

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Kaiser-Francis Oil Company P.O. Box 21468, Tulsa, OK, 74121-1468		² OGRID Number 12361	
		³ Reason for Filing Code/ Effective Date NW	
⁴ API Number 30 - 025-46912	⁵ Pool Name Ojo Chiso; Bone Spring, Southwest		⁶ Pool Code 98259
⁷ Property Code 316707	⁸ Property Name Bell Lake Unit North		⁹ Well Number 231H

II. ¹⁰ Surface Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
L	5	23S	34E		2001	South	454	West	Lea

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	32	22S	34E		88	North	765	West	Lea
¹² Lse Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date 4/17/21	¹⁵ C-129 Permit Number		¹⁶ C-129 Effective Date		¹⁷ C-129 Expiration Date		

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
	Markwest Tornado GP, LLC 1515 Araphoe St., Suite 1600 Denver, CO 80202	G
	Plains Pipeline LP 333 Clay St., #1600 Houston, TX 77002	O

IV. Well Completion Data

²¹ Spud Date 9/29/20	²² Ready Date 4/17/21	²³ TD 18,133 'MD	²⁴ PBDT 18,031 'MD	²⁵ Perforations 10,671' - 17,997'	²⁶ DHC, MC
²⁷ Hole Size		²⁸ Casing & Tubing Size	²⁹ Depth Set		³⁰ Sacks Cement
17-1/2"		13-3/8"	1,295 '		1,105 SX
12-1/4"		9-5/8"	4,985 '		1,270 SX
8-3/4"		5-1/2"	18,103 '		3,310 SX

V. Well Test Data

³¹ Date New Oil 5/2/21	³² Gas Delivery Date 5/2/21	³³ Test Date 5/10/21	³⁴ Test Length 24 hrs	³⁵ Tbg. Pressure	³⁶ Csg. Pressure 2300
³⁷ Choke Size 20/64	³⁸ Oil 789	³⁹ Water 1632	⁴⁰ Gas 1346		⁴¹ Test Method
⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature:			OIL CONSERVATION DIVISION Approved by: Title: Approval Date:		
Printed name: Erica Miles					
Title: Geosciences Technician					
E-mail Address: EricaM@kfoc.net					
Date: 6/4/21		Phone:918-491-4548			

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
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811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-46912	² Pool Code 98259	³ Pool Name Ojo Chiso; Bone Spring, Southwest
⁴ Property Code 316707	⁵ Property Name BELL LAKE UNIT NORTH	⁶ Well Number 231H
⁷ OGRID No. 12361	⁸ Operator Name KAISER-FRANCIS OIL COMPANY	⁹ Elevation 3444.9

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	5	23 S	34 E		2001	SOUTH	454	WEST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	32	22 S	34 E		88	NORTH	765	WEST	LEA

¹² Dedicated Acres 480	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14527A
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

SEC. 32 AS-DRILLED SEC. 5	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. 6/4/21 Signature _____ Date _____ Erica Miles Printed Name _____ EricaM@kfoc.net E-mail Address _____ ¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. MARCH 23, 2021 Date of Survey _____ Signature and Seal of Professional Surveyor: Certificate Number: 12797 Survey No. 6989D
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Intent ☐ As Drilled ☒

API #		
Operator Name: KAISER-FRANCIS OIL COMPANY	Property Name: BELL LAKE UNIT NORTH	Well Number 231H

Kick Off Point (KOP)

UL L	Section 5	Township 23S	Range 34E	Lot	Feet 2117	From N/S SOUTH	Feet 726	From E/W WEST	County LEA
Latitude 32.3322021					Longitude 103.4983614				NAD 83

First Take Point (FTP)

UL E	Section 5	Township 23S	Range 34E	Lot	Feet 2251	From N/S NORTH	Feet 769	From E/W WEST	County LEA
Latitude 32.3347188					Longitude 103.4982206				NAD 83

Last Take Point (LTP)

UL D	Section 32	Township 22S	Range 34E	Lot	Feet 224	From N/S NORTH	Feet 767	From E/W WEST	County LEA
Latitude 32.3548055					Longitude 103.4982012				NAD 83

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☒

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API # 30-025-46983		
Operator Name: Kaiser-Francis Oil Company	Property Name: Bell Lake Unit North	Well Number 233H

KZ 06/29/2018

Kaiser-Francis Oil Company

Kaiser-Francis Oil Co.

Lea County, NM (NAD 83)

SEC 5, T23S, R34E

BELL LAKE UNIT NORTH 231H

OH

Design: FINAL

Standard Survey Report

15 October, 2020



Kaiser-Francis Oil Company



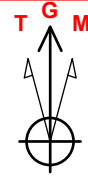
CATHEDRAL

Project: Lea County, NM (NAD 83)
 Site: SEC 5, T23S, R34E
 Well: BELL LAKE UNIT NORTH 231H
 Wellbore: OH
 Plan: FINAL

WELL DETAILS: BELL LAKE UNIT NORTH 231H
 23.9' KB @ 3468.80usft (Cactus 171)
 Ground Level: 3444.90

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	485473.74	798964.12	32° 19' 54.775 N	103° 29' 57.271 W

US State Plane 1983
 New Mexico Eastern Zone

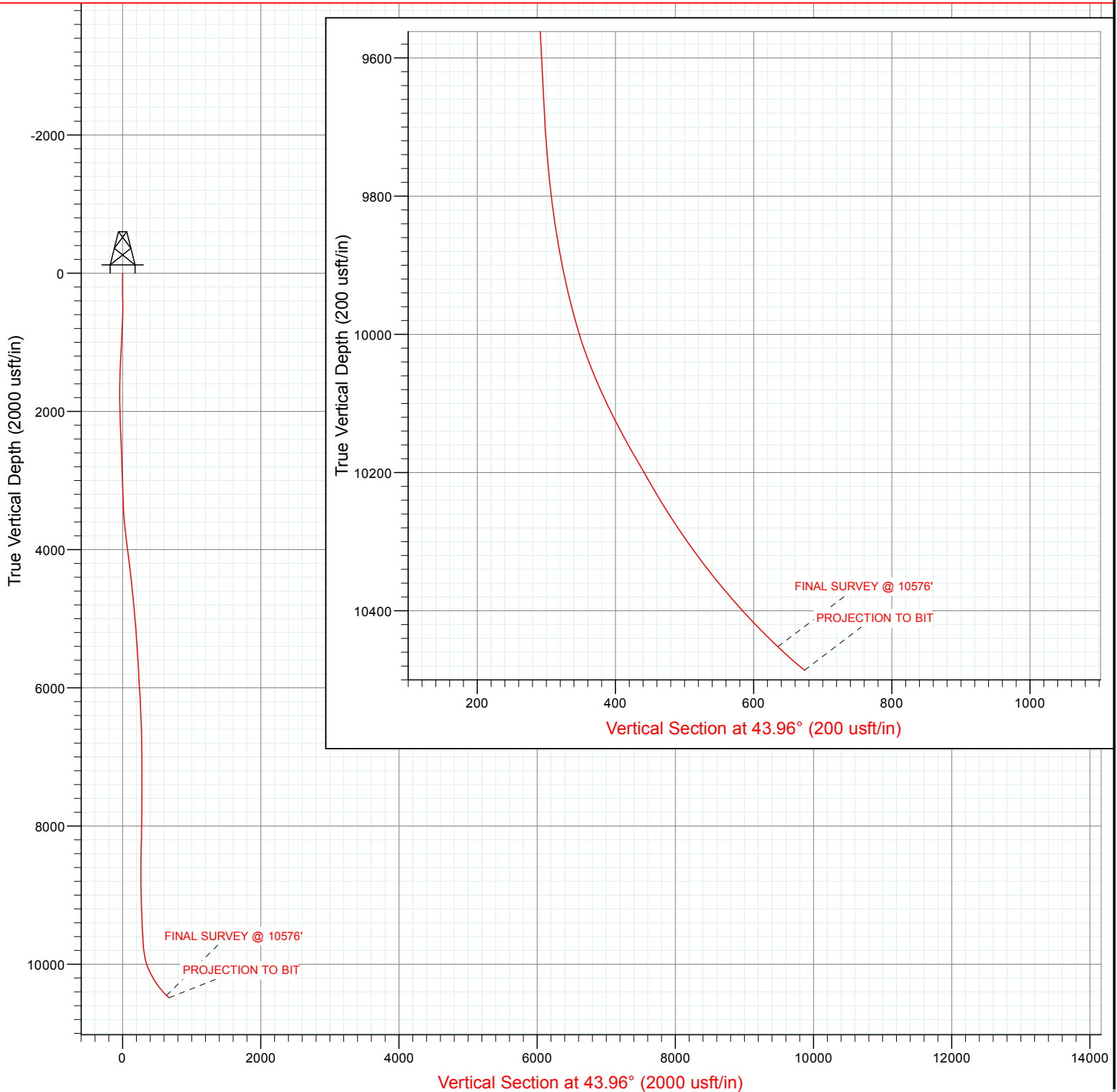


Total Azimuth to Grid North
 True North: -0.45°
 Magnetic North: 6.05°

Magnetic Field
 Strength: 47856.1nT
 Dip Angle: 60.03°
 Date: 10/14/2020
 Model: HDGM_FILE

SURVEY DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
10576.00	52.41	8.69	10452.19	438.62	460.09	635.10	809.23	FINAL SURVEY @ 10576'
10634.00	56.20	10.00	10486.03	485.09	467.75	673.87	856.33	PROJECTION TO BIT



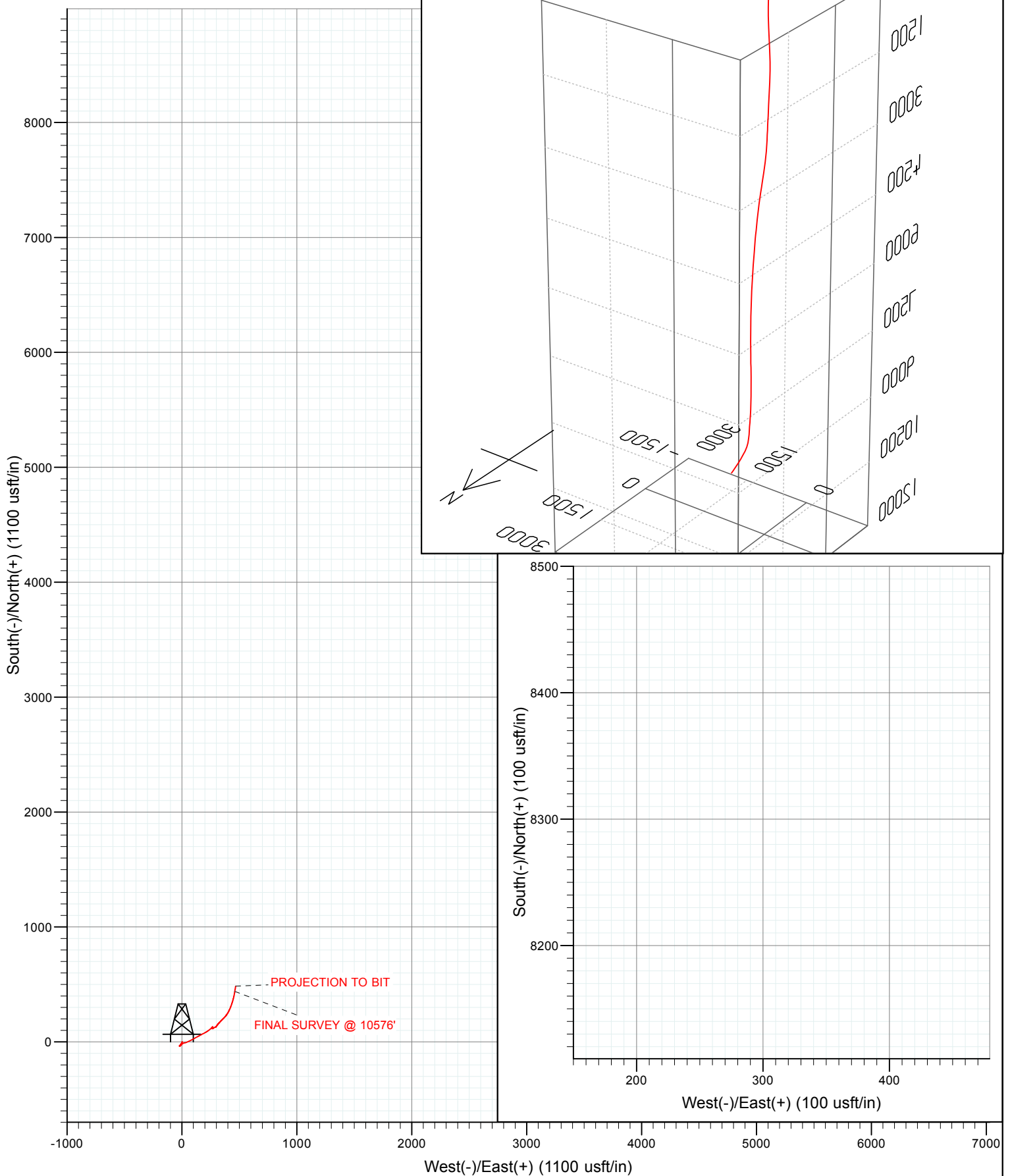
Kaiser-Francis Oil Company



Azimuths to Grid North
True North: -0.45°
Magnetic North: 6.05°

Magnetic Field
Strength: 47856.1nT
Dip Angle: 60.03°
Date: 10/14/2020
Model: HDGM_FILE

US State Plane 1983
New Mexico Eastern Zone
Project: Lea County, NM (NAD 83)
Site: SEC 5, T23S, R34E
Well: BELL LAKE UNIT NORTH 231H
Wellbore: OH
23.9' KB @ 3468.80usft (Cactus 171)
Ground Elevation: 3444.90
FINAL



Kaiser-Francis Oil Company

Survey Report



Company:	Kaiser-Francis Oil Co.	Local Co-ordinate Reference:	Well BELL LAKE UNIT NORTH 231H
Project:	Lea County, NM (NAD 83)	TVD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Site:	SEC 5, T23S, R34E	MD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Well:	BELL LAKE UNIT NORTH 231H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	Lea County, NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		SEC 5, T23S, R34E				
Site Position:		Northing:	485,503.70 usft	Latitude:	32° 19' 55.072 N	
From:	Map	Easting:	798,963.81 usft	Longitude:	103° 29' 57.272 W	
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.45 °

Well	BELL LAKE UNIT NORTH 231H					
Well Position	+N/-S	0.00 usft	Northing:	485,473.74 usft	Latitude:	32° 19' 54.775 N
	+E/-W	0.00 usft	Easting:	798,964.12 usft	Longitude:	103° 29' 57.271 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,444.90 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	10/14/2020	6.50	60.03	47,856.10000000

Design	FINAL				
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	43.96	

Survey Program	Date	10/15/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
200.00	10,634.00	GT MWD (OH)	MWD+HDGM	OWSG MWD + HDGM	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
200.00	0.55	84.96	200.00	0.08	0.96	0.72	0.27	0.27		
332.00	1.25	110.62	331.98	-0.37	2.93	1.77	0.60	0.53		
425.00	0.40	98.72	424.97	-0.77	4.21	2.36	0.93	-0.91		
518.00	0.57	191.70	517.97	-1.28	4.43	2.16	0.77	0.18		
612.00	1.25	212.83	611.96	-2.60	3.78	0.76	0.79	0.72		
705.00	1.91	211.12	704.92	-4.77	2.43	-1.75	0.71	0.71		
799.00	2.42	217.10	798.85	-7.70	0.42	-5.25	0.59	0.54		
892.00	3.40	214.01	891.73	-11.55	-2.30	-9.91	1.07	1.05		
986.00	3.73	218.73	985.55	-16.25	-5.78	-15.70	0.47	0.35		
1,079.00	2.30	218.31	1,078.42	-20.07	-8.82	-20.57	1.54	-1.54		
1,172.00	1.86	215.82	1,171.36	-22.76	-10.86	-23.92	0.48	-0.47		
1,267.00	2.76	224.66	1,266.28	-25.64	-13.37	-27.74	1.02	0.95		

Kaiser-Francis Oil Company

Survey Report



Company: Kaiser-Francis Oil Co.
Project: Lea County, NM (NAD 83)
Site: SEC 5, T23S, R34E
Well: BELL LAKE UNIT NORTH 231H
Wellbore: OH
Design: FINAL

Local Co-ordinate Reference: Well BELL LAKE UNIT NORTH 231H
TVD Reference: 23.9' KB @ 3468.80usft (Cactus 171)
MD Reference: 23.9' KB @ 3468.80usft (Cactus 171)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Formations / Comments
1,363.00	2.67	222.98	1,362.17	-28.92	-16.52	-32.28	0.13	-0.09	
1,458.00	2.36	227.07	1,457.08	-31.87	-19.46	-36.45	0.38	-0.33	
1,553.00	2.23	220.52	1,552.00	-34.60	-22.10	-40.25	0.31	-0.14	
1,648.00	0.76	130.51	1,646.98	-36.42	-22.82	-42.06	2.48	-1.55	
1,743.00	1.21	106.00	1,741.96	-37.10	-21.38	-41.55	0.64	0.47	
1,838.00	1.20	106.73	1,836.94	-37.67	-19.46	-40.62	0.02	-0.01	
1,933.00	1.11	115.40	1,931.92	-38.35	-17.68	-39.87	0.21	-0.09	
2,028.00	1.98	52.46	2,026.89	-37.74	-15.54	-37.96	1.87	0.92	
2,123.00	2.62	40.59	2,121.82	-35.09	-12.83	-34.17	0.84	0.67	
2,218.00	2.17	45.97	2,216.73	-32.19	-10.12	-30.20	0.53	-0.47	
2,312.00	2.17	40.70	2,310.67	-29.61	-7.68	-26.65	0.21	0.00	
2,407.00	2.17	48.92	2,405.60	-27.06	-5.15	-23.06	0.33	0.00	
2,502.00	2.12	42.81	2,500.53	-24.59	-2.60	-19.51	0.25	-0.05	
2,597.00	1.89	41.25	2,595.47	-22.13	-0.38	-16.19	0.25	-0.24	
2,692.00	2.03	50.83	2,690.42	-19.88	1.96	-12.95	0.37	0.15	
2,787.00	1.95	48.37	2,785.36	-17.75	4.47	-9.67	0.12	-0.08	
2,882.00	2.08	52.41	2,880.30	-15.62	7.05	-6.36	0.20	0.14	
2,977.00	1.98	51.79	2,975.24	-13.56	9.70	-3.02	0.11	-0.11	
3,072.00	2.19	65.41	3,070.18	-11.79	12.64	0.29	0.56	0.22	
3,167.00	2.08	64.13	3,165.11	-10.28	15.84	3.60	0.13	-0.12	
3,262.00	2.55	75.97	3,260.04	-9.01	19.45	7.01	0.70	0.49	
3,356.00	2.93	80.41	3,353.93	-8.11	23.84	10.71	0.46	0.40	
3,451.00	3.40	82.52	3,448.78	-7.34	29.03	14.87	0.51	0.49	
3,541.00	4.33	73.25	3,538.58	-6.01	34.93	19.92	1.24	1.03	
3,636.00	7.16	65.19	3,633.09	-2.49	43.74	28.57	3.09	2.98	
3,731.00	7.07	65.16	3,727.36	2.45	54.42	39.54	0.09	-0.09	
3,826.00	7.14	64.31	3,821.63	7.47	65.05	50.52	0.13	0.07	
3,921.00	7.17	62.91	3,915.89	12.72	75.64	61.67	0.19	0.03	
4,016.00	7.15	63.94	4,010.15	18.02	86.23	72.83	0.14	-0.02	
4,111.00	7.13	60.85	4,104.42	23.49	96.69	84.03	0.40	-0.02	
4,206.00	7.50	60.23	4,198.64	29.44	107.22	95.62	0.40	0.39	
4,301.00	7.50	61.18	4,292.83	35.51	118.04	107.49	0.13	0.00	
4,396.00	7.23	60.94	4,387.05	41.40	128.70	119.13	0.29	-0.28	
4,490.00	7.06	62.33	4,480.32	46.96	138.98	130.27	0.26	-0.18	
4,585.00	6.44	60.60	4,574.66	52.28	148.79	140.92	0.69	-0.65	
4,680.00	5.72	62.48	4,669.12	57.09	157.64	150.51	0.79	-0.76	
4,775.00	5.52	61.30	4,763.67	61.47	165.84	159.36	0.24	-0.21	
4,870.00	4.95	62.86	4,858.27	65.53	173.50	167.60	0.62	-0.60	
4,955.00	4.87	61.82	4,942.96	68.91	179.94	174.50	0.14	-0.09	
5,051.00	4.75	64.11	5,038.62	72.57	187.11	182.11	0.24	-0.12	
5,146.00	4.82	62.05	5,133.29	76.16	194.17	189.60	0.20	0.07	
5,241.00	4.73	61.42	5,227.96	79.90	201.14	197.13	0.11	-0.09	
5,335.00	4.27	60.06	5,321.67	83.50	207.57	204.19	0.50	-0.49	
5,430.00	3.78	56.86	5,416.43	86.98	213.26	210.64	0.57	-0.52	
5,525.00	3.71	55.26	5,511.23	90.44	218.41	216.71	0.13	-0.07	
5,620.00	3.46	55.92	5,606.05	93.80	223.31	222.53	0.27	-0.26	
5,715.00	3.05	53.42	5,700.89	96.91	227.71	227.82	0.46	-0.43	
5,810.00	3.08	54.38	5,795.76	99.91	231.82	232.83	0.06	0.03	
5,905.00	3.15	54.07	5,890.62	102.92	236.00	237.91	0.08	0.07	
5,999.00	3.12	52.51	5,984.48	106.00	240.13	242.98	0.10	-0.03	
6,094.00	3.11	49.47	6,079.33	109.24	244.14	248.10	0.17	-0.01	
6,189.00	3.28	50.77	6,174.19	112.64	248.20	253.36	0.19	0.18	
6,284.00	3.34	51.21	6,269.03	116.09	252.46	258.81	0.07	0.06	

Kaiser-Francis Oil Company

Survey Report



Company: Kaiser-Francis Oil Co.
Project: Lea County, NM (NAD 83)
Site: SEC 5, T23S, R34E
Well: BELL LAKE UNIT NORTH 231H
Wellbore: OH
Design: FINAL

Local Co-ordinate Reference: Well BELL LAKE UNIT NORTH 231H
TVD Reference: 23.9' KB @ 3468.80usft (Cactus 171)
MD Reference: 23.9' KB @ 3468.80usft (Cactus 171)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
6,379.00	3.29	48.71	6,363.87	119.62	256.67	264.27	0.16	-0.05	
6,474.00	1.36	40.82	6,458.79	122.27	259.45	268.11	2.05	-2.03	
6,569.00	1.38	40.90	6,553.76	123.99	260.94	270.38	0.02	0.02	
6,664.00	1.33	35.82	6,648.73	125.75	262.33	272.61	0.14	-0.05	
6,759.00	1.18	41.01	6,743.71	127.38	263.62	274.68	0.20	-0.16	
6,854.00	1.04	43.55	6,838.69	128.75	264.86	276.52	0.16	-0.15	
6,949.00	0.88	44.59	6,933.68	129.89	265.96	278.11	0.17	-0.17	
7,044.00	0.84	50.09	7,028.67	130.86	267.01	279.53	0.10	-0.04	
7,139.00	0.56	56.11	7,123.66	131.56	267.93	280.68	0.30	-0.29	
7,234.00	0.25	76.21	7,218.66	131.87	268.51	281.31	0.35	-0.33	
7,328.00	0.06	120.54	7,312.66	131.89	268.76	281.49	0.22	-0.20	
7,423.00	0.13	169.98	7,407.66	131.76	268.82	281.44	0.11	0.07	
7,518.00	0.31	192.23	7,502.66	131.41	268.78	281.16	0.21	0.19	
7,613.00	0.52	210.95	7,597.66	130.78	268.51	280.52	0.26	0.22	
7,708.00	0.65	200.69	7,692.65	129.91	268.09	279.61	0.18	0.14	
7,803.00	0.89	202.15	7,787.64	128.72	267.63	278.43	0.25	0.25	
7,898.00	1.03	206.72	7,882.63	127.28	266.96	276.93	0.17	0.15	
7,993.00	1.00	202.09	7,977.61	125.75	266.27	275.34	0.09	-0.03	
8,088.00	0.95	203.61	8,072.60	124.26	265.64	273.83	0.06	-0.05	
8,182.00	0.95	210.25	8,166.59	122.87	264.94	272.35	0.12	0.00	
8,277.00	1.00	213.58	8,261.57	121.50	264.08	270.77	0.08	0.05	
8,372.00	1.05	217.08	8,356.56	120.11	263.10	269.09	0.08	0.05	
8,467.00	0.98	216.16	8,451.54	118.76	262.09	267.42	0.08	-0.07	
8,562.00	1.03	206.49	8,546.53	117.34	261.23	265.80	0.19	0.05	
8,657.00	0.79	130.44	8,641.52	116.15	261.35	265.02	1.20	-0.25	
8,751.00	1.34	104.92	8,735.50	115.45	262.91	265.60	0.76	0.59	
8,846.00	1.12	95.03	8,830.48	115.08	264.90	266.72	0.32	-0.23	
8,927.00	0.95	95.02	8,911.47	114.96	266.36	267.64	0.21	-0.21	
8,964.00	0.69	81.62	8,948.46	114.96	266.89	268.01	0.87	-0.70	
9,059.00	0.92	90.75	9,043.46	115.03	268.22	268.98	0.28	0.24	
9,154.00	1.67	25.68	9,138.43	116.27	269.58	270.82	1.61	0.79	
9,249.00	1.73	42.21	9,233.39	118.58	271.14	273.57	0.52	0.06	
9,344.00	3.97	55.47	9,328.27	121.51	274.81	278.22	2.44	2.36	
9,438.00	3.61	72.51	9,422.07	124.24	280.32	284.01	1.25	-0.38	
9,533.00	3.42	71.81	9,516.89	126.03	285.86	289.14	0.21	-0.20	
9,628.00	3.03	74.43	9,611.74	127.58	290.97	293.81	0.44	-0.41	
9,722.00	3.48	52.89	9,705.59	129.97	295.64	298.77	1.38	0.48	
9,817.00	7.08	30.05	9,800.18	136.78	300.88	307.31	4.32	3.79	
9,912.00	10.84	37.90	9,894.01	148.90	309.30	321.88	4.15	3.96	
10,007.00	15.99	42.55	9,986.39	165.60	323.64	343.86	5.53	5.42	
10,102.00	23.99	45.06	10,075.59	188.92	346.20	376.30	8.47	8.42	
10,197.00	29.46	42.56	10,160.42	219.80	375.69	419.00	5.88	5.76	
10,291.00	31.63	28.71	10,241.47	258.49	403.21	465.95	7.82	2.31	
10,386.00	39.23	20.79	10,318.86	308.53	425.88	517.71	9.33	8.00	
10,481.00	44.85	15.41	10,389.41	368.98	445.47	574.82	7.02	5.92	
10,576.00	52.41	8.69	10,452.19	438.62	460.09	635.10	9.56	7.96	FINAL SURVEY @ 10576'
10,634.00	56.20	10.00	10,486.03	485.09	467.75	673.87	6.79	6.53	PROJECTION TO BIT

Kaiser-Francis Oil Company

Survey Report



Company:	Kaiser-Francis Oil Co.	Local Co-ordinate Reference:	Well BELL LAKE UNIT NORTH 231H
Project:	Lea County, NM (NAD 83)	TVD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Site:	SEC 5, T23S, R34E	MD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Well:	BELL LAKE UNIT NORTH 231H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,576.00	10,452.19	438.62	460.09	FINAL SURVEY @ 10576'
10,634.00	10,486.03	485.09	467.75	PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____

Kaiser-Francis Oil Company

Kaiser-Francis Oil Co.

Lea County, NM (NAD 83)
SEC 5, T23S, R34E
BELL LAKE UNIT NORTH 231H

OH

Design: FINAL

Survey Report - Geographic

15 October, 2020



Kaiser-Francis Oil Company

Survey Report - Geographic



Company:	Kaiser-Francis Oil Co.	Local Co-ordinate Reference:	Well BELL LAKE UNIT NORTH 231H
Project:	Lea County, NM (NAD 83)	TVD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Site:	SEC 5, T23S, R34E	MD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Well:	BELL LAKE UNIT NORTH 231H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	Lea County, NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	SEC 5, T23S, R34E		
Site Position:		Northing:	485,503.70 usft
From:	Map	Easting:	798,963.81 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 19' 55.072 N
		Longitude:	103° 29' 57.272 W
		Grid Convergence:	0.45 °

Well	BELL LAKE UNIT NORTH 231H		
Well Position	+N/-S	0.00 usft	Northing: 485,473.74 usft
	+E/-W	0.00 usft	Easting: 798,964.12 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 19' 54.775 N
		Longitude:	103° 29' 57.271 W
		Ground Level:	3,444.90 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM_FILE	10/14/2020	6.50
			Dip Angle (°) 60.03
			Field Strength (nT) 47,856.10000000

Design	FINAL		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°) 43.96

Survey Program	Date 10/15/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
200.00	10,634.00	GT MWD (OH)	MWD+HDGM
			Description OWSG MWD + HDGM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	485,473.74	798,964.12	32° 19' 54.775 N	103° 29' 57.271 W
200.00	0.55	84.96	200.00	0.08	0.96	485,473.83	798,965.07	32° 19' 54.776 N	103° 29' 57.260 W
332.00	1.25	110.62	331.98	-0.37	2.93	485,473.37	798,967.05	32° 19' 54.771 N	103° 29' 57.237 W
425.00	0.40	98.72	424.97	-0.77	4.21	485,472.97	798,968.32	32° 19' 54.767 N	103° 29' 57.222 W
518.00	0.57	191.70	517.97	-1.28	4.43	485,472.47	798,968.55	32° 19' 54.762 N	103° 29' 57.220 W
612.00	1.25	212.83	611.96	-2.60	3.78	485,471.15	798,967.90	32° 19' 54.749 N	103° 29' 57.227 W
705.00	1.91	211.12	704.92	-4.77	2.43	485,468.97	798,966.55	32° 19' 54.728 N	103° 29' 57.243 W
799.00	2.42	217.10	798.85	-7.70	0.42	485,466.04	798,964.54	32° 19' 54.699 N	103° 29' 57.267 W
892.00	3.40	214.01	891.73	-11.55	-2.30	485,462.19	798,961.81	32° 19' 54.661 N	103° 29' 57.299 W
986.00	3.73	218.73	985.55	-16.25	-5.78	485,457.49	798,958.34	32° 19' 54.615 N	103° 29' 57.340 W
1,079.00	2.30	218.31	1,078.42	-20.07	-8.82	485,453.67	798,955.29	32° 19' 54.577 N	103° 29' 57.376 W
1,172.00	1.86	215.82	1,171.36	-22.76	-10.86	485,450.98	798,953.25	32° 19' 54.551 N	103° 29' 57.400 W

Kaiser-Francis Oil Company

Survey Report - Geographic



Company:	Kaiser-Francis Oil Co.	Local Co-ordinate Reference:	Well BELL LAKE UNIT NORTH 231H
Project:	Lea County, NM (NAD 83)	TVD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Site:	SEC 5, T23S, R34E	MD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Well:	BELL LAKE UNIT NORTH 231H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,267.00	2.76	224.66	1,266.28	-25.64	-13.37	485,448.11	798,950.74	32° 19' 54.523 N	103° 29' 57.429 W
1,363.00	2.67	222.98	1,362.17	-28.92	-16.52	485,444.83	798,947.59	32° 19' 54.491 N	103° 29' 57.466 W
1,458.00	2.36	227.07	1,457.08	-31.87	-19.46	485,441.87	798,944.65	32° 19' 54.462 N	103° 29' 57.501 W
1,553.00	2.23	220.52	1,552.00	-34.60	-22.10	485,439.14	798,942.02	32° 19' 54.435 N	103° 29' 57.532 W
1,648.00	0.76	130.51	1,646.98	-36.42	-22.82	485,437.32	798,941.30	32° 19' 54.417 N	103° 29' 57.540 W
1,743.00	1.21	106.00	1,741.96	-37.10	-21.38	485,436.64	798,942.74	32° 19' 54.410 N	103° 29' 57.524 W
1,838.00	1.20	106.73	1,836.94	-37.67	-19.46	485,436.07	798,944.66	32° 19' 54.404 N	103° 29' 57.501 W
1,933.00	1.11	115.40	1,931.92	-38.35	-17.68	485,435.39	798,946.44	32° 19' 54.397 N	103° 29' 57.481 W
2,028.00	1.98	52.46	2,026.89	-37.74	-15.54	485,436.00	798,948.58	32° 19' 54.403 N	103° 29' 57.456 W
2,123.00	2.62	40.59	2,121.82	-35.09	-12.83	485,438.65	798,951.29	32° 19' 54.429 N	103° 29' 57.424 W
2,218.00	2.17	45.97	2,216.73	-32.19	-10.12	485,441.55	798,954.00	32° 19' 54.458 N	103° 29' 57.392 W
2,312.00	2.17	40.70	2,310.67	-29.61	-7.68	485,444.13	798,956.44	32° 19' 54.483 N	103° 29' 57.363 W
2,407.00	2.17	48.92	2,405.60	-27.06	-5.15	485,446.68	798,958.96	32° 19' 54.508 N	103° 29' 57.334 W
2,502.00	2.12	42.81	2,500.53	-24.59	-2.60	485,449.15	798,961.51	32° 19' 54.532 N	103° 29' 57.304 W
2,597.00	1.89	41.25	2,595.47	-22.13	-0.38	485,451.62	798,963.74	32° 19' 54.556 N	103° 29' 57.277 W
2,692.00	2.03	50.83	2,690.42	-19.88	1.96	485,453.86	798,966.08	32° 19' 54.578 N	103° 29' 57.250 W
2,787.00	1.95	48.37	2,785.36	-17.75	4.47	485,455.99	798,968.59	32° 19' 54.599 N	103° 29' 57.221 W
2,882.00	2.08	52.41	2,880.30	-15.62	7.05	485,458.12	798,971.16	32° 19' 54.620 N	103° 29' 57.190 W
2,977.00	1.98	51.79	2,975.24	-13.56	9.70	485,460.18	798,973.82	32° 19' 54.640 N	103° 29' 57.159 W
3,072.00	2.19	65.41	3,070.18	-11.79	12.64	485,461.96	798,976.76	32° 19' 54.658 N	103° 29' 57.125 W
3,167.00	2.08	64.13	3,165.11	-10.28	15.84	485,463.46	798,979.96	32° 19' 54.672 N	103° 29' 57.087 W
3,262.00	2.55	75.97	3,260.04	-9.01	19.45	485,464.73	798,983.56	32° 19' 54.685 N	103° 29' 57.045 W
3,356.00	2.93	80.41	3,353.93	-8.11	23.84	485,465.63	798,987.96	32° 19' 54.693 N	103° 29' 56.994 W
3,451.00	3.40	82.52	3,448.78	-7.34	29.03	485,466.41	798,993.15	32° 19' 54.701 N	103° 29' 56.933 W
3,541.00	4.33	73.25	3,538.58	-6.01	34.93	485,467.73	798,999.05	32° 19' 54.713 N	103° 29' 56.865 W
3,636.00	7.16	65.19	3,633.09	-2.49	43.74	485,471.25	799,007.86	32° 19' 54.747 N	103° 29' 56.762 W
3,731.00	7.07	65.16	3,727.36	2.45	54.42	485,476.19	799,018.54	32° 19' 54.795 N	103° 29' 56.637 W
3,826.00	7.14	64.31	3,821.63	7.47	65.05	485,481.21	799,029.16	32° 19' 54.844 N	103° 29' 56.512 W
3,921.00	7.17	62.91	3,915.89	12.72	75.64	485,486.47	799,039.76	32° 19' 54.895 N	103° 29' 56.388 W
4,016.00	7.15	63.94	4,010.15	18.02	86.23	485,491.76	799,050.35	32° 19' 54.947 N	103° 29' 56.264 W
4,111.00	7.13	60.85	4,104.42	23.49	96.69	485,497.23	799,060.81	32° 19' 55.000 N	103° 29' 56.142 W
4,206.00	7.50	60.23	4,198.64	29.44	107.22	485,503.18	799,071.34	32° 19' 55.058 N	103° 29' 56.019 W
4,301.00	7.50	61.18	4,292.83	35.51	118.04	485,509.25	799,082.16	32° 19' 55.118 N	103° 29' 55.892 W
4,396.00	7.23	60.94	4,387.05	41.40	128.70	485,515.14	799,092.81	32° 19' 55.175 N	103° 29' 55.767 W
4,490.00	7.06	62.33	4,480.32	46.96	138.98	485,520.70	799,103.10	32° 19' 55.229 N	103° 29' 55.647 W
4,585.00	6.44	60.60	4,574.66	52.28	148.79	485,526.02	799,112.91	32° 19' 55.281 N	103° 29' 55.532 W
4,680.00	5.72	62.48	4,669.12	57.09	157.64	485,530.83	799,121.75	32° 19' 55.328 N	103° 29' 55.429 W
4,775.00	5.52	61.30	4,763.67	61.47	165.84	485,535.21	799,129.96	32° 19' 55.371 N	103° 29' 55.333 W
4,870.00	4.95	62.86	4,858.27	65.53	173.50	485,539.27	799,137.61	32° 19' 55.410 N	103° 29' 55.243 W
4,955.00	4.87	61.82	4,942.96	68.91	179.94	485,542.65	799,144.06	32° 19' 55.443 N	103° 29' 55.168 W
5,051.00	4.75	64.11	5,038.62	72.57	187.11	485,546.31	799,151.23	32° 19' 55.479 N	103° 29' 55.084 W
5,146.00	4.82	62.05	5,133.29	76.16	194.17	485,549.90	799,158.29	32° 19' 55.514 N	103° 29' 55.001 W
5,241.00	4.73	61.42	5,227.96	79.90	201.14	485,553.64	799,165.26	32° 19' 55.550 N	103° 29' 54.920 W
5,335.00	4.27	60.06	5,321.67	83.50	207.57	485,557.24	799,171.69	32° 19' 55.586 N	103° 29' 54.844 W
5,430.00	3.78	56.86	5,416.43	86.98	213.26	485,560.72	799,177.38	32° 19' 55.620 N	103° 29' 54.778 W
5,525.00	3.71	55.26	5,511.23	90.44	218.41	485,564.18	799,182.53	32° 19' 55.653 N	103° 29' 54.717 W
5,620.00	3.46	55.92	5,606.05	93.80	223.31	485,567.54	799,187.43	32° 19' 55.686 N	103° 29' 54.660 W
5,715.00	3.05	53.42	5,700.89	96.91	227.71	485,570.65	799,191.83	32° 19' 55.717 N	103° 29' 54.608 W
5,810.00	3.08	54.38	5,795.76	99.91	231.82	485,573.65	799,195.93	32° 19' 55.746 N	103° 29' 54.560 W
5,905.00	3.15	54.07	5,890.62	102.92	236.00	485,576.66	799,200.12	32° 19' 55.776 N	103° 29' 54.511 W
5,999.00	3.12	52.51	5,984.48	106.00	240.13	485,579.74	799,204.24	32° 19' 55.806 N	103° 29' 54.463 W
6,094.00	3.11	49.47	6,079.34	109.24	244.14	485,582.98	799,208.25	32° 19' 55.837 N	103° 29' 54.416 W
6,189.00	3.28	50.77	6,174.19	112.64	248.20	485,586.38	799,212.32	32° 19' 55.871 N	103° 29' 54.368 W
6,284.00	3.34	51.21	6,269.03	116.09	252.46	485,589.83	799,216.58	32° 19' 55.905 N	103° 29' 54.318 W
6,379.00	3.29	48.71	6,363.87	119.62	256.67	485,593.36	799,220.79	32° 19' 55.939 N	103° 29' 54.269 W

Kaiser-Francis Oil Company

Survey Report - Geographic



Company:	Kaiser-Francis Oil Co.	Local Co-ordinate Reference:	Well BELL LAKE UNIT NORTH 231H
Project:	Lea County, NM (NAD 83)	TVD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Site:	SEC 5, T23S, R34E	MD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Well:	BELL LAKE UNIT NORTH 231H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,474.00	1.36	40.82	6,458.79	122.27	259.45	485,596.02	799,223.57	32° 19' 55.965 N	103° 29' 54.236 W
6,569.00	1.38	40.90	6,553.76	123.99	260.94	485,597.73	799,225.06	32° 19' 55.982 N	103° 29' 54.219 W
6,664.00	1.33	35.82	6,648.73	125.75	262.33	485,599.49	799,226.45	32° 19' 55.999 N	103° 29' 54.202 W
6,759.00	1.18	41.01	6,743.71	127.38	263.62	485,601.12	799,227.74	32° 19' 56.015 N	103° 29' 54.187 W
6,854.00	1.04	43.55	6,838.69	128.75	264.86	485,602.49	799,228.97	32° 19' 56.029 N	103° 29' 54.173 W
6,949.00	0.88	44.59	6,933.68	129.89	265.96	485,603.63	799,230.08	32° 19' 56.040 N	103° 29' 54.160 W
7,044.00	0.84	50.09	7,028.67	130.86	267.01	485,604.60	799,231.13	32° 19' 56.050 N	103° 29' 54.147 W
7,139.00	0.56	56.11	7,123.66	131.56	267.93	485,605.30	799,232.05	32° 19' 56.056 N	103° 29' 54.137 W
7,234.00	0.25	76.21	7,218.66	131.87	268.51	485,605.61	799,232.63	32° 19' 56.059 N	103° 29' 54.130 W
7,328.00	0.06	120.54	7,312.66	131.89	268.76	485,605.64	799,232.87	32° 19' 56.060 N	103° 29' 54.127 W
7,423.00	0.13	169.98	7,407.66	131.76	268.82	485,605.50	799,232.94	32° 19' 56.058 N	103° 29' 54.126 W
7,518.00	0.31	192.23	7,502.66	131.41	268.78	485,605.15	799,232.90	32° 19' 56.055 N	103° 29' 54.127 W
7,613.00	0.52	210.95	7,597.66	130.78	268.51	485,604.53	799,232.62	32° 19' 56.049 N	103° 29' 54.130 W
7,708.00	0.65	200.69	7,692.65	129.91	268.09	485,603.65	799,232.21	32° 19' 56.040 N	103° 29' 54.135 W
7,803.00	0.89	202.15	7,787.64	128.72	267.63	485,602.46	799,231.74	32° 19' 56.028 N	103° 29' 54.140 W
7,898.00	1.03	206.72	7,882.63	127.28	266.96	485,601.02	799,231.08	32° 19' 56.014 N	103° 29' 54.148 W
7,993.00	1.00	202.09	7,977.61	125.75	266.27	485,599.49	799,230.39	32° 19' 55.999 N	103° 29' 54.156 W
8,088.00	0.95	203.61	8,072.60	124.26	265.64	485,598.00	799,229.76	32° 19' 55.984 N	103° 29' 54.164 W
8,182.00	0.95	210.25	8,166.59	122.87	264.94	485,596.61	799,229.05	32° 19' 55.971 N	103° 29' 54.172 W
8,277.00	1.00	213.58	8,261.57	121.50	264.08	485,595.24	799,228.20	32° 19' 55.957 N	103° 29' 54.182 W
8,372.00	1.05	217.08	8,356.56	120.11	263.10	485,593.85	799,227.21	32° 19' 55.944 N	103° 29' 54.194 W
8,467.00	0.98	216.16	8,451.54	118.76	262.09	485,592.50	799,226.21	32° 19' 55.930 N	103° 29' 54.206 W
8,562.00	1.03	206.49	8,546.53	117.34	261.23	485,591.08	799,225.35	32° 19' 55.916 N	103° 29' 54.216 W
8,657.00	0.79	130.44	8,641.52	116.15	261.35	485,589.90	799,225.47	32° 19' 55.905 N	103° 29' 54.215 W
8,751.00	1.34	104.92	8,735.50	115.45	262.91	485,589.19	799,227.02	32° 19' 55.897 N	103° 29' 54.197 W
8,846.00	1.12	95.03	8,830.48	115.08	264.90	485,588.82	799,229.02	32° 19' 55.894 N	103° 29' 54.173 W
8,927.00	0.95	95.02	8,911.47	114.96	266.36	485,588.70	799,230.48	32° 19' 55.892 N	103° 29' 54.156 W
8,964.00	0.69	81.62	8,948.46	114.96	266.89	485,588.70	799,231.00	32° 19' 55.892 N	103° 29' 54.150 W
9,059.00	0.92	90.75	9,043.46	115.03	268.22	485,588.78	799,232.33	32° 19' 55.893 N	103° 29' 54.135 W
9,154.00	1.67	25.68	9,138.43	116.27	269.58	485,590.01	799,233.70	32° 19' 55.905 N	103° 29' 54.119 W
9,249.00	1.73	42.21	9,233.39	118.58	271.14	485,592.32	799,235.26	32° 19' 55.928 N	103° 29' 54.100 W
9,344.00	3.97	55.47	9,328.27	121.51	274.81	485,595.25	799,238.93	32° 19' 55.956 N	103° 29' 54.057 W
9,438.00	3.61	72.51	9,422.07	124.24	280.32	485,597.98	799,244.44	32° 19' 55.983 N	103° 29' 53.993 W
9,533.00	3.42	71.81	9,516.89	126.03	285.86	485,599.77	799,249.98	32° 19' 56.000 N	103° 29' 53.928 W
9,628.00	3.03	74.43	9,611.74	127.58	290.97	485,601.33	799,255.09	32° 19' 56.015 N	103° 29' 53.868 W
9,722.00	3.48	52.89	9,705.59	129.97	295.64	485,603.71	799,259.76	32° 19' 56.039 N	103° 29' 53.814 W
9,817.00	7.08	30.05	9,800.18	136.78	300.88	485,610.52	799,264.99	32° 19' 56.106 N	103° 29' 53.752 W
9,912.00	10.84	37.90	9,894.01	148.90	309.30	485,622.65	799,273.42	32° 19' 56.225 N	103° 29' 53.653 W
10,007.00	15.99	42.55	9,986.39	165.60	323.64	485,639.35	799,287.76	32° 19' 56.389 N	103° 29' 53.484 W
10,102.00	23.99	45.06	10,075.59	188.92	346.20	485,662.66	799,310.32	32° 19' 56.618 N	103° 29' 53.219 W
10,197.00	29.46	42.56	10,160.42	219.80	375.69	485,693.54	799,339.81	32° 19' 56.921 N	103° 29' 52.873 W
10,291.00	31.63	28.71	10,241.47	258.49	403.21	485,732.24	799,367.32	32° 19' 57.302 N	103° 29' 52.548 W
10,386.00	39.23	20.79	10,318.86	308.53	425.88	485,782.27	799,390.00	32° 19' 57.795 N	103° 29' 52.280 W
10,481.00	44.85	15.41	10,389.41	368.98	445.47	485,842.72	799,409.59	32° 19' 58.392 N	103° 29' 52.046 W
10,576.00	52.41	8.69	10,452.19	438.62	460.09	485,912.36	799,424.20	32° 19' 59.080 N	103° 29' 51.869 W
FINAL SURVEY @ 10576'									
10,634.00	56.20	10.00	10,486.03	485.09	467.75	485,958.83	799,431.86	32° 19' 59.539 N	103° 29' 51.776 W
PROJECTION TO BIT									

Kaiser-Francis Oil Company

Survey Report - Geographic



Company:	Kaiser-Francis Oil Co.	Local Co-ordinate Reference:	Well BELL LAKE UNIT NORTH 231H
Project:	Lea County, NM (NAD 83)	TVD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Site:	SEC 5, T23S, R34E	MD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Well:	BELL LAKE UNIT NORTH 231H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,576.00	10,452.19	438.62	460.09	FINAL SURVEY @ 10576'
10,634.00	10,486.03	485.09	467.75	PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____

Kaiser-Francis Oil Company

Kaiser-Francis Oil Co.

Lea County, NM (NAD 83)

SEC 5, T23S, R34E

BELL LAKE UNIT NORTH 231H

ST01

Design: FINAL

Standard Survey Report

15 October, 2020



Page 17 of 4

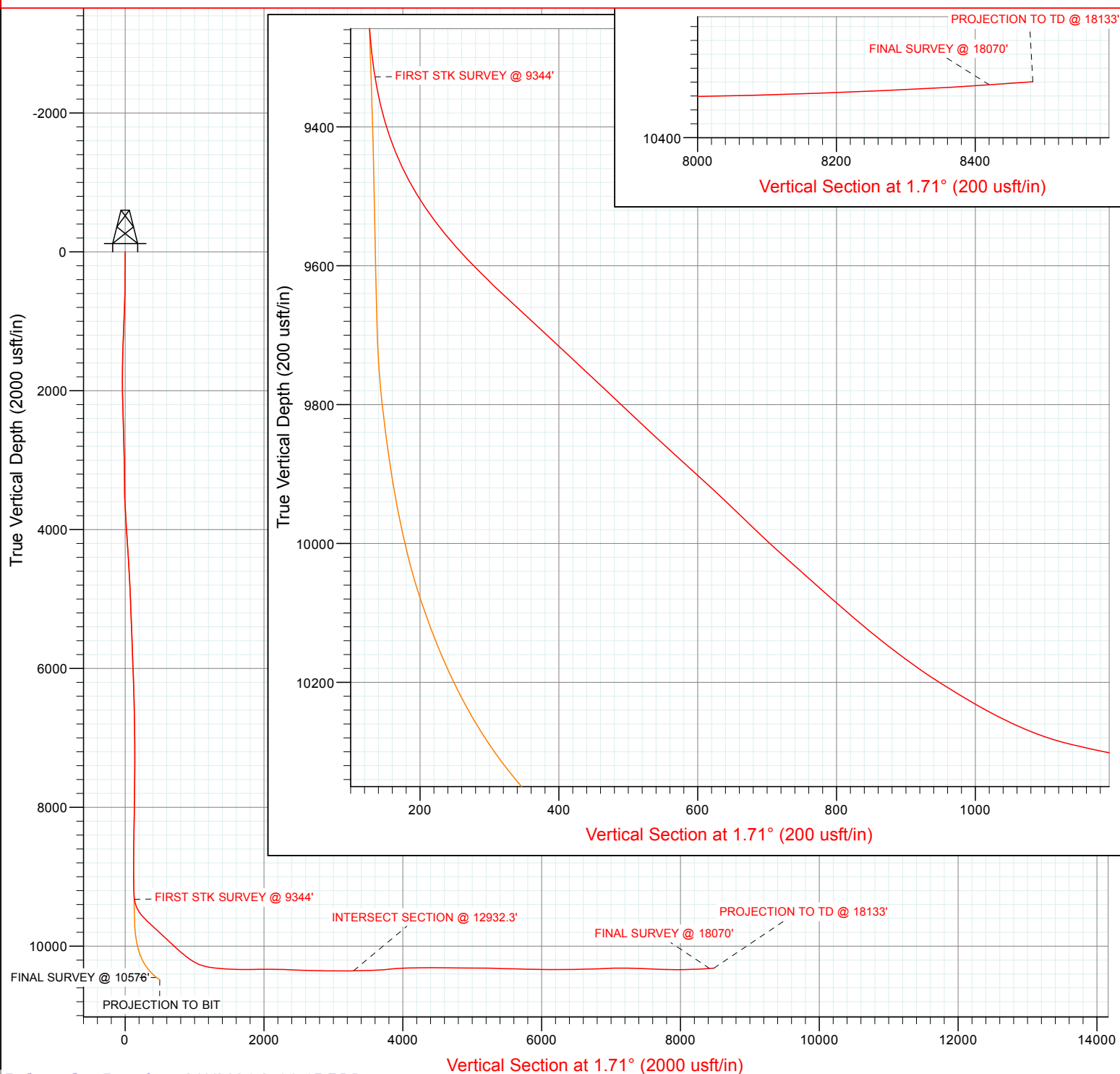


CATHEDRAL

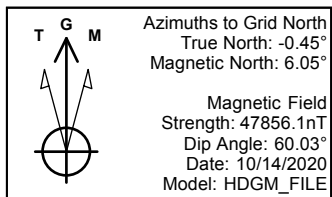
A diagram showing a central point with three arrows pointing away from it. The arrows are labeled T, G, and M. The arrow labeled G is the longest and points straight up. The arrows labeled T and M are shorter and point towards the left and right respectively.

Magnetic Field
Strength: 47856.1nT
Dip Angle: 60.03°
Date: 10/14/2020
Model: HDGM FILE

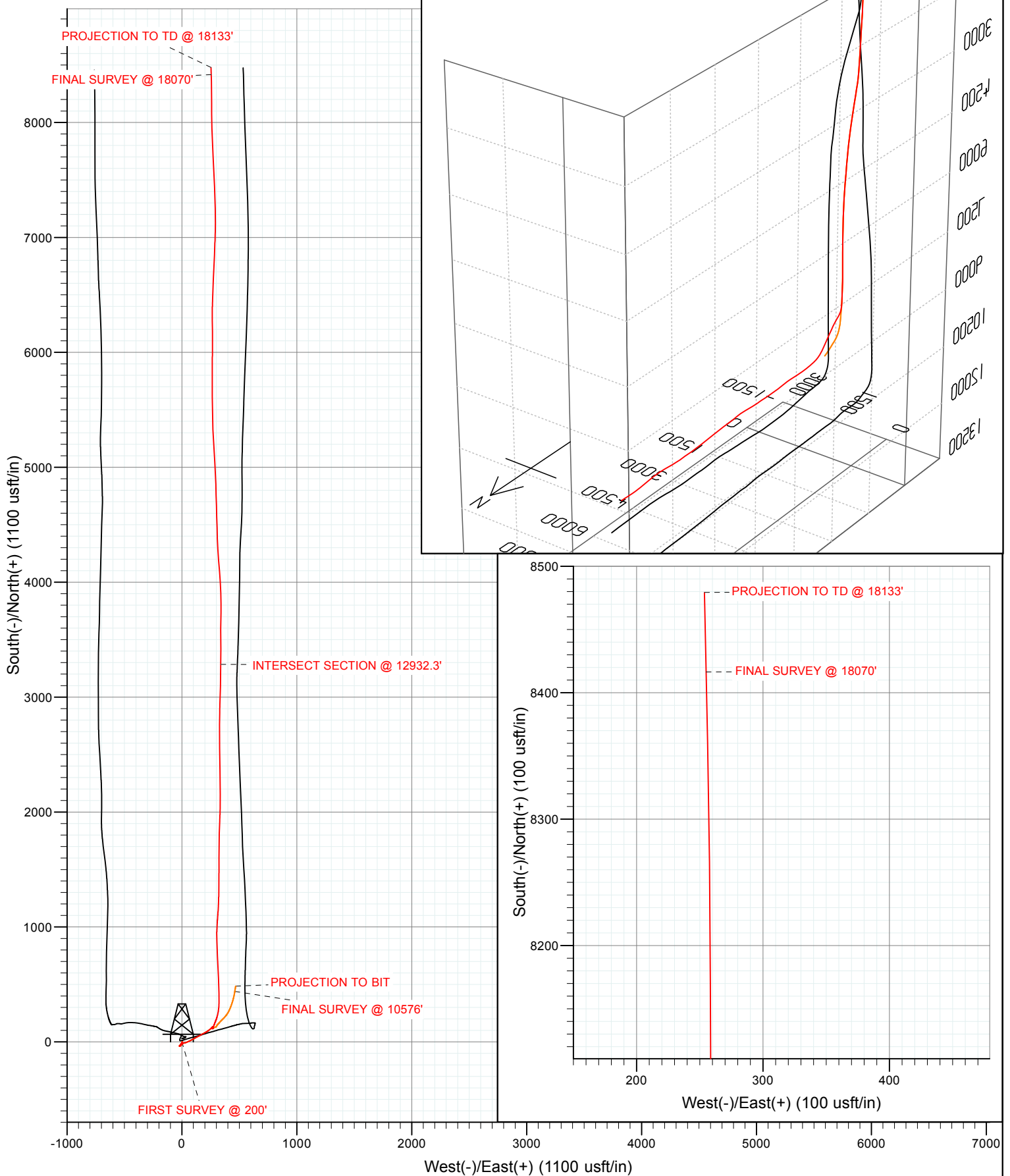
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
9344.00	9.07	9.69	9327.92	127.04	273.37	135.16	432.37	FIRST STK SURVEY @ 9344'
12932.30	90.87	0.05	10355.76	3285.14	337.87	3293.77	3599.23	INTERSECT SECTION @ 12932.3'
18070.00	94.06	358.88	10323.73	8416.48	255.01	8420.34	8733.81	FINAL SURVEY @ 18070'
18133.00	94.06	358.88	10319.27	8479.31	253.78	8483.11	8796.66	PROJECTION TO TD @ 18133'



Kaiser-Francis Oil Company



US State Plane 1983
 New Mexico Eastern Zone
 Project: Lea County, NM (NAD 83)
 Site: SEC 5, T23S, R34E
 Well: BELL LAKE UNIT NORTH 231H
 Wellbore: ST01
 23.9' KB @ 3468.80usft (Cactus 171)
 Ground Elevation: 3444.90
 FINAL



Kaiser-Francis Oil Company

Survey Report



Company:	Kaiser-Francis Oil Co.	Local Co-ordinate Reference:	Well BELL LAKE UNIT NORTH 231H
Project:	Lea County, NM (NAD 83)	TVD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Site:	SEC 5, T23S, R34E	MD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Well:	BELL LAKE UNIT NORTH 231H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	Lea County, NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		SEC 5, T23S, R34E			
Site Position:		Northing:	485,503.70 usft	Latitude:	32° 19' 55.072 N
From:	Map	Easting:	798,963.81 usft	Longitude:	103° 29' 57.272 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.45 °

Well	BELL LAKE UNIT NORTH 231H					
Well Position	+N/-S	0.00 usft	Northing:	485,473.74 usft	Latitude:	32° 19' 54.775 N
	+E/-W	0.00 usft	Easting:	798,964.12 usft	Longitude:	103° 29' 57.271 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,444.90 usft

Wellbore	ST01				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	10/14/2020	6.50	60.03	47,856.10000000

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	9,249.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	1.71	

Survey Program	Date	10/15/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
200.00	9,249.00	GT MWD (OH)	MWD+HDGM	OWSG MWD + HDGM	
9,344.00	18,133.00	GT MWD (ST01)	MWD+HDGM	OWSG MWD + HDGM	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.55	84.96	200.00	0.08	0.96	0.11	0.27	0.27	
332.00	1.25	110.62	331.98	-0.37	2.93	-0.28	0.60	0.53	
425.00	0.40	98.72	424.97	-0.77	4.21	-0.65	0.93	-0.91	
518.00	0.57	191.70	517.97	-1.28	4.43	-1.14	0.77	0.18	
612.00	1.25	212.83	611.96	-2.60	3.78	-2.48	0.79	0.72	
705.00	1.91	211.12	704.92	-4.77	2.43	-4.70	0.71	0.71	
799.00	2.42	217.10	798.85	-7.70	0.42	-7.68	0.59	0.54	
892.00	3.40	214.01	891.73	-11.55	-2.30	-11.61	1.07	1.05	
986.00	3.73	218.73	985.55	-16.25	-5.78	-16.41	0.47	0.35	
1,079.00	2.30	218.31	1,078.42	-20.07	-8.82	-20.33	1.54	-1.54	
1,172.00	1.86	215.82	1,171.36	-22.76	-10.86	-23.07	0.48	-0.47	

Kaiser-Francis Oil Company

Survey Report



Company: Kaiser-Francis Oil Co.
Project: Lea County, NM (NAD 83)
Site: SEC 5, T23S, R34E
Well: BELL LAKE UNIT NORTH 231H
Wellbore: ST01
Design: FINAL

Local Co-ordinate Reference: Well BELL LAKE UNIT NORTH 231H
TVD Reference: 23.9' KB @ 3468.80usft (Cactus 171)
MD Reference: 23.9' KB @ 3468.80usft (Cactus 171)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Formations / Comments
1,267.00	2.76	224.66	1,266.28	-25.64	-13.37	-26.02	1.02	0.95	
1,363.00	2.67	222.98	1,362.17	-28.92	-16.52	-29.40	0.13	-0.09	
1,458.00	2.36	227.07	1,457.08	-31.87	-19.46	-32.43	0.38	-0.33	
1,553.00	2.23	220.52	1,552.00	-34.60	-22.10	-35.25	0.31	-0.14	
1,648.00	0.76	130.51	1,646.98	-36.42	-22.82	-37.08	2.48	-1.55	
1,743.00	1.21	106.00	1,741.96	-37.10	-21.38	-37.73	0.64	0.47	
1,838.00	1.20	106.73	1,836.94	-37.67	-19.46	-38.23	0.02	-0.01	
1,933.00	1.11	115.40	1,931.92	-38.35	-17.68	-38.86	0.21	-0.09	
2,028.00	1.98	52.46	2,026.89	-37.74	-15.54	-38.19	1.87	0.92	
2,123.00	2.62	40.59	2,121.82	-35.09	-12.83	-35.46	0.84	0.67	
2,218.00	2.17	45.97	2,216.73	-32.19	-10.12	-32.48	0.53	-0.47	
2,312.00	2.17	40.70	2,310.67	-29.61	-7.68	-29.83	0.21	0.00	
2,407.00	2.17	48.92	2,405.60	-27.06	-5.15	-27.21	0.33	0.00	
2,502.00	2.12	42.81	2,500.53	-24.59	-2.60	-24.66	0.25	-0.05	
2,597.00	1.89	41.25	2,595.47	-22.13	-0.38	-22.13	0.25	-0.24	
2,692.00	2.03	50.83	2,690.42	-19.88	1.96	-19.82	0.37	0.15	
2,787.00	1.95	48.37	2,785.36	-17.75	4.47	-17.61	0.12	-0.08	
2,882.00	2.08	52.41	2,880.30	-15.62	7.05	-15.41	0.20	0.14	
2,977.00	1.98	51.79	2,975.24	-13.56	9.70	-13.26	0.11	-0.11	
3,072.00	2.19	65.41	3,070.18	-11.79	12.64	-11.40	0.56	0.22	
3,167.00	2.08	64.13	3,165.11	-10.28	15.84	-9.80	0.13	-0.12	
3,262.00	2.55	75.97	3,260.04	-9.01	19.45	-8.43	0.70	0.49	
3,356.00	2.93	80.41	3,353.93	-8.11	23.84	-7.39	0.46	0.40	
3,451.00	3.40	82.52	3,448.78	-7.34	29.03	-6.46	0.51	0.49	
3,541.00	4.33	73.25	3,538.58	-6.01	34.93	-4.96	1.24	1.03	
3,636.00	7.16	65.19	3,633.09	-2.49	43.74	-1.18	3.09	2.98	
3,731.00	7.07	65.16	3,727.36	2.45	54.42	4.08	0.09	-0.09	
3,826.00	7.14	64.31	3,821.63	7.47	65.05	9.41	0.13	0.07	
3,921.00	7.17	62.91	3,915.89	12.72	75.64	14.98	0.19	0.03	
4,016.00	7.15	63.94	4,010.15	18.02	86.23	20.59	0.14	-0.02	
4,111.00	7.13	60.85	4,104.42	23.49	96.69	26.37	0.40	-0.02	
4,206.00	7.50	60.23	4,198.64	29.44	107.22	32.64	0.40	0.39	
4,301.00	7.50	61.18	4,292.83	35.51	118.04	39.02	0.13	0.00	
4,396.00	7.23	60.94	4,387.05	41.40	128.70	45.23	0.29	-0.28	
4,490.00	7.06	62.33	4,480.32	46.96	138.98	51.09	0.26	-0.18	
4,585.00	6.44	60.60	4,574.66	52.28	148.79	56.71	0.69	-0.65	
4,680.00	5.72	62.48	4,669.12	57.09	157.64	61.78	0.79	-0.76	
4,775.00	5.52	61.30	4,763.67	61.47	165.84	66.40	0.24	-0.21	
4,870.00	4.95	62.86	4,858.27	65.53	173.50	70.69	0.62	-0.60	
4,955.00	4.87	61.82	4,942.96	68.91	179.94	74.26	0.14	-0.09	
5,051.00	4.75	64.11	5,038.62	72.57	187.11	78.13	0.24	-0.12	
5,146.00	4.82	62.05	5,133.29	76.16	194.17	81.93	0.20	0.07	
5,241.00	4.73	61.42	5,227.96	79.90	201.14	85.88	0.11	-0.09	
5,335.00	4.27	60.06	5,321.67	83.50	207.57	89.67	0.50	-0.49	
5,430.00	3.78	56.86	5,416.43	86.98	213.26	93.32	0.57	-0.52	
5,525.00	3.71	55.26	5,511.23	90.44	218.41	96.94	0.13	-0.07	
5,620.00	3.46	55.92	5,606.05	93.80	223.31	100.44	0.27	-0.26	
5,715.00	3.05	53.42	5,700.89	96.91	227.71	103.68	0.46	-0.43	
5,810.00	3.08	54.38	5,795.76	99.91	231.82	106.80	0.06	0.03	
5,905.00	3.15	54.07	5,890.62	102.92	236.00	109.94	0.08	0.07	
5,999.00	3.12	52.51	5,984.48	106.00	240.13	113.13	0.10	-0.03	
6,094.00	3.11	49.47	6,079.33	109.24	244.14	116.50	0.17	-0.01	
6,189.00	3.28	50.77	6,174.19	112.64	248.20	120.01	0.19	0.18	

Kaiser-Francis Oil Company

Survey Report



Company: Kaiser-Francis Oil Co.
Project: Lea County, NM (NAD 83)
Site: SEC 5, T23S, R34E
Well: BELL LAKE UNIT NORTH 231H
Wellbore: ST01
Design: FINAL

Local Co-ordinate Reference: Well BELL LAKE UNIT NORTH 231H
TVD Reference: 23.9' KB @ 3468.80usft (Cactus 171)
MD Reference: 23.9' KB @ 3468.80usft (Cactus 171)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
6,284.00	3.34	51.21	6,269.03	116.09	252.46	123.59	0.07	0.06	
6,379.00	3.29	48.71	6,363.87	119.62	256.67	127.25	0.16	-0.05	
6,474.00	1.36	40.82	6,458.79	122.27	259.45	129.98	2.05	-2.03	
6,569.00	1.38	40.90	6,553.76	123.99	260.94	131.74	0.02	0.02	
6,664.00	1.33	35.82	6,648.73	125.75	262.33	133.54	0.14	-0.05	
6,759.00	1.18	41.01	6,743.71	127.38	263.62	135.21	0.20	-0.16	
6,854.00	1.04	43.55	6,838.69	128.75	264.86	136.61	0.16	-0.15	
6,949.00	0.88	44.59	6,933.68	129.89	265.96	137.79	0.17	-0.17	
7,044.00	0.84	50.09	7,028.67	130.86	267.01	138.79	0.10	-0.04	
7,139.00	0.56	56.11	7,123.66	131.56	267.93	139.52	0.30	-0.29	
7,234.00	0.25	76.21	7,218.66	131.87	268.51	139.84	0.35	-0.33	
7,328.00	0.06	120.54	7,312.66	131.89	268.76	139.88	0.22	-0.20	
7,423.00	0.13	169.98	7,407.66	131.76	268.82	139.75	0.11	0.07	
7,518.00	0.31	192.23	7,502.66	131.41	268.78	139.39	0.21	0.19	
7,613.00	0.52	210.95	7,597.66	130.78	268.51	138.76	0.26	0.22	
7,708.00	0.65	200.69	7,692.65	129.91	268.09	137.87	0.18	0.14	
7,803.00	0.89	202.15	7,787.64	128.72	267.63	136.67	0.25	0.25	
7,898.00	1.03	206.72	7,882.63	127.28	266.96	135.21	0.17	0.15	
7,993.00	1.00	202.09	7,977.61	125.75	266.27	133.66	0.09	-0.03	
8,088.00	0.95	203.61	8,072.60	124.26	265.64	132.15	0.06	-0.05	
8,182.00	0.95	210.25	8,166.59	122.87	264.94	130.74	0.12	0.00	
8,277.00	1.00	213.58	8,261.57	121.50	264.08	129.34	0.08	0.05	
8,372.00	1.05	217.08	8,356.56	120.11	263.10	127.93	0.08	0.05	
8,467.00	0.98	216.16	8,451.54	118.76	262.09	126.55	0.08	-0.07	
8,562.00	1.03	206.49	8,546.53	117.34	261.23	125.11	0.19	0.05	
8,657.00	0.79	130.44	8,641.52	116.15	261.35	123.92	1.20	-0.25	
8,751.00	1.34	104.92	8,735.50	115.45	262.91	123.26	0.76	0.59	
8,846.00	1.12	95.03	8,830.48	115.08	264.90	122.96	0.32	-0.23	
8,927.00	0.95	95.02	8,911.47	114.96	266.36	122.87	0.21	-0.21	
8,964.00	0.69	81.62	8,948.46	114.96	266.89	122.89	0.87	-0.70	
9,059.00	0.92	90.75	9,043.46	115.03	268.22	123.01	0.28	0.24	
9,154.00	1.67	25.68	9,138.43	116.27	269.58	124.28	1.61	0.79	
9,249.00	1.73	42.21	9,233.39	118.58	271.14	126.64	0.52	0.06	
9,344.00	9.07	9.69	9,327.92	127.04	273.37	135.16	8.07	7.73	FIRST STK SURVEY @ 9344'
9,439.00	20.71	21.29	9,419.59	150.15	280.75	158.49	12.59	12.25	
9,533.00	34.01	21.53	9,502.89	190.28	296.51	199.06	14.15	14.15	
9,628.00	43.06	11.80	9,577.19	246.91	312.94	256.16	11.44	9.53	
9,723.00	47.07	3.06	9,644.34	313.47	321.44	322.95	7.75	4.22	
9,817.00	47.33	359.47	9,708.22	382.41	322.96	391.90	2.82	0.28	
9,912.00	46.58	357.96	9,773.06	451.81	321.41	461.22	1.40	-0.79	
10,007.00	47.04	359.14	9,838.09	521.05	319.66	530.38	1.03	0.48	
10,102.00	48.12	357.37	9,902.17	591.14	317.51	600.38	1.78	1.14	
10,197.00	45.76	355.79	9,967.03	660.42	313.39	669.50	2.77	-2.48	
10,292.00	48.62	358.36	10,031.59	730.01	309.87	738.95	3.61	3.01	
10,387.00	48.84	357.57	10,094.25	801.36	307.33	810.20	0.67	0.23	
10,482.00	52.57	356.75	10,154.41	874.78	303.68	883.47	3.98	3.93	
10,577.00	58.12	2.51	10,208.44	952.84	303.31	961.49	7.68	5.84	
10,671.00	63.20	3.33	10,254.48	1,034.65	307.49	1,043.38	5.46	5.40	
10,766.00	75.73	4.45	10,287.74	1,123.22	313.55	1,132.10	13.24	13.19	
10,861.00	80.73	1.98	10,307.11	1,216.04	318.75	1,225.04	5.85	5.26	
10,956.00	84.44	0.60	10,319.37	1,310.21	320.86	1,319.22	4.16	3.91	
10,992.00	85.96	0.54	10,322.39	1,346.08	321.22	1,355.09	4.23	4.22	
11,087.00	86.12	0.42	10,328.95	1,440.85	322.01	1,449.84	0.21	0.17	

Kaiser-Francis Oil Company

Survey Report



Company: Kaiser-Francis Oil Co.
Project: Lea County, NM (NAD 83)
Site: SEC 5, T23S, R34E
Well: BELL LAKE UNIT NORTH 231H
Wellbore: ST01
Design: FINAL

Local Co-ordinate Reference: Well BELL LAKE UNIT NORTH 231H
TVD Reference: 23.9' KB @ 3468.80usft (Cactus 171)
MD Reference: 23.9' KB @ 3468.80usft (Cactus 171)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
11,182.00	87.56	0.20	10,334.18	1,535.70	322.53	1,544.66	1.53	1.52	
11,277.00	88.35	0.24	10,337.57	1,630.64	322.89	1,639.57	0.83	0.83	
11,372.00	89.50	0.75	10,339.36	1,725.62	323.71	1,734.53	1.32	1.21	
11,466.00	91.15	1.37	10,338.82	1,819.59	325.45	1,828.52	1.88	1.76	
11,561.00	92.33	2.58	10,335.94	1,914.49	328.72	1,923.47	1.78	1.24	
11,656.00	90.00	1.23	10,334.01	2,009.41	331.88	2,018.44	2.83	-2.45	
11,751.00	89.02	0.32	10,334.82	2,104.39	333.17	2,113.42	1.41	-1.03	
11,846.00	88.82	0.12	10,336.61	2,199.38	333.53	2,208.37	0.30	-0.21	
11,941.00	87.48	358.74	10,339.68	2,294.32	332.59	2,303.24	2.02	-1.41	
12,036.00	87.36	358.43	10,343.95	2,389.19	330.24	2,398.00	0.35	-0.13	
12,131.00	88.26	359.55	10,347.58	2,484.11	328.57	2,492.82	1.51	0.95	
12,226.00	88.29	359.25	10,350.44	2,579.06	327.57	2,587.70	0.32	0.03	
12,321.00	88.77	0.19	10,352.88	2,674.02	327.11	2,682.61	1.11	0.51	
12,416.00	88.57	0.86	10,355.08	2,768.99	327.98	2,777.57	0.74	-0.21	
12,511.00	88.91	0.66	10,357.17	2,863.96	329.24	2,872.53	0.42	0.36	
12,606.00	89.64	1.30	10,358.38	2,958.94	330.87	2,967.51	1.02	0.77	
12,701.00	90.64	1.60	10,358.14	3,053.91	333.27	3,062.51	1.10	1.05	
12,796.00	90.25	1.77	10,357.41	3,148.86	336.06	3,157.51	0.45	-0.41	
12,891.00	90.95	0.27	10,356.41	3,243.84	337.75	3,252.49	1.74	0.74	
12,932.30	90.87	0.05	10,355.76	3,285.14	337.87	3,293.77	0.56	-0.20	INTERSECT SECTION @ 12932.3'
12,986.00	90.76	359.77	10,354.99	3,338.83	337.79	3,347.44	0.56	-0.20	
13,081.00	89.94	359.27	10,354.41	3,433.82	336.99	3,442.37	1.01	-0.86	
13,176.00	91.52	0.41	10,353.20	3,528.81	336.73	3,537.30	2.05	1.66	
13,271.00	94.35	0.99	10,348.34	3,623.67	337.88	3,632.16	3.04	2.98	
13,365.00	95.68	1.18	10,340.12	3,717.29	339.66	3,725.79	1.43	1.41	
13,460.00	95.33	359.55	10,331.01	3,811.85	340.26	3,820.32	1.75	-0.37	
13,555.00	94.38	357.83	10,322.97	3,906.48	338.09	3,914.84	2.06	-1.00	
13,649.00	93.56	356.85	10,316.46	4,000.15	333.74	4,008.34	1.36	-0.87	
13,744.00	91.62	355.45	10,312.17	4,094.83	327.37	4,102.79	2.52	-2.04	
13,839.00	89.80	354.74	10,310.99	4,189.47	319.25	4,197.15	2.06	-1.92	
13,934.00	89.07	357.16	10,311.93	4,284.22	312.54	4,291.65	2.66	-0.77	
14,029.00	89.24	357.95	10,313.33	4,379.12	308.49	4,386.39	0.85	0.18	
14,124.00	89.92	358.75	10,314.02	4,474.08	305.75	4,481.22	1.11	0.72	
14,219.00	89.83	358.46	10,314.23	4,569.05	303.44	4,576.08	0.32	-0.09	
14,314.00	89.58	358.36	10,314.72	4,664.01	300.80	4,670.92	0.28	-0.26	
14,409.00	89.86	358.09	10,315.18	4,758.97	297.86	4,765.75	0.41	0.29	
14,504.00	90.42	358.11	10,314.95	4,853.91	294.71	4,860.56	0.59	0.59	
14,599.00	89.24	357.14	10,315.23	4,948.83	290.77	4,955.31	1.61	-1.24	
14,693.00	89.19	357.11	10,316.52	5,042.70	286.06	5,049.00	0.06	-0.05	
14,788.00	89.30	357.01	10,317.77	5,137.57	281.19	5,143.68	0.16	0.12	
14,883.00	88.99	356.04	10,319.19	5,232.38	275.43	5,238.28	1.07	-0.33	
14,978.00	88.40	357.86	10,321.35	5,327.22	270.38	5,332.92	2.01	-0.62	
15,073.00	88.35	358.91	10,324.05	5,422.14	267.70	5,427.72	1.11	-0.05	
15,168.00	88.77	358.74	10,326.44	5,517.09	265.75	5,522.57	0.48	0.44	
15,263.00	87.92	359.97	10,329.18	5,612.04	264.68	5,617.45	1.57	-0.89	
15,358.00	87.84	359.61	10,332.69	5,706.98	264.33	5,712.33	0.39	-0.08	
15,452.00	88.96	0.25	10,335.32	5,800.94	264.22	5,806.25	1.37	1.19	
15,547.00	89.69	0.27	10,336.44	5,895.93	264.65	5,901.21	0.77	0.77	
15,642.00	90.17	0.37	10,336.55	5,990.93	265.18	5,996.18	0.52	0.51	
15,737.00	90.31	0.24	10,336.16	6,085.93	265.69	6,091.15	0.20	0.15	
15,832.00	89.44	359.84	10,336.36	6,180.92	265.75	6,186.11	1.01	-0.92	
15,927.00	88.60	358.94	10,337.99	6,275.90	264.74	6,281.01	1.30	-0.88	
16,021.00	89.30	0.82	10,339.71	6,369.88	264.55	6,374.95	2.13	0.74	

Kaiser-Francis Oil Company

Survey Report



Company: Kaiser-Francis Oil Co.
Project: Lea County, NM (NAD 83)
Site: SEC 5, T23S, R34E
Well: BELL LAKE UNIT NORTH 231H
Wellbore: ST01
Design: FINAL

Local Co-ordinate Reference: Well BELL LAKE UNIT NORTH 231H
TVD Reference: 23.9' KB @ 3468.80usft (Cactus 171)
MD Reference: 23.9' KB @ 3468.80usft (Cactus 171)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Formations / Comments
16,116.00	91.46	2.16	10,339.08	6,464.84	267.02	6,469.93	2.68	2.27	
16,211.00	91.77	2.44	10,336.40	6,559.73	270.83	6,564.89	0.44	0.33	
16,306.00	91.94	1.90	10,333.33	6,654.61	274.42	6,659.84	0.60	0.18	
16,401.00	92.13	2.82	10,329.95	6,749.47	278.33	6,754.77	0.99	0.20	
16,496.00	92.19	2.37	10,326.37	6,844.30	282.63	6,849.69	0.48	0.06	
16,590.00	93.12	2.33	10,322.02	6,938.12	286.48	6,943.58	0.99	0.99	
16,685.00	90.98	1.71	10,318.62	7,032.99	289.83	7,038.52	2.35	-2.25	
16,780.00	89.19	0.23	10,318.48	7,127.97	291.43	7,133.50	2.44	-1.88	
16,875.00	89.92	359.67	10,319.22	7,222.97	291.35	7,228.45	0.97	0.77	
16,970.00	88.37	358.15	10,320.64	7,317.94	289.54	7,323.32	2.29	-1.63	
17,064.00	87.62	356.93	10,323.93	7,411.79	285.51	7,417.01	1.52	-0.80	
17,159.00	87.25	356.58	10,328.18	7,506.54	280.14	7,511.56	0.54	-0.39	
17,254.00	88.79	358.13	10,331.46	7,601.38	275.76	7,606.23	2.30	1.62	
17,349.00	88.23	357.39	10,333.93	7,696.27	272.05	7,700.97	0.98	-0.59	
17,444.00	87.59	357.10	10,337.39	7,791.10	267.49	7,795.61	0.74	-0.67	
17,539.00	88.94	357.69	10,340.27	7,885.96	263.17	7,890.30	1.55	1.42	
17,634.00	90.48	358.47	10,340.75	7,980.90	259.99	7,985.10	1.82	1.62	
17,729.00	91.82	359.98	10,338.84	8,075.86	258.70	8,079.99	2.12	1.41	
17,824.00	91.85	359.71	10,335.80	8,170.82	258.45	8,174.89	0.29	0.03	
17,919.00	92.69	359.45	10,332.04	8,265.74	257.75	8,269.75	0.93	0.88	
18,014.00	93.11	358.68	10,327.23	8,360.60	256.20	8,364.52	0.92	0.44	
18,070.00	94.06	358.88	10,323.73	8,416.48	255.01	8,420.34	1.73	1.70	FINAL SURVEY @ 18070'
18,133.00	94.06	358.88	10,319.27	8,479.31	253.78	8,483.11	0.00	0.00	PROJECTION TO TD @ 18133'

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
9,344.00	9,327.92	127.04	273.37	FIRST STK SURVEY @ 9344'
12,932.30	10,355.76	3,285.14	337.87	INTERSECT SECTION @ 12932.3'
18,070.00	10,323.73	8,416.48	255.01	FINAL SURVEY @ 18070'
18,133.00	10,319.27	8,479.31	253.78	PROJECTION TO TD @ 18133'

Checked By: _____ Approved By: _____ Date: _____

Kaiser-Francis Oil Company

Kaiser-Francis Oil Co.

Lea County, NM (NAD 83)
SEC 5, T23S, R34E
BELL LAKE UNIT NORTH 231H

ST01

Design: FINAL

Survey Report - Geographic

15 October, 2020



Kaiser-Francis Oil Company

Survey Report - Geographic



Company:	Kaiser-Francis Oil Co.	Local Co-ordinate Reference:	Well BELL LAKE UNIT NORTH 231H
Project:	Lea County, NM (NAD 83)	TVD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Site:	SEC 5, T23S, R34E	MD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Well:	BELL LAKE UNIT NORTH 231H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	Lea County, NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	SEC 5, T23S, R34E		
Site Position:		Northing:	485,503.70 usft
From:	Map	Easting:	798,963.81 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 19' 55.072 N
		Longitude:	103° 29' 57.272 W
		Grid Convergence:	0.45 °

Well	BELL LAKE UNIT NORTH 231H		
Well Position	+N/-S	0.00 usft	Northing: 485,473.74 usft
	+E/-W	0.00 usft	Easting: 798,964.12 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 19' 54.775 N
		Longitude:	103° 29' 57.271 W
		Ground Level:	3,444.90 usft

Wellbore	ST01		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM_FILE	10/14/2020	6.50
			Dip Angle (°) 60.03
			Field Strength (nT) 47,856.10000000

Design	FINAL		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	9,249.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°) 1.71

Survey Program	Date 10/15/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
200.00	9,249.00	GT MWD (OH)	MWD+HDGM
9,344.00	18,133.00	GT MWD (ST01)	MWD+HDGM
			Description
			OWSG MWD + HDGM
			OWSG MWD + HDGM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	485,473.74	798,964.12	32° 19' 54.775 N	103° 29' 57.271 W
200.00	0.55	84.96	200.00	0.08	0.96	485,473.83	798,965.07	32° 19' 54.776 N	103° 29' 57.260 W
332.00	1.25	110.62	331.98	-0.37	2.93	485,473.37	798,967.05	32° 19' 54.771 N	103° 29' 57.237 W
425.00	0.40	98.72	424.97	-0.77	4.21	485,472.97	798,968.32	32° 19' 54.767 N	103° 29' 57.222 W
518.00	0.57	191.70	517.97	-1.28	4.43	485,472.47	798,968.55	32° 19' 54.762 N	103° 29' 57.220 W
612.00	1.25	212.83	611.96	-2.60	3.78	485,471.15	798,967.90	32° 19' 54.749 N	103° 29' 57.227 W
705.00	1.91	211.12	704.92	-4.77	2.43	485,468.97	798,966.55	32° 19' 54.728 N	103° 29' 57.243 W
799.00	2.42	217.10	798.85	-7.70	0.42	485,466.04	798,964.54	32° 19' 54.699 N	103° 29' 57.267 W
892.00	3.40	214.01	891.73	-11.55	-2.30	485,462.19	798,961.81	32° 19' 54.661 N	103° 29' 57.299 W
986.00	3.73	218.73	985.55	-16.25	-5.78	485,457.49	798,958.34	32° 19' 54.615 N	103° 29' 57.340 W
1,079.00	2.30	218.31	1,078.42	-20.07	-8.82	485,453.67	798,955.29	32° 19' 54.577 N	103° 29' 57.376 W

Kaiser-Francis Oil Company

Survey Report - Geographic



Company:	Kaiser-Francis Oil Co.	Local Co-ordinate Reference:	Well BELL LAKE UNIT NORTH 231H
Project:	Lea County, NM (NAD 83)	TVD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Site:	SEC 5, T23S, R34E	MD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Well:	BELL LAKE UNIT NORTH 231H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,172.00	1.86	215.82	1,171.36	-22.76	-10.86	485,450.98	798,953.25	32° 19' 54.551 N	103° 29' 57.400 W
1,267.00	2.76	224.66	1,266.28	-25.64	-13.37	485,448.11	798,950.74	32° 19' 54.523 N	103° 29' 57.429 W
1,363.00	2.67	222.98	1,362.17	-28.92	-16.52	485,444.83	798,947.59	32° 19' 54.491 N	103° 29' 57.466 W
1,458.00	2.36	227.07	1,457.08	-31.87	-19.46	485,441.87	798,944.65	32° 19' 54.462 N	103° 29' 57.501 W
1,553.00	2.23	220.52	1,552.00	-34.60	-22.10	485,439.14	798,942.02	32° 19' 54.435 N	103° 29' 57.532 W
1,648.00	0.76	130.51	1,646.98	-36.42	-22.82	485,437.32	798,941.30	32° 19' 54.417 N	103° 29' 57.540 W
1,743.00	1.21	106.00	1,741.96	-37.10	-21.38	485,436.64	798,942.74	32° 19' 54.410 N	103° 29' 57.524 W
1,838.00	1.20	106.73	1,836.94	-37.67	-19.46	485,436.07	798,944.66	32° 19' 54.404 N	103° 29' 57.501 W
1,933.00	1.11	115.40	1,931.92	-38.35	-17.68	485,435.39	798,946.44	32° 19' 54.397 N	103° 29' 57.481 W
2,028.00	1.98	52.46	2,026.89	-37.74	-15.54	485,436.00	798,948.58	32° 19' 54.403 N	103° 29' 57.456 W
2,123.00	2.62	40.59	2,121.82	-35.09	-12.83	485,438.65	798,951.29	32° 19' 54.429 N	103° 29' 57.424 W
2,218.00	2.17	45.97	2,216.73	-32.19	-10.12	485,441.55	798,954.00	32° 19' 54.458 N	103° 29' 57.392 W
2,312.00	2.17	40.70	2,310.67	-29.61	-7.68	485,444.13	798,956.44	32° 19' 54.483 N	103° 29' 57.363 W
2,407.00	2.17	48.92	2,405.60	-27.06	-5.15	485,446.68	798,958.96	32° 19' 54.508 N	103° 29' 57.334 W
2,502.00	2.12	42.81	2,500.53	-24.59	-2.60	485,449.15	798,961.51	32° 19' 54.532 N	103° 29' 57.304 W
2,597.00	1.89	41.25	2,595.47	-22.13	-0.38	485,451.62	798,963.74	32° 19' 54.556 N	103° 29' 57.277 W
2,692.00	2.03	50.83	2,690.42	-19.88	1.96	485,453.86	798,966.08	32° 19' 54.578 N	103° 29' 57.250 W
2,787.00	1.95	48.37	2,785.36	-17.75	4.47	485,455.99	798,968.59	32° 19' 54.599 N	103° 29' 57.221 W
2,882.00	2.08	52.41	2,880.30	-15.62	7.05	485,458.12	798,971.16	32° 19' 54.620 N	103° 29' 57.190 W
2,977.00	1.98	51.79	2,975.24	-13.56	9.70	485,460.18	798,973.82	32° 19' 54.640 N	103° 29' 57.159 W
3,072.00	2.19	65.41	3,070.18	-11.79	12.64	485,461.96	798,976.76	32° 19' 54.658 N	103° 29' 57.125 W
3,167.00	2.08	64.13	3,165.11	-10.28	15.84	485,463.46	798,979.96	32° 19' 54.672 N	103° 29' 57.087 W
3,262.00	2.55	75.97	3,260.04	-9.01	19.45	485,464.73	798,983.56	32° 19' 54.685 N	103° 29' 57.045 W
3,356.00	2.93	80.41	3,353.93	-8.11	23.84	485,465.63	798,987.96	32° 19' 54.693 N	103° 29' 56.994 W
3,451.00	3.40	82.52	3,448.78	-7.34	29.03	485,466.41	798,993.15	32° 19' 54.701 N	103° 29' 56.933 W
3,541.00	4.33	73.25	3,538.58	-6.01	34.93	485,467.73	798,999.05	32° 19' 54.713 N	103° 29' 56.865 W
3,636.00	7.16	65.19	3,633.09	-2.49	43.74	485,471.25	799,007.86	32° 19' 54.747 N	103° 29' 56.762 W
3,731.00	7.07	65.16	3,727.36	2.45	54.42	485,476.19	799,018.54	32° 19' 54.795 N	103° 29' 56.637 W
3,826.00	7.14	64.31	3,821.63	7.47	65.05	485,481.21	799,029.16	32° 19' 54.844 N	103° 29' 56.512 W
3,921.00	7.17	62.91	3,915.89	12.72	75.64	485,486.47	799,039.76	32° 19' 54.895 N	103° 29' 56.388 W
4,016.00	7.15	63.94	4,010.15	18.02	86.23	485,491.76	799,050.35	32° 19' 54.947 N	103° 29' 56.264 W
4,111.00	7.13	60.85	4,104.42	23.49	96.69	485,497.23	799,060.81	32° 19' 55.000 N	103° 29' 56.142 W
4,206.00	7.50	60.23	4,198.64	29.44	107.22	485,503.18	799,071.34	32° 19' 55.058 N	103° 29' 56.019 W
4,301.00	7.50	61.18	4,292.83	35.51	118.04	485,509.25	799,082.16	32° 19' 55.118 N	103° 29' 55.892 W
4,396.00	7.23	60.94	4,387.05	41.40	128.70	485,515.14	799,092.81	32° 19' 55.175 N	103° 29' 55.767 W
4,490.00	7.06	62.33	4,480.32	46.96	138.98	485,520.70	799,103.10	32° 19' 55.229 N	103° 29' 55.647 W
4,585.00	6.44	60.60	4,574.66	52.28	148.79	485,526.02	799,112.91	32° 19' 55.281 N	103° 29' 55.532 W
4,680.00	5.72	62.48	4,669.12	57.09	157.64	485,530.83	799,121.75	32° 19' 55.328 N	103° 29' 55.429 W
4,775.00	5.52	61.30	4,763.67	61.47	165.84	485,535.21	799,129.96	32° 19' 55.371 N	103° 29' 55.333 W
4,870.00	4.95	62.86	4,858.27	65.53	173.50	485,539.27	799,137.61	32° 19' 55.410 N	103° 29' 55.243 W
4,955.00	4.87	61.82	4,942.96	68.91	179.94	485,542.65	799,144.06	32° 19' 55.443 N	103° 29' 55.168 W
5,051.00	4.75	64.11	5,038.62	72.57	187.11	485,546.31	799,151.23	32° 19' 55.479 N	103° 29' 55.084 W
5,146.00	4.82	62.05	5,133.29	76.16	194.17	485,549.90	799,158.29	32° 19' 55.514 N	103° 29' 55.001 W
5,241.00	4.73	61.42	5,227.96	79.90	201.14	485,553.64	799,165.26	32° 19' 55.550 N	103° 29' 54.920 W
5,335.00	4.27	60.06	5,321.67	83.50	207.57	485,557.24	799,171.69	32° 19' 55.586 N	103° 29' 54.844 W
5,430.00	3.78	56.86	5,416.43	86.98	213.26	485,560.72	799,177.38	32° 19' 55.620 N	103° 29' 54.778 W
5,525.00	3.71	55.26	5,511.23	90.44	218.41	485,564.18	799,182.53	32° 19' 55.653 N	103° 29' 54.717 W
5,620.00	3.46	55.92	5,606.05	93.80	223.31	485,567.54	799,187.43	32° 19' 55.686 N	103° 29' 54.660 W
5,715.00	3.05	53.42	5,700.89	96.91	227.71	485,570.65	799,191.83	32° 19' 55.717 N	103° 29' 54.608 W
5,810.00	3.08	54.38	5,795.76	99.91	231.82	485,573.65	799,195.93	32° 19' 55.746 N	103° 29' 54.560 W
5,905.00	3.15	54.07	5,890.62	102.92	236.00	485,576.66	799,200.12	32° 19' 55.776 N	103° 29' 54.511 W
5,999.00	3.12	52.51	5,984.48	106.00	240.13	485,579.74	799,204.24	32° 19' 55.806 N	103° 29' 54.463 W
6,094.00	3.11	49.47	6,079.34	109.24	244.14	485,582.98	799,208.25	32° 19' 55.837 N	103° 29' 54.416 W
6,189.00	3.28	50.77	6,174.19	112.64	248.20	485,586.38	799,212.32	32° 19' 55.871 N	103° 29' 54.368 W
6,284.00	3.34	51.21	6,269.03	116.09	252.46	485,589.83	799,216.58	32° 19' 55.905 N	103° 29' 54.318 W

Kaiser-Francis Oil Company

Survey Report - Geographic



Company:	Kaiser-Francis Oil Co.	Local Co-ordinate Reference:	Well BELL LAKE UNIT NORTH 231H
Project:	Lea County, NM (NAD 83)	TVD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Site:	SEC 5, T23S, R34E	MD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Well:	BELL LAKE UNIT NORTH 231H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,379.00	3.29	48.71	6,363.87	119.62	256.67	485,593.36	799,220.79	32° 19' 55.939 N	103° 29' 54.269 W
6,474.00	1.36	40.82	6,458.79	122.27	259.45	485,596.02	799,223.57	32° 19' 55.965 N	103° 29' 54.236 W
6,569.00	1.38	40.90	6,553.76	123.99	260.94	485,597.73	799,225.06	32° 19' 55.982 N	103° 29' 54.219 W
6,664.00	1.33	35.82	6,648.73	125.75	262.33	485,599.49	799,226.45	32° 19' 55.999 N	103° 29' 54.202 W
6,759.00	1.18	41.01	6,743.71	127.38	263.62	485,601.12	799,227.74	32° 19' 56.015 N	103° 29' 54.187 W
6,854.00	1.04	43.55	6,838.69	128.75	264.86	485,602.49	799,228.97	32° 19' 56.029 N	103° 29' 54.173 W
6,949.00	0.88	44.59	6,933.68	129.89	265.96	485,603.63	799,230.08	32° 19' 56.040 N	103° 29' 54.160 W
7,044.00	0.84	50.09	7,028.67	130.86	267.01	485,604.60	799,231.13	32° 19' 56.050 N	103° 29' 54.147 W
7,139.00	0.56	56.11	7,123.66	131.56	267.93	485,605.30	799,232.05	32° 19' 56.056 N	103° 29' 54.137 W
7,234.00	0.25	76.21	7,218.66	131.87	268.51	485,605.61	799,232.63	32° 19' 56.059 N	103° 29' 54.130 W
7,328.00	0.06	120.54	7,312.66	131.89	268.76	485,605.64	799,232.87	32° 19' 56.060 N	103° 29' 54.127 W
7,423.00	0.13	169.98	7,407.66	131.76	268.82	485,605.50	799,232.94	32° 19' 56.058 N	103° 29' 54.126 W
7,518.00	0.31	192.23	7,502.66	131.41	268.78	485,605.15	799,232.90	32° 19' 56.055 N	103° 29' 54.127 W
7,613.00	0.52	210.95	7,597.66	130.78	268.51	485,604.53	799,232.62	32° 19' 56.049 N	103° 29' 54.130 W
7,708.00	0.65	200.69	7,692.65	129.91	268.09	485,603.65	799,232.21	32° 19' 56.040 N	103° 29' 54.135 W
7,803.00	0.89	202.15	7,787.64	128.72	267.63	485,602.46	799,231.74	32° 19' 56.028 N	103° 29' 54.140 W
7,898.00	1.03	206.72	7,882.63	127.28	266.96	485,601.02	799,231.08	32° 19' 56.014 N	103° 29' 54.148 W
7,993.00	1.00	202.09	7,977.61	125.75	266.27	485,599.49	799,230.39	32° 19' 55.999 N	103° 29' 54.156 W
8,088.00	0.95	203.61	8,072.60	124.26	265.64	485,598.00	799,229.76	32° 19' 55.984 N	103° 29' 54.164 W
8,182.00	0.95	210.25	8,166.59	122.87	264.94	485,596.61	799,229.05	32° 19' 55.971 N	103° 29' 54.172 W
8,277.00	1.00	213.58	8,261.57	121.50	264.08	485,595.24	799,228.20	32° 19' 55.957 N	103° 29' 54.182 W
8,372.00	1.05	217.08	8,356.56	120.11	263.10	485,593.85	799,227.21	32° 19' 55.944 N	103° 29' 54.194 W
8,467.00	0.98	216.16	8,451.54	118.76	262.09	485,592.50	799,226.21	32° 19' 55.930 N	103° 29' 54.206 W
8,562.00	1.03	206.49	8,546.53	117.34	261.23	485,591.08	799,225.35	32° 19' 55.916 N	103° 29' 54.216 W
8,657.00	0.79	130.44	8,641.52	116.15	261.35	485,589.90	799,225.47	32° 19' 55.905 N	103° 29' 54.215 W
8,751.00	1.34	104.92	8,735.50	115.45	262.91	485,589.19	799,227.02	32° 19' 55.897 N	103° 29' 54.197 W
8,846.00	1.12	95.03	8,830.48	115.08	264.90	485,588.82	799,229.02	32° 19' 55.894 N	103° 29' 54.173 W
8,927.00	0.95	95.02	8,911.47	114.96	266.36	485,588.70	799,230.48	32° 19' 55.892 N	103° 29' 54.156 W
8,964.00	0.69	81.62	8,948.46	114.96	266.89	485,588.70	799,231.00	32° 19' 55.892 N	103° 29' 54.150 W
9,059.00	0.92	90.75	9,043.46	115.03	268.22	485,588.78	799,232.33	32° 19' 55.893 N	103° 29' 54.135 W
9,154.00	1.67	25.68	9,138.43	116.27	269.58	485,590.01	799,233.70	32° 19' 55.905 N	103° 29' 54.119 W
9,249.00	1.73	42.21	9,233.39	118.58	271.14	485,592.32	799,235.26	32° 19' 55.928 N	103° 29' 54.100 W
9,344.00	9.07	9.69	9,327.92	127.04	273.37	485,600.78	799,237.49	32° 19' 56.011 N	103° 29' 54.074 W
FIRST STK SURVEY @ 9344'									
9,439.00	20.71	21.29	9,419.59	150.15	280.75	485,623.90	799,244.87	32° 19' 56.239 N	103° 29' 53.985 W
9,533.00	34.01	21.53	9,502.89	190.28	296.51	485,664.02	799,260.63	32° 19' 56.635 N	103° 29' 53.798 W
9,628.00	43.06	11.80	9,577.19	246.91	312.94	485,720.65	799,277.06	32° 19' 57.194 N	103° 29' 53.602 W
9,723.00	47.07	3.06	9,644.34	313.47	321.44	485,787.21	799,285.56	32° 19' 57.852 N	103° 29' 53.496 W
9,817.00	47.33	359.47	9,708.22	382.41	322.96	485,856.15	799,287.08	32° 19' 58.534 N	103° 29' 53.472 W
9,912.00	46.58	357.96	9,773.06	451.81	321.41	485,925.55	799,285.52	32° 19' 59.221 N	103° 29' 53.484 W
10,007.00	47.04	359.14	9,838.09	521.05	319.66	485,994.79	799,283.77	32° 19' 59.906 N	103° 29' 53.498 W
10,102.00	48.12	357.37	9,902.17	591.14	317.51	486,064.88	799,281.63	32° 20' 0.600 N	103° 29' 53.517 W
10,197.00	45.76	355.79	9,967.03	660.42	313.39	486,134.16	799,277.51	32° 20' 1.286 N	103° 29' 53.559 W
10,292.00	48.62	358.36	10,031.59	730.01	309.87	486,203.75	799,273.99	32° 20' 1.975 N	103° 29' 53.593 W
10,387.00	48.84	357.57	10,094.25	801.36	307.33	486,275.10	799,271.45	32° 20' 2.681 N	103° 29' 53.616 W
10,482.00	52.57	356.75	10,154.41	874.78	303.68	486,348.52	799,267.80	32° 20' 3.408 N	103° 29' 53.652 W
10,577.00	58.12	2.51	10,208.44	952.84	303.31	486,426.58	799,267.42	32° 20' 4.180 N	103° 29' 53.650 W
10,671.00	63.20	3.33	10,254.48	1,034.65	307.49	486,508.39	799,271.61	32° 20' 4.989 N	103° 29' 53.593 W
10,766.00	75.73	4.45	10,287.74	1,123.22	313.55	486,596.96	799,277.67	32° 20' 5.865 N	103° 29' 53.515 W
10,861.00	80.73	1.98	10,307.12	1,216.04	318.75	486,689.78	799,282.87	32° 20' 6.783 N	103° 29' 53.446 W
10,956.00	84.44	0.60	10,319.37	1,310.21	320.86	486,783.95	799,284.98	32° 20' 7.715 N	103° 29' 53.413 W
10,992.00	85.96	0.54	10,322.39	1,346.08	321.22	486,819.82	799,285.34	32° 20' 8.070 N	103° 29' 53.405 W
11,087.00	86.12	0.42	10,328.95	1,440.85	322.01	486,914.59	799,286.13	32° 20' 9.007 N	103° 29' 53.387 W
11,182.00	87.56	0.20	10,334.18	1,535.70	322.53	487,009.44	799,286.65	32° 20' 9.946 N	103° 29' 53.373 W
11,277.00	88.35	0.24	10,337.57	1,630.64	322.89	487,104.38	799,287.01	32° 20' 10.885 N	103° 29' 53.360 W

Kaiser-Francis Oil Company

Survey Report - Geographic



Company:	Kaiser-Francis Oil Co.	Local Co-ordinate Reference:	Well BELL LAKE UNIT NORTH 231H
Project:	Lea County, NM (NAD 83)	TVD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Site:	SEC 5, T23S, R34E	MD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Well:	BELL LAKE UNIT NORTH 231H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,372.00	89.50	0.75	10,339.36	1,725.62	323.71	487,199.36	799,287.83	32° 20' 11.825 N	103° 29' 53.342 W
11,466.00	91.15	1.37	10,338.82	1,819.59	325.45	487,293.33	799,289.57	32° 20' 12.755 N	103° 29' 53.313 W
11,561.00	92.33	2.58	10,335.94	1,914.49	328.72	487,388.23	799,292.84	32° 20' 13.694 N	103° 29' 53.266 W
11,656.00	90.00	1.23	10,334.01	2,009.41	331.88	487,483.15	799,296.00	32° 20' 14.633 N	103° 29' 53.221 W
11,751.00	89.02	0.32	10,334.82	2,104.40	333.17	487,578.14	799,297.28	32° 20' 15.572 N	103° 29' 53.197 W
11,846.00	88.82	0.12	10,336.61	2,199.38	333.53	487,673.12	799,297.65	32° 20' 16.512 N	103° 29' 53.184 W
11,941.00	87.48	358.74	10,339.68	2,294.32	332.59	487,768.06	799,296.70	32° 20' 17.452 N	103° 29' 53.186 W
12,036.00	87.36	358.43	10,343.95	2,389.19	330.24	487,862.93	799,294.36	32° 20' 18.391 N	103° 29' 53.205 W
12,131.00	88.26	359.55	10,347.58	2,484.11	328.57	487,957.85	799,292.69	32° 20' 19.330 N	103° 29' 53.216 W
12,226.00	88.29	359.25	10,350.44	2,579.06	327.57	488,052.80	799,291.69	32° 20' 20.269 N	103° 29' 53.219 W
12,321.00	88.77	0.19	10,352.88	2,674.02	327.11	488,147.77	799,291.23	32° 20' 21.209 N	103° 29' 53.216 W
12,416.00	88.57	0.86	10,355.09	2,768.99	327.98	488,242.74	799,292.10	32° 20' 22.149 N	103° 29' 53.197 W
12,511.00	88.91	0.66	10,357.17	2,863.96	329.24	488,337.70	799,293.36	32° 20' 23.088 N	103° 29' 53.174 W
12,606.00	89.64	1.30	10,358.38	2,958.94	330.87	488,432.68	799,294.98	32° 20' 24.028 N	103° 29' 53.146 W
12,701.00	90.64	1.60	10,358.14	3,053.91	333.27	488,527.65	799,297.39	32° 20' 24.968 N	103° 29' 53.109 W
12,796.00	90.25	1.77	10,357.41	3,148.86	336.06	488,622.60	799,300.18	32° 20' 25.907 N	103° 29' 53.068 W
12,891.00	90.95	0.27	10,356.41	3,243.84	337.75	488,717.58	799,301.87	32° 20' 26.847 N	103° 29' 53.040 W
12,932.30	90.87	0.05	10,355.76	3,285.14	337.87	488,758.88	799,301.99	32° 20' 27.255 N	103° 29' 53.035 W
INTERSECT SECTION @ 12932.3'									
12,986.00	90.76	359.77	10,354.99	3,338.83	337.79	488,812.57	799,301.90	32° 20' 27.786 N	103° 29' 53.031 W
13,081.00	89.94	359.27	10,354.41	3,433.82	336.99	488,907.56	799,301.11	32° 20' 28.726 N	103° 29' 53.032 W
13,176.00	91.52	0.41	10,353.20	3,528.81	336.73	489,002.55	799,300.84	32° 20' 29.666 N	103° 29' 53.026 W
13,271.00	94.35	0.99	10,348.34	3,623.67	337.88	489,097.41	799,302.00	32° 20' 30.605 N	103° 29' 53.004 W
13,365.00	95.68	1.18	10,340.12	3,717.29	339.66	489,191.03	799,303.77	32° 20' 31.531 N	103° 29' 52.975 W
13,460.00	95.33	359.55	10,331.01	3,811.85	340.26	489,285.59	799,304.38	32° 20' 32.467 N	103° 29' 52.959 W
13,555.00	94.38	357.83	10,322.97	3,906.48	338.09	489,380.22	799,302.21	32° 20' 33.403 N	103° 29' 52.976 W
13,649.00	93.56	356.85	10,316.46	4,000.15	333.74	489,473.89	799,297.86	32° 20' 34.330 N	103° 29' 53.018 W
13,744.00	91.62	355.45	10,312.17	4,094.83	327.37	489,568.57	799,291.49	32° 20' 35.268 N	103° 29' 53.084 W
13,839.00	89.80	354.74	10,310.99	4,189.47	319.25	489,663.21	799,283.37	32° 20' 36.205 N	103° 29' 53.170 W
13,934.00	89.07	357.16	10,311.93	4,284.22	312.54	489,757.96	799,276.66	32° 20' 37.143 N	103° 29' 53.239 W
14,029.00	89.24	357.95	10,313.33	4,379.12	308.49	489,852.86	799,272.60	32° 20' 38.082 N	103° 29' 53.278 W
14,124.00	89.92	358.75	10,314.02	4,474.08	305.75	489,947.82	799,269.87	32° 20' 39.022 N	103° 29' 53.301 W
14,219.00	89.83	358.46	10,314.23	4,569.05	303.44	490,042.79	799,267.56	32° 20' 39.962 N	103° 29' 53.319 W
14,314.00	89.58	358.36	10,314.72	4,664.01	300.80	490,137.75	799,264.92	32° 20' 40.902 N	103° 29' 53.342 W
14,409.00	89.86	358.09	10,315.18	4,758.97	297.86	490,232.71	799,261.98	32° 20' 41.842 N	103° 29' 53.367 W
14,504.00	90.42	358.11	10,314.95	4,853.91	294.71	490,327.65	799,258.83	32° 20' 42.781 N	103° 29' 53.395 W
14,599.00	89.24	357.14	10,315.23	4,948.83	290.77	490,422.57	799,254.89	32° 20' 43.721 N	103° 29' 53.433 W
14,693.00	89.19	357.11	10,316.52	5,042.70	286.06	490,516.44	799,250.18	32° 20' 44.650 N	103° 29' 53.479 W
14,788.00	89.30	357.01	10,317.77	5,137.57	281.19	490,611.31	799,245.30	32° 20' 45.589 N	103° 29' 53.527 W
14,883.00	88.99	356.04	10,319.19	5,232.38	275.43	490,706.12	799,239.55	32° 20' 46.528 N	103° 29' 53.586 W
14,978.00	88.40	357.86	10,321.35	5,327.22	270.38	490,800.96	799,234.49	32° 20' 47.466 N	103° 29' 53.636 W
15,073.00	88.35	358.91	10,324.05	5,422.14	267.70	490,895.88	799,231.82	32° 20' 48.406 N	103° 29' 53.658 W
15,168.00	88.77	358.74	10,326.44	5,517.09	265.75	490,990.83	799,229.87	32° 20' 49.346 N	103° 29' 53.673 W
15,263.00	87.92	359.97	10,329.18	5,612.04	264.68	491,085.78	799,228.80	32° 20' 50.285 N	103° 29' 53.676 W
15,358.00	87.84	359.61	10,332.69	5,706.98	264.34	491,180.72	799,228.45	32° 20' 51.225 N	103° 29' 53.672 W
15,452.00	88.96	0.25	10,335.32	5,800.94	264.22	491,274.68	799,228.34	32° 20' 52.154 N	103° 29' 53.665 W
15,547.00	89.69	0.27	10,336.44	5,895.93	264.65	491,369.67	799,228.77	32° 20' 53.094 N	103° 29' 53.651 W
15,642.00	90.17	0.37	10,336.55	5,990.93	265.18	491,464.67	799,229.30	32° 20' 54.034 N	103° 29' 53.636 W
15,737.00	90.31	0.24	10,336.16	6,085.93	265.69	491,559.67	799,229.81	32° 20' 54.974 N	103° 29' 53.622 W
15,832.00	89.44	359.84	10,336.36	6,180.92	265.75	491,654.66	799,229.87	32° 20' 55.914 N	103° 29' 53.612 W
15,927.00	88.60	358.94	10,337.99	6,275.90	264.74	491,749.64	799,228.86	32° 20' 56.854 N	103° 29' 53.615 W
16,021.00	89.30	0.82	10,339.71	6,369.88	264.55	491,843.62	799,228.66	32° 20' 57.784 N	103° 29' 53.609 W
16,116.00	91.46	2.16	10,339.08	6,464.84	267.02	491,938.58	799,231.13	32° 20' 58.723 N	103° 29' 53.572 W
16,211.00	91.77	2.44	10,336.40	6,559.73	270.83	492,033.47	799,234.94	32° 20' 59.662 N	103° 29' 53.519 W
16,306.00	91.94	1.90	10,333.33	6,654.61	274.42	492,128.35	799,238.54	32° 21' 0.600 N	103° 29' 53.468 W

Kaiser-Francis Oil Company

Survey Report - Geographic



Company:	Kaiser-Francis Oil Co.	Local Co-ordinate Reference:	Well BELL LAKE UNIT NORTH 231H
Project:	Lea County, NM (NAD 83)	TVD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Site:	SEC 5, T23S, R34E	MD Reference:	23.9' KB @ 3468.80usft (Cactus 171)
Well:	BELL LAKE UNIT NORTH 231H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,401.00	92.13	2.82	10,329.95	6,749.47	278.33	492,223.21	799,242.45	32° 21' 1.539 N	103° 29' 53.414 W
16,496.00	92.19	2.37	10,326.37	6,844.30	282.63	492,318.04	799,246.75	32° 21' 2.477 N	103° 29' 53.355 W
16,590.00	93.12	2.33	10,322.02	6,938.12	286.48	492,411.86	799,250.60	32° 21' 3.405 N	103° 29' 53.302 W
16,685.00	90.98	1.71	10,318.62	7,032.99	289.83	492,506.74	799,253.94	32° 21' 4.343 N	103° 29' 53.254 W
16,780.00	89.19	0.23	10,318.48	7,127.97	291.43	492,601.71	799,255.55	32° 21' 5.283 N	103° 29' 53.227 W
16,875.00	89.92	359.67	10,319.22	7,222.97	291.35	492,696.71	799,255.47	32° 21' 6.223 N	103° 29' 53.219 W
16,970.00	88.37	358.15	10,320.64	7,317.94	289.54	492,791.68	799,253.66	32° 21' 7.163 N	103° 29' 53.231 W
17,064.00	87.62	356.93	10,323.93	7,411.79	285.51	492,885.53	799,249.63	32° 21' 8.092 N	103° 29' 53.270 W
17,159.00	87.25	356.58	10,328.18	7,506.54	280.14	492,980.28	799,244.26	32° 21' 9.030 N	103° 29' 53.324 W
17,254.00	88.79	358.13	10,331.46	7,601.38	275.76	493,075.12	799,239.88	32° 21' 9.968 N	103° 29' 53.366 W
17,349.00	88.23	357.39	10,333.93	7,696.27	272.05	493,170.01	799,236.17	32° 21' 10.908 N	103° 29' 53.401 W
17,444.00	87.59	357.10	10,337.39	7,791.10	267.49	493,264.84	799,231.60	32° 21' 11.846 N	103° 29' 53.446 W
17,539.00	88.94	357.69	10,340.27	7,885.96	263.17	493,359.70	799,227.29	32° 21' 12.785 N	103° 29' 53.487 W
17,634.00	90.48	358.47	10,340.75	7,980.90	259.99	493,454.64	799,224.10	32° 21' 13.725 N	103° 29' 53.516 W
17,729.00	91.82	359.98	10,338.84	8,075.86	258.70	493,549.61	799,222.82	32° 21' 14.665 N	103° 29' 53.522 W
17,824.00	91.85	359.71	10,335.80	8,170.82	258.45	493,644.56	799,222.56	32° 21' 15.604 N	103° 29' 53.516 W
17,919.00	92.69	359.45	10,332.04	8,265.74	257.75	493,739.48	799,221.87	32° 21' 16.543 N	103° 29' 53.516 W
18,014.00	93.11	358.68	10,327.23	8,360.60	256.20	493,834.34	799,220.32	32° 21' 17.482 N	103° 29' 53.525 W
18,070.00	94.06	358.88	10,323.73	8,416.48	255.01	493,890.22	799,219.13	32° 21' 18.035 N	103° 29' 53.534 W
FINAL SURVEY @ 18070'									
18,133.00	94.06	358.88	10,319.27	8,479.31	253.78	493,953.05	799,217.90	32° 21' 18.657 N	103° 29' 53.543 W
PROJECTION TO TD @ 18133'									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
9,344.00	9,327.92	127.04	273.37	FIRST STK SURVEY @ 9344'	
12,932.30	10,355.76	3,285.14	337.87	INTERSECT SECTION @ 12932.3'	
18,070.00	10,323.73	8,416.48	255.01	FINAL SURVEY @ 18070'	
18,133.00	10,319.27	8,479.31	253.78	PROJECTION TO TD @ 18133'	

Checked By: _____ Approved By: _____ Date: _____

Well Name: BELL LAKE UNIT NORTH	Well Location: T23S / R34E / SEC 5 / NWSW / 32.332019 / -103.4994038	County or Parish/State: LEA / NM
Well Number: 231H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM0001244A, NMNM01244A	Unit or CA Name: BELL LAKE	Unit or CA Number: NMNM068292X, NMNM68292X
US Well Number: 3002546912	Well Status: Drilling Well	Operator: KAISER FRANCIS OIL COMPANY

Subsequent Report

Type of Submission: Subsequent Report	Type of Action: Hydraulic Fracturing
Date Sundry Submitted: 05/11/2021	Time Sundry Submitted: 02:29
Date Operation Actually Began: 02/22/2021	

Actual Procedure: 1/21: Pressure test csg to 9,800#. Test annulus to 500#. TCP State 1: 17,875'-17,997' O/A w/5, 3 1/8" guns. BD perfs @ 6,300#. Establish injection into perfs: 15.5 BPM @ 8,300# for 50 bbls. SD and isolate well. ISIP 6,000#, 5 min 3,500#. 2/21: Stage-Frac lateral 10,671'-17,997' O/A in 43 stages w/88,733 gal 15% HCl, 398,343 bbls SW, and 8,914 bbls HVFR carrying 322,941# 100M and 18,323,990# 30/50 white. 4/21: Drill out all plugs w/ 4.625" roller cone bit. SICP: 2,22#. TLTR: 419,964 bbls.

SR Attachments

Actual Procedure

BLUN_231H_WBD_20210511142913.pdf

Received by OCD: 6/4/2021 1:55:44 PM

Page 31 of 42

Well Name: BELL LAKE UNIT NORTH	Well Location: T23S / R34E / SEC 5 / NWSW / 32.332019 / -103.4994038	County or Parish/State: LEA / NM
Well Number: 231H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM0001244A, NMNM01244A	Unit or CA Name: BELL LAKE	Unit or CA Number: NMNM068292X, NMNM68292X
US Well Number: 3002546912	Well Status: Drilling Well	Operator: KAISER FRANCIS OIL COMPANY

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: ERIC HANSEN	Signed on: MAY 11, 2021 02:29 PM
Name: KAISER FRANCIS OIL COMPANY	
Title: Drilling Engineer	
Street Address: 6733 S. Yale Ave.	
City: Tulsa	State: OK
Phone: (918) 491-4339	
Email address: EricH@kfoc.net	

Field Representative

Representative Name: Jeremy Parent		
Street Address: 88 Shell Road		
City: Jal	State: NM	Zip: 88252
Phone: (580)504-2593		
Email address: JeremyP@kfoc.net		

BLM Point of Contact

BLM POC Name: Jonathon W Shepard	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752345972	BLM POC Email Address: jshepard@blm.gov
Disposition: Accepted	Disposition Date: 05/14/2021
Signature: Jonathon Shepard	



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Well Completion Print Report

05/24/2021

Operator Name KAISER FRANCIS OIL COMPANY	Well Name BELL LAKE UNIT NORTH	Well Number 231H	US Well Number 3002546912
SHL NSW Lot L Sec 5 23S 34E	County LEA	State NM	Lease Number(s) NMNM0001244A, NMNM01244A, NMNM01244A
Well Type OIL WELL	Well Status Drilling Well	Agreement Name BELL LAKE	Agreement Number(s) NMNM68292X, NMNM68292X
Allottee/Tribe Name	Well Pad Name NORTH BELL LAKE UNIT	Well Pad Number 13	ID 10400042381

Section 1 - General

Well Completion Report Id: 72970	Submission Date: N/A until DB Work
BLM Office: Carlsbad Field Office	User: Eric Hansen
Federal/Indian: FEDERAL	Lease Number: NMNM0001244A
Agreement in place?: YES	Federal or Indian Agreement: FEDERAL
Agreement Number: NMNM68292X	Agreement Name: BELL LAKE
Keep this Well Completion Report confidential?: YES	
APD Operator: KAISER FRANCIS OIL COMPANY	
Title: Drilling Engineer	
Lease Acres: 634.35	

Section 2 - Well Information

Field/Pool or Exploratory: Field/Pool	Pool Name: Bone Springs 98259	Field Name: OJO CHISO
Well Type: OIL WELL		
Spud Date: 09-29-2020		
Date Total Measured Depth Reached: 10-14-2020		
Drill & Abandon or Ready To Produce: READY TO PRODUCE		
Well Class: HORIZONTAL		

Section 3 - Geologic Formations

Formation Name	Lithology	Describe Lithology	Elevation	TVD	MD	Mineral Resources	Describe Mineral Resources
---	OTHER	surface	3444	0	0	NONE	
RUSTLER	SANDSTONE		2262	1182	1182	NONE	

Operator Name KAISER FRANCIS OIL COMPANY	Well Name BELL LAKE UNIT NORTH	Well Number 231H	US Well Number 3002546912
SHL NWSW Lot L Sec 5 23S 34E	County LEA	State NM	Lease Number(s) NMNM0001244A, NMNM01244A, NMNM01244A
Well Type OIL WELL	Well Status Drilling Well	Agreement Name BELL LAKE	Agreement Number(s) NMNM68292X, NMNM68292X
Allottee/Tribe Name	Well Pad Name NORTH BELL LAKE UNIT	Well Pad Number 13	ID 10400042381

Section 3 - Geologic Formations

Formation Name	Lithology	Describe Lithology	Elevation	TVD	MD	Mineral Resources	Describe Mineral Resources
SALADO	SANDSTONE		1872	1572	1572	NONE	
TOP SALT	SALT		1672	1772	1772	NONE	
BASE OF SALT	SALT		-1278	4722	4722	NONE	
LAMAR	LIMESTONE, SANDSTONE		-1478	4922	4922	NATURAL GAS, OIL	
BELL CANYON	SANDSTONE		-1728	5172	5172	NATURAL GAS, OIL	
CHERRY CANYON	SANDSTONE		-2628	6072	6072	NATURAL GAS, OIL	
BRUSHY CANYON	SANDSTONE		-4028	7472	7472	NATURAL GAS, OIL	
BONE SPRING	LIMESTONE, SANDSTONE		-5128	8572	8572	NATURAL GAS, OIL	
AVALON SAND	SANDSTONE		-5173	8617	8617	NATURAL GAS, OIL	
BONE SPRING 1ST	LIMESTONE, SANDSTONE		-6078	9522	9522	NATURAL GAS, OIL	
BONE SPRING 2ND	LIMESTONE, SANDSTONE		-6588	10032	10032	NATURAL GAS, OIL	

Completion and Completed Intervals

Operator Name KAISER FRANCIS OIL COMPANY	Well Name BELL LAKE UNIT NORTH	Well Number 231H	US Well Number 3002546912
SHL NWSW Lot L Sec 5 23S 34E	County LEA	State NM	Lease Number(s) NMNM0001244A, NMNM01244A, NMNM01244A
Well Type OIL WELL	Well Status Drilling Well	Agreement Name BELL LAKE	Agreement Number(s) NMNM68292X, NMNM68292X
Allottee/Tribe Name	Well Pad Name NORTH BELL LAKE UNIT	Well Pad Number 13	ID 10400042381

Completion Data

Wellbore Code	Completion Code	Interval Number	Case Number	Lease Number	Well Completion Type	Describe Well Completion Type	Completion Status	Date Completed	Date First Produced	Formation	Interval Top (MD)	Interval Bottom (MD)	Interval Perforated?	Perforation Size	Number of Holes	Status of Interval
00	X1	1	NMNM68292X	NMNM01244A	NEW		POW	02-22-2021	05-02-2021	BONE SPRING	10671	17997	Y	.42	1925	OPEN

Treatment Data

Wellbore Code	Completion Code	Interval Number	Interval Treated?	Treatment Type	Tottle Fluid (bbls)	Total Proppant (lbs)	Treatment Remarks
00	X1	1	Y	FRAC	409369	9999999	1/21: Pressure test csg to 9,800#. Test annulus to 500#. TCP State 1: 17,875'-17,997' O/A w/5, 3 1/8" guns. BD perfs @ 6,300#. Establish injection into perfs: 15.5 BPM @ 8,300# for 50 bbls. SD and isolate well. ISIP 6,000#, 5 min 3,500#. 2/21: Stage-Frac lateral 10,671'-17,997' O/A in 43 stages w/88,733 gal 15% HCl,

Operator Name KAISER FRANCIS OIL COMPANY	Well Name BELL LAKE UNIT NORTH	Well Number 231H	US Well Number 3002546912
SHL NWSW Lot L Sec 5 23S 34E	County LEA	State NM	Lease Number(s) NMNM0001244A, NMNM01244A, NMNM01244A
Well Type OIL WELL	Well Status Drilling Well	Agreement Name BELL LAKE	Agreement Number(s) NMNM68292X, NMNM68292X
Allottee/Tribe Name	Well Pad Name NORTH BELL LAKE UNIT	Well Pad Number 13	ID 10400042381

Treatment Data

Wellbore Code	Completion Code	Interval Number	Interval Treated?	Treatment Type	Totle Fluid (bbls)	Total Proppant (lbs)	Treatment Remarks
							398,343 bbls SW, and 8,914 bbls HVFR carrying 322,941# 100M and 18,323,990 # 30/50 white.

Production Data

Wellbore Code	Completion Code	Interval Number	API Oil Gravity	Gas Gravity	Production Method	Describe Production	Disposition of Gas	Describe Disposition
00	X1	1	43	.75	FLOWS FROM WELL		SOLD	

Test Data

Wellbore Code	Completion Code	Interval Number	Test Date	Hours Tested	24-Hour Rate Oil (bbls)	24-Hour Rate Gas (MCF)	24-Hour Rate Water(BWPD)	Gas-Oil Ratio (SCF/Bbl)	Choke Size	Tubing Pressure Shut-In (psi)	Casing Pressure (psi)
00	X1	1	05/10/20 21	24	789	1346	1632	1705	20/64		2300

Operator Name KAISER FRANCIS OIL COMPANY	Well Name BELL LAKE UNIT NORTH	Well Number 231H	US Well Number 3002546912
SHL NWSW Lot L Sec 5 23S 34E	County LEA	State NM	Lease Number(s) NMNM0001244A, NMNM01244A, NMNM01244A
Well Type OIL WELL	Well Status Drilling Well	Agreement Name BELL LAKE	Agreement Number(s) NMNM68292X, NMNM68292X
Allottee/Tribe Name	Well Pad Name NORTH BELL LAKE UNIT	Well Pad Number 13	ID 10400042381

Well Location

Survey Type: RECTANGULAR

Survey Number: 6989

Datum: NAD83

Vertical Datum: NAVD88

Reference Datum:

	State	Meridian	County	Latitude	Longitude	Elevation (MSL)	Lease Type	Lease Number	Plug TVD (ft)	Plug MD (ft)	Plug Type	NS-Foot	NS-Indicator	EW-Foot	EW-Indicator	Township	Range	Section	Aliquot/Lot/Tract
SHL	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.331882	-103.499242	3444	FEDERAL	NMNM0587				2001	FSL	454	FWL	23S	34E	5	NWSW Lot L
KOP Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.332201	-103.498206	-6190	FEDERAL	NMNM0587				2117	FSL	726	FWL	23S	34E	5	NWSW
PPP Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.3347188	-103.498206	-6788	FEDERAL	NMNM01244A				2251	FNL	769	FWL	23S	34E	5	SWNW
PPP Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.3408523	-103.4993038	-6788	FEE	STATE				0	FSL	410	FWL	22S	34E	32	SWSW
EXIT Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.3548055	-103.4982012	-6788	FEE	STATE				224	FNL	767	FWL	22S	34E	32	NWNW Lot D
BHL Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.3551784	-103.4982065	-6788	FEE	STATE				88	FNL	765	FWL	22S	34E	32	NWNW Lot D

Operator Name KAISER FRANCIS OIL COMPANY	Well Name BELL LAKE UNIT NORTH	Well Number 231H	US Well Number 3002546912
SHL NWSW Lot L Sec 5 23S 34E	County LEA	State NM	Lease Number(s) NMNM0001244A, NMNM01244A, NMNM01244A
Well Type OIL WELL	Well Status Drilling Well	Agreement Name BELL LAKE	Agreement Number(s) NMNM68292X, NMNM68292X
Allottee/Tribe Name	Well Pad Name NORTH BELL LAKE UNIT	Well Pad Number 13	ID 10400042381

Casing, Liner and Tubing

Casing and Liner

Wellbore Code	Casing String Type	Hole Size	Top Setting Depth (MD)	Bottom Setting Depth (MD)	Casing Size	Wt(lbs/ft)	Casing Grade	Describe Other Casing Grade	Joint	Other Joint	Amount Pulled (ft)
00	SURFACE	17.5	0	1295	13.375	54.5	J-55		OTHER	BTC	
00	INTERMEDIATE	12.25	0	4985	9.625	40	HCP-110		LT&C		
00	PRODUCTION	8.75	0	18103	5.5	20	P-110		OTHER	GBCD	

Cementing

Wellbore Code	Casing String Type	Stage Tool Depth	Cement Lead Type	Cement Lead Qty (sks)	Cement Lead Yield (cu.ft/sks)	Cement Lead Top (MD)	Cement Tail Type	Cement Tail Qty (sks)	Cement Tail Yield(cu.ft/sks)	Cement Tail Top (MD)	Total (Lead + Tail) Cement Slurry Volume (bbls)
00	SURFACE		Extendacem C	770	1.75	0	Halcem	335	1.35	0	320.5
00	INTERMEDIATE		Econocem	905	2.54	0	Halcem	365	1.33		495.9
00	PRODUCTION		NeoCem	850	3.5	0	Versacem	2460	1.22		1064.4

Logs

Wellbore Code	Log Upload	Was Well Cored?	Was DST Run?	Directional Survey?	Geologic Report Completed?	Wellbore Diagram
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Operator Name KAISER FRANCIS OIL COMPANY	Well Name BELL LAKE UNIT NORTH	Well Number 231H	US Well Number 3002546912
SHL NWSW Lot L Sec 5 23S 34E	County LEA	State NM	Lease Number(s) NMNM0001244A, NMNM01244A, NMNM01244A
Well Type OIL WELL	Well Status Drilling Well	Agreement Name BELL LAKE	Agreement Number(s) NMNM68292X, NMNM68292X
Allottee/Tribe Name	Well Pad Name NORTH BELL LAKE UNIT	Well Pad Number 13	ID 10400042381

Logs

Wellbore Code	Log Upload	Was Well Cored?	Was DST Run?	Directional Survey?	Geologic Report Completed?	Wellbore Diagram
00	YES	NO	NO	YES	NO	YES

Operator Certification

I hereby certify that the foregoing and attached information is complete and correct as determined from all available records. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Well Completion Reports through this system satisfies regulations requiring a submission of Form 3160-4 or a Well Completion Report.

Name: KAISER FRANCIS OIL COMPANY

Signed By: Eric Hansen

Title: Drilling Engineer

Signed on: 05/20/2021

Street Address: 6733 S. Yale Ave.

City: Tulsa

State: OK

Zip: 74121

Phone: (918)491-4339

Email address: EricH@kfoc.net

Field Representative

Representative Name: Jeremy Parent

Street Address: 88 Shell Road

City: Jal

State: NM

Zip: 88252

Phone: (580)504-2593

Extension:

Email address: JeremyP@kfoc.net

Attachments

Operator Name KAISER FRANCIS OIL COMPANY	Well Name BELL LAKE UNIT NORTH	Well Number 231H	US Well Number 3002546912
SHL NWSW Lot L Sec 5 23S 34E	County LEA	State NM	Lease Number(s) NMNM0001244A, NMNM01244A, NMNM01244A
Well Type OIL WELL	Well Status Drilling Well	Agreement Name BELL LAKE	Agreement Number(s) NMNM68292X, NMNM68292X
Allottee/Tribe Name	Well Pad Name NORTH BELL LAKE UNIT	Well Pad Number 13	ID 10400042381

Bell_Lake_Unit_North_231H_ST01_2inMD_20210520142812.pdf

Bell_Lake_Unit_North_231H_ST01_5inTVD_20210520142813.pdf

Bell_Lake_Unit_North_231H_ST01_2inTVD_20210520142813.pdf

KAISER_FRANCES___BELL_LAKE_UNIT_NORTH_231H___FINAL___NAD_83___20210520142822.pdf

BELL_LAKE_UNIT_NORTH_231H_AS_DRILLED_20210520142834.pdf

BLUN_231H_WBD_20210520142841.pdf

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

ACKNOWLEDGMENTS

Action 30689

ACKNOWLEDGMENTS

Operator: KAISER-FRANCIS OIL CO P.O. Box 21468 Tulsa, OK 74121	OGRID: 12361
	Action Number: 30689
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

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CONDITIONS

Action 30689

CONDITIONS

Operator: KAISER-FRANCIS OIL CO P.O. Box 21468 Tulsa, OK 74121	OGRID: 12361
	Action Number: 30689
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
ksimmons	None	8/4/2021