



7821 Will Rogers Blvd.
Fort Worth, Texas 76140
817.568.1038 (office)
817.568.1499 (fax)
www.msdir.com

MS Directional Survey Data Certification

MS Directional Job Number: MSMO-65025
Survey Type: MWD
Operating Company: Kaiser-Francis Oil Company
Well Name & Number: Bell Lake Unit South #112H
Location: ~~LEA~~ Eddy County, NM
API Number: 30-025-45858
Tie In Depth: 1,340' MD
Surveyed Depths: 1,452' – 18,068' MD
Projected TD Survey: 18,128' MD
Dates Performed: 05/14/2019 – 05/31/2019

HOBBS OCD
AUG 29 2019
RECEIVED

I certify that the data is true, correct and complete and within the limitations of the tool set forth by MS Directional; that I am authorized and qualified to make this report and that I have reviewed this report and find it conforms to the principles and procedures as set forth by MS Directional.

Digitally signed by:

MWD Surveyor Name: Dereck Scott

Date: 06-24-2019

Email: Dereck.Scott@msdir.com

CONFIDENTIALITY NOTICE: This document contains MS Directional's proprietary and confidential information and may not be copied, published, distributed or transmitted, in whole or in part, by any medium or in any form without MS Directional's prior written consent. The information contained in this document is not to be used by or disclosed to any individuals other than those who need to know such information and who have been given notice that such information is proprietary and confidential.

V09.04.02

Company:	Kaiser-Francis Oil Company
Well Name:	Bell Lake Unit South #112H
Location:	Eddy County, NM
Rig:	Cactus #171
Job Number:	MSMO-65025
API #:	30-025-45858

Magnetic Declination: 6.21 REFERENCED TO GRID NORTH

Vertical Section Azimuth: 179.11 Proposed Direction: 179.11

Survey Calculation Method: Minimum Curvature

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS				
	18,128	93.3	178.2	10186.22	-8175.49	115.16	8176.3				
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
TIE IN	1,340	0.30	313.00	1339.91	5.35	6.57		8.47	50.84		
1	1,452	0.30	22.00	1451.91	5.82	6.47	-5.72	8.70	48.00	0.30	0.00
2	1,545	0.70	331.90	1544.91	6.55	6.29	-6.45	9.08	43.84	0.60	0.43
3	1,639	0.70	20.20	1638.90	7.59	6.22	-7.50	9.81	39.31	0.61	0.00
4	1,733	0.60	21.90	1732.89	8.59	6.60	-8.49	10.83	37.53	0.11	-0.11
5	1,827	0.20	342.60	1826.89	9.20	6.73	-9.10	11.40	36.19	0.49	-0.43
6	1,921	0.70	12.50	1920.89	9.92	6.81	-9.81	12.03	34.46	0.57	0.53
7	2,016	0.50	21.00	2015.88	10.87	7.08	-10.76	12.98	33.08	0.23	-0.21
8	2,111	0.80	324.80	2110.88	11.80	6.85	-11.69	13.65	30.13	0.70	0.32
9	2,206	0.40	340.40	2205.87	12.66	6.36	-12.56	14.16	26.66	0.45	-0.42
10	2,300	0.90	330.50	2299.87	13.61	5.88	-13.52	14.83	23.37	0.54	0.53
11	2,395	0.90	346.20	2394.85	14.98	5.34	-14.90	15.90	19.60	0.26	0.00
12	2,489	0.90	332.40	2488.84	16.35	4.82	-16.28	17.05	16.42	0.23	0.00
13	2,583	0.90	332.10	2582.83	17.66	4.13	-17.59	18.14	13.16	0.01	0.00
14	2,677	0.30	303.70	2676.83	18.45	3.58	-18.39	18.79	10.98	0.69	-0.64
15	2,772	0.80	325.50	2771.82	19.13	3.00	-19.08	19.37	8.90	0.56	0.53
16	2,866	0.80	336.20	2865.81	20.28	2.36	-20.24	20.41	6.64	0.16	0.00
17	2,960	0.50	310.50	2959.81	21.14	1.78	-21.11	21.22	4.83	0.44	-0.32
18	3,055	0.70	359.40	3054.80	21.99	1.46	-21.97	22.04	3.81	0.56	0.21
19	3,149	0.80	331.60	3148.79	23.14	1.15	-23.12	23.17	2.83	0.40	0.11
20	3,243	0.80	334.70	3242.78	24.31	0.55	-24.30	24.32	1.30	0.05	0.00
21	3,338	0.40	319.90	3337.78	25.17	0.06	-25.16	25.17	0.13	0.45	-0.42
22	3,433	0.30	14.00	3432.78	25.66	-0.10	-25.66	25.66	359.78	0.35	-0.11
23	3,528	0.40	312.00	3527.78	26.12	-0.28	-26.13	26.13	359.38	0.39	0.11
24	3,622	0.70	359.00	3621.77	26.92	-0.54	-26.92	26.92	358.86	0.55	0.32
25	3,716	0.60	358.70	3715.77	27.98	-0.56	-27.99	27.99	358.86	0.11	-0.11
26	3,810	0.70	32.80	3809.76	28.96	-0.26	-28.96	28.96	359.49	0.42	0.11
27	3,905	0.10	74.10	3904.76	29.47	0.14	-29.46	29.47	0.26	0.66	-0.63
28	4,000	1.80	30.10	3999.74	30.78	0.96	-30.76	30.80	1.79	1.82	1.79
29	4,094	3.40	29.40	4093.64	34.49	3.07	-34.44	34.63	5.09	1.70	1.70
30	4,188	4.30	41.80	4187.43	39.54	6.79	-39.43	40.12	9.74	1.30	0.96
31	4,282	4.70	47.70	4281.14	44.76	11.99	-44.57	46.34	14.99	0.65	0.43
32	4,376	4.40	55.80	4374.84	49.38	17.82	-49.10	52.50	19.84	0.75	-0.32
33	4,470	4.40	55.00	4468.57	53.48	23.75	-53.10	58.52	23.95	0.07	0.00

Company: Kaiser-Francis Oil Company
 Well Name: Bell Lake Unit South #112H
 Location: Eddy County, NM
 Rig: Cactus #171
 Job Number: MSMO-65025
 API #: 30-025-45858

Magnetic Declination: 6.21 REFERENCED TO GRID NORTH

Vertical Section Azimuth: 179.11
 Proposed Direction: 179.11

Survey Calculation Method: Minimum Curvature

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	18,128	93.3	178.2	10186.22	-8175.49	115.16	8176.3

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
34	4,564	4.20	61.90	4562.30	57.17	29.74	-56.70	64.44	27.49	0.59	-0.21
35	4,659	4.50	64.00	4657.03	60.44	36.16	-59.87	70.43	30.89	0.36	0.32
36	4,753	4.50	53.70	4750.74	64.24	42.45	-63.57	77.00	33.46	0.86	0.00
37	4,848	4.10	29.40	4845.48	69.40	47.12	-68.66	83.89	34.17	1.95	-0.42
38	4,942	4.00	14.20	4939.25	75.51	49.57	-74.73	90.33	33.29	1.14	-0.11
39	5,036	3.90	21.50	5033.03	81.66	51.55	-80.85	96.57	32.26	0.55	-0.11
40	5,065	3.80	21.20	5061.96	83.48	52.26	-82.66	98.49	32.05	0.35	-0.34
41	5,133	3.50	8.60	5129.82	87.63	53.38	-86.79	102.61	31.35	1.26	-0.44
42	5,228	5.20	6.30	5224.55	94.78	54.29	-93.92	109.22	29.80	1.80	1.79
43	5,323	5.20	8.20	5319.16	103.32	55.38	-102.44	117.22	28.19	0.18	0.00
44	5,417	5.20	6.70	5412.77	111.76	56.48	-110.87	125.22	26.81	0.14	0.00
45	5,511	5.30	5.40	5506.38	120.32	57.39	-119.41	133.30	25.50	0.17	0.11
46	5,605	5.10	4.70	5599.99	128.80	58.14	-127.88	141.32	24.29	0.22	-0.21
47	5,699	5.00	3.40	5693.62	137.06	58.72	-136.13	149.11	23.19	0.16	-0.11
48	5,794	5.30	359.70	5788.24	145.58	58.94	-144.64	157.06	22.04	0.47	0.32
49	5,889	4.70	357.30	5882.88	153.85	58.74	-152.92	164.68	20.90	0.67	-0.63
50	5,983	4.50	354.10	5976.58	161.37	58.18	-160.44	171.53	19.83	0.35	-0.21
51	6,077	4.00	352.90	6070.32	168.29	57.39	-167.38	177.81	18.83	0.54	-0.53
52	6,172	3.80	353.60	6165.10	174.70	56.63	-173.80	183.65	17.96	0.22	-0.21
53	6,266	3.60	352.40	6258.90	180.72	55.90	-179.83	189.17	17.19	0.23	-0.21
54	6,361	3.70	351.20	6353.71	186.71	55.03	-185.83	194.65	16.42	0.13	0.11
55	6,455	2.50	7.10	6447.57	191.74	54.82	-190.87	199.43	15.96	1.56	-1.28
56	6,550	2.30	7.70	6542.49	195.69	55.33	-194.80	203.36	15.79	0.21	-0.21
57	6,645	0.60	28.90	6637.45	198.01	55.83	-197.12	205.73	15.75	1.85	-1.79
58	6,739	0.50	53.60	6731.45	198.69	56.40	-197.79	206.54	15.85	0.27	-0.11
59	6,833	0.30	96.30	6825.45	198.90	56.97	-197.99	206.90	15.98	0.37	-0.21
60	6,928	0.30	121.80	6920.45	198.74	57.43	-197.83	206.88	16.12	0.14	0.00
61	7,023	0.30	155.20	7015.45	198.39	57.75	-197.47	206.62	16.23	0.18	0.00
62	7,117	0.30	166.20	7109.44	197.93	57.91	-197.00	206.22	16.31	0.06	0.00
63	7,213	0.60	195.80	7205.44	197.20	57.83	-196.28	205.50	16.34	0.39	0.31
64	7,307	0.80	188.60	7299.43	196.08	57.60	-195.16	204.36	16.37	0.23	0.21
65	7,402	1.10	198.80	7394.42	194.56	57.21	-193.64	202.79	16.39	0.36	0.32
66	7,497	0.10	107.30	7489.42	193.67	56.99	-192.76	201.88	16.40	1.17	-1.05
67	7,591	0.30	112.90	7583.41	193.55	57.30	-192.63	201.85	16.49	0.21	0.21

V09.04.02

Company:	Kaiser-Francis Oil Company		
Well Name:	Bell Lake Unit South #112H		
Location:	Eddy County, NM		
Rig:	Cactus #171	Magnetic Declination:	6.21
Job Number:	MSMO-65025		
API #:	30-025-45858		

REFERENCED TO GRID NORTH

Vertical Section Azimuth:	179.11	Proposed Direction:	179.11
---------------------------	--------	---------------------	--------

Survey Calculation Method:	Minimum Curvature
----------------------------	-------------------

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	18,128	93.3	178.2	10186.22	-8175.49	115.16	8176.3

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
68	7,686	0.40	143.10	7678.41	193.19	57.72	-192.27	201.63	16.64	0.22	0.11
69	7,780	0.60	169.10	7772.41	192.44	58.01	-191.52	201.00	16.78	0.32	0.21
70	7,875	0.70	214.20	7867.40	191.47	57.78	-190.55	200.00	16.79	0.53	0.11
71	7,970	1.20	238.70	7962.39	190.48	56.61	-189.57	198.71	16.55	0.67	0.53
72	8,065	0.50	178.40	8057.38	189.54	55.77	-188.66	197.58	16.39	1.10	-0.74
73	8,159	0.60	180.20	8151.38	188.64	55.78	-187.75	196.72	16.47	0.11	0.11
74	8,254	0.90	212.10	8246.37	187.51	55.38	-186.63	195.52	16.45	0.53	0.32
75	8,348	1.10	219.80	8340.35	186.19	54.41	-185.33	193.98	16.29	0.26	0.21
76	8,442	0.50	170.30	8434.35	185.10	53.90	-184.24	192.78	16.24	0.92	-0.64
77	8,537	0.40	189.20	8529.34	184.36	53.92	-183.50	192.08	16.30	0.19	-0.11
78	8,632	0.80	247.90	8624.34	183.78	53.25	-182.93	191.34	16.16	0.72	0.42
79	8,726	1.40	260.10	8718.32	183.34	51.51	-182.52	190.44	15.69	0.68	0.64
80	8,821	2.40	214.20	8813.27	181.49	49.25	-180.71	188.06	15.18	1.84	1.05
81	8,915	2.60	222.20	8907.18	178.29	46.71	-177.54	184.30	14.68	0.43	0.21
82	9,010	2.90	231.80	9002.07	175.20	43.38	-174.51	180.49	13.91	0.58	0.32
83	9,104	1.70	219.90	9096.00	172.66	40.61	-172.01	177.38	13.24	1.37	-1.28
84	9,198	1.60	226.10	9189.96	170.68	38.77	-170.06	175.03	12.80	0.22	-0.11
85	9,293	0.70	250.40	9284.94	169.57	37.27	-168.97	173.62	12.40	1.06	-0.95
86	9,339	0.60	336.00	9330.94	169.70	36.91	-169.10	173.66	12.27	1.93	-0.22
87	9,386	0.40	248.50	9377.94	169.86	36.65	-169.27	173.77	12.18	1.50	-0.43
88	9,433	2.00	176.00	9424.92	168.98	36.56	-168.39	172.89	12.21	4.08	3.40
89	9,480	7.80	180.10	9471.73	164.97	36.61	-164.38	168.99	12.51	12.36	12.34
90	9,527	13.60	180.60	9517.90	156.25	36.55	-155.66	160.47	13.16	12.34	12.34
91	9,575	17.00	178.00	9564.19	143.59	36.73	-143.00	148.21	14.35	7.22	7.08
92	9,622	19.80	176.40	9608.78	128.78	37.47	-128.18	134.12	16.22	6.05	5.96
93	9,669	22.60	177.80	9652.60	111.80	38.32	-111.19	118.19	18.92	6.05	5.96
94	9,716	25.10	182.30	9695.58	92.81	38.27	-92.21	100.39	22.41	6.58	5.32
95	9,763	27.10	183.30	9737.79	72.16	37.25	-71.58	81.21	27.30	4.36	4.26
96	9,810	33.00	183.40	9778.45	48.68	35.87	-48.12	60.47	36.39	12.55	12.55
97	9,858	36.90	188.60	9817.80	21.37	32.94	-20.85	39.26	57.03	10.22	8.13
98	9,905	40.90	187.20	9854.37	-7.86	28.90	8.31	29.95	105.22	8.71	8.51
99	9,952	45.90	186.10	9888.51	-39.93	25.18	40.32	47.20	147.77	10.76	10.64
100	9,999	52.10	182.80	9919.33	-75.27	22.47	75.61	78.56	163.38	14.21	13.19
101	10,047	58.10	181.20	9946.78	-114.60	21.12	114.91	116.53	169.56	12.79	12.50

Company:	Kaiser-Francis Oil Company		
Well Name:	Bell Lake Unit South #112H		
Location:	Eddy County, NM		
Rlg:	Cactus #171	Magnetic Declination:	6.21
Job Number:	MSMO-65025		
API #:	30-025-45858		

REFERENCED TO GRID NORTH

Vertical Section Azimuth:	179.11	Proposed Direction:	179.11
Survey Calculation Method:	Minimum Curvature		

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	18,128	93.3	178.2	10186.22	-8175.49	115.16	8176.3

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
102	10,094	64.80	180.10	9969.23	-155.85	20.67	156.16	157.22	172.45	14.40	14.26
103	10,142	71.60	179.80	9987.05	-200.39	20.71	200.69	201.46	174.10	14.18	14.17
104	10,189	78.30	177.40	9999.25	-245.74	21.83	246.05	246.71	174.92	15.08	14.26
105	10,206	80.10	176.80	10002.43	-262.42	22.68	262.74	263.39	175.06	11.14	10.59
106	10,238	85.00	176.40	10006.58	-294.08	24.56	294.43	295.10	175.23	15.36	15.31
107	10,333	87.00	177.30	10013.21	-388.70	29.76	389.11	389.84	175.62	2.31	2.11
108	10,427	88.60	176.50	10016.82	-482.49	34.84	482.97	483.75	175.87	1.90	1.70
109	10,521	89.10	176.30	10018.70	-576.28	40.75	576.85	577.72	175.96	0.57	0.53
110	10,616	88.90	175.30	10020.36	-671.01	47.70	671.67	672.71	175.93	1.07	-0.21
111	10,711	89.90	177.10	10021.36	-765.79	54.00	766.54	767.70	175.97	2.17	1.05
112	10,805	89.80	177.40	10021.60	-859.69	58.51	860.49	861.67	176.11	0.34	-0.11
113	10,900	89.70	177.20	10022.02	-954.58	62.98	955.44	956.65	176.23	0.24	-0.11
114	10,994	90.20	178.30	10022.10	-1048.50	66.67	1049.41	1050.62	176.36	1.29	0.53
115	11,089	88.50	179.40	10023.18	-1143.47	68.58	1144.40	1145.53	176.57	2.13	-1.79
116	11,184	89.50	180.70	10024.83	-1238.46	68.50	1239.37	1240.35	176.83	1.73	1.05
117	11,278	88.10	179.40	10026.80	-1332.43	68.41	1333.33	1334.19	177.06	2.03	-1.49
118	11,372	88.20	179.00	10029.84	-1426.37	69.73	1427.28	1428.08	177.20	0.44	0.11
119	11,467	87.40	178.50	10033.48	-1521.28	71.80	1522.21	1522.97	177.30	0.99	-0.84
120	11,561	87.20	177.80	10037.91	-1615.13	74.83	1616.09	1616.86	177.35	0.77	-0.21
121	11,655	86.50	177.30	10043.08	-1708.90	78.84	1709.92	1710.71	177.36	0.91	-0.74
122	11,749	88.30	178.70	10047.34	-1802.74	82.12	1803.79	1804.61	177.39	2.42	1.91
123	11,845	88.60	178.30	10049.94	-1898.67	84.63	1899.75	1900.55	177.45	0.52	0.31
124	11,940	89.20	179.30	10051.76	-1993.63	86.62	1994.73	1995.51	177.51	1.23	0.63
125	12,034	89.50	178.70	10052.83	-2087.61	88.26	2088.73	2089.47	177.58	0.71	0.32
126	12,128	88.80	179.60	10054.22	-2181.59	89.65	2182.71	2183.43	177.65	1.21	-0.74
127	12,222	89.00	179.30	10056.03	-2275.56	90.55	2276.70	2277.36	177.72	0.38	0.21
128	12,316	88.40	179.50	10058.16	-2369.53	91.54	2370.67	2371.30	177.79	0.67	-0.64
129	12,410	86.40	180.20	10062.42	-2463.43	91.78	2464.56	2465.14	177.87	2.25	-2.13
130	12,505	85.40	180.10	10069.22	-2558.19	91.54	2559.30	2559.82	177.95	1.06	-1.05
131	12,598	86.10	180.60	10076.11	-2650.93	90.97	2652.02	2652.49	178.03	0.92	0.75
132	12,693	87.70	180.70	10081.25	-2745.78	89.89	2746.85	2747.25	178.12	1.69	1.68
133	12,788	87.70	179.70	10085.06	-2840.70	89.56	2841.75	2842.11	178.19	1.05	0.00
134	12,882	88.30	179.40	10088.34	-2934.64	90.30	2935.69	2936.03	178.24	0.71	0.64
135	12,976	87.90	178.50	10091.46	-3028.57	92.02	3029.64	3029.97	178.26	1.05	-0.43

Company: Kaiser-Francis Oil Company
Well Name: Bell Lake Unit South #112H
Location: Eddy County, NM
Rlg: Cactus #171 **Magnetic Declination:** 6.21 REFERENCED TO GRID NORTH
Job Number: MSMO-65025
API #: 30-025-45858

Vertical Section Azimuth: 179.11 **Proposed Direction:** 179.11

Survey Calculation Method: Minimum Curvature

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	18,128	93.3	178.2	10186.22	-8175.49	115.16	8176.3

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
136	13,070	89.20	180.50	10093.83	-3122.53	92.84	3123.60	3123.91	178.30	2.54	1.38
137	13,165	87.90	179.70	10096.24	-3217.50	92.67	3218.55	3218.83	178.35	1.61	-1.37
138	13,260	87.80	180.10	10099.80	-3312.43	92.84	3313.47	3313.73	178.39	0.43	-0.11
139	13,354	89.70	180.60	10101.85	-3406.40	92.27	3407.42	3407.65	178.45	2.09	2.02
140	13,448	87.80	181.20	10103.90	-3500.36	90.79	3501.35	3501.54	178.51	2.12	-2.02
141	13,543	87.00	183.40	10108.21	-3595.18	86.98	3596.10	3596.24	178.61	2.46	-0.84
142	13,638	85.20	182.60	10114.68	-3689.83	82.02	3690.66	3690.74	178.73	2.07	-1.89
143	13,732	84.10	182.40	10123.44	-3783.33	77.94	3784.08	3784.13	178.82	1.19	-1.17
144	13,826	85.10	181.60	10132.29	-3876.85	74.67	3877.54	3877.57	178.90	1.36	1.06
145	13,921	85.30	179.90	10140.24	-3971.51	73.43	3972.17	3972.19	178.94	1.80	0.21
146	14,016	87.70	178.20	10146.04	-4066.31	75.01	4066.98	4067.00	178.94	3.09	2.53
147	14,110	86.80	177.70	10150.55	-4160.14	78.37	4160.85	4160.88	178.92	1.09	-0.96
148	14,205	87.90	179.10	10154.94	-4254.99	81.02	4255.74	4255.77	178.91	1.87	1.16
149	14,299	91.00	180.70	10155.84	-4348.98	81.18	4349.71	4349.73	178.93	3.71	3.30
150	14,393	90.20	180.70	10154.86	-4442.96	80.03	4443.67	4443.68	178.97	0.85	-0.85
151	14,487	89.10	180.70	10155.43	-4536.95	78.88	4537.63	4537.64	179.00	1.17	-1.17
152	14,582	86.80	180.20	10158.83	-4631.88	78.14	4632.54	4632.54	179.03	2.48	-2.42
153	14,678	87.80	180.40	10163.35	-4727.77	77.63	4728.41	4728.41	179.06	1.06	1.04
154	14,773	87.90	179.80	10166.91	-4822.71	77.47	4823.33	4823.33	179.08	0.64	0.11
155	14,867	87.10	179.40	10171.01	-4916.61	78.12	4917.23	4917.23	179.09	0.95	-0.85
156	14,962	88.00	179.20	10175.08	-5011.52	79.28	5012.14	5012.15	179.09	0.97	0.95
157	15,057	88.40	177.70	10178.06	-5106.43	81.85	5107.09	5107.09	179.08	1.63	0.42
158	15,152	89.60	176.90	10179.72	-5201.31	86.33	5202.02	5202.03	179.05	1.52	1.26
159	15,247	89.60	178.90	10180.38	-5296.24	89.81	5297.00	5297.00	179.03	2.11	0.00
160	15,342	90.00	178.70	10180.71	-5391.22	91.80	5391.99	5392.00	179.02	0.47	0.42
161	15,437	86.80	178.50	10183.36	-5486.14	94.12	5486.94	5486.95	179.02	3.37	-3.37
162	15,532	88.40	179.10	10187.34	-5581.03	96.10	5581.85	5581.86	179.01	1.80	1.68
163	15,626	89.60	178.30	10188.98	-5674.99	98.24	5675.83	5675.84	179.01	1.53	1.28
164	15,721	90.70	178.30	10188.73	-5769.95	101.06	5770.82	5770.83	179.00	1.16	1.16
165	15,816	91.30	179.30	10187.08	-5864.91	103.04	5865.80	5865.82	178.99	1.23	0.63
166	15,911	91.80	179.70	10184.51	-5959.87	103.87	5960.77	5960.78	179.00	0.67	0.53
167	16,005	91.00	179.70	10182.21	-6053.84	104.37	6054.73	6054.74	179.01	0.85	-0.85
168	16,098	89.00	180.00	10182.21	-6146.84	104.61	6147.72	6147.73	179.03	2.17	-2.15
169	16,193	87.70	180.60	10184.95	-6241.79	104.11	6242.66	6242.66	179.04	1.51	-1.37

Company:	Kaiser-Francis Oil Company		
Well Name:	Bell Lake Unit South #112H		
Location:	Eddy County, NM		
Rig:	Cactus #171	Magnetic Declination:	6.21
Job Number:	MSMO-65025		
API #:	30-025-45858		
Vertical Section Azimuth:	179.11	Proposed Direction:	179.11
Survey Calculation Method:	Minimum Curvature		

Survey Calculation Method:

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS				
	18,128	93.3	178.2	10186.22	-8175.49	115.16	8176.3				
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
170	16,289	87.50	180.50	10188.97	-6337.71	103.19	6338.54	6338.55	179.07	0.23	-0.21
171	16,383	86.50	180.10	10193.89	-6431.57	102.70	6432.39	6432.39	179.09	1.15	-1.06
172	16,477	86.50	180.40	10199.62	-6525.40	102.29	6526.20	6526.20	179.10	0.32	0.00
173	16,572	87.70	180.10	10204.43	-6620.27	101.88	6621.06	6621.06	179.12	1.30	1.26
174	16,666	88.50	180.10	10207.55	-6714.22	101.71	6714.99	6714.99	179.13	0.85	0.85
175	16,760	89.20	180.20	10209.43	-6808.20	101.47	6808.96	6808.96	179.15	0.75	0.74
176	16,854	89.30	180.70	10210.66	-6902.19	100.73	6902.92	6902.92	179.16	0.54	0.11
177	16,972	89.70	180.50	10211.69	-7020.18	99.49	7020.88	7020.88	179.19	0.38	0.34
178	17,067	90.00	180.30	10211.94	-7115.18	98.83	7115.85	7115.86	179.20	0.38	0.32
179	17,161	90.20	179.80	10211.78	-7209.17	98.75	7209.84	7209.85	179.22	0.57	0.21
180	17,255	90.20	179.40	10211.45	-7303.17	99.40	7303.83	7303.85	179.22	0.43	0.00
181	17,350	90.40	179.10	10210.95	-7398.16	100.65	7398.83	7398.85	179.22	0.38	0.21
182	17,445	91.70	179.20	10209.21	-7493.13	102.06	7493.82	7493.83	179.22	1.37	1.37
183	17,539	91.10	179.70	10206.91	-7587.10	102.96	7587.78	7587.80	179.22	0.83	-0.64
184	17,634	90.40	179.40	10205.67	-7682.09	103.70	7682.77	7682.79	179.23	0.80	-0.74
185	17,728	91.20	179.20	10204.36	-7776.07	104.85	7776.76	7776.78	179.23	0.88	0.85
186	17,822	92.00	178.70	10201.73	-7870.02	106.57	7870.72	7870.74	179.22	1.00	0.85
187	17,917	92.60	178.40	10197.92	-7964.91	108.98	7965.64	7965.66	179.22	0.71	0.63
188	18,012	93.40	178.40	10192.95	-8059.74	111.62	8060.50	8060.52	179.21	0.84	0.84
189	18,068	93.30	178.20	10189.68	-8115.62	113.28	8116.40	8116.41	179.20	0.40	-0.18
PTB:	18,128	93.30	178.20	10186.22	-8175.49	115.16	8176.30	8176.30	179.19	0.00	0.00