

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 - 025-45387	⁵ Pool Name Wildcat Upper Wolfcamp Oil Pool		⁶ Pool Code 98158
⁷ Property Code 5467	⁸ Property Name Red Hills Federal		⁹ Well Number 402H

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
K	31	25S	31E		2400	South	1795	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
4	6	26S	31E		103	South	1125	West	Lea
¹² Lse Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date	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 7/11/19	²² Ready Date 3/19/21	²³ TD 19801MD/	²⁴ PBTD 19718MD/	²⁵ Perforations 12, 436 - 19, 708	²⁶ DHC, MC -
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17 - 1/2	13 - 3/8	924	745 SXS		
12 - 1/4	10 - 3/4	4, 972	790 SXS		
9 - 7/8	7 - 5/8	11, 523	1, 300 SXS		
6 - 3/4	5 - 1/2	19, 765	1, 475 SXS		

V. Well Test Data

³¹ Date New Oil 3/19/21	³² Gas Delivery Date 3/19/21	³³ Test Date 4/1/21	³⁴ Test Length 24hr	³⁵ Tbg. Pressure na	³⁶ Csg. Pressure 3450
³⁷ Choke Size 18/64	³⁸ Oil 317	³⁹ Water 2046	⁴⁰ Gas 870		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: Eric Hansen			OIL CONSERVATION DIVISION Approved by: KURT SIMMONS Title: NMOCD, SANTA FE Approval Date: 09/07/2021		
Printed name: Eric Hansen					
Title: Petroleum Engineer					
E-mail Address: EricH@kfoc.net					
Date: 4/12/21	Phone:918-491-4339				

District I
1625 N. French Dr., Hobbs, NM 88240
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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 30-025-45387	² Pool Code 98158	³ Pool Name Wildcat Upper Wolfcamp Oil Pool
⁴ Property Code 5467	⁵ Property Name RED HILLS	⁶ Well Number 402H
⁷ OGRID No. 12361	⁸ Operator Name KAISER-FRANCIS OIL COMPANY	⁹ Elevation 3418.3

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
K	31	25 S	33 E		2400	SOUTH	1795	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
4	6	26 S	33 E		103	SOUTH	1125	WEST	LEA
¹² Dedicated Acres 478.8	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-20051						

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.

	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. Eric Hansen 4/9/21 Signature Date Eric Hansen Printed Name EricH@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. FEBRUARY 17, 2021 Date of Survey Eric Hansen Signature and Seal of Professional Surveyor: LS 12797 Certificate Number: 12797
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Intent ☐ As Drilled ☒

API # 30-025-45387		
Operator Name: KAISER-FRANCIS OIL COMPANY	Property Name: RED HILLS	Well Number 402H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
K	31	25S	33E		2596	SOUTH	1384	WEST	LEA
Latitude 32.0869316					Longitude 103.6154541				NAD 83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
L	31	25S	33E	3	2171	SOUTH	1251	WEST	LEA
Latitude 32.0857630					Longitude 103.6158800				NAD 83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	6	26S	33E	4	196	SOUTH	1118	WEST	LEA
Latitude 32.0658319					Longitude 103.6162328				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 # 30-025-45572		
Operator Name: Kaiser-Francis Oil Company	Property Name: Red Hills Federal	Well Number 401H

KZ 06/29/2018

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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code	³ Pool Name	
⁴ Property Code	⁵ Property Name RED HILLS			⁶ Well Number 402H
⁷ OGRID No. 12361	⁸ Operator Name KAISER-FRANCIS OIL COMPANY			⁹ Elevation 3418.3

¹⁰ Surface Location

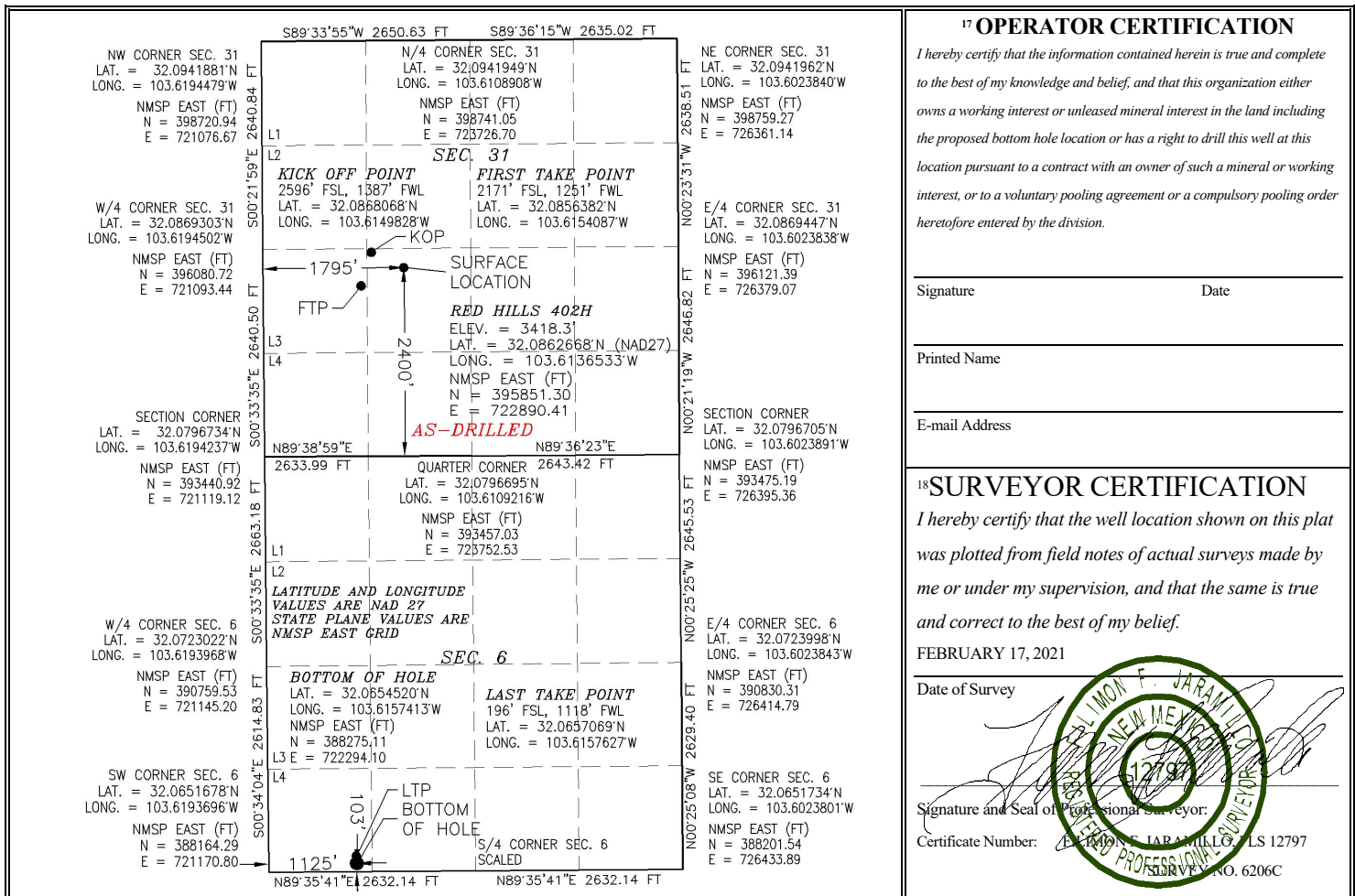
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	31	25 S	33 E		2400	SOUTH	1795	WEST	LEA

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
4	6	26 S	33 E		103	SOUTH	1125	WEST	LEA

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.



Intent ☐ As Drilled ☒

API #		
Operator Name: KAISER-FRANCIS OIL COMPANY	Property Name: RED HILLS	Well Number 402H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
K	31	25S	33E		2596	SOUTH	1384	WEST	LEA
Latitude 32.0868068					Longitude 103.6149828				NAD 27

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
L	31	25S	33E	3	2171	SOUTH	1251	WEST	LEA
Latitude 32.0856382					Longitude 103.6154087				NAD 27

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	6	26S	33E	4	196	SOUTH	1118	WEST	LEA
Latitude 32.0657069					Longitude 103.6157627				NAD 27

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 #		
Operator Name:	Property Name:	Well Number

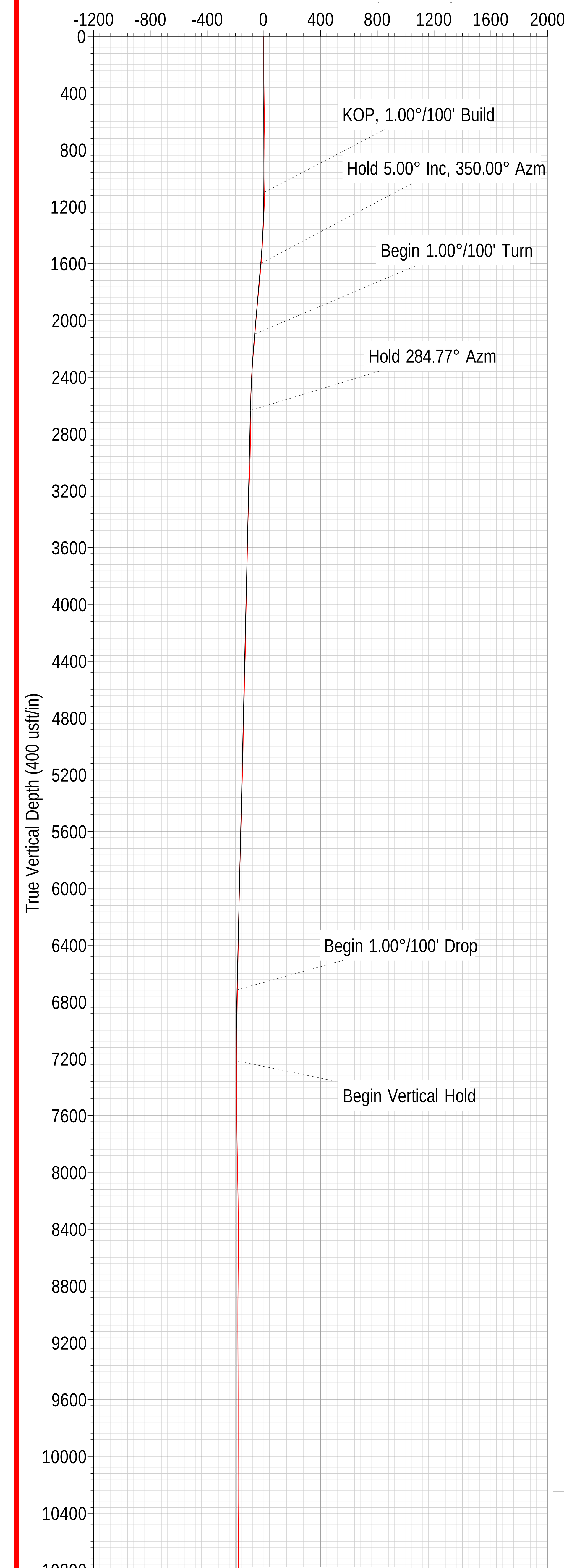
KZ 06/29/2018

IGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
VP v2 - Red Hills 402H	11678.80	190.11	-404.54	396041.41	722485.87	32° 5' 12.469 N	103° 36' 53.839 W
T1 - Red Hills 402H	12260.00	-1170.21	-660.87	394681.09	722229.54	32° 4' 59.024 N	103° 36' 56.924 W
T2 - Red Hills 402H	12245.00	-2170.21	-651.15	393681.09	722239.26	32° 4' 49.128 N	103° 36' 56.888 W
T3 - Red Hills 402H	12230.00	-3170.21	-641.44	392681.09	722248.97	32° 4' 39.231 N	103° 36' 56.853 W
T4 - Red Hills 402H	12190.00	-5170.22	-622.02	390681.08	722268.39	32° 4' 19.438 N	103° 36' 56.782 W
T5 - Red Hills 402H	12180.00	-6170.22	-612.31	389681.08	722278.10	32° 4' 9.542 N	103° 36' 56.746 W
PBHL v2 - Red Hills 402H	12210.50	-7579.08	-598.62	388272.22	722291.79	32° 3' 55.599 N	103° 36' 56.696 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.000	0.00	KOP, 1.00°/100' Build
1600.00	5.00	350.00	1599.37	21.47	-3.79	1.00	350.000	-21.51	Hold 5.00° Inc, 350.00° Azm
2100.00	5.00	350.00	2097.46	64.39	-11.35	0.00	0.000	-64.50	Begin 1.00°/100' Turn
2638.62	5.00	284.77	2634.42	93.51	-38.15	1.00	-122.497	-93.88	Hold 284.77° Azm
6734.02	5.00	284.77	6714.23	184.55	-383.44	0.00	0.000	-188.29	Begin 1.00°/100' Drop
7234.22	0.00	0.00	7213.80	190.11	-404.54	1.00	180.000	-194.05	Begin Vertical Hold
11699.22	0.00	0.00	11678.80	190.11	-404.54	0.00	0.000	-194.05	Begin 10.00°/100' Build
12593.52	89.43	197.48	12251.73	-350.94	-574.96	10.00	197.483	345.31	Begin 89.43° Lateral; Begin 3.00°/100' Turn
13194.91	89.43	179.44	12257.75	-943.30	-663.08	3.00	-90.084	936.77	Hold 179.44° Azm
13421.85	89.43	179.44	12260.00	-1170.21	-660.87	0.00	0.000	1163.70	Begin 2.00°/100' Build
13495.95	90.91	179.44	12259.78	-1244.31	-660.14	2.00	0.118	1237.80	Hold 90.91° Inc
14422.01	90.91	179.44	12245.00	-2170.21	-651.15	0.00	0.000	2163.74	Begin 2.00°/100' Drop
14424.76	90.86	179.44	12244.96	-2172.96	-651.13	2.00	-179.882	2166.49	Hold 90.86° Inc
15422.17	90.86	179.44	12230.00	-3170.21	-641.44	0.00	0.000	3163.79	Begin 2.00°/100' Build
15436.55	91.15	179.44	12229.75	-3184.58	-641.30	2.00	0.000	3178.16	Hold 91.15° Inc
17422.67	91.15	179.44	12190.00	-5170.22	-622.02	0.00	0.000	5163.89	Begin 2.00°/100' Drop
17451.79	90.56	179.44	12189.57	-5199.33	-621.74	2.00	-180.000	5193.00	Hold 90.56° Inc
18422.77	90.56	179.44	12180.00	-6170.22	-612.31	0.00	0.000	6163.94	Begin 2.00°/100' Drop
18516.09	88.70	179.44	12180.60	-6263.53	-611.40	2.00	180.000	6257.25	Hold 88.70° Inc
19832.04	88.70	179.44	12210.50	-7579.08	-598.62	0.00	0.000	7572.87	PBHL

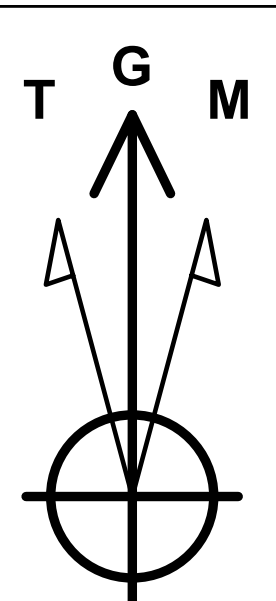


Kaiser-Francis Oil Company

Company: Kaiser-Francis
Well: Red Hills 402H
County: Lea County, New Mexico (NAD 27)
Rig: Cactus 171
Wellbore: Wellbore #1
Design: Design #2
Created By: BSW
Date: 12:15, August 05 2019

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

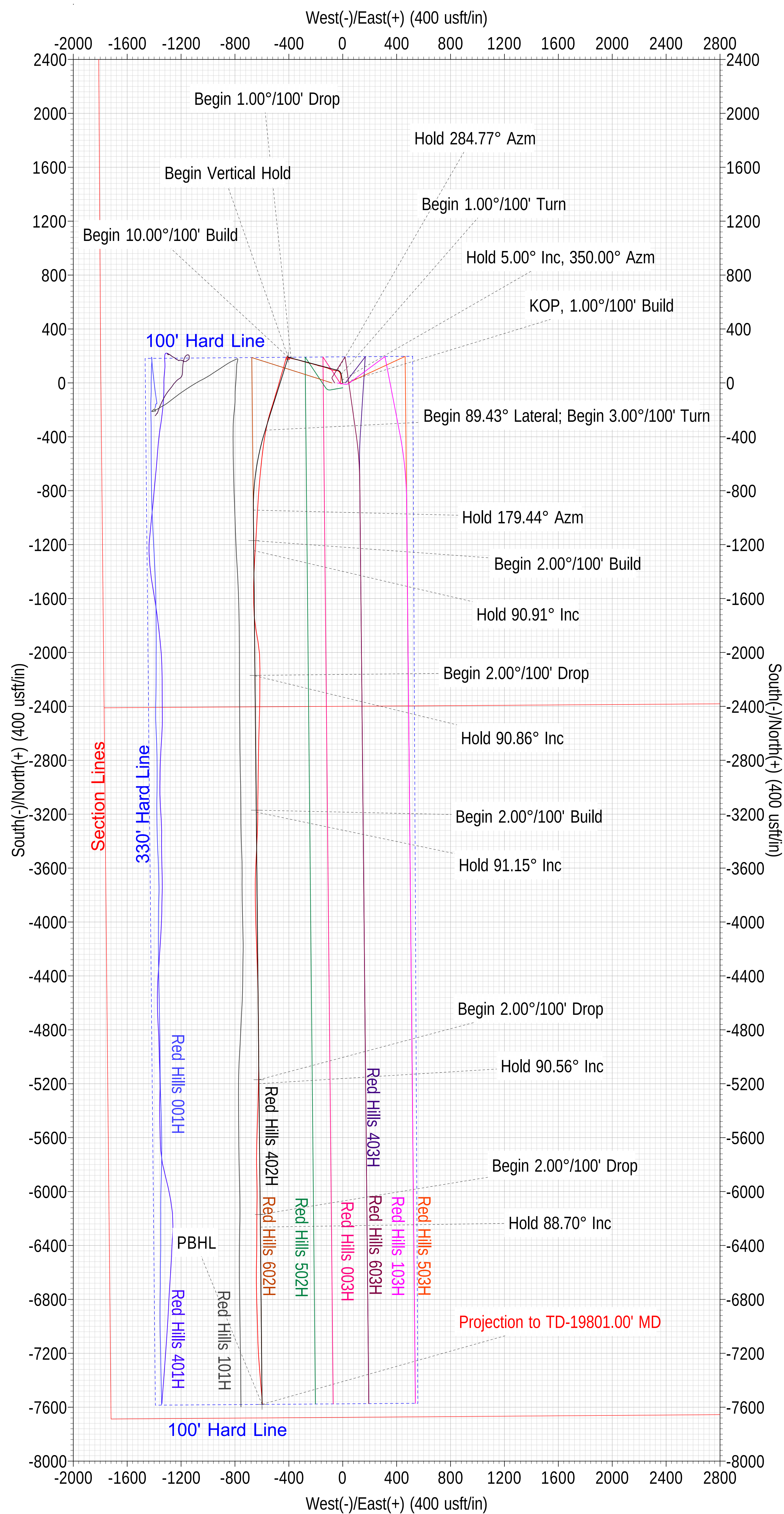
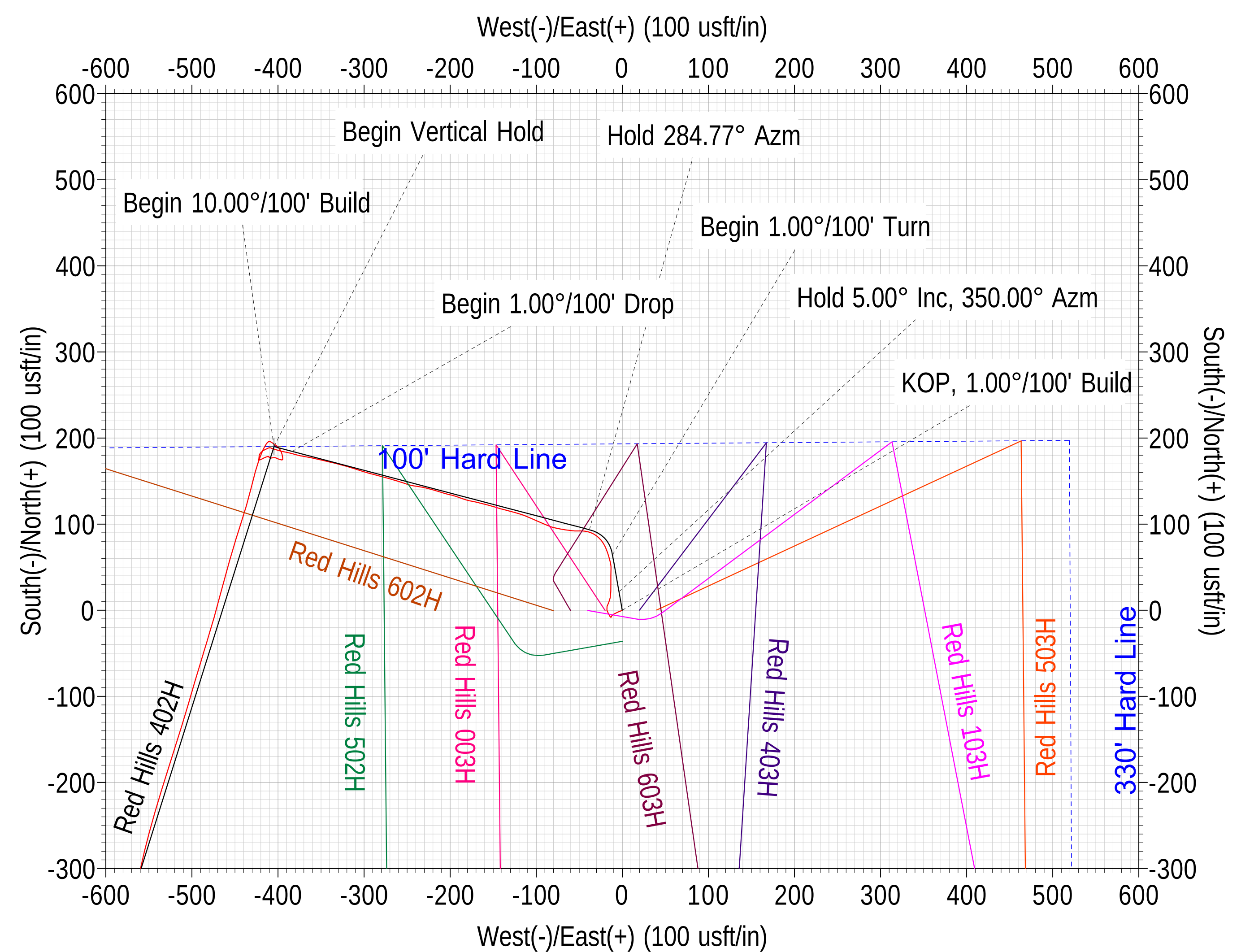
To convert a Magnetic Direction to a Grid Direction, Add 6.268°
 To convert a Magnetic Direction to a True Direction, Add 6.650° East
 To convert a True Direction to a Grid Direction, Subtract 0.382°



Azimuths to Grid North
 True North: -0.38°
 Magnetic North: 6.27°
 Magnetic Field
 Strength: 47739.8nT
 Dip Angle: 59.68°
 Date: 7/3/2019
 Model: HDGM2019

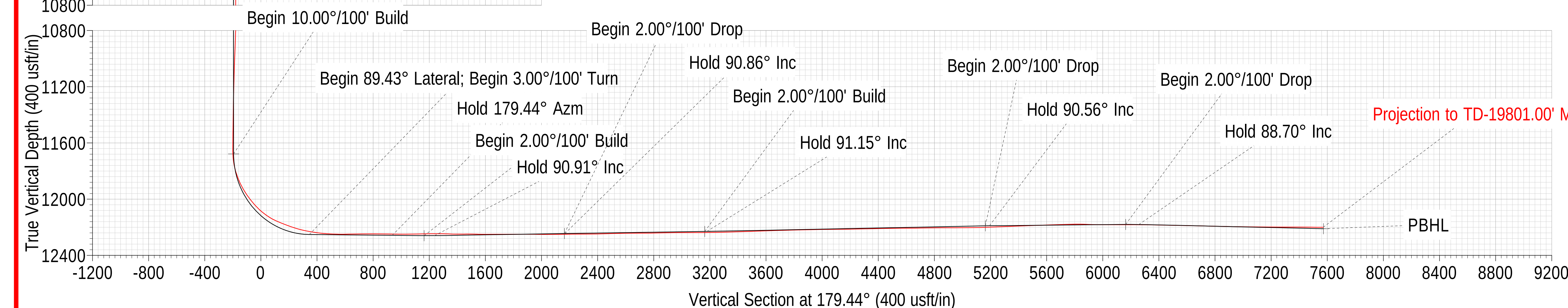
SURVEY PROGRAM

Depth From	Depth To	Survey/Plan	Tool
0.00	19832.03	Design #2 (Wellbore #1)	MWD+HRGM



WELL DETAILS: Red Hills 402H

		GL @ 3418.30	WELL @ 3441.30usft (Cactus 171)		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	395851.30	722890.41	32° 5' 10.561 N	103° 36' 49.152 W



Any decisions made or wells drilled utilizing this or any other information supplied by MS Directional are at the sole risk and responsibility of the customer. MS Directional is not responsible for the accuracy of this schematic or the information contained herein.
The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented.

Kaiser-Francis Oil Company

Kaiser-Francis

Lea County, New Mexico (NAD 27)

Red Hills 603H - 001H

Red Hills 402H

Wellbore #1

Design: Surveys

Standard Survey Report

05 August, 2019



Kaiser-Francis Oil Company

MS Directional
Survey Report

Company:	Kaiser-Francis	Local Co-ordinate Reference:	Well Red Hills 402H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	WELL @ 3441.30usft (Cactus 171)
Site:	Red Hills 603H - 001H	MD Reference:	WELL @ 3441.30usft (Cactus 171)
Well:	Red Hills 402H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Conroe Db

Project	Lea County, New Mexico (NAD 27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Red Hills 603H - 001H		
Site Position:		Northing:	395,815.29 usft
From:	Map	Easting:	722,890.66 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 5' 10.204 N
		Longitude:	103° 36' 49.152 W

Well	Red Hills 402H		
Well Position	+N/-S	0.00 usft	Northing: 395,851.30 usft
	+E/-W	0.00 usft	Easting: 722,890.41 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.382 °	Ground Level:	3,418.30 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2019	7/3/2019	6.650	59.683	47,739.80

Design	Surveys				
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	179.44	

Survey Program	Date	8/5/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
144.00	19,801.00	MS MWD (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
144.00	0.20	259.60	144.00	-0.05	-0.25	0.04	0.14	0.14	0.00	
244.00	0.80	239.40	244.00	-0.43	-1.02	0.42	0.62	0.60	-20.20	
337.00	1.40	250.30	336.98	-1.15	-2.65	1.12	0.68	0.65	11.72	
431.00	1.80	244.20	430.94	-2.18	-5.06	2.13	0.46	0.43	-6.49	
524.00	2.10	244.60	523.89	-3.54	-7.91	3.46	0.32	0.32	0.43	
618.00	1.80	234.30	617.83	-5.14	-10.67	5.04	0.49	-0.32	-10.96	
712.00	0.80	211.70	711.81	-6.56	-12.21	6.44	1.18	-1.06	-24.04	
805.00	0.40	187.50	804.80	-7.44	-12.59	7.31	0.50	-0.43	-26.02	
880.00	0.30	219.10	879.80	-7.85	-12.75	7.72	0.28	-0.13	42.13	

Kaiser-Francis Oil Company

MS Directional
Survey Report

Company:	Kaiser-Francis	Local Co-ordinate Reference:	Well Red Hills 402H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	WELL @ 3441.30usft (Cactus 171)
Site:	Red Hills 603H - 001H	MD Reference:	WELL @ 3441.30usft (Cactus 171)
Well:	Red Hills 402H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Conroe Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
989.00	0.50	259.80	988.80	-8.15	-13.40	8.02	0.31	0.18	37.34
1,083.00	1.70	334.40	1,082.78	-6.97	-14.41	6.83	1.74	1.28	79.36
1,177.00	2.80	331.60	1,176.71	-3.69	-16.10	3.53	1.18	1.17	-2.98
1,271.00	2.40	340.00	1,270.61	0.18	-17.87	-0.35	0.59	-0.43	8.94
1,365.00	3.10	20.80	1,364.51	4.40	-17.64	-4.58	2.16	0.74	43.40
1,458.00	3.30	24.20	1,457.37	9.20	-15.65	-9.35	0.30	0.22	3.66
1,552.00	3.80	10.30	1,551.19	14.73	-13.98	-14.86	1.06	0.53	-14.79
1,646.00	5.30	1.60	1,644.89	22.13	-13.30	-22.26	1.75	1.60	-9.26
1,739.00	5.60	359.10	1,737.47	30.96	-13.25	-31.09	0.41	0.32	-2.69
1,833.00	5.20	0.60	1,831.05	39.81	-13.28	-39.94	0.45	-0.43	1.60
1,928.00	5.00	2.00	1,925.68	48.25	-13.09	-48.38	0.25	-0.21	1.47
2,023.00	4.90	345.10	2,020.33	56.31	-13.99	-56.44	1.53	-0.11	-17.79
2,117.00	4.80	342.80	2,113.99	63.95	-16.19	-64.10	0.23	-0.11	-2.45
2,212.00	4.90	338.60	2,208.65	71.52	-18.84	-71.70	0.39	0.11	-4.42
2,306.00	5.40	325.60	2,302.27	78.91	-22.81	-79.13	1.35	0.53	-13.83
2,401.00	5.30	310.10	2,396.87	85.42	-28.69	-85.70	1.52	-0.11	-16.32
2,496.00	5.40	292.40	2,491.46	89.95	-36.18	-90.30	1.73	0.11	-18.63
2,591.00	5.40	272.90	2,586.04	91.88	-44.78	-92.32	1.92	0.00	-20.53
2,685.00	5.50	270.60	2,679.62	92.15	-53.70	-92.67	0.26	0.11	-2.45
2,780.00	4.80	279.20	2,774.24	92.84	-62.17	-93.44	1.09	-0.74	9.05
2,875.00	4.60	279.30	2,868.92	94.09	-69.86	-94.77	0.21	-0.21	0.11
2,969.00	5.00	281.40	2,962.59	95.51	-77.59	-96.26	0.46	0.43	2.23
3,064.00	5.40	292.80	3,057.20	98.06	-85.77	-98.89	1.16	0.42	12.00
3,158.00	5.40	293.40	3,150.78	101.53	-93.91	-102.44	0.06	0.00	0.64
3,253.00	5.00	293.20	3,245.39	104.93	-101.82	-105.92	0.42	-0.42	-0.21
3,347.00	4.50	294.10	3,339.07	108.05	-108.95	-109.11	0.54	-0.53	0.96
3,442.00	4.00	288.80	3,433.81	110.64	-115.49	-111.77	0.67	-0.53	-5.58
3,537.00	4.00	286.30	3,528.58	112.64	-121.80	-113.83	0.18	0.00	-2.63
3,631.00	4.50	285.90	3,622.32	114.57	-128.50	-115.82	0.53	0.53	-0.43
3,726.00	4.80	282.50	3,717.00	116.45	-135.96	-117.78	0.43	0.32	-3.58
3,820.00	4.00	288.10	3,810.73	118.32	-142.92	-119.71	0.97	-0.85	5.96
3,915.00	4.80	286.40	3,905.45	120.47	-149.88	-121.93	0.85	0.84	-1.79
4,009.00	5.20	284.10	3,999.09	122.62	-157.78	-124.16	0.48	0.43	-2.45
4,104.00	4.50	284.30	4,093.75	124.59	-165.57	-126.20	0.74	-0.74	0.21
4,198.00	3.50	281.20	4,187.52	126.06	-171.96	-127.74	1.09	-1.06	-3.30
4,292.00	3.80	281.50	4,281.33	127.24	-177.83	-128.97	0.32	0.32	0.32
4,387.00	5.60	290.20	4,376.00	129.47	-185.26	-131.27	2.03	1.89	9.16
4,481.00	5.20	287.70	4,469.59	132.35	-193.62	-134.23	0.49	-0.43	-2.66
4,576.00	4.00	281.60	4,564.28	134.32	-200.97	-136.28	1.36	-1.26	-6.42
4,671.00	4.80	288.30	4,659.00	136.24	-207.99	-138.26	1.00	0.84	7.05
4,765.00	5.20	286.10	4,752.64	138.65	-215.82	-140.75	0.47	0.43	-2.34
4,860.00	5.10	284.80	4,847.26	140.92	-224.04	-143.11	0.16	-0.11	-1.37
4,922.00	4.90	283.00	4,909.02	142.22	-229.28	-144.46	0.41	-0.32	-2.90

Kaiser-Francis Oil Company

MS Directional
Survey Report

Company:	Kaiser-Francis	Local Co-ordinate Reference:	Well Red Hills 402H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	WELL @ 3441.30usft (Cactus 171)
Site:	Red Hills 603H - 001H	MD Reference:	WELL @ 3441.30usft (Cactus 171)
Well:	Red Hills 402H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Conroe Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,052.00	5.20	277.40	5,038.52	144.23	-240.53	-146.58	0.44	0.23	-4.31	
5,147.00	5.50	287.60	5,133.11	146.16	-249.14	-148.59	1.05	0.32	10.74	
5,241.00	5.60	288.00	5,226.67	148.94	-257.80	-151.45	0.11	0.11	0.43	
5,335.00	5.60	286.30	5,320.22	151.65	-266.56	-154.24	0.18	0.00	-1.81	
5,429.00	5.60	285.20	5,413.77	154.14	-275.39	-156.82	0.11	0.00	-1.17	
5,524.00	5.70	284.70	5,508.31	156.55	-284.42	-159.32	0.12	0.11	-0.53	
5,619.00	5.60	285.10	5,602.85	158.95	-293.46	-161.81	0.11	-0.11	0.42	
5,713.00	4.90	287.90	5,696.45	161.38	-301.71	-164.32	0.79	-0.74	2.98	
5,807.00	4.70	287.30	5,790.12	163.76	-309.21	-166.78	0.22	-0.21	-0.64	
5,902.00	4.40	287.40	5,884.82	166.01	-316.40	-169.09	0.32	-0.32	0.11	
5,997.00	5.00	285.10	5,979.50	168.18	-323.88	-171.33	0.66	0.63	-2.42	
6,091.00	5.00	284.30	6,073.14	170.26	-331.80	-173.49	0.07	0.00	-0.85	
6,186.00	4.90	282.80	6,167.79	172.18	-339.77	-175.49	0.17	-0.11	-1.58	
6,280.00	4.70	283.00	6,261.46	173.93	-347.44	-177.32	0.21	-0.21	0.21	
6,375.00	4.90	283.00	6,356.13	175.72	-355.18	-179.18	0.21	0.21	0.00	
6,470.00	4.70	281.20	6,450.79	177.39	-362.95	-180.93	0.26	-0.21	-1.89	
6,564.00	4.70	279.60	6,544.48	178.78	-370.53	-182.39	0.14	0.00	-1.70	
6,658.00	4.40	284.80	6,638.18	180.34	-377.81	-184.03	0.54	-0.32	5.53	
6,753.00	4.50	284.50	6,732.90	182.21	-384.94	-185.96	0.11	0.11	-0.32	
6,847.00	4.40	281.90	6,826.61	183.87	-392.04	-187.70	0.24	-0.11	-2.77	
6,941.00	3.50	285.10	6,920.39	185.37	-398.34	-189.25	0.99	-0.96	3.40	
7,036.00	3.10	285.70	7,015.23	186.82	-403.61	-190.75	0.42	-0.42	0.63	
7,130.00	2.00	294.50	7,109.14	188.18	-407.55	-192.16	1.24	-1.17	9.36	
7,225.00	0.90	259.80	7,204.11	188.74	-409.80	-192.74	1.43	-1.16	-36.53	
7,320.00	0.90	246.70	7,299.09	188.31	-411.21	-192.32	0.22	0.00	-13.79	
7,415.00	1.10	245.20	7,394.08	187.63	-412.73	-191.66	0.21	0.21	-1.58	
7,509.00	1.00	244.80	7,488.06	186.91	-414.29	-190.95	0.11	-0.11	-0.43	
7,603.00	1.10	246.50	7,582.05	186.20	-415.86	-190.25	0.11	0.11	1.81	
7,697.00	1.10	234.00	7,676.03	185.31	-417.42	-189.38	0.25	0.00	-13.30	
7,791.00	1.20	224.80	7,770.01	184.08	-418.84	-188.16	0.22	0.11	-9.79	
7,886.00	1.10	223.00	7,864.99	182.71	-420.16	-186.80	0.11	-0.11	-1.89	
7,980.00	1.00	207.60	7,958.98	181.32	-421.16	-185.43	0.32	-0.11	-16.38	
8,075.00	1.00	192.80	8,053.96	179.78	-421.73	-183.89	0.27	0.00	-15.58	
8,169.00	1.00	180.60	8,147.95	178.16	-421.92	-182.27	0.23	0.00	-12.98	
8,264.00	0.90	188.50	8,242.94	176.59	-422.03	-180.71	0.17	-0.11	8.32	
8,358.00	1.00	187.90	8,336.92	175.05	-422.26	-179.16	0.11	0.11	-0.64	
8,453.00	0.80	68.10	8,431.92	174.47	-421.76	-178.59	1.64	-0.21	-126.11	
8,547.00	0.90	72.50	8,525.91	174.94	-420.44	-179.04	0.13	0.11	4.68	
8,642.00	1.20	65.20	8,620.89	175.58	-418.83	-179.67	0.35	0.32	-7.68	
8,737.00	1.10	61.40	8,715.87	176.43	-417.12	-180.50	0.13	-0.11	-4.00	
8,831.00	1.10	67.40	8,809.85	177.21	-415.50	-181.27	0.12	0.00	6.38	
8,925.00	0.90	64.90	8,903.84	177.87	-414.00	-181.91	0.22	-0.21	-2.66	
9,020.00	0.80	75.20	8,998.83	178.36	-412.68	-182.38	0.19	-0.11	10.84	

Kaiser-Francis Oil Company

MS Directional
Survey Report

Company:	Kaiser-Francis	Local Co-ordinate Reference:	Well Red Hills 402H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	WELL @ 3441.30usft (Cactus 171)
Site:	Red Hills 603H - 001H	MD Reference:	WELL @ 3441.30usft (Cactus 171)
Well:	Red Hills 402H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Conroe Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,114.00	0.60	88.00	9,092.82	178.54	-411.55	-182.56	0.27	-0.21	13.62
9,208.00	0.50	111.70	9,186.82	178.41	-410.68	-182.41	0.26	-0.11	25.21
9,303.00	0.50	165.80	9,281.82	177.85	-410.19	-181.85	0.48	0.00	56.95
9,397.00	0.10	197.70	9,375.81	177.38	-410.12	-181.38	0.45	-0.43	33.94
9,492.00	0.30	92.80	9,470.81	177.29	-409.90	-181.29	0.36	0.21	-110.42
9,586.00	0.50	115.70	9,564.81	177.10	-409.28	-181.09	0.27	0.21	24.36
9,682.00	0.10	84.10	9,660.81	176.92	-408.82	-180.91	0.44	-0.42	-32.92
9,776.00	0.20	128.90	9,754.81	176.83	-408.61	-180.82	0.16	0.11	47.66
9,871.00	0.50	81.00	9,849.81	176.79	-408.07	-180.77	0.42	0.32	-50.42
9,965.00	0.80	78.60	9,943.80	176.98	-407.02	-180.95	0.32	0.32	-2.55
10,060.00	0.70	84.60	10,038.79	177.17	-405.80	-181.13	0.13	-0.11	6.32
10,154.00	0.50	80.50	10,132.79	177.29	-404.82	-181.24	0.22	-0.21	-4.36
10,248.00	0.70	96.70	10,226.78	177.29	-403.84	-181.23	0.28	0.21	17.23
10,343.00	1.00	109.50	10,321.77	176.95	-402.49	-180.87	0.37	0.32	13.47
10,437.00	0.60	118.80	10,415.76	176.44	-401.28	-180.35	0.45	-0.43	9.89
10,532.00	1.10	110.60	10,510.75	175.88	-399.99	-179.78	0.54	0.53	-8.63
10,627.00	1.70	108.00	10,605.72	175.12	-397.80	-179.00	0.63	0.63	-2.74
10,721.00	1.50	98.30	10,699.69	174.51	-395.26	-178.37	0.36	-0.21	-10.32
10,815.00	1.50	349.00	10,793.67	175.54	-394.27	-179.39	2.60	0.00	-116.28
10,910.00	2.10	353.80	10,888.62	178.49	-394.70	-182.34	0.65	0.63	5.05
11,005.00	2.30	339.90	10,983.55	182.01	-395.54	-185.87	0.60	0.21	-14.63
11,100.00	2.10	334.10	11,078.48	185.37	-396.96	-189.24	0.31	-0.21	-6.11
11,194.00	1.80	322.10	11,172.43	188.08	-398.62	-191.97	0.54	-0.32	-12.77
11,289.00	2.00	310.50	11,267.38	190.34	-400.79	-194.25	0.46	0.21	-12.21
11,384.00	1.70	302.30	11,362.33	192.17	-403.24	-196.10	0.42	-0.32	-8.63
11,478.00	1.60	306.60	11,456.29	193.70	-405.48	-197.65	0.17	-0.11	4.57
11,588.00	1.60	298.10	11,566.25	195.33	-408.06	-199.31	0.22	0.00	-7.73
11,635.00	1.80	297.30	11,613.22	195.98	-409.30	-199.97	0.43	0.43	-1.70
11,682.00	2.00	252.20	11,660.20	196.07	-410.74	-200.07	3.12	0.43	-95.96
11,729.00	6.50	218.40	11,707.07	193.73	-413.17	-197.76	10.56	9.57	-71.91
11,776.00	12.00	206.00	11,753.44	187.25	-416.97	-191.32	12.38	11.70	-26.38
11,824.00	17.30	199.20	11,799.87	176.02	-421.51	-180.13	11.59	11.04	-14.17
11,871.00	21.20	195.90	11,844.23	161.24	-426.13	-165.40	8.61	8.30	-7.02
11,918.00	25.80	193.40	11,887.32	143.11	-430.84	-147.31	10.01	9.79	-5.32
11,965.00	31.50	196.40	11,928.55	121.36	-436.68	-125.62	12.50	12.13	6.38
12,012.00	35.30	197.90	11,967.79	96.65	-444.32	-100.98	8.27	8.09	3.19
12,059.00	39.40	196.40	12,005.14	69.40	-452.71	-73.82	8.94	8.72	-3.19
12,107.00	43.10	195.20	12,041.22	38.95	-461.31	-43.46	7.88	7.71	-2.50
12,154.00	48.20	195.10	12,074.07	6.52	-470.09	-11.12	10.85	10.85	-0.21
12,200.00	54.40	196.70	12,102.82	-27.98	-479.94	23.29	13.75	13.48	3.48
12,247.00	58.50	196.90	12,128.79	-65.47	-491.26	60.66	8.73	8.72	0.43
12,294.00	66.10	196.20	12,150.62	-105.33	-503.10	100.41	16.22	16.17	-1.49
12,342.00	68.90	197.40	12,168.98	-147.78	-515.92	142.73	6.27	5.83	2.50
12,389.00	70.40	197.60	12,185.33	-189.80	-529.17	184.62	3.22	3.19	0.43

Kaiser-Francis Oil Company

MS Directional
Survey Report

Company:	Kaiser-Francis	Local Co-ordinate Reference:	Well Red Hills 402H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	WELL @ 3441.30usft (Cactus 171)
Site:	Red Hills 603H - 001H	MD Reference:	WELL @ 3441.30usft (Cactus 171)
Well:	Red Hills 402H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Conroe Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,436.00	72.10	196.60	12,200.44	-232.34	-542.26	227.03	4.14	3.62	-2.13
12,483.00	75.20	193.60	12,213.67	-275.87	-553.99	270.45	9.00	6.60	-6.38
12,530.00	78.50	191.40	12,224.36	-320.55	-563.89	315.02	8.37	7.02	-4.68
12,577.00	81.00	190.30	12,232.72	-365.97	-572.59	360.35	5.80	5.32	-2.34
12,625.00	82.10	189.30	12,239.78	-412.75	-580.67	407.06	3.08	2.29	-2.08
12,672.00	85.50	187.90	12,244.85	-458.94	-587.66	453.18	7.82	7.23	-2.98
12,720.00	87.40	186.80	12,247.82	-506.46	-593.79	500.63	4.57	3.96	-2.29
12,814.00	90.00	186.10	12,249.96	-599.83	-604.34	593.89	2.86	2.77	-0.74
12,908.00	92.10	185.50	12,248.23	-693.33	-613.84	687.29	2.32	2.23	-0.64
13,003.00	89.40	183.90	12,246.99	-787.99	-621.62	781.87	3.30	-2.84	-1.68
13,097.00	89.60	184.10	12,247.81	-881.75	-628.18	875.57	0.30	0.21	0.21
13,191.00	88.70	182.80	12,249.21	-975.57	-633.83	969.33	1.68	-0.96	-1.38
13,286.00	91.30	183.80	12,249.21	-1,070.40	-639.30	1,064.10	2.93	2.74	1.05
13,380.00	91.10	183.10	12,247.24	-1,164.21	-644.96	1,157.85	0.77	-0.21	-0.74
13,474.00	90.20	183.50	12,246.17	-1,258.05	-650.37	1,251.63	1.05	-0.96	0.43
13,568.00	87.50	182.60	12,248.06	-1,351.89	-655.37	1,345.42	3.03	-2.87	-0.96
13,663.00	91.30	182.60	12,249.05	-1,446.77	-659.68	1,440.25	4.00	4.00	0.00
13,758.00	88.30	179.60	12,249.38	-1,541.73	-661.50	1,535.19	4.47	-3.16	-3.16
13,853.00	90.10	179.50	12,250.71	-1,636.71	-660.76	1,630.17	1.90	1.89	-0.11
13,947.00	90.50	175.60	12,250.22	-1,730.60	-656.74	1,724.10	4.17	0.43	-4.15
14,041.00	89.90	170.30	12,249.89	-1,823.86	-645.20	1,817.47	5.67	-0.64	-5.64
14,136.00	89.80	170.20	12,250.14	-1,917.49	-629.12	1,911.25	0.15	-0.11	-0.11
14,231.00	88.90	175.50	12,251.22	-2,011.71	-617.30	2,005.58	5.66	-0.95	5.58
14,346.00	91.40	181.38	12,250.91	-2,126.61	-614.17	2,120.50	5.56	2.17	5.11
14,440.00	90.39	179.77	12,249.45	-2,220.58	-615.11	2,214.47	2.02	-1.07	-1.71
14,535.00	90.11	180.39	12,249.03	-2,315.58	-615.24	2,309.46	0.72	-0.29	0.65
14,629.00	91.46	181.34	12,247.74	-2,409.56	-616.66	2,403.42	1.76	1.44	1.01
14,723.00	91.35	181.68	12,245.44	-2,503.50	-619.14	2,497.33	0.38	-0.12	0.36
14,818.00	91.62	181.42	12,242.98	-2,598.43	-621.71	2,592.23	0.39	0.28	-0.27
14,912.00	89.27	181.12	12,242.25	-2,692.40	-623.79	2,686.17	2.52	-2.50	-0.32
15,007.00	91.12	181.00	12,241.92	-2,787.38	-625.55	2,781.13	1.95	1.95	-0.13
15,101.00	91.51	180.82	12,239.77	-2,881.34	-627.04	2,875.08	0.46	0.41	-0.19
15,196.00	89.89	180.45	12,238.61	-2,976.33	-628.09	2,970.05	1.75	-1.71	-0.39
15,285.00	90.50	181.70	12,238.30	-3,065.31	-629.76	3,059.01	1.56	0.69	1.40
15,379.00	90.20	179.20	12,237.73	-3,159.30	-630.50	3,152.98	2.68	-0.32	-2.66
15,474.00	91.00	181.60	12,236.73	-3,254.28	-631.16	3,247.96	2.66	0.84	2.53
15,568.00	91.80	182.20	12,234.44	-3,348.20	-634.28	3,341.84	1.06	0.85	0.64
15,663.00	92.00	182.90	12,231.29	-3,443.05	-638.50	3,436.65	0.77	0.21	0.74
15,757.00	92.20	182.70	12,227.84	-3,536.88	-643.09	3,530.42	0.30	0.21	-0.21
15,851.00	91.80	182.00	12,224.56	-3,630.74	-646.94	3,624.24	0.86	-0.43	-0.74
15,945.00	91.10	180.30	12,222.18	-3,724.69	-648.83	3,718.17	1.96	-0.74	-1.81
16,040.00	91.50	179.50	12,220.03	-3,819.66	-648.66	3,813.14	0.94	0.42	-0.84
16,134.00	91.40	178.80	12,217.65	-3,913.62	-647.27	3,907.11	0.75	-0.11	-0.74

Kaiser-Francis Oil Company

MS Directional
Survey Report

Company:	Kaiser-Francis	Local Co-ordinate Reference:	Well Red Hills 402H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	WELL @ 3441.30usft (Cactus 171)
Site:	Red Hills 603H - 001H	MD Reference:	WELL @ 3441.30usft (Cactus 171)
Well:	Red Hills 402H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Conroe Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
16,229.00	90.90	178.40	12,215.74	-4,008.57	-644.95	4,002.08	0.67	-0.53	-0.42	
16,323.00	90.20	178.00	12,214.84	-4,102.52	-642.00	4,096.05	0.86	-0.74	-0.43	
16,418.00	91.20	177.70	12,213.68	-4,197.45	-638.43	4,191.01	1.10	1.05	-0.32	
16,513.00	91.00	177.70	12,211.86	-4,292.35	-634.62	4,285.94	0.21	-0.21	0.00	
16,607.00	91.10	178.70	12,210.13	-4,386.29	-631.67	4,379.91	1.07	0.11	1.06	
16,701.00	91.40	179.00	12,208.08	-4,480.25	-629.78	4,473.88	0.45	0.32	0.32	
16,796.00	90.00	179.00	12,206.92	-4,575.22	-628.13	4,568.87	1.47	-1.47	0.00	
16,890.00	90.50	179.10	12,206.51	-4,669.21	-626.57	4,662.86	0.54	0.53	0.11	
16,985.00	91.30	179.70	12,205.02	-4,764.19	-625.57	4,757.85	1.05	0.84	0.63	
17,079.00	90.00	179.20	12,203.95	-4,858.18	-624.67	4,851.84	1.48	-1.38	-0.53	
17,174.00	90.10	179.60	12,203.87	-4,953.17	-623.67	4,946.84	0.43	0.11	0.42	
17,268.00	90.40	180.20	12,203.46	-5,047.17	-623.51	5,040.84	0.71	0.32	0.64	
17,363.00	91.80	181.00	12,201.64	-5,142.15	-624.51	5,135.80	1.70	1.47	0.84	
17,458.00	92.30	181.20	12,198.24	-5,237.07	-626.33	5,230.69	0.57	0.53	0.21	
17,553.00	92.10	181.30	12,194.59	-5,331.97	-628.40	5,325.58	0.24	-0.21	0.11	
17,647.00	92.30	182.10	12,190.98	-5,425.86	-631.19	5,419.43	0.88	0.21	0.85	
17,742.00	92.10	181.70	12,187.34	-5,520.74	-634.33	5,514.28	0.47	-0.21	-0.42	
17,837.00	91.80	181.40	12,184.10	-5,615.65	-636.90	5,609.16	0.45	-0.32	-0.32	
17,932.00	92.40	181.30	12,180.62	-5,710.56	-639.14	5,704.04	0.64	0.63	-0.11	
18,026.00	90.50	178.90	12,178.24	-5,804.52	-639.30	5,797.99	3.26	-2.02	-2.55	
18,121.00	87.60	178.20	12,179.82	-5,899.46	-636.90	5,892.96	3.14	-3.05	-0.74	
18,215.00	90.00	179.80	12,181.79	-5,993.42	-635.26	5,986.92	3.07	2.55	1.70	
18,309.00	90.00	180.90	12,181.79	-6,087.42	-635.83	6,080.91	1.17	0.00	1.17	
18,404.00	90.00	180.50	12,181.79	-6,182.41	-636.99	6,175.89	0.42	0.00	-0.42	
18,498.00	89.10	180.20	12,182.53	-6,276.40	-637.57	6,269.87	1.01	-0.96	-0.32	
18,593.00	89.20	180.00	12,183.94	-6,371.39	-637.73	6,364.85	0.24	0.11	-0.21	
18,688.00	88.80	181.20	12,185.59	-6,466.37	-638.73	6,459.82	1.33	-0.42	1.26	
18,782.00	88.90	181.00	12,187.48	-6,560.33	-640.53	6,553.76	0.24	0.11	-0.21	
18,877.00	88.70	179.70	12,189.47	-6,655.31	-641.11	6,648.73	1.38	-0.21	-1.37	
18,971.00	88.60	178.90	12,191.68	-6,749.28	-639.96	6,742.70	0.86	-0.11	-0.85	
19,065.00	88.90	178.10	12,193.73	-6,843.22	-637.50	6,836.66	0.91	0.32	-0.85	
19,160.00	88.60	178.00	12,195.81	-6,938.14	-634.27	6,931.61	0.33	-0.32	-0.11	
19,254.00	89.80	179.00	12,197.12	-7,032.10	-631.81	7,025.59	1.66	1.28	1.06	
19,349.00	89.10	177.70	12,198.03	-7,127.05	-629.08	7,120.56	1.55	-0.74	-1.37	
19,443.00	89.90	176.30	12,198.85	-7,220.92	-624.16	7,214.47	1.72	0.85	-1.49	
19,537.00	89.70	175.60	12,199.18	-7,314.68	-617.52	7,308.30	0.77	-0.21	-0.74	
19,632.00	90.30	175.20	12,199.18	-7,409.37	-609.90	7,403.06	0.76	0.63	-0.42	
19,726.00	88.80	174.90	12,199.92	-7,503.02	-601.79	7,496.78	1.63	-1.60	-0.32	
19,764.00	90.00	175.90	12,200.32	-7,540.89	-598.74	7,534.68	4.11	3.16	2.63	
19,801.00	90.00	175.90	12,200.32	-7,577.80	-596.10	7,571.61	0.00	0.00	0.00	
Projection to TD-19801.00' MD										

Kaiser-Francis Oil Company

MS Directional
Survey Report

Company:	Kaiser-Francis	Local Co-ordinate Reference:	Well Red Hills 402H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	WELL @ 3441.30usft (Cactus 171)
Site:	Red Hills 603H - 001H	MD Reference:	WELL @ 3441.30usft (Cactus 171)
Well:	Red Hills 402H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Conroe Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
19,801.00	12,200.32	-7,577.80	-596.10	Projection to TD-19801.00' MD

Well Name: RED HILLS	Well Location: T25S / R33E / SEC 31 / NESW / 32.0863917 / -103.6143183	County or Parish/State: LEA / NM
Well Number: 402H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM015321, NMNM15321	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002545387	Well Status: Drilling Well	Operator: KAISER FRANCIS OIL COMPANY

Subsequent Report

Type of Submission: Subsequent Report	Type of Action: Hydraulic Fracturing
Date Sundry Submitted: 04/16/2021	Time Sundry Submitted: 12:26
Date Operation Actually Began: 10/20/2020	

Actual Procedure: Completion began 10/2020 Completion finished 2/2021 Pressure test casing to 11,400#. TCP Stage 1: 19,586'-19,708' O/A with 5 3 1/8" guns. BD perfs @ 7,600#. Establish injection into perfs: 5 BPM @ 7,300# for 30 bbls. SD and isolate well. ISIP 6,115#, 5 min 4,716#, 10 min 4,700#, 15 min 4,692#. 11/20-12/20 .Stage-Frac lateral 12,436'-19,708' O/A in 43 stages with 99,800 gal 15% HCl, 303,522 bbls SW and 135,302 bbls HVFR carrying 1,828,916# 100M and 21,413,232# 40/70 white. 2/21: Drilled out all plugs w/4.625" roller cone bit.TLTR: 444,913 bbls. SICP:3,950

SR Attachments

Actual Procedure

Red_Hills_402H_WBD_20210416122528.pdf

Well Name: RED HILLS	Well Location: T25S / R33E / SEC 31 / NESW / 32.0863917 / -103.6143183	County or Parish/State: LEA / NM
Well Number: 402H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM015321, NMNM15321	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002545387	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: APR 15, 2021 02:12 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:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: ZOTA M STEVENS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752345998	BLM POC Email Address: ZSTEVENS@BLM.GOV
Disposition: Accepted	Disposition Date: 04/16/2021
Signature: Zota Stevens	

Submit To Appropriate District Office Two Copies <u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 811 S. First St., Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505		State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505			Form C-105 Revised April 3, 2017					
WELL COMPLETION OR RECOMPLETION REPORT AND LOG										
4. Reason for filing: ☒ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) ☐ C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)								5. Lease Name or Unit Agreement Name Red Hills Federal		
								6. Well Number: 402H		
7. Type of Completion: ☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER										
8. Name of Operator Kaiser-Francis Oil Company						9. OGRID 12361				
10. Address of Operator P.O. Box 21468, Tulsa, OK 74121-1468						11. Pool name or Wildcat Wildcat Upper Wolfcamp Oil Pool				
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	K	31	25S	31E		2400	South	1795	West	Lea
BH:	4	6	26S	31E		103	South	1125	West	Lea
13. Date Spudded	14. Date T.D. Reached		15. Date Rig Released			16. Date Completed (Ready to Produce)		17. Elevations (DF and RKB, RT, GR, etc.)		
7/11/19	8/4/19		8/6/19			3/19/21		3418.3 GR		
18. Total Measured Depth of Well			19. Plug Back Measured Depth			20. Was Directional Survey Made?		21. Type Electric and Other Logs Run		
19,801MD 12,200TVD			19,718MD 12,199TVD			Yes		GR		
22. Producing Interval(s), of this completion - Top, Bottom, Name								12,436-19,708 Wolfcamp		
23. CASING RECORD (Report all strings set in well)										
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED
13-3/8		54.5		924		17-1/2		745 SXS		-0-
10-3/4		45.5		4,972		12-1/4		790 SXS		-0-
7-5/8		29.7		11,523		9-7/8		1,300 SXS		-0-
5-1/2		20		19,765		6-3/4		1,475 SXS		-0-
24. LINER RECORD						25. TUBING RECORD				
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET			
None		-	-	-	None	-	-			
26. Perforation record (interval, size, and number)						27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.				
12,436-19,708 #.42 EHD#1935 shots						DEPTH INTERVAL		AMOUNT AND KIND MATERIAL USED		
						12,436-		303,522 bbls fluid +		
						19,708		23,242,148# sd		
28. PRODUCTION										
Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)				Well Status (Prod. or Shut-in)				
3/19/21		Flowing				Prod				
Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio			
4/1/21	24	18/64	24	317	870	2046	2744			
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)				
NA	3450	24	317	870	2046	45				
29. Disposition of Gas (Sold, used for fuel, vented, etc.)								30. Test Witnessed By		
31. List Attachments C-104NW, C-102 As-Drilled w/HSU, C-103 Casing, C-103 Completion, Final Svy, WBD										
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.								33. Rig Release Date:		
34. If an on-site burial was used at the well, report the exact location of the on-site burial:										
Latitude				Longitude				NAD83		
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief Printed Name Eric Hansen Title Petroleum Engineer Signature Eric Hansen Date E-mail Address EricH@kfoc.net										

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn A"
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville
T. Queen	T. Silurian	T. Menefee	T. Madison
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T. Tubb	T. Delaware Sand 4850	T. Morrison	
T. Drinkard	T. Bone Springs 1st 9980	T. Todilto	
T. Abo	T. Avalon 9185	T. Entrada	
T. Wolfcamp	T. 2 Bone Sprg 10540	T. Wingate	
T. Penn	T. 3 Bone Sprg 11745	T. Chinle	
T. Cisco (Bough C)	T. Wolfcamp 12260	T. Permian	

OIL OR GAS SANDS OR ZONES

No. 1, from 12,436 to 19,708
 No. 2, fromto.....
 No. 3, fromto.....
 No. 4, fromto.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, fromto.....feet.....
 No. 2, fromto.....feet.....
 No. 3, fromto.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology	From	To	Thickness In Feet	Lithology
4850			Delaware				
9185			Avalon				
9980			1st Bone Sprg				
10540			2nd Bone Sprg				
10995			2nd Bone Sprg Lm				
11745			3rd Bone Sprg				
12260			Wolfcamp				

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 39886

ACKNOWLEDGMENTS

Operator: KAISER-FRANCIS OIL CO P.O. Box 21468 Tulsa, OK 74121	OGRID: 12361
	Action Number: 39886
	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.

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

CONDITIONS

Action 39886

CONDITIONS

Operator: KAISER-FRANCIS OIL CO P.O. Box 21468 Tulsa, OK 74121	OGRID: 12361
	Action Number: 39886
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
ksimmons	None	9/7/2021