

Results of Directional Survey

API number:	30-025-41230		
OGRID:		Operator:	MURCHISON OIL & GAS INC
		Property:	JACKSON UNIT # 25H

surface	ULSTR:	O	22	T 24S	R 33E
				200 FSL	1430 FEL

BH Loc	ULSTR:	A	22	T 24S	R 33E
15920 MD		11120.5	TVD	264 FNL	966 FEL
				5016 FSL	

Top Perf/OH	ULSTR:	O	22	T 24S	R 33E
11390 MD		11164.8	TVD	490 FSL	969 FEL

Bot Perf/OH	ULSTR:	A	22	T 24S	R 33E
15800 MD		11122.1	TVD	384 FNL	964 FEL
				4896 FSL	

	MD	N/S	E/W	VD
	11385	285.50	460.50	11164.5
TOP PERFS/OH	11390	290.45	461.13	11164.75
	11417	317.20	464.50	11166.10
	15792	4687.70	465.80	11122.20
BOT PERFS/OH	15800	4695.70	465.72	11122.09
	15865	4760.70	465.10	11121.20

NEXT TO LAST	15910	4805.70	464.60	11120.60
LAST READING	15920	4815.70	464.50	11120.50
TD	15920	4815.70	464.50	11120.50

Surface Location	200 FS	1430 FE
Projected BHL	5016 FS	966 FE
Location of		
Top Perfs/OH	490 FS	969 FE
Bottom Perfs/OH	4896 FS	964 FE

SUMMARY of Subsurface Locations

Surface Location	O-22-24S-33E	200 FS	1430 FE	Vert. Depth
Top Perfs/OH	O-22-24S-33E	490 FS	969 FE	11164.75
Bottom Perfs/OH	A-22-24S-33E	4896 FS	964 FE	11122.09
Projected TD	A-22-24S-33E	5016 FS	966 FE	11120.50

AUG 05 2014



Murchison Oil and Gas

Jackson Unit Section 22

Jackson Unit 25H

HOBBS OCD

JUN 26 2014

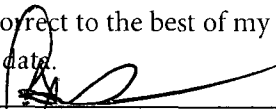
RECEIVED

Survey: Jackson Unit #25H

MOJO Standard Survey

18 June, 2014

This survey is correct to the best of my knowledge and is supported by actual field data.

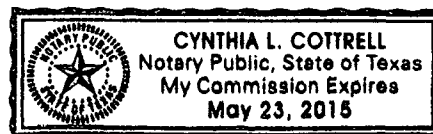
 (Signature)

Notarized this date 23rd of June, 2014


Notary Signature County of Collin State of Texas



MOJO
DIRECTIONAL CORPORATION



Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well Jackson Unit 25H
Project:	Jackson Unit Section 22	TVD Reference:	WELL @ 3565.4usft (Original Well Elev)
Site:	Jackson Unit 25H	MD Reference:	WELL @ 3565.4usft (Original Well Elev)
Well:	Jackson Unit 25H	North Reference:	Grid
Wellbore:	Jackson Unit 25H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 25H	Database:	EDM 5000.1 Single User Db

Project	Jackson Unit Section 22		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Jackson Unit 25H		
Site Position:	From:	Lat/Long	
Position Uncertainty:	0.0 usft		
Northing:	436,054.74 usft	Latitude:	32° 11' 47.055 N
Easting:	781,707.81 usft	Longitude:	103° 33' 22.553 W
Slot Radius:	13-3/16 "	Grid Convergence:	0.41 °

Well	Jackson Unit 25H					
Well Position	+N/-S	0.0 usft	Northing:	436,054.74 usft	Latitude:	32° 11' 47.055 N
	+E/-W	0.0 usft	Easting:	781,707.81 usft	Longitude:	103° 33' 22.553 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,543.4 usft	

Wellbore	Jackson Unit 25H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	09/09/2013	7.30	60.11	48,377

Design	Jackson Unit 25H				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	5.33	

Survey Program	Date 18/06/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	15,920.0	Jackson Unit #25H (Jackson Unit 25H)	MWD	MWD - Standard

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Well:	Jackson Unit 25H	North Reference:	Grid
Wellbore:	Jackson Unit 25H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 25H	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
0.0	0.00	0.00	0.0	-3,565.4	0.0	0.0	0.0	0.00	436,054.74	781,707.81	
100.0	0.46	308.49	100.0	-3,465.4	0.2	-0.3	0.2	0.46	436,054.99	781,707.50	
200.0	0.47	321.15	200.0	-3,365.4	0.8	-0.9	0.7	0.10	436,055.56	781,706.93	
300.0	0.48	321.95	300.0	-3,265.4	1.5	-1.4	1.3	0.01	436,056.21	781,706.41	
400.0	0.50	323.00	400.0	-3,165.4	2.1	-1.9	2.0	0.02	436,056.89	781,705.89	
500.0	0.45	329.71	500.0	-3,065.4	2.8	-2.4	2.6	0.07	436,057.57	781,705.43	
600.0	0.47	344.29	600.0	-2,965.4	3.6	-2.7	3.3	0.12	436,058.31	781,705.12	
700.0	0.60	352.08	700.0	-2,865.4	4.5	-2.9	4.2	0.15	436,059.22	781,704.94	
800.0	0.66	351.79	800.0	-2,765.4	5.6	-3.0	5.3	0.06	436,060.31	781,704.78	
900.0	0.68	347.09	900.0	-2,665.4	6.7	-3.2	6.4	0.06	436,061.46	781,704.57	
1,000.0	0.48	12.99	1,000.0	-2,565.4	7.7	-3.3	7.4	0.32	436,062.44	781,704.53	
1,100.0	0.43	42.50	1,100.0	-2,465.4	8.4	-2.9	8.1	0.24	436,063.13	781,704.88	
1,200.0	0.39	39.68	1,200.0	-2,365.4	8.9	-2.5	8.7	0.04	436,063.67	781,705.35	
1,225.4	0.41	43.01	1,225.4	-2,340.0	9.1	-2.3	8.8	0.11	436,063.80	781,705.47	
Rustler											
1,259.2	0.43	47.03	1,259.2	-2,306.2	9.2	-2.2	9.0	0.11	436,063.97	781,705.64	
13 3/8"											
1,300.0	0.46	51.32	1,300.0	-2,265.4	9.4	-1.9	9.2	0.11	436,064.18	781,705.88	
1,400.0	0.57	38.51	1,399.9	-2,165.5	10.1	-1.3	9.9	0.16	436,064.82	781,706.50	
1,500.0	0.56	35.68	1,499.9	-2,065.5	10.9	-0.7	10.8	0.03	436,065.61	781,707.10	
1,600.0	0.71	42.87	1,599.9	-1,965.5	11.7	0.0	11.7	0.17	436,066.46	781,707.80	
1,700.0	0.95	45.98	1,699.9	-1,865.5	12.7	1.0	12.8	0.24	436,067.49	781,708.82	
1,800.0	1.46	43.59	1,799.9	-1,765.5	14.2	2.5	14.4	0.51	436,068.99	781,710.30	
1,900.0	1.70	37.33	1,899.9	-1,665.5	16.3	4.3	16.7	0.30	436,071.09	781,712.07	
2,000.0	1.69	36.65	1,999.8	-1,565.6	18.7	6.0	19.2	0.02	436,073.45	781,713.85	
2,100.0	1.69	34.00	2,099.8	-1,465.6	21.1	7.7	21.7	0.08	436,075.86	781,715.56	
2,200.0	1.78	34.36	2,199.7	-1,365.7	23.6	9.4	24.4	0.09	436,078.36	781,717.26	

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well Jackson Unit 25H
Project:	Jackson Unit Section 22	TVD Reference:	WELL @ 3565.4usft (Original Well Elev)
Site:	Jackson Unit 25H	MD Reference:	WELL @ 3565.4usft (Original Well Elev)
Well:	Jackson Unit 25H	North Reference:	Grid
Wellbore:	Jackson Unit 25H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 25H	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
2,300.0	1.82	32.60	2,299.7	-1,265.7	26.2	11.2	27.2	0.07	436,080.98	781,718.99
2,400.0	1.83	30.92	2,399.6	-1,165.8	29.0	12.9	30.0	0.05	436,083.69	781,720.67
2,500.0	1.97	23.27	2,499.6	-1,065.8	31.9	14.4	33.1	0.29	436,086.64	781,722.17
2,600.0	2.06	21.53	2,599.5	-965.9	35.1	15.7	36.5	0.11	436,089.89	781,723.51
2,700.0	2.19	19.06	2,699.4	-866.0	38.6	17.0	40.0	0.16	436,093.37	781,724.79
2,800.0	2.61	19.75	2,799.4	-766.0	42.6	18.4	44.1	0.42	436,097.31	781,726.18
2,900.0	3.00	21.66	2,899.2	-666.2	47.2	20.1	48.8	0.40	436,101.89	781,727.92
3,000.0	3.44	23.76	2,999.1	-566.3	52.3	22.3	54.2	0.46	436,107.07	781,730.09
3,100.0	3.86	24.82	3,098.9	-466.5	58.1	24.9	60.2	0.43	436,112.87	781,732.71
3,200.0	4.07	25.88	3,198.6	-366.8	64.4	27.9	66.7	0.22	436,119.12	781,735.68
3,300.0	4.37	27.03	3,298.4	-267.0	71.0	31.1	73.6	0.31	436,125.70	781,738.96
3,400.0	4.46	26.63	3,398.1	-167.3	77.8	34.6	80.7	0.10	436,132.57	781,742.43
3,500.0	4.61	26.32	3,497.8	-67.6	84.9	38.1	88.1	0.15	436,139.65	781,745.96
3,600.0	4.78	26.57	3,597.4	32.0	92.2	41.8	95.7	0.17	436,146.98	781,749.60
3,700.0	4.74	27.29	3,697.1	131.7	99.6	45.5	103.4	0.07	436,154.38	781,753.36
3,800.0	4.20	29.11	3,796.8	231.4	106.5	49.2	110.6	0.56	436,161.25	781,757.03
3,900.0	2.04	250.01	3,896.7	331.3	109.1	49.3	113.2	5.89	436,163.84	781,757.14
4,000.0	4.35	214.09	3,996.5	431.1	105.4	45.5	109.1	2.95	436,160.09	781,753.34
4,100.0	3.32	168.06	4,096.3	530.9	99.4	44.0	103.0	3.14	436,154.12	781,751.82
4,200.0	0.95	134.68	4,196.3	630.9	96.0	45.2	99.7	2.58	436,150.70	781,753.01
4,300.0	0.20	193.49	4,296.3	730.9	95.2	45.7	99.0	0.86	436,149.95	781,753.56
4,400.0	0.83	195.73	4,396.3	830.9	94.3	45.5	98.2	0.63	436,149.08	781,753.32
4,500.0	1.34	159.10	4,496.2	930.8	92.6	45.7	96.4	0.84	436,147.29	781,753.54
4,600.0	1.28	158.41	4,596.2	1,030.8	90.4	46.6	94.4	0.06	436,145.16	781,754.37
4,700.0	0.50	324.60	4,696.2	1,130.8	89.7	46.7	93.7	1.77	436,144.48	781,754.53
4,800.0	0.67	324.84	4,796.2	1,230.8	90.6	46.1	94.5	0.17	436,145.31	781,753.94
4,900.0	0.57	170.70	4,896.2	1,330.8	90.6	45.9	94.4	1.21	436,145.30	781,753.68

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5,000.0	1.02	169.58	4,996.2	1,430.8	89.2	46.1	93.1	0.45	436,143.93	781,753.92	
5,100.0	0.95	174.71	5,096.2	1,530.8	87.5	46.3	91.4	0.11	436,142.23	781,754.16	
5,170.0	0.74	202.15	5,166.2	1,600.8	86.5	46.2	90.4	0.64	436,141.24	781,754.04	
9 5/8"											
5,229.2	0.74	232.01	5,225.4	1,660.0	85.9	45.8	89.8	0.64	436,140.65	781,753.60	
Delaware											
5,253.0	0.80	242.60	5,249.2	1,683.8	85.7	45.5	89.6	0.64	436,140.48	781,753.33	
5,348.0	0.20	339.50	5,344.2	1,778.8	85.6	44.9	89.4	0.89	436,140.33	781,752.68	
5,444.0	1.10	118.90	5,440.1	1,874.7	85.3	45.6	89.2	1.31	436,140.04	781,753.43	
5,539.0	1.10	128.90	5,535.1	1,969.7	84.3	47.1	88.3	0.20	436,139.02	781,754.94	
5,634.0	2.00	153.10	5,630.1	2,064.7	82.2	48.6	86.4	1.15	436,136.97	781,756.40	
5,729.0	2.00	161.40	5,725.0	2,159.6	79.2	49.9	83.5	0.30	436,133.92	781,757.67	
5,824.0	2.50	167.90	5,820.0	2,254.6	75.6	50.8	80.0	0.59	436,130.33	781,758.64	
5,920.0	2.00	154.50	5,915.9	2,350.5	72.0	52.0	76.5	0.75	436,126.77	781,759.80	
6,015.0	2.00	151.00	6,010.8	2,445.4	69.1	53.5	73.8	0.13	436,123.82	781,761.32	
6,110.0	2.80	171.90	6,105.8	2,540.4	65.3	54.6	70.1	1.23	436,120.07	781,762.45	
6,206.0	1.80	172.70	6,201.7	2,636.3	61.5	55.2	66.4	1.04	436,116.26	781,762.97	
6,230.7	1.43	160.40	6,226.4	2,661.0	60.8	55.3	65.7	2.05	436,115.58	781,763.12	
Cherry Canyon											
6,302.0	1.20	93.40	6,297.6	2,732.2	60.0	56.3	64.9	2.05	436,114.70	781,764.16	
6,397.0	1.30	149.30	6,392.6	2,827.2	59.0	57.9	64.1	1.24	436,113.72	781,765.71	
6,493.0	2.00	161.80	6,488.6	2,923.2	56.5	59.0	61.7	0.82	436,111.19	781,766.79	
6,588.0	1.80	153.80	6,583.5	3,018.1	53.5	60.1	58.9	0.35	436,108.28	781,767.96	
6,684.0	1.70	154.90	6,679.5	3,114.1	50.9	61.4	56.4	0.11	436,105.63	781,769.23	
6,780.0	2.00	156.00	6,775.4	3,210.0	48.1	62.7	53.7	0.31	436,102.81	781,770.52	
6,875.0	0.40	276.50	6,870.4	3,305.0	46.6	63.0	52.3	2.35	436,101.34	781,770.86	
6,970.0	0.90	190.40	6,965.4	3,400.0	45.9	62.6	51.5	1.01	436,100.64	781,770.40	

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7,066.0	3.10	100.80	7,061.4	3,496.0	44.7	65.0	50.5	3.36	436,099.41	781,772.81	
7,130.0	6.20	94.80	7,125.2	3,559.8	44.1	70.1	50.4	4.90	436,098.80	781,777.96	
7,162.0	7.30	91.10	7,156.9	3,591.5	43.9	73.9	50.6	3.69	436,098.61	781,781.71	
7,193.0	8.10	92.70	7,187.6	3,622.2	43.7	78.0	50.8	2.67	436,098.47	781,785.86	
7,225.0	7.40	98.30	7,219.4	3,654.0	43.3	82.3	50.8	3.22	436,098.07	781,790.15	
7,257.0	6.30	106.70	7,251.1	3,685.7	42.5	86.1	50.3	4.64	436,097.27	781,793.87	
7,289.0	6.10	106.70	7,282.9	3,717.5	41.5	89.4	49.7	0.62	436,096.27	781,797.18	
7,353.0	6.30	108.10	7,346.6	3,781.2	39.5	96.0	48.2	0.39	436,094.21	781,803.78	
7,448.0	6.30	108.00	7,441.0	3,875.6	36.2	105.9	45.9	0.01	436,090.98	781,813.69	
7,544.0	6.20	108.00	7,536.4	3,971.0	33.0	115.8	43.6	0.10	436,087.75	781,823.63	
7,640.0	6.20	108.00	7,631.9	4,066.5	29.8	125.7	41.3	0.00	436,084.54	781,833.49	
7,684.8	5.96	108.99	7,676.4	4,111.0	28.3	130.2	40.3	0.58	436,083.04	781,837.99	
Brushy Canyon											
7,735.0	5.70	110.20	7,726.3	4,160.9	26.6	135.0	39.0	0.58	436,081.33	781,842.80	
7,831.0	5.80	117.60	7,821.9	4,256.5	22.7	143.8	36.0	0.78	436,077.44	781,851.57	
7,897.0	6.50	113.10	7,887.5	4,322.1	19.7	150.1	33.5	1.29	436,074.42	781,857.96	
7,993.0	6.80	114.00	7,982.8	4,417.4	15.2	160.3	30.1	0.33	436,069.98	781,868.15	
8,088.0	6.30	114.10	8,077.2	4,511.8	10.8	170.2	26.6	0.53	436,065.56	781,878.05	
8,184.0	6.10	113.60	8,172.7	4,607.3	6.6	179.7	23.3	0.22	436,061.37	781,887.53	
8,279.0	5.80	113.50	8,267.1	4,701.7	2.7	188.7	20.2	0.32	436,057.44	781,896.56	
8,375.0	6.10	114.30	8,362.6	4,797.2	-1.3	197.8	17.0	0.32	436,053.40	781,905.66	
8,470.0	5.60	114.70	8,457.1	4,891.7	-5.3	206.7	13.9	0.53	436,049.39	781,914.47	
8,566.0	7.60	115.30	8,552.5	4,987.1	-10.0	216.7	10.1	2.08	436,044.72	781,924.46	
8,661.0	7.40	114.10	8,646.7	5,081.3	-15.2	227.9	6.0	0.27	436,039.54	781,935.73	
8,757.0	7.20	113.40	8,741.9	5,176.5	-20.1	239.1	2.2	0.23	436,034.62	781,946.89	
8,853.0	6.80	115.80	8,837.2	5,271.8	-25.0	249.7	-1.7	0.52	436,029.76	781,957.53	
8,948.0	6.70	116.10	8,931.5	5,366.1	-29.9	259.8	-5.6	0.11	436,024.87	781,967.57	

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well Jackson Unit 25H
Project:	Jackson Unit Section 22	TVD Reference:	WELL @ 3565.4usft (Original Well Elev)
Site:	Jackson Unit 25H	MD Reference:	WELL @ 3565.4usft (Original Well Elev)
Well:	Jackson Unit 25H	North Reference:	Grid
Wellbore:	Jackson Unit 25H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 25H	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
9,044.0	6.20	115.30	9,026.9	5,461.5	-34.5	269.5	-9.4	0.53	436,020.19	781,977.29	
9,140.0	6.10	115.30	9,122.4	5,557.0	-38.9	278.8	-12.9	0.10	436,015.80	781,986.58	
9,179.2	5.98	115.22	9,161.4	5,596.0	-40.7	282.5	-14.3	0.32	436,014.04	781,990.32	
Bone Spring											
9,235.0	5.80	115.10	9,216.9	5,651.5	-43.1	287.7	-16.2	0.32	436,011.61	781,995.49	
9,280.8	5.37	115.62	9,262.4	5,697.0	-45.0	291.7	-17.7	0.94	436,009.70	781,999.52	
Avalon Shale											
9,331.0	4.90	116.30	9,312.4	5,747.0	-47.0	295.7	-19.3	0.94	436,007.73	782,003.56	
9,427.0	5.10	110.90	9,408.1	5,842.7	-50.3	303.4	-21.9	0.53	436,004.39	782,011.22	
9,522.0	5.50	111.10	9,502.7	5,937.3	-53.5	311.6	-24.3	0.42	436,001.25	782,019.42	
9,618.0	6.30	108.10	9,598.2	6,032.8	-56.8	320.9	-26.7	0.89	435,997.96	782,028.72	
9,713.0	5.70	116.00	9,692.6	6,127.2	-60.5	330.1	-29.5	1.07	435,994.27	782,037.91	
9,809.0	6.70	116.50	9,788.1	6,222.7	-65.1	339.4	-33.3	1.04	435,989.68	782,047.21	
9,905.0	5.40	121.80	9,883.5	6,318.1	-69.9	348.2	-37.3	1.47	435,984.80	782,056.06	
10,010.0	4.70	113.60	9,988.1	6,422.7	-74.3	356.4	-40.8	0.96	435,980.47	782,064.20	
10,105.0	6.20	102.80	10,082.7	6,517.3	-77.0	365.0	-42.7	1.91	435,977.78	782,072.77	
10,199.0	5.60	103.90	10,176.2	6,610.8	-79.2	374.4	-44.1	0.65	435,975.55	782,082.17	
10,214.3	5.44	104.26	10,191.4	6,626.0	-79.5	375.8	-44.3	1.07	435,975.19	782,083.60	
1st Bone Spring Sand											
10,295.0	4.60	106.60	10,271.8	6,706.4	-81.4	382.6	-45.5	1.07	435,973.33	782,090.41	
10,389.0	4.10	110.80	10,365.6	6,800.2	-83.7	389.3	-47.2	0.63	435,971.06	782,097.16	
10,596.0	2.40	99.80	10,572.2	7,006.8	-87.0	400.5	-49.5	0.87	435,967.69	782,108.35	
10,691.0	2.60	91.70	10,667.1	7,101.7	-87.4	404.7	-49.5	0.43	435,967.29	782,112.47	
10,695.0	2.56	88.58	10,671.1	7,105.7	-87.5	404.8	-49.5	3.66	435,967.29	782,112.65	
7"											
10,723.0	2.50	65.20	10,699.1	7,133.7	-87.2	406.0	-49.1	3.66	435,967.56	782,113.82	
10,754.0	4.50	27.50	10,730.0	7,164.6	-85.8	407.2	-47.6	9.51	435,968.92	782,115.00	

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well Jackson Unit 25H
Project:	Jackson Unit Section 22	TVD Reference:	WELL @ 3565.4usft (Original Well Elev)
Site:	Jackson Unit 25H	MD Reference:	WELL @ 3565.4usft (Original Well Elev)
Well:	Jackson Unit 25H	North Reference:	Grid
Wellbore:	Jackson Unit 25H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 25H	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
10,786.0	6.90	17.00	10,761.9	7,196.5	-82.9	408.3	-44.6	8.15	435,971.87	782,116.14	
10,817.0	9.10	9.40	10,792.6	7,227.2	-78.7	409.3	-40.3	7.86	435,976.07	782,117.09	
10,850.0	11.80	6.40	10,825.0	7,259.6	-72.7	410.1	-34.3	8.34	435,982.00	782,117.89	
10,881.0	15.10	4.50	10,855.2	7,289.8	-65.6	410.7	-27.1	10.74	435,989.18	782,118.56	
10,913.0	18.70	4.90	10,885.8	7,320.4	-56.3	411.5	-17.8	11.26	435,998.45	782,119.32	
10,939.3	21.92	5.42	10,910.4	7,345.0	-47.2	412.3	-8.7	12.28	436,007.52	782,120.15	
2nd Bone Spring sand											
10,944.0	22.50	5.50	10,914.8	7,349.4	-45.4	412.5	-6.9	12.28	436,009.31	782,120.32	
10,976.0	26.40	5.80	10,943.9	7,378.5	-32.3	413.8	6.3	12.19	436,022.49	782,121.62	
11,007.0	30.70	7.10	10,971.1	7,405.7	-17.5	415.5	21.1	14.01	436,037.20	782,123.30	
11,039.0	35.00	7.50	10,998.0	7,432.6	-0.3	417.7	38.5	13.45	436,054.42	782,125.51	
11,070.0	38.40	9.70	11,022.9	7,457.5	18.0	420.5	57.0	11.76	436,072.73	782,128.29	
11,165.0	52.20	10.20	11,089.5	7,524.1	84.3	432.2	124.1	14.53	436,139.07	782,139.97	
11,259.0	67.00	7.90	11,137.0	7,571.6	164.2	444.7	204.8	15.88	436,218.93	782,152.56	
11,291.0	72.60	7.10	11,148.0	7,582.6	194.0	448.7	234.8	17.66	436,248.69	782,156.47	
11,322.0	77.80	7.40	11,155.9	7,590.5	223.7	452.4	264.7	16.80	436,278.41	782,160.26	
11,353.0	82.40	7.50	11,161.3	7,595.9	253.9	456.4	295.2	14.84	436,308.68	782,164.22	
11,385.0	85.80	7.70	11,164.6	7,599.2	285.5	460.6	327.0	10.64	436,340.23	782,168.43	
11,417.0	88.60	6.20	11,166.1	7,600.7	317.2	464.5	359.0	9.92	436,371.95	782,172.29	
11,448.0	90.00	5.20	11,166.5	7,601.1	348.1	467.6	390.0	5.55	436,402.80	782,175.37	
11,480.0	91.20	5.00	11,166.2	7,600.8	379.9	470.4	422.0	3.80	436,434.67	782,178.21	
11,511.0	91.50	5.10	11,165.4	7,600.0	410.8	473.1	453.0	1.02	436,465.54	782,180.94	
11,542.0	91.30	6.40	11,164.7	7,599.3	441.6	476.2	484.0	4.24	436,496.37	782,184.05	
11,574.0	91.50	6.60	11,163.9	7,598.5	473.4	479.9	515.9	0.88	436,528.16	782,187.67	
11,605.0	92.50	7.90	11,162.8	7,597.4	504.2	483.8	546.9	5.29	436,558.89	782,191.58	
11,637.0	91.90	9.50	11,161.6	7,596.2	535.8	488.6	578.8	5.34	436,590.50	782,196.42	
11,668.0	90.90	9.30	11,160.8	7,595.4	566.3	493.7	609.7	3.29	436,621.07	782,201.48	

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well Jackson Unit 25H
Project:	Jackson Unit Section 22	TVD Reference:	WELL @ 3565.4usft (Original Well Elev)
Site:	Jackson Unit 25H	MD Reference:	WELL @ 3565.4usft (Original Well Elev)
Well:	Jackson Unit 25H	North Reference:	Grid
Wellbore:	Jackson Unit 25H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 25H	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
11,699.0	89.40	8.40	11,160.7	7,595.3	597.0	498.4	640.7	5.64	436,651.70	782,206.25	
11,731.0	89.10	7.20	11,161.2	7,595.8	628.7	502.8	672.6	3.87	436,683.40	782,210.59	
11,762.0	89.40	5.80	11,161.6	7,596.2	659.5	506.3	703.6	4.62	436,714.20	782,214.10	
11,794.0	89.80	4.80	11,161.8	7,596.4	691.3	509.2	735.6	3.37	436,746.06	782,217.05	
11,825.0	89.90	3.90	11,161.9	7,596.5	722.2	511.6	766.6	2.92	436,776.97	782,219.40	
11,857.0	90.10	2.60	11,161.9	7,596.5	754.2	513.4	798.6	4.11	436,808.92	782,221.22	
11,888.0	89.90	1.60	11,161.9	7,596.5	785.2	514.5	829.6	3.29	436,839.90	782,222.35	
11,920.0	89.40	0.70	11,162.1	7,596.7	817.2	515.2	861.5	3.22	436,871.89	782,223.00	
11,951.0	88.90	359.50	11,162.5	7,597.1	848.1	515.2	892.3	4.19	436,902.89	782,223.05	
11,983.0	89.10	358.20	11,163.1	7,597.7	880.1	514.6	924.1	4.11	436,934.87	782,222.41	
12,014.0	89.60	357.50	11,163.4	7,598.0	911.1	513.4	954.9	2.77	436,965.85	782,221.25	
12,109.0	89.90	356.90	11,163.9	7,598.5	1,006.0	508.8	1,048.9	0.71	437,060.73	782,216.60	
12,204.0	89.80	356.30	11,164.1	7,598.7	1,100.8	503.2	1,142.8	0.64	437,155.57	782,210.97	
12,298.0	90.20	356.90	11,164.1	7,598.7	1,194.7	497.6	1,235.7	0.77	437,249.40	782,205.40	
12,392.0	90.60	357.10	11,163.4	7,598.0	1,288.5	492.7	1,328.7	0.48	437,343.27	782,200.48	
12,487.0	91.10	358.10	11,162.0	7,596.6	1,383.4	488.7	1,422.8	1.18	437,438.17	782,196.50	
12,581.0	91.40	357.80	11,160.0	7,594.6	1,477.4	485.3	1,516.0	0.45	437,532.09	782,193.14	
12,676.0	90.80	358.80	11,158.2	7,592.8	1,572.3	482.5	1,610.3	1.23	437,627.03	782,190.32	
12,770.0	91.20	359.10	11,156.5	7,591.1	1,666.3	480.8	1,703.7	0.53	437,721.00	782,188.60	
12,865.0	91.80	359.20	11,154.0	7,588.6	1,761.2	479.4	1,798.1	0.64	437,815.96	782,187.19	
12,959.0	90.90	0.20	11,151.8	7,586.4	1,855.2	478.9	1,891.7	1.43	437,909.93	782,186.70	
13,054.0	91.30	0.00	11,150.0	7,584.6	1,950.2	479.0	1,986.2	0.47	438,004.91	782,186.86	
13,148.0	91.80	0.40	11,147.5	7,582.1	2,044.1	479.4	2,079.8	0.68	438,098.87	782,187.19	
13,242.0	90.60	1.00	11,145.5	7,580.1	2,138.1	480.5	2,173.5	1.43	438,192.84	782,188.34	
13,337.0	91.00	0.70	11,144.2	7,578.8	2,233.1	481.9	2,268.2	0.53	438,287.82	782,189.75	
13,431.0	92.20	0.90	11,141.5	7,576.1	2,327.0	483.2	2,361.9	1.29	438,381.78	782,191.06	
13,525.0	91.10	0.30	11,138.8	7,573.4	2,421.0	484.2	2,455.5	1.33	438,475.73	782,192.04	

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well Jackson Unit 25H
Project:	Jackson Unit Section 22	TVD Reference:	WELL @ 3565.4usft (Original Well Elev)
Site:	Jackson Unit 25H	MD Reference:	WELL @ 3565.4usft (Original Well Elev)
Well:	Jackson Unit 25H	North Reference:	Grid
Wellbore:	Jackson Unit 25H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 25H	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
13,619.0	91.50	0.00	11,136.7	7,571.3	2,515.0	484.5	2,549.1	0.53	438,569.71	782,192.29
13,713.0	91.90	359.60	11,133.9	7,568.5	2,608.9	484.1	2,642.6	0.60	438,663.66	782,191.96
13,808.0	90.20	359.60	11,132.2	7,566.8	2,703.9	483.5	2,737.1	1.79	438,758.64	782,191.30
13,903.0	90.60	0.20	11,131.5	7,566.1	2,798.9	483.3	2,831.7	0.76	438,853.64	782,191.13
13,997.0	90.20	359.80	11,130.8	7,565.4	2,892.9	483.3	2,925.3	0.60	438,947.64	782,191.13
14,092.0	90.50	359.60	11,130.3	7,564.9	2,987.9	482.8	3,019.8	0.38	439,042.63	782,190.63
14,186.0	90.30	359.40	11,129.6	7,564.2	3,081.9	482.0	3,113.3	0.30	439,136.63	782,189.81
14,281.0	90.60	359.20	11,128.9	7,563.5	3,176.9	480.8	3,207.8	0.38	439,231.62	782,188.65
14,375.0	90.70	359.70	11,127.8	7,562.4	3,270.9	479.9	3,301.3	0.54	439,325.61	782,187.75
14,469.0	91.20	359.80	11,126.2	7,560.8	3,364.9	479.5	3,394.8	0.54	439,419.59	782,187.34
14,564.0	89.90	359.20	11,125.3	7,559.9	3,459.8	478.7	3,489.3	1.51	439,514.58	782,186.51
14,658.0	89.90	359.00	11,125.5	7,560.1	3,553.8	477.2	3,582.8	0.21	439,608.57	782,185.04
14,753.0	89.90	358.80	11,125.7	7,560.3	3,648.8	475.4	3,677.2	0.21	439,703.55	782,183.21
14,847.0	89.90	358.80	11,125.8	7,560.4	3,742.8	473.4	3,770.6	0.00	439,797.53	782,181.24
14,942.0	90.10	358.70	11,125.8	7,560.4	3,837.8	471.4	3,865.0	0.24	439,892.51	782,179.17
15,036.0	90.20	359.90	11,125.6	7,560.2	3,931.8	470.2	3,958.4	1.28	439,986.50	782,178.02
15,131.0	90.50	359.60	11,125.0	7,559.6	4,026.8	469.8	4,053.0	0.45	440,081.50	782,177.61
15,225.0	90.90	359.40	11,123.8	7,558.4	4,120.7	469.0	4,146.5	0.48	440,175.48	782,176.79
15,320.0	89.60	359.50	11,123.4	7,558.0	4,215.7	468.1	4,241.0	1.37	440,270.48	782,175.88
15,414.0	89.90	359.60	11,123.8	7,558.4	4,309.7	467.3	4,334.5	0.34	440,364.47	782,175.14
15,509.0	90.60	359.60	11,123.4	7,558.0	4,404.7	466.7	4,429.0	0.74	440,459.47	782,174.48
15,603.0	89.90	0.00	11,123.0	7,557.6	4,498.7	466.3	4,522.6	0.86	440,553.47	782,174.15
15,698.0	90.20	359.90	11,122.9	7,557.5	4,593.7	466.3	4,617.2	0.33	440,648.47	782,174.06
15,792.0	90.70	359.50	11,122.2	7,556.8	4,687.7	465.8	4,710.7	0.68	440,742.46	782,173.57
15,865.0	90.80	359.40	11,121.2	7,555.8	4,760.7	465.1	4,783.3	0.19	440,815.45	782,172.87
15,910.0	90.80	359.40	11,120.6	7,555.2	4,805.7	464.6	4,828.1	0.00	440,860.45	782,172.40
41/2"										

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well Jackson Unit 25H
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Site:	Jackson Unit 25H	MD Reference:	WELL @ 3565.4usft (Original Well Elev)
Well:	Jackson Unit 25H	North Reference:	Grid
Wellbore:	Jackson Unit 25H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 25H	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
15,920.0	90.80	359.40	11,120.5	7,555.1	4,815.7	464.5	4,838.0	0.00	440,870.44	782,172.30

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
5,170.0	5,166.2	9 5/8"	9-5/8	12-1/4	
1,259.2	1,259.2	13 3/8"	13-3/8	16	
10,695.0	10,671.1	7"	7	8-1/2	
15,910.0	11,120.6	4 1/2"	4-1/2	8-1/2	

Formations				
Measured Depth (usft)	Vertical Depth (usft)	Name	Dip (°)	
1,225.4	1,225.4	Rustler	0.00	
7,684.8	7,676.4	Brushy Canyon	0.00	
6,230.7	6,226.4	Cherry Canyon	0.00	
5,229.2	5,225.4	Delaware	0.00	
10,939.3	10,910.4	2nd Bone Spring sand	0.00	
9,280.8	9,262.4	Avalon Shale	0.00	
9,179.2	9,161.4	Bone Spring	0.00	
10,214.3	10,191.4	1st Bone Spring Sand	0.00	

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,223.4	11,121.5	132.5	440.1	Cross South Hard Boundary at 11224RMD
15,850.0	11,121.4	4,745.7	465.2	Cross North Hard Boundary at 15850RMD

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well Jackson Unit 25H
Project:	Jackson Unit Section 22	TVD Reference:	WELL @ 3565.4usft (Original Well Elev)
Site:	Jackson Unit 25H	MD Reference:	WELL @ 3565.4usft (Original Well Elev)
Well:	Jackson Unit 25H	North Reference:	Grid
Wellbore:	Jackson Unit 25H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 25H	Database:	EDM 5000.1 Single User Db

Checked By: _____	Approved By: _____	Date: _____
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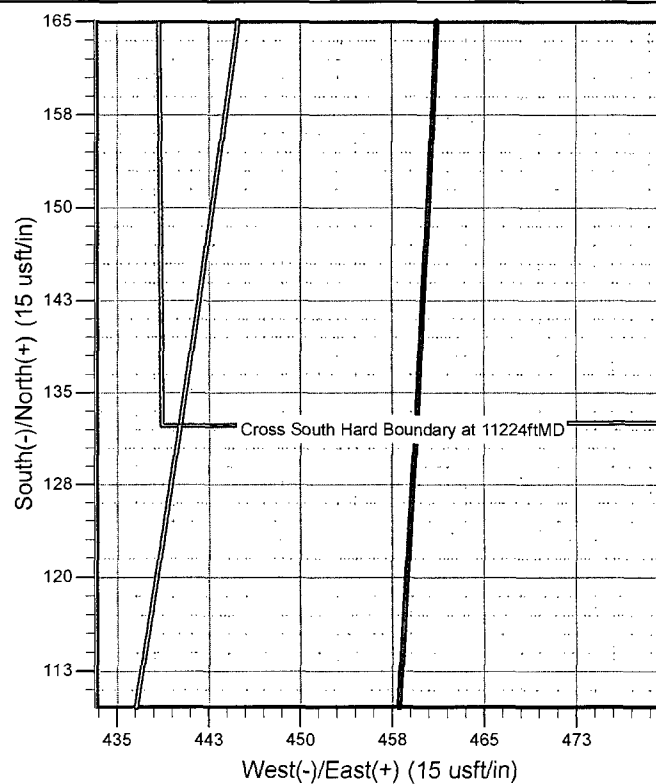
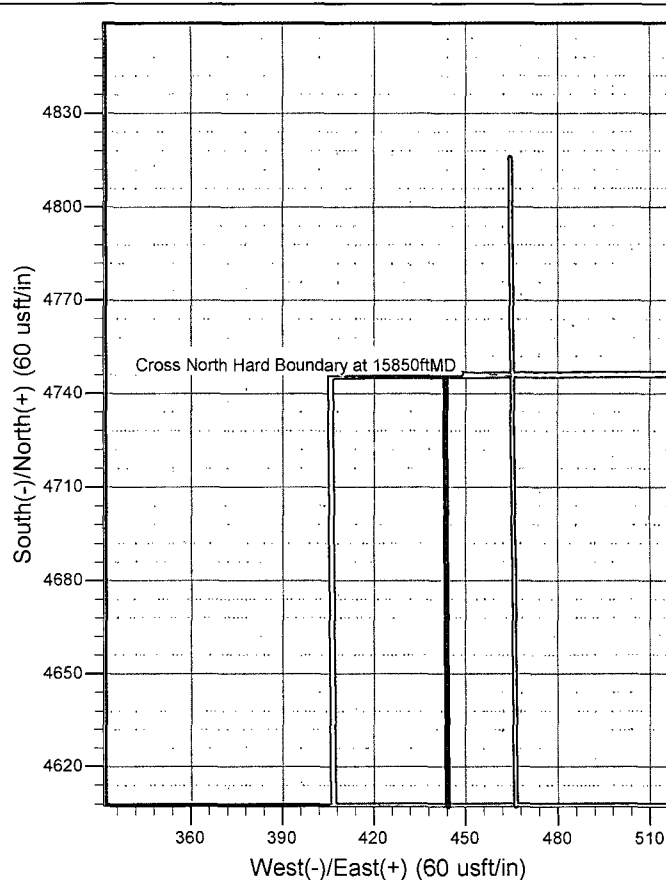
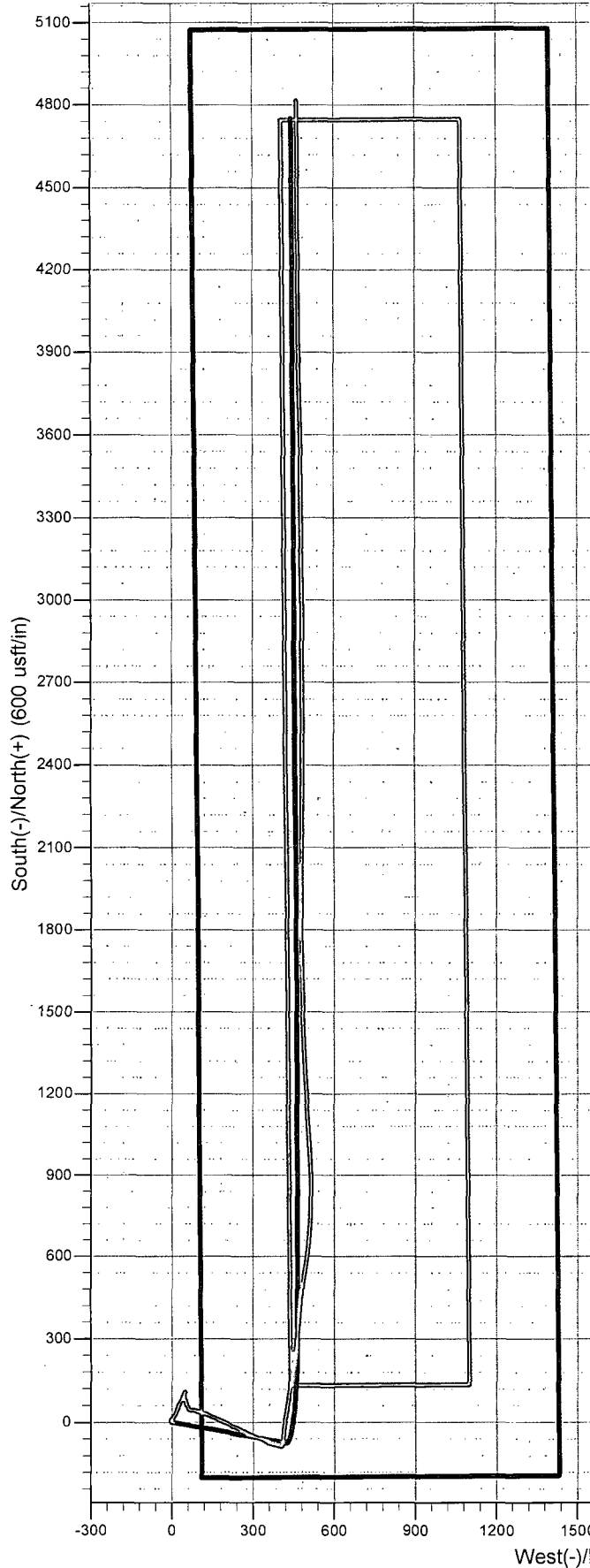
Project: Jackson Unit Section 22
Site: Jackson Unit 25H
Well: Jackson Unit 25H
Wellbore: Jackson Unit 25H
Design: Jackson Unit 25H

 **MURCHISON OIL & GAS, INC.**



Azimuths to Grid North
True North: -0.41°
Magnetic North: 6.89°

Magnetic Field
Strength: 48376.7snT
Dip Angle: 60.11°
Date: 09/09/2013
Model: IGRF2010



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