.07	2.60	2.58	-0.32	
11,146.00	80.80	74.70	10,854.26	-344.91	-73.07	-168.35	10.37	10.00	2.78	
11,224.00	88.12	74.40	10,861.79	-324.24	1.70	-90.78	9.39	9.38	-0.39	

Survey Report

Company:	ABRAXAS PETROLEUM CORPORATION	Local Co-ordinate Reference:	Well Mesquite 37 #102H
Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
FTP (actual) @ 11,224' MD / 10,862' TVD									
11,276.00	93.00	74.20	10,861.28	-310.17	51.75	-38.81	9.39	9.38	-0.38
11,371.00	97.40	74.40	10,852.67	-284.58	142.80	55.77	4.64	4.63	0.21
11,465.00	97.00	73.90	10,840.89	-259.11	232.52	149.02	0.68	-0.43	-0.53
11,559.00	97.10	74.40	10,829.35	-233.63	322.26	242.30	0.54	0.11	0.53
11,654.00	96.30	74.20	10,818.27	-208.10	413.09	336.64	0.87	-0.84	-0.21
11,748.00	96.10	74.00	10,808.12	-182.50	502.96	430.09	0.30	-0.21	-0.21
11,842.00	96.40	74.20	10,797.88	-156.90	592.83	523.52	0.38	0.32	0.21
11,937.00	96.00	74.90	10,787.62	-131.74	683.86	617.95	0.84	-0.42	0.74
12,031.00	95.30	72.60	10,778.37	-105.56	773.66	711.48	2.55	-0.74	-2.45
12,127.00	97.10	72.00	10,768.00	-76.55	864.58	806.90	1.98	1.87	-0.62
12,222.00	97.80	72.10	10,755.68	-47.52	954.19	901.07	0.74	0.74	0.11
12,316.00	94.80	72.80	10,745.37	-19.35	1,043.26	994.47	3.28	-3.19	0.74
12,411.00	95.60	73.10	10,736.76	8.39	1,133.71	1,089.08	0.90	0.84	0.32
12,505.00	96.10	73.40	10,727.18	35.34	1,223.25	1,182.59	0.62	0.53	0.32
12,599.00	95.90	75.30	10,717.35	60.56	1,313.27	1,276.06	2.02	-0.21	2.02
12,694.00	90.20	73.20	10,712.30	86.30	1,404.53	1,370.87	6.39	-6.00	-2.21
12,788.00	91.50	73.50	10,710.90	113.23	1,494.58	1,464.86	1.42	1.38	0.32
12,883.00	94.00	73.90	10,706.35	139.86	1,585.64	1,559.74	2.66	2.63	0.42
12,977.00	93.80	72.90	10,699.95	166.65	1,675.52	1,653.52	1.08	-0.21	-1.06
13,072.00	94.10	73.80	10,693.41	193.81	1,766.32	1,748.29	1.00	0.32	0.95
13,166.00	93.90	73.70	10,686.85	220.05	1,856.34	1,842.06	0.24	-0.21	-0.11
13,261.00	94.90	73.60	10,679.56	246.71	1,947.23	1,936.78	1.06	1.05	-0.11
13,355.00	94.90	74.00	10,671.53	272.84	2,037.17	2,030.43	0.42	0.00	0.43
13,448.00	94.70	73.60	10,663.75	298.70	2,126.16	2,123.11	0.48	-0.22	-0.43
13,543.00	93.70	72.80	10,656.79	326.08	2,216.86	2,217.85	1.35	-1.05	-0.84
13,637.00	94.50	74.80	10,650.07	352.24	2,306.89	2,311.60	2.29	0.85	2.13
13,731.00	94.30	74.20	10,642.86	377.28	2,397.21	2,405.31	0.67	-0.21	-0.64
13,826.00	94.90	74.20	10,635.24	403.07	2,488.32	2,499.99	0.63	0.63	0.00
13,920.00	94.40	74.40	10,627.62	428.42	2,578.52	2,593.67	0.57	-0.53	0.21
14,015.00	94.70	74.10	10,620.08	454.12	2,669.66	2,688.36	0.45	0.32	-0.32
14,108.00	94.20	74.20	10,612.87	479.45	2,758.85	2,781.07	0.55	-0.54	0.11
14,202.00	92.20	74.50	10,607.62	504.76	2,849.22	2,874.91	2.15	-2.13	0.32
14,295.00	92.10	74.60	10,604.13	529.52	2,938.80	2,967.83	0.15	-0.11	0.11
14,389.00	91.40	74.70	10,601.26	554.39	3,029.40	3,061.76	0.75	-0.74	0.11
14,483.00	90.70	74.70	10,599.54	579.19	3,120.06	3,155.72	0.74	-0.74	0.00
14,577.00	90.20	74.30	10,598.80	604.31	3,210.63	3,249.70	0.68	-0.53	-0.43
14,672.00	89.80	74.10	10,598.80	630.18	3,302.05	3,344.70	0.47	-0.42	-0.21
14,767.00	91.60	74.40	10,597.64	655.96	3,393.47	3,439.68	1.92	1.89	0.32
14,861.00	92.40	74.30	10,594.36	681.31	3,483.93	3,533.61	0.86	0.85	-0.11
14,955.00	92.80	73.80	10,590.10	707.11	3,574.22	3,627.50	0.68	0.43	-0.53
15,049.00	93.30	74.20	10,585.09	732.98	3,664.45	3,721.36	0.68	0.53	0.43
15,143.00	92.00	74.50	10,580.75	758.31	3,754.86	3,815.25	1.42	-1.38	0.32

Survey Report

Company:	ABRAXAS PETROLEUM CORPORATION	Local Co-ordinate Reference:	Well Mesquite 37 #102H
Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,238.00	91.30	75.20	10,578.01	783.13	3,846.52	3,910.18	1.04	-0.74	0.74
15,333.00	89.60	74.90	10,577.27	807.64	3,938.30	4,005.14	1.82	-1.79	-0.32
15,427.00	88.20	72.90	10,579.07	833.70	4,028.59	4,099.11	2.60	-1.49	-2.13
15,521.00	89.60	73.20	10,580.88	861.09	4,118.49	4,193.09	1.52	1.49	0.32
15,616.00	90.40	73.20	10,580.88	888.55	4,209.43	4,288.09	0.84	0.84	0.00
15,710.00	91.10	73.20	10,579.65	915.72	4,299.41	4,382.08	0.74	0.74	0.00
15,804.00	88.70	71.30	10,579.81	944.37	4,388.93	4,476.04	3.26	-2.55	-2.02
15,899.00	89.10	71.30	10,581.63	974.83	4,478.89	4,570.96	0.42	0.42	0.00
15,993.00	88.70	69.20	10,583.44	1,006.58	4,567.34	4,664.79	2.27	-0.43	-2.23
16,087.00	88.50	67.70	10,585.74	1,041.10	4,654.74	4,758.41	1.61	-0.21	-1.60
Last MWD Srvy @ 16,087' MD / 10,586' TVD									
16,118.00	88.50	67.70	10,586.55	1,052.86	4,683.41	4,789.24	0.00	0.00	0.00
LTP (actual) @ 16,118' MD / 10,587' TVD									
16,217.00	88.50	67.70	10,589.14	1,090.41	4,774.98	4,887.71	0.00	0.00	0.00
PTD @ 16,217' MD / 10,589' TVD									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PP Mesquite 37 #102	0.00	360.00	0.00	-438.00	-377.00	674,288.00	1,127,819.00	31° 29' 25.87 N	103° 7' 54.40 W
- actual wellpath misses target center by 577.91usft at 1.39usft MD (1.39 TVD, 0.00 N, 0.00 E)									
- Point									
KOP Pln #2 Mesquite	0.00	360.00	10,243.13	-496.93	-579.77	674,229.07	1,127,616.23	31° 29' 25.23 N	103° 7' 56.72 W
- actual wellpath misses target center by 34.51usft at 10282.89usft MD (10242.38 TVD, -465.27 N, -566.06 E)									
- Point									
Actual LTP/Cross HL I	0.00	360.00	10,586.55	1,052.89	4,683.44	675,778.89	1,132,879.44	31° 29' 41.88 N	103° 6' 56.40 W
- actual wellpath misses target center by 0.04usft at 16118.00usft MD (10586.55 TVD, 1052.86 N, 4683.41 E)									
- Point									
PTD Mesquite 37 #10	0.00	360.00	10,589.14	1,090.41	4,774.98	675,816.41	1,132,970.98	31° 29' 42.27 N	103° 6' 55.36 W
- actual wellpath hits target center									
- Point									
Actual FTP/Cross HL	0.00	0.00	10,861.79	-324.24	1.72	674,401.76	1,128,197.72	31° 29' 27.09 N	103° 7' 50.06 W
- actual wellpath hits target center									
- Point									

Survey Report

Company:	ABRAXAS PETROLEUM CORPORATION	Local Co-ordinate Reference:	Well Mesquite 37 #102H
Project:	Ward County, TX	TVD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Site:	Mesquite 37 Pad	MD Reference:	2595+25 @ 2620.00usft (Patterson 228)
Well:	Mesquite 37 #102H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.14 Multi User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
137.00	137.00	-0.67	0.27	1st MWD Srvy @ 137' MD / 137' TVD
11,224.00	10,861.79	-324.24	1.70	FTP (actual) @ 11,224' MD / 10,862' TVD
16,087.00	10,585.74	1,041.10	4,654.74	Last MWD Srvy @ 16,087' MD / 10,586' TVD
16,118.00	10,586.55	1,052.86	4,683.41	LTP (actual) @ 16,118' MD / 10,587' TVD
16,217.00	10,589.14	1,090.41	4,774.98	PTD @ 16,217' MD / 10,589' TVD

Checked By: _____ Approved By: _____ Date: _____

Section Two

Daily Drilling Activity Reports

	JOB NO.:	M18263	Report Time:	2400	1 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Tuesday, June 12, 2018 at 0000 to Tuesday, June 12, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	0.00	Rotary Hours	0.00	WOB	0	Pick UP	0	Slack Off	0	SPM	
End Depth	0.00	Circulating Hours	0.00	RAB	0	SPP	0	FlowRate	0 - 0	0	
Total Drilled:	0.00	Avg. Total ROP:	NA	Mud Data							
Total Rotary Drilled:	0.00	Avg. Rotary ROP:	NA	Type				PV	0	SOLID	0
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	.00 Lbs/CuFt	GAS	0	YP	0	BHT°	.0
Slide Hours:	0.00	Percent Rotary:	NA	Viscosity	0	SAND	0	PH	0	Flow T°	.0
Below Rotary Hrs.	24.00	Percent Slide:	NA	Chlorides	0	WL	0			Oil %	0

PERSONNEL						CASING			BHA	
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	N/A	
Second Directional :		Tim Owens				20.00	.00	.00		
MWD Operator1		Matt Walkoviak								
MWD Operator2		Dustin Westall								
Directional Company:		Premier								
Geologist:						Signature:				
Company Man:		Gary Hernandez/Eric Vernon								
Incl. In:	0	Azm. In:	0	Incl. Out:	0	Azm. Out:	0			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
12-Jun-18	00:00	21:00	21.00	0.0	0.0	Other	Wait on cement and rig up
12-Jun-18	21:00	24:00	3.00			Change BHA	P/U BHA, had to pick up back up MWD tool, due to hand rolling a joint of DP into the trough on top of the tool

	JOB NO.:	M18263	Report Time:	2400	2 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Wednesday, June 13, 2018 at 0000 to Wednesday, June 13, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	108.00	Rotary Hours	14.00	WOB	30	Pick UP	132	Slack Off	120	SPM
End Depth	2360.00	Circulating Hours	1.92	RAB	125	SPP	2000	FlowRate	300 - 704	200
Total Drilled:	2252.00	Avg. Total ROP:	142.98	Mud Data						
Total Rotary Drilled:	2137.00	Avg. Rotary ROP:	152.64	Type	WBM		PV	1	SOLID	1
Total Drilled Sliding:	115.00	Avg. Slide ROP:	65.71	Weight	8.60 Lbs/CuFt	GAS	0	YP	1	BHT°
Slide Hours:	1.75	Percent Rotary:	94.89	Viscosity	30	SAND	0	PH	8	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	5.11	Chlorides	7000	WL	0	Oil %		0

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 1:Ulterra CF616 PDC 6x16's, 8" NOV 7/8 4.0 1.83° Adj W 12" Stab, 11 3/4" Stabilizer, Shock Sub, 8" NM Pony DC, UBHO, 8" NMDC, 8" NMDC, 3- 8" DCs, XO 4.5XHB X 6 5/8 RP, 9- 6 1/2" DC, 4 1/2 XH Pin X 4 1/2 IF Box, 18- HWDP, ,
Second Directional :		Tim Owens				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:									
Company Man:		Gary Hernandez/Eric Vernon							
Incl. In:	0	Azm. In:	0	Incl. Out:	0.5				Azm. Out:

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
13-Jun-18	00:00	01:00	1.00	108.0	211.0	Drilling	Drilling - (WOB:50.00;GPM :300.00;RPM:30)
13-Jun-18	01:00	01:30	0.50	211	211	Survey & Conn.	Survey & Conn.@137' Inc 0.6° Azm 158°
13-Jun-18	01:30	02:00	0.50	211	304	Drilling	Drilling - (WOB:50.00;GPM :300.00;RPM:30)
13-Jun-18	02:00	02:30	0.50	304	304	Survey & Conn.	Survey & Conn.@230' Inc 0.9° Azm 195°
13-Jun-18	02:30	03:30	1.00	304	394	Drilling	Drilling - (WOB:5.00;GPM :300.00;RPM:30)
13-Jun-18	03:30	04:00	0.50	394	394	Survey & Conn.	Survey & Conn.@320' Inc 0.8° Azm 178.9°
13-Jun-18	04:00	04:15	0.25	394	487	Drilling	Drilling - (WOB:5.00;GPM :493.00;RPM:30)
13-Jun-18	04:15	04:50	0.58	487	487	Survey & Conn.	Survey & Conn.@411' Inc 1.5° Azm 203.4°
13-Jun-18	04:50	04:55	0.08	487	502	Sliding	Sliding - (WOB:3.00;GPM :493;TFO:20M))
13-Jun-18	04:55	05:00	0.08	502	579	Drilling	Drilling - (WOB:5.00;GPM :493.00;RPM:30)
13-Jun-18	05:00	05:15	0.25	579	579	Survey & Conn.	Survey & Conn.@505' Inc 1.5° Azm 205.6°
13-Jun-18	05:15	05:20	0.08	579	599	Sliding	Sliding - (WOB:3.00;GPM :493;TFO:20M))
13-Jun-18	05:20	05:25	0.08	599	681	Drilling	Drilling - (WOB:10.00;GPM :493.00;RPM:30)
13-Jun-18	05:25	05:40	0.25	681	681	Survey & Conn.	Survey & Conn.@596' Inc 0.7° Azm 227.4°
13-Jun-18	05:40	05:55	0.25	681	773	Drilling	Drilling - (WOB:10.00;GPM :493.00;RPM:45)
13-Jun-18	05:55	06:05	0.17	773	773	Survey & Conn.	Survey & Conn.@688' Inc 0.8° Azm 110.1°
13-Jun-18	06:05	06:30	0.42	773	855	Drilling	Drilling - (WOB:10.00;GPM :600.00;RPM:55)
13-Jun-18	06:30	06:45	0.25	855	855	Survey & Conn.	Survey & Conn.@781' Inc 1.9° Azm 119.2°

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
13-Jun-18	06:45	07:00	0.25	855	875	Sliding	Sliding - (WOB:3.00;GPM :600;TFO:300M))
13-Jun-18	07:00	07:15	0.25	875	948	Drilling	Drilling - (WOB:10.00;GPM :630.00;RPM:55)
13-Jun-18	07:15	07:35	0.33	948	948	Survey & Conn.	Survey & Conn.@874' Inc 1.5° Azm 113.2°
13-Jun-18	07:35	07:50	0.25	948	968	Sliding	Sliding - (WOB:3.00;GPM :600;TFO:300M))
13-Jun-18	07:50	08:20	0.50	968	1040	Drilling	Drilling - (WOB:12.00;GPM :630.00;RPM:60)
13-Jun-18	08:20	08:30	0.17	1040	1040	Survey & Conn.	Survey & Conn.@966' Inc 0.4° Azm 47.6°
13-Jun-18	08:30	09:05	0.58	1040	1134	Drilling	Drilling - (WOB:12.00;GPM :630.00;RPM:60)
13-Jun-18	09:05	09:20	0.25	1134	1134	Survey & Conn.	Survey & Conn.@1060' Inc 0.4° Azm 35.3°
13-Jun-18	09:20	09:50	0.50	1134	1229	Drilling	Drilling - (WOB:16.00;GPM :704.00;RPM:60)
13-Jun-18	09:50	10:00	0.17	1229	1229	Survey & Conn.	Survey & Conn.@1155' Inc 0.8° Azm 63.9°
13-Jun-18	10:00	10:25	0.42	1229	1324	Drilling	Drilling - (WOB:16.00;GPM :704.00;RPM:60)
13-Jun-18	10:25	10:35	0.17	1324	1324	Survey & Conn.	Survey & Conn.@1250' Inc 0.8° Azm 89.3°
13-Jun-18	10:35	11:00	0.42	1324	1419	Drilling	Drilling - (WOB:16.00;GPM :704.00;RPM:60)
13-Jun-18	11:00	11:10	0.17	1419	1419	Survey & Conn.	Survey & Conn.@1345' Inc 0.8° Azm 71.3°
13-Jun-18	11:10	11:30	0.33	1419	1514	Drilling	Drilling - (WOB:16.00;GPM :704.00;RPM:60)
13-Jun-18	11:30	11:55	0.42	1514	1514	Survey & Conn.	Survey & Conn.@1440' Inc 1° Azm 72.4°
13-Jun-18	11:55	12:05	0.17	1514	1514	Sliding	Sliding - (WOB:16.00;GPM :704;TFO:0))
13-Jun-18	12:05	13:15	1.17	1514	1607	Drilling	Drilling - (WOB:202.00;GPM :704.00;RPM:60)
13-Jun-18	13:15	13:25	0.17	1607	1607	Survey & Conn.	Survey & Conn.@1533' Inc 1° Azm 353.6°
13-Jun-18	13:25	14:35	1.17	1607	1701	Drilling	Drilling - (WOB:20.00;GPM :704.00;RPM:60)
13-Jun-18	14:35	14:45	0.17	1701	1701	Survey & Conn.	Survey & Conn.@1627' Inc 1.5° Azm 349.4°
13-Jun-18	14:45	15:40	0.92	1701	1796	Drilling	Drilling - (WOB:24.00;GPM :704.00;RPM:60)
13-Jun-18	15:40	15:55	0.25	1796	1796	Survey & Conn.	Survey & Conn.@1722' Inc 1.5° Azm 8.2°
13-Jun-18	15:55	16:15	0.33	1796	1816	Sliding	Sliding - (WOB:16.00;GPM :704;TFO:240M))
13-Jun-18	16:15	16:35	0.33	1816	1891	Drilling	Drilling - (WOB:24.00;GPM :704.00;RPM:60)
13-Jun-18	16:35	17:20	0.75	1891	1891	Rig Service-Inhole	Rig Service-Inhole
13-Jun-18	17:20	18:00	0.67	1891	1985	Drilling	Drilling - (WOB:24.00;GPM :704.00;RPM:60)
13-Jun-18	18:00	18:20	0.33	1985	1985	Survey & Conn.	Survey & Conn.@1911' Inc 1.4° Azm 290.8°
13-Jun-18	18:20	18:55	0.58	1985	2005	Sliding	Sliding - (WOB:16.00;GPM :704;TFO:110M))
13-Jun-18	18:55	19:45	0.83	2005	2080	Drilling	Drilling - (WOB:24.00;GPM :704.00;RPM:60)
13-Jun-18	19:45	20:00	0.25	2080	2080	Survey & Conn.	Survey & Conn.@2006' Inc 0.2° Azm 273.5°
13-Jun-18	20:00	20:35	0.58	2080	2175	Drilling	Drilling - (WOB:30.00;GPM :704.00;RPM:60)
13-Jun-18	20:35	20:50	0.25	2175	2175	Survey & Conn.	Survey & Conn.@2101' Inc 0.7° Azm 143.9°
13-Jun-18	20:50	21:40	0.83	2175	2269	Drilling	Drilling - (WOB:30.00;GPM :704.00;RPM:60)
13-Jun-18	21:40	21:55	0.25	2269	2269	Survey & Conn.	Survey & Conn.@2195' Inc 0.4° Azm 124.3°
13-Jun-18	21:55	22:50	0.92	2269	2360	Drilling	Drilling - (WOB:30.00;GPM :704.00;RPM:60)
13-Jun-18	22:50	23:00	0.17	2360	2360	MWD Survey	MWD Survey@2286' Inc 0.5° Azm 55.5°
13-Jun-18	23:00	24:00	1.00	2360	2360	Circulating	Circulate sweeps

	JOB NO.:	M18263	Report Time:	2400	3 of 26	
	Company:	Abraxas	API JOB #	42-475-37465		
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#			
	RIG NAME:	Patterson 228	FIELD:			
	STATE:	Texas	Legal Desc.	Township-Section-Range		
	COUNTY:	Ward		Pyote-37-		
	WELL NAME:	Mesquite 37 102H				

From Thursday, June 14, 2018 at 0000 to Thursday, June 14, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	0.00	Rotary Hours	0.00	WOB	30	Pick UP	132	Slack Off	120	SPM	
End Depth	0.00	Circulating Hours	2.50	RAB	125	SPP	2000	FlowRate	704 - 704	200	
Total Drilled:	0.00	Avg. Total ROP:	NA	Mud Data							
Total Rotary Drilled:	0.00	Avg. Rotary ROP:	NA	Type	WBM			PV	1	SOLID	1
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	8.60 Lbs/CuFt	GAS	0	YP	1	BHT°	107.0
Slide Hours:	0.00	Percent Rotary:	NA	Viscosity	30	SAND	0	PH	8	Flow T°	73.0
Below Rotary Hrs.	24.00	Percent Slide:	NA	Chlorides	7000	WL	0			Oil %	0

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 1:Ulterra CF616 PDC 6x16's, 8" NOV 7/8 4.0 1.83° Adj W 12" Stab, 11 3/4" Stabilizer, Shock Sub, 8" NM Pony DC, UBHO, 8" NMDC, 8" NMDC, 3- 8" DCs, XO 4.5XHB X 6 5/8 RP, 9- 6 1/2" DC, 4 1/2 XH Pin X 4 1/2 IF Box, 18- HWDP, ,
Second Directional :		Tim Owens				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:						Signature:			
Company Man:		Gary Hernandez/Eric Vernon							
Incl. In:	0.5	Azm. In:	55.5	Incl. Out:	0.5	Azm. Out:	55.5		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
14-Jun-18	00:00	00:30	0.50	2360.0	2360.0	Circulating	Circulate sweeps
14-Jun-18	00:30	04:00	3.50	2360	2360	Short Trip	Wiper trip, L/D Mwd tool, clean stabilizers and bit
14-Jun-18	04:00	06:30	2.50	2360	2360	TIH	TIH
14-Jun-18	06:30	08:30	2.00	2360	2360	Circulating	Circulating, sweep hole.
14-Jun-18	08:30	10:30	2.00	2360	2360	POOH	TOH
14-Jun-18	10:30	13:00	2.50	2360	2360	Change BHA	Change BHA, laydown 8" collars and non mag equipment.
14-Jun-18	13:00	24:00	11.00	2360	2360	Other	Casing operations

	JOB NO.:	M18263	Report Time:	2400	4 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Friday, June 15, 2018 at 0000 to Friday, June 15, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	0.00	Rotary Hours	0.00	WOB	30	Pick UP	132	Slack Off	120	SPM	
End Depth	0.00	Circulating Hours	0.00	RAB	125	SPP	2000	FlowRate	704 - 704	200	
Total Drilled:	0.00	Avg. Total ROP:	NA	Mud Data							
Total Rotary Drilled:	0.00	Avg. Rotary ROP:	NA	Type	WBM	PV	1	SOLID	1		
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	8.60 Lbs/CuFt	GAS	0	YP	1	BHT°	107.0
Slide Hours:	0.00	Percent Rotary:	NA	Viscosity	30	SAND	0	PH	8	Flow T°	73.0
Below Rotary Hrs.	0.00	Percent Slide:	NA	Chlorides	7000	WL	0			Oil %	0

PERSONNEL						CASING			BHA		
Lead Directional :		Tim Owens				Size	lbf/Ft	Set Depth	N/A		
Second Directional :		Charles Becton				20.00	.00	.00			
MWD Operator1		Matt Walkoviak									
MWD Operator2		Dustin Westall									
Directional Company:		Premier									
Geologist:						Signature:					
Company Man:		Gary Hernandez/Eric Vernon									
Incl. In:	0.5	Azm. In:	55.5	Incl. Out:	0.5	Azm. Out:	55.5				

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
15-Jun-18	00:00	24:00	24.00	2360.0	2360.0	Standby	Standby / Cement, Test, & Rig up operations

	JOB NO.:	M18263	Report Time:	2400	5 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Saturday, June 16, 2018 at 0000 to Saturday, June 16, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	2360.00	Rotary Hours	7.33	WOB	28	Pick UP	150	Slack Off	145	SPM
End Depth	3232.00	Circulating Hours	1.83	RAB	140	SPP	1680	FlowRate	451 - 704	170
Total Drilled:	872.00	Avg. Total ROP:	100.62	Mud Data						
Total Rotary Drilled:	807.00	Avg. Rotary ROP:	110.05	Type	WBM		PV	1	SOLID	1
Total Drilled Sliding:	65.00	Avg. Slide ROP:	48.75	Weight	8.60 Lbs/CuFt	GAS	0	YP	1	BHT°
Slide Hours:	1.33	Percent Rotary:	92.55	Viscosity	30	SAND	0	PH	8	Flow T°
Below Rotary Hrs.	17.50	Percent Slide:	7.45	Chlorides	7000	WL	0	Oil %		0

PERSONNEL						CASING			BHA
Lead Directional :		Tim Owens				Size	lbf/Ft	Set Depth	BHA # 2:8 3/4" Smith XS616 6x16's, 6.5" Gearcon 7/8 5.7 1.5" Fixed W 8 1/2" Stab, 8 1/4" Stabilizer, Shock Sub, 6 3/4" NM Pony DC, UBHO, 6 3/4" NMDC, 6 3/4" NMDC, XO 4/12XH Box X 4 1/2 IF Pin, 9 - 6 1/2 steel collars, 4 1/2 XH Pin X 4 1/2 IF Box, 18 HWDP,
Second Directional :		Charles Becton				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:						Signature:			
Company Man:		Gary Hernandez/Eric Vernon							
Incl. In:	0.5	Azm. In:	55.5	Incl. Out:	6.3	Azm. Out:	226.3		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
16-Jun-18	00:00	06:30	6.50	2360.0	2360.0	Standby	Standby / Testing
16-Jun-18	06:30	09:30	3.00	2360	2360	Change BHA	P/U BHA #2
16-Jun-18	09:30	11:00	1.50	2360	2360	TIH	TIH to 2,282'
16-Jun-18	11:00	12:30	1.50	2360	2360	Circulating	Drill cement, float, and shoe
16-Jun-18	12:30	12:45	0.25	2360	2370	Drilling	Drilling - (WOB:2.00;GPM :704.00;RPM:25)
16-Jun-18	12:45	13:15	0.50	2370	2370	Other	FIT
16-Jun-18	13:15	14:45	1.50	2370	2476	Drilling	Drilling - (WOB:27.00;GPM :451.00;RPM:25)
16-Jun-18	14:45	15:00	0.25	2476	2476	Survey & Conn.	Survey & Conn. @2394' Inc 0.3° Azm 36.1°
16-Jun-18	15:00	15:15	0.25	2476	2510	Drilling	Drilling - (WOB:27.00;GPM :598.00;RPM:25)
16-Jun-18	15:15	16:00	0.75	2510	2570	Drilling	Drilling - (WOB:27.00;GPM :451.00;RPM:60)
16-Jun-18	16:00	16:45	0.75	2570	2665	Drilling	Drilling - (WOB:27.00;GPM :598.00;RPM:25)
16-Jun-18	16:45	17:00	0.25	2665	2665	Survey & Conn.	Survey & Conn. @2583' Inc 0.3° Azm 119.4°
16-Jun-18	17:00	17:20	0.33	2665	2683	Sliding	Sliding - (WOB:25.00;GPM :704;TFO:230M))
16-Jun-18	17:20	18:00	0.67	2683	2760	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
16-Jun-18	18:00	18:15	0.25	2760	2760	Survey & Conn.	Survey & Conn. @2678' Inc 1.2° Azm 216.4°
16-Jun-18	18:15	18:45	0.50	2760	2780	Sliding	Sliding - (WOB:25.00;GPM :704.00;TFO:230M)
16-Jun-18	18:45	19:25	0.67	2780	2853	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
16-Jun-18	19:25	19:45	0.33	2853	2853	Circulating	Circulating

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
16-Jun-18	19:45	20:00	0.25	2853	2853	Survey & Conn.	Survey & Conn.@2772' Inc 4.1° Azm 215.6°
16-Jun-18	20:00	20:15	0.25	2853	2868	Sliding	Sliding - (WOB:25.00;GPM :704.00;TFO:230M)
16-Jun-18	20:15	20:55	0.67	2868	2949	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
16-Jun-18	20:55	21:10	0.25	2949	2949	Survey & Conn.	Survey & Conn.@2867' Inc 6.5° Azm 217.8°
16-Jun-18	21:10	21:45	0.58	2949	3044	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
16-Jun-18	21:45	22:00	0.25	3044	3044	Survey & Conn.	Survey & Conn.@2962' Inc 7.4° Azm 215.4°
16-Jun-18	22:00	22:15	0.25	3044	3056	Sliding	Sliding - (WOB:25.00;GPM :704.00;TFO:240M)
16-Jun-18	22:15	22:45	0.50	3056	3138	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
16-Jun-18	22:45	23:00	0.25	3138	3138	Survey & Conn.	Survey & Conn.@3056' Inc 6.3° Azm 226.2°
16-Jun-18	23:00	23:45	0.75	3138	3232	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
16-Jun-18	23:45	24:00	0.25	3232	3232	Survey & Conn.	Survey & Conn.@3150' Inc 6.5° Azm 238.9°

	JOB NO.:	M18263	Report Time:	2400	6 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Sunday, June 17, 2018 at 0000 to Sunday, June 17, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	3232.00	Rotary Hours	14.50	WOB	30	Pick UP	190	Slack Off	173	SPM
End Depth	5505.00	Circulating Hours	1.50	RAB	175	SPP	2150	FlowRate	598 - 704	170
Total Drilled:	2273.00	Avg. Total ROP:	135.03	Mud Data						
Total Rotary Drilled:	2183.00	Avg. Rotary ROP:	150.55	Type	WBM		PV	1	SOLID	4
Total Drilled Sliding:	90.00	Avg. Slide ROP:	38.57	Weight	8.80 Lbs/CuFt	GAS	0	YP	1	BHT°
Slide Hours:	2.33	Percent Rotary:	96.04	Viscosity	28	SAND	0	PH	10	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	3.96	Chlorides	47000	WL	0	Oil %		0

PERSONNEL						CASING			BHA
Lead Directional :		Tim Owens				Size	lbf/Ft	Set Depth	BHA # 2:8 3/4" Smith XS616 6x16's, 6.5" Gearcon 7/8 5.7 1.5" Fixed W 8 1/2" Stab, 8 1/4" Stabilizer, Shock Sub, 6 3/4" NM Pony DC, UBHO, 6 3/4" NMDC, 6 3/4" NMDC, XO 4/12XH Box X 4 1/2 IF Pin, 9 - 6 1/2 steel collars, 4 1/2 XH Pin X 4 1/2 IF Box, 18 HWDP,
Second Directional :		Charles Becton				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:						Signature:			
Company Man:		Gary Hernandez/Eric Vernon							
Incl. In:	6.3	Azm. In:	226.3	Incl. Out:	6.8	Azm. Out:	233.6		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
17-Jun-18	00:00	00:30	0.50	3232.0	3327.0	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
17-Jun-18	00:30	00:45	0.25	3327	3327	Survey & Conn.	Survey & Conn.@3245' Inc 6.1° Azm 235°
17-Jun-18	00:45	01:30	0.75	3327	3421	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
17-Jun-18	01:30	01:45	0.25	3421	3421	Survey & Conn.	Survey & Conn.@3339' Inc 5.8° Azm 232.4°
17-Jun-18	01:45	02:20	0.58	3421	3516	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
17-Jun-18	02:20	02:35	0.25	3516	3516	Survey & Conn.	Survey & Conn.@3434' Inc 5.1° Azm 235.4°
17-Jun-18	02:35	02:45	0.17	3516	3526	Sliding	Sliding - (WOB:25.00;GPM :704.00;TFO:100R)
17-Jun-18	02:45	03:15	0.50	3526	3610	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
17-Jun-18	03:15	03:30	0.25	3610	3610	Survey & Conn.	Survey & Conn.@3528' Inc 4.9° Azm 226.6°
17-Jun-18	03:30	04:15	0.75	3610	3624	Sliding	Sliding - (WOB:25.00;GPM :704.00;TFO:10L)
17-Jun-18	04:15	05:00	0.75	3624	3706	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
17-Jun-18	05:00	05:15	0.25	3706	3706	Survey & Conn.	Survey & Conn.@3624' Inc 6.9° Azm 226.6°
17-Jun-18	05:15	06:00	0.75	3706	3800	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
17-Jun-18	06:00	06:15	0.25	3800	3800	Survey & Conn.	Survey & Conn.@3718' Inc 8° Azm 232.1°
17-Jun-18	06:15	07:00	0.75	3800	3895	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
17-Jun-18	07:00	07:15	0.25	3895	3895	Survey & Conn.	Survey & Conn.@3813' Inc 8.1° Azm 233.7°
17-Jun-18	07:15	07:30	0.25	3895	3903	Sliding	Sliding - (WOB:25.00;GPM :704;TFO:150L))
17-Jun-18	07:30	08:15	0.75	3903	3990	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
17-Jun-18	08:15	08:30	0.25	3990	3990	Survey & Conn.	Survey & Conn.@3908' Inc 6.9° Azm 232.4°
17-Jun-18	08:30	09:00	0.50	3990	4085	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
17-Jun-18	09:00	09:15	0.25	4085	4085	Survey & Conn.	Survey & Conn.@4003' Inc 6.2° Azm 230.4°
17-Jun-18	09:15	09:40	0.42	4085	4180	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
17-Jun-18	09:40	09:50	0.17	4180	4180	Survey & Conn.	Survey & Conn.@4098' Inc 5.9° Azm 234.2°
17-Jun-18	09:50	10:35	0.75	4180	4275	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
17-Jun-18	10:35	10:45	0.17	4275	4275	Survey & Conn.	Survey & Conn.@4193' Inc 5.6° Azm 231.7°
17-Jun-18	10:45	11:30	0.75	4275	4379	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
17-Jun-18	11:30	12:30	1.00	4379	4379	Circulating	Displace mud
17-Jun-18	12:30	12:45	0.25	4379	4379	Survey & Conn.	Survey & Conn.@4287' Inc 5.2° Azm 226.3°
17-Jun-18	12:45	13:05	0.33	4379	4464	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
17-Jun-18	13:05	13:25	0.33	4464	4464	Survey & Conn.	Survey & Conn.@4382' Inc 4.5° Azm 222.8°
17-Jun-18	13:25	13:50	0.42	4464	4478	Sliding	Sliding - (WOB:25.00;GPM :704;TFO:250M))
17-Jun-18	13:50	14:30	0.67	4478	4559	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
17-Jun-18	14:30	15:00	0.50	4559	4559	Rig Service-Inhole	Rig Service-Inhole
17-Jun-18	15:00	15:15	0.25	4559	4559	Survey & Conn.	Survey & Conn.@4477' Inc 4.6° Azm 227.6°
17-Jun-18	15:15	15:30	0.25	4559	4574	Sliding	Sliding - (WOB:25.00;GPM :704;TFO:260M))
17-Jun-18	15:30	16:05	0.58	4574	4654	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
17-Jun-18	16:05	16:20	0.25	4654	4654	Survey & Conn.	Survey & Conn.@4572' Inc 6.5° Azm 229.3°
17-Jun-18	16:20	17:05	0.75	4654	4749	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
17-Jun-18	17:05	17:20	0.25	4749	4749	Survey & Conn.	Survey & Conn.@4667' Inc 7.1° Azm 231°
17-Jun-18	17:20	18:10	0.83	4749	4843	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
17-Jun-18	18:10	18:25	0.25	4843	4843	Survey & Conn.	Survey & Conn.@4761' Inc 6° Azm 228.1°
17-Jun-18	18:25	19:15	0.83	4843	4937	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
17-Jun-18	19:15	19:30	0.25	4937	4937	Survey & Conn.	Survey & Conn.@4855' Inc 4.9° Azm 229.2°
17-Jun-18	19:30	19:45	0.25	4937	4952	Sliding	Sliding - (WOB:25.00;GPM :704.00;TFO:260M)
17-Jun-18	19:45	20:30	0.75	4952	5031	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
17-Jun-18	20:30	20:45	0.25	5031	5031	Survey & Conn.	Survey & Conn.@4949' Inc 5.3° Azm 230.9°
17-Jun-18	20:45	21:00	0.25	5031	5045	Sliding	Sliding - (WOB:25.00;GPM :704.00;TFO:240M)
17-Jun-18	21:00	21:30	0.50	5045	5126	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
17-Jun-18	21:30	21:45	0.25	5126	5126	Survey & Conn.	Survey & Conn.@5044' Inc 7.2° Azm 231.8°
17-Jun-18	21:45	22:00	0.25	5126	5221	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
17-Jun-18	22:00	22:15	0.25	5221	5221	Survey & Conn.	Survey & Conn.@5139' Inc 8.2° Azm 231.4°
17-Jun-18	22:15	22:45	0.50	5221	5316	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
17-Jun-18	22:45	23:00	0.25	5316	5316	Survey & Conn.	Survey & Conn.@5234' Inc 8.2° Azm 233.8°
17-Jun-18	23:00	23:20	0.33	5316	5410	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
17-Jun-18	23:20	23:35	0.25	5410	5410	Survey & Conn.	Survey & Conn.@5328' Inc 7.6° Azm 233.3°
17-Jun-18	23:35	24:00	0.42	5410	5505	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)

	JOB NO.:	M18263	Report Time:	2400	7 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Monday, June 18, 2018 at 0000 to Monday, June 18, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	5505.00	Rotary Hours	11.83	WOB	15	Pick UP	255	Slack Off	200	SPM
End Depth	7600.00	Circulating Hours	0.50	RAB	205	SPP	2150	FlowRate	598 - 704	170
Total Drilled:	2095.00	Avg. Total ROP:	118.03	Mud Data						
Total Rotary Drilled:	1945.00	Avg. Rotary ROP:	164.37	Type	WBM		PV	11	SOLID	3
Total Drilled Sliding:	150.00	Avg. Slide ROP:	25.35	Weight	8.95 Lbs/CuFt	GAS	0	YP	23	BHT°
Slide Hours:	5.92	Percent Rotary:	92.84	Viscosity	46	SAND	0	PH	10.5	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	7.16	Chlorides	13000	WL	0	Oil %		0

PERSONNEL						CASING			BHA
Lead Directional :		Tim Owens				Size	lbf/Ft	Set Depth	BHA # 2:8 3/4" Smith XS616 6x16's, 6.5" Gearcon 7/8 5.7 1.5" Fixed W 8 1/2" Stab, 8 1/4" Stabilizer, Shock Sub, 6 3/4" NM Pony DC, UBHO, 6 3/4" NMDC, 6 3/4" NMDC, XO 4/12XH Box X 4 1/2 IF Pin, 9 - 6 1/2 steel collars, 4 1/2 XH Pin X 4 1/2 IF Box, 18 HWDP,
Second Directional :		Charles Becton				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:						Signature:			
Company Man:		Gary Hernandez/Eric Vernon							
Incl. In:	6.8	Azm. In:	233.6	Incl. Out:	4.3	Azm. Out:	218.8		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
18-Jun-18	00:00	00:15	0.25	5505.0	5505.0	Survey & Conn.	Survey & Conn.@5423' Inc 6.8° Azm 233.6°
18-Jun-18	00:15	00:45	0.50	5505	5600	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	00:45	01:00	0.25	5600	5600	Survey & Conn.	Survey & Conn.@5518' Inc 6.1° Azm 236°
18-Jun-18	01:00	01:25	0.42	5600	5695	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	01:25	01:40	0.25	5695	5695	Survey & Conn.	Survey & Conn.@5613' Inc 5.7° Azm 231.7°
18-Jun-18	01:40	02:00	0.33	5695	5789	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	02:00	02:15	0.25	5789	5789	Survey & Conn.	Survey & Conn.@5707' Inc 4.5° Azm 230.5°
18-Jun-18	02:15	03:00	0.75	5789	5805	Sliding	Sliding - (WOB:25.00;GPM :704.00;TFO:5R)
18-Jun-18	03:00	03:25	0.42	5805	5884	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	03:25	03:40	0.25	5884	5884	Survey & Conn.	Survey & Conn.@5802' Inc 4.8° Azm 223°
18-Jun-18	03:40	04:00	0.33	5884	5899	Sliding	Sliding - (WOB:25.00;GPM :704.00;TFO:230M)
18-Jun-18	04:00	04:15	0.25	5899	5978	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	04:15	04:30	0.25	5978	5978	Survey & Conn.	Survey & Conn.@5896' Inc 7° Azm 224°
18-Jun-18	04:30	05:00	0.50	5978	6074	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	05:00	05:15	0.25	6074	6074	Survey & Conn.	Survey & Conn.@5992' Inc 7.9° Azm 229.4°
18-Jun-18	05:15	05:30	0.25	6074	6186	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	05:30	05:40	0.17	6186	6186	Survey & Conn.	Survey & Conn.@6180' Inc 7.1° Azm 228.3°
18-Jun-18	05:40	06:00	0.33	6186	6262	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
18-Jun-18	06:00	06:15	0.25	6262	6262	Survey & Conn.	Survey & Conn.@6180' Inc 7.1° Azm 228.3°
18-Jun-18	06:15	06:40	0.42	6262	6357	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	06:40	06:50	0.17	6357	6357	Survey & Conn.	Survey & Conn.@6275' Inc 6.9° Azm 227°
18-Jun-18	06:50	07:10	0.33	6357	6452	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	07:10	07:25	0.25	6452	6452	Survey & Conn.	Survey & Conn.@6370' Inc 6.2° Azm 225.3°
18-Jun-18	07:25	07:50	0.42	6452	6547	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	07:50	08:05	0.25	6547	6547	Survey & Conn.	Survey & Conn.@6465' Inc 6° Azm 221.8°
18-Jun-18	08:05	09:00	0.92	6547	6571	Sliding	Sliding - (WOB:25.00;GPM :598;TFO:90R))
18-Jun-18	09:00	09:30	0.50	6571	6642	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	09:30	09:45	0.25	6642	6642	Survey & Conn.	Survey & Conn.@6560' Inc 5.2° Azm 229.1°
18-Jun-18	09:45	10:05	0.33	6642	6737	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	10:05	10:20	0.25	6737	6737	Survey & Conn.	Survey & Conn.@6655' Inc 5.1° Azm 236.8°
18-Jun-18	10:20	10:50	0.50	6737	6833	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	10:50	11:05	0.25	6833	6833	Survey & Conn.	Survey & Conn.@6751' Inc 4.1° Azm 231.8°
18-Jun-18	11:05	11:45	0.67	6833	6927	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	11:45	12:00	0.25	6927	6927	Survey & Conn.	Survey & Conn.@6845' Inc 3.2° Azm 232.9°
18-Jun-18	12:00	12:25	0.42	6927	6942	Sliding	Sliding - (WOB:15.00;GPM :598;TFO:230M))
18-Jun-18	12:25	13:00	0.58	6942	7021	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	13:00	13:15	0.25	7021	7021	Survey & Conn.	Survey & Conn.@6939' Inc 4° Azm 221.3°
18-Jun-18	13:15	14:10	0.92	7021	7036	Sliding	Sliding - (WOB:15.00;GPM :598;TFO:250M))
18-Jun-18	14:10	14:45	0.58	7036	7116	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	14:45	15:00	0.25	7116	7116	Survey & Conn.	Survey & Conn.@7034' Inc 4.7° Azm 222.9°
18-Jun-18	15:00	15:45	0.75	7116	7128	Sliding	Sliding - (WOB:15.00;GPM :598.00;TFO:250M)
18-Jun-18	15:45	16:45	1.00	7128	7210	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	16:45	17:15	0.50	7210	7210	Rig Service-Inhole	Rig Service-Inhole
18-Jun-18	17:15	17:40	0.42	7210	7210	Survey & Conn.	Survey & Conn.@7128' Inc 5.5° Azm 225.2°
18-Jun-18	17:40	18:20	0.67	7210	7225	Sliding	Sliding - (WOB:15.00;GPM :598;TFO:60R))
18-Jun-18	18:20	19:20	1.00	7225	7305	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	19:20	19:35	0.25	7305	7305	Survey & Conn.	Survey & Conn.@7223' Inc 6.8° Azm 234.1°
18-Jun-18	19:35	20:00	0.42	7305	7400	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	20:00	20:15	0.25	7400	7400	Survey & Conn.	Survey & Conn.@7318' Inc 5.1° Azm 231°
18-Jun-18	20:15	20:30	0.25	7400	7410	Sliding	Sliding - (WOB:15.00;GPM :598;TFO:10R))
18-Jun-18	20:30	21:30	1.00	7410	7494	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	21:30	21:45	0.25	7494	7494	Survey & Conn.	Survey & Conn.@7412' Inc 4.2° Azm 223°
18-Jun-18	21:45	22:15	0.50	7494	7509	Sliding	Sliding - (WOB:15.00;GPM :598.00;TFO:10R)
18-Jun-18	22:15	23:20	1.08	7509	7587	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
18-Jun-18	23:20	23:35	0.25	7587	7587	Survey & Conn.	Survey & Conn.@7507' Inc 4.3° Azm 218.8°
18-Jun-18	23:35	24:00	0.42	7587	7600	Sliding	Sliding - (WOB:15.00;GPM :598.00;TFO:250M)

	JOB NO.:	M18263	Report Time:	2400	8 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Tuesday, June 19, 2018 at 0000 to Tuesday, June 19, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	7600.00	Rotary Hours	10.25	WOB	35	Pick UP	300	Slack Off	210	SPM
End Depth	8365.00	Circulating Hours	1.75	RAB	250	SPP	2050	FlowRate	598 - 598	170
Total Drilled:	765.00	Avg. Total ROP:	49.89	Mud Data						
Total Rotary Drilled:	655.00	Avg. Rotary ROP:	63.90	Type	WBM		PV	11	SOLID	4.2
Total Drilled Sliding:	110.00	Avg. Slide ROP:	21.64	Weight	9.20 Lbs/CuFt	GAS	0	YP	23	BHT°
Slide Hours:	5.08	Percent Rotary:	85.62	Viscosity	36	SAND	0	PH	11	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	14.38	Chlorides	15000	WL	0	Oil %		0

PERSONNEL						CASING			BHA
Lead Directional :		Tim Owens				Size	lbf/Ft	Set Depth	BHA # 2:8 3/4" Smith XS616 6x16's, 6.5" Gearcon 7/8 5.7 1.5" Fixed W 8 1/2" Stab, 8 1/4" Stabilizer, Shock Sub, 6 3/4" NM Pony DC, UBHO, 6 3/4" NMDC, 6 3/4" NMDC, XO 4/12XH Box X 4 1/2 IF Pin, 9 - 6 1/2 steel collars, 4 1/2 XH Pin X 4 1/2 IF Box, 18 HWDP,
Second Directional :		Charles Becton				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:						Signature:			
Company Man:		Gary Hernandez/Eric Vernon							
Incl. In:	4.3	Azm. In:	218.8	Incl. Out:	7.7	Azm. Out:	241		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
19-Jun-18	00:00	00:30	0.50	7600.0	7602.0	Sliding	Sliding - (WOB:15.00;GPM :598.00;TFO:250M)
19-Jun-18	00:30	01:30	1.00	7602	7683	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
19-Jun-18	01:30	01:45	0.25	7683	7683	Survey & Conn.	Survey & Conn.@7601' Inc 5.3° Azm 217.1°
19-Jun-18	01:45	02:30	0.75	7683	7700	Sliding	Sliding - (WOB:15.00;GPM :598.00;TFO:250M)
19-Jun-18	02:30	03:30	1.00	7700	7777	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
19-Jun-18	03:30	03:45	0.25	7777	7777	Survey & Conn.	Survey & Conn.@7695' Inc 6° Azm 224.3°
19-Jun-18	03:45	04:30	0.75	7777	7790	Sliding	Sliding - (WOB:15.00;GPM :598.00;TFO:60R)
19-Jun-18	04:30	05:45	1.25	7790	7872	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
19-Jun-18	05:45	06:00	0.25	7872	7872	Survey & Conn.	Survey & Conn.@7790' Inc 6.6° Azm 229.8°
19-Jun-18	06:00	07:30	1.50	7872	7967	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
19-Jun-18	07:30	07:45	0.25	7967	7967	Survey & Conn.	Survey & Conn.@7885' Inc 5.1° Azm 232.4°
19-Jun-18	07:45	08:15	0.50	7967	7982	Sliding	Sliding - (WOB:22.00;GPM :598;TFO:30R))
19-Jun-18	08:15	09:30	1.25	7982	8061	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
19-Jun-18	09:30	09:45	0.25	8061	8061	Survey & Conn.	Survey & Conn.@7979' Inc 3.7° Azm 228.6°
19-Jun-18	09:45	10:30	0.75	8061	8081	Sliding	Sliding - (WOB:26.00;GPM :598;TFO:260M))
19-Jun-18	10:30	11:20	0.83	8081	8155	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
19-Jun-18	11:20	11:35	0.25	8155	8155	Survey & Conn.	Survey & Conn.@8073' Inc 4° Azm 238.4°
19-Jun-18	11:35	12:35	1.00	8155	8185	Sliding	Sliding - (WOB:26.00;GPM :598;TFO:240M))

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
19-Jun-18	12:35	13:45	1.17	8185	8250	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
19-Jun-18	13:45	14:00	0.25	8250	8250	Survey & Conn.	Survey & Conn.@8168' Inc 5.1° Azm 239.7°
19-Jun-18	14:00	14:25	0.42	8250	8260	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
19-Jun-18	14:25	15:15	0.83	8260	8273	Sliding	Sliding - (WOB:26.00;GPM :598;TFO:10R))
19-Jun-18	15:15	16:45	1.50	8273	8344	Drilling	Drilling - (WOB:35.00;GPM :598.00;RPM:60)
19-Jun-18	16:45	17:15	0.50	8344	8344	Rig Service-Inhole	Rig Service-Inhole
19-Jun-18	17:15	17:25	0.17	8344	8344	Survey & Conn.	Survey & Conn.@8262' Inc 7.7° Azm 241°
19-Jun-18	17:25	17:45	0.33	8344	8365	Drilling	Drilling - (WOB:35.00;GPM :598.00;RPM:60)
19-Jun-18	17:45	19:00	1.25	8365	8365	Circulating	Circulating
19-Jun-18	19:00	23:00	4.00	8365	8365	POOH	POOH
19-Jun-18	23:00	24:00	1.00	8365	8365	POOH	POOH L/Dn Bit, and MWD tool

	JOB NO.:	M18263	Report Time:	2400	9 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Wednesday, June 20, 2018 at 0000 to Wednesday, June 20, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	8365.00	Rotary Hours	10.83	WOB	18	Pick UP	310	Slack Off	240	SPM
End Depth	9100.00	Circulating Hours	2.67	RAB	260	SPP	2000	FlowRate	598 - 598	170
Total Drilled:	735.00	Avg. Total ROP:	55.82	Mud Data						
Total Rotary Drilled:	686.00	Avg. Rotary ROP:	63.32	Type	WBM		PV	11	SOLID	4.2
Total Drilled Sliding:	49.00	Avg. Slide ROP:	21.00	Weight	9.20 Lbs/CuFt	GAS	0	YP	18	BHT°
Slide Hours:	2.33	Percent Rotary:	93.33	Viscosity	37	SAND	0	PH	11	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	6.67	Chlorides	14000	WL	0	Oil %		0

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 3:8 3/4" Reed SKC716M 7x16's, 6.5" Gearcon 7/8 5.7 1.5" Fixed W 8 1/2" Stab, 8 1/4" Stabilizer, Shock Sub, 6 3/4" NM Pony DC, UBHO, 6 3/4" NMDC, 6 3/4" NMDC, XO 4/12XH Box X 4 1/2 IF Pin, 9 - 6 1/2 steel collars, 4 1/2 XH Pin X 4 1/2 IF Box, 18 HWDP,
Second Directional :		Charles Becton				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:						Signature:			
Company Man:		Gary Hernandez/Eugene Hernandez							
Incl. In:	7.7	Azm. In:	241	Incl. Out:	5.6	Azm. Out:	239.7		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
20-Jun-18	00:00	01:00	1.00	8365.0	8365.0	Change BHA	Change BHA P/up MWD and Test and P/up Bit
20-Jun-18	01:00	06:10	5.17	8365	8365	TIH	TIH tight spots 2940, 4572, 4950, 5186, Wash thru same.
20-Jun-18	06:10	08:30	2.33	8365	8365	Circulating	Circulating, wash and ream 7040 to 8365
20-Jun-18	08:30	09:10	0.67	8365	8439	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:60)
20-Jun-18	09:10	09:30	0.33	8439	8439	Survey & Conn.	Survey & Conn.@8357' Inc 7.5° Azm 248.1°
20-Jun-18	09:30	09:55	0.42	8439	8454	Sliding	Sliding - (WOB:16.00;GPM :598;TFO:60L))
20-Jun-18	09:55	10:50	0.92	8454	8534	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:60)
20-Jun-18	10:50	11:10	0.33	8534	8534	Other	Other, install rotating rubber
20-Jun-18	11:10	11:25	0.25	8534	8534	Survey & Conn.	Survey & Conn.@8452' Inc 7.2° Azm 244.9°
20-Jun-18	11:25	12:45	1.33	8534	8628	Drilling	Drilling - (WOB:25.00;GPM :598.00;RPM:60)
20-Jun-18	12:45	13:00	0.25	8628	8628	Survey & Conn.	Survey & Conn.@8546' Inc 7.3° Azm 241.9°
20-Jun-18	13:00	13:25	0.42	8628	8642	Sliding	Sliding - (WOB:18.00;GPM :598;TFO:80L))
20-Jun-18	13:25	14:45	1.33	8642	8723	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
20-Jun-18	14:45	14:55	0.17	8723	8723	Survey & Conn.	Survey & Conn.@8641' Inc 7° Azm 233.4°
20-Jun-18	14:55	16:30	1.58	8723	8817	Drilling	Drilling - (WOB:28.00;GPM :598.00;RPM:60)
20-Jun-18	16:30	16:50	0.33	8817	8817	Rig Service-Inhole	Rig Service-Inhole
20-Jun-18	16:50	17:00	0.17	8817	8817	Survey & Conn.	Survey & Conn.@8735' Inc 7.2° Azm 231.3°
20-Jun-18	17:00	19:00	2.00	8817	8911	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
20-Jun-18	19:00	19:15	0.25	8911	8911	Survey & Conn.	Survey & Conn.@8830' Inc 6.7° Azm 232°
20-Jun-18	19:15	19:45	0.50	8911	8917	Sliding	Sliding - (WOB:18.00;GPM :598.00;TFO:80L)
20-Jun-18	19:45	21:15	1.50	8917	9005	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
20-Jun-18	21:15	21:30	0.25	9005	9005	Survey & Conn.	Survey & Conn.@8923' Inc 5.7° Azm 234°
20-Jun-18	21:30	22:30	1.00	9005	9019	Sliding	Sliding - (WOB:18.00;GPM :598.00;TFO:30L)
20-Jun-18	22:30	24:00	1.50	9019	9100	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)

	JOB NO.:	M18263	Report Time:	2400	10 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Thursday, June 21, 2018 at 0000 to Thursday, June 21, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	9100.00	Rotary Hours	12.50	WOB	30	Pick UP	335	Slack Off	240	SPM
End Depth	9949.00	Circulating Hours	2.33	RAB	270	SPP	2020	FlowRate	380 - 598	170
Total Drilled:	849.00	Avg. Total ROP:	43.54	Mud Data						
Total Rotary Drilled:	727.00	Avg. Rotary ROP:	58.16	Type	Cut Brine		PV	1	SOLID	8
Total Drilled Sliding:	122.00	Avg. Slide ROP:	17.43	Weight	9.50 Lbs/CuFt	GAS	0	YP	1	BHT°
Slide Hours:	7.00	Percent Rotary:	85.63	Viscosity	37	SAND	0	PH	11	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	14.37	Chlorides	74000	WL	0	Oil %		0

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 3:8 3/4" Reed SKC716M 7x16's, 6.5" Gearcon 7/8 5.7 1.5" Fixed W 8 1/2" Stab, 8 1/4" Stabilizer, Shock Sub, 6 3/4" NM Pony DC, UBHO, 6 3/4" NMDC, 6 3/4" NMDC, XO 4/12XH Box X 4 1/2 IF Pin, 9 - 6 1/2 steel collars, 4 1/2 XH Pin X 4 1/2 IF Box, 18 HWDP,
Second Directional :		Charles Becton				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:						Signature:			
Company Man:		Gary Hernandez/Eugene Hernandez							
Incl. In:	5.6	Azm. In:	239.7	Incl. Out:	2.2	Azm. Out:	252.3		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
21-Jun-18	00:00	01:30	1.50	9100.0	9100.0	Circulating	Circulating Repair pump (valve/seat)
21-Jun-18	01:30	03:00	1.50	9100	9122	Sliding	Sliding - (WOB:22.00;GPM :598;TFO:200M))
21-Jun-18	03:00	04:15	1.25	9122	9195	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
21-Jun-18	04:15	04:30	0.25	9195	9195	Survey & Conn.	Survey & Conn.@9113' Inc 4.4° Azm 240.5°
21-Jun-18	04:30	06:35	2.08	9195	9220	Sliding	Sliding - (WOB:22.00;GPM :598;TFO:200M))
21-Jun-18	06:35	08:00	1.42	9220	9288	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
21-Jun-18	08:00	08:15	0.25	9288	9288	Survey & Conn.	Survey & Conn.@9206' Inc 4.2° Azm 231.5°
21-Jun-18	08:15	09:40	1.42	9288	9383	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
21-Jun-18	09:40	10:00	0.33	9383	9383	Survey & Conn.	Survey & Conn.@9301' Inc 3.7° Azm 228°
21-Jun-18	10:00	11:15	1.25	9383	9413	Sliding	Sliding - (WOB:26.00;GPM :598;TFO:230M))
21-Jun-18	11:15	12:35	1.33	9413	9477	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
21-Jun-18	12:35	12:55	0.33	9477	9477	Survey & Conn.	Survey & Conn.@9395' Inc 4.6° Azm 230.6°
21-Jun-18	12:55	14:20	1.42	9477	9507	Sliding	Sliding - (WOB:22.00;GPM :598;TFO:220M))
21-Jun-18	14:20	15:20	1.00	9507	9572	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
21-Jun-18	15:20	16:10	0.83	9572	9572	Rig Service-Inhole	Rig Service-Inhole
21-Jun-18	16:10	17:50	1.67	9572	9666	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
21-Jun-18	17:50	18:05	0.25	9666	9666	Survey & Conn.	Survey & Conn.@9584' Inc 8.4° Azm 220.1°
21-Jun-18	18:05	19:45	1.67	9666	9760	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
21-Jun-18	19:45	20:00	0.25	9760	9760	Survey & Conn.	Survey & Conn.@9678' Inc 8° Azm 220.3°
21-Jun-18	20:00	20:45	0.75	9760	9775	Sliding	Sliding - (WOB:26.00;GPM :598.00;TFO:220M)
21-Jun-18	20:45	22:00	1.25	9775	9854	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
21-Jun-18	22:00	22:15	0.25	9854	9854	Survey & Conn.	Survey & Conn.@9772' Inc 4.5° Azm 224.9°
21-Jun-18	22:15	23:45	1.50	9854	9949	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
21-Jun-18	23:45	24:00	0.25	9949	9949	Survey & Conn.	Survey & Conn.@9867' Inc 2.2° Azm 252.3°

	JOB NO.:	M18263	Report Time:	2400	11 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Friday, June 22, 2018 at 0000 to Friday, June 22, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	9949.00	Rotary Hours	5.25	WOB	23	Pick UP	340	Slack Off	240	SPM
End Depth	10277.00	Circulating Hours	3.33	RAB	270	SPP	2020	FlowRate	598 - 598	170
Total Drilled:	328.00	Avg. Total ROP:	42.78	Mud Data						
Total Rotary Drilled:	270.00	Avg. Rotary ROP:	51.43	Type	Cut Brine		PV	1	SOLID	8
Total Drilled Sliding:	58.00	Avg. Slide ROP:	24.00	Weight	9.50 Lbs/CuFt	GAS	0	YP	1	BHT°
Slide Hours:	2.42	Percent Rotary:	82.32	Viscosity	37	SAND	0	PH	11	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	17.68	Chlorides	74000	WL	0	Oil %		0

PERSONNEL						CASING			BHA	
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 4:Haliburton GTD64C 6-16's, 6 3/4 NOV 4/5 7.0, 2.12 ABH, 6 3/4" NMDC, UBHO, 6 3/4" NMDC, 6 3/4" NMDC, 6 3/4" Flex DC, 15 stands Drill Pipe, 5 Hevi, ,	
Second Directional :		Charles Becton				20.00	.00	.00		
MWD Operator1		Matt Walkoviak								
MWD Operator2		Dustin Westall								
Directional Company:		Premier								
Geologist:						Signature:				
Company Man:		Gary Hernandez/Eugene Hernandez								
Incl. In:	2.2	Azm. In:	252.3	Incl. Out:	2.2	Azm. Out:	252.3			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
22-Jun-18	00:00	00:15	0.25	9949.0	9957.0	Sliding	Sliding - (WOB:26.00;GPM :598.00;TFO:170R)
22-Jun-18	00:15	01:45	1.50	9957	10044	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
22-Jun-18	01:45	02:00	0.25	10044	10044	Survey & Conn.	Survey & Conn.@9962' Inc 2° Azm 291.1°
22-Jun-18	02:00	02:15	0.25	10044	10054	Sliding	Sliding - (WOB:26.00;GPM :598.00;TFO:210R)
22-Jun-18	02:15	03:45	1.50	10054	10138	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
22-Jun-18	03:45	04:00	0.25	10138	10138	Survey & Conn.	Survey & Conn.@10056' Inc 1.9° Azm 311.5°
22-Jun-18	04:00	04:30	0.50	10138	10148	Sliding	Sliding - (WOB:26.00;GPM :598.00;TFO:200M)
22-Jun-18	04:30	06:20	1.83	10148	10232	Drilling	Drilling - (WOB:30.00;GPM :598.00;RPM:60)
22-Jun-18	06:20	06:40	0.33	10232	10232	Survey & Conn.	Survey & Conn.@10150' Inc 2.5° Azm 311.6°
22-Jun-18	06:40	08:05	1.42	10232	10262	Sliding	Sliding - (WOB:26.00;GPM :598;TFO:170M))
22-Jun-18	08:05	08:30	0.42	10262	10277	Drilling	Drilling - (WOB:23.00;GPM :598.00;RPM:60)
22-Jun-18	08:30	11:50	3.33	10277	10277	Circulating	Circulating
22-Jun-18	11:50	16:30	4.67	10277	10277	POOH	POOH
22-Jun-18	16:30	17:30	1.00	10277	10277	Other	Change out Hyd. Cylinder on Top Drive
22-Jun-18	17:30	18:30	1.00	10277	10277	POOH	POOH
22-Jun-18	18:30	20:00	1.50	10277	10277	POOH	L/Dn BHA#2 MWD, P.C., Shock Sub, Motor, Bit
22-Jun-18	20:00	23:00	3.00	10277	10277	Change BHA	P/UP Motor, MWD, Scribe, Test, P/up Bit, NMDC & Flex
22-Jun-18	23:00	24:00	1.00	10277	10277	TIH	TIH

	JOB NO.:	M18263	Report Time:	2400	12 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Saturday, June 23, 2018 at 0000 to Saturday, June 23, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	10277.00	Rotary Hours	2.83	WOB	12	Pick UP	340	Slack Off	238	SPM
End Depth	10570.00	Circulating Hours	1.67	RAB	276	SPP	2000	FlowRate	598 - 598	170
Total Drilled:	293.00	Avg. Total ROP:	22.25	Mud Data						
Total Rotary Drilled:	79.00	Avg. Rotary ROP:	27.88	Type	Cut Brine		PV	1	SOLID	9
Total Drilled Sliding:	214.00	Avg. Slide ROP:	20.71	Weight	9.80 Lbs/CuFt	GAS	0	YP	1	BHT°
Slide Hours:	10.33	Percent Rotary:	26.96	Viscosity	28	SAND	0	PH	11	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	73.04	Chlorides	8700	WL	0	Oil %		0

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 4:Haliburton GTD64C 6-16's, 6 3/4 NOV 4/5 7.0, 2.12 ABH, 6 3/4" NMDC, UBHO, 6 3/4" NMDC, 6 3/4" NMDC, 6 3/4" Flex DC, 15 stands Drill Pipe, 5 Hevi, ,
Second Directional :		Charles Becton				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:									
Company Man:		Gary Hernandez/Eugene Hernandez				Signature:			
Incl. In:	2.2	Azm. In:	252.3	Incl. Out:	20.4	Azm. Out:	88.5		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
23-Jun-18	00:00	01:30	1.50	10277.0	10277.0	TIH	TIH
23-Jun-18	01:30	02:30	1.00	10277	10277	Other	Slip and Cut Drill Line
23-Jun-18	02:30	08:45	6.25	10277	10277	TIH	TIH Tight spot at 2945, 4222, Wash thru same
23-Jun-18	08:45	09:00	0.25	10277	10277	Circulating	Circulating, wash 115' to bottom
23-Jun-18	09:00	10:40	1.67	10277	10318	Sliding	Sliding - (WOB:26.00;GPM :598;TFO:75M))
23-Jun-18	10:40	10:50	0.17	10318	10318	MWD Survey	MWD Survey@10307' Inc 4.3° Azm 90°
23-Jun-18	10:50	11:55	1.08	10318	10350	Sliding	Sliding - (WOB:12.00;GPM :598;TFO:75M))
23-Jun-18	11:55	12:10	0.25	10350	10350	Survey & Conn.	Survey & Conn.@10339' Inc 8.6° Azm 92.7°
23-Jun-18	12:10	12:20	0.17	10350	10355	Drilling	Drilling - (WOB:23.00;GPM :598.00;RPM:32)
23-Jun-18	12:20	13:05	0.75	10355	10381	Sliding	Sliding - (WOB:12.00;GPM :598;TFO:75M))
23-Jun-18	13:05	13:15	0.17	10381	10381	MWD Survey	MWD Survey@10370' Inc 11.9° Azm 93.1°
23-Jun-18	13:15	13:25	0.17	10381	10389	Drilling	Drilling - (WOB:18.00;GPM :598.00;RPM:32)
23-Jun-18	13:25	14:55	1.50	10389	10413	Sliding	Sliding - (WOB:12.00;GPM :598;TFO:30L))
23-Jun-18	14:55	15:05	0.17	10413	10413	MWD Survey	MWD Survey@10402' Inc 14.9° Azm 91.1°
23-Jun-18	15:05	16:15	1.17	10413	10444	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
23-Jun-18	16:15	16:40	0.42	10444	10444	Rig Service-Inhole	Rig Service-Inhole
23-Jun-18	16:40	16:50	0.17	10444	10444	Survey & Conn.	Survey & Conn.@10433' Inc 16° Azm 90.9°
23-Jun-18	16:50	18:30	1.67	10444	10476	Sliding	Sliding - (WOB:12.00;GPM :598;TFO:30L))

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
23-Jun-18	18:30	18:40	0.17	10476	10476	MWD Survey	MWD Survey@10464' Inc 18.4° Azm 89.3°
23-Jun-18	18:40	19:15	0.58	10476	10486	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
23-Jun-18	19:15	20:20	1.08	10486	10507	Sliding	Sliding - (WOB:12.00;GPM :598.00;TFO:30L)
23-Jun-18	20:20	20:30	0.17	10507	10507	MWD Survey	MWD Survey@10496' Inc 20.4° Azm 88.5°
23-Jun-18	20:30	20:40	0.17	10507	10517	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
23-Jun-18	20:40	22:00	1.33	10517	10538	Sliding	Sliding - (WOB:12.00;GPM :598.00;TFO:35L)
23-Jun-18	22:00	22:10	0.17	10538	10538	MWD Survey	MWD Survey@10527' Inc 22.3° Azm 88.6°
23-Jun-18	22:10	22:45	0.58	10538	10553	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
23-Jun-18	22:45	24:00	1.25	10553	10570	Sliding	Sliding - (WOB:12.00;GPM :598.00;TFO:35L)

	JOB NO.:	M18263	Report Time:	2400	13 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Sunday, June 24, 2018 at 0000 to Sunday, June 24, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	10570.00	Rotary Hours	1.08	WOB	24	Pick UP	355	Slack Off	238	SPM
End Depth	10854.00	Circulating Hours	4.33	RAB	276	SPP	2350	FlowRate	598 - 598	170
Total Drilled:	284.00	Avg. Total ROP:	25.82	Mud Data						
Total Rotary Drilled:	17.00	Avg. Rotary ROP:	15.69	Type	Cut Brine		PV	1	SOLID	9
Total Drilled Sliding:	267.00	Avg. Slide ROP:	26.92	Weight	9.80 Lbs/CuFt	GAS	0	YP	1	BHT°
Slide Hours:	9.92	Percent Rotary:	5.99	Viscosity	28	SAND	0	PH	11	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	94.01	Chlorides	8700	WL	0	Oil %		0

PERSONNEL						CASING			BHA	
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 4:Haliburton GTD64C 6-16's, 6 3/4 NOV 4/5 7.0, 2.12 ABH, 6 3/4" NMDC, UBHO, 6 3/4" NMDC, 6 3/4" NMDC, 6 3/4" Flex DC, 15 stands Drill Pipe, 5 Hevi, ,	
Second Directional :		Charles Becton				20.00	.00	.00		
MWD Operator1		Matt Walkoviak								
MWD Operator2		Dustin Westall								
Directional Company:		Premier								
Geologist:						Signature:				
Company Man:		Gary Hernandez/Eugene Hernandez								
Incl. In:	20.4	Azm. In:	88.5	Incl. Out:	42.8	Azm. Out:	74			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
24-Jun-18	00:00	00:15	0.25	10570.0	10575.0	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
24-Jun-18	00:15	01:45	1.50	10575	10601	Sliding	Sliding - (WOB:12.00;GPM :598.00;TFO:35L)
24-Jun-18	01:45	01:55	0.17	10601	10601	MWD Survey	MWD Survey@10591' Inc 26.9° Azm 86.2°
24-Jun-18	01:55	02:20	0.42	10601	10605	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
24-Jun-18	02:20	04:00	1.67	10605	10633	Sliding	Sliding - (WOB:12.00;GPM :598.00;TFO:35L)
24-Jun-18	04:00	04:15	0.25	10633	10633	Survey & Conn.	Survey & Conn.@10622' Inc 30° Azm 84.2°
24-Jun-18	04:15	06:00	1.75	10633	10665	Sliding	Sliding - (WOB:12.00;GPM :598.00;TFO:35L)
24-Jun-18	06:00	06:15	0.25	10665	10665	MWD Survey	MWD Survey@10654' Inc 33.1° Azm 82.3°
24-Jun-18	06:15	07:25	1.17	10665	10696	Sliding	Sliding - (WOB:22.00;GPM :598;TFO:50L))
24-Jun-18	07:25	07:45	0.33	10696	10696	MWD Survey	MWD Survey@10686' Inc 35.2° Azm 78.7°
24-Jun-18	07:45	08:00	0.25	10696	10701	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
24-Jun-18	08:00	08:55	0.92	10701	10728	Sliding	Sliding - (WOB:24.00;GPM :598;TFO:50L))
24-Jun-18	08:55	09:10	0.25	10728	10728	Survey & Conn.	Survey & Conn.@10717' Inc 37.3° Azm 75.7°
24-Jun-18	09:10	09:20	0.17	10728	10731	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
24-Jun-18	09:20	09:55	0.58	10731	10760	Sliding	Sliding - (WOB:24.00;GPM :598;TFO:30L))
24-Jun-18	09:55	10:05	0.17	10760	10760	MWD Survey	MWD Survey@10748' Inc 40.1° Azm 75.2°
24-Jun-18	10:05	11:10	1.08	10760	10791	Sliding	Sliding - (WOB:24.00;GPM :598;TFO:10L))
24-Jun-18	11:10	11:20	0.17	10791	10791	MWD Survey	MWD Survey@10780' Inc 42.8° Azm 74°

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
24-Jun-18	11:20	12:20	1.00	10791	10791	Circulating	Circulating, replace swab
24-Jun-18	12:20	12:50	0.50	10791	10822	Sliding	Sliding - (WOB:24.00;GPM :598;TFO:0G))
24-Jun-18	12:50	13:10	0.33	10822	10822	Survey & Conn.	Survey & Conn.@10812' Inc 46° Azm 74.2°
24-Jun-18	13:10	13:55	0.75	10822	10854	Sliding	Sliding - (WOB:24.00;GPM :598;TFO:0G))
24-Jun-18	13:55	14:05	0.17	10854	10854	MWD Survey	MWD Survey@10843' Inc 49.5° Azm 73.1°
24-Jun-18	14:05	16:10	2.08	10854	10854	Circulating	Circulating
24-Jun-18	16:10	22:30	6.33	10854	10854	POOH	POOH
24-Jun-18	22:30	24:00	1.50	10854	10854	POOH	POOH / Lay out MWD, L/Dn Motor and Bit

	JOB NO.:	M18263	Report Time:	2400	14 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Monday, June 25, 2018 at 0000 to Monday, June 25, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	10854.00	Rotary Hours	2.58	WOB	20	Pick Up	355	Slack Off	238	SPM
End Depth	11148.00	Circulating Hours	3.25	RAB	276	SPP	2200	FlowRate	563 - 598	170
Total Drilled:	294.00	Avg. Total ROP:	28.22	Mud Data						
Total Rotary Drilled:	46.00	Avg. Rotary ROP:	17.81	Type	Cut Brine		PV	1	SOLID	11
Total Drilled Sliding:	248.00	Avg. Slide ROP:	31.66	Weight	9.90 Lbs/CuFt	GAS	0	YP	1	BHT°
Slide Hours:	7.83	Percent Rotary:	15.65	Viscosity	28	SAND	0	PH	11	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	84.35	Chlorides	120000	WL	0	Oil %		0

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 5:Ulterra CF 613 6x16's, 6 3/4 NOV 4/5 7.0, 2.25 FBH, 6 3/4" NMDC, UBHO, 6 3/4" NMDC, 6 3/4" NMDC, 6 3/4" Flex DC, 15 stands Drill Pipe, 6 stands 5" Hevi, ,
Second Directional :		Charles Becton				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:						Signature:			
Company Man:		Gary Hernandez/Eugene Hernandez							
Incl. In:	42.8	Azm. In:	74	Incl. Out:	75.3	Azm. Out:	72.8		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
25-Jun-18	00:00	02:00	2.00	10854.0	10854.0	Change BHA	Change BHA / P/up Motor, Scribe, P/up MWD probe, Test same, and P/up New Bit
25-Jun-18	02:00	09:40	7.67	10854	10854	TIH	TIH With BHA # 5 Curve Assy.
25-Jun-18	09:40	10:00	0.33	10854	10854	Circulating	Circulating, wash 120' to bottom
25-Jun-18	10:00	10:45	0.75	10854	10886	Sliding	Sliding - (WOB:24.00;GPM :563;TFO:0G))
25-Jun-18	10:45	10:55	0.17	10886	10886	MWD Survey	MWD Survey@10875' Inc 53.4° Azm 71.9°
25-Jun-18	10:55	11:50	0.92	10886	10917	Sliding	Sliding - (WOB:24.00;GPM :563;TFO:0G))
25-Jun-18	11:50	12:10	0.33	10917	10917	Survey & Conn.	Survey & Conn.@10907' Inc 57.4° Azm 70.4°
25-Jun-18	12:10	12:25	0.25	10917	10922	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
25-Jun-18	12:25	13:05	0.67	10922	10949	Sliding	Sliding - (WOB:24.00;GPM :563;TFO:0G))
25-Jun-18	13:05	13:15	0.17	10949	10949	MWD Survey	MWD Survey@10938' Inc 60.4° Azm 69.7°
25-Jun-18	13:15	13:35	0.33	10949	10955	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
25-Jun-18	13:35	14:15	0.67	10955	10981	Sliding	Sliding - (WOB:24.00;GPM :563;TFO:0G))
25-Jun-18	14:15	14:25	0.17	10981	10981	MWD Survey	MWD Survey@10970' Inc 63.4° Azm 69.2°
25-Jun-18	14:25	14:40	0.25	10981	10987	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
25-Jun-18	14:40	15:20	0.67	10987	11012	Sliding	Sliding - (WOB:20.00;GPM :598;TFO:0))
25-Jun-18	15:20	16:00	0.67	11012	11012	Rig Service-Inhole	Rig Service-Inhole
25-Jun-18	16:00	16:40	0.67	11012	11044	Sliding	Sliding - (WOB:20.00;GPM :598;TFO:0))
25-Jun-18	16:40	16:50	0.17	11044	11044	MWD Survey	MWD Survey@11033' Inc 71.2° Azm 71.2°

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
25-Jun-18	16:50	16:55	0.08	11044	11046	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
25-Jun-18	16:55	17:55	1.00	11046	11075	Sliding	Sliding - (WOB:24.00;GPM :598;TFO:0))
25-Jun-18	17:55	18:15	0.33	11075	11075	MWD Survey	MWD Survey@11065' Inc 75.3° Azm 72.8°
25-Jun-18	18:15	18:30	0.25	11075	11082	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
25-Jun-18	18:30	19:00	0.50	11082	11091	Sliding	Sliding - (WOB:24.00;GPM :598;TFO:30R))
25-Jun-18	19:00	20:00	1.00	11091	11091	Reaming	Wash and Ream Tight Hole
25-Jun-18	20:00	20:30	0.50	11091	11107	Sliding	Sliding - (WOB:24.00;GPM :598.00;TFO:30R)
25-Jun-18	20:30	20:50	0.33	11107	11107	Survey & Conn.	Survey & Conn.@11097' Inc 78.2° Azm 74.3°
25-Jun-18	20:50	21:30	0.67	11107	11118	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
25-Jun-18	21:30	23:00	1.50	11118	11139	Sliding	Sliding - (WOB:24.00;GPM :598.00;TFO:30R)
25-Jun-18	23:00	23:15	0.25	11139	11139	MWD Survey	MWD Survey@11128' Inc 79° Azm 74.2°
25-Jun-18	23:15	24:00	0.75	11139	11148	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)

	JOB NO.:	M18263	Report Time:	2400	15 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Tuesday, June 26, 2018 at 0000 to Tuesday, June 26, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	11148.00	Rotary Hours	0.25	WOB	24	Pick UP	355	Slack Off	238	SPM
End Depth	11220.00	Circulating Hours	3.92	RAB	276	SPP	2200	FlowRate	598 - 598	170
Total Drilled:	72.00	Avg. Total ROP:	21.07	Mud Data						
Total Rotary Drilled:	4.00	Avg. Rotary ROP:	16.00	Type	Cut Brine		PV	1	SOLID	11
Total Drilled Sliding:	68.00	Avg. Slide ROP:	21.47	Weight	9.90 Lbs/CuFt	GAS	0	YP	1	BHT°
Slide Hours:	3.17	Percent Rotary:	5.56	Viscosity	28	SAND	0	PH	11	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	94.44	Chlorides	120000	WL	0	Oil %		0

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 5:Ulterra CF 613 6x16's, 6 3/4 NOV 4/5 7.0, 2.25 FBH, 6 3/4" NMDC, UBHO, 6 3/4" NMDC, 6 3/4" NMDC, 6 3/4" Flex DC, 15 stands Drill Pipe, 6 stands 5" Hevi, ,
Second Directional :		Charles Becton				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:									
Company Man:		Gary Hernandez/Eugene Hernandez							
Incl. In:	75.3	Azm. In:	72.8	Incl. Out:	90				Azm. Out:

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
26-Jun-18	00:00	01:00	1.00	11148.0	11171.0	Sliding	Sliding - (WOB:24.00;GPM :598.00;TFO:30R)
26-Jun-18	01:00	01:15	0.25	11171	11171	MWD Survey	MWD Survey@11146' Inc 80.8° Azm 74.7°
26-Jun-18	01:15	01:30	0.25	11171	11175	Drilling	Drilling - (WOB:20.00;GPM :598.00;RPM:32)
26-Jun-18	01:30	02:00	0.50	11175	11202	Sliding	Sliding - (WOB:24.00;GPM :598.00;TFO:20R)
26-Jun-18	02:00	02:20	0.33	11202	11202	Survey & Conn.	Survey & Conn.@11146' Inc 80.8° Azm 74.7°
26-Jun-18	02:20	04:00	1.67	11202	11220	Sliding	Sliding - (WOB:24.00;GPM :598.00;TFO:0)
26-Jun-18	04:00	07:40	3.67	11220	11220	Circulating	Circulating
26-Jun-18	07:40	14:30	6.83	11220	11220	POOH	POOH
26-Jun-18	14:30	15:30	1.00	11220	11220	Change BHA	Change BHA, lay down motor and rack back non-mag collars
26-Jun-18	15:30	18:00	2.50	11220	11220	Other	Other, pick up reamer assembly and trip in hole.
26-Jun-18	18:00	24:00	6.00	11220	11220	TIH	TIH and ream any tight spots and ream curve

	JOB NO.:	M18263	Report Time:	2400	16 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Wednesday, June 27, 2018 at 0000 to Wednesday, June 27, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	0.00	Rotary Hours	0.00	WOB	0	Pick UP	0	Slack Off	0	SPM	
End Depth	0.00	Circulating Hours	2.50	RAB	0	SPP	0	FlowRate	0 - 598	0	
Total Drilled:	0.00	Avg. Total ROP:	NA	Mud Data							
Total Rotary Drilled:	0.00	Avg. Rotary ROP:	NA	Type		PV	0	SOLID	0		
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	.00 Lbs/CuFt	GAS	0	YP	0	BHT°	.0
Slide Hours:	0.00	Percent Rotary:	NA	Viscosity	0	SAND	0	PH	0	Flow T°	.0
Below Rotary Hrs.	21.00	Percent Slide:	NA	Chlorides	0	WL	0			Oil %	0

PERSONNEL						CASING			BHA		
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	N/A		
Second Directional :		Charles Becton				20.00	.00	.00			
MWD Operator1		Matt Walkoviak									
MWD Operator2		Dustin Westall									
Directional Company:		Premier									
Geologist:									Signature:		
Company Man:		Skye Yocum/Eugene Hernandez									
Incl. In:	90	Azm. In:	74.7	Incl. Out:	90	Azm. Out:	74.7				

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
27-Jun-18	00:00	12:00	12.00	11220.0	11220.0	TIH	TIH Reaming all tight spots and curve to 11220
27-Jun-18	12:00	14:30	2.50	11220	11220	Circulating	Circulate Bottoms Up
27-Jun-18	14:30	20:30	6.00	11220	11220	POOH	POOH
27-Jun-18	20:30	21:00	0.50	11220	11220	POOH	L/Dn Reamer BHA
27-Jun-18	21:00	24:00	3.00	11220	11220	Standby	Standby Rig up and run Casing

	JOB NO.:	M18263	Report Time:	2400	17 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Thursday, June 28, 2018 at 0000 to Thursday, June 28, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	0.00	Rotary Hours	0.00	WOB	0	Pick UP	0	Slack Off	0	SPM	
End Depth	0.00	Circulating Hours	0.00	RAB	0	SPP	0	FlowRate	0 - 0	0	
Total Drilled:	0.00	Avg. Total ROP:	NA	Mud Data							
Total Rotary Drilled:	0.00	Avg. Rotary ROP:	NA	Type				PV	0	SOLID	0
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	.00 Lbs/CuFt	GAS	0	YP	0	BHT°	.0
Slide Hours:	0.00	Percent Rotary:	NA	Viscosity	0	SAND	0	PH	0	Flow T°	.0
Below Rotary Hrs.	0.00	Percent Slide:	NA	Chlorides	0	WL	0			Oil %	0

PERSONNEL						CASING			BHA		
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	N/A		
Second Directional :		Charles Becton				20.00	.00	.00			
MWD Operator1		Matt Walkoviak									
MWD Operator2		Dustin Westall									
Directional Company:		Premier									
Geologist:		Ray Knox							Signature:		
Company Man:		Skye Yocum/Eugene Hernandez									
Incl. In:	90	Azm. In:	74.7	Incl. Out:	90	Azm. Out:	74.7				

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
28-Jun-18	00:00	24:00	24.00	11220.0	11220.0	Standby	Standby Casing operations

	JOB NO.:	M18263	Report Time:	2400	18 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Friday, June 29, 2018 at 0000 to Friday, June 29, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	0.00	Rotary Hours	0.00	WOB	0	Pick UP	0	Slack Off	0	SPM	
End Depth	0.00	Circulating Hours	0.00	RAB	0	SPP	0	FlowRate	0 - 0	0	
Total Drilled:	0.00	Avg. Total ROP:	NA	Mud Data							
Total Rotary Drilled:	0.00	Avg. Rotary ROP:	NA	Type				PV	0	SOLID	0
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	.00 Lbs/CuFt	GAS	0	YP	0	BHT°	.0
Slide Hours:	0.00	Percent Rotary:	NA	Viscosity	0	SAND	0	PH	0	Flow T°	.0
Below Rotary Hrs.	0.00	Percent Slide:	NA	Chlorides	0	WL	0			Oil %	0

PERSONNEL						CASING			BHA		
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	N/A		
Second Directional :		Don Sims				20.00	.00	.00			
MWD Operator1		Matt Walkoviak									
MWD Operator2		Dustin Westall									
Directional Company:		Premier									
Geologist:		Ray Knox				Signature:					
Company Man:		Skye Yocum/Eugene Hernandez									
Incl. In:	90	Azm. In:	74.7	Incl. Out:	90	Azm. Out:	74.7				

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
29-Jun-18	00:00	24:00	24.00	11220.0	11220.0	Standby	Standby / Casing Operations / Rig down and Skid Over Next Well

	JOB NO.:	M18263	Report Time:	2400	19 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Thursday, July 26, 2018 at 0000 to Thursday, July 26, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	0.00	Rotary Hours	0.00	WOB	0	Pick UP	0	Slack Off	0	SPM	
End Depth	0.00	Circulating Hours	0.00	RAB	0	SPP	0	FlowRate	0 - 0	0	
Total Drilled:	0.00	Avg. Total ROP:	NA	Mud Data							
Total Rotary Drilled:	0.00	Avg. Rotary ROP:	NA	Type				PV	0	SOLID	0
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	.00 Lbs/CuFt	GAS	0	YP	0	BHT°	.0
Slide Hours:	0.00	Percent Rotary:	NA	Viscosity	0	SAND	0	PH	0	Flow T°	.0
Below Rotary Hrs.	0.00	Percent Slide:	NA	Chlorides	0	WL	0			Oil %	0

PERSONNEL						CASING			BHA		
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	N/A		
Second Directional :		Charles Becton				20.00	.00	.00			
MWD Operator1		Matt Walkoviak									
MWD Operator2		Dustin Westall									
Directional Company:		Premier									
Geologist:		Ray Knox							Signature:		
Company Man:		Skye Yocum/Eugene Hernandez									
Incl. In:	90	Azm. In:	74.7	Incl. Out:	90	Azm. Out:	74.7				

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
26-Jul-18	07:30	18:30	11.00	11220.0	11220.0	Standby	Standby / Rig up rig after skid and Test BOPs
26-Jul-18	18:30	24:00	5.50	11220	11220	Standby	Standby / Rig Service / TIH & drill DV, & POOH

	JOB NO.:	M18263	Report Time:	2400	20 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Friday, July 27, 2018 at 0000 to Friday, July 27, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	0.00	Rotary Hours	0.00	WOB	20	Pick UP	0	Slack Off	0	SPM	
End Depth	0.00	Circulating Hours	1.17	RAB	0	SPP	550	FlowRate	0 - 282	50	
Total Drilled:	0.00	Avg. Total ROP:	NA	Mud Data							
Total Rotary Drilled:	0.00	Avg. Rotary ROP:	NA	Type				PV	0	SOLID	0
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	.00 Lbs/CuFt	GAS	0	YP	0	BHT°	.0
Slide Hours:	0.00	Percent Rotary:	NA	Viscosity	0	SAND	0	PH	0	Flow T°	.0
Below Rotary Hrs.	24.00	Percent Slide:	NA	Chlorides	0	WL	0	Oil %		0	

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 6:Reed E1234 3x16, 3x13 6blade/13mm cutters w/b/u cutters, 5" Gyrodata 6/7 8.0 1.5 FBH, Float Sub, NMDC, UBHO, NMDC, NMDC, NM Flex, X-Over, 2 stands Drill Pipe, Drill n Ream, 63 stands 4" Drill Pipe, 10 stands 4" HWDP, ,
Second Directional :		Don Sims				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:		Ray Knox				Signature:			
Company Man:		Skye Yocum/Eugene Hernandez							
Incl. In:	90	Azm. In:	74.7	Incl. Out:	90	Azm. Out:	74.7		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
27-Jul-18	00:00	01:05	1.08	11220.0	11220.0	POOH	POOH / Conventional Assembly
27-Jul-18	01:05	02:35	1.50	11220	11220	Change BHA	Change BHA / Pick up Larteral Assembly
27-Jul-18	02:35	02:45	0.17	11220	11220	Circulating	Circulating / Test MWD
27-Jul-18	02:45	03:05	0.33	11220	11220	Other	Make up Bit
27-Jul-18	03:05	07:20	4.25	11220	11220	TIH	TIH with Lateral Assembly, tagging on DV tool
27-Jul-18	07:20	08:20	1.00	11220	11220	Circulating	Circulating, attempt to ream through DV tool.
27-Jul-18	08:20	11:00	2.67	11220	11220	POOH	POOH
27-Jul-18	11:00	11:30	0.50	11220	11220	Change BHA	Change BHA, break off bit and rack BHA in derrick.
27-Jul-18	11:30	12:30	1.00	11220	11220	Rig Service-Outhole	Rig Service-Outhole
27-Jul-18	12:30	22:45	10.25	11220	11220	Other	Wait on watermelon mill to dress out DV tool.
27-Jul-18	22:45	24:00	1.25	11220	11220	TIH	TIH with mill to dress out DV tool.

	JOB NO.:	M18263	Report Time:	2400	21 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Saturday, July 28, 2018 at 0000 to Saturday, July 28, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	11220.00	Rotary Hours	0.83	WOB	20	Pick UP	0	Slack Off	0	SPM
End Depth	11291.00	Circulating Hours	6.25	RAB	0	SPP	3750	FlowRate	176 - 298	85
Total Drilled:	71.00	Avg. Total ROP:	26.63	Mud Data						
Total Rotary Drilled:	27.00	Avg. Rotary ROP:	32.40	Type	OBM			PV	22	SOLID
Total Drilled Sliding:	44.00	Avg. Slide ROP:	24.00	Weight	11.40	GAS	0	YP	9	BHT°
Slide Hours:	1.83	Percent Rotary:	38.03	Viscosity	70	SAND	0	PH	0	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	61.97	Chlorides	32000	WL	0	Oil %		73

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 7:Reed SK613M 3x16, 3x13 6blade/13mm cutters , 5" Gyrodata 6/7 8.0 1.5 FBH, Float Sub, NMDC, UBHO, NMDC, NMDC, NMDC, NM Flex, X-Over, 2 stands Drill Pipe, Drill n Ream, 63 stands 4" Drill Pipe, 10 stands 4" HWDP, ,
Second Directional :		Don Sims				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:		Ray Knox				Signature:			
Company Man:		Skye Yocum/Eugene Hernandez							
Incl. In:	90	Azm. In:	74.7	Incl. Out:	90	Azm. Out:	74.7		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
28-Jul-18	00:00	01:15	1.25	11220.0	11220.0	TIH	TIH with mill to dress out DV tool.
28-Jul-18	01:15	02:55	1.67	11220	11220	Circulating	Dress out DV tool
28-Jul-18	02:55	03:35	0.67	11220	11220	Other	Test casing to 3000 psi
28-Jul-18	03:35	06:30	2.92	11220	11220	POOH	POOH with mill assembly, lay down mill and rock bit.
28-Jul-18	06:30	07:30	1.00	11220	11220	Change BHA	Change BHA, test moitor and MWD, pick up bit.
28-Jul-18	07:30	08:00	0.50	11220	11220	TIH	TIH
28-Jul-18	08:00	10:40	2.67	11220	11220	Other	Other, replace swivel packing.
28-Jul-18	10:40	15:25	4.75	11220	11220	TIH	TIH to 10536
28-Jul-18	15:25	15:45	0.33	11220	11220	Other	Other, install rotating rubber
28-Jul-18	15:45	16:15	0.50	11220	11220	TIH	TIH / Tag @ 11055'
28-Jul-18	16:15	18:00	1.75	11220	11220	Circulating	Circulating / Displace OBM
28-Jul-18	18:00	19:50	1.83	11220	11220	Circulating	Circulating / Drill Cement, Float and Shoe
28-Jul-18	19:50	20:10	0.33	11220	11230	Drilling	Drilling - (WOB:20.00;GPM :246.00;RPM:32)
28-Jul-18	20:10	20:55	0.75	11230	11230	Circulating	Circulating / Bottoms Up
28-Jul-18	20:55	21:10	0.25	11230	11230	Other	F I T
28-Jul-18	21:10	22:10	1.00	11230	11259	Sliding	Sliding - (WOB:15.00;GPM :298;TFO:10L))
28-Jul-18	22:10	22:25	0.25	11259	11259	Connection	Connection & Check Shot @ 11180'
28-Jul-18	22:25	23:15	0.83	11259	11274	Sliding	Sliding - (WOB:15.00;GPM :298.00;TFO:10L)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
28-Jul-18	23:15	23:30	0.25	11274	11274	Circulating	Check Shot @ 11196'
28-Jul-18	23:30	24:00	0.50	11274	11291	Drilling	Drilling - (WOB:20.00;GPM :246.00;RPM:32)

	JOB NO.:	M18263	Report Time:	2400	22 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Sunday, July 29, 2018 at 0000 to Sunday, July 29, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	11291.00	Rotary Hours	14.92	WOB	18	Pick Up	205	Slack Off	165	SPM
End Depth	12540.00	Circulating Hours	1.08	RAB	180	SPP	3900	FlowRate	246 - 299	85
Total Drilled:	1249.00	Avg. Total ROP:	64.05	Mud Data						
Total Rotary Drilled:	1174.00	Avg. Rotary ROP:	78.70	Type	OBM			PV	22	SOLID
Total Drilled Sliding:	75.00	Avg. Slide ROP:	16.36	Weight	11.40	GAS	0	YP	9	BHT°
Slide Hours:	4.58	Percent Rotary:	94.00	Viscosity	70	SAND	0	PH	0	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	6.00	Chlorides	32000	WL	0	Oil %		73

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 7:Reed SK613M 3x16, 3x13 6blade/13mm cutters , 5" Gyrodata 6/7 8.0 1.5 FBH, Float Sub, NMDC, UBHO, NMDC, NMDC, NM Flex, X-Over, 2 stands Drill Pipe, Drill n Ream, 63 stands 4" Drill Pipe, 10 stands 4" HWDP, ,
Second Directional :		Don Sims				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:		Ray Knox				Signature:			
Company Man:		Skye Yocum/Eugene Hernandez							
Incl. In:	90	Azm. In:	74.7	Incl. Out:	95.6	Azm. Out:	73.1		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
29-Jul-18	00:00	00:15	0.25	11291.0	11291.0	Circulating	Check Shot @ 11212'
29-Jul-18	00:15	00:40	0.42	11291	11299	Sliding	Sliding - (WOB:15.00;GPM :298;TFO:0G))
29-Jul-18	00:40	00:55	0.25	11299	11306	Drilling	Drilling - (WOB:20.00;GPM :246.00;RPM:35)
29-Jul-18	00:55	01:10	0.25	11306	11306	Circulating	Check Shot @ 11227'
29-Jul-18	01:10	01:45	0.58	11306	11316	Sliding	Sliding - (WOB:15.00;GPM :298;TFO:0G))
29-Jul-18	01:45	01:55	0.17	11316	11323	Drilling	Drilling - (WOB:20.00;GPM :246.00;RPM:35)
29-Jul-18	01:55	02:10	0.25	11323	11323	MWD Survey	MWD Survey@11276' Inc 93° Azm 74.2°
29-Jul-18	02:10	02:50	0.67	11323	11355	Drilling	Drilling - (WOB:20.00;GPM :246.00;RPM:35)
29-Jul-18	02:50	03:10	0.33	11355	11355	Survey & Conn.	Survey & Conn.@11276' Inc 93° Azm 74.2°
29-Jul-18	03:10	03:50	0.67	11355	11365	Drilling	Drilling - (WOB:20.00;GPM :246.00;RPM:35)
29-Jul-18	03:50	04:35	0.75	11365	11387	Drilling	Drilling - (WOB:20.00;GPM :246.00;RPM:35)
29-Jul-18	04:35	04:45	0.17	11387	11387	Circulating	Check Shot @ 11308'
29-Jul-18	04:45	05:10	0.42	11387	11418	Drilling	Drilling - (WOB:20.00;GPM :246.00;RPM:35)
29-Jul-18	05:10	05:20	0.17	11418	11418	Circulating	Check Shot @ 11339'
29-Jul-18	05:20	05:50	0.50	11418	11450	Drilling	Drilling - (WOB:20.00;GPM :246.00;RPM:35)
29-Jul-18	05:50	06:05	0.25	11450	11450	Survey & Conn.	Survey & Conn.@11371' Inc 97.4° Azm 74.4°
29-Jul-18	06:05	07:15	1.17	11450	11459	Sliding	Sliding - (WOB:15.00;GPM :298;TFO:180))
29-Jul-18	07:15	08:55	1.67	11459	11544	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:35)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
29-Jul-18	08:55	09:10	0.25	11544	11544	Survey & Conn.	Survey & Conn.@11465' Inc 97° Azm 73.9°
29-Jul-18	09:10	10:40	1.50	11544	11638	Drilling	Drilling - (WOB:16.00;GPM :299.00;RPM:60)
29-Jul-18	10:40	10:55	0.25	11638	11638	Survey & Conn.	Survey & Conn.@11559' Inc 97.1° Azm 74.4°
29-Jul-18	10:55	11:20	0.42	11638	11646	Sliding	Sliding - (WOB:15.00;GPM :298;TFO:160L))
29-Jul-18	11:20	12:10	0.83	11646	11733	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
29-Jul-18	12:10	12:25	0.25	11733	11733	Survey & Conn.	Survey & Conn.@11654' Inc 96.3° Azm 74.2°
29-Jul-18	12:25	13:15	0.83	11733	11827	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
29-Jul-18	13:15	13:25	0.17	11827	11827	Survey & Conn.	Survey & Conn.@11748' Inc 96.1° Azm 74°
29-Jul-18	13:25	14:10	0.75	11827	11921	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
29-Jul-18	14:10	14:25	0.25	11921	11921	Survey & Conn.	Survey & Conn.@11842' Inc 96.4° Azm 74.2°
29-Jul-18	14:25	15:15	0.83	11921	12016	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
29-Jul-18	15:15	15:30	0.25	12016	12016	Survey & Conn.	Survey & Conn.@11937' Inc 96° Azm 74.9°
29-Jul-18	15:30	16:05	0.58	12016	12026	Sliding	Sliding - (WOB:15.00;GPM :298;TFO:70L))
29-Jul-18	16:05	16:45	0.67	12026	12110	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
29-Jul-18	16:45	17:00	0.25	12110	12110	Survey & Conn.	Survey & Conn.@12031' Inc 95.3° Azm 72.6°
29-Jul-18	17:00	17:30	0.50	12110	12120	Sliding	Sliding - (WOB:15.00;GPM :298;TFO:0G))
29-Jul-18	17:30	18:25	0.92	12120	12206	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
29-Jul-18	18:25	18:40	0.25	12206	12206	Survey & Conn.	Survey & Conn.@12127' Inc 97.1° Azm 72°
29-Jul-18	18:40	19:10	0.50	12206	12255	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
29-Jul-18	19:10	19:20	0.17	12255	12255	Other	Flow Check
29-Jul-18	19:20	19:55	0.58	12255	12267	Sliding	Sliding - (WOB:15.00;GPM :298;TFO:160R))
29-Jul-18	19:55	20:20	0.42	12267	12301	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
29-Jul-18	20:20	20:35	0.25	12301	12301	Survey & Conn.	Survey & Conn.@12222' Inc 97.8° Azm 72.1°
29-Jul-18	20:35	20:55	0.33	12301	12309	Sliding	Sliding - (WOB:15.00;GPM :298;TFO:150R))
29-Jul-18	20:55	22:00	1.08	12309	12395	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
29-Jul-18	22:00	22:15	0.25	12395	12395	Survey & Conn.	Survey & Conn.@12316' Inc 94.8° Azm 72.8°
29-Jul-18	22:15	23:10	0.92	12395	12490	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
29-Jul-18	23:10	23:25	0.25	12490	12490	Survey & Conn.	Survey & Conn.@12411' Inc 95.6° Azm 73.1°
29-Jul-18	23:25	24:00	0.58	12490	12540	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)

	JOB NO.:	M18263	Report Time:	2400	23 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Monday, July 30, 2018 at 0000 to Monday, July 30, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	12540.00	Rotary Hours	14.92	WOB	15	Pick Up	230	Slack Off	150	SPM
End Depth	13913.00	Circulating Hours	0.33	RAB	180	SPP	4250	FlowRate	280 - 299	85
Total Drilled:	1373.00	Avg. Total ROP:	71.95	Mud Data						
Total Rotary Drilled:	1297.00	Avg. Rotary ROP:	86.95	Type	OBM			PV	23	SOLID
Total Drilled Sliding:	76.00	Avg. Slide ROP:	18.24	Weight	11.40	GAS	0	YP	8	BHT°
Slide Hours:	4.17	Percent Rotary:	94.46	Viscosity	77	SAND	0	PH	0	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	5.54	Chlorides	32000	WL	0	Oil %		73

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 7:Reed SK613M 3x16, 3x13 6blade/13mm cutters , 5" Gyrodata 6/7 8.0 1.5 FBH, Float Sub, NMDC, UBHO, NMDC, NMDC, NM Flex, X-Over, 2 stands Drill Pipe, Drill n Ream, 63 stands 4" Drill Pipe, 10 stands 4" HWDP, ,
Second Directional :		Don Sims				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:		Ray Knox				Signature:			
Company Man:		Skye Yocum/Eugene Hernandez							
Incl. In:	95.6	Azm. In:	73.1	Incl. Out:	94.9	Azm. Out:	74.2		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
30-Jul-18	00:00	00:20	0.33	12540.0	12584.0	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
30-Jul-18	00:20	00:35	0.25	12584	12584	Survey & Conn.	Survey & Conn.@12505' Inc 96.1° Azm 73.4°
30-Jul-18	00:35	01:00	0.42	12584	12594	Sliding	Sliding - (WOB:15.00;GPM :298;TFO:150R))
30-Jul-18	01:00	02:00	1.00	12594	12678	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
30-Jul-18	02:00	02:15	0.25	12678	12678	Survey & Conn.	Survey & Conn.@12599' Inc 95.9° Azm 75.3°
30-Jul-18	02:15	03:00	0.75	12678	12691	Sliding	Sliding - (WOB:15.00;GPM :298.00;TFO:160R)
30-Jul-18	03:00	03:20	0.33	12691	12724	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
30-Jul-18	03:20	03:30	0.17	12724	12724	Rig repair	Pump Down / Replace Pop Off
30-Jul-18	03:30	04:00	0.50	12724	12773	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
30-Jul-18	04:00	04:15	0.25	12773	12773	Survey & Conn.	Survey & Conn.@12694' Inc 90.2° Azm 73.2°
30-Jul-18	04:15	04:55	0.67	12773	12788	Sliding	Sliding - (WOB:15.00;GPM :298.00;TFO:160L)
30-Jul-18	04:55	05:20	0.42	12788	12821	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
30-Jul-18	05:20	05:55	0.58	12821	12831	Sliding	Sliding - (WOB:15.00;GPM :298.00;TFO:10R)
30-Jul-18	05:55	06:15	0.33	12831	12867	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
30-Jul-18	06:15	06:30	0.25	12867	12867	Survey & Conn.	Survey & Conn.@12788' Inc 91.5° Azm 73.5°
30-Jul-18	06:30	07:40	1.17	12867	12962	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
30-Jul-18	07:40	07:55	0.25	12962	12962	Survey & Conn.	Survey & Conn.@12883' Inc 94° Azm 73.9°
30-Jul-18	07:55	09:15	1.33	12962	13056	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
30-Jul-18	09:15	09:30	0.25	13056	13056	Survey & Conn.	Survey & Conn.@12977' Inc 93.8° Azm 72.9°
30-Jul-18	09:30	10:00	0.50	13056	13066	Sliding	Sliding - (WOB:15.00;GPM :299;TFO:70R))
30-Jul-18	10:00	10:55	0.92	13066	13151	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
30-Jul-18	10:55	11:10	0.25	13151	13151	Survey & Conn.	Survey & Conn.@13072' Inc 94.1° Azm 73.8°
30-Jul-18	11:10	12:25	1.25	13151	13245	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
30-Jul-18	12:25	12:40	0.25	13245	13245	Survey & Conn.	Survey & Conn.@13166' Inc 93.9° Azm 73.7°
30-Jul-18	12:40	13:20	0.67	13245	13245	Other	Other, lay down 2 washed joints of pipe.
30-Jul-18	13:20	14:25	1.08	13245	13340	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
30-Jul-18	14:25	14:40	0.25	13340	13340	Survey & Conn.	Survey & Conn.@13261' Inc 94.9° Azm 73.6°
30-Jul-18	14:40	15:20	0.67	13340	13434	Drilling	Drilling - (WOB:18.00;GPM :299.00;RPM:60)
30-Jul-18	15:20	15:40	0.33	13434	13434	Survey & Conn.	Survey & Conn.@13355' Inc 94.9° Azm 74°
30-Jul-18	15:40	16:30	0.83	13434	13527	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
30-Jul-18	16:30	16:45	0.25	13527	13527	Survey & Conn.	Survey & Conn.@13448' Inc 94.7° Azm 73.6°
30-Jul-18	16:45	18:05	1.33	13527	13622	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
30-Jul-18	18:05	18:20	0.25	13622	13622	Survey & Conn.	Survey & Conn.@13543' Inc 93.7° Azm 72.8°
30-Jul-18	18:20	19:00	0.67	13622	13632	Sliding	Sliding - (WOB:15.00;GPM :299;TFO:80R))
30-Jul-18	19:00	20:00	1.00	13632	13716	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
30-Jul-18	20:00	20:20	0.33	13716	13716	Rig Service-Inhole	Rig Service-Inhole
30-Jul-18	20:20	20:30	0.17	13716	13716	Survey & Conn.	Survey & Conn.@13637' Inc 94.5° Azm 74.8°
30-Jul-18	20:30	21:45	1.25	13716	13810	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
30-Jul-18	21:45	22:00	0.25	13810	13810	Survey & Conn.	Survey & Conn.@13731' Inc 94.3° Azm 74.2°
30-Jul-18	22:00	23:10	1.17	13810	13905	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
30-Jul-18	23:10	23:25	0.25	13905	13905	Survey & Conn.	Survey & Conn.@13826' Inc 94.9° Azm 74.2°
30-Jul-18	23:25	24:00	0.58	13905	13913	Sliding	Sliding - (WOB:15.00;GPM :299.00;TFO:80R)

	JOB NO.:	M18263	Report Time:	2400	24 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Tuesday, July 31, 2018 at 0000 to Tuesday, July 31, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	13913.00	Rotary Hours	13.83	WOB	20	Pick Up	280	Slack Off	140	SPM
End Depth	15331.00	Circulating Hours	0.58	RAB	180	SPP	4350	FlowRate	299 - 299	85
Total Drilled:	1418.00	Avg. Total ROP:	71.20	Mud Data						
Total Rotary Drilled:	1335.00	Avg. Rotary ROP:	96.51	Type	OBM		PV	23	SOLID	19
Total Drilled Sliding:	83.00	Avg. Slide ROP:	13.64	Weight	11.40	GAS	0	YP	8	BHT°
Slide Hours:	6.08	Percent Rotary:	94.15	Viscosity	77	SAND	0	PH	0	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	5.85	Chlorides	32000	WL	0	Oil %		73

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 7:Reed SK613M 3x16, 3x13 6blade/13mm cutters , 5" Gyrodata 6/7 8.0 1.5 FBH, Float Sub, NMDC, UBHO, NMDC, NMDC, NMDC, NM Flex, X-Over, 2 stands Drill Pipe, Drill n Ream, 63 stands 4" Drill Pipe, 10 stands 4" HWDP, ,
Second Directional :		Don Sims				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:		Ray Knox				Signature:			
Company Man:		Skye Yocum/Eugene Hernandez							
Incl. In:	94.9	Azm. In:	74.2	Incl. Out:	91.3	Azm. Out:	75.2		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
31-Jul-18	00:00	00:50	0.83	13913.0	13999.0	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
31-Jul-18	00:50	01:05	0.25	13999	13999	Survey & Conn.	Survey & Conn.@13920' Inc 94.4° Azm 74.4°
31-Jul-18	01:05	02:15	1.17	13999	14094	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
31-Jul-18	02:15	02:30	0.25	14094	14094	Survey & Conn.	Survey & Conn.@14015' Inc 94.7° Azm 74.1°
31-Jul-18	02:30	03:10	0.67	14094	14106	Sliding	Sliding - (WOB:15.00;GPM :299.00;TFO:80R)
31-Jul-18	03:10	04:05	0.92	14106	14187	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
31-Jul-18	04:05	04:20	0.25	14187	14187	Survey & Conn.	Survey & Conn.@14108' Inc 94.2° Azm 74.2°
31-Jul-18	04:20	04:45	0.42	14187	14197	Sliding	Sliding - (WOB:15.00;GPM :299;TFO:80R))
31-Jul-18	04:45	05:30	0.75	14197	14281	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
31-Jul-18	05:30	05:45	0.25	14281	14281	Survey & Conn.	Survey & Conn.@14202' Inc 92.2° Azm 74.5°
31-Jul-18	05:45	06:00	0.25	14281	14291	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
31-Jul-18	06:00	06:15	0.25	14291	14298	Sliding	Sliding - (WOB:15.00;GPM :299;TFO:180))
31-Jul-18	06:15	07:05	0.83	14298	14374	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
31-Jul-18	07:05	07:20	0.25	14374	14374	Survey & Conn.	Survey & Conn.@14295' Inc 92.1° Azm 74.6°
31-Jul-18	07:20	07:30	0.17	14374	14384	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
31-Jul-18	07:30	07:35	0.08	14384	14384	Circulating	Circulating, check shot
31-Jul-18	07:35	08:00	0.42	14384	14391	Sliding	Sliding - (WOB:15.00;GPM :299;TFO:180))
31-Jul-18	08:00	08:45	0.75	14391	14468	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
31-Jul-18	08:45	08:55	0.17	14468	14468	Survey & Conn.	Survey & Conn.@14389' Inc 91.4° Azm 74.7°
31-Jul-18	08:55	09:45	0.83	14468	14562	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
31-Jul-18	09:45	10:00	0.25	14562	14562	Survey & Conn.	Survey & Conn.@14483' Inc 90.7° Azm 74.7°
31-Jul-18	10:00	10:45	0.75	14562	14656	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
31-Jul-18	10:45	11:00	0.25	14656	14656	Survey & Conn.	Survey & Conn.@14577' Inc 90.2° Azm 74.3°
31-Jul-18	11:00	11:45	0.75	14656	14751	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:60)
31-Jul-18	11:45	12:00	0.25	14751	14751	Survey & Conn.	Survey & Conn.@14672' Inc 89.8° Azm 74.1°
31-Jul-18	12:00	12:45	0.75	14751	14765	Sliding	Sliding - (WOB:18.00;GPM :299;TFO:10L))
31-Jul-18	12:45	13:40	0.92	14765	14846	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
31-Jul-18	13:40	14:00	0.33	14846	14846	Survey & Conn.	Survey & Conn.@14767' Inc 91.6° Azm 74.4°
31-Jul-18	14:00	14:45	0.75	14846	14940	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
31-Jul-18	14:45	15:00	0.25	14940	14940	Survey & Conn.	Survey & Conn.@14861' Inc 92.4° Azm 74.3°
31-Jul-18	15:00	15:50	0.83	14940	15034	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
31-Jul-18	15:50	16:05	0.25	15034	15034	Survey & Conn.	Survey & Conn.@14955' Inc 92.8° Azm 73.8°
31-Jul-18	16:05	17:10	1.08	15034	15128	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
31-Jul-18	17:10	17:40	0.50	15128	15128	Rig Service-Inhole	Rig Service-Inhole
31-Jul-18	17:40	18:25	0.75	15128	15138	Sliding	Sliding - (WOB:20.00;GPM :299;TFO:130L))
31-Jul-18	18:25	19:30	1.08	15138	15222	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
31-Jul-18	19:30	19:45	0.25	15222	15222	Survey & Conn.	Survey & Conn.@15143' Inc 92° Azm 74.5°
31-Jul-18	19:45	20:00	0.25	15222	15232	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
31-Jul-18	20:00	21:05	1.08	15232	15241	Sliding	Sliding - (WOB:20.00;GPM :299.00;TFO:130L)
31-Jul-18	21:05	22:00	0.92	15241	15317	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
31-Jul-18	22:00	22:15	0.25	15317	15317	Survey & Conn.	Survey & Conn.@15238' Inc 91.3° Azm 75.2°
31-Jul-18	22:15	24:00	1.75	15317	15331	Sliding	Sliding - (WOB:20.00;GPM :299;TFO:100L))

	JOB NO.:	M18263	Report Time:	2400	25 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Wednesday, August 01, 2018 at 0000 to Wednesday, August 01, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters						
Start Depth	15331.00	Rotary Hours	8.92	WOB	22	Pick UP	280	Slack Off	140	SPM
End Depth	16217.00	Circulating Hours	2.17	RAB	180	SPP	4600	FlowRate	299 - 299	85
Total Drilled:	886.00	Avg. Total ROP:	52.63	Mud Data						
Total Rotary Drilled:	802.00	Avg. Rotary ROP:	89.94	Type	OBM		PV	25	SOLID	19
Total Drilled Sliding:	84.00	Avg. Slide ROP:	10.61	Weight	11.30	GAS	0	YP	13	BHT°
Slide Hours:	7.92	Percent Rotary:	90.52	Viscosity	62	SAND	0	PH	0	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	9.48	Chlorides	39000	WL	0	Oil %		73

PERSONNEL						CASING			BHA
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 7:Reed SK613M 3x16, 3x13 6blade/13mm cutters , 5" Gyrodata 6/7 8.0 1.5 FBH, Float Sub, NMDC, UBHO, NMDC, NMDC, NM Flex, X-Over, 2 stands Drill Pipe, Drill n Ream, 63 stands 4" Drill Pipe, 10 stands 4" HWDP, ,
Second Directional :		Don Sims				20.00	.00	.00	
MWD Operator1		Matt Walkoviak							
MWD Operator2		Dustin Westall							
Directional Company:		Premier							
Geologist:		Ray Knox				Signature:			
Company Man:		Skye Yocum/Eric Vernon							
Incl. In:	91.3	Azm. In:	75.2	Incl. Out:	88.5	Azm. Out:	67.7		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
1-Aug-18	00:00	00:50	0.83	15331.0	15412.0	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
1-Aug-18	00:50	01:05	0.25	15412	15412	Survey & Conn.	Survey & Conn.@15333' Inc 89.6° Azm 74.9°
1-Aug-18	01:05	01:15	0.17	15412	15414	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
1-Aug-18	01:15	02:20	1.08	15414	15426	Sliding	Sliding - (WOB:20.00;GPM :299;TFO:100L))
1-Aug-18	02:20	03:25	1.08	15426	15506	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
1-Aug-18	03:25	03:40	0.25	15506	15506	Survey & Conn.	Survey & Conn.@15427' Inc 88.2° Azm 72.9°
1-Aug-18	03:40	05:10	1.50	15506	15526	Sliding	Sliding - (WOB:20.00;GPM :299;TFO:10L))
1-Aug-18	05:10	06:05	0.92	15526	15600	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
1-Aug-18	06:05	06:15	0.17	15600	15600	Survey & Conn.	Survey & Conn.@15521' Inc 89.6° Azm 73.2°
1-Aug-18	06:15	06:25	0.17	15600	15610	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
1-Aug-18	06:25	06:35	0.17	15610	15610	Circulating	Circulating, check shot
1-Aug-18	06:35	07:50	1.25	15610	15625	Sliding	Sliding - (WOB:20.00;GPM :299;TFO:20L))
1-Aug-18	07:50	08:30	0.67	15625	15695	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
1-Aug-18	08:30	08:45	0.25	15695	15695	Survey & Conn.	Survey & Conn.@15616' Inc 90.4° Azm 73.2°
1-Aug-18	08:45	09:55	1.17	15695	15789	Drilling	Drilling - (WOB:20.00;GPM :299.00;RPM:65)
1-Aug-18	09:55	10:15	0.33	15789	15789	Survey & Conn.	Survey & Conn.@15710' Inc 91.1° Azm 73.2°
1-Aug-18	10:15	11:05	0.83	15789	15883	Drilling	Drilling - (WOB:22.00;GPM :299.00;RPM:60)
1-Aug-18	11:05	11:25	0.33	15883	15883	Survey & Conn.	Survey & Conn.@15804' Inc 88.7° Azm 71.3°

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
1-Aug-18	11:25	13:10	1.75	15883	15899	Sliding	Sliding - (WOB:20.00;GPM :299;TFO:0G))
1-Aug-18	13:10	13:55	0.75	15899	15978	Drilling	Drilling - (WOB:22.00;GPM :299.00;RPM:60)
1-Aug-18	13:55	14:15	0.33	15978	15978	Survey & Conn.	Survey & Conn.@15899' Inc 89.1° Azm 71.3°
1-Aug-18	14:15	15:55	1.67	15978	15988	Sliding	Sliding - (WOB:20.00;GPM :299.00;TFO:0G)
1-Aug-18	15:55	16:45	0.83	15988	16072	Drilling	Drilling - (WOB:22.00;GPM :299.00;RPM:60)
1-Aug-18	16:45	17:05	0.33	16072	16072	Survey & Conn.	Survey & Conn.@15993' Inc 88.7° Azm 69.2°
1-Aug-18	17:05	17:45	0.67	16072	16083	Sliding	Sliding - (WOB:20.00;GPM :299;TFO:0G))
1-Aug-18	17:45	18:35	0.83	16083	16166	Drilling	Drilling - (WOB:22.00;GPM :299.00;RPM:60)
1-Aug-18	18:35	18:50	0.25	16166	16166	Survey & Conn.	Survey & Conn.@16087' Inc 88.5° Azm 67.7°
1-Aug-18	18:50	19:30	0.67	16166	16217	Drilling	Drilling - (WOB:22.00;GPM :299.00;RPM:60)
1-Aug-18	19:30	21:30	2.00	16217	16217	Circulating	TD / Circulate Sweeps
1-Aug-18	21:30	24:00	2.50	16217	16217	POOH	TD Well / Trip Out to Shoe

	JOB NO.:	M18263	Report Time:	2400	26 of 26
	Company:	Abraxas	API JOB #	42-475-37465	
	LOCATION:	2.5 miles SW of Pyote Tx	WORK ORDER#		
	RIG NAME:	Patterson 228	FIELD:		
	STATE:	Texas	Legal Desc.	Township-Section-Range	
	COUNTY:	Ward		Pyote-37-	
	WELL NAME:	Mesquite 37 102H			

From Thursday, August 02, 2018 at 0000 to Thursday, August 02, 2018 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	0.00	Rotary Hours	0.00	WOB	22	Pick UP	280	Slack Off	140	SPM	
End Depth	0.00	Circulating Hours	8.67	RAB	180	SPP	4600	FlowRate	299 - 299	85	
Total Drilled:	0.00	Avg. Total ROP:	NA	Mud Data							
Total Rotary Drilled:	0.00	Avg. Rotary ROP:	NA	Type	OBM			PV	25	SOLID	19
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	11.30	GAS	0	YP	13	BHT°	171.0
Slide Hours:	0.00	Percent Rotary:	NA	Viscosity	62	SAND	0	PH	0	Flow T°	.0
Below Rotary Hrs.	24.00	Percent Slide:	NA	Chlorides	39000	WL	0			Oil %	73

PERSONNEL						CASING			BHA	
Lead Directional :		Brian Hancock				Size	lbf/Ft	Set Depth	BHA # 7:Reed SK613M 3x16, 3x13 6blade/13mm cutters , 5" Gyrodata 6/7 8.0 1.5 FBH, Float Sub, NMDC, UBHO, NMDC, NMDC, NM Flex, X-Over, 2 stands Drill Pipe, Drill n Ream, 63 stands 4" Drill Pipe, 10 stands 4" HWDP, ,	
Second Directional :		Don Sims				20.00	.00	.00		
MWD Operator1		Matt Walkoviak								
MWD Operator2		Dustin Westall								
Directional Company:		Premier								
Geologist:		Ray Knox				Signature:				
Company Man:		Skye Yocum/Eric Vernon								
Incl. In:	88.5	Azm. In:	67.7	Incl. Out:	88.5	Azm. Out:	67.7			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
2-Aug-18	00:00	00:10	0.17	16217.0	16217.0	POOH	Trip Out to Shoe
2-Aug-18	00:10	02:20	2.17	16217	16217	Rig repair	Slip and Cut
2-Aug-18	02:20	08:20	6.00	16217	16217	Circulating	TIH / Reaming Back to Bottom
2-Aug-18	08:20	11:00	2.67	16217	16217	Circulating	Circulating
2-Aug-18	11:00	19:00	8.00	16217	16217	POOH	POOH
2-Aug-18	19:00	20:40	1.67	16217	16217	TIH	Lay Down BHA # 7
2-Aug-18	20:40	24:00	3.33	16217	16217	Other	Load Truck / EOJ Paperwork

Section Three

Bottom Hole Assembly Recap

Well Information

BHA # 1

JOB NO.:	M18263	FIELD:	
Company:	Abraxas	Legal Desc.	Township-Section-Range
LOCATION:	2.5 miles SW of Pyote Tx		Pyote-37-
RIG NAME:	Patterson 228	Lead DD:	Brian Hancock
STATE:	Texas	Co. Man:	Gary Hernandez/Eric Vernon
COUNTY:	Ward	BHA TYPE:	Steerable Assembly
WELL NAME:	Mesquite 37 102H		

BHA Summary Information

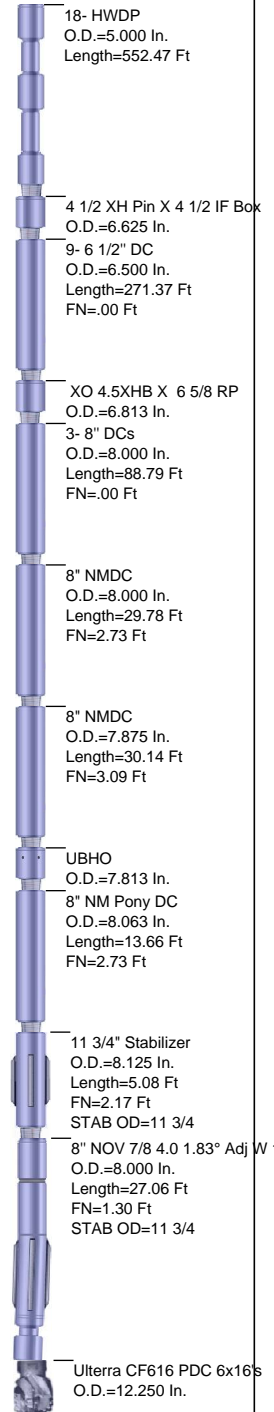
TIME IN - OUT	Rotary Hours	14.00	Start Depth	108.00	RPM	Flow Rate
Start Time	End Time	Circ Hrs Tot/Only	20.17 / 4.42	End Depth	2360.00	Range
13-Jun-18 @ 00:00	14-Jun-18 @ 13:00	Slide Hours	1.75	Percent Rotary:	94.89	30 - 60
		Below Rotary Hrs.	37.00	Percent Slide:	5.11	300 - 704
Total Drilled:	2252.00	Avg. Total ROP:	142.98	Incl.	Azimuth	
Total Rotary Drilled:	2137.00	Avg. Rotary ROP:	152.64	IN	OUT	IN
Total Drilled Sliding:	115.00	Avg. Slide ROP:	65.71	.8	.0	189.82
SPP	400 - 2000	Weights	SO	63 - 120	PU	65 - 132
				RAB	65 - 125	Reason POOH
						TD

Bit Data	MOTOR DATA	Mud Data
Ulterra	Ulterra CF616 PDC 6x16's	7 5/8 NOV 7/8 4.0 1.83° Adj W 12" Stab
Type Bit	Model: 40	Pad OD
TFA	1.18 in ²	PDC
JETS	16 16 16 16 16	Bend °
Bit Coding	IADC#	Revs/Gal
IR	OR	DL
2	2	BT
Bit Drop:	283PSI @ 704 GPM	Sensor Offsets
Comments	Sensor	70.61
	Gamma	0
	Restiv	0

National 8" 7/8 4.0, 1.83 ADJ, 12" stab
 RPM= 0.17
 Min/Max GPM 300-900
 Bit to Bend= 7.1
 12" Stab On Motor
 Max Diff = 855 psi
 Bit to Sensor=

BHA Detail

#	Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn
1	Ulterra CF616 PDC 6x16's	39917	0	12 1/4	1.40	1.40	6 5/8 REGP
2	8" NOV 7/8 4.0 1.83° Adj W 12" Stab	800-40-105		8	27.06	28.46	6 5/8 REGB
3	11 3/4" Stabilizer	111	2 7/8	8 1/8	5.08	33.54	6 5/8 REGB
4	Shock Sub	12	2 7/8	8	11.41	44.95	6 5/8 REGB
5	8" NM Pony DC	2901	2 13/16	8 1/16	13.66	58.61	6 5/8 REGB
6	UBHO	BT80747	3 1/8	7 13/16	3.73	62.34	6 5/8 REGB
7	8" NMDC	3625	3 1/4	7 7/8	30.14	92.48	6 5/8 REGB
8	8" NMDC	4445	3 1/4	8	29.78	122.26	6 5/8 REGB
9	3- 8" DCs	Rig DC	2 3/4	8	88.79	211.05	6 5/8 REGB
10	XO 4.5XHB X 6 5/8 RP	4688	2 13/16	6 13/16	3.03	214.08	4 1/2 XHB
11	9- 6 1/2" DC	Rig	2 3/4	6 1/2	271.37	485.45	4 1/2 XHB
12	4 1/2 XH Pin X 4 1/2 IF Box	DR28059	2 7/8	6 5/8	2.23	487.68	4 1/2 IFB
13	18- HWDP	Rig HWDP	3	5	552.47	1040.15	4 1/2 IF
14					0.00	1040.15	



Well Information

BHA # 2

JOB NO.:	M18263	FIELD:	
Company:	Abraxas	Legal Desc.	Township-Section-Range
LOCATION:	2.5 miles SW of Pyote Tx		Pyote-37-
RIG NAME:	Patterson 228	Lead DD:	Tim Owens
STATE:	Texas	Co. Man:	Gary Hernandez/Eric Vernon
COUNTY:	Ward	BHA TYPE:	Steerable Assembly
WELL NAME:	Mesquite 37 102H		

BHA Summary Information

TIME IN - OUT	Rotary Hours	43.92	Start Depth	2360.00	RPM	Flow Rate
Start Time	End Time	Circ Hrs Tot/Only	64.17 / 5.58	End Depth	8365.00	Range
16-Jun-18 @ 09:30	19-Jun-18 @ 24:00	Slide Hours	14.67	Percent Rotary:	93.09	25 - 60
		Below Rotary Hrs.	86.50	Percent Slide:	6.91	451 - 704
Total Drilled:	6005.00	Avg. Total ROP:	102.50	Incl.	Azimuth	
Total Rotary Drilled:	5590.00	Avg. Rotary ROP:	127.29	IN	OUT	IN
Total Drilled Sliding:	415.00	Avg. Slide ROP:	28.30	.0	.0	.00
SPP	810 - 2400	Weights	SO	120 - 210	PU	132 - 300
				RAB	125 - 250	Reason POOH
						PR

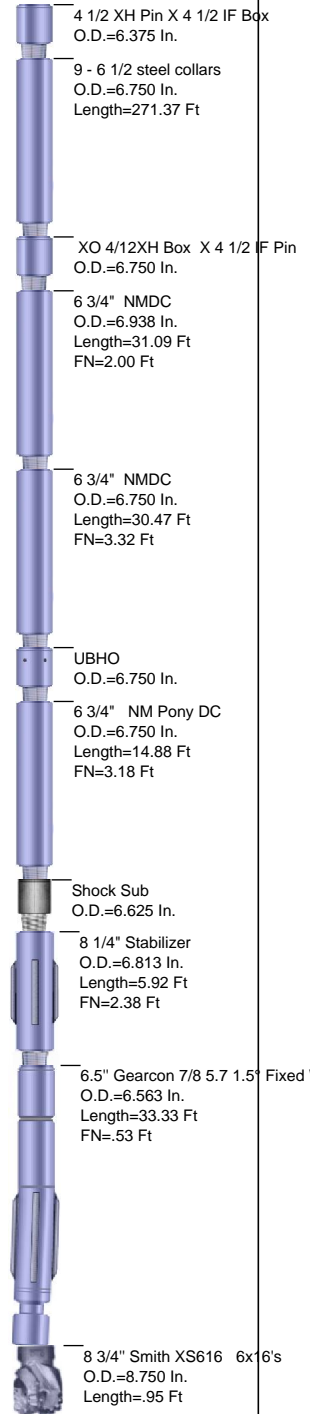
Bit Data	MOTOR DATA	Mud Data
SMITH	8 3/4" Smith XS616 6x16's	6 1/2 GDT 7/8 5.7 1.5° Fixed w 8 1/2" Stab
Type Bit	PDC	Model: G-9
TFA	1.18 in ²	Pad OD
JETS	16 16 16 16 16	MFG. Gearcon
Bit Coding	IADC#	Revs/Gal
IR	OR	DL
3	3	WT
Bit Drop:	303PSI @ 704 GPM	Sensor Offsets
Comments	Sensor	0
	Gamma	0
	Restiv	0

6 1/2 7/8, 5.7, 1.5 FBH, 8 1/2 stab
 RPM= .242 R/G
 Min/Max GPM 300-600
 Bit to Bend= 4.83
 Max Diff =1280
 Bit to Sensor =78.74
 Bit to gamma = 76.84

Smith XS 616
 SN# JN4126
 6 Bld.w/16mm Cutters/ Back up cutters
 3" Gage
 Jets = 6x16
 1.18 TFA

BHA Detail

#	Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn
1	8 3/4" Smith XS616 6x16's	JN4126		8 3/4	0.95	0.95	4 1/2 REGP
2	6.5" Gearcon 7/8 5.7 1.5° Fixed W 8 1/2" Stab	16512		6 9/16	33.33	34.28	4 1/2 IFB
3	8 1/4" Stabilizer	8.25	2 7/8	6 13/16	5.92	40.20	4 1/2 IFB
4	Shock Sub	RWG 1144-07		6 5/8	12.16	52.36	4 1/2 IFB
5	6 3/4" NM Pony DC	5195	3 1/4	6 3/4	14.88	67.24	4 1/2 IFB
6	UBHO	BT675946	3 1/4	6 3/4	3.51	70.75	4 1/2 IFB
7	6 3/4" NMDC	5009	3 1/4	6 3/4	30.47	101.22	4 1/2 IFB
8	6 3/4" NMDC	7647	3 1/4	6 15/16	31.09	132.31	4 1/2 IFB
9	XO 4/12XH Box X 4 1/2 IF Pin	3635	2 3/4	6 3/4	3.20	135.51	4 1/2 XHB
10	9 - 6 1/2 steel collars	Rig	2 3/4	6 3/4	271.37	406.88	4 1/2 XHB
11	4 1/2 XH Pin X 4 1/2 IF Box	3838	2 15/16	6 3/8	4.29	411.17	4 1/2 IFB
12	18 HWDP	Rig	3	5	552.47	963.64	4 1/2 IF
13					0.00	963.64	



Well Information

BHA # 3

JOB NO.:	M18263	FIELD:	
Company:	Abraxas	Legal Desc.	Township-Section-Range
LOCATION:	2.5 miles SW of Pyote Tx		Pyote-37-
RIG NAME:	Patterson 228	Lead DD:	Brian Hancock
STATE:	Texas	Co. Man:	Gary Hernandez/Eugene Hernandez
COUNTY:	Ward	BHA TYPE:	Steerable Assembly
WELL NAME:	Mesquite 37 102H		

BHA Summary Information

TIME IN - OUT	Rotary Hours	28.58	Start Depth	8365.00	RPM	Flow Rate
Start Time	End Time	Circ Hrs Tot/Only	48.67 / 8.33	End Depth	10277.00	Range
20-Jun-18 @ 00:00	22-Jun-18 @ 20:00	Slide Hours	11.75	Percent Rotary:	88.02	60 - 60
		Below Rotary Hrs.	68.00	Percent Slide:	11.98	380 - 598
Total Drilled:	1912.00	Avg. Total ROP:	47.40	Incl.	Azimuth	
Total Rotary Drilled:	1683.00	Avg. Rotary ROP:	58.88	IN OUT	IN	OUT
Total Drilled Sliding:	229.00	Avg. Slide ROP:	19.49	.0 .0	.00	.00
SPP	1000 - 2075	Weights	SO	210 - 240	PU	300 - 340
				RAB	250 - 270	Reason POOH
						BHA

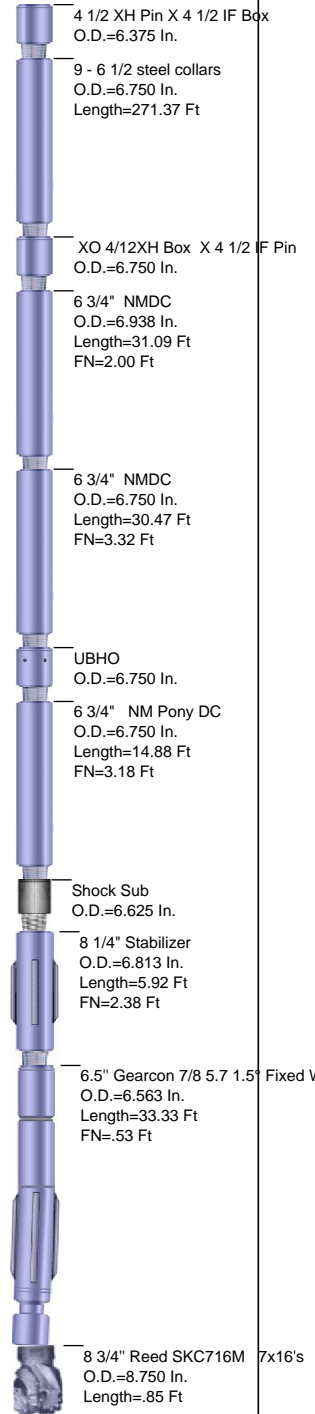
Bit Data	MOTOR DATA	Mud Data
REED	8 3/4" Reed SKC716M 7x16's	6 1/2 GDT 7/8 5.7 1.5° Fixed w 8 1/2" Stab
Type Bit	PDC	Model: G-9
TFA	1.37 in ²	Pad OD
		MFG. Gearcon
JETS	16 16 16 16 16	Bend ° 1.5
	16 16	Stator/Rotor 7/8
Bit Coding	IADC#	Revs/Gal 0.24
IR OR DL Loc BS G ODL		PUMPS
3 2 WT		PUMP1
Bit Drop:	166PSI @ 598 GPM	PUMP2
Comments	Sensor 0	Type
	Gamma 0	
	Restiv 0	

6 1/2 7/8, 5.7, 1.5 FBH, 8 1/2 stab
 RPM= .242 R/G
 Min/Max GPM 300-600
 Bit to Bend= 4.83
 Max Diff =1280
 Bit to Sensor =78.64
 Bit to gamma = 76.74

Reed SKC 716m
 SN# A247602
 7 Bld.w/16mm Cutters/ Back up cutters
 4.5" Gage
 Jets = 7x16
 1.37 TFA

BHA Detail

#	Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn
1	8 3/4" Reed SKC716M 7x16's	A247602		8 3/4	0.85	0.85	4 1/2 REGP
2	6.5" Gearcon 7/8 5.7 1.5° Fixed W 8 1/2" Stab	16512		6 9/16	33.33	34.18	4 1/2 IFB
3	8 1/4" Stabilizer	8.25	2 7/8	6 13/16	5.92	40.10	4 1/2 IFB
4	Shock Sub	RWG 1144-07		6 5/8	12.16	52.26	4 1/2 IFB
5	6 3/4" NM Pony DC	5195	3 1/4	6 3/4	14.88	67.14	4 1/2 IFB
6	UBHO	BT675946	3 1/4	6 3/4	3.51	70.65	4 1/2 IFB
7	6 3/4" NMDC	5009	3 1/4	6 3/4	30.47	101.12	4 1/2 IFB
8	6 3/4" NMDC	7647	3 1/4	6 15/16	31.09	132.21	4 1/2 IFB
9	XO 4/12XH Box X 4 1/2 IF Pin	3635	2 3/4	6 3/4	3.20	135.41	4 1/2 XHB
10	9 - 6 1/2 steel collars	Rig	2 3/4	6 3/4	271.37	406.78	4 1/2 XHB
11	4 1/2 XH Pin X 4 1/2 IF Box	3838	2 15/16	6 3/8	4.29	411.07	4 1/2 IFB
12	18 HWDP	Rig	3	5	552.47	963.54	4 1/2 IF
13					0.00	963.54	



Well Information

BHA # 4

JOB NO.: M18263

FIELD:

Company: Abraxas

Legal
Desc.

Township-Section-Range

LOCATION: 2.5 miles SW of Pyote Tx

Pyote-37-

RIG NAME: Patterson 228

Lead DD: Brian Hancock

STATE: Texas

Co. Man: Gary Hernandez/Eugene Hernandez

COUNTY: Ward

BHA TYPE: Slick Assembly

WELL NAME: Mesquite 37 102H

BHA Summary Information

TIME IN - OUT			Rotary Hours			3.92		Start Depth			10277.00		RPM Range	Flow Rate	
Start Time		End Time	Circ Hrs Tot/Only			30.17 / 6.00		End Depth			10854.00				
22-Jun-18 @ 20:00		24-Jun-18 @ 24:00	Slide Hours			20.25		Percent Rotary:			16.64		32 - 60	598 - 598	
			Below Rotary Hrs.			52.00		Percent Slide:			83.36				
Total Drilled:			577.00			Avg. Total ROP:			23.88		Incl.		Azimuth		
Total Rotary Drilled:			96.00			Avg. Rotary ROP:			24.51		IN	OUT	IN	OUT	
Total Drilled Sliding:			481.00			Avg. Slide ROP:			23.75		.0	.0	.00		.00
SPP	1900 - 2350	Weights	SO	238 - 240		PU	340 - 355		RAB	270 - 276		Reason POOH		BHA	

Bit Data							MOTOR DATA						Mud Data											
Haliburton		Haliburton GTD64C 6-16's					6 3/4 NOV 4/5 7.0, 2.12 ABH						Type		Cut Brine									
Type Bit				PDC			Model:		40		Pad OD		WT		3.0 Lbs/Cu Ft		GAS		0		Solids		9	
TFA		1.18 in²					MFG.		NOV		7 3/8		Vis		28		SAND		0		T °		120.0	
JETS		16	16	16	16	16	Bend °		2.12		Stator/Rotor		4/5		PV		1	PH		11	Chlor		8700	
		16					Bit to Bend		6.4		Motor Diff		400.0		YP		1	WL		0	Oil %		0	
Bit Coding			IADC#				Revs/Gal		0.52		PUMPS		PUMP1				PUMP2							
IR	OR	DL	Loc	BS	G	ODL	NB Stab		0.0		NAME													
1	3	WT	S	X	8.625	BT	Rotor Jet		24.17		Model													
Bit Drop:			233PSI @ 598 GPM				Sensor Offsets				Type													
Comments				Sensor	0	Sonic	0	Liner				.00				.00								
				Gamma	0	DNSC	0	Stroke				.00				.00								
				Restiv	0	GYRO	0	Efficiency				.00				.00								

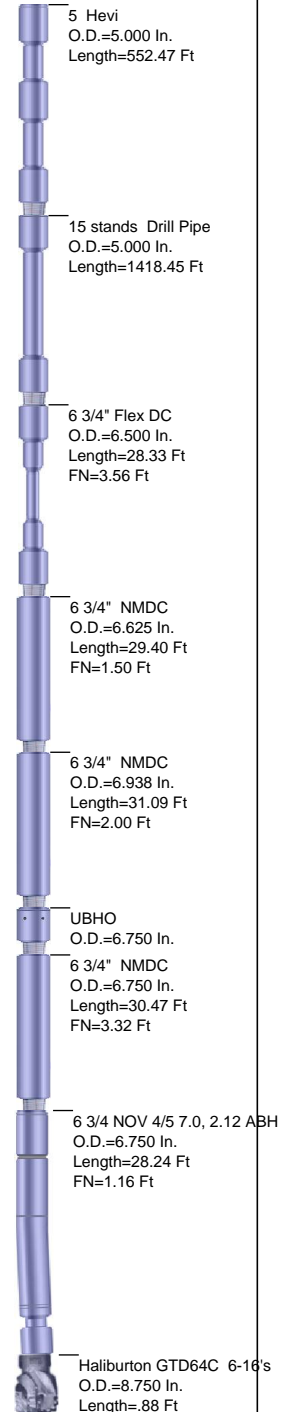
NOV 6 3/4 4/5 7.0 2.12 adj slick
RPM= .52 R/G
Min/Max GPM 300-600
Bit to Bend= 6.35
Max Diff =1500

Bit to Sensor =71.09
Bit to gamma =69.19

Haliburton GTD64C
SN# 12972561
6 Bld.w/13mm Cutters/ Back up cutters
2" Gage pad
Jets = 6x16
1.18 TFA

BHA Detail

#	Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn
1	Haliburton GTD64C 6-16's	12972561		8 3/4	0.88	0.88	4 1/2 REGP
2	6 3/4 NOV 4/5 7.0, 2.12 ABH	W1112380-1		6 3/4	28.24	29.12	4 1/2 IFB
3	6 3/4" NMDC	5009	3 1/4	6 3/4	30.47	59.59	4 1/2 IFB
4	UBHO	BT675946	3 1/4	6 3/4	3.51	63.10	4 1/2 IFB
5	6 3/4" NMDC	7647	3 1/4	6 15/16	31.09	94.19	4 1/2 IFB
6	6 3/4" NMDC	5150	2 13/16	6 5/8	29.40	123.59	4 1/2 IFB
7	6 3/4" Flex DC	2399	2 13/16	6 1/2	28.33	151.92	4 1/2 IFB
8	15 stands Drill Pipe	DP-4.3-S-135	4.3	5	1,418.45	1570.37	4 1/2 IFB
9	5 Hevi	HWDP-3-	3	5	552.47	2122.84	4 1/2 IFB
10					0.00	2122.84	



Well Information

BHA # 5

JOB NO.:	M18263	FIELD:	
Company:	Abraxas	Legal Desc.	Township-Section-Range
LOCATION:	2.5 miles SW of Pyote Tx		Pyote-37-
RIG NAME:	Patterson 228	Lead DD:	Brian Hancock
STATE:	Texas	Co. Man:	Gary Hernandez/Eugene Hernandez
COUNTY:	Ward	BHA TYPE:	Steerable Assembly
WELL NAME:	Mesquite 37 102H		

BHA Summary Information

TIME IN - OUT	Rotary Hours	2.83	Start Depth	10854.00	RPM	Flow Rate
Start Time	End Time	Circ Hrs Tot/Only	21.00 / 7.17	End Depth	11220.00	Range
25-Jun-18 @ 00:00	26-Jun-18 @ 15:30	Slide Hours	11.00	Percent Rotary:	13.66	32 - 32
		Below Rotary Hrs.	39.50	Percent Slide:	86.34	563 - 598
Total Drilled:	366.00	Avg. Total ROP:	26.46	Incl.	Azimuth	
Total Rotary Drilled:	50.00	Avg. Rotary ROP:	17.65	IN	OUT	IN
Total Drilled Sliding:	316.00	Avg. Slide ROP:	28.73	.0	.0	.00
SPP	1850 - 2350	Weights	SO	238 - 238	PU	355 - 355
		RAB	276 - 276	Reason POOH	TD	

Bit Data							MOTOR DATA					Mud Data						
Ultrerra		Ultrerra CF 613 6x16's					6 3/4 NOV 4/5 7.0, 2.25 FBH					Type		Cut Brine				
Type Bit				PDC			Model:		40		Pad OD		WT	Lbs/Cu Ft	GAS	0	Solids	11
TFA		1.18 in²					MFG.		NOV		7 3/8		Vis	28	SAND	0	T °	120.0
JETS		16	16	16	16	16	Bend °	2.25	Stator/Rotor		4/5	PV	1	PH	11	Chlor	120000	
		16					Bit to Bend		5.3	Motor Diff	550.0	YP	1	WL	0	Oil %	0	
Bit Coding			IADC#				Revs/Gal		0.52	PUMPS		PUMP1			PUMP2			
IR	OR	DL	Loc	BS	G	ODL	NB Stab		0.0	NAME								
1	4	CT	S		.1875	CT	Rotor Jet		13.83	Model								
Bit Drop:			235PSI @ 598 GPM				Sensor Offsets			Type								
Comments				Sensor	0	Sonic	0	Liner										
				Gamma	0	DNSC	0	Stroke										
				Restiv	0	GYRO	0	Efficiency										

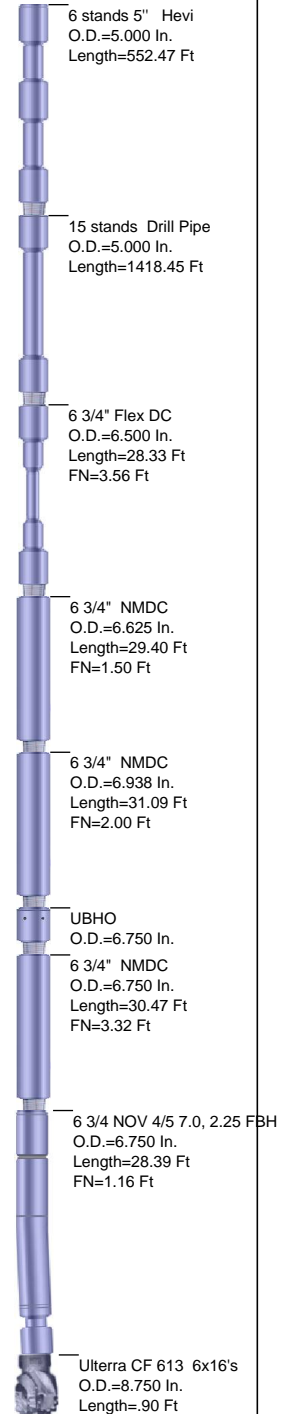
NOV 6 3/4 4/5 7.0 2.25 fixed slick
RPM= .52 R/G
Min/Max GPM 300-600
Bit to Bend= 6.35
Max Diff =1500

Bit to Sensor =71.26
Bit to gamma =69.36

Ultrerra CF 613
SN# 33748
6 Bld.w/13mm Cutters/ Back up cutters
1 3/4" Gage pad
Jets = 6x16
1.18 TFA

BHA Detail

#	Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn
1	Ultrerra CF 613 6x16's	33748		8 3/4	0.90	0.90	4 1/2 REGP
2	6 3/4 NOV 4/5 7.0, 2.25 FBH	700-40-134		6 3/4	28.39	29.29	4 1/2 IFB
3	6 3/4" NMDC	5009	3 1/4	6 3/4	30.47	59.76	4 1/2 IFB
4	UBHO	BT675946	3 1/4	6 3/4	3.51	63.27	4 1/2 IFB
5	6 3/4" NMDC	7647	3 1/4	6 15/16	31.09	94.36	4 1/2 IFB
6	6 3/4" NMDC	5150	2 13/16	6 5/8	29.40	123.76	4 1/2 IFB
7	6 3/4" Flex DC	2399	2 13/16	6 1/2	28.33	152.09	4 1/2 IFB
8	15 stands Drill Pipe	DP-4.3-S-135	4.3	5	1,418.45	1570.54	4 1/2 IFB
9	6 stands 5" Hevi	HWDP-3-	3	5	552.47	2123.01	4 1/2 IFB
10					0.00	2123.01	



Well Information

BHA # 6

JOB NO.:	M18263	FIELD:	
Company:	Abraxas	Legal Desc.	Township-Section-Range
LOCATION:	2.5 miles SW of Pyote Tx		Pyote-37-
RIG NAME:	Patterson 228	Lead DD:	Brian Hancock
STATE:	Texas	Co. Man:	Skye Yocum/Eugene Hernandez
COUNTY:	Ward	BHA TYPE:	Steerable Assembly
WELL NAME:	Mesquite 37 102H		

BHA Summary Information

TIME IN - OUT	Rotary Hours	.00	Start Depth	.00	RPM	Flow Rate
Start Time	End Time	Circ Hrs Tot/Only	1.17 / 1.17	End Depth	.00	Range
27-Jul-18 @ 02:35	27-Jul-18 @ 11:30	Slide Hours	.00	Percent Rotary:	NA	0 - 25
		Below Rotary Hrs.	8.92	Percent Slide:	NA	176 - 282
Total Drilled:	.00	Avg. Total ROP:	NA	Incl.	Azimuth	
Total Rotary Drilled:	.00	Avg. Rotary ROP:	NA	IN	OUT	IN
Total Drilled Sliding:	.00	Avg. Slide ROP:	NA	.0	.0	.00
SPP	250 - 1300	Weights	SO	0 - 0	PU	0 - 0
		RAB	0 - 0	Reason POOH	BHA	

Bit Data							MOTOR DATA							Mud Data							
REED		Reed E1234 3x16, 3x13					5" Gyrodata 6/7 8.0 1.5 FBH							Type							
Type Bit				PDC			Model:		GDM5000			Pad OD		WT	Lbs/Cu	GAS		0	Solids		0
TFA		0.98 in²					MFG.		Gyrodata			5 1/4		Vis	0	SAND		0	T °		.0
JETS		16	13	16	13	16	Bend °		1.5		Stator/Rotor		6/7		PV	0	PH	0	Chlor		0
		13					Bit to Bend		4.5		Motor Diff		550.0		YP	0	WL	0	Oil %		0
Bit Coding			IADC#				Revs/Gal		0.81		PUMPS		PUMP1				PUMP2				
IR	OR	DL	Loc	BS	G	ODL	NB Stab		0.0		NAME										
1	2						Rotor Jet		0		Model										
Bit Drop:		0PSI @ 282 GPM					Sensor Offsets				Type										
Comments				Sensor	0	Sonic	0	Liner		.00				.00							
				Gamma	0	DNSC	0	Stroke		.00				.00							
				Restiv	0	GYRO	0	Efficiency		.00				.00							

5" 6/7, 8.0, 1.50 FBH,
RPM=.81 R/G
Min/Max GPM 150-350
Bit to Bend= 4.52
Max Diff =1800

Bit to Sensor = 75.52
Bit to gamma = 73.62

Reed E1234
SN# E210447
6 Bld.w/13mm Cutters w/b/up cutters
2 1/4" Gage
Jets = 3x16 & 3x13
.98 TFA

BHA Detail

#	Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn
1	Reed E1234 3x16, 3x13 6blade/13mm cutters	E210447		6 1/8	0.66	0.66	3 1/2 REGP
2	5" Gyrodata 6/7 8.0 1.5 FBH	GDM500044		5	30.20	30.86	3 1/2 IFB
3	Float Sub	5544	2 5/8	4 3/4	3.68	34.54	3 1/2 IFB
4	NMDC	3136	2 11/16	4 3/4	29.48	64.02	3 1/2 IFB
5	UBHO	BT475684	2 11/16	4 11/16	3.09	67.11	3 1/2 IFB
6	NMDC	3728	2 11/16	4 3/4	29.54	96.65	3 1/2 IFB
7	NMDC	4332	2 11/16	4 3/4	29.95	126.60	3 1/2 IFB
8	NM Flex	0538	2 11/16	4 3/4	28.94	155.54	3 1/2 IFB
9	X-Over	6295	2 1/2	5 5/16	3.47	159.01	XT-39B
10	2 stands Drill Pipe	DP-2.8-X-95	2.7	4	189.90	348.91	XT-39B
11	Drill n Ream	DTI-DNR-76	2 1/2	5 1/4	8.28	357.19	XT-39B
12	63 stands 4" Drill Pipe	DP-2.7-X-95	2.7	4	5,937.64	6294.83	XT-39B
13	10 stands 4" HWDP	HWDP-2.6-	2.6	4	907.35	7202.18	XT-39B
14					0.00	7202.18	

10 stands 4" HWDP
O.D.=4.000 In.
Length=907.35 Ft

63 stands 4" Drill Pipe
O.D.=4.000 In.
Length=5937.64 Ft

Drill n Ream
O.D.=5.250 In.

2 stands Drill Pipe
O.D.=4.000 In.
Length=189.90 Ft

X-Over
O.D.=5.313 In.
Length=3.47 Ft
NM Flex
O.D.=4.750 In.
Length=28.94 Ft
FN=4.00 Ft

NMDC
O.D.=4.750 In.
Length=29.95 Ft
FN=2.42 Ft

NMDC
O.D.=4.750 In.
Length=29.54 Ft

UBHO
O.D.=4.688 In.
Length=3.09 Ft
NMDC
O.D.=4.750 In.
Length=29.48 Ft
FN=1.48 Ft

Float Sub
O.D.=4.750 In.
Length=3.68 Ft
5" Gyrodata 6/7 8.0 1.5 FBH
O.D.=5.000 In.
Length=30.20 Ft

Reed E1234 3x16, 3x13 6blade/13mm c
O.D.=6.125 In.

Well Information

BHA # 7

JOB NO.:	M18263	FIELD:	
Company:	Abraxas	Legal Desc.	Township-Section-Range
LOCATION:	2.5 miles SW of Pyote Tx		Pyote-37-
RIG NAME:	Patterson 228	Lead DD:	Brian Hancock
STATE:	Texas	Co. Man:	Skye Yocum/Eric Vernon
COUNTY:	Ward	BHA TYPE:	Steerable Assembly
WELL NAME:	Mesquite 37 102H		

BHA Summary Information

TIME IN - OUT	Rotary Hours	53.42	Start Depth	11220.00	RPM	Flow Rate
Start Time	End Time	Circ Hrs Tot/Only	95.42 / 17.42	End Depth	16217.00	Range
28-Jul-18 @ 07:30	02-Aug-18 @ 24:00	Slide Hours	24.58	Percent Rotary:	92.76	0 - 65
		Below Rotary Hrs.	136.50	Percent Slide:	7.24	246 - 299
Total Drilled:	4997.00	Avg. Total ROP:	64.06	Incl.	Azimuth	
Total Rotary Drilled:	4635.00	Avg. Rotary ROP:	86.77	IN	OUT	IN
Total Drilled Sliding:	362.00	Avg. Slide ROP:	14.73	.0	.0	.00
SPP	2450 - 4650	Weights	SO	0 - 170	PU	0 - 280
				RAB	0 - 180	Reason POOH
						TD

Bit Data							MOTOR DATA							Mud Data												
REED		Reed SK613M 3x16, 3x13					5" Gyrodata 6/7 8.0 1.5 FBH							Type		OBM										
Type Bit				PDC			Model:		GDM5000			Pad OD		WT		11.3 Lbs/Cu Ft		GAS		0		Solids		19		
TFA		0.98 in²					MFG.		Gyrodata			5 1/4		Vis		62		SAND		0		T °		.0		
JETS		16	13	16	13	16	Bend °		1.5		Stator/Rotor		6/7		PV		25		PH		0		Chlor		39000	
		13					Bit to Bend		4.5		Motor Diff		675.0		YP		13		WL		0		Oil %		73	
Bit Coding					IADC#				Revs/Gal		0.81		PUMPS		PUMP1				PUMP2							
IR	OR	DL	Loc	BS		G	ODL		NB Stab		0.0		NAME													
3	3	BT	A	X						Rotor Jet		0		Model												
Bit Drop:			97PSI @ 299 GPM					Sensor Offsets				Type														
Comments				Sensor		0	Sonic		0	Liner				.00				.00								
				Gamma		0	DNsc		0	Stroke				.00				.00								
				Restiv		0	GYRO		0	Efficiency				.00				.00								

5" 6/7, 8.0, 1.50 FBH,
RPM=.81 R/G
Min/Max GPM 150-350
Bit to Bend= 4.52
Max Diff =1800

Bit to Sensor = 75.52
Bit to gamma = 73.62

Reed SK613M
SN# A250897
6 Bld.w/13mm Cutters
2 1/4" Gage
Jets = 3x16 & 3x13
.98 TFA

BHA Detail

#	Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn
1	Reed SK613M 3x16, 3x13 6blade/13mm cutters	A250897		6 1/8	0.66	0.66	3 1/2 REGP
2	5" Gyrodata 6/7 8.0 1.5 FBH	GDM500044		5	30.20	30.86	3 1/2 IFB
3	Float Sub	5544	2 5/8	4 3/4	3.68	34.54	3 1/2 IFB
4	NMDC	3136	2 11/16	4 3/4	29.48	64.02	3 1/2 IFB
5	UBHO	BT475684	2 11/16	4 11/16	3.09	67.11	3 1/2 IFB
6	NMDC	3728	2 11/16	4 3/4	29.54	96.65	3 1/2 IFB
7	NMDC	4332	2 11/16	4 3/4	29.95	126.60	3 1/2 IFB
8	NM Flex	0538	2 11/16	4 3/4	28.94	155.54	3 1/2 IFB
9	X-Over	6295	2 1/2	5 5/16	3.47	159.01	XT-39B
10	2 stands Drill Pipe	DP-2.8-X-95	2.7	4	189.90	348.91	XT-39B
11	Drill n Ream	DTI-DNR-76	2 1/2	5 1/4	8.28	357.19	XT-39B
12	63 stands 4" Drill Pipe	DP-2.7-X-95	2.7	4	5,937.64	6294.83	XT-39B
13	10 stands 4" HWDP	HWDP-2.6-	2.6	4	907.35	7202.18	XT-39B
14					0.00	7202.18	

10 stands 4" HWDP
O.D.=4.000 In.
Length=907.35 Ft

63 stands 4" Drill Pipe
O.D.=4.000 In.
Length=5937.64 Ft

Drill n Ream
O.D.=5.250 In.

2 stands Drill Pipe
O.D.=4.000 In.
Length=189.90 Ft

X-Over
O.D.=5.313 In.
Length=3.47 Ft
NM Flex
O.D.=4.750 In.
Length=28.94 Ft
FN=4.00 Ft

NMDC
O.D.=4.750 In.
Length=29.95 Ft
FN=2.42 Ft

NMDC
O.D.=4.750 In.
Length=29.54 Ft

UBHO
O.D.=4.688 In.
Length=3.09 Ft
NMDC
O.D.=4.750 In.
Length=29.48 Ft
FN=1.48 Ft

Float Sub
O.D.=4.750 In.
Length=3.68 Ft
5" Gyrodata 6/7 8.0 1.5 FBH
O.D.=5.000 In.
Length=30.20 Ft

Reed SK613M 3x16, 3x13 6blade/13mm
O.D.=6.125 In.

JOB NO.:	M18263
Company:	Abraxas
LOCATION:	2.5 miles SW of Pyote Tx
RIG NAME:	Patterson 228
STATE:	Texas
COUNTY:	Ward
WELL NAME:	Mesquite 37 102H

FIELD:	
Legal Desc.	Township-Section-Range
	Pyote-37-
MOTOR INFORMATION	
Desc: 7 5/8 NOV 7/8 4.0 1.83° Adj W 12" Stab	
Bent Hsg/Sub: 1.83 / 0 Bit to Bend: 7.10	
Pad OD: 39584.00 NB Stab: 40606.0	

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
1	13-Jun	Drilling	00:00	01:00	1.00	108	211	103	5	103.0	30	4800	300	400		0.82	189.82	0.60	
1	13-Jun	Drilling	01:30	02:00	0.50	211	304	93	5	186.0	30	4800	300	400		0.81	182.03	0.29	
1	13-Jun	Drilling	02:30	03:30	1.00	304	394	90	5	90.0	30	4800	300	400		1.36	200.78	0.92	
1	13-Jun	Drilling	04:00	04:15	0.25	394	487	93	5	372.0	30	4800	493	700		1.50	205.18	0.06	
1	13-Jun	Sliding	04:50	04:55	0.08	487	502	15	3	180.0	30	4800	493	650	20M	1.50	205.53	0.06	
1	13-Jun	Drilling	04:55	05:00	0.08	502	579	77	5	924.0	45	3400	493	650		0.84	220.25	0.98	
1	13-Jun	Sliding	05:15	05:20	0.08	579	599	20	3	240.0	45	3400	493	650	20M	0.67	225.40	1.39	
1	13-Jun	Drilling	05:20	05:25	0.08	599	681	82	10	984.0	45	3400	493	650		0.72	113.89	1.39	
1	13-Jun	Drilling	05:40	05:55	0.25	681	773	92	10	368.0	45	3400	493	650		1.80	118.85	1.20	
1	13-Jun	Drilling	06:05	06:30	0.42	773	855	82	10	196.8	55	5800	600	1130		1.58	114.67	0.47	
1	13-Jun	Sliding	06:45	07:00	0.25	855	875	20	3	80.0	55	5800	600	1130	300M	1.49	113.05	1.50	
1	13-Jun	Drilling	07:00	07:15	0.25	875	948	73	10	292.0	55	5800	660	1130		0.52	78.70	1.50	
1	13-Jun	Sliding	07:35	07:50	0.25	948	968	20	3	80.0	55	5800	660	1130	300M	0.40	47.34	0.09	
1	13-Jun	Drilling	07:50	08:20	0.50	968	1040	72	12	144.0	60	6000	630	1300		0.40	37.91	0.09	
1	13-Jun	Drilling	08:30	09:05	0.58	1040	1134	94	12	161.1	60	7200	704	1550		0.70	60.44	0.51	
1	13-Jun	Drilling	09:20	09:50	0.50	1134	1229	95	16	190.0	60	9600	704	1650		0.79	83.77	0.37	
1	13-Jun	Drilling	10:00	10:25	0.42	1229	1324	95	16	228.0	60	9600	704	1650		0.79	75.25	0.26	
1	13-Jun	Drilling	10:35	11:00	0.42	1324	1419	95	16	228.0	60	9600	704	1650		0.96	72.20	0.21	
1	13-Jun	Drilling	11:10	11:30	0.33	1419	1514	95	16	285.0	60	9100	704	1650		0.86	7.09	1.36	
1	13-Jun	Sliding	11:55	12:05	0.17	1514	1514	0	16	0.0	60	9100	704	1650	300M	0.86	7.09	1.36	
1	13-Jun	Drilling	12:05	13:15	1.17	1514	1607	93	20	79.7	60	9100	704	1650		1.39	350.04	0.54	
1	13-Jun	Drilling	13:25	14:35	1.17	1607	1701	94	20	80.6	60	9100	704	1650		1.49	4.08	0.52	
1	13-Jun	Drilling	14:45	15:40	0.92	1701	1796	95	24	103.6	60	9800	704	1730		0.98	340.29	1.06	
1	13-Jun	Sliding	15:55	16:15	0.33	1796	1816	20	16	60.0	60	9800	704	1730	240M	0.90	328.15	1.06	
1	13-Jun	Drilling	16:15	16:35	0.33	1816	1891	75	24	225.0	60	9800	704	1730		1.26	296.01	0.92	
1	13-Jun	Drilling	17:20	18:00	0.67	1891	1985	94	24	141.0	60	9800	704	2000		0.46	285.03	1.27	

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
1	13-Jun	Sliding	18:20	18:55	0.58	1985	2005	20	16	34.3	60	9800	704	2000	110M	0.21	274.68	1.27	
1	13-Jun	Drilling	18:55	19:45	0.83	2005	2080	75	24	90.0	60	9800	704	2000		0.52	147.67	0.89	
1	13-Jun	Drilling	20:00	20:35	0.58	2080	2175	95	30	162.9	60	9800	704	2000		0.46	130.56	0.37	
1	13-Jun	Drilling	20:50	21:40	0.83	2175	2269	94	30	112.8	60	8000	704	2000		0.44	64.63	0.57	
1	13-Jun	Drilling	21:55	22:50	0.92	2269	2360	91	30	99.3	60	8000	704	2000		0.36	44.50	0.22	

Total Drilled: 2252 Ft Avg. Total ROP: 142.98 DEPTH% - TIME %

Total Rotary Drilled: 2137 Ft Avg. Rotary ROP: 152.64 Percent Rotary: 94.89 - 88.89

Total Drilled Sliding: 115 Ft Avg. Slide ROP: 65.71 Percent Slide: 5.11 - 11.11

JOB NO.:	M18263
Company:	Abraxas
LOCATION:	2.5 miles SW of Pyote Tx
RIG NAME:	Patterson 228
STATE:	Texas
COUNTY:	Ward
WELL NAME:	Mesquite 37 102H

FIELD:	
Legal Desc.	Township-Section-Range
	Pyote-37-
MOTOR INFORMATION	
Desc: 6 1/2 GDT 7/8 5.7 1.5° Fixed w 8 1/2" Stab	
Bent Hsg/Sub: 1.50 / 1.5 Bit to Bend: 4.83	
Pad OD: 6.88 NB Stab: 8.50	

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
2	16-Jun	Drilling	12:30	12:45	0.25	2360	2370	10	2	40.0	25	1900	451	810		0.34	42.33	0.22	
2	16-Jun	Drilling	13:15	14:45	1.50	2370	2476	106	27	70.7	25	5800	451	810		0.21	66.52	0.20	
2	16-Jun	Drilling	15:00	15:15	0.25	2476	2510	34	27	136.0	25	6800	598	1630		0.21	86.94	0.23	
2	16-Jun	Drilling	15:15	16:00	0.75	2510	2570	60	27	80.0	60	6800	451	1630		0.28	115.31	0.23	
2	16-Jun	Drilling	16:00	16:45	0.75	2570	2665	95	27	126.7	60	6800	598	1630		1.03	214.14	1.34	
2	16-Jun	Sliding	17:00	17:20	0.33	2665	2683	18	25	54.0	60	6800	704	1630	230M	1.35	216.27	3.09	
2	16-Jun	Drilling	17:20	18:00	0.67	2683	2760	77	28	115.5	60	6800	598	1630		3.73	215.63	3.09	
2	16-Jun	Sliding	18:15	18:45	0.50	2760	2780	20	25	40.0	60	6800	704	1630	230M	4.30	215.88	2.53	
2	16-Jun	Drilling	18:45	19:25	0.67	2780	2853	73	28	109.5	60	6800	598	1630		6.15	217.58	2.53	
2	16-Jun	Sliding	20:00	20:15	0.25	2853	2868	15	25	60.0	60	6800	704	1630	240M	6.51	217.77	1.00	
2	16-Jun	Drilling	20:15	20:55	0.67	2868	2949	81	28	121.5	60	6800	598	1630		7.28	215.69	1.00	
2	16-Jun	Drilling	21:10	21:45	0.58	2949	3044	95	28	162.9	60	6800	598	1630		6.43	224.62	1.80	
2	16-Jun	Sliding	22:00	22:15	0.25	3044	3056	12	25	48.0	60	6800	704	1680	100R	6.30	226.20	1.80	
2	16-Jun	Drilling	22:15	22:45	0.50	3056	3138	82	28	164.0	60	6800	598	1680		6.46	237.33	1.52	
2	16-Jun	Drilling	23:00	23:45	0.75	3138	3232	94	28	125.3	60	6800	598	1680		6.15	235.56	0.62	
2	17-Jun	Drilling	00:00	00:30	0.50	3232	3327	95	28	190.0	60	6800	598	1680		5.84	232.75	0.43	
2	17-Jun	Drilling	00:45	01:30	0.75	3327	3421	94	28	125.3	60	6800	598	1680		5.19	234.94	0.80	
2	17-Jun	Drilling	01:45	02:20	0.58	3421	3516	95	28	162.9	60	6800	598	1680		4.92	227.76	0.84	
2	17-Jun	Sliding	02:35	02:45	0.17	3516	3526	10	25	60.0	60	6800	704	1680	10L	4.90	226.79	0.84	
2	17-Jun	Drilling	02:45	03:15	0.50	3526	3610	84	28	168.0	60	6800	598	1680		6.61	226.60	2.08	
2	17-Jun	Sliding	03:30	04:15	0.75	3610	3624	14	25	18.7	60	6800	704	1680	240M	6.90	226.60	2.08	
2	17-Jun	Drilling	04:15	05:00	0.75	3624	3706	82	28	109.3	60	6800	598	1680		7.86	231.48	1.39	
2	17-Jun	Drilling	05:15	06:00	0.75	3706	3800	94	28	125.3	60	9200	598	1856		8.09	233.48	0.26	
2	17-Jun	Drilling	06:15	07:00	0.75	3800	3895	95	28	126.7	60	9600	598	1900		7.06	232.60	1.28	
2	17-Jun	Sliding	07:15	07:30	0.25	3895	3903	8	25	32.0	60	9600	704	1900	150L	6.96	232.48	1.28	
2	17-Jun	Drilling	07:30	08:15	0.75	3903	3990	87	28	116.0	60	9600	598	1900		6.30	230.70	0.77	

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
2	17-Jun	Drilling	08:30	09:00	0.50	3990	4085	95	28	190.0	60	9600	598	1900		5.94	233.66	0.53	
2	17-Jun	Drilling	09:15	09:40	0.42	4085	4180	95	28	228.0	60	9600	598	1900		5.64	232.06	0.41	
2	17-Jun	Drilling	09:50	10:35	0.75	4180	4275	95	28	126.7	60	9600	598	1900		5.25	227.03	0.69	
2	17-Jun	Drilling	10:45	11:30	0.75	4275	4379	104	30	138.7	60	9600	598	1900		4.52	222.93	0.80	
2	17-Jun	Drilling	12:45	13:05	0.33	4379	4464	85	30	255.0	60	9600	598	2150		4.58	226.96	0.41	
2	17-Jun	Sliding	13:25	13:50	0.42	4464	4478	14	25	33.6	60	9600	704	2150	250M	4.62	227.63	2.01	
2	17-Jun	Drilling	13:50	14:30	0.67	4478	4559	81	30	121.5	60	9600	598	2150		6.24	229.13	2.01	
2	17-Jun	Sliding	15:15	15:30	0.25	4559	4574	15	25	60.0	60	9600	704	2150	260M	6.51	229.34	0.67	
2	17-Jun	Drilling	15:30	16:05	0.58	4574	4654	80	30	137.1	60	9600	598	2150		7.02	230.78	0.67	
2	17-Jun	Drilling	16:20	17:05	0.75	4654	4749	95	30	126.7	60	9800	598	2150		6.14	228.53	1.22	
2	17-Jun	Drilling	17:20	18:10	0.83	4749	4843	94	30	112.8	60	9800	598	2150		5.04	229.03	1.18	
2	17-Jun	Drilling	18:25	19:15	0.83	4843	4937	94	30	112.8	60	9800	598	2150		5.25	230.70	0.45	
2	17-Jun	Sliding	19:30	19:45	0.25	4937	4952	15	25	60.0	60	9800	704	2150	240M	5.36	230.94	2.00	
2	17-Jun	Drilling	19:45	20:30	0.75	4952	5031	79	30	105.3	60	9800	598	2150		6.94	231.71	2.00	
2	17-Jun	Sliding	20:45	21:00	0.25	5031	5045	14	25	56.0	60	9800	704	2150	5R	7.21	231.80	1.05	
2	17-Jun	Drilling	21:00	21:30	0.50	5045	5126	81	30	162.0	60	9800	598	2150		8.06	231.45	1.05	
2	17-Jun	Drilling	21:45	22:00	0.25	5126	5221	95	30	380.0	60	9800	598	2150		8.20	233.47	0.36	
2	17-Jun	Drilling	22:15	22:45	0.50	5221	5316	95	30	190.0	60	9800	598	2150		7.68	233.37	0.64	
2	17-Jun	Drilling	23:00	23:20	0.33	5316	5410	94	30	282.0	60	9800	598	2150		6.91	233.55	0.84	
2	17-Jun	Drilling	23:35	24:00	0.42	5410	5505	95	30	228.0	60	9800	598	2150		6.20	235.64	0.79	
2	18-Jun	Drilling	00:15	00:45	0.50	5505	5600	95	30	190.0	60	12500	598	2150		5.75	232.32	0.63	
2	18-Jun	Drilling	01:00	01:25	0.42	5600	5695	95	30	228.0	60	12500	598	2150		4.65	230.69	1.28	
2	18-Jun	Drilling	01:40	02:00	0.33	5695	5789	94	30	282.0	60	12500	598	2150		4.75	223.97	0.71	
2	18-Jun	Sliding	02:15	03:00	0.75	5789	5805	16	25	21.3	60	12500	704	2150	230M	4.87	223.05	2.34	
2	18-Jun	Drilling	03:00	03:25	0.42	5805	5884	79	30	189.6	60	12500	598	2150		6.72	223.91	2.34	
2	18-Jun	Sliding	03:40	04:00	0.33	5884	5899	15	25	45.0	60	12500	598	2150	230M	7.03	224.19	1.19	
2	18-Jun	Drilling	04:00	04:15	0.25	5899	5978	79	30	316.0	60	12500	598	2150		7.76	228.69	1.19	
2	18-Jun	Drilling	04:30	05:00	0.50	5978	6074	96	30	192.0	60	14500	598	2220		7.46	228.45	0.55	
2	18-Jun	Drilling	05:15	05:30	0.25	6074	6186	112	30	448.0	60	14500	598	2220		7.09	228.22	0.27	
2	18-Jun	Drilling	05:40	06:00	0.33	6186	6262	76	30	228.0	60	14500	598	2220		6.93	227.18	0.27	
2	18-Jun	Drilling	06:15	06:40	0.42	6262	6357	95	30	228.0	60	14500	598	2220		6.30	225.55	0.76	
2	18-Jun	Drilling	06:50	07:10	0.33	6357	6452	95	30	285.0	60	14000	598	2400		6.03	222.29	0.44	
2	18-Jun	Drilling	07:25	07:50	0.42	6452	6547	95	30	228.0	60	14000	598	2400		5.30	227.97	1.13	
2	18-Jun	Sliding	08:05	09:00	0.92	6547	6571	24	15	26.2	60	14000	598	2400	90R	5.18	229.97	0.73	
2	18-Jun	Drilling	09:00	09:30	0.50	6571	6642	71	30	142.0	60	14000	598	2400		5.11	235.73	0.73	

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
2	18-Jun	Drilling	09:45	10:05	0.33	6642	6737	95	30	285.0	60	14000	598	2400		4.24	232.68	1.12	
2	18-Jun	Drilling	10:20	10:50	0.50	6737	6833	96	30	192.0	60	14000	598	2400		3.31	232.73	0.96	
2	18-Jun	Drilling	11:05	11:45	0.67	6833	6927	94	30	141.0	60	14000	598	2400		3.89	222.51	1.15	
2	18-Jun	Sliding	12:00	12:25	0.42	6927	6942	15	15	36.0	60	14000	598	2400	230M	4.02	221.36	0.75	
2	18-Jun	Drilling	12:25	13:00	0.58	6942	7021	79	30	135.4	60	14000	598	2400		4.60	222.71	0.75	
2	18-Jun	Sliding	13:15	14:10	0.92	7021	7036	15	15	16.4	60	14000	598	2400	250M	4.72	222.96	0.88	
2	18-Jun	Drilling	14:10	14:45	0.58	7036	7116	80	30	137.1	60	14000	598	2400		5.40	224.94	0.88	
2	18-Jun	Sliding	15:00	15:45	0.75	7116	7128	12	15	16.0	60	14000	598	2400	250M	5.50	225.20	0.88	
2	18-Jun	Drilling	15:45	16:45	1.00	7128	7210	82	30	82.0	60	14000	598	2090		6.61	233.09	1.69	
2	18-Jun	Sliding	17:40	18:20	0.67	7210	7225	15	15	22.5	60	14000	598	2090	60R	6.76	234.05	1.82	
2	18-Jun	Drilling	18:20	19:20	1.00	7225	7305	80	30	80.0	60	14000	598	2090		5.33	231.54	1.82	
2	18-Jun	Drilling	19:35	20:00	0.42	7305	7400	95	30	228.0	60	14000	598	2090		4.31	224.20	1.18	
2	18-Jun	Sliding	20:15	20:30	0.25	7400	7410	10	15	40.0	60	14000	598	2150	10R	4.22	223.21	1.18	
2	18-Jun	Drilling	20:30	21:30	1.00	7410	7494	84	30	84.0	60	14000	598	2150		4.28	219.36	0.34	
2	18-Jun	Sliding	21:45	22:15	0.50	7494	7509	15	15	30.0	60	14000	598	2150	250M	4.32	218.76	1.07	
2	18-Jun	Drilling	22:15	23:20	1.08	7509	7587	78	30	72.0	60	14000	598	2150		5.15	217.31	1.07	
2	18-Jun	Sliding	23:35	24:00	0.42	7587	7600	13	15	31.2	60	14000	598	2150	250M	5.29	217.11	1.07	
2	19-Jun	Sliding	00:00	00:30	0.50	7600	7602	2	15	4.0	60	14000	598	2150	250M	5.31	217.19	1.06	
2	19-Jun	Drilling	00:30	01:30	1.00	7602	7683	81	30	81.0	60	14000	598	2150		5.91	223.48	1.06	
2	19-Jun	Sliding	01:45	02:30	0.75	7683	7700	17	15	22.7	60	14000	598	2150	60R	6.03	224.62	0.90	
2	19-Jun	Drilling	02:30	03:30	1.00	7700	7777	77	30	77.0	60	14000	598	2150		6.51	229.11	0.90	
2	19-Jun	Sliding	03:45	04:30	0.75	7777	7790	13	15	17.3	60	14000	598	2050	60R	6.60	229.80	0.90	
2	19-Jun	Drilling	04:30	05:45	1.25	7790	7872	82	30	65.6	60	15000	598	2050		5.30	231.96	1.60	
2	19-Jun	Drilling	06:00	07:30	1.50	7872	7967	95	30	63.3	60	15000	598	2050		3.88	229.24	1.52	
2	19-Jun	Sliding	07:45	08:15	0.50	7967	7982	15	22	30.0	60	15000	598	2050	30R	3.71	228.94	0.77	
2	19-Jun	Drilling	08:15	09:30	1.25	7982	8061	79	30	63.2	60	15000	598	2050		3.96	237.24	0.77	
2	19-Jun	Sliding	09:45	10:30	0.75	8061	8081	20	26	26.7	60	15000	598	2050	260M	4.09	238.54	1.16	
2	19-Jun	Drilling	10:30	11:20	0.83	8081	8155	74	30	88.8	60	15000	598	2050		4.95	239.56	1.16	
2	19-Jun	Sliding	11:35	12:35	1.00	8155	8185	30	26	30.0	60	15000	598	2050	240M	5.57	240.02	2.77	
2	19-Jun	Drilling	12:35	13:45	1.17	8185	8250	65	30	55.7	60	15000	598	2050		7.37	240.88	2.77	
2	19-Jun	Drilling	14:00	14:25	0.42	8250	8260	10	30	24.0	60	15000	598	2050		7.64	240.98	2.77	
2	19-Jun	Sliding	14:25	15:15	0.83	8260	8273	13	26	15.6	60	15000	598	2050	10R	7.67	241.80	1.01	
2	19-Jun	Drilling	15:15	16:45	1.50	8273	8344	71	35	47.3	60	15000	598	2050		7.52	247.11	1.01	
2	19-Jun	Drilling	17:25	17:45	0.33	8344	8365	21	35	63.0	60	15000	598	2050		7.47	247.84	0.53	

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
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Total Drilled:		6005 Ft	Avg. Total ROP:		102.50	DEPTH% - TIME %													
Total Rotary Drilled:		5590 Ft	Avg. Rotary ROP:		127.29	Percent Rotary:		93.09 - 74.96											
Total Drilled Sliding:		415 Ft	Avg. Slide ROP:		28.30	Percent Slide:		6.91 - 25.04											

JOB NO.:	M18263
Company:	Abraxas
LOCATION:	2.5 miles SW of Pyote Tx
RIG NAME:	Patterson 228
STATE:	Texas
COUNTY:	Ward
WELL NAME:	Mesquite 37 102H

FIELD:	
Legal Desc.	Township-Section-Range
	Pyote-37-
MOTOR INFORMATION	
Desc: 6 1/2 GDT 7/8 5.7 1.5° Fixed w 8 1/2" Stab	
Bent Hsg/Sub: 1.50 / 0 Bit to Bend: 4.83	
Pad OD: 6.88 NB Stab: 8.50	

Slide Report for BHA # 3

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
3	20-Jun	Drilling	08:30	09:10	0.67	8365	8439	74	20	111.0	60	14700	598	2050		7.24	245.35	0.53	
3	20-Jun	Sliding	09:30	09:55	0.42	8439	8454	15	16	36.0	60	14700	598	2000	60L	7.20	244.84	0.42	
3	20-Jun	Drilling	09:55	10:50	0.92	8454	8534	80	20	87.3	60	14700	598	2075		7.29	242.28	0.42	
3	20-Jun	Drilling	11:25	12:45	1.33	8534	8628	94	25	70.5	60	14800	598	2050		7.03	234.60	1.16	
3	20-Jun	Sliding	13:00	13:25	0.42	8628	8642	14	18	33.6	60	14800	598	2000	80L	7.00	233.38	0.35	
3	20-Jun	Drilling	13:25	14:45	1.33	8642	8723	81	28	60.8	60	13500	598	2050		7.17	231.56	0.35	
3	20-Jun	Drilling	14:55	16:30	1.58	8723	8817	94	28	59.4	60	13500	598	2050		6.77	231.90	0.53	
3	20-Jun	Drilling	17:00	19:00	2.00	8817	8911	94	30	47.0	60	13500	598	2000		5.83	233.70	1.10	
3	20-Jun	Sliding	19:15	19:45	0.50	8911	8917	6	18	12.0	60	13500	598	2000	30L	5.76	233.85	1.10	
3	20-Jun	Drilling	19:45	21:15	1.50	8917	9005	88	30	58.7	60	13500	598	2000		5.61	238.91	0.60	
3	20-Jun	Sliding	21:30	22:30	1.00	9005	9019	14	18	14.0	60	13500	598	2000	50L	5.59	239.71	1.27	
3	20-Jun	Drilling	22:30	24:00	1.50	9019	9100	81	18	54.0	60	13500	598	2000	50L	4.56	240.37	1.27	
3	21-Jun	Sliding	01:30	03:00	1.50	9100	9122	22	18	14.7	60	13500	380	2050	60L	4.38	239.67	0.76	
3	21-Jun	Drilling	03:00	04:15	1.25	9122	9195	73	30	58.4	60	13800	598	2050		4.22	232.61	0.76	
3	21-Jun	Sliding	04:30	06:35	2.08	9195	9220	25	22	12.0	60	13800	598	1950	200M	4.13	231.04	0.58	
3	21-Jun	Drilling	06:35	08:00	1.42	9220	9288	68	30	48.0	60	14400	598	1950		3.77	228.53	0.58	
3	21-Jun	Drilling	08:15	09:40	1.42	9288	9383	95	30	67.1	60	14800	598	2000		4.48	230.33	0.98	
3	21-Jun	Sliding	10:00	11:15	1.25	9383	9413	30	26	24.0	60	14800	598	2000	230M	5.05	228.92	2.61	
3	21-Jun	Drilling	11:15	12:35	1.33	9413	9477	64	30	48.0	60	15000	598	2000		6.67	224.80	2.61	
3	21-Jun	Sliding	12:55	14:20	1.42	9477	9507	30	26	21.2	60	15000	598	2000	220M	7.25	223.34	1.60	
3	21-Jun	Drilling	14:20	15:20	1.00	9507	9572	65	30	65.0	60	15600	598	2040		8.22	220.55	1.60	
3	21-Jun	Drilling	16:10	17:50	1.67	9572	9666	94	30	56.4	60	15700	598	2020		8.05	220.27	0.43	
3	21-Jun	Drilling	18:05	19:45	1.67	9666	9760	94	30	56.4	60	15700	598	2020		4.94	223.95	3.76	
3	21-Jun	Sliding	20:00	20:45	0.75	9760	9775	15	26	20.0	60	15700	598	2020	170R	4.42	225.31	2.88	
3	21-Jun	Drilling	20:45	22:00	1.25	9775	9854	79	30	63.2	60	15700	598	2020		2.46	245.69	2.88	
3	21-Jun	Drilling	22:15	23:45	1.50	9854	9949	95	30	63.3	60	15700	598	2020		1.97	285.60	1.48	

Slide Report for BHA # 3

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
3	22-Jun	Sliding	00:00	00:15	0.25	9949	9957	8	26	32.0	60	15700	598	2020	210M	1.99	289.01	1.48	
3	22-Jun	Drilling	00:15	01:45	1.50	9957	10044	87	30	58.0	60	15700	598	2020		1.90	308.81	0.74	
3	22-Jun	Sliding	02:00	02:15	0.25	10044	10054	10	26	40.0	60	15700	598	2020	200M	1.90	311.05	0.74	
3	22-Jun	Drilling	02:15	03:45	1.50	10054	10138	84	23	56.0	60	15700	598	2020		2.42	311.59	0.64	
3	22-Jun	Sliding	04:00	04:30	0.50	10138	10148	10	26	20.0	60	16500	598	2020	160M	2.49	311.60	0.64	
3	22-Jun	Drilling	04:30	06:20	1.83	10148	10232	84	23	45.8	60	16500	598	2020		1.71	316.24	0.98	
3	22-Jun	Sliding	06:40	08:05	1.42	10232	10262	30	26	21.2	60	16500	598	2020	170M	0.81	355.61	6.04	
3	22-Jun	Drilling	08:05	08:30	0.42	10262	10277	15	23	36.0	60	16500	598	2020		0.99	59.27	11.63	

Total Drilled: 1912 Ft Avg. Total ROP: 47.40 DEPTH% - TIME %

Total Rotary Drilled: 1683 Ft Avg. Rotary ROP: 58.88 Percent Rotary: 88.02 - 70.87

Total Drilled Sliding: 229 Ft Avg. Slide ROP: 19.49 Percent Slide: 11.98 - 29.13

JOB NO.:	M18263
Company:	Abraxas
LOCATION:	2.5 miles SW of Pyote Tx
RIG NAME:	Patterson 228
STATE:	Texas
COUNTY:	Ward
WELL NAME:	Mesquite 37 102H

FIELD:	
Legal Desc.	Township-Section-Range
	Pyote-37-
MOTOR INFORMATION	
Desc: 6 3/4 NOV 4/5 7.0, 2.12 ABH	
Bent Hsg/Sub: 2.12 / 2.12 Bit to Bend: 6.35	
Pad OD: 39149.00 NB Stab:	

Slide Report for BHA # 4

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
4	23-Jun	Sliding	09:00	10:40	1.67	10277	10318	41	12	24.6	60	16500	598	1900	75M	5.78	91.38	13.47	
4	23-Jun	Sliding	10:50	11:55	1.08	10318	10350	32	12	29.5	60	16500	598	1900	75M	9.77	92.87	10.65	
4	23-Jun	Drilling	12:10	12:20	0.17	10350	10355	5	23	30.0	32	14500	598	2000		10.30	92.94	10.65	
4	23-Jun	Sliding	12:20	13:05	0.75	10355	10381	26	12	34.7	32	14500	598	2000	75M	12.93	92.31	9.48	
4	23-Jun	Drilling	13:15	13:25	0.17	10381	10389	8	18	48.0	32	14500	598	2000	75M	13.68	91.81	9.48	
4	23-Jun	Sliding	13:25	14:55	1.50	10389	10413	24	12	16.0	32	14500	598	2000	30L	15.29	91.03	3.55	
4	23-Jun	Drilling	15:05	16:15	1.17	10413	10444	31	20	26.6	32	14500	598	2000		16.85	90.28	7.89	
4	23-Jun	Sliding	16:50	18:30	1.67	10444	10476	32	12	19.2	32	14500	598	2000	30L	19.15	88.98	6.30	
4	23-Jun	Drilling	18:40	19:15	0.58	10476	10486	10	20	17.1	32	14500	598	2000		19.77	88.73	6.30	
4	23-Jun	Sliding	19:15	20:20	1.08	10486	10507	21	12	19.4	32	14500	598	2000	35L	21.07	88.54	6.13	
4	23-Jun	Drilling	20:30	20:40	0.17	10507	10517	10	20	60.0	32	14500	598	2000		21.69	88.57	6.13	
4	23-Jun	Sliding	20:40	22:00	1.33	10517	10538	21	12	15.8	32	14500	598	2000	35L	22.95	88.38	5.98	
4	23-Jun	Drilling	22:10	22:45	0.58	10538	10553	15	20	25.7	32	14500	598	2000		23.84	88.11	5.98	
4	23-Jun	Sliding	22:45	24:00	1.25	10553	10570	17	12	13.6	32	14500	598	2000	35L	25.13	87.34	8.78	
4	24-Jun	Drilling	00:00	00:15	0.25	10570	10575	5	20	20.0	32	17000	598	2100		25.55	87.06	8.78	
4	24-Jun	Sliding	00:15	01:45	1.50	10575	10601	26	12	17.3	32	17000	598	2100	35L	27.90	85.51	10.46	
4	24-Jun	Drilling	01:55	02:20	0.42	10601	10605	4	20	9.6	32	17000	598	2100		28.30	85.25	10.46	
4	24-Jun	Sliding	02:20	04:00	1.67	10605	10633	28	12	16.8	32	17000	598	2100	35L	31.06	83.51	10.17	
4	24-Jun	Sliding	04:15	06:00	1.75	10633	10665	32	12	18.3	32	17000	598	2100	35L	33.81	81.02	9.11	
4	24-Jun	Sliding	06:15	07:25	1.17	10665	10696	31	22	26.6	32	17000	598	2100	50L	35.87	77.70	8.87	
4	24-Jun	Drilling	07:45	08:00	0.25	10696	10701	5	20	20.0	32	17500	598	2100		36.21	77.21	8.87	
4	24-Jun	Sliding	08:00	08:55	0.92	10701	10728	27	24	29.5	32	17000	598	2350	40L	38.29	75.52	9.09	
4	24-Jun	Drilling	09:10	09:20	0.17	10728	10731	3	20	18.0	32	17000	598	2350		38.56	75.47	9.09	
4	24-Jun	Sliding	09:20	09:55	0.58	10731	10760	29	24	49.7	32	17000	598	2350	20L	41.11	74.73	8.79	
4	24-Jun	Sliding	10:05	11:10	1.08	10760	10791	31	24	28.6	32	17000	598	2350	10L	43.90	74.07	10.01	
4	24-Jun	Sliding	12:20	12:50	0.50	10791	10822	31	24	62.0	32	17000	598	2350	0G	47.13	73.83	11.59	

Slide Report for BHA # 4

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
4	24-Jun	Sliding	13:10	13:55	0.75	10822	10854	32	24	42.7	32	17000	598	2350	0G	50.84	72.67	12.54	

Total Drilled:	577 Ft	Avg. Total ROP:	23.88	DEPTH% - TIME %
Total Rotary Drilled:	96 Ft	Avg. Rotary ROP:	24.51	Percent Rotary: 16.64 - 16.21
Total Drilled Sliding:	481 Ft	Avg. Slide ROP:	23.75	Percent Slide: 83.36 - 83.79

JOB NO.:	M18263
Company:	Abraxas
LOCATION:	2.5 miles SW of Pyote Tx
RIG NAME:	Patterson 228
STATE:	Texas
COUNTY:	Ward
WELL NAME:	Mesquite 37 102H

FIELD:	
Legal Desc.	Township-Section-Range
	Pyote-37-
MOTOR INFORMATION	
Desc: 6 3/4 NOV 4/5 7.0, 2.25 FBH	
Bent Hsg/Sub: 2.25 / 2.25 Bit to Bend: 5.32	
Pad OD: 39149.00 NB Stab:	

Slide Report for BHA # 5

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
5	25-Jun	Sliding	10:00	10:45	0.75	10854	10886	32	24	42.7	32	17000	563	2050	0G	54.77	71.37	13.08	
5	25-Jun	Sliding	10:55	11:50	0.92	10886	10917	31	24	33.8	32	17000	563	2350	0G	58.37	70.17	9.87	
5	25-Jun	Drilling	12:10	12:25	0.25	10917	10922	5	20	20.0	32	17200	598	2200		58.85	70.06	9.87	
5	25-Jun	Sliding	12:25	13:05	0.67	10922	10949	27	24	40.5	32	17200	563	2200	0G	61.43	69.52	9.48	
5	25-Jun	Drilling	13:15	13:35	0.33	10949	10955	6	20	18.0	32	17200	598	2200		61.99	69.43	9.48	
5	25-Jun	Sliding	13:35	14:15	0.67	10955	10981	26	24	39.0	32	17200	563	2200	0G	64.50	69.38	10.11	
5	25-Jun	Drilling	14:25	14:40	0.25	10981	10987	6	20	24.0	32	17200	598	2200		65.10	69.48	10.11	
5	25-Jun	Sliding	14:40	15:20	0.67	10987	11012	25	24	37.5	32	17200	598	2200		68.11	70.23	15.32	
5	25-Jun	Sliding	16:00	16:40	0.67	11012	11044	32	24	48.0	32	17200	598	2200		72.61	71.76	13.68	
5	25-Jun	Drilling	16:50	16:55	0.08	11044	11046	2	20	24.0	32	17200	598	2200		72.86	71.86	13.68	
5	25-Jun	Sliding	16:55	17:55	1.00	11046	11075	29	24	29.0	32	17200	598	2200		76.21	73.27	10.15	
5	25-Jun	Drilling	18:15	18:30	0.25	11075	11082	7	20	28.0	32	17200	598	2200		76.84	73.60	10.15	
5	25-Jun	Sliding	18:30	19:00	0.50	11082	11091	9	24	18.0	32	17200	598	2200	30R	77.66	74.02	10.15	
5	25-Jun	Sliding	20:00	20:30	0.50	11091	11107	16	24	32.0	32	17200	598	2200	30R	78.46	74.27	2.60	
5	25-Jun	Drilling	20:50	21:30	0.67	11107	11118	11	20	16.5	32	17200	598	2200		78.74	74.23	2.60	
5	25-Jun	Sliding	21:30	23:00	1.50	11118	11139	21	24	14.0	32	17200	598	2200	30R	80.10	74.51	10.37	
5	25-Jun	Drilling	23:15	24:00	0.75	11139	11148	9	20	12.0	32	17200	598	2200		80.99	74.69	9.39	
5	26-Jun	Sliding	00:00	01:00	1.00	11148	11171	23	24	23.0	32	17200	598	2200	20R	83.15	74.60	9.39	
5	26-Jun	Drilling	01:15	01:30	0.25	11171	11175	4	20	16.0	32	17200	598	2200		83.52	74.59	9.39	
5	26-Jun	Sliding	01:30	02:00	0.50	11175	11202	27	24	54.0	32	17200	598	2200		86.06	74.48	9.39	
5	26-Jun	Sliding	02:20	04:00	1.67	11202	11220	18	24	10.8	32	17200	598	2200		87.74	74.41	9.39	

Total Drilled: 366 Ft Avg. Total ROP: 26.46 DEPTH% - TIME %

Total Rotary Drilled: 50 Ft Avg. Rotary ROP: 17.65 Percent Rotary: 13.66 - 20.48

Total Drilled Sliding: 316 Ft Avg. Slide ROP: 28.73 Percent Slide: 86.34 - 79.52

JOB NO.:	
Company:	
LOCATION:	
RIG NAME:	
STATE:	
COUNTY:	
WELL NAME:	

FIELD:	
Legal Desc.	Township-Section-Range
	--
MOTOR INFORMATION	
Desc: 5" Gyrodata 6/7 8.0 1.5 FBH	
Bent Hsg/Sub: 1.50 / 1.5 Bit to Bend: 4.52	
Pad OD: 38356.00 NB Stab:	

Slide Report for BHA # 6

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
Total Drilled:						0 Ft	Avg. Total ROP:			NA	DEPTH% - TIME %								
Total Rotary Drilled:						0 Ft	Avg. Rotary ROP:			NA	Percent Rotary:		NA						
Total Drilled Sliding:						0 Ft	Avg. Slide ROP:			NA	Percent Slide:		NA						

JOB NO.:	M18263
Company:	Abraxas
LOCATION:	2.5 miles SW of Pyote Tx
RIG NAME:	Patterson 228
STATE:	Texas
COUNTY:	Ward
WELL NAME:	Mesquite 37 102H

FIELD:	
Legal Desc.	Township-Section-Range
	Pyote-37-
MOTOR INFORMATION	
Desc: 5" Gyrodata 6/7 8.0 1.5 FBH	
Bent Hsg/Sub: 1.50 / 1.5 Bit to Bend: 4.52	
Pad OD: 38356.00 NB Stab:	

Slide Report for BHA # 7

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
7	28-Jul	Drilling	19:50	20:10	0.33	11220	11230	10	20	30.0	30	3500	246	2550		88.68	74.38	9.39	
7	28-Jul	Sliding	21:10	22:10	1.00	11230	11259	29	15	29.0	0	3500	298	3750	10L	91.40	74.27	9.39	
7	28-Jul	Sliding	22:25	23:15	0.83	11259	11274	15	15	18.0	0	3500	298	3750	10L	92.81	74.21	9.39	
7	28-Jul	Drilling	23:30	24:00	0.50	11274	11291	17	20	34.0	35	3500	246	3750		93.69	74.23	4.64	
7	29-Jul	Sliding	00:15	00:40	0.42	11291	11299	8	15	19.2	35	3500	298	3750	0G	94.07	74.25	4.64	
7	29-Jul	Drilling	00:40	00:55	0.25	11299	11306	7	20	28.0	35	3500	246	3750		94.39	74.26	4.64	
7	29-Jul	Sliding	01:10	01:45	0.58	11306	11316	10	15	17.1	35	3500	298	3750	0G	94.85	74.28	4.64	
7	29-Jul	Drilling	01:45	01:55	0.17	11316	11323	7	20	42.0	35	3500	246	3750		95.18	74.30	4.64	
7	29-Jul	Drilling	02:10	02:50	0.67	11323	11355	32	20	48.0	35	3500	246	3750		96.66	74.37	4.64	
7	29-Jul	Drilling	03:10	03:50	0.67	11355	11365	10	20	15.0	35	3500	246	3750		97.12	74.39	4.64	
7	29-Jul	Drilling	03:50	04:35	0.75	11365	11387	22	20	29.3	35	3500	246	3750		97.33	74.31	0.68	
7	29-Jul	Drilling	04:45	05:10	0.42	11387	11418	31	20	74.4	35	3500	246	3750		97.20	74.15	0.68	
7	29-Jul	Drilling	05:20	05:50	0.50	11418	11450	32	20	64.0	35	3500	246	3750		97.06	73.98	0.68	
7	29-Jul	Sliding	06:05	07:15	1.17	11450	11459	9	15	7.7	35	3500	298	3750	180	97.03	73.93	0.68	
7	29-Jul	Drilling	07:15	08:55	1.67	11459	11544	85	20	51.0	35	6800	299	3750		97.08	74.32	0.54	
7	29-Jul	Drilling	09:10	10:40	1.50	11544	11638	94	16	62.7	60	8700	299	3750		96.43	74.23	0.87	
7	29-Jul	Sliding	10:55	11:20	0.42	11638	11646	8	15	19.2	60	8700	298	3750	160L	96.37	74.22	0.87	
7	29-Jul	Drilling	11:20	12:10	0.83	11646	11733	87	18	104.4	60	8700	299	3750		96.13	74.03	0.30	
7	29-Jul	Drilling	12:25	13:15	0.83	11733	11827	94	18	112.8	60	8700	299	3750		96.35	74.17	0.38	
7	29-Jul	Drilling	13:25	14:10	0.75	11827	11921	94	18	125.3	60	8450	299	3800		96.07	74.78	0.84	
7	29-Jul	Drilling	14:25	15:15	0.83	11921	12016	95	18	114.0	60	8750	299	3900		95.41	72.97	2.55	
7	29-Jul	Sliding	15:30	16:05	0.58	12016	12026	10	15	17.1	60	8750	298	3900	70L	95.34	72.72	2.55	
7	29-Jul	Drilling	16:05	16:45	0.67	12026	12110	84	18	126.0	60	8750	299	3900		96.78	72.11	1.98	
7	29-Jul	Sliding	17:00	17:30	0.50	12110	12120	10	15	20.0	60	8750	298	3900	0G	96.97	72.04	1.98	
7	29-Jul	Drilling	17:30	18:25	0.92	12120	12206	86	18	93.8	60	8750	299	3900		97.68	72.08	0.74	
7	29-Jul	Drilling	18:40	19:10	0.50	12206	12255	49	18	98.0	60	8750	299	3900		96.75	72.35	3.28	

Slide Report for BHA # 7

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
7	29-Jul	Sliding	19:20	19:55	0.58	12255	12267	12	15	20.6	60	8750	298	3900	160R	96.36	72.44	3.28	
7	29-Jul	Drilling	19:55	20:20	0.42	12267	12301	34	18	81.6	60	8750	299	3900		95.28	72.69	3.28	
7	29-Jul	Sliding	20:35	20:55	0.33	12301	12309	8	15	24.0	60	8750	298	3900	150R	95.02	72.75	3.28	
7	29-Jul	Drilling	20:55	22:00	1.08	12309	12395	86	18	79.4	60	8750	299	3900		95.47	73.05	0.90	
7	29-Jul	Drilling	22:15	23:10	0.92	12395	12490	95	18	103.6	60	8750	299	3900		96.02	73.35	0.62	
7	29-Jul	Drilling	23:25	24:00	0.58	12490	12540	50	18	85.7	60	8750	299	3900		96.03	74.11	2.02	
7	30-Jul	Drilling	00:00	00:20	0.33	12540	12584	44	18	132.0	60	8750	299	3900		95.93	75.00	2.02	
7	30-Jul	Sliding	00:35	01:00	0.42	12584	12594	10	15	24.0	60	8750	298	3900	160R	95.91	75.20	2.02	
7	30-Jul	Drilling	01:00	02:00	1.00	12594	12678	84	18	84.0	60	8750	299	3900		91.16	73.55	6.39	
7	30-Jul	Sliding	02:15	03:00	0.75	12678	12691	13	15	17.3	60	8750	298	3900	160L	90.38	73.27	6.39	
7	30-Jul	Drilling	03:00	03:20	0.33	12691	12724	33	18	99.0	60	8750	299	3900		90.61	73.30	1.42	
7	30-Jul	Drilling	03:30	04:00	0.50	12724	12773	49	18	98.0	60	8750	299	3900		91.29	73.45	1.42	
7	30-Jul	Sliding	04:15	04:55	0.67	12773	12788	15	15	22.5	60	8750	298	3900	10R	91.50	73.50	1.42	
7	30-Jul	Drilling	04:55	05:20	0.42	12788	12821	33	18	79.2	60	8750	299	3900		92.37	73.64	2.66	
7	30-Jul	Sliding	05:20	05:55	0.58	12821	12831	10	15	17.1	60	8750	299	3900	10R	92.63	73.68	2.66	
7	30-Jul	Drilling	05:55	06:15	0.33	12831	12867	36	18	108.0	60	8750	299	3900		93.58	73.83	2.66	
7	30-Jul	Drilling	06:30	07:40	1.17	12867	12962	95	18	81.4	60	9250	299	4100		93.83	73.06	1.08	
7	30-Jul	Drilling	07:55	09:15	1.33	12962	13056	94	18	70.5	60	8400	299	4100		94.05	73.65	1.00	
7	30-Jul	Sliding	09:30	10:00	0.50	13056	13066	10	15	20.0	60	8400	299	3850	70R	94.08	73.74	1.00	
7	30-Jul	Drilling	10:00	10:55	0.92	13066	13151	85	18	92.7	60	8400	299	3850		93.93	73.72	0.24	
7	30-Jul	Drilling	11:10	12:25	1.25	13151	13245	94	20	75.2	60	8400	299	4200		94.73	73.62	1.06	
7	30-Jul	Drilling	13:20	14:25	1.08	13245	13340	95	20	87.7	60	9200	299	4250		94.90	73.94	0.42	
7	30-Jul	Drilling	14:40	15:20	0.67	13340	13434	94	18	141.0	60	9300	299	4250		94.73	73.66	0.48	
7	30-Jul	Drilling	15:40	16:30	0.83	13434	13527	93	20	111.6	60	9100	299	4100		93.87	72.93	1.35	
7	30-Jul	Drilling	16:45	18:05	1.33	13527	13622	95	20	71.3	60	9100	299	4100		94.37	74.48	2.29	
7	30-Jul	Sliding	18:20	19:00	0.67	13622	13632	10	15	15.0	60	9100	299	4100	80R	94.46	74.69	2.29	
7	30-Jul	Drilling	19:00	20:00	1.00	13632	13716	84	20	84.0	60	9100	299	4100		94.33	74.30	0.67	
7	30-Jul	Drilling	20:30	21:45	1.25	13716	13810	94	20	75.2	60	9100	299	4100		94.80	74.20	0.63	
7	30-Jul	Drilling	22:00	23:10	1.17	13810	13905	95	20	81.4	60	9100	299	4250		94.48	74.37	0.57	
7	30-Jul	Sliding	23:25	24:00	0.58	13905	13913	8	15	13.7	60	9100	299	4250	80R	94.44	74.39	0.57	
7	31-Jul	Drilling	00:00	00:50	0.83	13913	13999	86	20	103.2	60	10100	299	4250		94.65	74.15	0.45	
7	31-Jul	Drilling	01:05	02:15	1.17	13999	14094	95	20	81.4	60	10100	299	4250		94.28	74.18	0.55	
7	31-Jul	Sliding	02:30	03:10	0.67	14094	14106	12	15	18.0	60	10100	299	4250	80R	94.21	74.20	0.55	
7	31-Jul	Drilling	03:10	04:05	0.92	14106	14187	81	20	88.4	60	10100	299	4250		92.52	74.45	2.15	
7	31-Jul	Sliding	04:20	04:45	0.42	14187	14197	10	15	24.0	60	10100	299	4250	150R	92.31	74.48	2.15	

Slide Report for BHA # 7

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
7	31-Jul	Drilling	04:45	05:30	0.75	14197	14281	84	20	112.0	60	10100	299	4250		92.12	74.58	0.15	
7	31-Jul	Drilling	05:45	06:00	0.25	14281	14291	10	20	40.0	60	9100	299	4250		92.10	74.60	0.15	
7	31-Jul	Sliding	06:00	06:15	0.25	14291	14298	7	18	28.0	60	9100	299	4250	180	92.08	74.60	0.75	
7	31-Jul	Drilling	06:15	07:05	0.83	14298	14374	76	20	91.2	60	9200	299	4300		91.51	74.68	0.75	
7	31-Jul	Drilling	07:20	07:30	0.17	14374	14384	10	20	60.0	60	9200	299	4300		91.44	74.69	0.75	
7	31-Jul	Sliding	07:35	08:00	0.42	14384	14391	7	18	16.8	60	9200	299	4300	180	91.39	74.70	0.74	
7	31-Jul	Drilling	08:00	08:45	0.75	14391	14468	77	20	102.7	60	9900	299	4400		90.81	74.70	0.74	
7	31-Jul	Drilling	08:55	09:45	0.83	14468	14562	94	20	112.8	60	9900	299	4400		90.28	74.36	0.68	
7	31-Jul	Drilling	10:00	10:45	0.75	14562	14656	94	20	125.3	60	10100	299	4450		89.87	74.13	0.47	
7	31-Jul	Drilling	11:00	11:45	0.75	14656	14751	95	20	126.7	65	10300	299	4450		91.30	74.35	1.92	
7	31-Jul	Sliding	12:00	12:45	0.75	14751	14765	14	18	18.7	65	10300	299	4450	10L	91.56	74.39	1.92	
7	31-Jul	Drilling	12:45	13:40	0.92	14765	14846	81	20	88.4	65	10200	299	4400		92.27	74.32	0.86	
7	31-Jul	Drilling	14:00	14:45	0.75	14846	14940	94	20	125.3	65	10200	299	4400		92.74	73.88	0.68	
7	31-Jul	Drilling	15:00	15:50	0.83	14940	15034	94	20	112.8	65	9900	299	4350		93.22	74.14	0.68	
7	31-Jul	Drilling	16:05	17:10	1.08	15034	15128	94	20	86.8	65	9900	299	4350		92.21	74.45	1.42	
7	31-Jul	Sliding	17:40	18:25	0.75	15128	15138	10	20	13.3	65	9900	299	4350	130L	92.07	74.48	1.42	
7	31-Jul	Drilling	18:25	19:30	1.08	15138	15222	84	20	77.5	65	9900	299	4350		91.42	75.08	1.04	
7	31-Jul	Drilling	19:45	20:00	0.25	15222	15232	10	20	40.0	65	9900	299	4350		91.34	75.16	1.04	
7	31-Jul	Sliding	20:00	21:05	1.08	15232	15241	9	20	8.3	65	9900	299	4350	130L	91.25	75.19	1.82	
7	31-Jul	Drilling	21:05	22:00	0.92	15241	15317	76	20	82.9	65	9900	299	4350		89.89	74.95	1.82	
7	31-Jul	Sliding	22:15	24:00	1.75	15317	15331	14	20	8.0	65	9900	299	4350	100L	89.64	74.91	1.82	
7	1-Aug	Drilling	00:00	00:50	0.83	15331	15412	81	20	97.2	65	9900	299	4350		88.42	73.22	2.60	
7	1-Aug	Drilling	01:05	01:15	0.17	15412	15414	2	20	12.0	65	9900	299	4350		88.39	73.18	2.60	
7	1-Aug	Sliding	01:15	02:20	1.08	15414	15426	12	20	11.1	65	9900	299	4350	60L	88.21	72.92	2.60	
7	1-Aug	Drilling	02:20	03:25	1.08	15426	15506	80	20	73.8	65	9900	299	4350		89.38	73.15	1.52	
7	1-Aug	Sliding	03:40	05:10	1.50	15506	15526	20	20	13.3	65	9900	299	4350	10L	89.64	73.20	0.84	
7	1-Aug	Drilling	05:10	06:05	0.92	15526	15600	74	20	80.7	65	10600	299	4400		90.27	73.20	0.84	
7	1-Aug	Drilling	06:15	06:25	0.17	15600	15610	10	20	60.0	65	10600	299	4400		90.35	73.20	0.84	
7	1-Aug	Sliding	06:35	07:50	1.25	15610	15625	15	20	12.0	65	10600	299	4400	20L	90.47	73.20	0.74	
7	1-Aug	Drilling	07:50	08:30	0.67	15625	15695	70	20	105.0	60	10600	299	4400		90.99	73.20	0.74	
7	1-Aug	Drilling	08:45	09:55	1.17	15695	15789	94	20	80.6	60	10600	299	4400		89.08	71.60	3.26	
7	1-Aug	Drilling	10:15	11:05	0.83	15789	15883	94	22	112.8	60	10800	299	4650		89.03	71.30	0.42	
7	1-Aug	Sliding	11:25	13:10	1.75	15883	15899	16	20	9.1	60	10800	299	4650	0G	89.10	71.30	0.42	
7	1-Aug	Drilling	13:10	13:55	0.75	15899	15978	79	22	105.3	60	10800	299	4650		88.76	69.54	2.27	
7	1-Aug	Sliding	14:15	15:55	1.67	15978	15988	10	20	6.0	60	10800	299	4650	0G	88.72	69.31	2.27	

Slide Report for BHA # 7

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
7	1-Aug	Drilling	15:55	16:45	0.83	15988	16072	84	22	100.8	60	11100	299	4600		88.53	67.94	1.61	
7	1-Aug	Sliding	17:05	17:45	0.67	16072	16083	11	20	16.5	60	11100	299	4600	0G	88.51	67.76	1.61	
7	1-Aug	Drilling	17:45	18:35	0.83	16083	16166	83	22	99.6	60	11100	299	4600		0.00	0.00	0.00	
7	1-Aug	Drilling	18:50	19:30	0.67	16166	16217	51	22	76.5	60	11100	299	4600		0.00	0.00	0.00	

Total Drilled: 4997 Ft Avg. Total ROP: 64.06 DEPTH% - TIME %

Total Rotary Drilled: 4635 Ft Avg. Rotary ROP: 86.77 Percent Rotary: 92.76 - 68.48

Total Drilled Sliding: 362 Ft Avg. Slide ROP: 14.73 Percent Slide: 7.24 - 31.52

BHA # 1		Mud Motor Report													
JOB NO.:	M18263				FIELD:										
Company:	Abraxas				Legal Desc.	Township-Section-Range									
LOCATION:	2.5 miles SW of Pyote Tx					Pyote-37-									
RIG NAME:	Patterson 228				Lead DD:	Brian Hancock									
STATE:	Texas				Co. Man:	Gary Hernandez/Eric Vernon									
COUNTY:	Ward				Motor Failed?	NO									
WELL NAME:	Mesquite 37 102H														
Time and Depths (This BHA)			MOTOR DATA			Drilling Parameters									
Date In:	13-Jun-18 @ 00:00		Desc:	7 5/8 NOV 7/8 4.0 1.83° Adj W 12"		SO/PU:	63 - 120 / 65-132								
Date Out:	14-Jun-18 @ 13:00		MFG.:	National		Rot Wt:	65-125								
Hrs In Hole:	37.00		BHA Circ/ All BHA:	20.17 / 19.42		WOB:	3 - 30								
Start Depth:	108.00		Motor SN:	800-40-105		TORQ:	3400 - 9800								
End Depth:	2360.00		Pad OD:	39584.00		SPP:	400 - 2000								
Total Drilled:	2252.00		NB Stab:	12.00		Motor RPM:	83.8 - 119.7								
Avg. Total ROP:	142.98		Bit to Bend:	7.10		Rotary RPM:	30 - 60								
Circ Hrs:Tot/Only	20.17 / 4.42		Bent Hsg / Sub:	1.83 /		Flow Rate:	300 - 704								
Percent Slide:	5.11		Lobe/Stage:	7/8 / 4		Avg Diff:	450								
Percent Hrs:	11.11		Revs/Gal	0.17		Stall Pres.:	2400								
Slide Hours:	1.75		Rotor Jet:	0.0		Off Bot Pres.:	1550								
Total Sliding:	115.00		Prop BUR:			Bit Record									
Avg. Slide ROP:	65.71		Act BUR:			Ulterra / Ulterra CF616 PDC 6x16's									
Percent Rotary:	94.89		Stator Clearance:			Run #:	1								
Percent Hrs:	88.89		Lower Stab OD:	40606.00		Type Bit:	PDC								
Rot / Total Hrs:	14.00 / 15.75		Upper Stab OD:	11 3/4		IADC#:	TFA: 1.18 in²								
Rotary Drilled:	2137.00		Extended Motor?	NO		JETS:	6-16								
Avg. Rotary ROP:	152.64		Number of Stalls:	0		P Drop:	283PSI @ 704 GPM								
Reason POOH:	TD		Stall Duration:	0		Cond.:	chipped cutters								
Mud Data															
Type	WBM		WT:	8.6Lbs/CuFt	Vis:	30	WL:	0	PV:	1	Flow T °:	73.0			
SAND:	0	Chlor:	7000	GAS:	0	SOL:	1	Oil %:	0	YP:	1	PH:	8	Bottom Hole T °:	107.0
Formation:															
EXPANDED REASON PULLED:															
TD surface section															
BHA PERFORMANCE:															
Rotated 2,137' @ 152'/Hour, Slid 115' @ 65'/hour. held a lot better in rotation. Only had to slide 6 times															
ADDITIONAL COMMENTS: (Expands to next page if necessary)															
bit graded 2-2 -CC-S-X-0 had one missing cutter in the nose															
WinSURV II Mud Motor Report															

BHA # 2		Mud Motor Report													
JOB NO.:	M18263					FIELD:									
Company:	Abraxas					Legal Desc.	Township-Section-Range								
LOCATION:	2.5 miles SW of Pyote Tx						Pyote-37-								
RIG NAME:	Patterson 228					Lead DD:	Tim Owens								
STATE:	Texas					Co. Man:	Gary Hernandez/Eric Vernon								
COUNTY:	Ward					Motor Failed?	NO								
WELL NAME:	Mesquite 37 102H														
Time and Depths (This BHA)			MOTOR DATA					Drilling Parameters							
Date In:	16-Jun-18 @ 09:30		Desc:	6 1/2 GDT 7/8 5.7 1.5° Fixed w 8			SO/PU:	120 - 210	132-300						
Date Out:	19-Jun-18 @ 24:00		MFG.:	Gearcon			Rot Wt:	125-250							
Hrs In Hole:	86.50		BHA Circ/ All BHA:	64.17 / 110.17			WOB:	2 - 35							
Start Depth:	2360.00		Motor SN:	16512			TORQ:	1900 - 15000							
End Depth:	8365.00		Pad OD:	6.88			SPP:	810 - 2400							
Total Drilled:	6005.00		NB Stab:	8.50			Motor RPM:	144.7 - 170.4							
Avg. Total ROP:	102.50		Bit to Bend:	4.83			Rotary RPM:	25 - 60							
Circ Hrs:Tot/Only	64.17 / 5.58		Bent Hsg / Sub:	1.5	/	1.5	Flow Rate:	451 - 704							
Percent Slide:	6.91		Lobe/Stage:	7/8 / 5.7			Avg Diff:	1280							
Percent Hrs:	25.04		Revs/Gal	0.24			Stall Pres.:								
Slide Hours:	14.67		Rotor Jet:	0.0			Off Bot Pres.:								
Total Sliding:	415.00		Prop BUR:				Bit Record								
Avg. Slide ROP:	28.30		Act BUR:				SMITH	/ 8 3/4" Smith XS616 6x16's							
Percent Rotary:	93.09		Stator Clearance:				Run #:	1							
Percent Hrs:	74.96		Lower Stab OD:	8.50			Type Bit:	PDC							
Rot / Total Hrs:	43.92 / 58.58		Upper Stab OD:	8.25			IADC#:			TFA:	1.18 in²				
Rotary Drilled:	5590.00		Extended Motor?	NO			JETS:	6-16							
Avg. Rotary ROP:	127.29		Number of Stalls:				P Drop:	303PSI @ 704 GPM							
Reason POOH:	PR		Stall Duration:				Cond.:	3-3 In gage PR							
Mud Data															
Type	WBM			WT:	9.2Lbs/CuFt	Vis:	36	WL:	0	PV:	11	Flow T °:	99.0		
SAND:	0	Chlor:	15000	GAS:	0	SOL:	4.2	Oil %:	0	YP:	23	PH:	11	Bottom Hole T °:	123.0
Formation:															
EXPANDED REASON PULLED:															
Penetration Rate. ROP slowed to 25 ft hr. POOH															
BHA PERFORMANCE:															
Drilled 6005 ft from 2360 to 8365 @ 102.5 ft hr/ slide @ 28.3 ft hr/ rotary rop @127.29 ft hr. POOH for rop.															
ADDITIONAL COMMENTS: (Expands to next page if necessary)															
Motor drained as per normal with no visable damage or problems. Motor was reran.															
WinSURV II Mud Motor Report															

BHA # 3		Mud Motor Report											
JOB NO.:	M18263					FIELD:							
Company:	Abraxas					Legal Desc.	Township-Section-Range						
LOCATION:	2.5 miles SW of Pyote Tx						Pyote-37-						
RIG NAME:	Patterson 228					Lead DD:	Brian Hancock						
STATE:	Texas					Co. Man:	Gary Hernandez/Eugene Hernandez						
COUNTY:	Ward					Motor Failed?	NO						
WELL NAME:	Mesquite 37 102H												
Time and Depths (This BHA)			MOTOR DATA					Drilling Parameters					
Date In:	20-Jun-18 @ 00:00		Desc:	6 1/2 GDT 7/8 5.7 1.5° Fixed w 8			SO/PU:	210 - 240		300-340			
Date Out:	22-Jun-18 @ 20:00		MFG.:	Gearcon			Rot Wt:	250-270					
Hrs In Hole:	68.00		BHA Circ/ All BHA:	48.67 / 110.17			WOB:	16 - 35					
Start Depth:	8365.00		Motor SN:	16512			TORQ:	13500 - 16500					
End Depth:	10277.00		Pad OD:	6.88			SPP:	1000 - 2075					
Total Drilled:	1912.00		NB Stab:	8.50			Motor RPM:	92.0 - 144.7					
Avg. Total ROP:	47.40		Bit to Bend:	4.83			Rotary RPM:	60 - 60					
Circ Hrs:Tot/Only	48.67 / 8.33		Bent Hsg / Sub:	1.5 /			Flow Rate:	380 - 598					
Percent Slide:	11.98		Lobe/Stage:	7/8 / 5.7			Avg Diff:	1280					
Percent Hrs:	29.13		Revs/Gal	0.24			Stall Pres.:						
Slide Hours:	11.75		Rotor Jet:	40.3			Off Bot Pres.:						
Total Sliding:	229.00		Prop BUR:				Bit Record						
Avg. Slide ROP:	19.49		Act BUR:				REED	8 3/4" Reed SKC716M 7x16's					
Percent Rotary:	88.02		Stator Clearance:				Run #:	3					
Percent Hrs:	70.87		Lower Stab OD:	8.50			Type Bit:	PDC					
Rot / Total Hrs:	28.58 / 40.33		Upper Stab OD:	8.25			IADC#:			TFA:	1.18 in²		
Rotary Drilled:	1683.00		Extended Motor?	YES			JETS:	7-16					
Avg. Rotary ROP:	58.88		Number of Stalls:				P Drop:	225PSI @ 598 GPM					
Reason POOH:	BHA		Stall Duration:				Cond.:						
Mud Data													
Type	Cut Brine			WT:	9.5Lbs/CuFt	Vis:	37	WL:	0	PV:	1	Flow T °:	120.0
SAND:	0	Chlor:	74000	GAS:	0	SOL:	8	Oil %:	0	YP:	1	PH:	11
Formation:												Bottom Hole T °:	123.0
EXPANDED REASON PULLED:													
End of tanget section, TOH for curve assembly.													
BHA PERFORMANCE:													
BHA drilled 1912 ft @ 47.4 ft hr, slide 229ft @ 19.49 ft hr, Rot 1683 ft @58.88 ft hr													
ADDITIONAL COMMENTS: (Expands to next page if necessary)													
Motor drained as per normal with no visiable wear or damage. Bit was graded 3-2 in gage Pooh to change BHA													
WinSURV II Mud Motor Report													

BHA # 4		Mud Motor Report													
JOB NO.:	M18263					FIELD:									
Company:	Abraxas					Legal Desc.	Township-Section-Range								
LOCATION:	2.5 miles SW of Pyote Tx						Pyote-37-								
RIG NAME:	Patterson 228					Lead DD:	Brian Hancock								
STATE:	Texas					Co. Man:	Gary Hernandez/Eugene Hernandez								
COUNTY:	Ward					Motor Failed?	NO								
WELL NAME:	Mesquite 37 102H														
Time and Depths (This BHA)			MOTOR DATA				Drilling Parameters								
Date In:	22-Jun-18 @ 20:00		Desc:	6 3/4 NOV 4/5 7.0, 2.12 ABH		SO/PU:	238 - 240		/ 340-355						
Date Out:	24-Jun-18 @ 24:00		MFG.:	NOV		Rot Wt:	270-276								
Hrs In Hole:	52.00		BHA Circ/ All BHA:	30.17 / 29.75		WOB:	12 - 24								
Start Depth:	10277.00		Motor SN:	W1112380-1		TORQ:	14500 - 17500								
End Depth:	10854.00		Pad OD:	39149.00		SPP:	1900 - 2350								
Total Drilled:	577.00		NB Stab:	0.00		Motor RPM:	311.0								
Avg. Total ROP:	23.88		Bit to Bend:	6.35		Rotary RPM:	32 - 32								
Circ Hrs:Tot/Only	30.17 / 6.00		Bent Hsg / Sub:	2.12 / 2.12		Flow Rate:	598 - 598								
Percent Slide:	83.36		Lobe/Stage:	4/5 / 7		Avg Diff:	400								
Percent Hrs:	83.79		Revs/Gal	0.52		Stall Pres.:	700								
Slide Hours:	20.25		Rotor Jet:	24.2		Off Bot Pres.:	550								
Total Sliding:	481.00		Prop BUR:	10		Bit Record									
Avg. Slide ROP:	23.75		Act BUR:	8.8		Haliburton	/ Haliburton GTD64C 6-16's								
Percent Rotary:	16.64		Stator Clearance:			Run #:	4								
Percent Hrs:	16.21		Lower Stab OD:			Type Bit:	PDC								
Rot / Total Hrs:	3.92 / 24.17		Upper Stab OD:			IADC#:			TFA:	1.18 in ²					
Rotary Drilled:	96.00		Extended Motor?	YES		JETS:	6-16								
Avg. Rotary ROP:	24.51		Number of Stalls:	1		P Drop:	233PSI @ 598 GPM								
Reason POOH:	BHA		Stall Duration:	12		Cond.:	1-3 and 1/8 UG								
Mud Data															
Type	Cut Brine		WT:	9.8Lbs/CuFt	Vis:	28	WL:	0	PV:	1	Flow T °:	120.0			
SAND:	0	Chlor:	8700	GAS:	0	SOL:	9	Oil %:	0	YP:	1	PH:	11	Bottom Hole T °:	123.0
Formation:															
EXPANDED REASON PULLED:															
Not getting sufficient build rates															
BHA PERFORMANCE:															
ROP was slow and we did not achieve sufficient build rates. We drilled 577 ft @23.88 ft hr, Slide 481 ft @23.95 ft hr and 96 ft rot @24.51 ft hr.															
ADDITIONAL COMMENTS: (Expands to next page if necessary)															
Rubber was found in the bit and motor was laid down as a precautionary measure. Motor drained as per normal with no other visual issues.															
WinSURV II Mud Motor Report															

BHA # 5										Mud Motor Report										
JOB NO.: M18263					FIELD:															
Company: Abraxas					Legal Desc.					Township-Section-Range										
LOCATION: 2.5 miles SW of Pyote Tx										Pyote-37-										
RIG NAME: Patterson 228					Lead DD: Brian Hancock															
STATE: Texas					Co. Man: Gary Hernandez/Eugene Hernandez															
COUNTY: Ward					Motor Failed?					NO										
WELL NAME: Mesquite 37 102H																				
Time and Depths (This BHA)					MOTOR DATA					Drilling Parameters										
Date In:		25-Jun-18 @ 00:00			Desc:		6 3/4 NOV 4/5 7.0, 2.25 FBH			SO/PU:		238 - 238		/		355-355				
Date Out:		26-Jun-18 @ 15:30			MFG.:		NOV			Rot Wt:		276-276								
Hrs In Hole:		39.50			BHA Circ/ All BHA:		21.00 / 20.33			WOB:		20 - 24								
Start Depth:		10854.00			Motor SN:		700-40-134			TORQ:		17200 - 17200								
End Depth:		11220.00			Pad OD:		39149.00			SPP:		1850 - 2350								
Total Drilled:		366.00			NB Stab:		0.00			Motor RPM:		292.8 - 311.0								
Avg. Total ROP:		26.46			Bit to Bend:		5.32			Rotary RPM:		32 - 32								
Circ Hrs:Tot/Only		21.00 / 7.17			Bent Hsg / Sub:		2.25 / 2.25			Flow Rate:		563 - 598								
Percent Slide:		86.34			Lobe/Stage:		4/5 / 7			Avg Diff:		550								
Percent Hrs:		79.52			Revs/Gal		0.52			Stall Pres.:		1200								
Slide Hours:		11.00			Rotor Jet:		13.8			Off Bot Pres.:		1850								
Total Sliding:		316.00			Prop BUR:		10			Bit Record										
Avg. Slide ROP:		28.73			Act BUR:		12			Ulterra		/ Ulterra CF 613 6x16's								
Percent Rotary:		13.66			Stator Clearance:					Run #:		5								
Percent Hrs:		20.48			Lower Stab OD:					Type Bit:		PDC								
Rot / Total Hrs:		2.83 / 13.83			Upper Stab OD:					IADC#:				TFA:		1.18 in ²				
Rotary Drilled:		50.00			Extended Motor?		YES			JETS:		6-16								
Avg. Rotary ROP:		17.65			Number of Stalls:		2			P Drop:		235PSI @ 598 GPM								
Reason POOH:		TD			Stall Duration:		20			Cond.:		1-4, 3/16 undergauge.								
Mud Data																				
Type	Cut Brine				WT:	9.9Lbs/CuFt		Vis:	28		WL:	0		PV:	1		Flow T °:	120.0		
SAND:	0		Chlor:	120000		GAS:	0		SOL:	11		Oil %:	0		YP:	1		PH:	11	
Bottom Hole T °:		123.0																		
Formation:																				
EXPANDED REASON PULLED:																				
End of curve reached.																				
BHA PERFORMANCE:																				
Build rates started normally then fell off about 250' into the run, came back strong and fell off again 350' feet into the run. Rop was up and down from 22-80 fph. We had 316' of slide w/ avg of 28.7 fph and 50' of rotation w/avg of 17.6 fph.																				
ADDITIONAL COMMENTS: (Expands to next page if necessary)																				
Very erratic motor yields noticed during this run, possibly due to stringers encountered. Rop was also a little erratic, at times up to 80 fph and as low as 22 fph. Bit was graded 1-4 and 3/16 undergauge. Chipped and cracked cutters.																				
WinSURV II Mud Motor Report																				

BHA # 6		Mud Motor Report											
JOB NO.:	M18263					FIELD:							
Company:	Abraxas					Legal Desc.	Township-Section-Range						
LOCATION:	2.5 miles SW of Pyote Tx						Pyote-37-						
RIG NAME:	Patterson 228					Lead DD:	Brian Hancock						
STATE:	Texas					Co. Man:	Skye Yocum/Eugene Hernandez						
COUNTY:	Ward					Motor Failed?	NO						
WELL NAME:	Mesquite 37 102H												
Time and Depths (This BHA)			MOTOR DATA					Drilling Parameters					
Date In:	27-Jul-18 @ 02:35		Desc:	5" Gyrodata 6/7 8.0 1.5 FBH			SO/PU:	0 - 0		/ 0-0			
Date Out:	27-Jul-18 @ 11:30		MFG.:	Gyrodata			Rot Wt:	0-0					
Hrs In Hole:	8.92		BHA Circ/ All BHA:	1.17 / 95.75			WOB:	0 - 20					
Start Depth:	.00		Motor SN:	GDM500044			TORQ:	-					
End Depth:	.00		Pad OD:	38356.00			SPP:	250 - 1300					
Total Drilled:	.00		NB Stab:	0.00			Motor RPM:	-					
Avg. Total ROP:	NA		Bit to Bend:	4.52			Rotary RPM:	-					
Circ Hrs:Tot/Only	1.17 / 1.17		Bent Hsg / Sub:	1.5		/ 1.5	Flow Rate:	176 - 282					
Percent Slide:	NA		Lobe/Stage:	6/7 / 8			Avg Diff:	550					
Percent Hrs:	NA		Revs/Gal	0.81			Stall Pres.:	550					
Slide Hours:	.00		Rotor Jet:	0.0			Off Bot Pres.:	300					
Total Sliding:	.00		Prop BUR:				Bit Record						
Avg. Slide ROP:	NA		Act BUR:				REED	/ Reed E1234 3x16, 3x13					
Percent Rotary:	NA		Stator Clearance:				Run #:	6					
Percent Hrs:	NA		Lower Stab OD:				Type Bit:	PDC					
Rot / Total Hrs:	.00 / .00		Upper Stab OD:				IADC#:			TFA:	.98 in ²		
Rotary Drilled:	.00		Extended Motor?	YES			JETS:	3-13,3-16					
Avg. Rotary ROP:	NA		Number of Stalls:				P Drop:	0PSI @ 282 GPM					
Reason POOH:	BHA		Stall Duration:				Cond.:						
Mud Data													
Type				WT:	0.0Lbs/CuFt	Vis:	0	WL:	0	PV:	0	Flow T °:	0.0
SAND:	0	Chlor:	0	GAS:	0	SOL:	0	Oil %:	0	YP:	0	PH:	0
Bottom Hole T °:				0.0									
Formation:													
EXPANDED REASON PULLED:													
Bit would not pass through the DV tool.													
BHA PERFORMANCE:													
Bit tagged on the DV tool, attempted to wash and ream through but were unable to get by.													
ADDITIONAL COMMENTS: (Expands to next page if necessary)													
Bit had 5-6 damaged cutters, mostly on the outer rows. Graded 1-2, in gauge.													
WinSURV II Mud Motor Report													

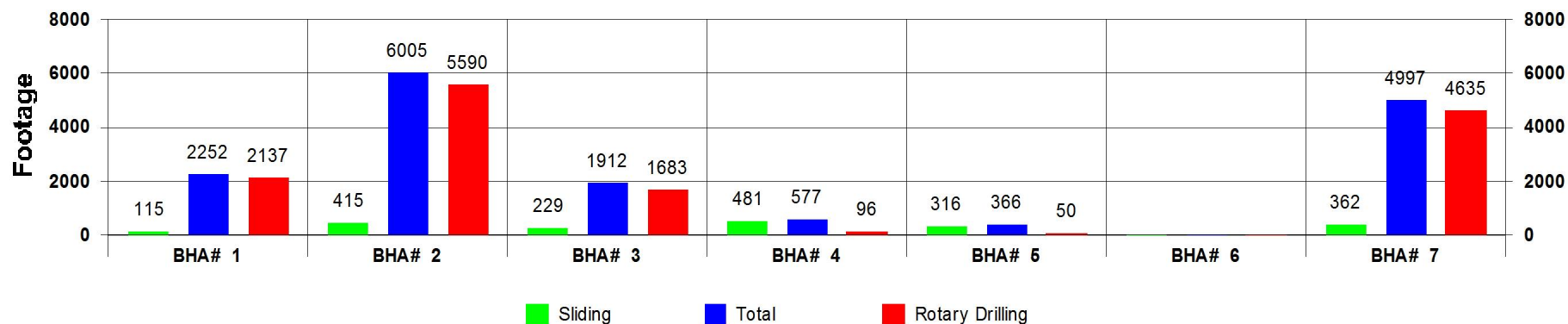
BHA # 7		Mud Motor Report											
JOB NO.:	M18263					FIELD:							
Company:	Abraxas					Legal Desc.	Township-Section-Range						
LOCATION:	2.5 miles SW of Pyote Tx						Pyote-37-						
RIG NAME:	Patterson 228					Lead DD:	Brian Hancock						
STATE:	Texas					Co. Man:	Skye Yocum/Eric Vernon						
COUNTY:	Ward					Motor Failed?	NO						
WELL NAME:	Mesquite 37 102H												
Time and Depths (This BHA)			MOTOR DATA					Drilling Parameters					
Date In:	28-Jul-18 @ 07:30		Desc:	5" Gyrodata 6/7 8.0 1.5 FBH			SO/PU:	0 - 170		/ 0-280			
Date Out:	02-Aug-18 @ 24:00		MFG.:	Gyrodata			Rot Wt:	0-180					
Hrs In Hole:	136.50		BHA Circ/ All BHA:	95.42 / 95.75			WOB:	15 - 22					
Start Depth:	11220.00		Motor SN:	GDM500044			TORQ:	3500 - 11100					
End Depth:	16217.00		Pad OD:	38356.00			SPP:	2450 - 4650					
Total Drilled:	4997.00		NB Stab:	0.00			Motor RPM:	241.4 - 242.2					
Avg. Total ROP:	64.06		Bit to Bend:	4.52			Rotary RPM:	30 - 65					
Circ Hrs:Tot/Only	95.42 / 17.42		Bent Hsg / Sub:	1.5		/ 1.5	Flow Rate:	246 - 299					
Percent Slide:	7.24		Lobe/Stage:	6/7 / 8			Avg Diff:	675					
Percent Hrs:	31.52		Revs/Gal	0.81			Stall Pres.:	1800					
Slide Hours:	24.58		Rotor Jet:	0.0			Off Bot Pres.:	300					
Total Sliding:	362.00		Prop BUR:				Bit Record						
Avg. Slide ROP:	14.73		Act BUR:				REED	/ Reed SK613M 3x16, 3x13 6blade/13mm					
Percent Rotary:	92.76		Stator Clearance:				Run #:	7					
Percent Hrs:	68.48		Lower Stab OD:				Type Bit:	PDC					
Rot / Total Hrs:	53.42 / 78.00		Upper Stab OD:				IADC#:			TFA:	.98 in²		
Rotary Drilled:	4635.00		Extended Motor?	YES			JETS:	3-13,3-16					
Avg. Rotary ROP:	86.77		Number of Stalls:	0			P Drop:	97PSI @ 299 GPM					
Reason POOH:	TD		Stall Duration:				Cond.:						
Mud Data													
Type	OBM			WT:	11.3Lbs/CuFt	Vis:	62	WL:	0	PV:	25	Flow T °:	0.0
SAND:	0	Chlor:	39000	GAS:	0	SOL:	19	Oil %:	73	YP:	13	PH:	0
Formation:													
EXPANDED REASON PULLED:													
TD Well													
BHA PERFORMANCE:													
ROP was good and achieve sufficient build rates throughout run. We drilled 4997 ft @ 64.06 ft hr, Slide 362 ft @ 14.73 ft hr and Rot 4635 ft @ 53.42 ft hr.													
ADDITIONAL COMMENTS: (Expands to next page if necessary)													
Motor drained normal with no visable damage or problems. Bit was graded 3/3 with worn and chipped teeth in all areas. No rotation trends until 500 Ft from TD when it started drop heavily and turn left in rotation which may have been partially due to worn bit.													
WinSURV II Mud Motor Report													

Section Four

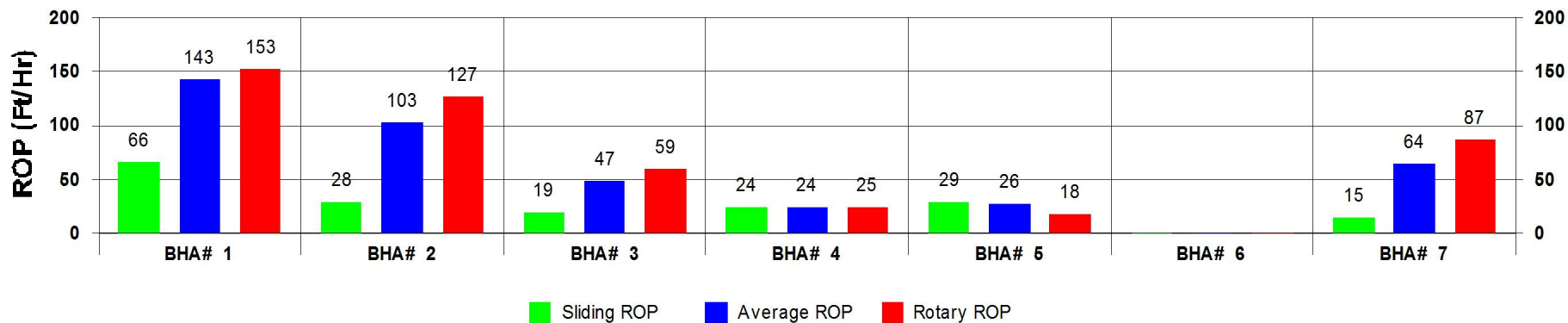
Job Summary Charts

JOB NO.:	M18263	FIELD:	
Company:	Abraxas	Legal Desc.	Township-Section-Range
LOCATION:	2.5 miles SW of Pyote Tx		Pyote-37-
RIG NAME:	Patterson 228	COMMENT	
STATE:	Texas		
COUNTY:	Ward		
WELL NAME:	Mesquite 37 102H		

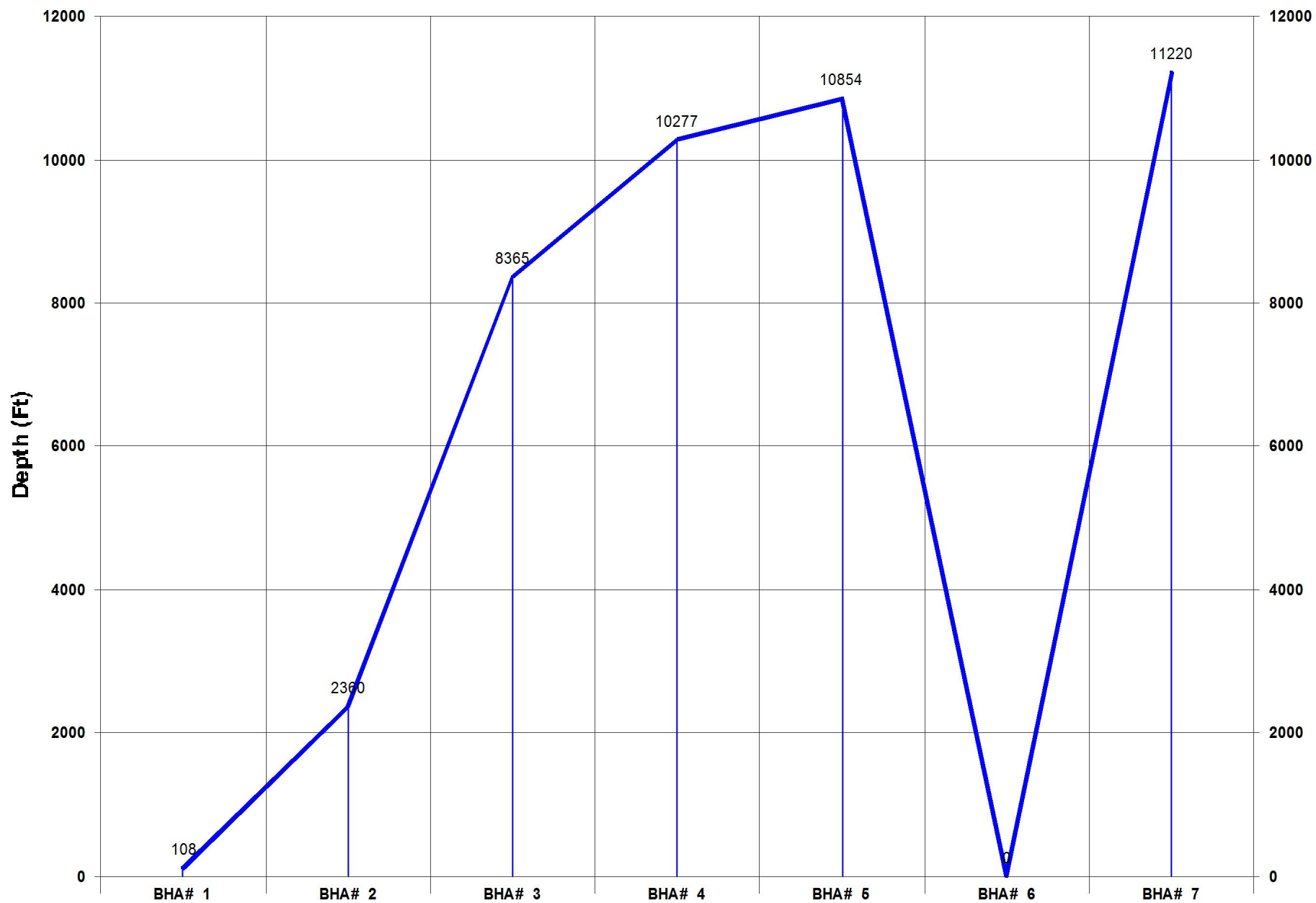
Footage Drilled with BHA



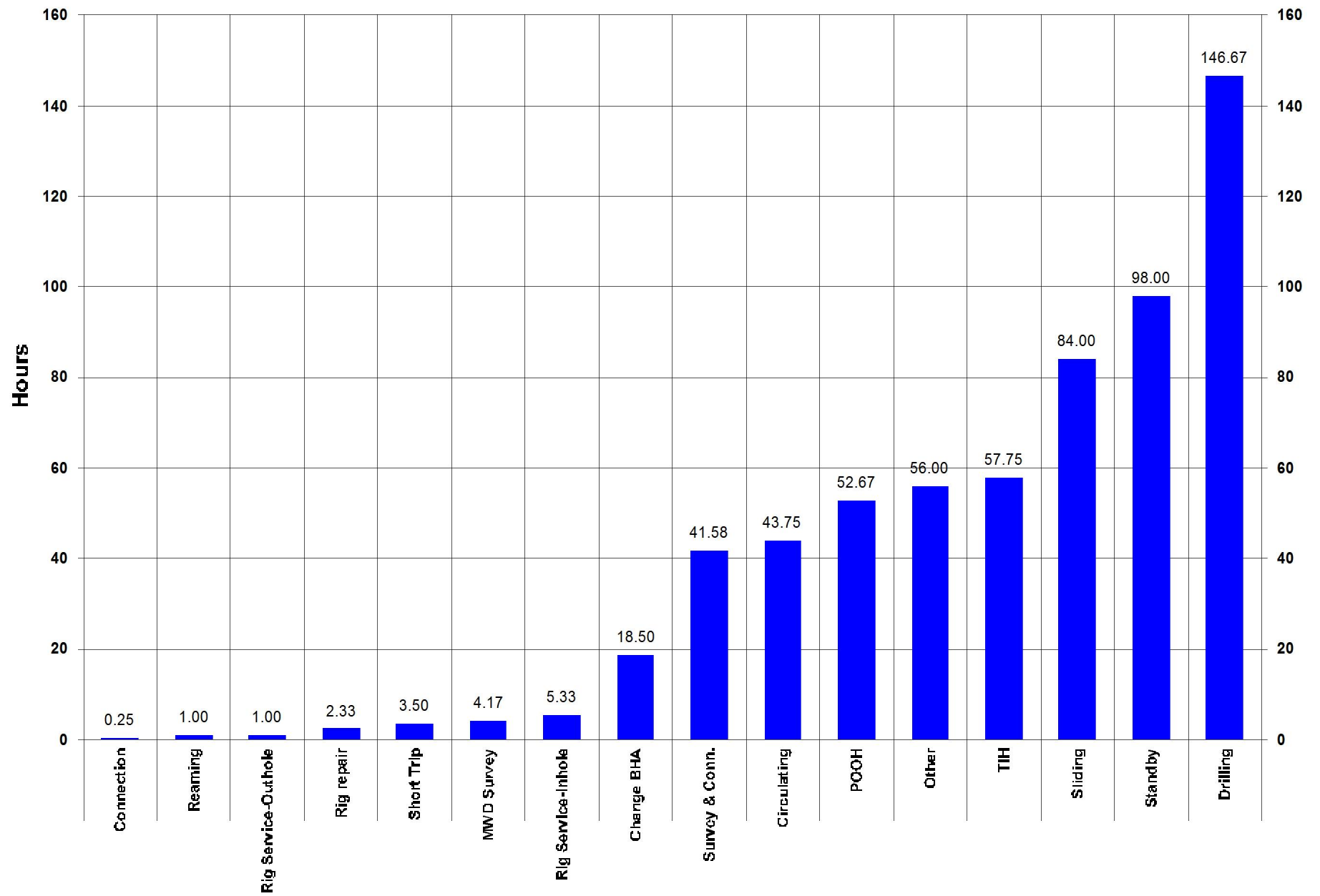
ROP vs BHA



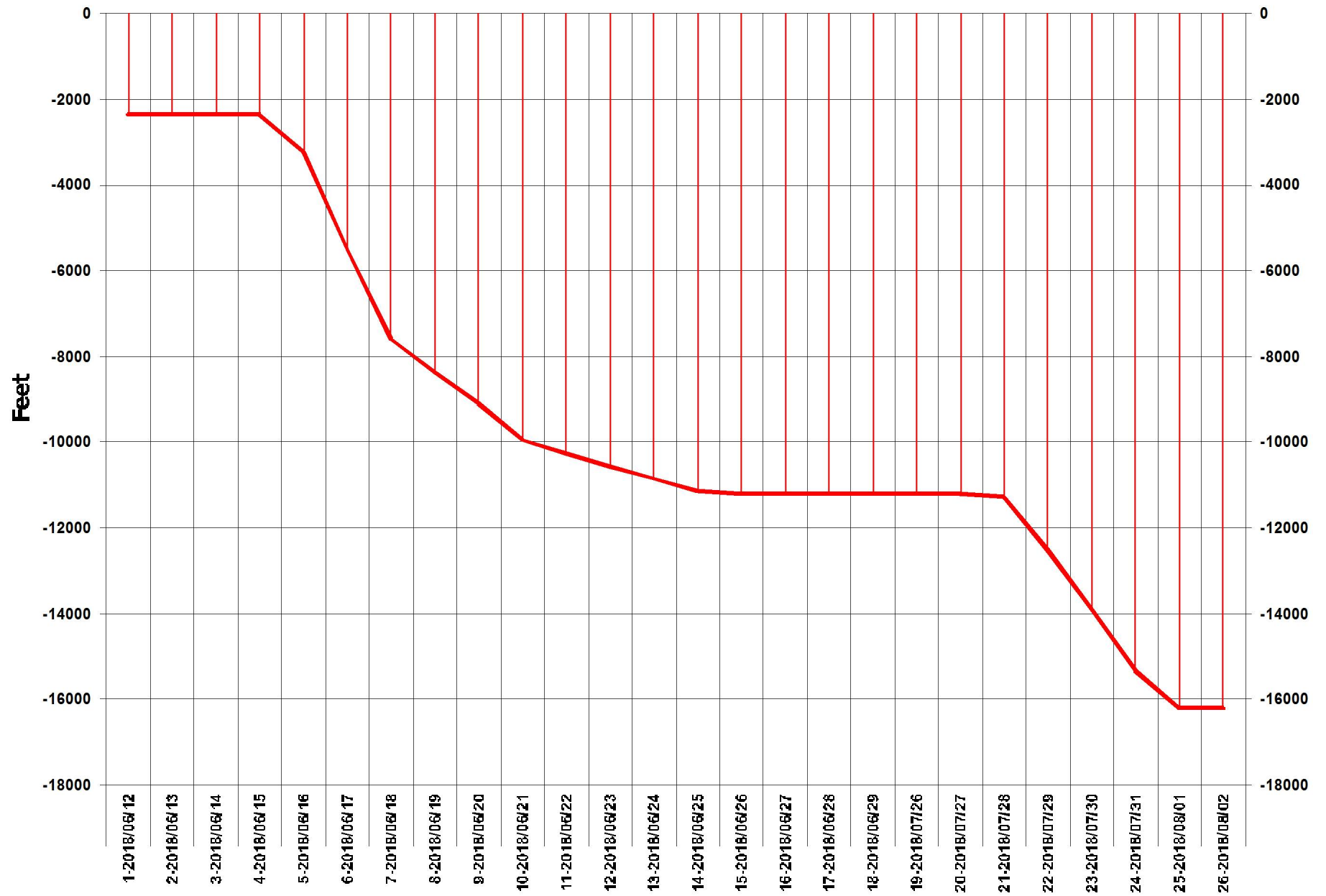
Depth vs BHA



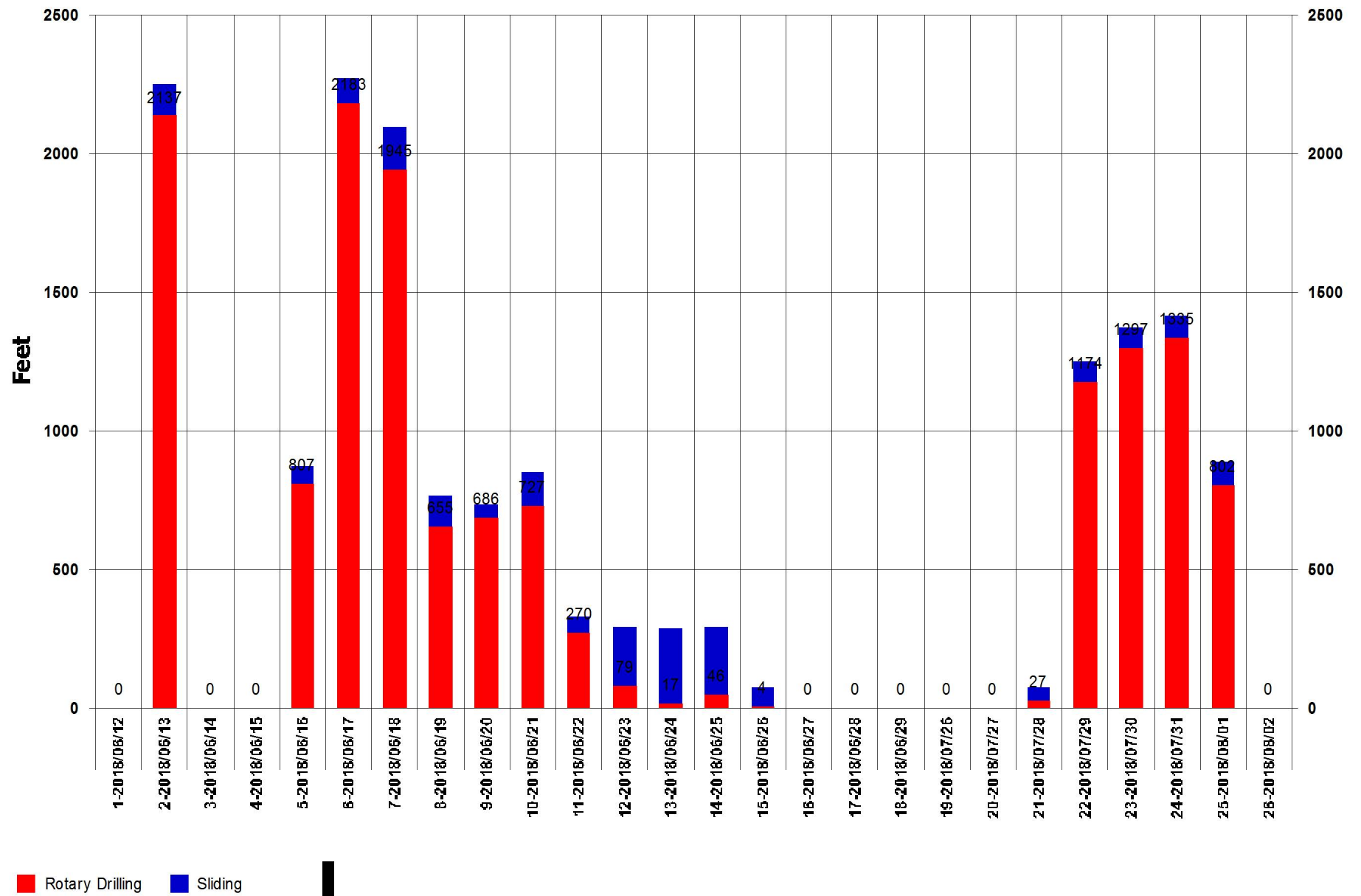
Activity Histogram



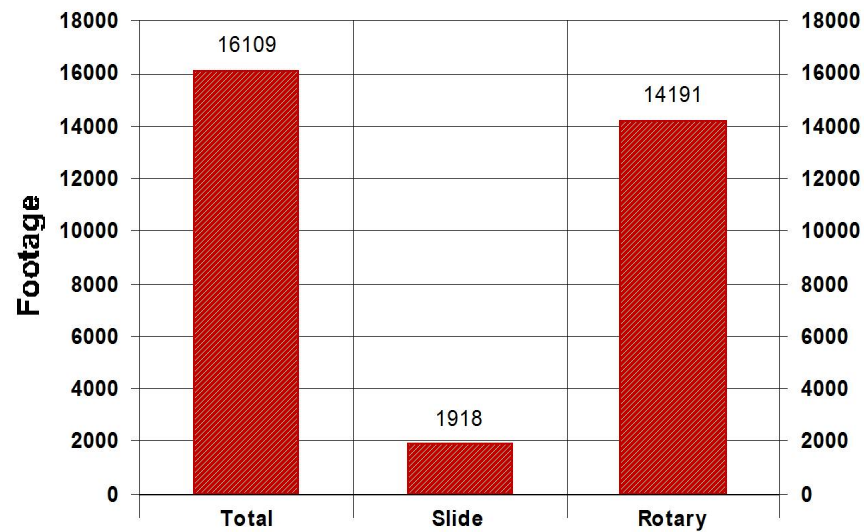
Measured Depth vs Days



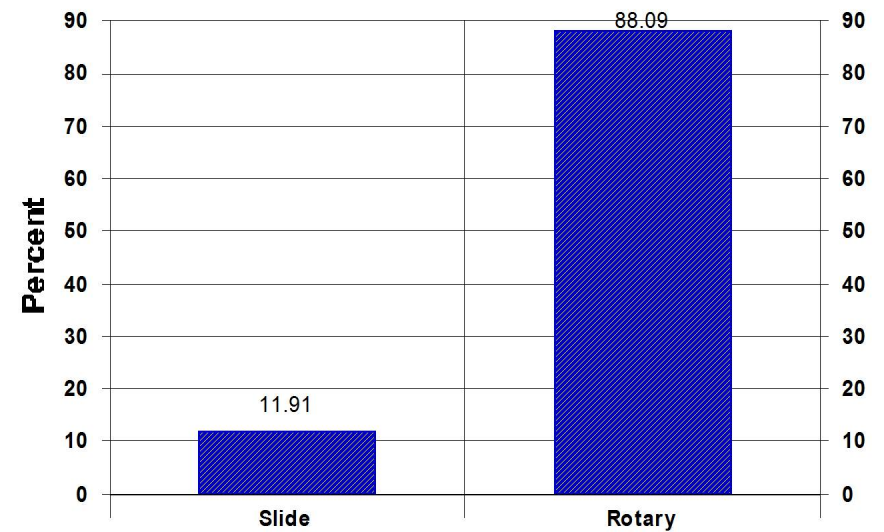
Daily Footage



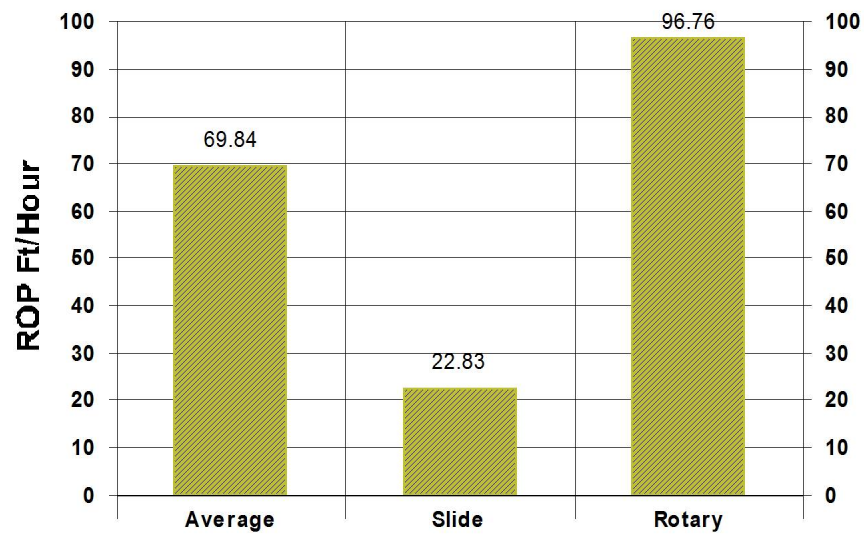
Footage Drilled Totals



Footage Percent



Rate of Penetration Totals



Time Percent

