

CASE NO. 21177

**APPLICATION OF KAISER-FRANCIS OIL COMPANY FOR COMPULSORY
POOLING, LEA COUNTY, NEW MEXICO**

EXHIBITS

1. Application and Proposed Ad
2. Landman's Affidavit
3. Geologist's Affidavit
4. Affidavit of Notice
5. Pooling Checklist

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

APPLICATION OF KAISER-FRANCIS OIL
COMPANY FOR COMPULSORY POOLING,
EDDY COUNTY, NEW MEXICO.

Case No. 21177

APPLICATION

Kaiser-Francis Oil Company applies for an order pooling all mineral interests in the Bone Spring formation underlying a horizontal spacing unit comprised of the N/2N/2 of Section 24, Township 23 South, Range 28 East, N.M.P.M. and Lot 1, NE/4NW/4, and N/2NE/4 (the N/2N/2) of Section 19, Township 23 South, Range 29 East, N.M.P.M., and in support thereof, states:

1. Applicant is an interest owner in the N/2N/2 of Section 24 and the N/2N/2 of Section 19, and has the right to drill a well thereon.
2. Applicant proposes to drill the Mosaic Fed. 2419 2BSS Well No. 1H and to dedicate the N/2N/2 of Section 24 and the N/2N/2 of Section 19 to the well. The well has a first take point in the NW/4NW/4 of Section 24, and a last take point in the NE/4NE/4 of Section 19.
3. Applicant has in good faith sought to obtain the voluntary joinder of all other mineral interest owners in the Bone Spring formation underlying the N/2N/2 of Section 24 and the N/2N/2 of Section 19 for the purposes set forth herein.
4. Although applicant attempted to obtain voluntary agreements from all mineral interest owners to participate in the drilling of the well or to otherwise commit their interests to the well, certain interest owners have failed or refused to join in dedicating their interests. Therefore, applicant seeks an order pooling all mineral interest owners in the Bone Spring formation in the N/2N/2 of Section 24 and the N/2N/2 of Section 19, pursuant to NMSA 1978 §70-2-17.

EXHIBIT

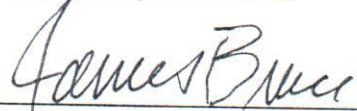
1

5. The pooling of all mineral interests in the Bone Spring formation underlying the N/2N/2 of Section 24 and the N/2N/2 of Section 19 will prevent the drilling of unnecessary wells, prevent waste, and protect correlative rights.

WHEREFORE, applicant requests that, after notice and hearing, the Division enter its order:

- A. Pooling all mineral interests in the Bone Spring formation underlying the N/2N/2 of Section 24 and the N/2N/2 of Section 19;
- B. Designating applicant as operator of the well;
- C. Considering the cost of drilling and completing the well, and allocating the cost thereof among the well's working interest owners;
- D. Approving actual operating charges and costs charged for supervision, together with a provision adjusting the rates pursuant to the COPAS accounting procedure; and
- E. Setting a 200% charge for the risk involved in drilling, completing, and equipping the well in the event a working interest owner elects not to participate in the well.

Respectfully submitted,



James Bruce
Post Office Box 1056
Santa Fe, New Mexico 87504
(505) 982-2043

Attorney for Kaiser-Francis Oil Company

PROPOSED ADVERTISEMENT

Case No. _____:

Application of Kaiser-Francis Oil Company for compulsory pooling, Eddy County, New Mexico. Kaiser-Francis Oil Company seeks an order pooling all mineral interests in the Bone Spring formation in a horizontal spacing unit underlying the N/2N/2 of Section 24, Township 23 South, Range 28 East, NMPM and Lot 1, NE/4NW/4, and N/2NE/4 (the N/2N/2) of Section 19, Township 23 South, Range 29 East, NMPM. The unit will be dedicated to the Mosaic Fed. 2419 2BSS Well No. 1H, with a first take point in the NW/4NW/4 of Section 24 and a last take point in the NE/4NE/4 of Section 19. Also to be considered will be the cost of drilling and completing the well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a 200% charge for the risk involved in drilling and completing the well. The unit is located 4 miles southwest of Malaga, New Mexico.

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION FOR
THE PURPOSE OF CONSIDERING:**

**APPLICATION OF KAISER-FRANCIS OIL
COMPANY FOR COMPULSORY POOLING,
EDDY COUNTY, NEW MEXICO.**

Case No. 21177

VERIFIED STATEMENT OF MICHAEL MAXEY

Michael Maxey, being duly sworn upon his oath, deposes and states:

1. I am a landman for Kaiser-Francis Oil Company ("KFOC"), and have personal knowledge of the matters stated herein. I have been qualified by the Division as an expert petroleum landman.

2. Pursuant to Division Rules, the following information is submitted in support of the compulsory pooling application:

(a) The purpose of this application is to force pool a working interest owner into the horizontal spacing unit described below, and in wells to be drilled in the unit.

(b) No opposition is expected because the interest owner being pooled has been contacted regarding the proposed well, but has simply failed to voluntarily commit its interest to the well unit.

All interest owners are locatable.

(c) A Midland Map Co. plat outlining the unit being pooled is attached hereto as Attachment A. KFOC seeks an order pooling the Bone Spring formation underlying a horizontal spacing unit comprised of the N/2 N/2 of Section 24, Township 23 South, Range 28 East, NMPM and Lot 1 and the NE/4 NW/4, and N/2 NE/4 of Section 19, Township 23 South, Range 29 East, NMPM, containing 318.38 acres.

EXHIBIT

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- (i) Pool Code: 15011 Pool Name: Culebra Bluff; Bone Spring, South, to be dedicated to the Mosaic Federal 2419 2BS No. 1H. The well is a horizontal well with a first take point in NW/4 NW/4 of Section 24 and a final take point in NE/4 NE/4 of Section 19.
SHL: 1,105' FNL and 186' FWL of Section 24-23S-28E
BHL: 660' FNL and 100' FEL of Section 19-23S-29E
18,900' MD / 8,600' TVD

A Form C-102 for each well is part of Attachment A.

- (d) There is no depth severance in the Bone Spring formation.
- (e) The party being pooled and its total percentage interest in the well unit is set forth in Attachment B. Attachment B also contains a listing of the tracts in the well unit.
- (f) Attachment C contains a summary of contacts with the pooled interest owner together with a copy of the proposal letter. KFOC has made a good faith effort to obtain the voluntary joinder of the working interest owner in the proposed well, and continues to seek their voluntary joinder. If the pooled party subsequently voluntarily commits its interest to the well, KFOC will notify the Division.
- (g) No overriding royalty owners in the well unit need to be pooled.
- (h) Attachment D is the Authorization for Expenditure for the proposed well. The estimated cost of the well set forth therein is fair and reasonable, and is comparable to the costs of other wells of similar depth and length drilled in this area of Eddy County.
- (i) KFOC requests overhead and administrative rates of \$8000/month for a drilling well and \$800/month for a producing well. These rates are fair, and comparable to the rates charged by other operators for wells of this type in this area of Eddy County. They are also the rates set forth in the Joint Operating Agreement for the well unit. KFOC requests that these rates be adjusted periodically as provided in the COPAS Accounting Procedure.
- (j) KFOC requests that the maximum 200% risk charge be assessed against a non-consenting working interest owner for the cost of drilling, completing, and equipping the well.
- (k) KFOC requests that it be designated operator of the well.
- (l) The attachments to this affidavit were prepared by me or under my supervision, or compiled from company business records.
- (m) The granting of this application is in the interests of conservation and the prevention of waste.

VERIFICATION

STATE OF OKLAHOMA)
) ss.
COUNTY OF TULSA)

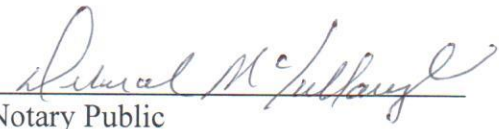
Michael Maxey, being duly sworn upon his oath, deposes and states that: He is a landman for Kaiser-Francis Oil Company; he is authorized to make this verification on its behalf; he has read the foregoing statement, and knows the contents thereof; and the same is true and correct to the best of his knowledge, information, and belief.



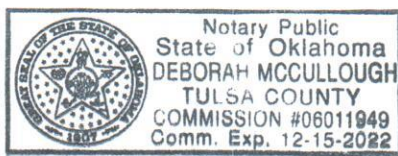
Michael Maxey

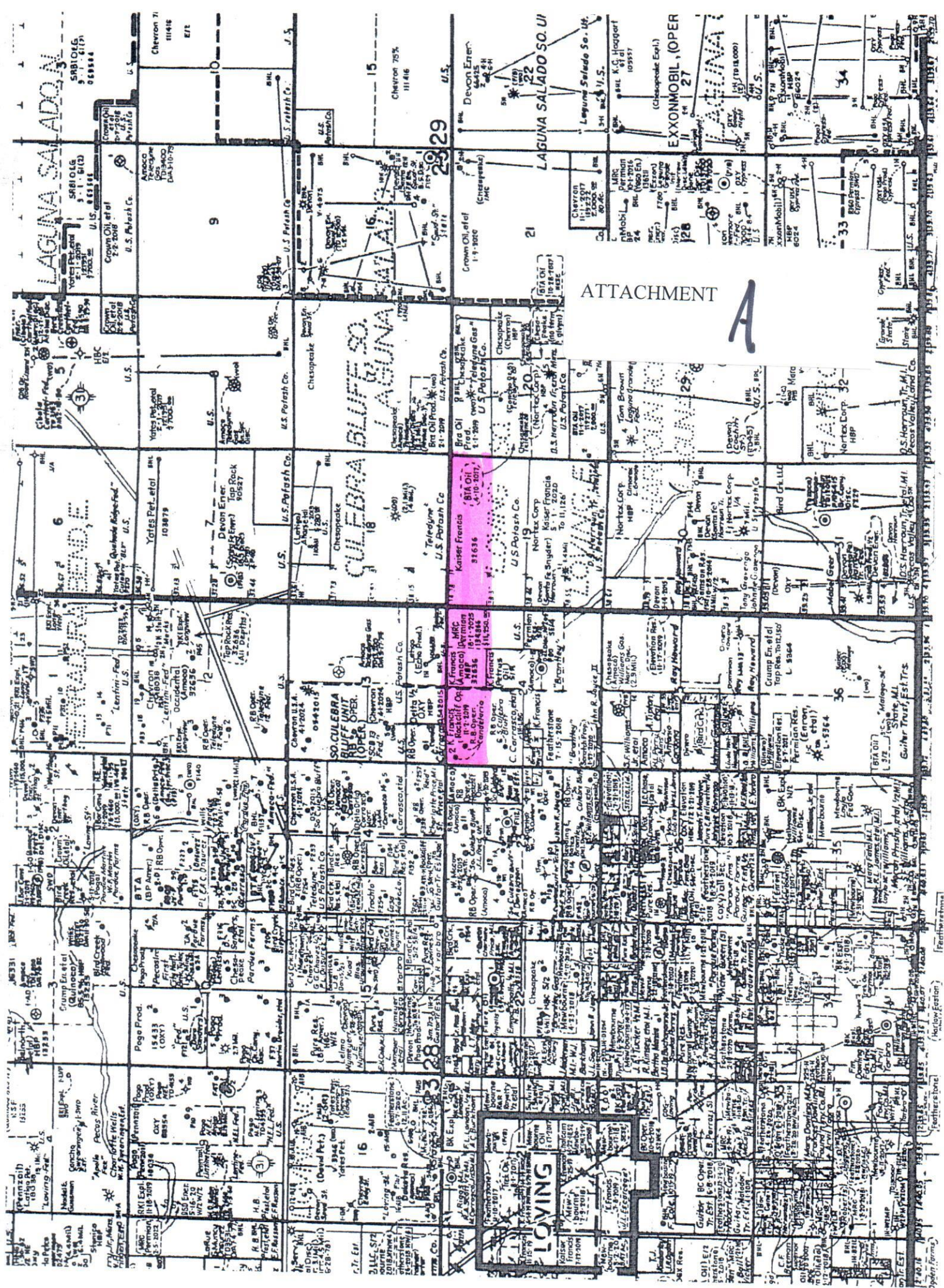
SUBSCRIBED AND SWORN TO before me this 17th day of April 2020 by Michael Maxey.

My Commission Expires: 12-15-22



Notary Public





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 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		² Pool Code		³ Pool Name	
⁴ Property Code		⁵ Property Name MOSAIC FED 2419 2BS			⁶ Well Number 1H
⁷ OGRID No. 12361		⁸ Operator Name KAISER-FRANCIS OIL CO.			⁹ Elevation 2986.6

¹⁰ Surface Location

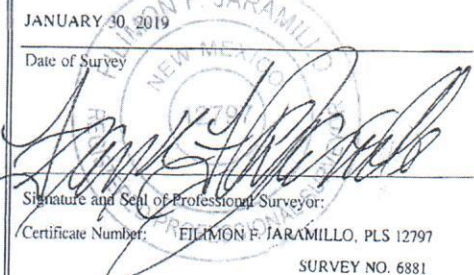
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	24	23 S	28 E		1105	NORTH	186	WEST	EDDY

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
A	19	23 S	29 E		660	NORTH	100	EAST	EDDY

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.

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. Signature _____ Date _____ Printed Name _____ 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. JANUARY 30, 2019 Date of Survey _____ Signature and Seal of Professional Surveyor:  Certificate Number: FILIMON F. JARAMILLO, PLS 12797 SURVEY NO. 6881	

NMOCD Case
Attachment B

MRC Permian LKE Company, LLC
Attn: Mr. Nick Weeks
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

4.508609% WI

N/2 NW/4 Sec. 24-23S-28E:

KFOC & WI partners 80.00 acres / 318.28 = 25.135101% WI

N/2 NE/4 Sec. 24-23S-28E:

KFOC & WI partners 65.65 acres / 318.28 = 20.626492% WI
MRC 14.35 acres / 318.28 = 4.508609% WI

Lots 1 and the NE/4 NW/4 and the
N/2 NE/4 of Section 19-23S-29E

KFOC 158.28 acres / 318.28 = 49.729798 % WI

ATTACHMENT **B**

ATTACHMENT C

CASE # 21177

I have had numerous contact with MRC over the past year, as we have readied this well for drilling. We had been working on an acreage swap, which would have divested MRC of their interest in Section 24-23S-28E, for a like amount of Kaiser-Francis acreage elsewhere in New Mexico. When this trade did not come to fruition, Kaiser-Francis moved forward, proposed the well, and filed to pool. Kaiser-Francis had a hearing in July of 2019. MRC said they would delay the hearing, so Kaiser-Francis dismissed MRC and continued to work on a trade. Having no success again in making a trade, Kaiser-Francis moved forward to pool when we were unable to reach an agreement. Should MRC choose to make a voluntary election to participate, prior to an Order issuing, Kaiser-Francis will supply MRC with a JOA with for their review and execution. In the event we were unable to execute a mutually agreeable JOA, Kaiser-Francis will allow them to elect under the Order that will issue from this hearing.

KAISER-FRANCIS OIL COMPANY

P.O. BOX 21468

TULSA, OKLAHOMA 74121-1468

6733 South Yale Avenue, 74136
(918) 494-0000

December 17, 2019

Sent by Certified Mail

MRC Permian LKE Company, LLC
Attn: Mr. Nick Weeks
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Re: Mosaic Fed 2419 2BSS #1H
N/2 N/2 Section 24-23S-28E and N/2 N/2 Section 19-23S-29E
Eddy Co., NM

Nick:

Kaiser-Francis Oil Company hereby proposes the drilling of an 18,900' MD / 8,600' TVD horizontal 2nd Bone Spring test well, covering the referenced 2.0 mile well path. The well will have an approximate surface location of 1,105' FNL and 186' FWL of Section 24-23S-28E, and a terminus of approximately 660' FNL and 100' FEL of Section 19-23S-29E.

AFE costs are estimated to be \$2,487,756 DHC and \$9,631,851 CWC. Two copies of the AFE are enclosed.

Should you wish to participate in the well, please execute and return one copy of the AFE, along with a reply letter indicating your desire to participate, and we will in turn send you a JOA for your review and approval.

We plan to file for pooling with the NMOCD soon, therefore, a prompt answer regarding our proposal would be greatly appreciated.

Should you have any questions, I can be reached at the above number, extension 424.

Respectfully,



Michael D. Maxey, Landman
Kaiser-Francis Oil Company

Kaiser-Francis Oil Company
Authority for Expenditure

Operator: Kaiser-Francis Oil Company	Date: 10/25/2019
Well Name: Mosaic Fed 2419 2BS #1H	Field:
Prospect:	County / Psh Eddy County
Location:	State: New Mexico
Depth: 18900 MD 8600 TVD	Preparer: RS/DZ
Horizon: 2nd Bone Spring	
Objective: Drill and complete 2nd Bone Spring	

JIB Code	Intangible Drilling and Completion Costs	Drilling	Completion	Eqpt/Const	Total
500/600	Location / Road Expense / Frac Pit Construction	\$65,000	\$14,000	\$40,000	\$119,000
501/**	Cond, Rat Hole, Mouse Hole Services	\$26,000			\$26,000
502/602	Location Damages				\$0
504/604	Turnkey Completion Rig		\$8,000		\$8,000
	Footage @ per foot				\$0
	Daywork 16 days at \$24,250	\$388,000			\$388,000
505/605	Coiled Tubing & Related Services		\$240,000		\$240,000
506/606	Rig Mob / Demob	\$131,800			\$131,800
507/**	Directional Drilling Services	\$205,800			\$205,800
508/608	Bits & Reamers	\$75,000			\$75,000
510/610	Fuel/Power	\$68,000			\$68,000
512/612	Drilling Water / Completion Fluid	\$33,000	\$791,250		\$824,250
514/614	Mud & Chemicals	\$160,000	\$20,000		\$180,000
515/615	Closed Loop System / Mud & Cuttings Disposal / SWD	\$155,000	\$37,500		\$192,500
516/616	Surface Equipment Rental / Inspection	\$144,416	\$88,300		\$232,716
517/617	Downhole Equipment Rental / Inspection	\$33,500	\$106,500		\$140,000
518/618	Transportation & Loading	\$16,000	\$50,000		\$66,000
520/**	DST, Coring & Analysis				\$0
522/622	OH Logs / CH Logs / Perforating / Stickline / Plugs		\$350,000		\$350,000
523/**	Mud Logging / Geosteering / LWD	\$19,200			\$19,200
524/624	Cementing & Squeezing	\$227,500			\$227,500
526/626	Casing Crews & Equipment	\$62,000			\$62,000
528/628	Plug & Abandon				\$0
530/630	Stimulation		\$4,420,000		\$4,420,000
532/632	Geological & Engineering		\$13,000		\$13,000
534/634	Supervision	\$72,000	\$51,750		\$123,750
536/636	Miscellaneous Contract Labor	\$20,000	\$42,500	\$35,000	\$97,500
538/638	Prof. Fees & Abstracts				\$0
541/641	Liability Insurance / Bonds				\$0
542/642	Drilling Overhead / Completion Overhead	\$7,200	\$6,300		\$13,500
544/644	Miscellaneous & Unforeseen	\$86,575	\$311,955	\$3,750	\$402,280
	Total Intangible Drilling & Completion	\$1,995,991	\$6,551,055	\$78,750	\$8,625,796

JIB Code	Tangible Well and Lease Equipment Costs	Drilling	Completion	Eqpt/Const	Total
700	Conductor				\$0
701	Surface Casing 13-3/8" H40 48 ppf STC 500	\$22,500			\$22,500
702	Intermediate Casing 10-3/4" J55 40.5 ppf BTC (TD to 11.25") 3000	\$89,000			\$89,000
702	Intermediate Casing				\$0
704	Drilling Liner (BCP)				\$0
703	Production Liner (ACP)				\$0
706	Production Casing (ACP) 5-1/2" 20# P110 Mod BTC 19100	\$312,320			\$312,320
710	Tubing 2 7/8" 6.5# L-80 EUE to KOP 9600		\$52,800		\$52,800
721/720	Wellhead Equip. BCP/ACP	\$45,000	\$45,000		\$90,000
724	Packers & Downhole Equipment				\$0
726	Rods & Pumps				\$0
737	Line Pipe / Fittings / Pipeline			\$30,000	\$30,000
747	Valves			\$30,000	\$30,000
752	Tanks & Walkways			\$120,000	\$120,000
765	Heaters / Treaters / Separator / VRU			\$75,000	\$75,000
768	Artificial Lift / Compressor			\$85,000	\$85,000
770	Gas Sales Unit / Dehy / Line Heater / Flare			\$5,000	\$5,000
775/774	Transportation and Freight BCP/ACP	\$10,000	\$2,000	\$45,000	\$57,000
777/776	Inspect/Test Tubulars BCP/ACP	\$4,400			\$4,400
779/778	Non-Controllable Equipment BCP/ACP	\$8,545	\$4,990	\$19,500	\$33,035
	Total Well and Lease Equipment	\$491,765	\$104,790	\$409,500	\$1,006,055

Total Drilling and Completion Cost	\$2,487,756	\$6,655,845	\$488,250	\$9,631,851
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KFOC APPROVALS	PARTNER APPROVAL
Robert Sanford (918) 491-4201 Drilling	
David Zerger (918) 491-4350 Completion	
Michael Maxey (918) 491-4424 Land	
Lee Lindman (918) 491-4484 Geology	
David Basden (918) 491-4534 Reservoir	
Glen Taylor (918) 491-4408 Asset Manager	
	Company

ATTACHMENT D

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF KAISER-FRANCIS OIL
COMPANY FOR COMPULSORY POOLING,
EDDY COUNTY, NEW MEXICO.**

Case No. 21177

VERIFIED STATEMENT OF LEE J. LINDMAN

Lee J. Lindman, being duly sworn upon his oath, deposes and states:

1. I am over the age of 18, and have personal knowledge of the geological matters stated herein.
2. I am a geologist for Kaiser-Francis Oil Company ("KFOC"). I have been qualified by the Division as an expert petroleum geologist. My area of responsibility at KFOC includes this portion of Southeast New Mexico.
3. The following geological plats are attached hereto:
 - (a) Attachment A is a structure map on the top of the 2nd Bone Spring formation. It shows that structure dips gently to the East. It also displays offset 2nd Bone Spring wells and permits in the vicinity of the Mosaic Fed 2419 2BS Well No. 1H, and a line of cross-section A - A'. The proposed completion interval in the well is the 2nd Bone Spring Sand.
 - (b) Attachment B is a gross isopach map of the 2nd Bone Spring Sand zone. This zone has uniform thickness across the proposed well unit.
 - (c) Attachment C is stratigraphic cross section A - A' hung on the top of the 2nd Bone Spring Sand. The well logs on the cross-section give a representative sample of the 2nd Bone Spring Sand formation in this area. The target zone for the well is continuous across the well unit and is indicated by the red arrow.
4. I conclude from the maps that:
 - (a) The horizontal spacing unit is justified from a geologic standpoint.
 - (b) Each quarter section in the well unit will contribute more or less equally to production from the well.
 - (c) There is no faulting or other geologic impediment which will adversely affect the drilling of the subject well.

EXHIBIT

3

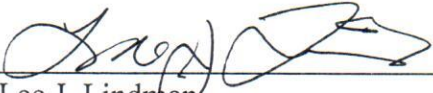
5. Based on production from wells in this area, KFOC sees no preferential orientation for wells in this area.

6. Attachment D contains the proposed horizontal drilling plans for the well. The producing interval of the well will be orthodox, and will comply with Division setback requirements.

VERIFICATION

STATE OF OKLAHOMA)
) ss.
COUNTY OF TULSA)

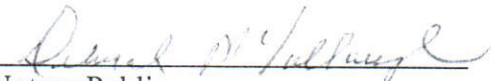
Lee J. Lindman, being duly sworn upon his oath, deposes and states that: He is a geologist for Kaiser-Francis Oil Company; he is authorized to make this verification on its behalf; he has read the foregoing statement, and knows the contents thereof; and the same is true and correct to the best of his knowledge, information, and belief.



Lee J. Lindman

SUBSCRIBED AND SWORN TO before me this 2nd day of March, 2020 by Debbie McCullough.

My Commission Expires: 12-15-22



Notary Public



SHL BHL



Kaiser-Francis Oil Company

Mosaic Federal Pooling

Subsea Structure

Top 2nd Bone Spring Sand

All Wells



POSTED WELL DATA

Well Number

WELL - TD

ATTRIBUTE MAP

BSFG2 - Producer

CONTOURS

FMTOPS - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPW - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPD - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPB - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPA - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPF - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPG - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPH - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPJ - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPK - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPL - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPM - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPN - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPP - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPQ - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPR - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPS - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPT - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPU - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPV - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPW - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPX - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPY - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPZ - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPA - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPB - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPC - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPD - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPE - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPF - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPG - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPH - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPJ - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPK - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPL - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPM - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPN - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPP - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPQ - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPR - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPS - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPT - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPU - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPV - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPW - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPX - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPY - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

FMTOPZ - 2ND BS SAND (GMM) - 2ND BONE SPRINGS SAND

WELL SYMBOLS

Dry Hole, With Show of Gas

Dry Hole, With Show of Oil & Gas

Dry Hole, With Show of Oil

Gas Well

Injection Well

Junked

Oil Well

PILOT

Plugged Injection

Drilling Well

Temporarily Abandoned

P&A-G

DEVONIAN INJECTION WELL

CHERRY CANYON INJECTION WELL

Treated Well

PERMITTED INJECTION

Permit

REMARKS

2nd Bone Spring Sand Permits Highlighted

March 3, 2020

Structure Map (Top 2nd Bone Spring Sand Subsea)

Project Area

ATTACHMENT



SHL BHL



Kaiser-Francis Oil Company

Mosaic Federal Pooling

Goss Isopach

2nd Bone Spring Sand

All Wells



POSTED WELL DATA

Well Number

WELL - TD



CONTOURS

ISOPACH 2ND BONE SPRING SAND

ISOPACH 2ND BONE SPRING SAND GRD

Contour Interval = 50 FEET



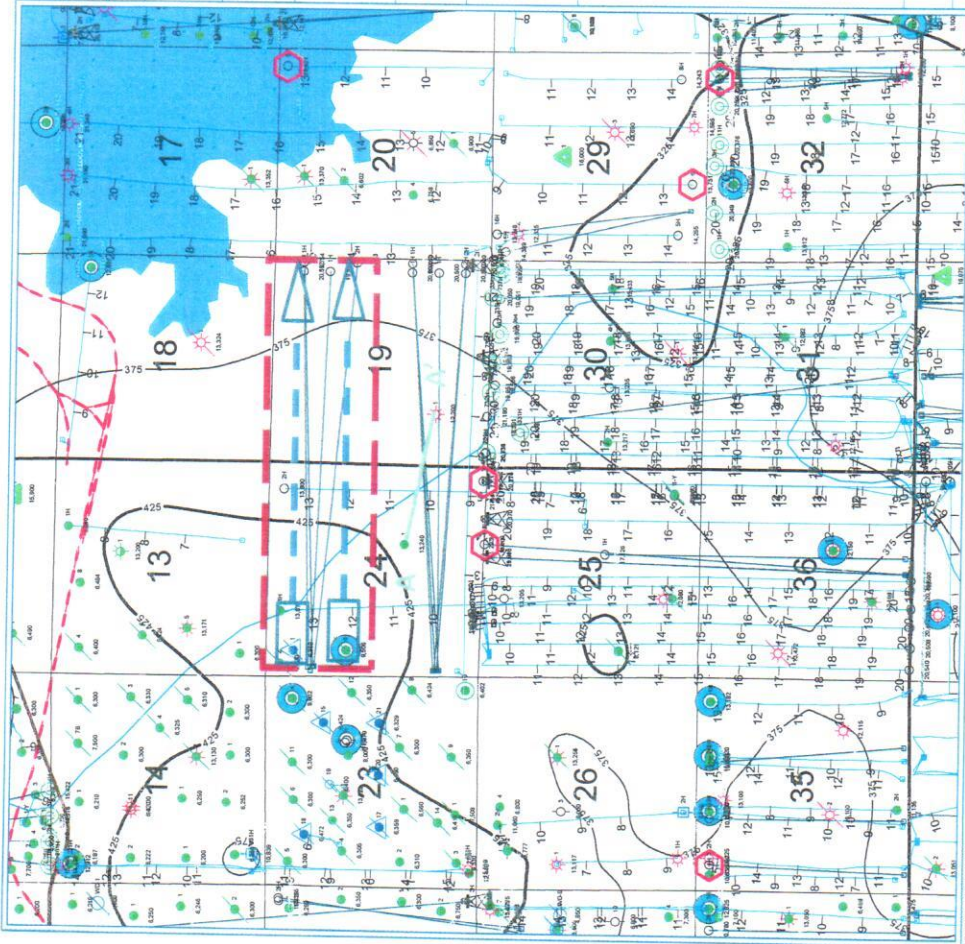
WELL SYMBOLS

- Dry Hole, With Show of Gas
- Dry Hole, With Show of Oil & Gas
- Dry Hole, With Show of Oil
- Gas Well
- Injection Well
- Junked
- Oil Well
- PILOT
- Plugged Injection
- Drilling Well
- Temporarily Abandoned
- P&A-G
- DEVONIAN INJECTION WELL
- CHERRY CANYON INJECTION WELL
- Treated Well
- PERMITTED INJECTION
- Permit

REMARKS

2nd Bone Spring Sand Permits Highlighted

March 3, 2020



Isopach Map (2nd Bone Spring Sand)

Project Area

ATTACHMENT

B

ATTACHMENT

DEVON
HARROUN TRST 19
12,200

WELL LOG

Company: SANTA FE ENERGY OPERATIONS
Well: HARROUN TRST 19 #1
Field: SALASA
County: EDDY State: NEW MEXICO

Log Type: SP, GR, CAL, RES, NMR, etc.

Log Interval: 12,200 to 12,240

WELL LOG

Company: SANTA FE ENERGY OPERATIONS
Well: HARROUN TRST 19 #1
Field: SALASA
County: EDDY State: NEW MEXICO

Log Type: SP, GR, CAL, RES, NMR, etc.

Log Interval: 12,200 to 12,240

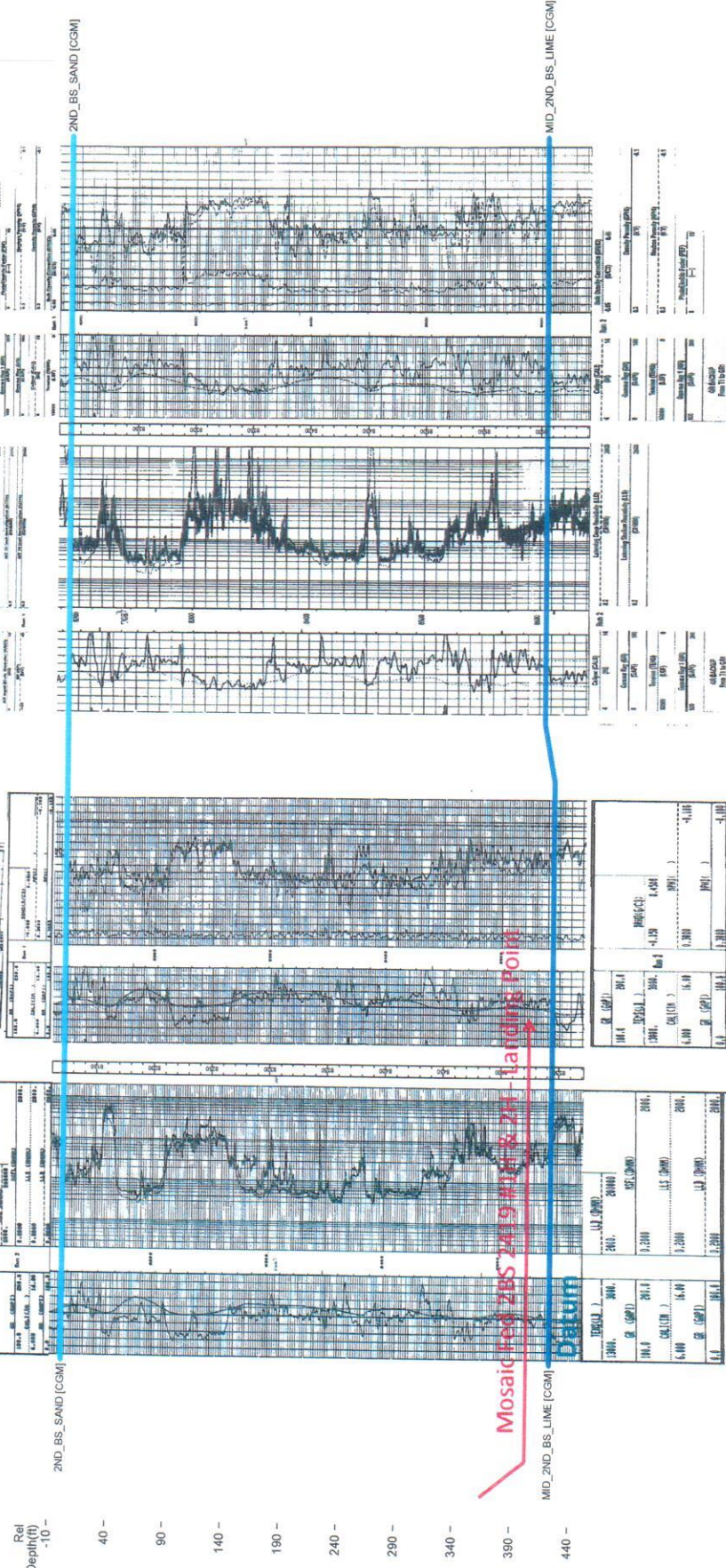
PENROC OPER
BRANTLEY B
13,240

WELL LOG

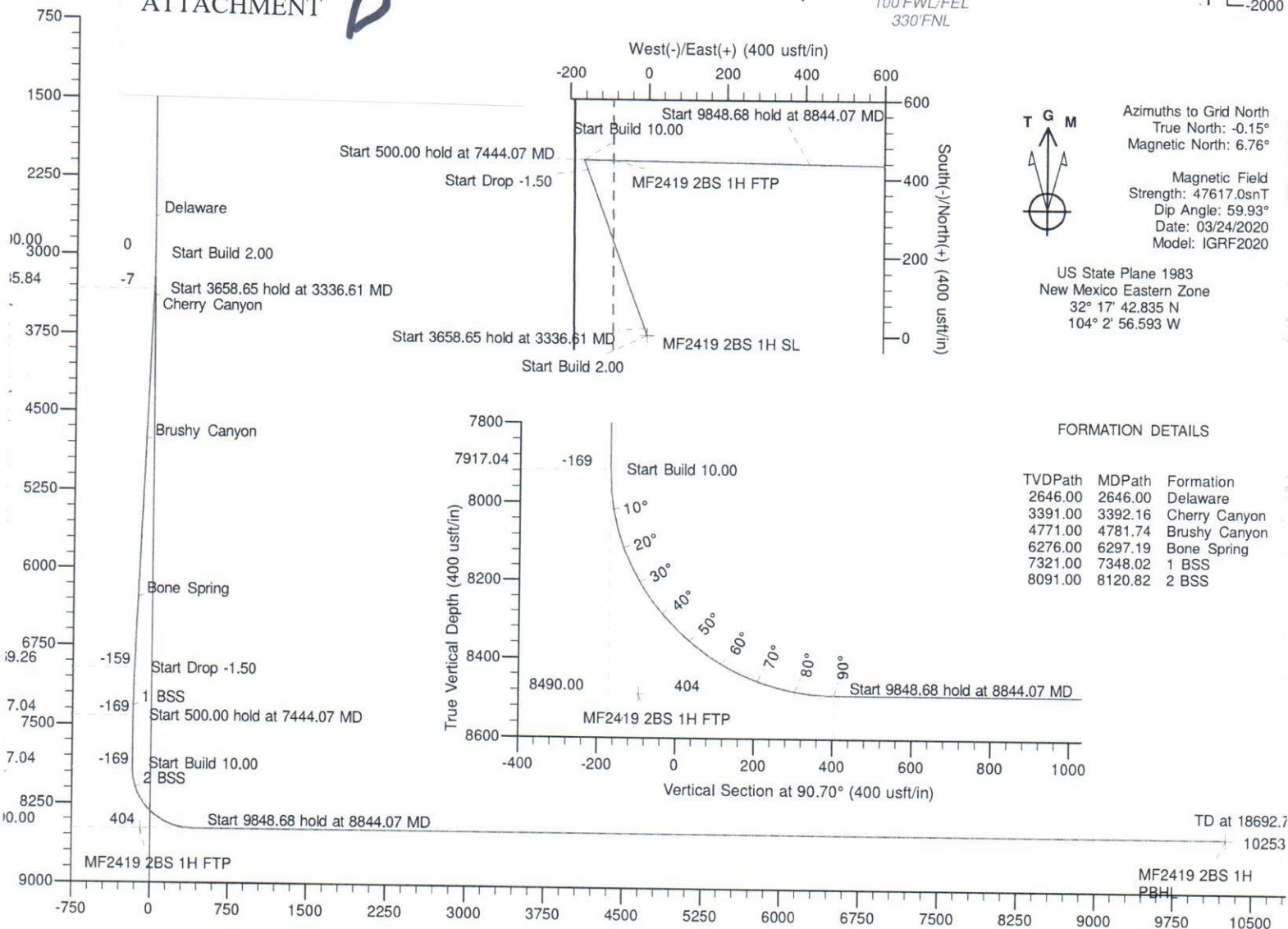
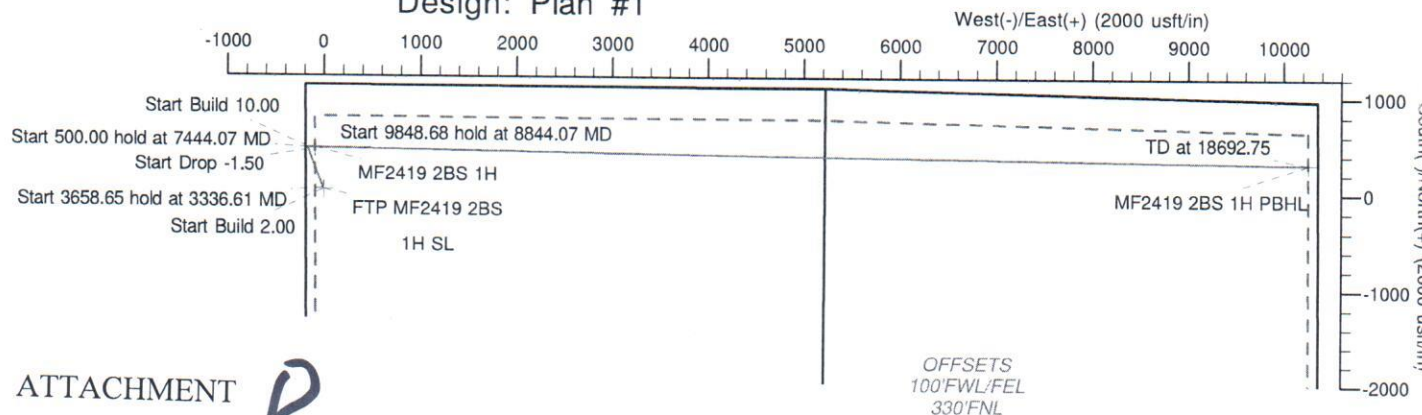
Company: MINCO PRODUCTION COMPANY
Well: BRANTLEY B #1
Field: TELEPHONE AREA
County: EDDY State: NEW MEXICO

Log Type: SP, GR, CAL, RES, NMR, etc.

Log Interval: 13,240 to 13,240



Stratigraphic Cross Section A - A'



Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	Local Co-ordinate Reference:	Well Mosaic Fed 2419 2BS 1H
Project:	Permian NM E'83	TVD Reference:	est.GL+KB @ 3012.00usft (planning)
Site:	Mosaic Fed 2419 D Pad	MD Reference:	est.GL+KB @ 3012.00usft (planning)
Well:	Mosaic Fed 2419 2BS 1H	North Reference:	Grid
Wellbore:	#1H OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5k-14

Project	Permian NM E'83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site		Mosaic Fed 2419 D Pad, Centered on 2BS #1H; D-24-23S-28E			
Site Position:		Northing:	471,254.40 usft	Latitude:	32° 17' 42.835 N
From:	Map	Easting:	629,177.41 usft	Longitude:	104° 2' 56.593 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.15 °

Well	Mosaic Fed 2419 2BS 1H					
Well Position	+N/-S	0.00 usft	Northing:	471,254.40 usft	Latitude:	32° 17' 42.835 N
	+E/-W	0.00 usft	Easting:	629,177.41 usft	Longitude:	104° 2' 56.593 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,986.60 usft

Wellbore	#1H OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	03/24/20	6.91	59.93	47,617.00438517

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	90.70	

Planned 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
2,646.00	0.00	0.00	2,646.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware									
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	2.00	339.88	3,099.98	1.64	-0.60	-0.62	2.00	2.00	0.00
3,200.00	4.00	339.88	3,199.84	6.55	-2.40	-2.48	2.00	2.00	0.00
3,300.00	6.00	339.88	3,299.45	14.74	-5.40	-5.58	2.00	2.00	0.00
3,336.61	6.73	339.88	3,335.84	18.55	-6.79	-7.02	2.00	2.00	0.00
3,392.16	6.73	339.88	3,391.00	24.66	-9.03	-9.33	0.00	0.00	0.00
Cherry Canyon									
3,400.00	6.73	339.88	3,398.79	25.53	-9.35	-9.66	0.00	0.00	0.00
3,500.00	6.73	339.88	3,498.10	36.53	-13.38	-13.83	0.00	0.00	0.00
3,600.00	6.73	339.88	3,597.41	47.54	-17.41	-17.99	0.00	0.00	0.00
3,700.00	6.73	339.88	3,696.72	58.55	-21.45	-22.16	0.00	0.00	0.00
3,800.00	6.73	339.88	3,796.03	69.56	-25.48	-26.33	0.00	0.00	0.00
3,900.00	6.73	339.88	3,895.34	80.56	-29.51	-30.49	0.00	0.00	0.00

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	Local Co-ordinate Reference:	Well Mosaic Fed 2419 2BS 1H
Project:	Permian NM E'83	TVD Reference:	est.GL+KB @ 3012.00usft (planning)
Site:	Mosaic Fed 2419 D Pad	MD Reference:	est.GL+KB @ 3012.00usft (planning)
Well:	Mosaic Fed 2419 2BS 1H	North Reference:	Grid
Wellbore:	#1H OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5k-14

Planned 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)
4,000.00	6.73	339.88	3,994.65	91.57	-33.54	-34.66	0.00	0.00	0.00
4,100.00	6.73	339.88	4,093.96	102.58	-37.57	-38.82	0.00	0.00	0.00
4,200.00	6.73	339.88	4,193.27	113.59	-41.61	-42.99	0.00	0.00	0.00
4,300.00	6.73	339.88	4,292.58	124.59	-45.64	-47.16	0.00	0.00	0.00
4,400.00	6.73	339.88	4,391.89	135.60	-49.67	-51.32	0.00	0.00	0.00
4,500.00	6.73	339.88	4,491.20	146.61	-53.70	-55.49	0.00	0.00	0.00
4,600.00	6.73	339.88	4,590.51	157.62	-57.73	-59.66	0.00	0.00	0.00
4,700.00	6.73	339.88	4,689.83	168.63	-61.77	-63.82	0.00	0.00	0.00
4,781.74	6.73	339.88	4,771.00	177.62	-65.06	-67.23	0.00	0.00	0.00
Brushy Canyon									
4,800.00	6.73	339.88	4,789.14	179.63	-65.80	-67.99	0.00	0.00	0.00
4,900.00	6.73	339.88	4,888.45	190.64	-69.83	-72.15	0.00	0.00	0.00
5,000.00	6.73	339.88	4,987.76	201.65	-73.86	-76.32	0.00	0.00	0.00
5,100.00	6.73	339.88	5,087.07	212.66	-77.89	-80.49	0.00	0.00	0.00
5,200.00	6.73	339.88	5,186.38	223.66	-81.93	-84.65	0.00	0.00	0.00
5,300.00	6.73	339.88	5,285.69	234.67	-85.96	-88.82	0.00	0.00	0.00
5,400.00	6.73	339.88	5,385.00	245.68	-89.99	-92.99	0.00	0.00	0.00
5,500.00	6.73	339.88	5,484.31	256.69	-94.02	-97.15	0.00	0.00	0.00
5,600.00	6.73	339.88	5,583.62	267.69	-98.06	-101.32	0.00	0.00	0.00
5,700.00	6.73	339.88	5,682.93	278.70	-102.09	-105.48	0.00	0.00	0.00
5,800.00	6.73	339.88	5,782.24	289.71	-106.12	-109.65	0.00	0.00	0.00
5,900.00	6.73	339.88	5,881.55	300.72	-110.15	-113.82	0.00	0.00	0.00
6,000.00	6.73	339.88	5,980.86	311.72	-114.18	-117.98	0.00	0.00	0.00
6,100.00	6.73	339.88	6,080.17	322.73	-118.22	-122.15	0.00	0.00	0.00
6,200.00	6.73	339.88	6,179.48	333.74	-122.25	-126.32	0.00	0.00	0.00
6,297.19	6.73	339.88	6,276.00	344.44	-126.17	-130.36	0.00	0.00	0.00
Bone Spring									
6,300.00	6.73	339.88	6,278.79	344.75	-126.28	-130.48	0.00	0.00	0.00
6,400.00	6.73	339.88	6,378.10	355.76	-130.31	-134.65	0.00	0.00	0.00
6,500.00	6.73	339.88	6,477.41	366.76	-134.34	-138.81	0.00	0.00	0.00
6,600.00	6.73	339.88	6,576.72	377.77	-138.38	-142.98	0.00	0.00	0.00
6,700.00	6.73	339.88	6,676.04	388.78	-142.41	-147.15	0.00	0.00	0.00
6,800.00	6.73	339.88	6,775.35	399.79	-146.44	-151.31	0.00	0.00	0.00
6,900.00	6.73	339.88	6,874.66	410.79	-150.47	-155.48	0.00	0.00	0.00
6,995.26	6.73	339.88	6,969.26	421.28	-154.31	-159.45	0.00	0.00	0.00
7,000.00	6.66	339.88	6,973.97	421.80	-154.50	-159.64	1.50	-1.50	0.00
7,100.00	5.16	339.88	7,073.43	431.47	-158.04	-163.30	1.50	-1.50	0.00
7,200.00	3.66	339.88	7,173.13	438.69	-160.69	-166.04	1.50	-1.50	0.00
7,300.00	2.16	339.88	7,273.00	443.46	-162.44	-167.84	1.50	-1.50	0.00
7,348.02	1.44	339.88	7,321.00	444.88	-162.96	-168.38	1.50	-1.50	0.00
1 BSS									
7,400.00	0.66	339.88	7,372.97	445.77	-163.28	-168.72	1.50	-1.50	0.00
7,444.07	0.00	0.00	7,417.04	446.01	-163.37	-168.81	1.50	-1.50	0.00
7,500.00	0.00	0.00	7,472.97	446.01	-163.37	-168.81	0.00	0.00	0.00

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	Local Co-ordinate Reference:	Well Mosaic Fed 2419 2BS 1H
Project:	Permian NM E'83	TVD Reference:	est.GL+KB @ 3012.00usft (planning)
Site:	Mosaic Fed 2419 D Pad	MD Reference:	est.GL+KB @ 3012.00usft (planning)
Well:	Mosaic Fed 2419 2BS 1H	North Reference:	Grid
Wellbore:	#1H OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5k-14

Planned 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)
7,600.00	0.00	0.00	7,572.97	446.01	-163.37	-168.81	0.00	0.00	0.00
7,700.00	0.00	0.00	7,672.97	446.01	-163.37	-168.81	0.00	0.00	0.00
7,800.00	0.00	0.00	7,772.97	446.01	-163.37	-168.81	0.00	0.00	0.00
7,900.00	0.00	0.00	7,872.97	446.01	-163.37	-168.81	0.00	0.00	0.00
7,944.08	0.00	0.00	7,917.04	446.01	-163.37	-168.81	0.00	0.00	0.00
7,950.00	0.59	90.70	7,922.97	446.01	-163.34	-168.78	10.00	10.00	0.00
8,000.00	5.59	90.70	7,972.88	445.98	-160.64	-166.08	10.00	10.00	0.00
8,050.00	10.59	90.70	8,022.37	445.89	-153.61	-159.04	10.00	10.00	0.00
8,100.00	15.59	90.70	8,071.05	445.75	-142.29	-147.72	10.00	10.00	0.00
8,120.82	17.67	90.70	8,091.00	445.68	-136.33	-141.76	10.00	10.00	0.00
2 BSS									
8,150.00	20.59	90.70	8,118.56	445.56	-126.77	-132.20	10.00	10.00	0.00
8,200.00	25.59	90.70	8,164.54	445.33	-107.16	-112.59	10.00	10.00	0.00
8,250.00	30.59	90.70	8,208.64	445.04	-83.63	-89.06	10.00	10.00	0.00
8,300.00	35.59	90.70	8,250.51	444.71	-56.34	-61.77	10.00	10.00	0.00
8,350.00	40.59	90.70	8,289.85	444.33	-25.50	-30.93	10.00	10.00	0.00
8,400.00	45.59	90.70	8,326.35	443.92	8.64	3.22	10.00	10.00	0.00
8,450.00	50.59	90.70	8,359.74	443.46	45.84	40.42	10.00	10.00	0.00
8,500.00	55.59	90.70	8,389.76	442.98	85.80	80.39	10.00	10.00	0.00
8,550.00	60.59	90.70	8,416.17	442.46	128.23	122.82	10.00	10.00	0.00
8,600.00	65.59	90.70	8,438.79	441.92	172.80	167.39	10.00	10.00	0.00
8,650.00	70.59	90.70	8,457.44	441.35	219.17	213.76	10.00	10.00	0.00
8,700.00	75.59	90.70	8,471.98	440.77	266.99	261.59	10.00	10.00	0.00
8,750.00	80.59	90.70	8,482.29	440.17	315.90	310.50	10.00	10.00	0.00
8,800.00	85.59	90.70	8,488.31	439.57	365.52	360.12	10.00	10.00	0.00
8,844.08	90.00	90.70	8,490.00	439.03	409.54	404.15	10.00	10.00	0.00
8,900.00	90.00	90.70	8,490.00	438.35	465.46	460.07	0.00	0.00	0.00
9,000.00	90.00	90.70	8,490.00	437.13	565.46	560.07	0.00	0.00	0.00
9,100.00	90.00	90.70	8,490.00	435.92	665.45	660.07	0.00	0.00	0.00
9,200.00	90.00	90.70	8,490.00	434.70	765.44	760.07	0.00	0.00	0.00
9,300.00	90.00	90.70	8,490.00	433.48	865.44	860.07	0.00	0.00	0.00
9,400.00	90.00	90.70	8,490.00	432.26	965.43	960.07	0.00	0.00	0.00
9,500.00	90.00	90.70	8,490.00	431.05	1,065.42	1,060.07	0.00	0.00	0.00
9,600.00	90.00	90.70	8,490.00	429.83	1,165.41	1,160.07	0.00	0.00	0.00
9,700.00	90.00	90.70	8,490.00	428.61	1,265.41	1,260.07	0.00	0.00	0.00
9,800.00	90.00	90.70	8,490.00	427.39	1,365.40	1,360.07	0.00	0.00	0.00
9,900.00	90.00	90.70	8,490.00	426.18	1,465.39	1,460.07	0.00	0.00	0.00
10,000.00	90.00	90.70	8,490.00	424.96	1,565.38	1,560.07	0.00	0.00	0.00
10,100.00	90.00	90.70	8,490.00	423.74	1,665.38	1,660.07	0.00	0.00	0.00
10,200.00	90.00	90.70	8,490.00	422.52	1,765.37	1,760.07	0.00	0.00	0.00
10,300.00	90.00	90.70	8,490.00	421.31	1,865.36	1,860.07	0.00	0.00	0.00
10,400.00	90.00	90.70	8,490.00	420.09	1,965.35	1,960.07	0.00	0.00	0.00
10,500.00	90.00	90.70	8,490.00	418.87	2,065.35	2,060.07	0.00	0.00	0.00

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	Local Co-ordinate Reference:	Well Mosaic Fed 2419 2BS 1H
Project:	Permian NM E'83	TVD Reference:	est.GL+KB @ 3012.00usft (planning)
Site:	Mosaic Fed 2419 D Pad	MD Reference:	est.GL+KB @ 3012.00usft (planning)
Well:	Mosaic Fed 2419 2BS 1H	North Reference:	Grid
Wellbore:	#1H OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5k-14

Planned 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)
10,600.00	90.00	90.70	8,490.00	417.65	2,165.34	2,160.07	0.00	0.00	0.00
10,700.00	90.00	90.70	8,490.00	416.44	2,265.33	2,260.07	0.00	0.00	0.00
10,800.00	90.00	90.70	8,490.00	415.22	2,365.32	2,360.07	0.00	0.00	0.00
10,900.00	90.00	90.70	8,490.00	414.00	2,465.32	2,460.07	0.00	0.00	0.00
11,000.00	90.00	90.70	8,490.00	412.78	2,565.31	2,560.07	0.00	0.00	0.00
11,100.00	90.00	90.70	8,490.00	411.57	2,665.30	2,660.07	0.00	0.00	0.00
11,200.00	90.00	90.70	8,490.00	410.35	2,765.29	2,760.07	0.00	0.00	0.00
11,300.00	90.00	90.70	8,490.00	409.13	2,865.29	2,860.07	0.00	0.00	0.00
11,400.00	90.00	90.70	8,490.00	407.91	2,965.28	2,960.07	0.00	0.00	0.00
11,500.00	90.00	90.70	8,490.00	406.69	3,065.27	3,060.07	0.00	0.00	0.00
11,600.00	90.00	90.70	8,490.00	405.48	3,165.26	3,160.07	0.00	0.00	0.00
11,700.00	90.00	90.70	8,490.00	404.26	3,265.26	3,260.07	0.00	0.00	0.00
11,800.00	90.00	90.70	8,490.00	403.04	3,365.25	3,360.07	0.00	0.00	0.00
11,900.00	90.00	90.70	8,490.00	401.82	3,465.24	3,460.07	0.00	0.00	0.00
12,000.00	90.00	90.70	8,490.00	400.61	3,565.24	3,560.07	0.00	0.00	0.00
12,100.00	90.00	90.70	8,490.00	399.39	3,665.23	3,660.07	0.00	0.00	0.00
12,200.00	90.00	90.70	8,490.00	398.17	3,765.22	3,760.07	0.00	0.00	0.00
12,300.00	90.00	90.70	8,490.00	396.95	3,865.21	3,860.07	0.00	0.00	0.00
12,400.00	90.00	90.70	8,490.00	395.74	3,965.21	3,960.07	0.00	0.00	0.00
12,500.00	90.00	90.70	8,490.00	394.52	4,065.20	4,060.07	0.00	0.00	0.00
12,600.00	90.00	90.70	8,490.00	393.30	4,165.19	4,160.07	0.00	0.00	0.00
12,700.00	90.00	90.70	8,490.00	392.08	4,265.18	4,260.07	0.00	0.00	0.00
12,800.00	90.00	90.70	8,490.00	390.87	4,365.18	4,360.07	0.00	0.00	0.00
12,900.00	90.00	90.70	8,490.00	389.65	4,465.17	4,460.07	0.00	0.00	0.00
13,000.00	90.00	90.70	8,490.00	388.43	4,565.16	4,560.07	0.00	0.00	0.00
13,100.00	90.00	90.70	8,490.00	387.21	4,665.15	4,660.07	0.00	0.00	0.00
13,200.00	90.00	90.70	8,490.00	386.00	4,765.15	4,760.07	0.00	0.00	0.00
13,300.00	90.00	90.70	8,490.00	384.78	4,865.14	4,860.07	0.00	0.00	0.00
13,400.00	90.00	90.70	8,490.00	383.56	4,965.13	4,960.07	0.00	0.00	0.00
13,500.00	90.00	90.70	8,490.00	382.34	5,065.12	5,060.07	0.00	0.00	0.00
13,600.00	90.00	90.70	8,490.00	381.13	5,165.12	5,160.07	0.00	0.00	0.00
13,700.00	90.00	90.70	8,490.00	379.91	5,265.11	5,260.07	0.00	0.00	0.00
13,800.00	90.00	90.70	8,490.00	378.69	5,365.10	5,360.07	0.00	0.00	0.00
13,900.00	90.00	90.70	8,490.00	377.47	5,465.09	5,460.07	0.00	0.00	0.00
14,000.00	90.00	90.70	8,490.00	376.25	5,565.09	5,560.07	0.00	0.00	0.00
14,100.00	90.00	90.70	8,490.00	375.04	5,665.08	5,660.07	0.00	0.00	0.00
14,200.00	90.00	90.70	8,490.00	373.82	5,765.07	5,760.07	0.00	0.00	0.00
14,300.00	90.00	90.70	8,490.00	372.60	5,865.06	5,860.07	0.00	0.00	0.00
14,400.00	90.00	90.70	8,490.00	371.38	5,965.06	5,960.07	0.00	0.00	0.00
14,500.00	90.00	90.70	8,490.00	370.17	6,065.05	6,060.07	0.00	0.00	0.00
14,600.00	90.00	90.70	8,490.00	368.95	6,165.04	6,160.07	0.00	0.00	0.00
14,700.00	90.00	90.70	8,490.00	367.73	6,265.04	6,260.07	0.00	0.00	0.00
14,800.00	90.00	90.70	8,490.00	366.51	6,365.03	6,360.07	0.00	0.00	0.00

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	Local Co-ordinate Reference:	Well Mosaic Fed 2419 2BS 1H
Project:	Permian NM E'83	TVD Reference:	est.GL+KB @ 3012.00usft (planning)
Site:	Mosaic Fed 2419 D Pad	MD Reference:	est.GL+KB @ 3012.00usft (planning)
Well:	Mosaic Fed 2419 2BS 1H	North Reference:	Grid
Wellbore:	#1H OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5k-14

Planned 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)
14,900.00	90.00	90.70	8,490.00	365.30	6,465.02	6,460.07	0.00	0.00	0.00
15,000.00	90.00	90.70	8,490.00	364.08	6,565.01	6,560.07	0.00	0.00	0.00
15,100.00	90.00	90.70	8,490.00	362.86	6,665.01	6,660.07	0.00	0.00	0.00
15,200.00	90.00	90.70	8,490.00	361.64	6,765.00	6,760.07	0.00	0.00	0.00
15,300.00	90.00	90.70	8,490.00	360.43	6,864.99	6,860.07	0.00	0.00	0.00
15,400.00	90.00	90.70	8,490.00	359.21	6,964.98	6,960.07	0.00	0.00	0.00
15,500.00	90.00	90.70	8,490.00	357.99	7,064.98	7,060.07	0.00	0.00	0.00
15,600.00	90.00	90.70	8,490.00	356.77	7,164.97	7,160.07	0.00	0.00	0.00
15,700.00	90.00	90.70	8,490.00	355.56	7,264.96	7,260.07	0.00	0.00	0.00
15,800.00	90.00	90.70	8,490.00	354.34	7,364.95	7,360.07	0.00	0.00	0.00
15,900.00	90.00	90.70	8,490.00	353.12	7,464.95	7,460.07	0.00	0.00	0.00
16,000.00	90.00	90.70	8,490.00	351.90	7,564.94	7,560.07	0.00	0.00	0.00
16,100.00	90.00	90.70	8,490.00	350.69	7,664.93	7,660.07	0.00	0.00	0.00
16,200.00	90.00	90.70	8,490.00	349.47	7,764.92	7,760.07	0.00	0.00	0.00
16,300.00	90.00	90.70	8,490.00	348.25	7,864.92	7,860.07	0.00	0.00	0.00
16,400.00	90.00	90.70	8,490.00	347.03	7,964.91	7,960.08	0.00	0.00	0.00
16,500.00	90.00	90.70	8,490.00	345.82	8,064.90	8,060.08	0.00	0.00	0.00
16,600.00	90.00	90.70	8,490.00	344.60	8,164.89	8,160.08	0.00	0.00	0.00
16,700.00	90.00	90.70	8,490.00	343.38	8,264.89	8,260.08	0.00	0.00	0.00
16,800.00	90.00	90.70	8,490.00	342.16	8,364.88	8,360.08	0.00	0.00	0.00
16,900.00	90.00	90.70	8,490.00	340.94	8,464.87	8,460.08	0.00	0.00	0.00
17,000.00	90.00	90.70	8,490.00	339.73	8,564.86	8,560.08	0.00	0.00	0.00
17,100.00	90.00	90.70	8,490.00	338.51	8,664.86	8,660.08	0.00	0.00	0.00
17,200.00	90.00	90.70	8,490.00	337.29	8,764.85	8,760.08	0.00	0.00	0.00
17,300.00	90.00	90.70	8,490.00	336.07	8,864.84	8,860.08	0.00	0.00	0.00
17,400.00	90.00	90.70	8,490.00	334.86	8,964.84	8,960.08	0.00	0.00	0.00
17,500.00	90.00	90.70	8,490.00	333.64	9,064.83	9,060.08	0.00	0.00	0.00
17,600.00	90.00	90.70	8,490.00	332.42	9,164.82	9,160.08	0.00	0.00	0.00
17,700.00	90.00	90.70	8,490.00	331.20	9,264.81	9,260.08	0.00	0.00	0.00
17,800.00	90.00	90.70	8,490.00	329.99	9,364.81	9,360.08	0.00	0.00	0.00
17,900.00	90.00	90.70	8,490.00	328.77	9,464.80	9,460.08	0.00	0.00	0.00
18,000.00	90.00	90.70	8,490.00	327.55	9,564.79	9,560.08	0.00	0.00	0.00
18,100.00	90.00	90.70	8,490.00	326.33	9,664.78	9,660.08	0.00	0.00	0.00
18,200.00	90.00	90.70	8,490.00	325.12	9,764.78	9,760.08	0.00	0.00	0.00
18,300.00	90.00	90.70	8,490.00	323.90	9,864.77	9,860.08	0.00	0.00	0.00
18,400.00	90.00	90.70	8,490.00	322.68	9,964.76	9,960.08	0.00	0.00	0.00
18,500.00	90.00	90.70	8,490.00	321.46	10,064.75	10,060.08	0.00	0.00	0.00
18,600.00	90.00	90.70	8,490.00	320.25	10,164.75	10,160.08	0.00	0.00	0.00
18,692.75	90.00	90.70	8,490.00	319.12	10,257.49	10,252.83	0.00	0.00	0.00

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	Local Co-ordinate Reference:	Well Mosaic Fed 2419 2BS 1H
Project:	Permian NM E'83	TVD Reference:	est.GL+KB @ 3012.00usft (planning)
Site:	Mosaic Fed 2419 D Pad	MD Reference:	est.GL+KB @ 3012.00usft (planning)
Well:	Mosaic Fed 2419 2BS 1H	North Reference:	Grid
Wellbore:	#1H OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5k-14

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,646.00	2,646.00	Delaware				
3,392.16	3,391.00	Cherry Canyon				
4,781.74	4,771.00	Brushy Canyon				
6,297.19	6,276.00	Bone Spring				
7,348.02	7,321.00	1 BSS				
8,120.82	8,091.00	2 BSS				

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

APPLICATIONS OF KAISER-FRANCIS OIL
COMPANY FOR COMPULSORY POOLING,
EDDY COUNTY, NEW MEXICO.

Case Nos. 21177 - 21179

SELF-AFFIRMED STATEMENT OF NOTICE

COUNTY OF SANTA FE)
) ss.
STATE OF NEW MEXICO)

James Bruce deposes and states:

1. I am over the age of 18, and have personal knowledge of the matters stated herein.
2. I am an attorney for Kaiser-Francis Oil Company.
3. Kaiser-Francis Oil Company has conducted a good faith, diligent effort to find the names and correct addresses of the interest owners entitled to receive notice of the applications filed herein.
4. Notice of the applications was provided to the interest owner, at its last known addresses, by certified mail. Copies of the notice letter and certified return receipt are attached hereto as Attachment A.
5. Applicant has complied with the notice provisions of Division Rules.
6. I understand that this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 5 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.

Date:

April 28, 2020

James Bruce
James Bruce

EXHIBIT

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JAMES BRUCE
ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

369 MONTEZUMA, NO. 213
SANTA FE, NEW MEXICO 87501

(505) 982-2043 (Phone)
(505) 660-6612 (Cell)
(505) 982-2151 (Fax)
jamesbruc@aol.com

March 12, 2020

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

MRC Permian LKE Company, LLC
Suite 1500
5400 LBJ Freeway
Dallas, Texas 75240

Ladies and gentlemen:

Enclosed are copies of the following applications for compulsory pooling, filed with the New Mexico Oil Conservation Division by Kaiser-Francis Oil Company:

(a) For a Bone Spring well in the N/2N/2 of Section 24, Township 23 South, Range 28 East, NMPM and the N/2N/2 of Section 19, Township 23 South, Range 29 East, NMPM (Case No. 21177);

(b) For a Bone Spring well in the S/2N/2 of Section 24, Township 23 South, Range 28 East, NMPM and the S/2N/2 of Section 19, Township 23 South, Range 29 East, NMPM (Case No. 21178); and

(c) For five Wolfcamp wells in the N/2 of Section 24, Township 23 South, Range 28 East, NMPM and the N/2 of Section 19, Township 23 South, Range 29 East, NMPM (Case No. 21179),

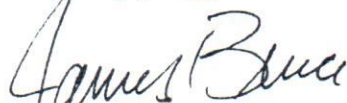
in Eddy County, New Mexico.

These matters are scheduled for hearing at 8:15 a.m. on Thursday, April 2, 2020, in Room 311, State Capitol Building, 490 Old Santa Fe Trail, Santa Fe, New Mexico 87501. You are not required to attend the hearing, but as an owner of an interest who may be affected by the applications, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from contesting these matters at a later date.

ATTACHMENT *A*

A party appearing in a Division case is required by Division Rules to file a Pre-Hearing Statement no later than Thursday, March 26, 2019. This statement must be filed with the Division's Santa Fe office, and should include: The names of the party and his or her attorney; a concise statement of the case; the names of the witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that need to be resolved prior to the hearing. This document may be filed online at ocd.hearings@state.nm.us.

Very truly yours,

A handwritten signature in dark ink, appearing to read "James Bruce". The signature is fluid and cursive, with the first name "James" and last name "Bruce" clearly distinguishable.

James Bruce

Attorney for Kaiser-Francis Oil Company

7019 2280 0002 1748 2489

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®

OFFICIAL USE

Certified Mail Fee \$ _____

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy)	\$ _____
☐ Return Receipt (electronic)	\$ _____
☐ Certified Mail Restricted Delivery	\$ _____
☐ Adult Signature Required	\$ _____
☐ Adult Signature Restricted Delivery	\$ _____

Postage \$ _____

Total Postage and Fees \$ _____

Sent To MRC Permian LKE Company, LLC
Suite 1500
5400 LBJ Freeway
Dallas, Texas 75240

Street and Apt. No. _____
 City, State, ZIP+4® _____

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY													
■ Complete items 1, 2, and 3. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. 1. Article Addressed to: MRC Permian LKE Company, LLC Suite 1500 5400 LBJ Freeway Dallas, Texas 75240 9590 9402 5751 0003 4256 95		A. Signature X <u>[Signature]</u> ☐ Agent ☐ Addressee B. Received by (Printed Name) <u>4002019</u> C. Date of Delivery <u>03/24/20</u> D. Is delivery address different from item 1? ☐ Yes ☐ No If YES, enter delivery address below: MAR 31 2020													
2. Article Number (Transfer from service label) 7019 2280 0002 1748 2489		3. Service Type <table border="0"> <tr> <td>☐ Adult Signature</td> <td>☐ Priority Mail Express®</td> </tr> <tr> <td>☐ Adult Signature Restricted Delivery</td> <td>☐ Registered Mail™</td> </tr> <tr> <td>☒ Certified Mail®</td> <td>☐ Registered Mail Restricted Delivery</td> </tr> <tr> <td>☐ Certified Mail Restricted Delivery</td> <td>☐ Return Receipt for Merchandise</td> </tr> <tr> <td>☐ Collect on Delivery</td> <td>☐ Signature Confirmation™</td> </tr> <tr> <td>☐ Collect on Delivery Restricted Delivery</td> <td>☐ Signature Confirmation Restricted Delivery</td> </tr> </table>		☐ Adult Signature	☐ Priority Mail Express®	☐ Adult Signature Restricted Delivery	☐ Registered Mail™	☒ Certified Mail®	☐ Registered Mail Restricted Delivery	☐ Certified Mail Restricted Delivery	☐ Return Receipt for Merchandise	☐ Collect on Delivery	☐ Signature Confirmation™	☐ Collect on Delivery Restricted Delivery	☐ Signature Confirmation Restricted Delivery
☐ Adult Signature	☐ Priority Mail Express®														
☐ Adult Signature Restricted Delivery	☐ Registered Mail™														
☒ Certified Mail®	☐ Registered Mail Restricted Delivery														
☐ Certified Mail Restricted Delivery	☐ Return Receipt for Merchandise														
☐ Collect on Delivery	☐ Signature Confirmation™														
☐ Collect on Delivery Restricted Delivery	☐ Signature Confirmation Restricted Delivery														

PS Form 3811, July 2015 PSN 7530-02-000-9053

K.F.M. Domestic Return Receipt

COMPULSORY POOLING APPLICATION CHECKLIST

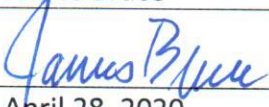
ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS

Case:	21177
Date	April 30, 2020
Applicant	Kaiser-Francis Oil Company
Designated Operator & OGRID (affiliation if applicable)	Kaiser-Francis Oil Company/OGRID No. 12361
Applicant's Counsel:	James Bruce
Case Title:	Application of Kaiser-Francis Oil Company for Compulsory Pooling, Eddy County, New Mexico
Entries of Appearance/Intervenors:	
Well Family	Mosaic Fed. 2419 2BSS Well No. 1H
Formation/Pool	
Formation Name(s) or Vertical Extent:	Bone Spring Formation
Primary Product (Oil or Gas):	Oil
Pooling this vertical extent:	Entire Bone Spring formation
Pool Name and Pool Code:	Culebra Bluff; Bone Spring, South/Pool Code 15011
Well Location Setback Rules:	Statewide rules and current horizontal well rules
Spacing Unit Size:	Quarter-quarter Section/40 acres
Spacing Unit	
Type (Horizontal/Vertical)	Horizontal
Size (Acres)	320 acres
Building Blocks:	40 acres
Orientation:	West-East
Description: TRS/County	N/2N/2 §24-23S-28E and N/2N/2 §19-23S-29E, NMPPM, Eddy County
Standard Horizontal Well Spacing Unit (Y/N), If No, describe	Yes
Other Situations	
Depth Severance: Y/N. If yes, description	No
Proximity Tracts: If yes, description	No
Proximity Defining Well: if yes, description	
Applicant's Ownership in Each Tract	Exhibit 2-B
Well(s)	
Name & API (if assigned), surface and bottom hole location, footages, completion target, orientation, completion status (standard or non- standard)	Mosaic Fed. 2419 2BSS Well No. 1H API No. 30-015-Pending SHL: 1105 FNL & 186 FWL §24 BHL: 660 FNL & 100 FEL §19 FTP: 660 FNL & 100 FWL §24 LTP: 660 FNL & 100 FEL §19 Second Bone Spring Sand/TVD 8600 feet/MD 18900 feet
Horizontal Well First and Last Take Points	See above
Completion Target (Formation, TVD and MD)	See above

EXHIBIT

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AFE Capex and Operating Costs	
Drilling Supervision/Month \$	\$8000
Production Supervision/Month \$	\$800
Justification for Supervision Costs	Exhibit 2, page 2
Requested Risk Charge	Cost + 200%/Exhibit 2, page 2
Notice of Hearing	
Proposed Notice of Hearing	Exhibit 1
Proof of Mailed Notice of Hearing (20 days before hearing)	Exhibit 4
Proof of Published Notice of Hearing (10 days before hearing)	Not necessary
Ownership Determination	
Land Ownership Schematic of the Spacing Unit	Exhibit 2-A
Tract List (including lease numbers and owners)	Exhibit 2-B
Pooled Parties (including ownership type)	Exhibit 2-B
Unlocatable Parties to be Pooled	Not applicable
Ownership Depth Severance (including percentage above & below)	None
Joinder	
Sample Copy of Proposal Letter	Exhibit 2-C
List of Interest Owners (i.e. Exhibit A of JOA)	Exhibit 2-B
Chronology of Contact with Non-Joined Working Interests	Exhibit 2-C
Overhead Rates In Proposal Letter	
Cost Estimate to Drill and Complete	Exhibit 2-D
Cost Estimate to Equip Well	Exhibit 2-D
Cost Estimate for Production Facilities	Exhibit 2-D
Geology	
Summary (including special considerations)	Exhibit 3
Spacing Unit Schematic	Exhibit 3-A
Gunbarrel/Lateral Trajectory Schematic	Exhibit 3-C
Well Orientation (with rationale)	Laydown/Exhibit 3, page 2
Target Formation	Bone Spring
HSU Cross Section	Exhibit 3-C
Depth Severance Discussion	Not Applicable
Forms, Figures and Tables	
C-102	Exhibit 2-A
Tracts	Exhibit 2-A
Summary of Interests, Unit Recapitulation (Tracts)	Exhibit 2-B
General Location Map (including basin)	Exhibit 2-A
Well Bore Location Map	Exhibit 2-A
Structure Contour Map - Subsea Depth	Exhibit 3-A
Cross Section Location Map (including	Exhibit 3-C

wells)	
Cross Section (including Landing Zone)	Exhibit 3-C
Additional Information	
CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate.	
Printed Name (Attorney or Party Representative):	James Bruce
Signed Name (Attorney or Party Representative):	
Date:	April 28, 2020