

KAMBI TEXAS MWD SURVEY REPORT

Calculation Method	Minimum Curvature
Proposed Azimuth	284.35
WELL API #	
Tie Into:	Surface

[illegible]

Regards,


Roy Wakefield
VP Operations, USA

[illegible]

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 03 2014

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KAMBI TEXAS MWD SURVEY REPORT

Company: Lime Rock
Well: Kaiser B-18B-#16
Location: Eddy County NM
Rig: UDI Rig # 33

Job Number:	14088
Magnetic Decl.:	7.74
Grid Corr.:	
Total Grid Corr.:	

Calculation Method	Minimum Curvature
Proposed Azimuth	284.35
WELL API #	
Tie Into:	Surface

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')		
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)				
33	MWD	2675.00	0.20	289.60	96	2669.62	101.49	29.62	N	97.18	W	101.59	286.95	0.22	-0.21
34	MWD	2770.00	0.10	5.90	95	2764.62	101.67	29.76	N	97.33	W	101.78	287.00	0.21	-0.11
35	MWD	2807.00	0.40	280.90	37	2801.62	101.80	29.82	N	97.45	W	101.91	287.01	1.09	0.81
36	MWD	2902.00	0.10	268.40	95	2896.62	102.21	29.88	N	97.86	W	102.32	286.98	0.32	-0.32
37	MWD	2998.00	0.70	149.10	96	2992.62	101.87	29.37	N	97.64	W	101.96	286.74	0.79	0.63
38	MWD	3095.00	1.20	142.00	97	3089.60	100.65	28.06	N	96.71	W	100.70	286.18	0.53	0.52
39	MWD	3191.00	1.10	238.70	96	3185.59	100.50	26.79	N	96.88	W	100.52	285.46	1.79	-0.10
40	MWD	3223.00	1.40	247.40	32	3217.59	101.03	26.48	N	97.50	W	101.04	285.20	1.11	0.94
41	MWD	3287.00	1.00	294.50	64	3281.57	102.20	26.41	N	98.73	W	102.21	284.98	1.60	-0.63
42	MWD	3351.00	1.40	312.00	64	3345.56	103.44	27.17	N	99.82	W	103.45	285.23	0.84	0.63
43	MWD	3479.00	1.10	351.70	128	3473.53	105.30	29.43	N	101.16	W	105.36	286.22	0.70	-0.23
44	MWD	3543.00	1.30	49.80	64	3537.52	105.12	30.51	N	100.70	W	105.22	286.86	1.84	0.31
45	MWD	3607.00	0.30	67.80	64	3601.51	104.56	31.04	N	99.99	W	104.69	287.25	1.59	-1.56
46	MWD	3671.00	0.20	180.80	64	3665.51	104.40	30.99	N	99.83	W	104.53	287.25	0.66	-0.16
47	MWD	3766.00	0.70	65.50	95	3760.51	103.91	31.07	N	99.31	W	104.05	287.37	0.85	0.53
48	MWD	3830.00	0.70	260.00	64	3824.51	103.96	31.16	N	99.34	W	104.11	287.42	2.17	0.00
49	MWD	3895.00	2.10	355.00	65	3889.49	104.72	32.28	N	99.83	W	104.92	287.92	3.49	2.15
50	MWD	3990.00	2.20	339.50	95	3984.43	106.34	35.72	N	100.62	W	106.77	289.54	0.62	0.11
51	MWD	4087.00	2.70	60.00	97	4081.36	105.77	38.61	N	99.30	W	106.54	291.25	3.29	0.52
52	MWD	4150.00	3.40	77.80	63	4144.27	103.03	39.74	N	96.18	W	104.07	292.45	1.86	1.11
53	MWD	4249.00	2.40	112.50	99	4243.15	98.35	39.57	N	91.40	W	99.60	293.41	1.99	-1.01
54	MWD	4342.00	2.60	193.20	93	4336.09	96.38	36.77	N	90.08	W	97.30	292.21	3.48	0.22
55	MWD	4438.00	2.60	194.20	96	4431.99	96.33	32.54	N	91.11	W	96.75	289.65	0.05	0.00
56	MWD	4534.00	1.40	210.60	96	4527.93	96.66	29.42	N	92.24	W	96.82	287.69	1.37	-1.25
57	MWD	4657.00	1.20	200.00	123	4650.90	97.20	26.92	N	93.45	W	97.25	286.07	0.25	-0.16
58	PJTBIT	4700.00	1.20	200.00	43	4693.89	97.29	26.07	N	93.76	W	97.31	285.54	0.00	0.00

~~Limerock-Kaiser B 18B #18 UDI 33 surveys~~

KAMBI TEXAS MWD SURVEY REPORT

Company:	Lime Rock	Job Number:	14088
Well:	Kaiser B-18B-#16	Magnetic Decl.:	7.74
Location:	Eddy County NM	Grid Corr.:	
Rig:	UDI Rig # 33	Total Grid Corr.:	

Calculation Method	Minimum Curvature
Proposed Azimuth	284.35
WELL API #	
Tie Into:	Surface

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)		
Tie	GL	0	0.00	0.00	0	0	0	0	0	0	0	0	0
1	MWD	470.00	1.10	295.50	470	469.97	4.43	1.94 N	4.07 W	4.51	295.50	0.23	0.23
2	MWD	528.00	2.60	308.90	58	527.94	6.17	3.01 N	5.60 W	6.36	298.25	2.67	2.59
3	MWD	625.00	3.40	311.00	97	624.81	10.74	6.28 N	9.48 W	11.37	303.50	0.83	0.82
4	MWD	689.00	4.70	303.60	64	688.65	14.91	8.97 N	13.10 W	15.88	304.41	2.19	2.03
5	MWD	753.00	7.40	295.80	64	752.28	21.43	12.22 N	18.99 W	22.58	302.75	4.40	4.22
6	MWD	817.00	8.60	297.90	64	815.66	30.12	16.25 N	26.93 W	31.46	301.11	1.93	1.88
7	MWD	946.00	8.20	294.30	129	943.28	48.56	24.55 N	43.84 W	50.25	299.25	0.51	-0.31
8	MWD	979.00	7.60	290.20	33	975.96	53.05	26.27 N	48.04 W	54.75	298.68	2.49	-1.82
9	MWD	1011.00	7.50	288.50	32	1007.69	57.24	27.67 N	52.00 W	58.90	298.01	0.76	-0.31
10	MWD	1106.00	6.50	282.40	95	1101.98	68.79	30.79 N	63.13 W	70.24	296.00	1.31	-1.05
11	MWD	1170.00	6.30	280.40	64	1165.58	75.92	32.20 N	70.13 W	77.16	294.66	0.47	-0.31
12	MWD	1203.00	6.10	280.30	33	1198.39	79.47	32.84 N	73.63 W	80.62	294.04	0.61	-0.61
13	MWD	1267.00	4.40	276.40	64	1262.12	85.30	33.72 N	79.42 W	86.28	293.01	2.71	-2.66
14	MWD	1330.00	2.40	277.50	63	1325.00	89.00	34.16 N	83.13 W	89.87	292.34	3.18	-3.17
15	MWD	1394.00	3.00	270.50	64	1388.93	91.96	34.35 N	86.13 W	92.73	291.74	1.07	0.94
16	MWD	1458.00	2.40	277.50	64	1452.86	94.91	34.54 N	89.13 W	95.59	291.18	1.07	-0.94
17	MWD	1522.00	2.80	238.80	64	1516.80	97.34	33.91 N	91.80 W	97.86	290.27	2.76	0.63
18	MWD	1585.00	2.50	185.90	63	1579.74	98.21	31.74 N	93.26 W	98.51	288.80	3.77	-0.48
19	MWD	1649.00	1.50	141.90	64	1643.70	97.35	29.70 N	92.88 W	97.51	287.73	2.75	-1.56
20	MWD	1713.00	1.10	99.30	64	1707.69	96.07	28.94 N	91.76 W	96.21	287.50	1.59	-0.63
21	MWD	1746.00	1.10	96.10	33	1740.68	95.44	28.85 N	91.13 W	95.59	287.57	0.19	0.00
22	MWD	1778.00	1.40	95.30	32	1772.67	94.75	28.78 N	90.44 W	94.91	287.65	0.94	0.94
23	MWD	1841.00	0.50	244.00	63	1835.67	94.20	28.59 N	89.92 W	94.36	287.64	2.93	-1.43
24	MWD	1906.00	0.90	269.60	65	1900.66	94.91	28.46 N	90.68 W	95.05	287.43	0.77	0.62
25	MWD	1970.00	1.00	269.90	64	1964.66	95.94	28.46 N	91.75 W	96.06	287.23	0.16	0.16
26	MWD	2066.00	0.90	277.50	96	2060.64	97.50	28.56 N	93.33 W	97.60	287.01	0.17	-0.10
27	MWD	2131.00	0.80	285.70	65	2125.63	98.46	28.75 N	94.27 W	98.56	286.96	0.24	-0.15
28	MWD	2194.00	0.60	295.10	63	2188.63	99.22	29.00 N	95.00 W	99.32	286.98	0.37	-0.32
29	MWD	2291.00	0.30	308.40	97	2285.63	99.95	29.38 N	95.65 W	100.06	287.07	0.33	-0.31
30	MWD	2387.00	0.30	214.00	96	2381.63	100.27	29.33 N	95.99 W	100.37	286.99	0.46	0.00
31	MWD	2484.00	0.20	288.20	97	2478.63	100.52	29.17 N	96.29 W	100.62	286.85	0.32	-0.10
32	MWD	2579.00	0.40	301.40	95	2573.62	101.00	29.39 N	96.74 W	101.10	286.90	0.22	0.21

Limerock-Kaiser B 18B #16 UDI 33 surveys