

Results of Directional Survey

API number:	30-025-41071		
OGRID:		Operator:	MURCHISON OIL & GAS INC
		Property:	MOGI 9 STATE COM # 4H

surface	ULSTR:	P	09	T	24S	R	33E
				320	FSL	960	FEL

BH Loc	ULSTR:	A	09	T	24S	R	33E
15699	MD	11253.7	TVD	292	FNL	980	FEL
				4988	FSL		

Top Perf/OH	ULSTR:	P	09	T	24S	R	33E
11490	MD	11457.5	TVD	784	FSL	956	FEL

Bot Perf/OH	ULSTR:	A	09	T	24S	R	33E
15622	MD	11257.0	TVD	369	FNL	975	FEL
				4911	FSL		

	MD	N/S	E/W	VD
	11465	439.50	-0.40	11211.4
TOP PERFS/OH	11490	463.77	4.28	11457.53
	11496	469.60	5.40	11516.60
	15533	4502.50	-9.20	11260.10
BOT PERFS/OH	15622	4591.31	-14.73	11257.01
	15628	4597.30	-15.10	11256.80

NEXT TO LAST	15697	4666.00	-20.00	11253.80
LAST READING	15699	4668.00	-20.20	11253.70
TD	15699	4668.00	-20.20	11253.70

Surface Location	320	FS	960	FE
Projected BHL	4988	FS	980	FE
Location of				
Top Perfs/OH	784	FS	956	FE
Bottom Perfs/OH	4911	FS	975	FE

SUMMARY of Subsurface Locations

Surface Location	P-09-24S-33E	320	FS	960	FE	Vert. Depth
Top Perfs/OH	P-09-24S-33E	784	FS	956	FE	11457.53
Bottom Perfs/OH	A-09-24S-33E	4911	FS	975	FE	11257.01
Projected TD	A-09-24S-33E	4988	FS	980	FE	11253.70

JAN 28 2014

 MURCHISON OIL & GAS, INC.

HOBBS OCD

DEC 26 2013

RECEIVED

Murchison Oil and Gas

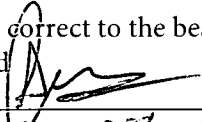
Jackson Unit Section 9

MOGI 9 State Com 4H

Survey: MOGI 9 State Com #4H

MOJO Standard Survey

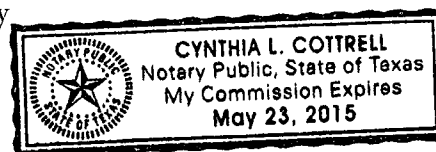
14 November, 2013

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

Notarized this date 3rd of December
2013. Cynthia L. Cottrell Notary
Signature County of Collin State of Texas



MOJO
DIRECTIONAL CORPORATION



Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well MOGI 9 State Com #4H
Project:	Jackson Unit Section 9	TVD Reference:	WELL @ 3646.0usft (Original Well Elev)
Site:	MOGI 9 State Com 4H	MD Reference:	WELL @ 3646.0usft (Original Well Elev)
Well:	MOGI 9 State Com #4H	North Reference:	Grid
Wellbore:	MOGI 9 State Com #4H	Survey Calculation Method:	Minimum Curvature
Design:	MOGI 9 State Com #4H	Database:	EDM 5000.1 Single User Db

Project	Jackson Unit Section 9		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	MOGI 9 State Com 4H		
Site Position:		Northing:	446,701.82 usft
From:	Lat/Long	Easting:	776,821.16 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 13' 32.756 N
		Longitude:	103° 34' 18.542 W
		Grid Convergence:	0.41 °

Well	MOGI 9 State Com #4H			
Well Position	+N/-S	0.0 usft	Northing:	446,701.82 usft
	+E/-W	0.0 usft	Easting:	776,821.16 usft
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft
			Latitude:	32° 13' 32.756 N
			Longitude:	103° 34' 18.542 W
			Ground Level:	3,624.0 usft

Wellbore	MOGI 9 State Com #4H				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	11/03/2013	7.37	60.15	48,442

Design	MOGI 9 State Com #4H		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			359.82

Survey Program	Date 14/11/2013		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.0	15,699.0	MOGI 9 State Com #4H (MOGI 9 State Co	MWD
			MWD - Standard

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Wellbore:	MOGI 9 State Com #4H	Survey Calculation Method:	Minimum Curvature
Design:	MOGI 9 State Com #4H	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	-3,646.0	0.0	0.0	0.0	0.00	446,701.82	776,821.16	
100.0	0.17	247.19	100.0	-3,546.0	-0.1	-0.1	-0.1	0.17	446,701.76	776,821.02	
200.0	0.08	188.65	200.0	-3,446.0	-0.2	-0.3	-0.2	0.15	446,701.64	776,820.88	
300.0	0.09	132.24	300.0	-3,346.0	-0.3	-0.2	-0.3	0.08	446,701.52	776,820.92	
400.0	0.27	63.91	400.0	-3,246.0	-0.3	0.0	-0.3	0.25	446,701.57	776,821.19	
500.0	0.40	47.35	500.0	-3,146.0	0.1	0.5	0.1	0.16	446,701.91	776,821.66	
600.0	0.42	52.82	600.0	-3,046.0	0.5	1.1	0.5	0.04	446,702.36	776,822.21	
700.0	0.40	46.70	700.0	-2,946.0	1.0	1.6	1.0	0.05	446,702.83	776,822.76	
800.0	0.38	47.21	800.0	-2,846.0	1.5	2.1	1.5	0.02	446,703.29	776,823.26	
900.0	0.30	47.43	900.0	-2,746.0	1.9	2.5	1.9	0.08	446,703.69	776,823.69	
1,000.0	0.46	46.75	1,000.0	-2,646.0	2.3	3.0	2.3	0.16	446,704.14	776,824.18	
1,100.0	0.53	43.34	1,100.0	-2,546.0	2.9	3.6	2.9	0.08	446,704.76	776,824.79	
1,200.0	0.47	29.56	1,200.0	-2,446.0	3.6	4.1	3.6	0.13	446,705.45	776,825.31	
1,285.0	0.42	21.85	1,285.0	-2,361.0	4.2	4.4	4.2	0.09	446,706.04	776,825.59	
Rustler											
1,300.0	0.41	20.30	1,300.0	-2,346.0	4.3	4.5	4.3	0.09	446,706.14	776,825.63	
1,340.0	0.43	8.50	1,340.0	-2,306.0	4.6	4.5	4.6	0.22	446,706.42	776,825.70	
13 3/8"											
1,400.0	0.49	353.63	1,400.0	-2,246.0	5.1	4.5	5.1	0.22	446,706.90	776,825.71	
1,500.0	1.08	351.17	1,500.0	-2,146.0	6.4	4.4	6.4	0.59	446,708.26	776,825.52	
1,600.0	1.13	351.16	1,599.9	-2,046.1	8.3	4.1	8.3	0.05	446,710.16	776,825.22	
1,700.0	1.11	350.51	1,699.9	-1,946.1	10.3	3.7	10.3	0.02	446,712.09	776,824.91	
1,800.0	0.98	353.10	1,799.9	-1,846.1	12.1	3.5	12.1	0.14	446,713.90	776,824.65	
1,900.0	0.93	354.43	1,899.9	-1,746.1	13.7	3.3	13.7	0.05	446,715.55	776,824.47	
2,000.0	0.99	353.70	1,999.9	-1,646.1	15.4	3.1	15.4	0.06	446,717.22	776,824.29	
2,100.0	1.07	358.87	2,099.9	-1,546.1	17.2	3.0	17.2	0.12	446,719.01	776,824.18	
2,200.0	1.13	0.03	2,199.8	-1,446.2	19.1	3.0	19.1	0.06	446,720.93	776,824.16	

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well MOGI 9 State Com #4H
Project:	Jackson Unit Section 9	TVD Reference:	WELL @ 3646.0usft (Original Well Elev)
Site:	MOGI 9 State Com 4H	MD Reference:	WELL @ 3646.0usft (Original Well Elev)
Well:	MOGI 9 State Com #4H	North Reference:	Grid
Wellbore:	MOGI 9 State Com #4H	Survey Calculation Method:	Minimum Curvature
Design:	MOGI 9 State Com #4H	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	1.21	2.12	2,299.8	-1,346.2	21.2	3.0	21.1	0.09	446,722.97	776,824.20	
2,400.0	1.12	5.29	2,399.8	-1,246.2	23.2	3.2	23.2	0.11	446,725.00	776,824.33	
2,500.0	1.17	357.27	2,499.8	-1,146.2	25.2	3.2	25.2	0.17	446,726.99	776,824.37	
2,600.0	1.13	351.19	2,599.8	-1,046.2	27.2	3.0	27.2	0.13	446,728.99	776,824.17	
2,700.0	1.00	346.18	2,699.7	-946.3	29.0	2.7	29.0	0.16	446,730.81	776,823.81	
2,800.0	0.85	343.81	2,799.7	-846.3	30.5	2.2	30.5	0.15	446,732.37	776,823.40	
2,900.0	0.66	359.52	2,899.7	-746.3	31.8	2.0	31.8	0.28	446,733.66	776,823.19	
3,000.0	0.68	6.80	2,999.7	-646.3	33.0	2.1	33.0	0.09	446,734.82	776,823.25	
3,100.0	0.79	17.26	3,099.7	-546.3	34.3	2.4	34.2	0.17	446,736.07	776,823.53	
3,200.0	1.09	32.65	3,199.7	-446.3	35.7	3.1	35.7	0.39	446,737.53	776,824.24	
3,300.0	1.25	35.75	3,299.7	-346.3	37.4	4.2	37.4	0.17	446,739.22	776,825.39	
3,400.0	1.41	44.31	3,399.6	-246.4	39.2	5.7	39.1	0.25	446,740.98	776,826.89	
3,500.0	1.36	47.46	3,499.6	-146.4	40.8	7.5	40.8	0.09	446,742.67	776,828.62	
3,600.0	1.20	48.09	3,599.6	-46.4	42.3	9.1	42.3	0.16	446,744.17	776,830.28	
3,700.0	0.86	48.78	3,699.6	53.6	43.5	10.5	43.5	0.34	446,745.36	776,831.62	
3,800.0	0.50	49.11	3,799.6	153.6	44.3	11.4	44.3	0.36	446,746.14	776,832.52	
3,900.0	0.23	76.86	3,899.6	253.6	44.7	11.9	44.6	0.32	446,746.47	776,833.04	
4,000.0	0.11	127.57	3,999.6	353.6	44.6	12.2	44.6	0.18	446,746.46	776,833.31	
4,100.0	0.15	84.14	4,099.6	453.6	44.6	12.4	44.6	0.10	446,746.41	776,833.52	
4,200.0	0.23	49.94	4,199.6	553.6	44.7	12.6	44.7	0.14	446,746.56	776,833.80	
4,300.0	0.28	15.01	4,299.6	653.6	45.1	12.9	45.1	0.16	446,746.92	776,834.02	
4,400.0	0.78	85.06	4,399.6	753.6	45.4	13.6	45.4	0.73	446,747.22	776,834.76	
4,500.0	1.64	110.99	4,499.5	853.5	44.9	15.6	44.9	1.00	446,746.76	776,836.78	
4,600.0	1.92	114.24	4,599.5	953.5	43.7	18.5	43.7	0.30	446,745.56	776,839.64	
4,700.0	2.46	118.29	4,699.4	1,053.4	42.0	21.9	42.0	0.56	446,743.86	776,843.06	
4,800.0	3.34	118.59	4,799.3	1,153.3	39.6	26.3	39.5	0.88	446,741.45	776,847.50	
4,900.0	3.74	114.58	4,899.1	1,253.1	36.9	31.9	36.8	0.47	446,738.70	776,853.03	

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Design:	MOGI 9 State Com #4H	Database:	EDM 5000.1 Single User Db

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5,000.0	3.60	113.95	4,998.9	1,352.9	34.2	37.7	34.1	0.15	446,736.06	776,858.86	
5,100.0	3.13	115.03	5,098.7	1,452.7	31.8	43.0	31.7	0.47	446,733.63	776,864.21	
5,200.0	2.49	113.11	5,198.6	1,552.6	29.8	47.5	29.7	0.65	446,731.63	776,868.68	
5,230.0	2.51	112.44	5,228.6	1,582.6	29.3	48.7	29.1	0.12	446,731.12	776,869.88	
5,238.0	2.46	112.87	5,236.6	1,590.6	29.2	49.0	29.0	0.72	446,730.99	776,870.20	
Delaware											
5,258.0	2.32	114.04	5,256.5	1,610.5	28.8	49.8	28.7	0.72	446,730.66	776,870.97	
9 5/8"											
5,291.0	2.10	116.30	5,289.5	1,643.5	28.3	51.0	28.1	0.72	446,730.12	776,872.12	
5,323.0	2.00	119.30	5,321.5	1,675.5	27.8	52.0	27.6	0.46	446,729.58	776,873.13	
5,418.0	0.90	150.20	5,416.5	1,770.5	26.3	53.8	26.1	1.38	446,728.12	776,874.95	
5,513.0	0.60	164.50	5,511.5	1,865.5	25.2	54.3	25.0	0.37	446,727.00	776,875.45	
5,607.0	1.40	223.10	5,605.5	1,959.5	23.9	53.6	23.7	1.28	446,725.68	776,874.80	
5,702.0	1.50	226.20	5,700.4	2,054.4	22.2	51.9	22.0	0.13	446,723.98	776,873.11	
5,798.0	1.50	223.40	5,796.4	2,150.4	20.4	50.2	20.2	0.08	446,722.19	776,871.34	
5,893.0	1.50	217.50	5,891.4	2,245.4	18.5	48.6	18.3	0.16	446,720.30	776,869.73	
5,988.0	1.50	219.00	5,986.3	2,340.3	16.5	47.0	16.4	0.04	446,718.35	776,868.19	
6,083.0	1.50	217.60	6,081.3	2,435.3	14.6	45.5	14.4	0.04	446,716.40	776,866.65	
6,177.0	1.20	226.30	6,175.3	2,529.3	12.9	44.0	12.8	0.39	446,714.74	776,865.19	
6,197.0	1.18	226.57	6,195.3	2,549.3	12.6	43.7	12.5	0.11	446,714.46	776,864.88	
Cherry Canyon											
6,272.0	1.10	227.70	6,270.2	2,624.2	11.6	42.6	11.5	0.11	446,713.44	776,863.79	
6,366.0	1.10	230.70	6,364.2	2,718.2	10.4	41.3	10.3	0.06	446,712.26	776,862.43	
6,462.0	0.90	233.00	6,460.2	2,814.2	9.4	39.9	9.3	0.21	446,711.23	776,861.11	
6,556.0	0.80	279.50	6,554.2	2,908.2	9.1	38.7	8.9	0.72	446,710.89	776,859.87	
6,652.0	1.00	293.70	6,650.2	3,004.2	9.5	37.3	9.4	0.31	446,711.34	776,858.45	
6,747.0	1.10	258.50	6,745.2	3,099.2	9.7	35.6	9.6	0.68	446,711.49	776,856.79	

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6,842.0	1.10	254.20	6,840.2	3,194.2	9.2	33.9	9.1	0.09	446,711.06	776,855.02	
6,937.0	1.00	260.40	6,935.1	3,289.1	8.9	32.2	8.8	0.16	446,710.67	776,853.33	
7,032.0	1.10	269.20	7,030.1	3,384.1	8.7	30.4	8.6	0.20	446,710.52	776,851.60	
7,125.0	1.60	265.20	7,123.1	3,477.1	8.6	28.3	8.5	0.55	446,710.40	776,849.41	
7,220.0	1.60	267.50	7,218.1	3,572.1	8.4	25.6	8.3	0.07	446,710.23	776,846.77	
7,315.0	1.50	260.30	7,313.0	3,667.0	8.1	23.1	8.1	0.23	446,709.97	776,844.21	
7,410.0	1.80	249.90	7,408.0	3,762.0	7.4	20.4	7.4	0.44	446,709.24	776,841.59	
7,504.0	1.60	238.90	7,501.9	3,855.9	6.2	17.9	6.2	0.41	446,708.06	776,839.08	
7,557.0	1.58	249.29	7,554.9	3,908.9	5.6	16.6	5.5	0.54	446,707.42	776,837.76	
Brushy Canyon											
7,599.0	1.60	257.50	7,596.9	3,950.9	5.3	15.5	5.2	0.54	446,707.09	776,836.65	
7,693.0	1.20	243.90	7,690.9	4,044.9	4.5	13.3	4.5	0.55	446,706.37	776,834.48	
7,781.0	1.40	298.00	7,778.9	4,132.9	4.6	11.5	4.6	1.36	446,706.47	776,832.71	
7,784.0	1.50	299.00	7,781.9	4,135.9	4.7	11.5	4.6	3.44	446,706.50	776,832.64	
7,800.0	1.40	208.10	7,797.9	4,151.9	4.6	11.2	4.6	12.92	446,706.43	776,832.36	
7,817.0	3.60	189.40	7,814.8	4,168.8	3.9	11.0	3.9	13.63	446,705.72	776,832.18	
7,839.0	5.50	189.10	7,836.8	4,190.8	2.2	10.7	2.1	8.64	446,704.00	776,831.90	
7,848.0	5.30	185.00	7,845.7	4,199.7	1.3	10.6	1.3	4.83	446,703.16	776,831.79	
7,880.0	4.30	173.30	7,877.6	4,231.6	-1.3	10.6	-1.4	4.36	446,700.50	776,831.81	
7,911.0	4.00	180.10	7,908.5	4,262.5	-3.6	10.8	-3.6	1.86	446,698.26	776,831.94	
7,943.0	4.30	197.20	7,940.5	4,294.5	-5.8	10.4	-5.9	3.96	446,696.00	776,831.58	
7,974.0	4.90	201.00	7,971.4	4,325.4	-8.2	9.6	-8.2	2.17	446,693.65	776,830.76	
8,069.0	5.10	199.50	8,066.0	4,420.0	-15.9	6.7	-16.0	0.25	446,685.89	776,827.90	
8,163.0	3.90	210.80	8,159.7	4,513.7	-22.6	3.7	-22.6	1.58	446,679.20	776,824.87	
8,259.0	3.10	226.40	8,255.5	4,609.5	-27.2	0.2	-27.2	1.29	446,674.61	776,821.32	
8,354.0	2.50	236.90	8,350.4	4,704.4	-30.1	-3.4	-30.1	0.83	446,671.70	776,817.72	
8,449.0	1.10	263.60	8,445.4	4,799.4	-31.4	-6.1	-31.3	1.68	446,670.47	776,815.08	

Company:	Murchison Oil and Gas						Local Co-ordinate Reference:		Well MOGI 9 State Com #4H		
Project:	Jackson Unit Section 9						TVD Reference:		WELL @ 3646.0usft (Original Well Elev)		
Site:	MOGI 9 State Com 4H						MD Reference:		WELL @ 3646.0usft (Original Well Elev)		
Well:	MOGI 9 State Com #4H						North Reference:		Grid		
Wellbore:	MOGI 9 State Com #4H						Survey Calculation Method:		Minimum Curvature		
Design:	MOGI 9 State Com #4H						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)	
8,541.0	1.10	344.20	8,537.4	4,891.4	-30.6	-7.2	-30.6	1.55	446,671.22	776,813.96	
8,634.0	2.10	352.10	8,630.3	4,984.3	-28.1	-7.7	-28.0	1.10	446,673.77	776,813.48	
8,727.0	1.00	34.00	8,723.3	5,077.3	-25.7	-7.5	-25.7	1.62	446,676.13	776,813.70	
8,822.0	1.40	214.30	8,818.3	5,172.3	-26.0	-7.6	-25.9	2.53	446,675.86	776,813.51	
8,917.0	1.80	216.50	8,913.2	5,267.2	-28.1	-9.2	-28.1	0.43	446,673.70	776,811.97	
9,011.0	1.10	225.50	9,007.2	5,361.2	-29.9	-10.7	-29.9	0.78	446,671.88	776,810.45	
9,105.0	1.00	216.00	9,101.2	5,455.2	-31.2	-11.8	-31.2	0.21	446,670.58	776,809.32	
9,113.0	0.91	218.06	9,109.2	5,463.2	-31.3	-11.9	-31.3	1.23	446,670.48	776,809.24	
Bone Spring											
9,200.0	0.40	320.20	9,196.2	5,550.2	-31.7	-12.5	-31.6	1.23	446,670.17	776,808.62	
9,242.0	0.83	357.53	9,238.2	5,592.2	-31.2	-12.6	-31.2	1.34	446,670.58	776,808.52	
Avalon Shale											
9,295.0	1.50	9.30	9,291.2	5,645.2	-30.2	-12.5	-30.1	1.34	446,671.65	776,808.61	
9,389.0	1.10	348.90	9,385.2	5,739.2	-28.1	-12.5	-28.0	0.64	446,673.75	776,808.64	
9,484.0	0.70	352.90	9,480.1	5,834.1	-26.6	-12.8	-26.6	0.43	446,675.22	776,808.39	
9,579.0	0.40	328.60	9,575.1	5,929.1	-25.7	-13.0	-25.7	0.39	446,676.08	776,808.15	
9,672.0	0.30	335.90	9,668.1	6,022.1	-25.2	-13.3	-25.2	0.12	446,676.58	776,807.88	
9,767.0	0.30	332.20	9,763.1	6,117.1	-24.8	-13.5	-24.8	0.02	446,677.03	776,807.66	
9,862.0	1.30	323.70	9,858.1	6,212.1	-23.7	-14.3	-23.7	1.06	446,678.11	776,806.91	
9,957.0	1.70	309.30	9,953.1	6,307.1	-21.9	-16.0	-21.9	0.58	446,679.87	776,805.18	
10,052.0	0.30	319.60	10,048.1	6,402.1	-20.9	-17.2	-20.8	1.48	446,680.96	776,803.93	
10,148.0	0.30	345.40	10,144.1	6,498.1	-20.4	-17.5	-20.4	0.14	446,681.39	776,803.70	
10,201.0	0.30	356.69	10,197.1	6,551.1	-20.2	-17.5	-20.1	0.11	446,681.66	776,803.66	
1st Bone Spring Sand											
10,242.0	0.30	5.40	10,238.1	6,592.1	-19.9	-17.5	-19.9	0.11	446,681.87	776,803.66	
10,337.0	0.50	9.60	10,333.1	6,687.1	-19.3	-17.4	-19.2	0.21	446,682.53	776,803.75	
10,430.0	0.20	350.10	10,426.1	6,780.1	-18.7	-17.4	-18.7	0.34	446,683.09	776,803.79	

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well MOGI 9 State Com #4H
Project:	Jackson Unit Section 9	TVD Reference:	WELL @ 3646.0usft (Original Well Elev)
Site:	MOGI 9 State Com 4H	MD Reference:	WELL @ 3646.0usft (Original Well Elev)
Well:	MOGI 9 State Com #4H	North Reference:	Grid
Wellbore:	MOGI 9 State Com #4H	Survey Calculation Method:	Minimum Curvature
Design:	MOGI 9 State Com #4H	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)	
10,525.0	0.40	42.30	10,521.1	6,875.1	-18.3	-17.2	-18.3	0.34	446,683.50	776,803.99	
10,620.0	0.50	73.50	10,616.1	6,970.1	-18.0	-16.6	-17.9	0.27	446,683.86	776,804.61	
10,689.0	1.80	5.90	10,685.0	7,039.0	-16.8	-16.2	-16.7	2.43	446,685.03	776,805.01	
10,733.0	3.29	6.35	10,729.0	7,083.0	-14.9	-15.9	-14.8	3.40	446,686.97	776,805.22	
7"											
10,742.0	3.60	6.40	10,738.0	7,092.0	-14.3	-15.9	-14.3	3.40	446,687.51	776,805.28	
10,774.0	3.40	8.40	10,769.9	7,123.9	-12.4	-15.6	-12.3	0.73	446,689.44	776,805.53	
10,805.0	5.70	359.10	10,800.8	7,154.8	-9.9	-15.5	-9.9	7.77	446,691.89	776,805.64	
10,836.0	9.80	352.10	10,831.5	7,185.5	-5.8	-15.9	-5.7	13.55	446,696.05	776,805.25	
10,868.0	14.10	350.60	10,862.8	7,216.8	0.8	-16.9	0.8	13.47	446,702.59	776,804.24	
10,899.0	19.10	349.50	10,892.5	7,246.5	9.5	-18.5	9.5	16.16	446,711.31	776,802.70	
10,930.0	25.00	348.90	10,921.3	7,275.3	20.9	-20.6	21.0	19.05	446,722.74	776,800.51	
10,936.0	25.83	348.73	10,926.7	7,280.7	23.4	-21.1	23.5	13.92	446,725.26	776,800.01	
2nd Bone Spring Sand											
10,961.0	29.30	348.10	10,948.8	7,302.8	34.8	-23.5	34.8	13.92	446,736.59	776,797.69	
10,993.0	33.60	349.60	10,976.1	7,330.1	51.2	-26.7	51.2	13.66	446,752.97	776,794.47	
11,024.0	39.00	351.40	11,001.1	7,355.1	69.2	-29.7	69.3	17.75	446,771.07	776,791.46	
11,056.0	43.70	354.00	11,025.1	7,379.1	90.2	-32.4	90.3	15.64	446,792.03	776,788.80	
11,088.0	45.40	354.70	11,047.9	7,401.9	112.5	-34.6	112.7	5.53	446,814.37	776,786.59	
11,119.0	47.10	356.80	11,069.4	7,423.4	134.9	-36.2	135.0	7.35	446,836.70	776,784.94	
11,150.0	48.80	358.30	11,090.1	7,444.1	157.9	-37.2	158.0	6.56	446,859.70	776,783.96	
11,181.0	52.50	2.30	11,109.8	7,463.8	181.8	-37.1	181.9	15.55	446,883.65	776,784.11	
11,213.0	54.10	3.90	11,128.9	7,482.9	207.4	-35.7	207.6	6.41	446,909.27	776,785.50	
11,245.0	57.80	6.20	11,146.8	7,500.8	233.9	-33.3	234.0	13.00	446,935.67	776,787.84	
11,276.0	61.90	7.10	11,162.4	7,516.4	260.5	-30.2	260.6	13.46	446,962.29	776,790.95	
11,307.0	67.70	7.80	11,175.6	7,529.6	288.3	-26.6	288.4	18.82	446,990.09	776,794.59	
11,339.0	73.30	8.70	11,186.3	7,540.3	318.1	-22.2	318.2	17.70	447,019.93	776,798.92	

Company: Murchison Oil and Gas		Local Co-ordinate Reference: Well MOGI 9 State Com #4H	
Project: Jackson Unit Section 9		TVD Reference: WELL @ 3646.0usft (Original Well Elev)	
Site: MOGI 9 State Com 4H		MD Reference: WELL @ 3646.0usft (Original Well Elev)	
Well: MOGI 9 State Com #4H		North Reference: Grid	
Wellbore: MOGI 9 State Com #4H		Survey Calculation Method: Minimum Curvature	
Design: MOGI 9 State Com #4H		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)
11,370.0	78.20	10.20	11,193.9	7,547.9	347.7	-17.3	347.8	16.49	447,049.56	776,803.86
11,402.0	78.40	10.40	11,200.4	7,554.4	378.6	-11.7	378.6	0.87	447,080.39	776,809.46
11,434.0	80.30	10.50	11,206.3	7,560.3	409.5	-6.0	409.5	5.95	447,111.32	776,815.16
11,465.0	80.60	10.70	11,211.4	7,565.4	439.5	-0.4	439.5	1.16	447,141.36	776,820.79
11,496.0	80.20	11.00	11,216.6	7,570.6	469.6	5.4	469.5	1.60	447,171.38	776,826.54
11,528.0	82.30	9.80	11,221.5	7,575.5	500.7	11.1	500.6	7.54	447,202.49	776,832.25
11,560.0	85.70	7.30	11,224.8	7,578.8	532.1	15.8	532.1	13.16	447,233.95	776,836.98
11,591.0	87.90	5.60	11,226.5	7,580.5	562.9	19.3	562.8	8.96	447,264.71	776,840.45
11,625.0	87.40	5.60	11,227.9	7,581.9	596.7	22.6	596.6	1.47	447,298.52	776,843.77
11,656.0	87.30	5.40	11,229.4	7,583.4	627.5	25.6	627.4	0.72	447,329.34	776,846.74
11,751.0	89.00	358.40	11,232.4	7,586.4	722.4	28.7	722.3	7.58	447,424.18	776,849.88
11,846.0	89.40	357.60	11,233.8	7,587.8	817.3	25.4	817.2	0.94	447,519.11	776,846.56
11,940.0	91.60	357.80	11,233.0	7,587.0	911.2	21.6	911.1	2.35	447,613.02	776,842.79
12,034.0	92.60	1.00	11,229.5	7,583.5	1,005.1	20.6	1,005.0	3.56	447,706.94	776,841.81
12,066.0	92.40	1.00	11,228.1	7,582.1	1,037.1	21.2	1,037.0	0.62	447,738.90	776,842.36
12,097.0	90.20	2.00	11,227.4	7,581.4	1,068.1	22.0	1,068.0	7.80	447,769.88	776,843.18
12,129.0	88.40	2.70	11,227.8	7,581.8	1,100.0	23.3	1,100.0	6.04	447,801.85	776,844.49
12,160.0	87.60	1.40	11,228.9	7,582.9	1,131.0	24.4	1,130.9	4.92	447,832.81	776,845.60
12,192.0	87.90	0.10	11,230.1	7,584.1	1,163.0	24.9	1,162.9	4.17	447,864.79	776,846.01
12,223.0	89.40	359.50	11,230.9	7,584.9	1,194.0	24.7	1,193.9	5.21	447,895.78	776,845.91
12,254.0	90.20	358.70	11,231.0	7,585.0	1,224.9	24.3	1,224.9	3.65	447,926.77	776,845.42
12,286.0	90.40	358.20	11,230.8	7,584.8	1,256.9	23.4	1,256.9	1.68	447,958.76	776,844.55
12,317.0	90.30	358.40	11,230.6	7,584.6	1,287.9	22.5	1,287.8	0.72	447,989.74	776,843.63
12,349.0	90.30	358.80	11,230.5	7,584.5	1,319.9	21.7	1,319.8	1.25	448,021.73	776,842.85
12,380.0	90.20	359.50	11,230.3	7,584.3	1,350.9	21.2	1,350.8	2.28	448,052.73	776,842.39
12,412.0	90.10	359.20	11,230.2	7,584.2	1,382.9	20.9	1,382.8	0.99	448,084.73	776,842.03
12,444.0	89.90	358.90	11,230.2	7,584.2	1,414.9	20.3	1,414.8	1.13	448,116.72	776,841.50

Company: Murchison Oil and Gas			Local Co-ordinate Reference:					Well MOGI 9 State Com #4H					
Project: Jackson Unit Section 9								TVD Reference:			WELL @ 3646.0usft (Original Well Elev)		
Site: MOGI 9 State Com 4H								MD Reference:			WELL @ 3646.0usft (Original Well Elev)		
Well: MOGI 9 State Com #4H								North Reference:			Grid		
Wellbore: MOGI 9 State Com #4H								Survey Calculation Method:			Minimum Curvature		
Design: MOGI 9 State Com #4H								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)			
12,475.0	90.30	358.70	11,230.2	7,584.2	1,445.9	19.7	1,445.8	1.44	448,147.72	776,840.85			
12,507.0	90.40	359.40	11,230.0	7,584.0	1,477.9	19.2	1,477.8	2.21	448,179.71	776,840.32			
12,539.0	89.60	359.00	11,230.0	7,584.0	1,509.9	18.7	1,509.8	2.80	448,211.71	776,839.87			
12,570.0	89.10	359.10	11,230.3	7,584.3	1,540.9	18.2	1,540.8	1.64	448,242.70	776,839.36			
12,602.0	89.20	359.30	11,230.8	7,584.8	1,572.9	17.8	1,572.8	0.70	448,274.70	776,838.91			
12,633.0	89.40	359.20	11,231.2	7,585.2	1,603.9	17.3	1,603.8	0.72	448,305.69	776,838.51			
12,665.0	87.40	359.80	11,232.1	7,586.1	1,635.9	17.1	1,635.8	6.52	448,337.67	776,838.23			
12,696.0	87.60	359.70	11,233.4	7,587.4	1,666.8	16.9	1,666.8	0.72	448,368.65	776,838.09			
12,728.0	88.20	0.10	11,234.6	7,588.6	1,698.8	16.9	1,698.7	2.25	448,400.62	776,838.04			
12,758.0	88.40	0.10	11,235.5	7,589.5	1,728.8	16.9	1,728.7	0.67	448,430.61	776,838.09			
12,789.0	89.50	359.80	11,236.1	7,590.1	1,759.8	16.9	1,759.7	3.68	448,461.60	776,838.06			
12,821.0	89.70	0.50	11,236.3	7,590.3	1,791.8	17.0	1,791.7	2.27	448,493.60	776,838.15			
12,853.0	89.90	0.10	11,236.4	7,590.4	1,823.8	17.2	1,823.7	1.40	448,525.60	776,838.31			
12,884.0	89.20	359.80	11,236.6	7,590.6	1,854.8	17.1	1,854.7	2.46	448,556.60	776,838.29			
12,916.0	88.60	359.50	11,237.3	7,591.3	1,886.8	16.9	1,886.7	2.10	448,588.59	776,838.09			
12,947.0	88.70	359.00	11,238.0	7,592.0	1,917.8	16.5	1,917.7	1.64	448,619.58	776,837.68			
12,978.0	89.20	359.00	11,238.6	7,592.6	1,948.8	16.0	1,948.7	1.61	448,650.57	776,837.14			
13,010.0	89.60	359.10	11,238.9	7,592.9	1,980.7	15.5	1,980.7	1.29	448,682.57	776,836.61			
13,042.0	89.90	358.80	11,239.0	7,593.0	2,012.7	14.9	2,012.7	1.33	448,714.56	776,836.03			
13,073.0	89.90	358.50	11,239.1	7,593.1	2,043.7	14.1	2,043.7	0.97	448,745.55	776,835.30			
13,105.0	89.60	357.90	11,239.2	7,593.2	2,075.7	13.1	2,075.7	2.10	448,777.54	776,834.29			
13,137.0	89.50	357.80	11,239.5	7,593.5	2,107.7	11.9	2,107.6	0.44	448,809.51	776,833.09			
13,168.0	90.00	358.40	11,239.6	7,593.6	2,138.7	10.9	2,138.6	2.52	448,840.50	776,832.06			
13,200.0	90.20	357.80	11,239.6	7,593.6	2,170.7	9.8	2,170.6	1.98	448,872.48	776,831.00			
13,231.0	89.40	358.40	11,239.7	7,593.7	2,201.6	8.8	2,201.6	3.23	448,903.46	776,829.97			
13,263.0	89.50	358.50	11,240.0	7,594.0	2,233.6	7.9	2,233.6	0.44	448,935.45	776,829.11			
13,295.0	89.60	358.20	11,240.2	7,594.2	2,265.6	7.0	2,265.6	0.99	448,967.43	776,828.19			

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well MOGI 9 State Com #4H
Project:	Jackson Unit Section 9	TVD Reference:	WELL @ 3646.0usft (Original Well Elev)
Site:	MOGI 9 State Com 4H	MD Reference:	WELL @ 3646.0usft (Original Well Elev)
Well:	MOGI 9 State Com #4H	North Reference:	Grid
Wellbore:	MOGI 9 State Com #4H	Survey Calculation Method:	Minimum Curvature
Design:	MOGI 9 State Com #4H	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)	
13,326.0	89.90	358.40	11,240.4	7,594.4	2,296.6	6.1	2,296.6	1.16	448,998.42	776,827.27	
13,358.0	89.80	358.40	11,240.4	7,594.4	2,328.6	5.2	2,328.6	0.31	449,030.41	776,826.37	
13,390.0	89.70	359.00	11,240.6	7,594.6	2,360.6	4.5	2,360.6	1.90	449,062.40	776,825.65	
13,421.0	89.40	359.80	11,240.8	7,594.8	2,391.6	4.2	2,391.5	2.76	449,093.39	776,825.32	
13,453.0	89.70	0.30	11,241.1	7,595.1	2,423.6	4.2	2,423.5	1.82	449,125.39	776,825.35	
13,484.0	89.40	0.50	11,241.3	7,595.3	2,454.6	4.4	2,454.5	1.16	449,156.39	776,825.57	
13,516.0	89.30	0.30	11,241.7	7,595.7	2,486.6	4.6	2,486.5	0.70	449,188.39	776,825.79	
13,548.0	89.50	0.30	11,242.0	7,596.0	2,518.6	4.8	2,518.5	0.62	449,220.39	776,825.96	
13,579.0	89.40	0.80	11,242.3	7,596.3	2,549.6	5.1	2,549.5	1.64	449,251.38	776,826.26	
13,643.0	89.60	359.90	11,242.9	7,596.9	2,613.6	5.5	2,613.5	1.44	449,315.38	776,826.65	
13,690.0	90.20	359.00	11,243.0	7,597.0	2,660.6	5.0	2,660.5	2.30	449,362.38	776,826.20	
13,736.0	90.10	359.10	11,242.8	7,596.8	2,706.5	4.3	2,706.5	0.31	449,408.37	776,825.43	
13,768.0	90.00	359.00	11,242.8	7,596.8	2,738.5	3.7	2,738.5	0.44	449,440.37	776,824.90	
13,831.0	88.40	358.90	11,243.7	7,597.7	2,801.5	2.6	2,801.5	2.54	449,503.35	776,823.75	
13,878.0	88.30	358.40	11,245.0	7,599.0	2,848.5	1.5	2,848.5	1.08	449,550.31	776,822.64	
13,926.0	88.80	358.70	11,246.3	7,600.3	2,896.5	0.3	2,896.4	1.21	449,598.28	776,821.43	
13,958.0	89.10	358.30	11,246.8	7,600.8	2,928.4	-0.6	2,928.4	1.56	449,630.27	776,820.59	
14,020.0	89.90	358.30	11,247.4	7,601.4	2,990.4	-2.4	2,990.4	1.29	449,692.24	776,818.75	
14,067.0	89.40	358.40	11,247.7	7,601.7	3,037.4	-3.8	3,037.4	1.08	449,739.22	776,817.40	
14,115.0	89.10	358.80	11,248.3	7,602.3	3,085.4	-4.9	3,085.4	1.04	449,787.20	776,816.22	
14,164.0	88.80	358.70	11,249.2	7,603.2	3,134.4	-6.0	3,134.4	0.65	449,836.18	776,815.16	
14,209.0	88.80	358.60	11,250.1	7,604.1	3,179.3	-7.1	3,179.3	0.22	449,881.15	776,814.10	
14,258.0	89.30	359.00	11,250.9	7,604.9	3,228.3	-8.1	3,228.3	1.31	449,930.14	776,813.07	
14,303.0	89.20	359.30	11,251.5	7,605.5	3,273.3	-8.8	3,273.3	0.70	449,975.13	776,812.40	
14,350.0	89.60	359.70	11,252.0	7,606.0	3,320.3	-9.2	3,320.3	1.20	450,022.12	776,811.99	
14,398.0	90.30	0.50	11,252.1	7,606.1	3,368.3	-9.1	3,368.3	2.21	450,070.12	776,812.08	
14,441.0	90.10	359.70	11,251.9	7,605.9	3,411.3	-9.0	3,411.3	1.92	450,113.12	776,812.15	

Company:	Murchison Oil and Gas					Local Co-ordinate Reference:			Well MOGI 9 State Com #4H		
Project:	Jackson Unit Section 9					TVD Reference:			WELL @ 3646.0usft (Original Well Elev)		
Site:	MOGI 9 State Com 4H					MD Reference:			WELL @ 3646.0usft (Original Well Elev)		
Well:	MOGI 9 State Com #4H					North Reference:			Grid		
Wellbore:	MOGI 9 State Com #4H					Survey Calculation Method:			Minimum Curvature		
Design:	MOGI 9 State Com #4H					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)	
14,492.0	89.80	1.30	11,252.0	7,606.0	3,462.3	-8.6	3,462.3	3.19	450,164.12	776,812.60	
14,586.0	89.00	1.70	11,253.0	7,607.0	3,556.3	-6.1	3,556.3	0.95	450,258.08	776,815.06	
14,617.0	88.70	2.20	11,253.6	7,607.6	3,587.2	-5.0	3,587.2	1.88	450,289.06	776,816.11	
14,649.0	88.90	1.70	11,254.2	7,608.2	3,619.2	-4.0	3,619.2	1.68	450,321.03	776,817.20	
14,681.0	88.80	1.60	11,254.9	7,608.9	3,651.2	-3.0	3,651.2	0.44	450,353.01	776,818.12	
14,713.0	89.20	1.90	11,255.4	7,609.4	3,683.2	-2.1	3,683.2	1.56	450,384.99	776,819.10	
14,744.0	89.30	1.50	11,255.8	7,609.8	3,714.2	-1.1	3,714.1	1.33	450,415.97	776,820.02	
14,775.0	87.70	2.10	11,256.7	7,610.7	3,745.1	-0.2	3,745.1	5.51	450,446.95	776,820.99	
14,807.0	88.00	1.90	11,257.9	7,611.9	3,777.1	0.9	3,777.1	1.13	450,478.90	776,822.11	
14,838.0	88.00	2.00	11,258.9	7,612.9	3,808.0	2.0	3,808.0	0.32	450,509.87	776,823.16	
14,869.0	87.70	1.90	11,260.1	7,614.1	3,839.0	3.1	3,839.0	1.02	450,540.83	776,824.22	
14,901.0	87.70	1.50	11,261.4	7,615.4	3,871.0	4.0	3,870.9	1.25	450,572.79	776,825.16	
14,933.0	88.00	1.60	11,262.6	7,616.6	3,902.9	4.9	3,902.9	0.99	450,604.75	776,826.03	
14,964.0	88.10	1.60	11,263.6	7,617.6	3,933.9	5.7	3,933.9	0.32	450,635.72	776,826.89	
14,996.0	88.70	1.00	11,264.5	7,618.5	3,965.9	6.5	3,965.8	2.65	450,667.70	776,827.62	
15,027.0	89.80	359.80	11,264.9	7,618.9	3,996.9	6.7	3,996.8	5.25	450,698.70	776,827.84	
15,059.0	89.90	359.80	11,265.0	7,619.0	4,028.9	6.6	4,028.8	0.31	450,730.70	776,827.72	
15,110.0	90.00	358.80	11,265.1	7,619.1	4,079.9	5.9	4,079.8	1.97	450,781.69	776,827.10	
15,154.0	90.10	359.10	11,265.0	7,619.0	4,123.9	5.1	4,123.8	0.72	450,825.69	776,826.30	
15,199.0	90.10	358.90	11,265.0	7,619.0	4,168.9	4.3	4,168.8	0.44	450,870.68	776,825.51	
15,249.0	90.50	358.20	11,264.7	7,618.7	4,218.8	3.1	4,218.8	1.61	450,920.66	776,824.24	
15,299.0	90.70	358.20	11,264.2	7,618.2	4,268.8	1.5	4,268.8	0.40	450,970.63	776,822.67	
15,343.0	90.90	357.70	11,263.6	7,617.6	4,312.8	-0.1	4,312.8	1.22	451,014.60	776,821.10	
15,438.0	90.80	357.30	11,262.1	7,616.1	4,407.7	-4.2	4,407.7	0.43	451,109.50	776,816.96	
15,533.0	91.70	356.70	11,260.1	7,614.1	4,502.5	-9.2	4,502.5	1.14	451,204.35	776,811.99	
15,628.0	92.20	356.10	11,256.8	7,610.8	4,597.3	-15.1	4,597.3	0.82	451,299.10	776,806.02	
15,654.0	92.60	355.90	11,255.8	7,609.8	4,623.2	-16.9	4,623.2	1.72	451,325.02	776,804.21	

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Site:	MOGI 9 State Com 4H	MD Reference:	WELL @ 3646.0usft (Original Well Elev)
Well:	MOGI 9 State Com #4H	North Reference:	Grid
Wellbore:	MOGI 9 State Com #4H	Survey Calculation Method:	Minimum Curvature
Design:	MOGI 9 State Com #4H	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)
15,697.0	92.60	355.90	11,253.8	7,607.8	4,666.0	-20.0	4,666.1	0.00	451,367.86	776,801.14
Last survey point is a projection to the bit										
15,699.0	92.60	355.90	11,253.7	7,607.7	4,668.0	-20.2	4,668.1	0.00	451,369.86	776,801.00

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,340.0	1,340.0	13 3/8"	13-3/8	16	
10,733.0	10,729.0	7"	7	8-1/2	
5,258.0	5,256.5	9 5/8"	9-5/8	12-1/4	
15,697.0	11,253.8	4 1/2"	4-1/2	6-1/8	

Formations				
Measured Depth (usft)	Vertical Depth (usft)	Name	Dip (°)	
9,242.0	9,238.2	Avalon Shale	0.00	
1,285.0	1,285.0	Rustler	0.00	
7,557.0	7,554.9	Brushy Canyon	0.00	
10,201.0	10,197.1	1st Bone Spring Sand	0.00	
5,238.0	5,236.6	Delaware	0.00	
10,936.0	10,926.7	2nd Bone Spring Sand	0.00	
6,197.0	6,195.3	Cherry Canyon	0.00	
9,113.0	9,109.2	Bone Spring	0.00	

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Well:	MOGI 9 State Com #4H	North Reference:	Grid
Wellbore:	MOGI 9 State Com #4H	Survey Calculation Method:	Minimum Curvature
Design:	MOGI 9 State Com #4H	Database:	EDM 5000.1 Single User Db

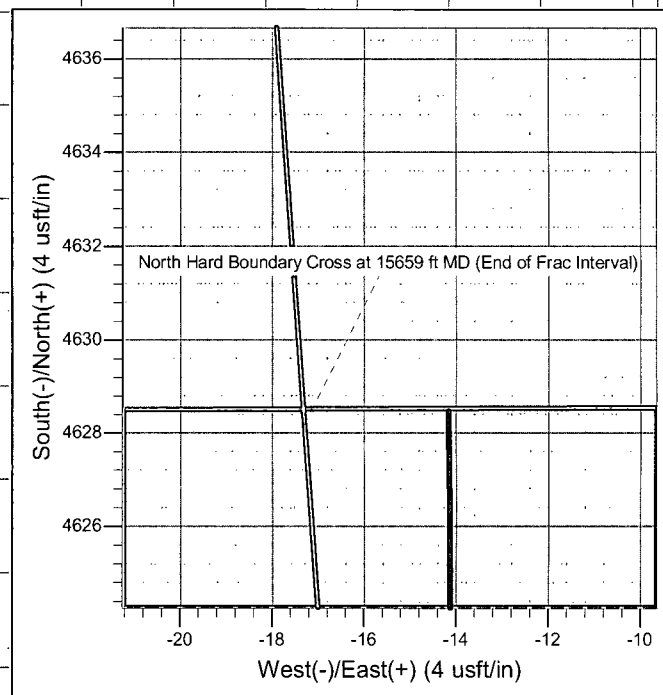
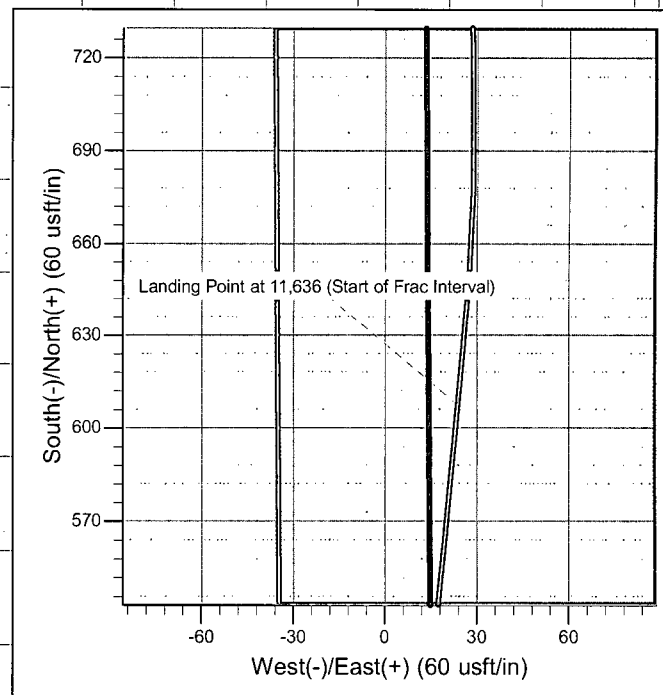
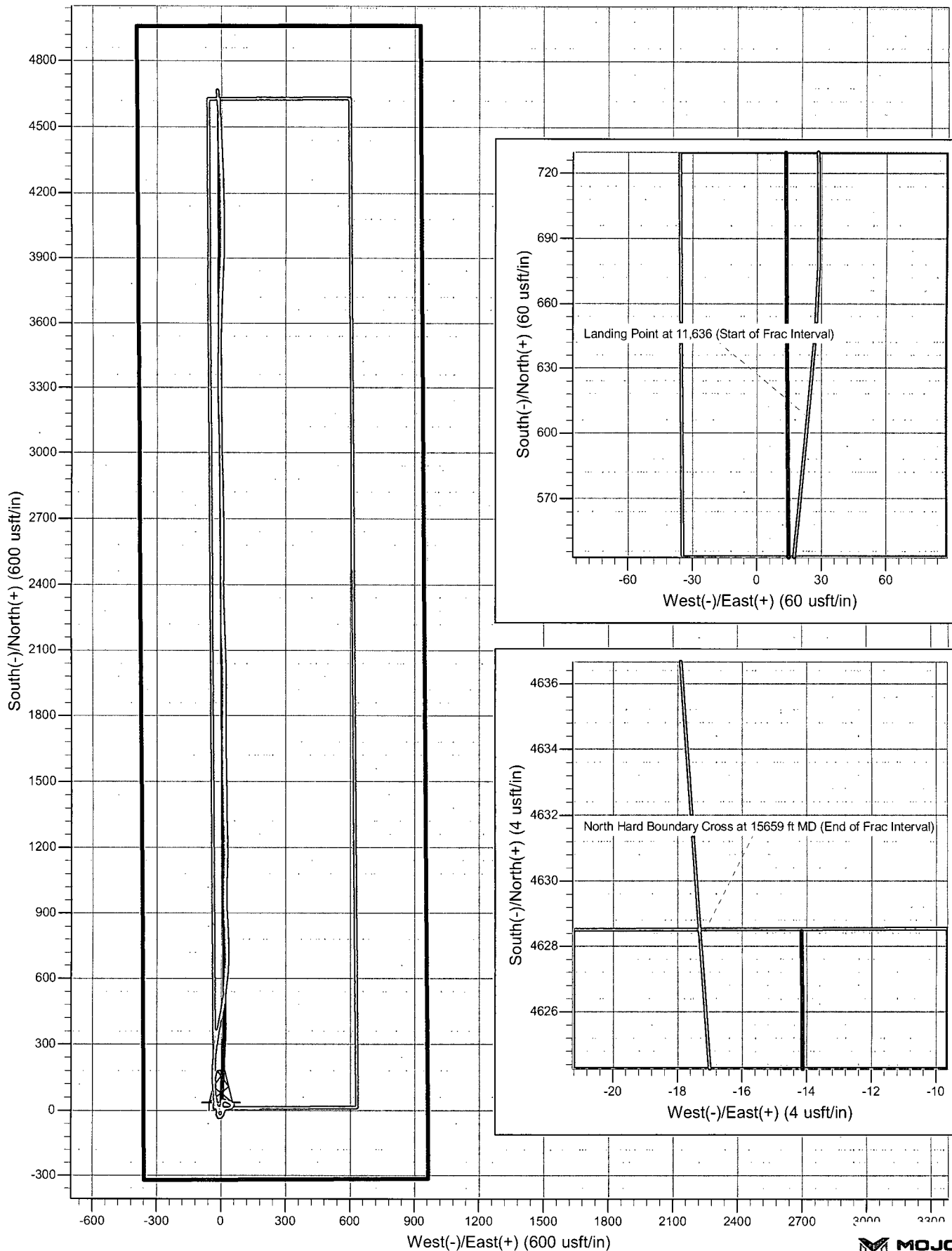
Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,636.0	11,228.4	607.6	23.7	Landing Point at 11636 ft MD (Start of Frac Interval)
15,659.0	11,255.5	4,628.2	-17.3	North Hard Boundary Cross at 15659 ft MD (End of Frac Interval)

Checked By: _____	Approved By: _____	Date: _____
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Project: Jackson Unit Section 9
 Site: MOGI 9 State Com 4H
 Well: MOGI 9 State Com #4H
 Wellbore: MOGI 9 State Com #4H
 Design: MOGI 9 State Com #4H



Azimuths to Grid North
 True North: -0.41°
 Magnetic North: 6.97°
 Magnetic Field
 Strength: 48442.1nT
 Dip Angle: 60.15°
 Date: 11/03/2013
 Model: IGRF2010



Project: Jackson Unit Section 9
 Site: MOGI 9 State Com 4H
 Well: MOGI 9 State Com #4H
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 **MURCHISON OIL & GAS, INC.**



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 True North: -0.41°
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