#### KAISER-FRANCIS OIL COMPANY APPLICATION FOR DIRECTIONAL DRILLING PERMITS NMOCD Case No. 10887

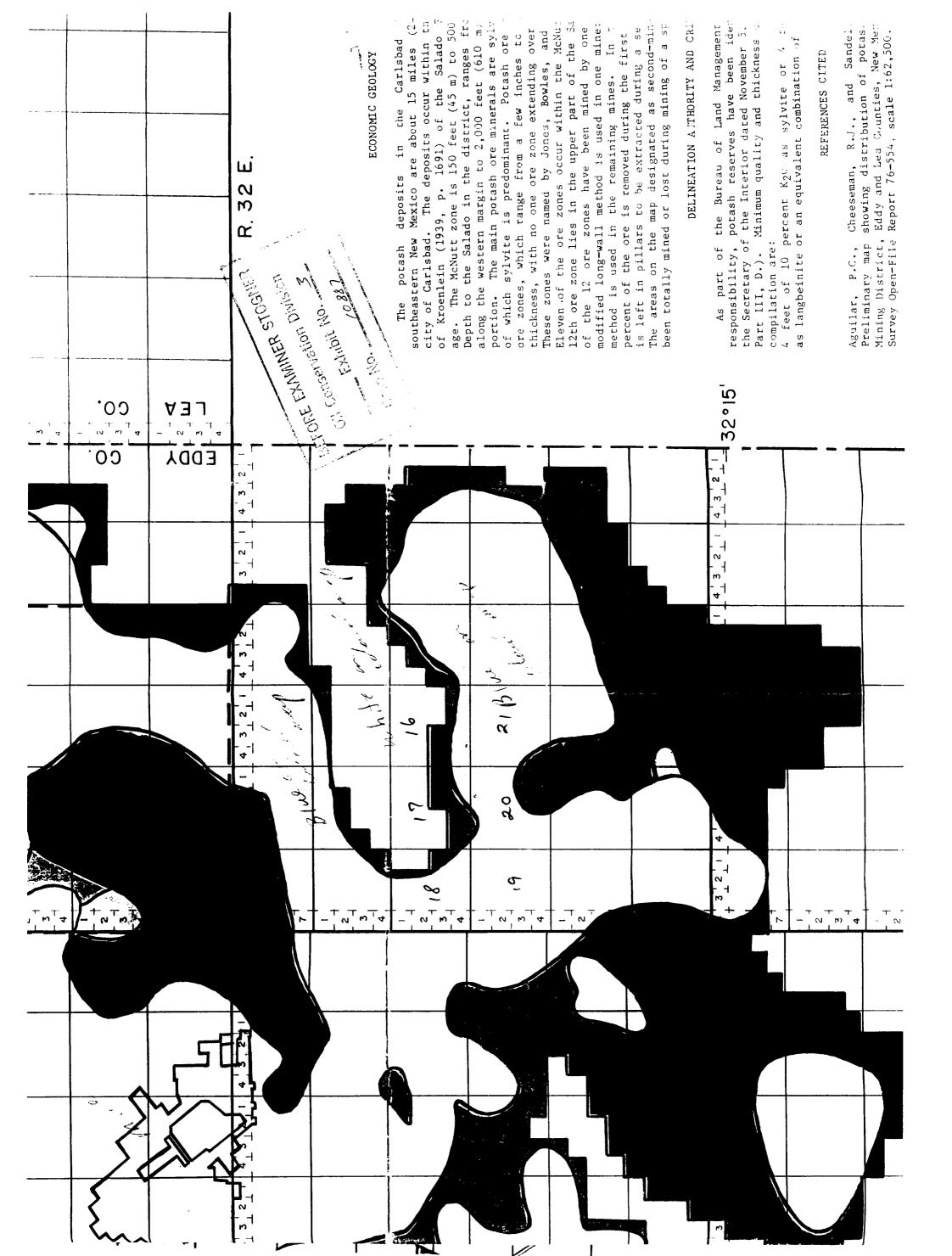
EXAMINER STOCKER

Convertion Division

Examinit No. \_ 2

#### PURE GOLD WELL LOCATIONS

Well: Surface: BHL:	Pure Gold 1950' FSL 2043' FNL	x 200'			
Well: Surface: BHL:	Pure Gold 10' FSL 1947' FNL	x 1935′			
Well: Surface: BHL:	Pure Gold 10' FSL 480' FNL	x 280′			
Well: Surface: BHL:	Pure Gold 10' FSL 480' FNL	x 1800′			
Well: Surface: BHL:	Pure Gold 10' FSL 2012' FNL	x 2025'			
Well: Surface: BHL:	Pure Gold 10' FSL 480' FNL	x 2160'			
	Pure Gold 2100' FSL 1988' FNL	x 1600'			
	Pure Gold 1950' FSL 1957' FNL	x 335′			
Well: Surface: BHL:	Pure Gold 10' FSL 480' FNL	x 1960'			
Well: Surface: BHL:	Pure Gold 10' FSL 480' FNL	x 145'			



8 8 8 8 8 APPLICATION FOR DIRECTIONAL DRILLING PERMITS

735 R31E Eddy County, NM טיפל טובב מפנו סבפו Pure Gold . . . . 220 990 3 Or. Ø = = ₽<u>6</u> 8 8 ğ 8 **KF** 2310 2640 Pure Gold B" Fed 1550 1983 (178) 8

NMOCD case NO.

Eddy County, NM

Potash reference point Potash

O Bottomhole Location

EBFORE EXAMINER STORNER

C. Conservation Division

Exhibit No. 4

10887

ctober 19 1993

Milton Griffin Tulsa, 10K 74121-1468

Pure Gold "A" Federal #9, 10'FSL, 280'FWL # Sec.16, T23S, R31E NMPM
Pure Gold "A" Federal #10, 10'FSL, 1800'FWL
Sec.16, T23S, R31E NMPM
Pure Gold "A" Federal #14, 10'FSL, 2160'FEL
Sec.16, T23S, R31E NMPM
Pure Gold "B" Federal #10, 10'FSL, 145'FWI. Pure Gold "B" Federal #10, 10'FSL, 145'FWL Sec.16, T235, R31E NMPM

Dear Sir:

IMC Fertilizer, Inc. has received your notification that Kaiser Frances Oil Company intends to drill Pure Gold "A" Federal #9, 10, 14, and Pure Gold "B" Federal #10. IMC has no objection to Kaiser Frances' drilling these wells due to the fact that they are outside the 1/4 mile of IMCF's LMR.

The current LMR and the buffer zone are determined from the best available information. As more information becomes available, the LMR can change and may be modified and adjusted. This is reflected in the yearly update of the LMR. The relationship of any well location relative to the LMR can change. Therefore, please consider the "objection offered" or "no objection offered" to a well location to be valid for one year only. If you are still considering a well location that a potash operator has or has not objected to more than one year prior, notify us again at that time so we can make the decision on information current at that time. Do not consider a "no objection offered" or an "objection offered" decision to be permanent.

Sincerely,

Dan Morehouse Supt. of Mine Engineering

Dick Manus A Walt Thayer



November 18, 1993

Milton Griffin Kaiser-Francis Oil Company P. O. Box 21468 Tulsa, OK 74121-1468

RE: Pure Gold "A" Federal No. 7
Pure Gold "A" Federal No. 8
Pure Gold "A" Federal No. 8
Pure Gold "A" Federal No. 13
Pure Gold "B" Federal No. 7
Pure Gold "B" Federal No. 8

Dear Mr. Griffin:

IMC Fertilizer, Inc. has received your notification that Kaiser- Francis Oil Company intends to drill the above referenced well locations. IMC Fertilizer has no objection to Kaiser-Francis drilling these wells no deeper than the base of the Delaware at these locations as they are further than 1/4 mile from IMC Fertilizer's current LMR.

The current LMR and the buffer zone are determined from the best available information. As more information becomes available, the LMR can change and may be modified and adjusted. This is reflected in the yearly update of the LMR. The relationship of any well location relative to the LMR can change. Therefore, please consider the "objection offered" or "no objection offered" to a well location to be valid for one year only. If you are still considering a well location that a potash operator has or has not objected to more than one year prior, notify us again at that time so we can make the decision on information current at that time. Do not consider a "no objection offered" or an "objection offered" decision to be permanent.

IMC Fertilizer, Inc. submits this letter in lieu of the forms requested.

Sincerely,

Dan Morehouse

Supt. Mine Engineering

DM:tmh

CC: Dick Manus

Walt Thayer

Leslie Cone

William Caulkins

Charlie High

Tony Herrell

6733 South Yale Ave. (918) 494-0000

December 6, 1993

IMC Fertilizer, Inc. Attn: Dan Morehouse P. O. Box 71 Carlsbad, New Mexico 88220

Pure Gold "B" Federal No. 9 Re: Section 20, T23S, R31E Eddy County, New Mexico

#### Gentlemen:

This is to advise you that Kaiser-Francis proposes to drill the referenced well in an area which is within a 1 mile radius of your potash lease and to request that you grant approval to drill at the proposed location.

The surface location is in an area outside presently calculated and mapped potash resources and is within 150' of the existing Enron - Pure Gold "B" No. 2 deep gas well. It is proposed to drill a vertical hole to 4070', to set and cement intermediate casing and to drill a directional hole under the potash deposits and onto a standard location for the Delaware formation in Section 20.

A copy of the Well Location and Acreage Dedication Plat for this well is enclosed.

Your cooperation in this matter is appreciated.

Sincerely,

KAISER-FRANCIS OIL COMPANY

Milton Griffin

MG:klv Enclosures

cc: Wayne Fields Tony Herrell Jim Wakefield DISTRICT I P. 0. Box 1980 Hobbs, NM 88240

DISTRICT II P. O. Drawer DD Artesia, NM 88210

## OIL CONSERVATION DIVISION P. O. Box 2088 Santa Fe, New Mexico 87504-2088

DISTRICT III 1000 Rio Brazos Rd Aztec, NM 87410

### WELL LOCATION AND ACREAGE DEDICATION PLAT All distances must be from the outer boundaries of the section.

KAISER - FRANCIS DIL COMPANY	PU	RE GOLD 'B'	' FEDE	RAL	9 9
Unit Letter Section Township	Renge	BLOT N. W. D. W.		County	anny .
0 17 23 SOUTH Actual Footage Location of Well	- 31	EAST, N.M.P.M.	·		EDDY
10 feet from the SOUTH line at	d 1960	fao	t from the	• EAS	T
Ground Level flev. Producing Formation	Pool	a 1 5			10
3337' Delaware		Sand Dunes	<del></del>		40 Acres
<ol> <li>Outline the acreage dedicated to the subject.</li> <li>If more than one lease is dedicated to the to working interest and royalty).</li> <li>If more than one lease of different ownershing been consolidated by communitization, unitifully Yes  No  If answer is "yes lif the answer is "no", list the owners and the reverse side of this form if neccessary No allowable will be assigned to the well unitization, forced—pooling, or otherwise) or approved by the division.</li> </ol>	well, outline is dedicate ation, forces type of ract descrip	each and ident d to the well, I —pooling, etc.? consolidation ions which hav sts have been	have the consolid	interest of been colored (by	onsolidated. (Use
Bottomhole Location: 667'	TNL & 180	)' FEL	ir c k. Si c y.	I heinformation omplete nowledge gnature finted Name Milton	R CERTIFICATION  reby certify that the herein is true and to the best of my and belief.  Griffin
The acreage dedicated to th	is well i	the	Po	Operati	lons Engineer
NW/4 NE/4 Sec 20, T23S, R31	≦ į́		C	mpany	tons the thect
	1 1 1 1 1 1			Decembe	Francis Oil Co. er 6, 1993
10;		-1960°	w w and	ell location as plotted ctual survival my the same of the best nd belief.  ALL Surveyed NOVE grature and rofessional surveyed surveyed and surveyed	MHER 22, 1993  Seel of hurveyor  A Signer
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	MINER STOGNER							t
)il Conserv	vation Division			S OIL COM	PANY			
Exhibit No. 6 P.O. BOX 21468 TULSA, OKLAHOMA 74121-1468								
Case No. 10887								
LEASE AN	D WELL NO. Pure (	Gold "A	" Fed. #	IB LEAS	SE ID NO	DAT	E _	6-4-93
LOCATION	Surf. Loc. 10		1900' I					FWL
FIELD	Section 16-23	5-31E	COUNTY	Sec (	Eddy	l-235-31E 9	E Stati	е им
PURPOSE:	D DEPTH <u>8100'</u> Drill & Comple	ete ·	OBJECTI	VE ZONE	Del	avare 1	EST I	DAYS
				EQUIPMENT SIZE	•	EVDE	15 T T	upr co
		1		1	1	EAPE: DRY HOLE		URE CO
700	CONDUCTOR		40'	20" 13-3/8"		3,0		
701	SURFACE CASING		700'	13-3/8"		12.9		
	INTERMEDIATE C	<u> </u>	4100'	8-5/8"		34,	900	34,
	LINER PRODUCTION CSG		DC DO!	5-1/2	·	]		
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<u></u>	1001110		7756	1-2//0-		l	·	4,5,
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THIS AFE IS AN ESTIMATE ONLY AND HON-OPERATOR, BY EXECUTION OF SAME COMMITS TO PAY ITS PROPÖRTIONATE SHARE OF ACTUAL COSTS.

DATE:

13-Dec-93 Interest of:		ING PROPOSAL		1,2,3-P	PETROLEUM EV as-of: 12.1993	ALUATION		Fld/Zone: ST/Co:	PURE GOLD A SAND DUNES NN, EDDY	
	USE AVERAGI	B WELL		oil bhl	Gas,MCP			Oper:	SEC 20 & 21	235-317
	WI	NRI	Cum=	Oil,bbl O	Gas,ncr 0			ьеуат.	DEC 20 & 21	233-316
Initial:			Res=	-	873459			Life,yrs=	27.00	
Final:	1.000000	0.840000	01 <b>t</b> =		873459		Reversion	Point, yrs=	1.06	
	Gross Re	eserves	Net Re	serves	Back Cal	c. Ava	Product	ion Taxes	Net Rev	Post Tax
Yr Ends			Oil,bbl		Oil,\$/bbl					Gas (\$)
12.1993	5610	5610	4712	4712	14.14	1.790	4724	598	61909	7837
11.1994	49250	102879	41370	86418	14.41	1.856	42255	11371	553724	149015
11.1995	21240	80468	17842	67593	15.15	2.000	19164	9585	251137	125607
11.1996	12878	63246	10818	53126	15.92	2.161	12208	8138	159984	106643
11.1997	9779	56335	8214	47321	16.73	2.335	9742	7835	127657	102678
11.1998	7823	51628	6572	43368	17.56	2.522	8183	7754	107231	101609
11.1999	6259	46048	5257	38680	18.44	2.723	6874	7468	90074	97863
11.2000		39061	4206	32811	19.38	2.943	5778	6845	75720	89702
11.2001	4405	37053	3700	31125	20.35	3.178	5337			91899
11.2002		35635	3330		21.36	3.432	5044			95451
11.2003	3568	34044	2997	28597	22.43	3.707	4766			98484
11.2004	3211	32330	2697	27157	23.55	4.003	4504			101010
11.2005		30539	2428	25652	24.73	4.324	4256			103045
11.2006		28707	2185	24114	25.97	4.669	4022			104614
Sub-Total	132875	637972	111615	535896	16.70	2.747	132135	104364	1731540	1367619
Remaining		235487	15164		35.16	7.852	37808			1443032
TOTAL		873459	126779		18.91	4.123	169942			2810650
	Het Rev.	Ad Valorem	Operating	Future Net	Capital	Salvage	Net C	ash Flow	-Discount	: @ 8.00%-
Yr Ends		Taxes (\$)						Cumulative		Cumulative
12.1993	69746	1674	1500	66572	699700	0	-633128	-633128		
11.1994	702739	16866	27389	658485	699700	0	-41215	-41215	-61520	-61520
11.1995	376744	9042	31825	335877	0	0	335877	294662	298840	237320
11.1996	266627	6399	33416	226811	0	0	226811	521473	186129	423450
11.1997	230335	5528	35087	189720	0	0	189720	711193	143531	566981
11.1998	208840	5012	36841	166987	ŏ	0	166987	878179	116630	683611
11.1999	187937	4510	38683	144743	0	0	144743			776942
11.2000		3970	40614	120837	0	0	120837			848782
11.2001	161842	3884	42644	115313	0	0	115313			912067
11.2002		3877	44777		0	0	112893			969261
11.2003	160945	3863	47015	110067	Ō	Ō	110067			1020735
11.2004	160035	3841	49366		ŏ	ŏ	106828			1066854
11.2005		3812	51835	103177	ő	ő	103177			1107972
11.2006		3776	54426		Ö	ő	99123			1144437
Sub-Total	3099159	74380	533919	2490860	699700	0	1791160	1791160	1144437	1144437
Remaining			1120015		0	0	771940			189077
TOTAL			1653934		699700	0	2563100			1333514
TOTAL	703/03/	120303	1000704	3404000	UJJ1UU	U	2003100	2303100	1000014	1333314
ECODE !			NED T			Disc	counted Net	Cash Flow	<b>A</b> 10.00	1166388

BEFORE EXAMINER STOGNER

Oil Conservation Division

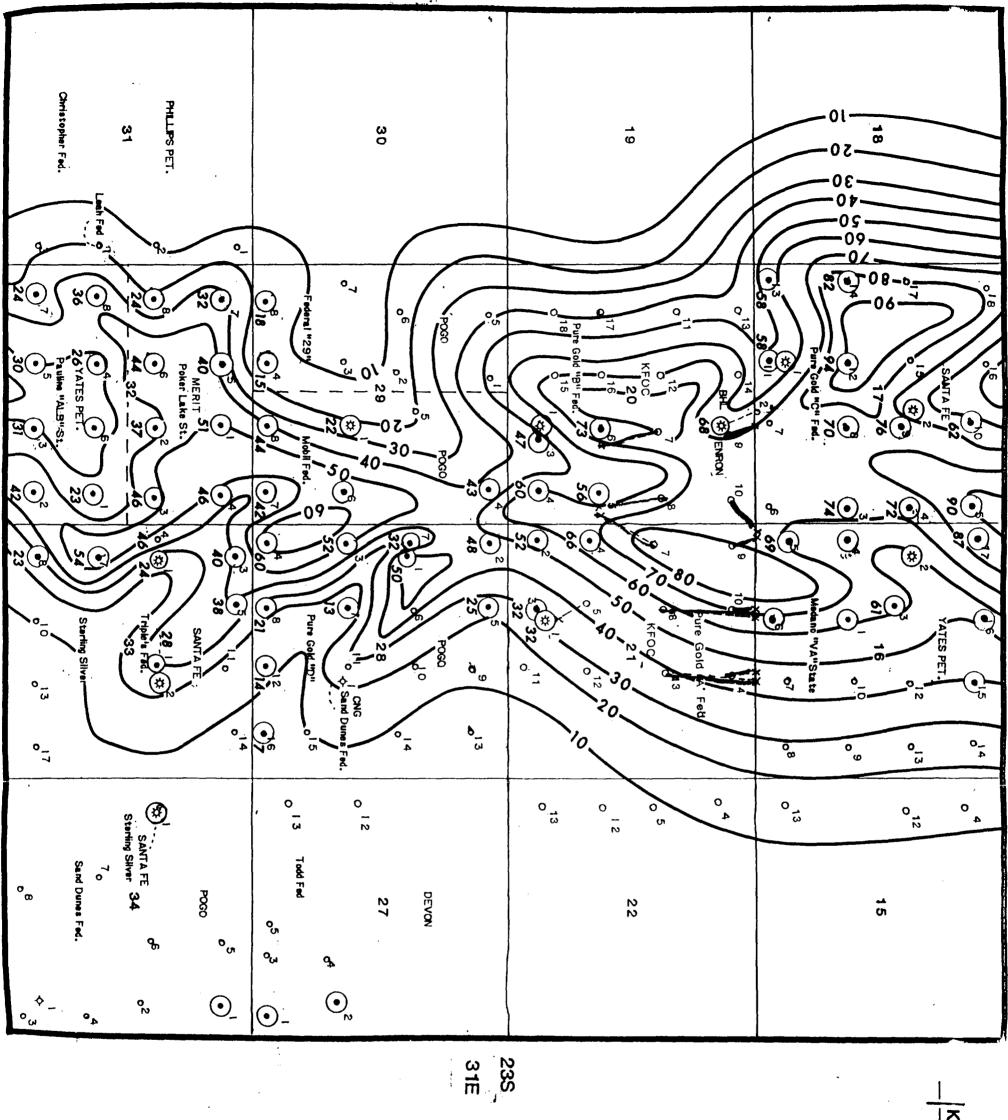
\_\_\_\_ Exhibit No. \_\_\_\_\_\_

Discounted Net Cash Flow @

10.00% 1166388 12.00% 1029118

15.00% 864412 20.00% 663672

75%PW8.00% 1000136



KAISER-FRANCIS OIL COMPANY

EDDY COUNTY, NM

NET SAND ISOPACH MAP

CI: 10'

W. Alan Benson 1"= 2000'

12/93

C) Got work then Division

S ON TOWN

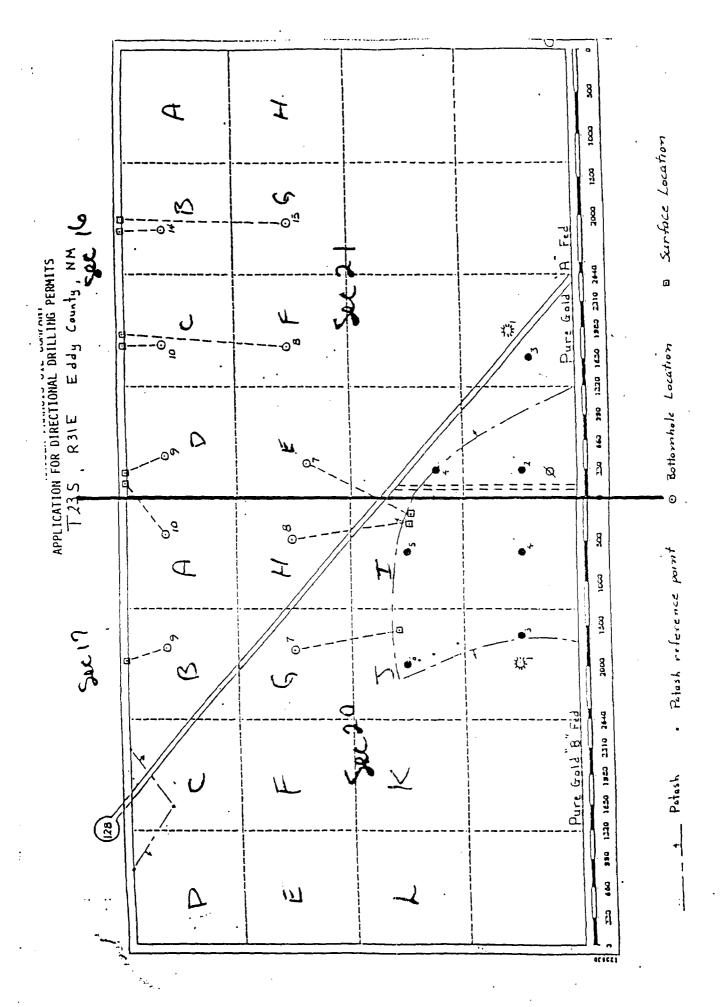
THE EXAMPLE STORY

## KAISER-FRANCIS OIL COMPANY APPLICATION FOR DIRECTIONAL DRILLING PERMITS

#### PURE GOLD WELL LOCATIONS

	Pure Gold 1950' FSL 2043' FNL	x 200'			
Well: Surface: BHL:	Pure Gold 10' FSL 1947' FNL	x 1935′			
Well: Surface: BHL:	Pure Gold 10' FSL 480' FNL	x 280′			
Well: Surface: BHL:	Pure Gold 10' FSL 480' FNL	x 1800'			
	Pure Gold 10' FSL 2012' FNL	x 2025′			
Well: Surface: BHL:	Pure Gold 10' FSL 480' FNL	x 2160'			
Well: Surface: BHL:	Pure Gold 2100' FSL 1988' FNL	x 1600'			
Well: Surface: BHL:	Pure Gold 1950' FSL 1957' FNL	x 335'	(Unit		
Well: Surface: BHL:	Pure Gold 10' FSL 480' FNL	x 1960'			
Well: Surface: BHL:	Pure Gold 10' FSL 480' FNL	x 145'			

The state of the s



Form 3160-3 (December 1990)

## UNITED STATES (Other red)

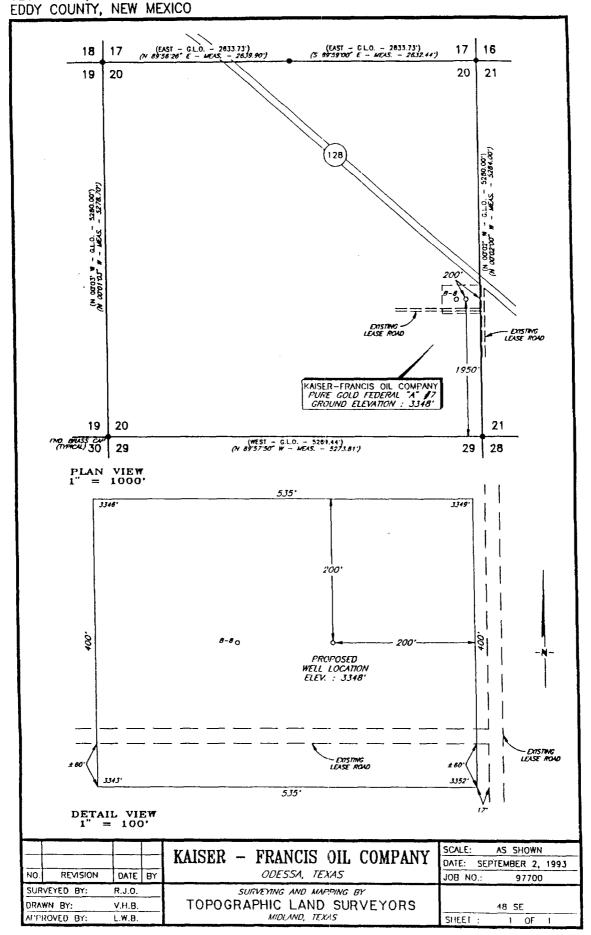
SUBMIT IN TRIPLICATE\*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

	DELAKTMENT	l	G. LEASE DESIGNATION AND SESIAL RO.					
	BUREAU OF	LAND MANAG	EMENT			NM38464		
APPL	CATION FOR PE	ERMIT TO D	RILL	OR DEEPEN		G. IF INDIAN, ALLOTTES OR TRIRS HAME		
. TIPE OF WORK	· · · · · · · · · · · · · · · · · · ·		_	·	<del></del>	-		
	ILL 🗵	DEEPEN [				7. UNIT AGREEMENT HAME		
TIPE OF WELL	AR 🗀		81118	LE X MULTIP	LE 🗀	8. FARM OR LEAST HAART, WELL NO.		
MELL X N	TELL OTHER		ZONI	E CT ZONE		Pure Gold A Federal		
Vaicer-Fran	cis Oil Company					9. ATWELTO.		
ADDRESS AND TELETIONE NO.	icis oir company					7		
P.O. Box 21	.468, Tulsa, Okla	ahoma 7412	1-1468			10. FIELD AND POOL, OR WILDCAT		
	eport location clearly and					West Sand Dunes		
	FSL & 200' FEL	Sec 20		ı		11. SEC., T., B., M., OR BLE. AND SURTEY OR AREA		
At proposed prod. so:								
2046	FNL & 456' FWI	Sec 21				Sec 21 , T23S, R31E		
DISTANCE IN MILES AND DIRECTION FROM MEAREST TOWN OR FOST OFFICE*						12. COUNTY OR FARISH 18. STATE		
17 miles East from Loving Distance FROM PROPURED.   16, No. OF ACRES IN LEASE   17, No.						Eddy NM		
LOCATION TO MEARER PROPERTY OR LEARN	T 456'		10. NO.	OF ACTED IN MARCE		HIS WELL		
(Also to bearest dri	g. unit fine, if any) 4	56'		640		40		
DIRTANUE FROM PROI TO MEAREST WELL, I OR APPLIED FOR, ON TH	RILLING, COMPLETED. 15	40'		OSED DEPTIL	ZU. ROTA	RT OR CABLE TOOLS		
OR AFFICIED FOR, OF TH	ether DF, RT, GR, etc.)		81	00' TVD	_[	Rotary   22. AFFROX. DATE WORK WILL START		
				,		STANAL PARK TURN START		
3348'								
<u>.</u>		,		CEMENTING PROGRA	\м 			
BIZE OF ROLE	ORADE SIZE OF CASHO	WEIGHT PER FO		SETTING DEPTH	-	QUANTITI OF CEMENT		
17-1/2	13-3/8	48#	· -	700		00 sacks Circulated		
11	8-5/8	32#		4070	1000	sacks Circulated		
7-7/8	5-1/2	17# Stage to	001 @		D 1370	sacks tie back @ least 200' into 8-5/8"		
	NU Rotary.	A = 7001	_ !			!/7da		
	stall 3000# BOP			et 13-3/6" Bur	Tace Ca	sg & cmt w/700 sx.		
				-5/8" intermed	liate ca	sg & cmt w/1000 sx.		
	st csg to 1000#.			J. J		.g		
	.11 7-7/8° hole	to 8100' TY	D & ru	n electric lo	gs.			
J. DI.	hydrocarbons are	e indicated,	run	set 5-1/2* c	sg @ TD	w/stage collar at		
		stage v/580	вх &	2nd stage v/7	90 sx.			
7. If 620	6200' and cmt 1st stage w/580 sx & 2nd stage w/790 sx. 8. RDMO rotary, install wellhead, run cement bond log, perforate and stimulate							
7. If 620 8. RDM	10 rotary, instal					rate and stimulate		
7. If 620 8. RDM						rate and stimulate		
7. If 620 8. RDM	10 rotary, instal					rate and stimulate		
7. If 620 8. RDM	10 rotary, instal					rate and stimulate		
7. If 620 8. RDM	10 rotary, instal					rate and stimulate		
7. If 620 8. RDF for	O rotary, instal	l wellhead,	run c	ement bond log	, perfo			
7. If 620 8. RDF for	O rotary, instal	l wellhead,	run C	ement bond log	, perfo	ed new productive zone. If proposal is to drill		
7. If 620 8. RDF for ABOVE STACE DESCRIPTED directionally, give per	fO rotary, instal production.	l wellhead,	run C	ement bond log	, perfo	ed new productive zone. If proposal is to drill		
7. If 620 8. RDF for ABOVE STACE DESCRIPTED directionally, give per	fO rotary, instal production.	I wellhead,  [Exoposal is to deepen, one and measured and t	run C	ement bond log	, perfo	ed new productive zone. If proposal is to drill n, If any. 1 0 29 93		
7. If 620 8. RDM for ABOVE STACE DESCRIPTION directionally, give per	DE PROPOSED PROGRAM: If	I wellhead,  [Exoposal is to deepen, one and measured and t	run C	ement bond log	, perfo	ed new productive zone. If proposal is to drill n, if any.		
7. If 620 8. RDM for ABOVE STACE DESCRIPTION OF THE PROPERTY O	fO rotary, instal production.	I wellhead,  [Exoposal is to deepen, one and measured and t	run C	ement bond log	, perfo	ed new productive zone. If proposal is to drill n, If any. 10-29-93		
7. If 620 8. RDM for ABOVE STACE DESCRIPTION OF PRICE	DE PROPOSED PROGRAM: If	I wellhead,  [Exoposal is to deepen, one and measured and t	give data of true vertical	ement bond log	, perfo	ed new productive zone. If proposal is to drill n, If any. 1 N = 29 = 9 3		
7. If 620 8. RDF for ADOVE STACE DESCRIPTION ADDITION OF FEMALE PROPERTY OF FEMALE PROPER	BETROPOSED PROGRAM: Hittinent data on subsurface docation	I wellhead,  [Exoposal is to deepen, one and measured and t	give data i	ement bond log on present productive zon depths. Give blowout pres Decrations Eng	, perfo	ed new productive zone. If proposal is to drill n, if any.  DATE		
7. If 620 8. RDP for ABOVE STACE DESCRIPTION FOR	BE PROPOSED PROGRAM: If the first data on subsurface location.	I wellhead,  [Exoposal is to deepen, one and measured and t	give data i	ement bond log on present productive zon depths. Give blowout pres Decrations Eng	, perfo	ed new productive zone. If proposal is to drill n, if any.  DATE		
7. If 620 8. RDF for ABOVE STACE DESCRIPTION Pen directionally, give per (This space for Fed PERMIT NO	BE PROPOSED PROGRAM: If the first data on subsurface location.	I wellhead,  [Exoposal is to deepen, one and measured and t	give data i	ement bond log on present productive zon depths. Give blowout pres Decrations Eng	, perfo	ed new productive zone. If proposal is to ddll n, If any. 10-29-93		

PLAT SHOWING PROPOSED
WELL LOCATION AND LEASE ROAD IN
SECTION 20, T-23-S, R-31-E, N.M.P.M.

Exhibit E Kaiser-Francis Oil Co. Pure Gold "A" Fed. #7 Eddy County, NM



DISTRICT I P. O. Box 1980 Hobbs, NM 88240

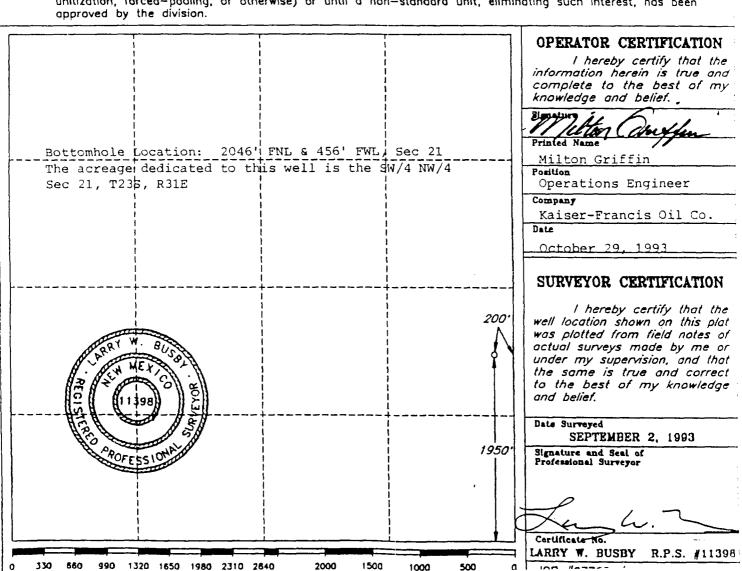
DISTRICT II
P. O. Drawer DD
Artesia, NM 88210

## OIL CONSERVATION DIVISION P. 0. Box 2088 Santa Fe. New Mexico B7504-2088

DISTRICT III -1000 Rio Brazos Rd

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

Operator KAIS	ER - FRANC	IS DIL CO	JMPANY _	PURE	GOLD FEDERAL	_ <b>"</b> A"	Well No.
Unit Letter	Section	Township		Range	.m. 17.17.73.17	County	Panar
1	20	12	3 SOUTH	31, EAS	ST, N.M.P.M.	.l	EDDY
letual Footage 1 1950	ocation of Well feet from the	SOUTH	line an	d200_	feet from t	heEAS	T line
round Level El 3348'		ormation elaware		Pool West	Sand Dunes		40 Acres
beer If the	consolidated by Yes	y communitized If answ If answ I, list the o this form if assigned to	zation, unitize ver is "yes" wners and to neccessary.) o the well ur	ation, forced—p , type of cor ract description ) ntil all interests		ally been c	ansolidated. (Use
uniti	oved by the div	ision.					nterest, has been



## APPLICATION FOR PERMIT TO DRILL KAISER-FRANCIS OIL COMPANY

Pure Gold "A" Federal No. 7

Surface Location: 1950' FSL & 200' FEL Sec 20
Bottomhole Location: 2138' FNL & 411' FWL Sec 21
Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, Kaiser-Francis Oil Company submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

- 1. The geologic surface formation is Quaternary alluvium and other surficial deposits.
- 2. The estimated tops of geologic markers are as follows:

Delaware 4150'
Bone Springs 8000'
TD 8100'

3. We do not anticipate encountering water, and oil and gas formations are as follows:

Delaware

- 4. Proposed Casing Program: See Form 3160-3 and Exhibit A.
- 5. Pressure Control Equipment: See Exhibit B.
- 6. Mud Program: See Exhibit C.
- 7. Auxiliary equipment: Blowout preventer.
- 8. Testing, Logging, and Coring Programs: No DST's are anticipated. Approximately 25 rotary drilled sidewall wireline cores will be taken in various Delaware zones between 5900' to 7900'. Electric logs will consist of a Compensated Neutron/Litho Density w/Gamma Ray and Caliper and a Dual Laterolog. A Mudlogging unit will be used from 4150' to TD.
- 9. No abnormal pressures, no abnormal temperatures and no H2S are expected.
- 10. Anticipated starting date: As soon as possible.

# EXHIBIT A KAISER-FRANCIS OIL COMPANY Pure Gold \*A\* Federal #7 Eddy County, New Mexico

#### SUMMARY

#### Drilling, Casing and Cementing Program

- Drill 17-1/2" hole to 700' and run 13-3/8", 48#, H40 casing. Use guide shoe on bottom joint with a float insert 1 joint above the guide shoe. Run 1 centralizer per joint on bottom 3 joints. Cement with 500 sx Class "C" + 2% CaCl + 1/4 pps Cello Flake lead cement followed by 200 sx Class "C" + 2% CaCl. Drop top plug and displace cement with mud.
- 2. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 600 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 600 psi for 30 minutes.
- 3. Drill 11" hole to 4070' and run a 8-5/8", 32#, J55 casing. Use guide shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and 5 other centralizers. Cement with 800 sx Class C Lite (35:65:6) + 9.5 pps salt + 1/4 pps Celloflake lead cement followed by 200 sx Class C + 1% KCl + 5 pps salt. A Fluid Caliper will be run to determine the exact volume of cement required to circulate cement to the surface.
- 4. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 1000 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 1000 psi for 30 minutes.
- 5. Go in hole with 7-7/8" bit + 6-1/4" x 30' non-magnetic drill collar + (18) 6-1/4" steel drill collar. Drill 7-7/8" hole to KOP of 4200' and survey with non-magnetic instrument at 4200'. POOH for angle building assembly.
- 6. Go in hole with 7-7/8" bit + 6-1/2" slow-speed motor + 1-1/2" bent sub + 6-1/4" x 30' non-magnetic drill collar + 20 steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. Drill with this assembly building approximately 2-1/2 degrees per 100 feet of hole in the proper direction until a maximum angle of 24 degrees 52 minutes is obtained plus or minus to 5195' M.D. POOH for angle holding assembly.
- 7. Go in hole with 7-7/8" bit + 6 point roller reamer + short drill collar + 3 point collar roller reamer + 6-1/4" non-mag drill collar + 3 point roller reamer + 6-1/4" steel drill collar + 3 point roller reamer + (20) 6-1/4" drill collars. Drill hole maintaining 24 degrees and 52 minutes to the TVD depth of 7200'. POOH for angle dropping assembly.

- 8. Go in hole with 7-7/8" bit + 6-1/4" non-magnetic drill collar + 3 point roller reamer + (20) 6-1/4" steel drill collars. Drill the hole dropping at 1-1/2 degrees per 100' deviation to plugs or minus 7200' TVD. At this point you will continue to drill to a TVD depth of 8100'.
- 9. Run 5-1/2\*, 17\*, K55 casing with a stage tool at approximately 6200'. Use a float shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and as required across potential productive intervals. Cement the first stage with 580 sx Class H + additives, and cement the second stage with 690 sx Class C Lite (35:65:6) lead cement followed with 100 sx Class C neat. The exact volume to bring the cement top to 4000' will be determined after logging the well.
- 10. Perforations and stimulation treatments will be determined after running electric logs and setting the 5-1/2" casing.

Form 3160-3 (December 1990)

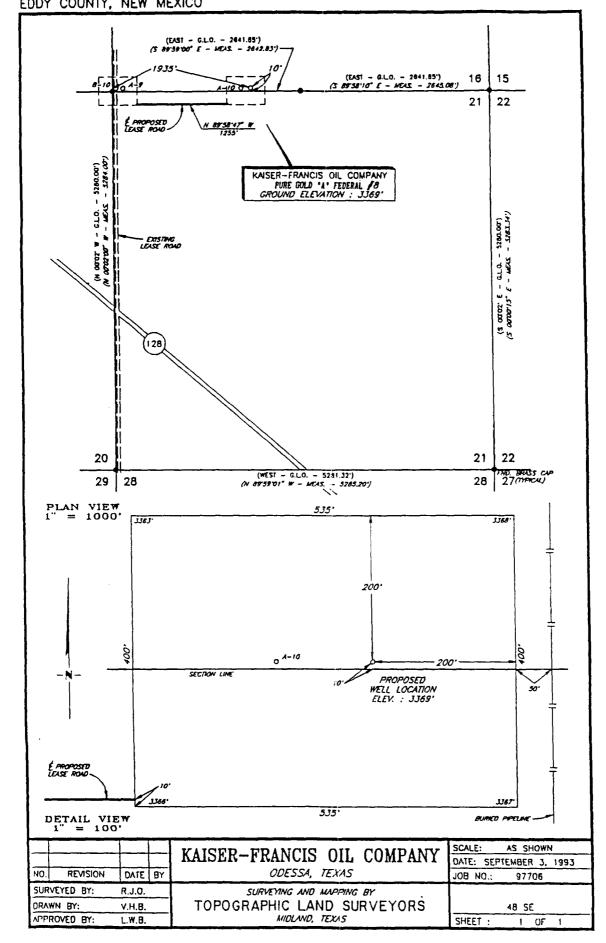
## UNITED STATES DEPARTMENT OF THE INTERIOR

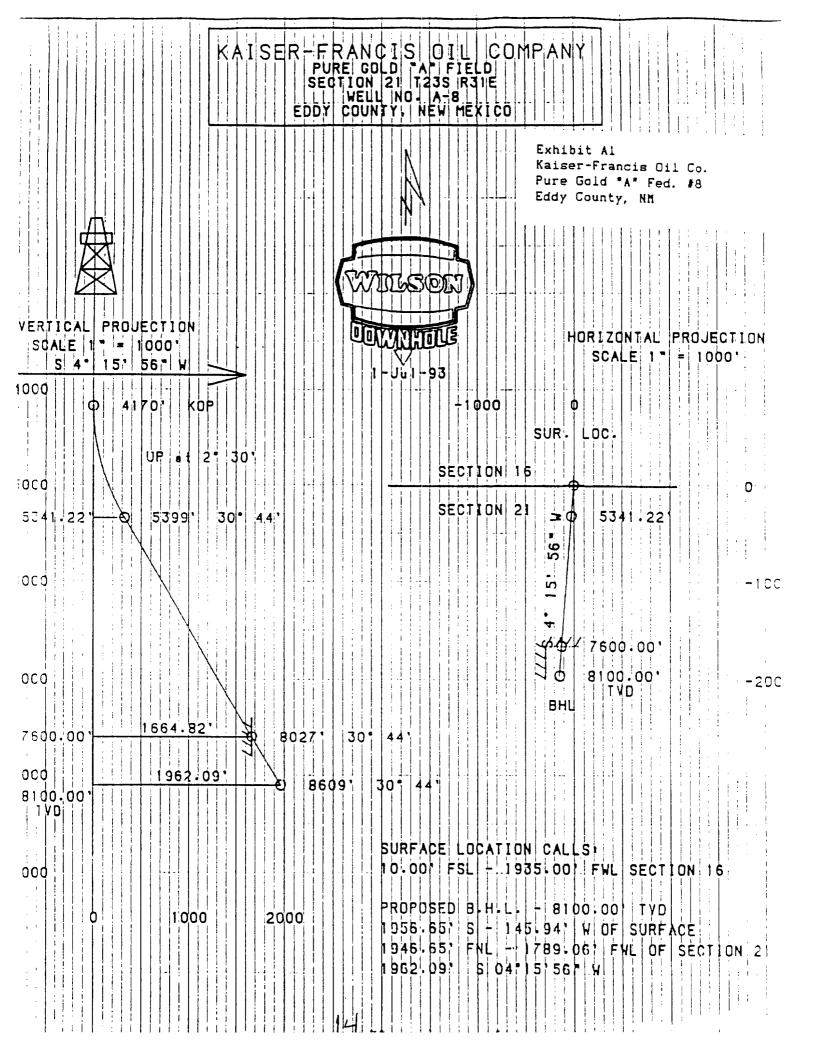
SUBMIT IN TRIPLICATE\*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

DRILL X  OTHER  TIPE OF WELL  OTHER  SINGLE X  MILTIPLE  6. FARMOR LEASHMANT, WELL NO.  Pure Gold A Federal  Raiser-Francis Oil Company  ADDRESS AND TRESPRONDENO.  P.O. Box 21468, Tulsa, Oklahoma 74121-1468  LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)  At nurince  10' FSL & 1935' FWL Sec 16  At proposed prod. sone  1947' FNL & 1789' FWL Sec 21  DINTANCE IN MILES AND DIRECTION FROM MEAREST TOWN OR FOST OFFICE*  17 miles East from Loving  T. UNIT ADERBMENT NAME  8. FARMOR LEASHMANT NAME  18. FRANCE LANGUAGE WELL OF THE STATE  7. UNIT ADERBMENT NAME  8. FARMOR LEASHMANT NAME  10. FIELD AND FOOL, OR WILDCAT  West Sand Dunes  11. SEC., T., S., M., OR BLE., AND BURYST OR AREA  Sec 21, T23S, R31E  12. COUNTY OR FABIST 18. STATE  Eddy NM		DEPARTMENT					G. LEARE DERIGHATION AND BERIAL RO.
DEEPEN DRILL WALL OTHER STORY STATES AND DEEPEN DEEPEN DRILL WALL OTHER STATES AND DEEPEN DEEPEN DRILL WALL OTHER STATES AND DEEPEN DRILL WALL OTHER STATES	·				<del></del>		
DEPEN DESCRIPTION DEEPEN DESCRIPTION DEEPEN	APPLI	CATION FOR PE	RMIT TO D	RILL	OR DEEPEN		U. IF INDIAN, ALLOTTER OR TRIPS NAME
THE OF WALL ON THE SOURCE OF T	TYPE OF WORK	· · · · · · · · · · · · · · · · · · ·	DEFREN	٦			7. UNIT AGEDSMENT NAME
West Sand Dunes  P.O. Box 21468, Tulsa, Oklahoma 74121-1468  P.O. Box 21411, Tulsa, Oklahoma 74121-1468  P.O. Box 21411-1468  P.O. Box 21411, Tulsa, Oklahoma 74121-1468  P.O. Box 21411, Tulsa, Oklah	UK! . TIPE OF WELL	ILL XI	DEEPEN L	ل			The state of the s
PICE Gold A Federal  Raiser-Prancis Oil Company  P.O. Box 21468, Tulsa, Oklahoma 74121-1468  P.O. Box 21468, Tulsa, Oklahoma 74121-1468  10' FSL 6 1935' FWL Sec 16  At prepared free time  10' FSL 6 1935' FWL Sec 16  At prepared free time  1947' FWL 6 1789' FWL Sec 21  PREPARED LOVING  17 miles East from Loving  1789' FWL 6 198' FWL 6 198' FWL 68 70 FWL 6	OIL X					-La 📋	5. FARM OR LEASE HAME, WELL NO.
P.O. Box 21468, Tulsa, Oklahoma 74121-1468  P.O. Box 21468, Tulsa, Oklahoma 74121-1468  10' FSL & 1935' FWL Sec 16  At propered prod. case  1947' FNL & 1789' FWL Sec 21  Sec 21, T23S, R31E  17 miles Bast from Loving  17 miles Bast from Loving  17 miles Bast from Loving  18 propered prod. case  1947' FNL & 1789' FWL Sec 21  Sec 21, T23S, R31E  17 miles Bast from Loving  18 propered prod. case  1947' FNL & 1789' FWL Sec 21  Sec 21, T23S, R31E  18 propered prod. case  19 provided production rates Products  10 provided production rates Products  10 production rates Products  11 production rates Products  12 products  13 products Products  14 products Products  15 products Products  16 products Products  17 products Products  18 products Products  19 products Products  19 products Products  19 products Products  10 products Products Products  11 products Products  12 products Products  12 products Products  13 products Products  14 products Products  15 products Products Products  16 products Products  17 products Products  17 products Products  18 products Products Products Products Products  19 products Products Products  19 products Products Products Products Products  19 products Products Products Products Products Products  10 products Pr	NAME OF OPERATOR	<del></del>	<del>,</del>				Pure Gold A Federal
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DIRTARCÉ PROM PROPOSED LOCATION*   2250'   18. PRUPOSED DEFTH   20. ROTARE DE CABLE TOBLE   22. AFFROX. COMPLETED.   2250'   8100' TVD   ROTARE DE CABLE TOBLE   22. AFFROX. DATE **ORK WILL START   3369'   PROPOSED CASING AND CEMENTING PROGRAM   22. AFFROX. DATE **ORK WILL START   3369'   PROPOSED CASING AND CEMENTING PROGRAM   QUANTITY OF CEMENT   17-1/2   13-3/8   48#   700   700 sacks Circulated   11   9-5/8   32#   4070   1000 sacks Circulated   7-7/8   5-1/2   17#   8100' TVD   1370 sacks tie back @ least   200' into 8-5/8"   Stage tool @ 6200'   200' into 8-5/8"   1. MIRU Rotary.   2. Drill 17-1/2* hole to 700' run & set 13-3/8* surface csg & cmt v/700 sx.   3. Install 3000# BDP & test to 600#.   4. Drill 11* hole to 4070', run & set 8-5/8* intermediate csg & cmt v/1000 sx.   5. Test csg to 1000#.   6. Drill 7-7/8* hole to 8100' TVD & run electric logs.   7. If hydrocarbons are indicated, run & set 5-1/2* csg @ TD v/stage collar at 6200' and cmt lst stage v/580 sx & 2nd stage v/790 sx.   8. RDMO rotary, install vellhead, run cement bond log, perforate and stimulate for production.   ADDVE STACE DESCRIBE PROFOSED PROGRAM: If proposal is to drill recipionally, give princed data on unbusing to locations and measured and true vertical depairs. Give blowood preventer program, If any.	PROPERTY OR LEASE !	INE, FT.	469'		640		•
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### PROPOSED CASING AND CEMENTING PROGRAM  ###################################	ELETATIONS (Show who	ether DF, RT, GR, etc.)			,		22. APPROX. DATE WORK WILL START
### PROPOSED CASING AND CEMENTING PERTH ####################################		· · · · · · · · · · · · · · · · · · ·			·		<u> </u>
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Stage tool @ 6200'  1. MIRU Rotary. 2. Drill 17-1/2" hole to 700' run & set 13-3/8" surface csg & cmt v/700 sx. 3. Install 3000# BOP & test to 600#. 4. Drill 11" hole to 4070', run & set 8-5/8" intermediate csg & cmt v/1000 sx. 5. Test csg to 1000#. 6. Drill 7-7/8" hole to 8100' TVD & run electric logs. 7. If hydrocarbons are indicated, run & set 5-1/2" csg @ TD v/stage collar at 6200' and cmt 1st stage v/580 sx & 2nd stage v/790 sx. 8. RDMO rotary, install vellhead, run cement bond log, perforate and stimulate for production.  NADOVE STACE DESCRIBE PROPOSED PROGRAM: If proposal is to delivered bond log, perforate and stimulate for production.  NADOVE STACE DESCRIBE PROPOSED PROGRAM: If proposal is to delivered bond log, perforate and stimulate for production.  NADOVE STACE DESCRIBE PROPOSED PROGRAM: If proposal is to delivered bond log, perforate and stimulate for production.  NADOVE STACE DESCRIBE PROPOSED PROGRAM: If proposal is to delivered bond log, perforate and stimulate for production.  NADOVE STACE DESCRIBE PROPOSED PROGRAM: If proposal is to delivered bond log, perforate and stimulate for production.  NADOVE STACE DESCRIBE PROPOSED PROGRAM: If proposal is to delivered bond log, perforate and stimulate for production of production and measured and true vertical departs. Give blowout preventer program, If any.  NADOVE STACE DESCRIBE PROPOSED PROGRAM: If proposal is to delivered bond log, perforate and stimulate for productive zone. If proposal is to delivered bond log, perforate and stimulate for delivered bond log, perforate and proposed new productive zone. If proposal is to delivered bond log, perforate and stimulate for delivered log.  NADOVE STACE DESCRIBE PROPOSED PROGRAM: If proposal is to delivered log.  NADOVE STACE DESCRIBE PROPOSED PROGRAM: If proposal is to delivered log.  NADOVE STACE DESCRIBE PROPOSED PROGRAM: If proposal is to delivered log.  NADOVE STACE DESCRIBE PROPOSED PROGRAM: If proposal is to delivered log.  NADOVE STACE DESCRIBE PROPOSED PROGRAM: If proposal is to delivered log.	11	8-5/8	32#		4070	1000	sacks Circulated
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(This appear for Federal or State office use)  PERMIT NO	2. Dri 3. Ins 4. Dri 5. Tes 6. Dri 7. If 620 8. RDM for	ll 17-1/2" hole tall 3000# BOP 8 ll 11" hole to 40 t csg to 1000#. ll 7-7/8" hole t hydrocarbons are 0' and cmt 1st s O rotary, instal. production.	test to 66707, run &o 81007 TVI indicated, stage w/580 l wellhead,	00#. set { D & r run sx { run	3-5/8" intermed Tun electric lo & set 5-1/2" o 2nd stage w/7 cement bond log	diate cangs.  sg @ TD  90 sx.  , perfo	sg & cmt w/1000 sx.  ) w/stage collar at prate and stimulate
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APPROVAL DATE	(This area (as Fall	eral or State office Heal					
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations	Tina space for Fent	TIDE OF SERVE DINCE URF)					
	PERMIT NO.			_	APTROVAL DATE		
CONDITIONS OF AFFROVAL IF ANY:	Application approval docs	not warrant or certify that the app	nlicant holds legal or e	quitable (	ille to those rights in the subje	ct lease which	s would entitle the applicant to conduct operations th
	CONDITIONS OF AFFROYA	L IF ANY:				• •	

kareer Francis Oil Co.
Pure Gold \*A\* Fed. #8
Eddy County, NK





DISTRICT I P. O. Box 1980 Hobbs, NM 88240

DISTRICT II P. O. Drawer DD Artesia, NM 88210

#### OIL CONSERVATION DIVISION P. O. Box 2088 Santa Fe, New Mexico 87504-2088

DISTRICT UI 1000 Rio Brazos Rd Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT All distances must be from the outer boundaries of the section.

Operator KAISE	R - F	RANCI	S DIL	COMPANY	Lease PURE	E GOLD	"ค"	FEDI	ERAL	Well No.
	Section		Township		Range				County	Tank.
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Ground Level Blev.	Produ	ucing Po	rmation		Pool					
3369'			Delawa			st Sand D				40 Acres
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					A STATE OF THE STA	BUSBLE	1	# # O U t.	l ho rell location ras plotte rctual sui rnder my he same	or CERTIFICATION  ereby certify that the on shown on this plat of from field notes of rveys made by me or supervision, and that is true and correct est of my knowledge
	-1935° <del>-</del>		10°		SISTER SOF	ESS OTHER	,,	3 P	ignature as rofessional	TEMBER 3, 1993 and Seel of Surveyor
0 330 660		0 1650	1980 231	0 2640 20	00 1500	1000	500	그 [년	ARRY W.	BUSBY REE !

#### APPLICATION FOR PERMIT TO DRILL KAISER-FRANCIS OIL COMPANY

Pure Gold "A" Federal No. 8

Surface Location: 10' FSL & 1935' FWL Sec 16
Bottomhole Location: 1947' FNL & 1789' FWL Sec 21
Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, Kaiser-Francis Oil Company submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

- The geologic surface formation is Quaternary alluvium and other surficial deposits.
- The estimated tops of geologic markers are as follows:

Delaware 4150'
Bone Springs 8000'
TD 8100'

3. We do not anticipate encountering water, and oil and gas formations are as follows:

#### Delaware

- 4. Proposed Casing Program: See Form 3160-3 and Exhibit A.
- 5. Pressure Control Equipment: See Exhibit B.
- 6. Mud Program: See Exhibit C.
- 7. Auxiliary equipment: Blowout preventer.
- 8. Testing, Logging, and Coring Programs: No DST's are anticipated. Approximately 25 rotary drilled sidewall wireline cores will be taken in various Delaware zones between 5900' to 7900'. Electric logs will consist of a Compensated Neutron/Litho Density w/Gamma Ray and Caliper and a Dual Laterolog. A Mudlogging unit will be used from 4150' to TD.
- 9. No abnormal pressures, no abnormal temperatures and no H2S are expected.
- 10. Anticipated starting date: As soon as possible.

# EXHIBIT A KAISER-FRANCIS DIL COMPANY Pure Gold "A" Federal #8 Eddy County, New Mexico

#### SUMMARY

#### Drilling, Casing and Cementing Program

- Drill 17-1/2" hole to 700' and run 13-3/8", 48#, H40 casing. Use guide shoe on bottom joint with a float insert 1 joint above the guide shoe. Run 1 centralizer per joint on bottom 3 joints. Cement with 500 sx Class "C" + 2% CaCl + 1/4 pps Cello Flake lead cement followed by 200 sx Class "C" + 2% CaCl. Drop top plug and displace cement with mud.
- 2. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 600 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 600 psi for 30 minutes.
- 3. Drill 11" hole to 4070' and run a 8-5/8", 32#, J55 casing. Use guide shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and 5 other centralizers. Cement with 800 sx Class C Lite (35:65:6) + 9.5 pps salt + 1/4 pps Celloflake lead cement followed by 200 sx Class C + 1% KCl + 5 pps salt. A Fluid Caliper will be run to determine the exact volume of cement required to circulate cement to the surface.
- 4. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 1000 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 1000 psi for 30 minutes.
- 5. Go in hole with 7-7/8" bit + 6-1/4" x 30' non-magnetic drill collar + (18) 6-1/4" steel drill collar. Drill 7-7/8" hole to KOP of 4200' and survey with non-magnetic instrument at 4200'. POOH for angle building assembly.
- 6. Go in hole with 7-7/8" bit + 6-1/2" slow-speed motor + 1-1/2" bent sub + 6-1/4" x 30' non-magnetic drill collar + steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. Drill with this assembly building approximately 2-1/2 degrees per 100 feet of hole in the proper direction until a maximum angle of 30 degrees 44 minutes is obtained plus or minus to 5399' M.D. POOH for packed hole assembly.
- 7. Go in hole with 7-7/8\* bit + 6 point roller reamer + short drill collar + 3 point collar roller reamer + 6-1/4\* non-mag drill collar + 3 point roller reamer + 6-1/4\* steel drill collar + 3 point roller reamer + (20) 6-1/4\* drill collars. Drill hole maintaining 30 degrees 44 minutes deviation into the Bone Springs plus or minus 7600' TVD and continue to drill to TD with the same deviation to plus or minus 8100' TVD.

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- 8. Run 5-1/2", 17#, K55 casing with a stage tool at approximately 6200'. Use a float shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and as required across potential productive intervals. Cement the first stage with 580 sx Class H + additives, and cement the second stage with 690 sx Class C Lite (35:65:6) lead cement followed with 100 sx Class C neat. The exact volume to bring the cement top to 4000' will be determined after logging the well.
- 9. Perforations and stimulation treatments will be determined after running electric logs and setting the 5-1/2" casing.

#### Form 3160-3 (December 1990)

### UNITED STATES (Other Instructions on reverse side)

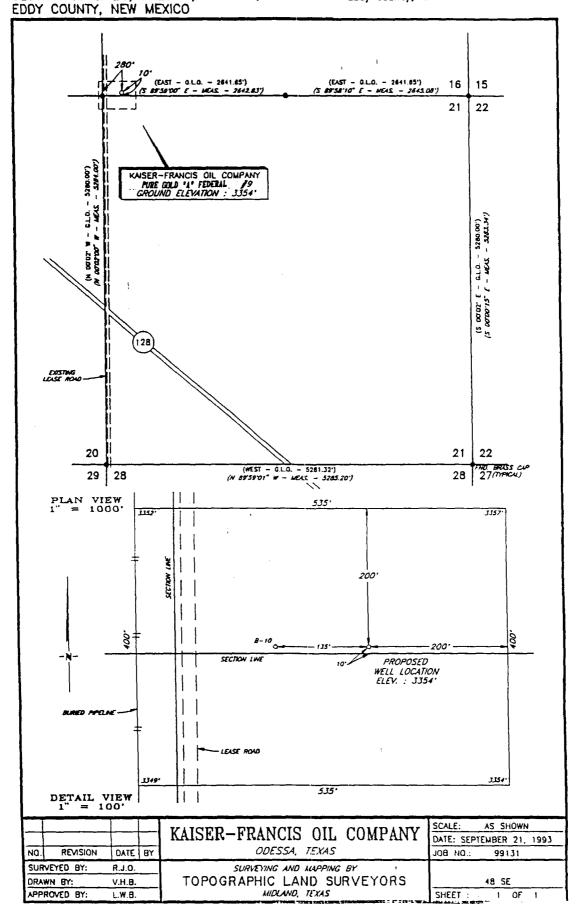
SUBMIT IN TRIPLICATE.

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

	DEPARTMENT	OF THE	NTER	IOR		5. LEASE DESIGNATION		
•	BUREAU OF			_		NM38464	AMP SESIAL RO.	
APPLI	CATION FOR PE	RMIT TO	DRILL	OR DEEPE	N	6. IF INDIAN, ACLOSTES	OR TRISE HAMB	
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•	cis Oil Company					Pure Gold A	rederal	
. ADDRESS AND TELEPIONE NO.	CIS OIL COMPANY					9		
P.O. Box 21	468, Tulsa, Okla	boma 7412	21-146	8		10. FIELD AND POOL	R WILDCAT	
. LOCATION OF WELL (R	eport location clearly and	in accordance wi	th any 8	late requirements.	<del>)</del> .	West Sand D		
At surface 10' FSL 8	280' FWL Sec 1	16				11. #SC., T., B., M., OS	BLK.	
At proposed prod. son						AND SURTES OR A	LBA	
480' FNL	& 480' FWL Sec					Sec 21, T23S	, R31E	
4. DISTANCE IN MILES A	IND DIRECTION FROM NEAR	EST TOWN OR POS	T OFFICE	•		12. COUNTY OR PARISH	18. STATE	
	st from Loving	Eddy	NM					
O. DISTANCE FROM PROPU LOCATION TO REAREST	480		16. NO.	OF ACRES IN LEAS		OF ACRES ASSIGNED		
PROPERTY ON LEASE L (Also to nearest drig	unit line, if any; 400	)'		640		40		
TO PLEASE TRANSPORT OF	MILLIMO, COMPLETED.		10. PR	NTTEG GEDTH	20. RO	TART OR CABLE TOOLS		
OR APPLIED FOR, ON THE		120'	8	100' TVD	<u> </u>	Rotary		
1. ELEVATIONS (Show who	ther DF, RT, GR, etc.)					22, APPROE. DATE W	DEE WILL START"	
J.	<del> </del>	PROPOSED CAS	מאג מאו	CEMENTING PRO	DGRAM			
SIZE OF HOLE	ORADE SIZE OF CASHO	WEIGHT FER I	POOT	SETTING DEPTI	1	EMES TO ITITIAND	HT.	
17-1/2	13-3/8	48#		700	700	0 sacks Circulated		
11	8-5/8	32#		4070	1000	) sacks Circulat	:ed	
7-7/8	5-1/2	17# Stage t	:00l @		TVD 1370	sacks tie back 200' into 8-5/		
2. Dri 3. Ins 4. Dri	U Rotary. 11 17-1/2° hole tall 3000# BOP & 11 11° hole to 40	test to 6	50 <b>0#</b> .			_		
	t csg to 1000#.							
	11 7-7/8° hole t							
	hydrocarbons are		-		-	-	r at	
	0' and cmt 1st a	•		-				
	O rotary, instal	T AGTIVESQ'	, דעה (	sement bond	log, peri	orate and stimu!	ese	
TOL	production.							
N AROVE SPACE ひじらだせい	ne proposed program: 16	removable to decom	n sive dass	on mesent araduation	e tone and proce	need new nonductive zone. If	nconosal la to delli o	
keepen directionally, give pen	inent data on subsurface locatio						F. Special 10 00111 0	
اا.		,					. ,	
RIGNED	ton chiffe	7	1T1.E	Operations	Engineer	DATE	12/93	
(This space for Fede	rrai or State office use)					<del></del>		
PERMIT NO				APPROVAL DATE				
Application approval does	not warrant or certify that the ap-	plicant holds legal or	equitable ti	tle to those rigids in the	subject lesse which	th would entitle the applicant to	conduct operations the	
CONDITIONS OF APPROVA			-	<b>.</b>	-	••	•	
					••			

\_ DATE \_

Exhibit E
Kaiser-Francis Oil Co.
Pure Gold \*A\* Fed. #9
Eddy County, NM



	RHFRANGISHOILH-COMPANY PURE GOLD "A" FIELD SECTION 21 T235 R31E
VERTICAL PROJECTION	EDDA CONTAN NEM WEXICO
SCALE 1 - 500	HORIZONTAL BROJECTION
4000 φ 4200° KDP SUR-	SCALE 1 = 100
4500 UP at 2° 30	D 200 300 400 SECTION 16 0
4731.781-04737! 131.25!	SECTION 21
5000	Exhibit A1  Kaiser-Francis Oil Co. Pure Gold "A" Fed. #9 Eddy County, NM
5500 WILSON	200-
\$300 24-Sep-93	300
£200.00 412'.78" - 6300'- 13 25'	
6500	0 6200.00 -4D0
DOWN a 1 1 30	Φ 7158.29
7300	= <del> </del>
7138.29 529.43	BHL BHL
7500	-600-
	SURFACE LOCATION CALLS
	PROPOSED BEHELT - BIDOLOG TVD
8000 529.431 0 8156 0100 TVD 0 500 1000	PROPOSED B.H.L BIDO. DO! TVD 490.17' SDUTH - 200.07' EAST OF SURF. 480.17' FNL - 480.07' FNL OF SECTION 21 529.43' S 22'12'13' E

DISTRICT [ P. O. Box 1980 Hobbs, NM 88240

DISTRICT II
P. O. Drower DD
Artesia, NM 88210

### OIL CONSERVATION DIVISION P. O. Box 2088 Santa Fe, New Mexico 87504-2088

DISTRICT III
1000 Rio Brozos Rd
Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT
All distances must be from the outer boundaries of the section.

perato	ar			05145 4145	Lease			Well No.
	KAIS	ER - FRAN	CIZ DIL	COMPANY	PURE C	COLD "A	FEDERAL	9
nit La		Section	Township		Range		County	
	M	16		23 SOUTH	31 E	AST, N.M.P.L	4. i	EDDY
		ocation of Well	CAI		. 000			ECT
	O Level Ele	feet from the	SOUTH Formation	line	Pool 280	f	eet from the	EST line
	354"							Acr
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	<u></u> <u></u>						Signature Signature Printed No Militar Position Cpera	te to the best or ge and belief.
		Ind acre		tion. 488' icated to t	FNL a 480'		<u>Genabe</u>	YOR CERTIFICATIO
				;	A PER STATE OF THE PER	BUSON &	well local was plot actual sunder mathematical same the same actual same the same actual s	hereby certify that intion shown on this parties from field notes urveys made by meanly supervision, and the is true and combest of my knowleder.
280	יי ז' לע	: : :		; ; ; ;	151816 S.C. S.C. S.C. S.C. S.C. S.C. S.C. S.C	SI 9 HAR	Signature	and Seal of al Surveyor
<i>&gt;</i>								
								BUSBY R.P.S. #1

#### APPLICATION FOR PERMIT TO DRILL KAISER-FRANCIS GIL COMPANY Pure Gold "A" Federal No. 9

Surface Location: 10' FSL & 280' FWL Sec 16 Bottomhole Location: 480' FNL & 480' FWL Sec 21 Eddy County, New Mexico

Ir conjunction with Form 3160-3, Application for Permit to Drill, Kaiser-Francis Oil Company submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

- 1. The geologic surface formation is Quaternary alluvium and other surficial deposits.
- The estimated tops of geologic markers are as follows:

Delaware 4150'
Bone Springs 8000'
TD 8100'

3. We do not anticipate encountering water, and oil and gas formations are as follows:

Delaware

- 4 Proposed Casing Program: See Form 3160-3 and Exhibit A.
- 5 Pressure Control Equipment: See Exhibit B.
- 5 Mud Program: See Exhibit C.
- 7. Auxiliary equipment: Blowout preventer.
- 8 Testing, Logging, and Coring Programs: No DST's are anticipated. Approximately 25 rotary drilled sidewall wireline cores will be taken in various Delaware zones between 5900' to 7900'. Electric logs will consist of a Compensated Neutron/Litho Density w/Gamma Ray and Caliper and a Dual Laterolog. A Mudlogging unit will be used from 4150' to TD.
- No abnormal pressures, no abnormal temperatures and no H2S are expected.

1 ...

10. Anticipated starting date: As soon as possible.

## EXHIBIT A KAISER-FRANCIS DIL COMPANY Pure Gold "A" Federal #9 Eddy County, New Mexico

#### SUMMARY

#### Drilling, Casing and Cementing Program

- 1. Drill 17-1/2" hole to 700' and run 13-3/8", 48#, H40 casing. Use guide shoe on bottom joint with a float insert 1 joint above the guide shoe. Run 1 centralizer per joint on bottom 3 joints. Cement with 500 sx Class "C" + 2% CaCl + 1/4 pps Cello Flake lead cement followed by 200 sx Class "C" + 2% CaCl. Drop top plug and displace cement with mud.
- 2. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 600 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 600 psi for 30 minutes.
- 3. Drill 11" hole to 4070' and run a 8-5/8", 32#, J55 casing. Use guide shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and 5 other centralizers. Cement with 800 sx Class C Lite (35:65:6) + 9.5 pps salt + 1/4 pps Celloflake lead cement followed by 200 sx Class C + 1% KCl + 5 pps salt. A Fluid Caliper will be run to determine the exact volume of cement required to circulate cement to the surface.
- 4. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 1000 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 1000 psi for 30 minutes.
- 5. Go in hole with 7-7/8" bit + 6-1/4" x 30' non-magnetic drill collar + (18) 6-1/4" steel drill collar. Drill 7-7/8" hole to KOP of 4200' and survey with non-magnetic instrument at 4200'. POOH for angle building assembly.
- 6. Go in hole with 7-7/8° bit + 6-1/2° slow-speed motor + 1-1/2° bent sub + 6-1/4° x 30' non-magnetic drill collar + 20 steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. Drill with this assembly building approximately 2-1/2 degrees per 100 feet of hole in the proper direction until a maximum angle of 13 degrees 25 minutes is obtained plus or minus to 4737' M.D. POOH for angle holding assembly.
- 7. Go in hole with 7-7/8" bit + 6 point roller reamer + short drill collar + 3 point collar roller reamer + 6-1/4" non-mag drill collar + 3 point roller reamer + 6-1/4" steel drill collar + 3 point roller reamer + (20) 6-1/4" drill collars. Drill hole maintaining 10 degrees and 48 minutes to the TVD depth of 6200'. POOH for angle dropping assembly.

- 8. Go in hole with 7-7/8" bit + 6-1/4" non-magnetic drill collar + 3 point roller reamer + (20) 6-1/4" steel drill collars. Drill the hole dropping at 1-1/2 degrees per 100' deviation into the Bone Spring plus or minus 7138.29' TVD. At this point you will be vertical and you will continue to drill to a TVD of 8100'.
- 9. Run 5-1/2\*, 17\*, K55 casing with a stage tool at approximately 6200'. Use a float shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and as required across potential productive intervals. Cement the first stage with 580 sx Class H + additives, and cement the second stage with 690 sx Class C Lite (35:65:6) lead cement followed with 100 sx Class C neat. The exact volume to bring the cement top to 4000' will be determined after logging the well.
- 10. Perforations and stimulation treatments will be determined after running electric logs and setting the 5-1/2" casing.

Form 3160-3 (December 1990)

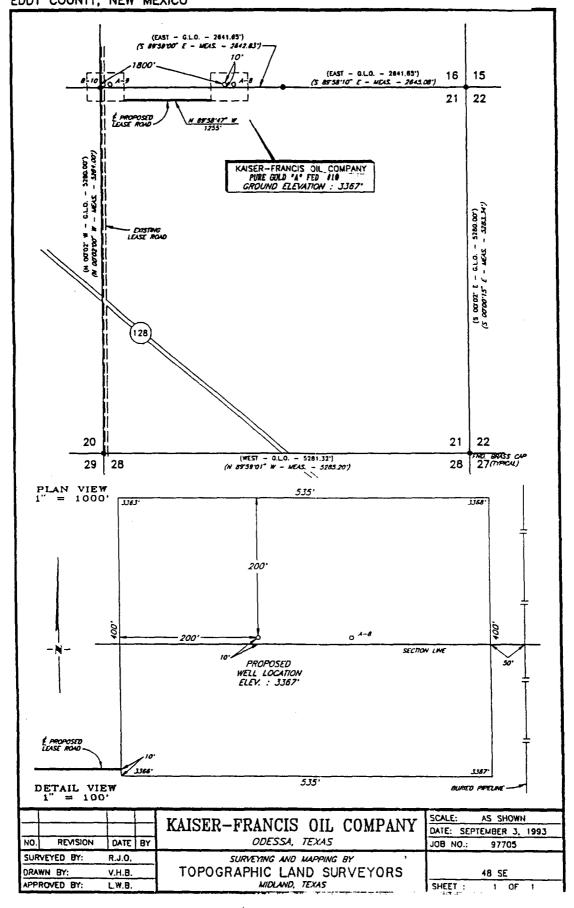
## UNITED STATES DEPARTMENT OF THE INTERIOR

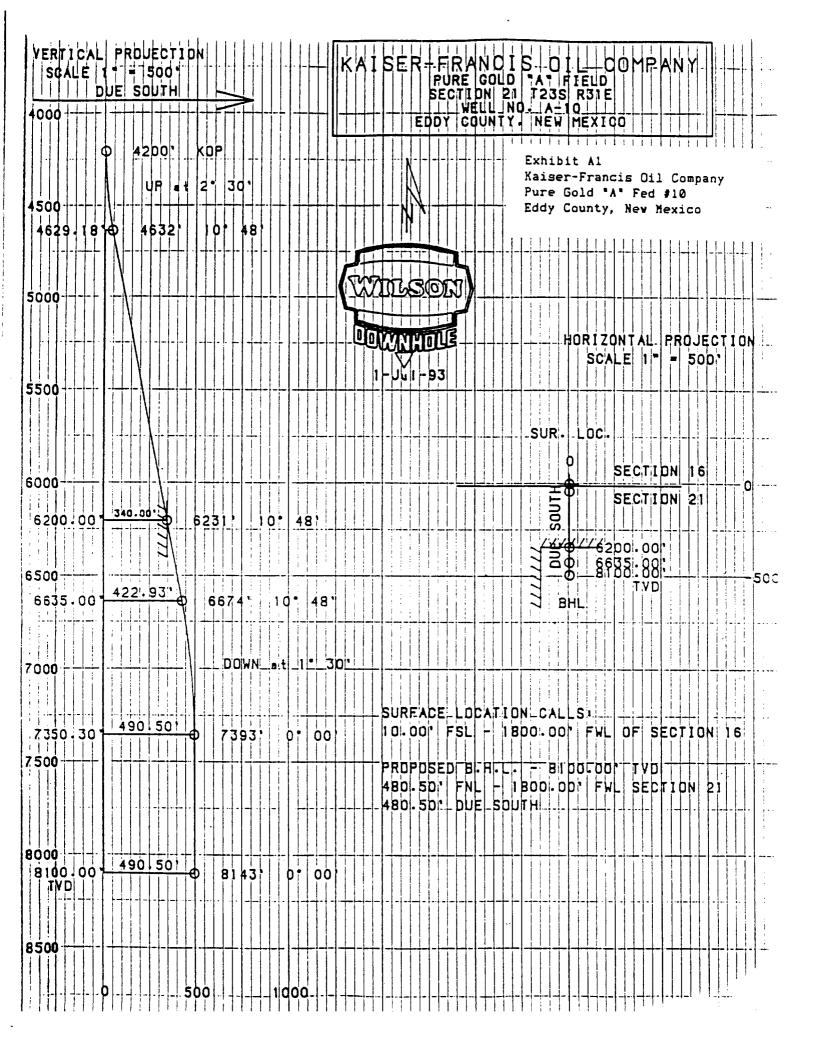
SUBMIT IN TRIPLICATE\*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

•	5. LEASE DESIGNATION AND BERIAL NO.								
		NM38464							
APPL	G. IF INDIAN, ALLOTTER OR TRIBE NAME								
. TIPE OF WORK	ILL X	DEEPEN [	٦			7. UNIT AGREEMENT NAME			
UK . Tipe of Well	ILL (X)	DEEPEN							
OIL X	VELL OTHER		HOLE X MULTIPE	• 🗆	8. FARM OR LEASE HAME WELL NO.				
MAME OF OPERATOR						Pure Gold A Federal			
Kaiser-F		9. AN WELL NO.							
P.O. BOX		10							
LOCATION OF WELL (F		10. PIBLE AND POOL, OR WILDCAT							
At surface		West Sand Dunes							
Surface: At proposed prod. so	10' FSL & 1800	. LMT Sec I	.0		İ	AND SURVEY OR AREA			
• •	le: 480' FNL &		Sec 21, T23S, R31E						
	AND DIRECTION FROM HEA					12. COUNTY OR PARIET   18. STATE			
	East from Lovin	g				Eddy NM			
LOCATION TO MEARES	oued- it Line, st. 480° BHL ig. unit line, if any 4					OF ACRES ASSIGNED TILLS WELL			
		80' BHL	640			40			
DISTANCE FROM PRO TO MEARRST WELL, I OR APPLIED FOR, ON TE	DRILLING, COMPLETED.	800'	19. PROPOSED DEPTH 20. ROT			TARY OR CABLE TOOLS			
	nether DF, RT, GR, etc.)	800	<u> </u>	8100' TVD	I R	OTATY 22. APPROX. DATE WORK WILL START			
3367' GL									
3307 GB_		PROPOSED CASI	ING AN	D CEMENTING PROGRA	4				
SIZE OF HOLE	ORADE, SIZE OF CASING	WEIGHT PER P		SETTING DEPTH	1	QUANTITY OF CEMENT			
17-1/2	13-3/8	48#	700		700 sacks circulated				
11	8-5/8	32#		4070	1	) sacks circulated			
7-7/8	5-1/2	17#		8100' TVD   1370 sacks tie back @ least 2' into 8-5/8"					
3. Insta 4. Drill 5. Test 6. Drill 7. If hy 6200 8. RDMO produ	Rotary.  1 17-1/2" hole to all 3000# BOP & l 11" hole to 40 csg to 1000#.  1 7-7/8" hole to ydrocarbons are and cmt 1st st rotary, install action.	test to 600 170', run & 18100' TVD, indicated, age w/580 s wellhead,	#. set   set	et 13-3/8" surfa 8-5/8" intermed: un electric log: & set 5-1/2" csc 2nd stage w/790 cement bond log	iate cs  i @ TD  sx.  perfo	& cmt w/700 sx.  If & cmt w/1000 sx.  W/stage collar at crate and stimulate for discovered to design to design. If proposal is to design the collar it any.			
	71 C.11	T:	T1.E	Operations Eng	ineer	10-8-93			
RIGNED GIFFEL	ten criffer								
Signer (This space for Fed	ieral or State office une)				<del></del>				
810XED 97/11	leral or State office use)			APPROVAL DATE					

Exhibit E Kaiser-Francis Oil Company Pure Gold "A" Fed #10 Eddy County, New Mexico





### State of New Mexico Energy, Minerals, and Natural Resources Department

Form C-102 Revised 1-1-89

DISTRICT I P. C. Box 1980 Hobbs, NM 88240

DISTRICT II
P. O. Drawer DD Artesia, NM 88210

#### OIL CONSERVATION DIVISION P. O. Box 2088 Santa Fe, New Mexico 87504-2088

DISTRICT III 1000 Rio Brazos Rd Aztec, NM 87410

### WELL LOCATION AND ACREAGE DEDICATION PLAT All distances must be from the outer boundaries of the section.

Letter	Section	Township	Range			County	10
N Postage	ocation of Well	23 SC	DUTH	31 EAST, N	(.M.P.M.	EI	DY
10	feet from the	SOUTH	line and	1800	feet from t	the WEST	line
nd Level El			Pool				
3367'		aware		West Sand	-		40 Acre
		dedicated to the ase is dedicated					
	rorking interest		to the well, o	ucine euch u	no locatiny the	ownership tr	iereoi (both as
3. If m	ore than one le	ase of different (	ownership is de	edicated to th	e well, have th	e Interest of	all the owners
	Yes 🗌 No	y communitizatio If answer	n, unitization, is "yes", type	rorcea—pooiin e of consoli	g, etc.: dation	<del></del>	
if th	e answer is "no	o", list the owner this form if nec	s and tract d			ally been con	solidated. (Use
No	allowable will be	assigned to the	well until all	interests hav	e been consol	idated (by c	ommunitization,
		ooling, or otherw	ise) or until a	non-standar	d unit, eliminat	ing such inte	erest, has been
- пррг	roved by the div	nsion.					
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		dedicated is			S.R31F		ns Engineer
				]		Company Kaiser-F	rancis Oil Co
•	į	į			-	Date	
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	-1800'			!	1 [	Caruficate No.	

#### APPLICATION FOR PERMIT TO DRILL KAISER-FRANCIS OIL COMPANY Pure Gold "A" Federal No. 10

Surface Location: 10' FSL & 1800' FWL Sec 16
Bottomhole Location: 480' FNL & 1800' FWL Sec 21
Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, Kaiser-Francis Oil Company submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

- The geologic surface formation is Quaternary alluvium and other surficial deposits.
- 2. The estimated tops of geologic markers are as follows:

Delaware 4150'
Bone Springs 8000'
TD 8100'

3. We do not anticipate encountering water, and oil and gas formations are as follows:

#### Delaware

- 4. Proposed Casing Program: See Form 3160-3 and Exhibit A.
- 5. Pressure Control Equipment: See Exhibit B.
- 6. Mud Program: See Exhibit C.
- 7. Auxiliary equipment: Blowout preventer.
- 8. Testing, Logging, and Coring Programs: No DST's are anticipated. Approximately 25 rotary drilled sidewall wireline cores will be taken in various Delaware zones between 5900' to 7900'. Electric logs will consist of a Compensated Neutron/Litho Density w/Gamma Ray and Caliper and a Dual Laterolog. A Mudlogging unit will be used from 4150' to TD.
- 9. No abnormal pressures, no abnormal temperatures and no H2S are expected.
- 10. Anticipated starting date: As soon as possible.

## EXHIBIT A KAISER-FRANCIS DIL COMPANY Pure Gold "A" Federal #10 Eddy County, New Mexico

#### SUMMARY

#### Drilling, Casing and Cementing Program

- 1. Drill 17-1/2" hole to 700' and run 13-3/8", 48#, H40 casing. Use guide shoe on bottom joint with a float insert 1 joint above the guide shoe. Run 1 centralizer per joint on bottom 3 joints. Cement with 500 sx Class "C" + 2% CaCl + 1/4 pps Cello Flake lead cement followed by 200 sx Class "C" + 2% CaCl. Drop top plug and displace cement with mud.
- 2. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 600 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 600 psi for 30 minutes.
- 3. Drill 11° hole to 4070' and run a 8-5/8°, 32\*, J55 casing. Use guide shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and 5 other centralizers. Cement with 800 sx Class C Lite (35:65:6) + 9.5 pps salt + 1/4 pps Celloflake lead cement followed by 200 sx Class C + 1% KCl + 5 pps salt. A Fluid Caliper will be run to determine the exact volume of cement required to circulate cement to the surface.
- 4. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 1000 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 1000 psi for 30 minutes.
- 5. Go in hole with 7-7/8" bit + 6-1/4" x 30' non-magnetic drill collar + (18) 6-1/4" steel drill collar. Drill 7-7/8" hole to KOP of 4200' and survey with non-magnetic instrument at 4200'. POOH for angle building assembly.
- 6. Go in hole with 7-7/8" bit + 6-1/2" slow-speed motor + 1-1/2" bent sub + 6-1/4" x 30' non-magnetic drill collar + 20 steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. Drill with this assembly building approximately 2-1/2 degrees per 100 feet of hole in the proper direction until a maximum angle of 10 degrees 48 minutes is obtained plus or minus to 6231' M.D. POOH for angle holding assembly.
- 7. Go in hole with 7-7/8" bit + 6 point roller reamer + short drill collar + 3 point collar roller reamer + 6-1/4" non-mag drill collar + 3 point roller reamer + 6-1/4" steel drill collar + 3 point roller reamer + (20) 6-1/4" drill collars. Drill hole maintaining 10 degrees and 48 minutes to the TVD depth of 6674'. POOH for angle dropping assembly.

- 8. Go in hole with 7-7/8" bit + 6-1/4" non-magnetic drill collar + 3 point roller reamer + (20) 6-1/4" steel drill collars. Drill the hole dropping at 1-1/2 degrees per 100' deviation into the Bone Spring plus or minus 7350.30' TVD. At this point you will be vertical and you will continue to drill to a TVD of 8100'.
- 9. Run 5-1/2\*, 17\*, K55 casing with a stage tool at approximately 6200'. Use a float shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and as required across potential productive intervals. Cement the first stage with 580 sx Class H + additives, and cement the second stage with 690 sx Class C Lite (35:65:6) lead cement followed with 100 sx Class C neat. The exact volume to bring the cement top to 4000' will be determined after logging the well.
- 10. Perforations and stimulation treatments will be determined after running electric logs and setting the 5-1/2" casing.

Form 3160-3 (December 1990)

APROVED BY \_\_\_

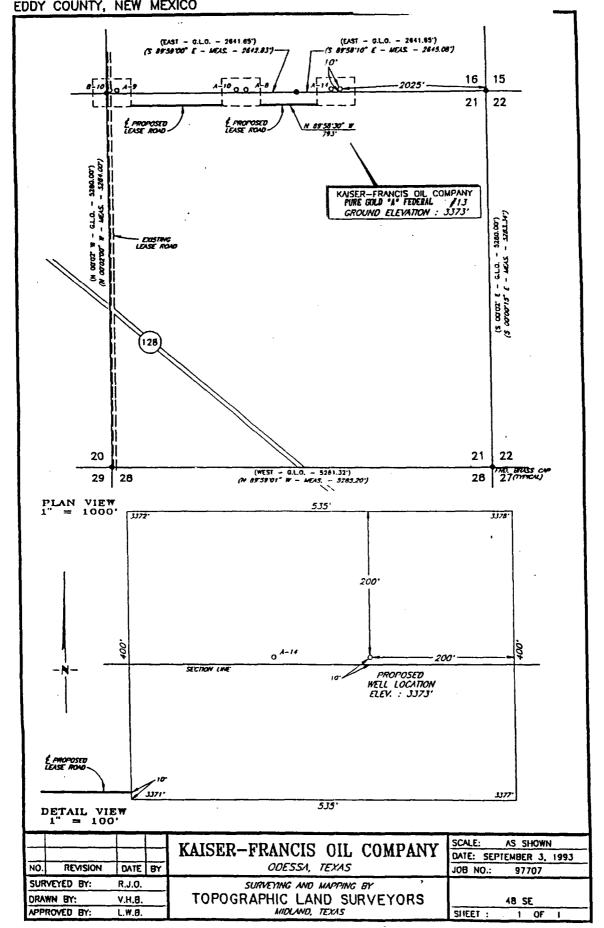
### UNITED STATES (Other Innervet reverse ald

SUBMIT IN TRIFLICATE\*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

		DEPARTMENT	_		_	· I	G. LEASE DEGIGNAT	OR AND BESIAL RO.
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AF	PLI	<b>CATION FOR PI</b>	ERMIT TO	DRILL	OR DEEPEN		O. IF INDIAN, ALLOT	TES OR TRISE HAME
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. HAME OF OFERA		<u> </u>	<del></del>				Pure Gold	A Federal
Kaiser-	Fran	cis Oil Company					9. AT WELLHO.	· · · · · · · · · · · · · · · · · · ·
ADDRESS AND TELETIS	OHE HO.	•					13	
P.O. Bo	x 21	468, Tulsa, Okla	ahoma 741	21-146	8		10. FIELD AND POO	L, OR WILDCAT
At nuriace	10'	eport location clearly and FSL & 2025' FEI		ith any 8	Late requirements.*)		West Sand	OR BLE.
At proposed pro		* 2' FNL & 2176' F	FT. Sec 21				C 31 m3	20 5215
I. DIRTANCE IN D		AND DIRECTION FROM HEAD			•		Sec 21, T2	
17 mile	s Ea	st from Loving						
DISTANCE FROM	PROPU	18EP* 20121		18. NO	. OF ACRES IN LEASE		F ACRES ASSIGNED	l NM
PROPERTY OR L	.EARS L		92'		<i>r</i>	TOT	HIE WELL	
DISTANCE PROS	reor	OREN LOCATION*		10. rn	540 OFORED DEFTH	20. ROTA	AT OR CABLE TOOLS	<del></del>
TO NEAREST W OR APPLIED FOR,		RILLING, COMPLETED, IN LEADE, PT.	2860'	ء ا	200' TVD		Rotary	
. ELEVATIONS (Sb	ow wh	ether DF, RT, GR, etc.)			7200 110	<del>'</del>		WORK WILL START
		•			•			
•			PROPOSED CA	SING AND	CEMENTING PROGRAM	ı		
SIZE OF MOLI	 5	GRADIT STATE OF CARING	WEIGHT PER	FOOT	SETTING DEPTH		QUANTITY OF C	EMERT
17-1/2		13-3/8	48#		700	700	sacks Circul	ated
11		8-5/8	32#		4070	1000	sacks Circul	ated
7-7/8		5-1/2	17#		8200' TVD	1370	sacks tie ba	ck @ least
		, -, -	1				200' into 8-	
_			Stage	toot a	1 62007			•
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2. 3.		11 17-1/2* hole tall 3000# BOP			set 13-3/8" suri	ace ca	ig & cmt w//V	00 sx.
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6.		11 7-7/8" hole	to 8100' T	VD & r	un electric loc	R.		
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		production.			<b>-</b>	•		-
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	ive pen	inent data on subsurface location	ers and measured an	d true vertic	al depths. Give blowout preven	ster program	ı, IC any.	
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PERMIT NO.		<del></del>			APPROVAL DATE			
Application appro-		not warrant or certify that the ap	plicant holds legal o	r equitable ti	tle to those rights in the subject,	lease which	would entitle the applicas	et to conduct operations th

Kaiser-Francis Oil Co.
Pure Gold "A" Fed. #13
Eddy County, NM



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DISTRICT [ P. O. Box 1980 Hobbs, NM 88240

P. O. Drawer DO Artesia, NM 88210

### OIL CONSERVATION DIVISION P. 0. Box 2088 Santa Fe, New Mexico 87504-2088

DISTRICT III 1000 Rio Brazos Rd Aztec NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

	7410 All	distances must b	e from the out	er boundaries of th	e section.	
Operator KAIS	ER - FRANC	IS DIL COMPAN	Y Lease Pui	RE GOLD "A"	<del></del>	Weu No. 13
Unit Letter	Section	Township	Range	PACT VID I	County	EDDA
O Actual Footage 1	16	23 5007	n 31	EAST, N.M.P.M.		EDDY
10		SOUTH 1	20	25 feet (	rom the E/	IST line
Ground Level Ble	feet from the		Pool		rom the Er	
3373'	Delaw		We	st Sand Dunes		40 Acres
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		dedicated to t				n Griffin
		4 Sec 21, T23S			Company Kaise	r-Francis Oil Co.
						OR CERTIFICATION
RIG	WF 50 2 80 WF 50 20 W				well locat was plott actual su under my the same	nereby certify that the tion shown on this plat ed from field notes of arveys made by me or supervision, and that e is true and correct lest of my knowledge f.
Sire	AROFESS VOTES			 	<del> </del>	TEMBER 3, 1993
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					LARRY W.	BUSBY R.P.S. #11398
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#### APPLICATION FOR PERMIT TO DRILL KAISER-FRANCIS OIL COMPANY Pure Gold "A" Federal No. 13

Surface Location: 10' FSL & 2025' FEL Sec 16
Bottomhole Location: 1951' FNL & 2171' FEL Sec 21
Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, Kaiser-Francis Oil Company submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

- 1. The geologic surface formation is Quaternary alluvium and other surficial deposits.
- 2. The estimated tops of geologic markers are as follows:

Delaware 4150'
Bone Springs 8000'
TD 8200'

3. We do not anticipate encountering water, and oil and gas formations are as follows:

#### Delaware

- 4. Proposed Casing Program: See Form 3160-3 and Exhibit A.
- 5. Pressure Control Equipment: See Exhibit B.
- 6. Mud Program: See Exhibit C.
- 7. Auxiliary equipment: Blowout preventer.
- 8. Testing, Logging, and Coring Programs: No DST's are anticipated. Approximately 25 rotary drilled sidewall wireline cores will be taken in various Delaware zones between 5900' to 7900'. Electric logs will consist of a Compensated Neutron/Litho Density w/Gamma Ray and Caliper and a Dual Laterolog. A Mudlogging unit will be used from 4150' to TD.
- 9. No abnormal pressures, no abnormal temperatures and no H2S are expected.
- 10. Anticipated starting date: As soon as possible.

## EXHIBIT A KAISER-FRANCIS OIL COMPANY Pure Gold "A" Federal #13 Eddy County, New Mexico

#### SUMMARY

#### Drilling, Casing and Cementing Program

- Drill 17-1/2" hole to 700' and run 13-3/8", 48#, H40 casing. Use guide shoe on bottom joint with a float insert 1 joint above the guide shoe. Run 1 centralizer per joint on bottom 3 joints. Cement with 500 sx Class "C" + 2% CaCl + 1/4 pps Cello Flake lead cement followed by 200 sx Class "C" + 2% CaCl. Drop top plug and displace cement with mud.
- 2. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 600 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 600 psi for 30 minutes.
- 3. Drill 11\* hole to 4070' and run a 8-5/8\*, 32\*, J55 casing. Use guide shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and 5 other centralizers. Cement with 800 sx Class C Lite (35:65:6) + 9.5 pps salt + 1/4 pps Celloflake lead cement followed by 200 sx Class C + 1% KCl + 5 pps salt. A Fluid Caliper will be run to determine the exact volume of cement required to circulate cement to the surface.
- 4. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 1000 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 1000 psi for 30 minutes.
- 5. Go in hole with 7-7/8" bit + 6-1/4" x 30' non-magnetic drill collar + (18) 6-1/4" steel drill collar. Drill 7-7/8" hole to KOP of 4200' and survey with non-magnetic instrument at 4200'. POOH for angle building assembly.
- 6. Go in hole with 7-7/8" bit + 6-1/2" slow-speed motor + 1-1/2" bent sub + 6-1/4" x 30' non-magnetic drill collar + steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. Drill with this assembly building approximately 2-1/2 degrees per 100 feet of hole in the proper direction until a maximum angle of 31 degrees 05 minutes is obtained plus or minus to 5443' N.D. POOH for packed hole assembly.
- 7. Go in hole with 7-7/8" bit + 6 point roller reamer + short drill collar + 3 point collar roller reamer + 6-1/4" non-mag drill collar + 3 point roller reamer + 6-1/4" steel drill collar + 3 point roller reamer + (20) 6-1/4" drill collars. Drill hole maintaining 31 degrees and 05 minutes deviation plus or minus 7600' TVD and continue to drill to TD with the same deviation to plus or minus 8200' TVD.

. .

- 8. Run 5-1/2", 17#, K55 casing with a stage tool at approximately 6200'. Use a float shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and as required across potential productive intervals. Cement the first stage with 580 sx Class H + additives, and cement the second stage with 690 sx Class C Lite (35:65:6) lead cement followed with 100 sx Class C neat. The exact volume to bring the cement top to 4000' will be determined after logging the well.
- 9. Perforations and stimulation treatments will be determined after running electric logs and setting the 5-1/2° casing.

Form 3160-3 (December 1990)

### UNITED STATES DEPARTMENT OF THE INTERIOR

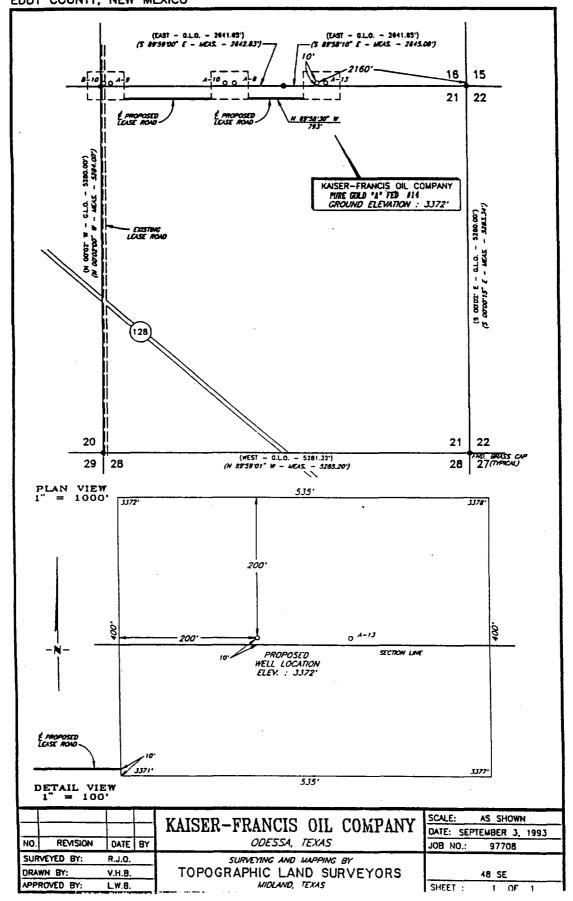
SUBMIT IN TRIPLICATE\*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

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11	8-5/8	32#		4070	1	000 sacks circulated
7-7/8	5-1/2	17#		8100 TVD	1	370 sacks tie back @ least 200' into 8-5/8"
Install 30 Drill 11" Test csg t Drill 7-7/ If hydroca	/2" hole to 700' 00# BOP & test thole to 4070', ro 1000#. '8" hole to 8100' rbons are indicath stage w/850 sx y, install wellh	o 600#. un & set 8- TVD & run ted, run & & 2nd stag	-5/8" elec set ge w/	intermediate c tric logs. 5-1/2" csg & TD 790 sx.	sg & cr w/stag	, in the second

PLAT SHOWING PROPOSED
WELL LOCATION AND LEASE ROAD IN
SECTION 16 & 21, T-23-S, R-31-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

Exhibit E
Kaiser-Francis Oil Company
Pure Gold "A" Fed #14
Eddy County, New Hexico



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DISTRICT | P. O. Box 1980 Hobbs, NM 88240

P. O. Drawer DD Artesia, NM 88210

### OIL CONSERVATION DIVISION P. 0. Box 2088 Santa Fe, New Mexico 87504-2088

DISTRICT III
1000 Rio Brozos Rd
Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT All distances must be from the outer boundaries of the section.

KAISER - FR	ANCIS DIL COMPANY	PURE GOL	D "A" FED	14
Unit Letter Section 1	Township	Range O. BAST N.W.	County	EDDY
O 10 Actual Pootage Location of Wei		31 EAST, N.M.	r.m.	EDDY
10 feet from	the SOUTH line an	4 2160	feet from the EAS	T line
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to working intere	est and royalty).	•		,
3. If more than one been consolidate	e lease of different ownershiped by communitization, unitiz	i is dedicated to the wation. Forced—pooling, e	ell, have the interest : etc.?	of all the owners
C Yes C	ed by communitization, unitiz No If answer is "yes"	, type of consolidation	on	
	"no", list the owners and to of this form if neccessary.		nave actually been c	onsolidated. (Use
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approved by the	d division.	antii d non-stangara di	nit, eiimingting such ir	iterest, nas been
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NE/4 Sec 21	, T235, R31E	ļ	Data Kalser-	Francis Oil Co.
		•	October	8, 1993
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#### APPLICATION FOR PERMIT TO DRILL KAISER-FRANCIS OIL COMPANY Pure Gold "A" Federal No. 14

Surface Location: 10' FSL & 2160' FEL Sec 16
Bottomhole Location: 480' FNL & 2160' FEL Sec 21
Eddy County, New Mexico

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- 1. The geologic surface formation is Quaternary alluvium and other surficial deposits.
- 2. The estimated tops of geologic markers are as follows:

Delaware 4150'
Bone Springs 8000'
TD 8100'

3. We do not anticipate encountering water, and oil and gas formations are as follows:

#### Delaware

- 4. Proposed Casing Program: See Form 3160-3 and Exhibit A.
- 5. Pressure Control Equipment: See Exhibit B.
- 6. Mud Program: See Exhibit C.
- 7. Auxiliary equipment: Blowout preventer.
- 8. Testing, Logging, and Coring Programs: No DST's are anticipated. Approximately 25 rotary drilled sidewall wireline cores will be taken in various Delaware zones between 5900' to 7900'. Electric logs will consist of a Compensated Neutron/Litho Density w/Gamma Ray and Caliper and a Dual Laterolog. A Mudlogging unit will be used from 4150' to TD.
- 9. No abnormal pressures, no abnormal temperatures and no H2S are expected.
- 10. Anticipated starting date: As soon as possible.

## EXHIBIT A KAISER-FRANCIS OIL COMPANY Pure Gold "A" Federal #14 Eddy County, New Mexico

#### SUMMARY

#### Drilling, Casing and Cementing Program

- Drill 17-1/2" hole to 700' and run 13-3/8", 48#, H40 casing. Use guide shoe on bottom joint with a float insert 1 joint above the guide shoe. Run 1 centralizer per joint on bottom 3 joints. Cement with 500 sx Class "C" + 2% CaCl + 1/4 pps Cello Flake lead cement followed by 200 sx Class "C" + 2% CaCl. Drop top plug and displace cement with mud.
- 2. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 600 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 600 psi for 30 minutes.
- 3. Drill 11° hole to 4070' and run a 8-5/8°, 32#, J55 casing. Use guide shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and 5 other centralizers. Cement with 800 sx Class C Lite (35:65:6) + 9.5 pps salt + 1/4 pps Celloflake lead cement followed by 200 sx Class C + 1% KCl + 5 pps salt. A Fluid Caliper will be run to determine the exact volume of cement required to circulate cement to the surface.
- 4. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 1000 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 1000 psi for 30 minutes.
- 5. Go in hole with 7-7/8" bit + 6-1/4" x 30' non-magnetic drill collar + (18) 6-1/4" steel drill collar. Drill 7-7/8" hole to KOP of 4200' and survey with non-magnetic instrument at 4200'. POOH for angle building assembly.
- 6. Go in hole with 7-7/8" bit + 6-1/2" slow-speed motor + 1-1/2" bent sub + 6-1/4" x 30' non-magnetic drill collar + 20 steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. Drill with this assembly building approximately 2-1/2 degrees per 100 feet of hole in the proper direction until a maximum angle of 10 degrees 48 minutes is obtained plus or minus to 6231' M.D. POOH for angle holding assembly.
- 7. Go in hole with 7-7/8" bit + 6 point roller reamer + short drill collar + 3 point collar roller reamer + 6-1/4" non-mag drill collar + 3 point roller reamer + 6-1/4" steel drill collar + 3 point roller reamer + (20) 6-1/4" drill collars. Drill hole maintaining 10 degrees and 48 minutes to the TVD depth of 6632'. POOH for angle dropping assembly.

- 8. Go in hole with 7-7/8" bit + 6-1/4" non-magnetic drill collar + 3 point roller reamer + (20) 6-1/4" steel drill collars. Drill the hole dropping at 1-1/2 degrees per 100' deviation into the Bone Spring plus or minus 7347.74' TVD. At this point you will be vertical and you will continue to drill to a TVD of 8100'.
- 9. Run 5-1/2\*, 17\*, K55 casing with a stage tool at approximately 6200'. Use a float shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and as required across potential productive intervals. Cement the first stage with 580 sx Class H + additives, and cement the second stage with 690 sx Class C Lite (35:65:6) lead cement followed with 100 sx Class C neat. The exact volume to bring the cement top to 4000' will be determined after logging the well.
- 10. Perforations and stimulation treatments will be determined after running electric logs and setting the 5-1/2" casing.

Form 3160-3 (December 1990)

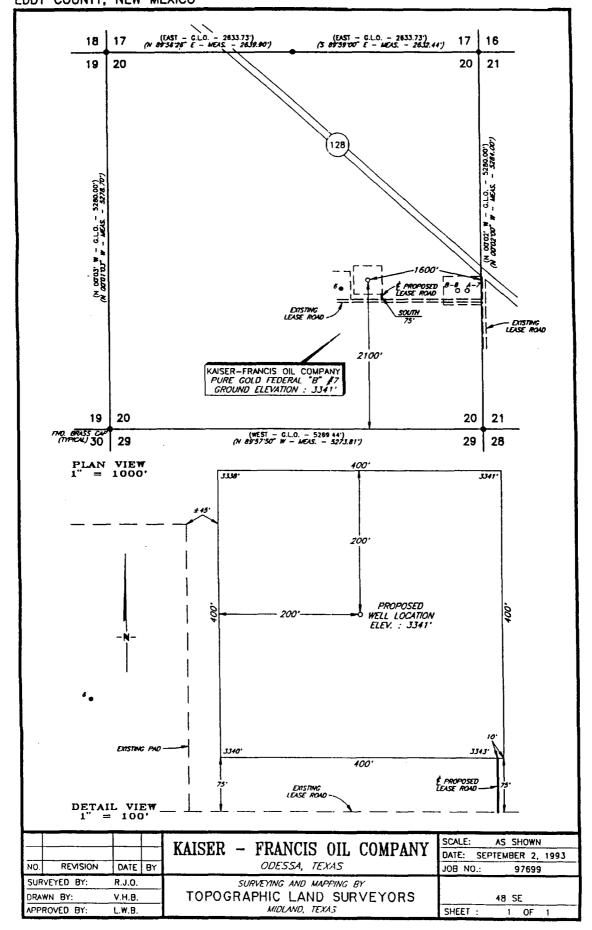
### UNITED STATES

SUBMIT IN TRIPLICATE. (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

DRIL  OIL  OIL  WELL  OIR  WELL  NAME OF OPERATOR  Kaiser-Franc  ADDRESS AND TELEPHONE MO.  PO. BOX 214  LOCATION OF WELL (Rep At surface  210  At proposed prod. some 198	is Oil Company		PILL			NM38	OTTES OR TRIBE NAME
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3341'				•			
·						<del></del>	
	· · · · · · · · · · · · · · · · · · ·		אט אאט	CEMENTING PROGRA	m 1	·	
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	8-5/8	32#		4070	1000	sacks Cir	culated
7-7/8	5-1/2	17#		8100' TVD	1370	sacks tie	back @ least
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PERMIT NO.	st warrant or certify that the ap-			APPROVAL DATE	·		

Exhibit E Kaiser-Francis Oil Co. Pure Gold \*B\* Fed. #7 Eddy County, NM



				KAIS	$\mathbf{C}^{\perp}$	FR.	ANC	SI	0,		OMP	MPANY		rure oc Eddy Co	County,	red. NM	<b>*</b>
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D					<u> </u>	3 : 		1	- 1								
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DISTRICT I P. O. Box 1980 Hobbs, NM 88240

DISTRICT II
P. O. Drawer DD
Artesia, NM 88210

### OIL CONSERVATION DIVISION P. 0. Box 2088 Santa Fe, New Mexico 87504-2088

DISTRICT III 1000 Rio Brazos Rd Aztec, NM 87410

### WELL LOCATION AND ACREAGE DEDICATION PLAT All distances must be from the outer boundaries of the section.

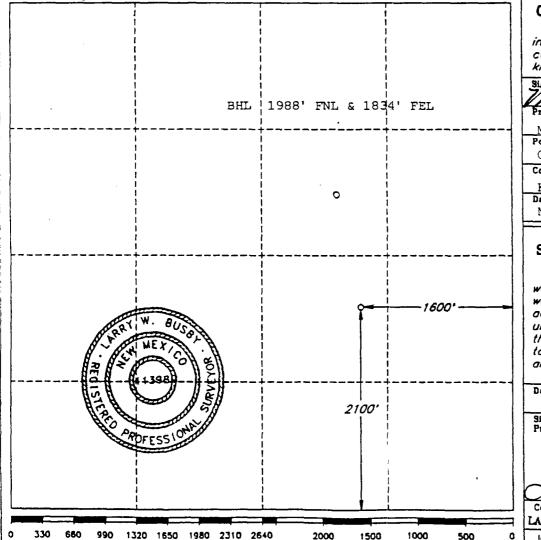
Operator KAIS	SER - FRANC	IS DIL CO	MPANY Last	PURE GO	LD FEDERAL	<b>B</b> *	Well No.	
Unit Letter J	Section 20	Township 23	SOUTH Ren	31 EAST, 1	<b>ч.м.р.м.</b>	County EDD	Y	
Actual Footage 1 2100	feet from the	SOUTH	line and	1600	feet from the	EAST	line	
Ground Level Ele 3341'		rmation laware	Poo	West Sand	Dunes		40	Acres

- 1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 3. If more than one lease of different ownership is dedicated to the well, have the interest of all the owners been consolidated by communitization, unitization, forced-pooling, etc.?

  Yes No If answer is "yes", type of consolidation

  If the answer is "no", list the owners and tract descriptions which have actually been consolidated. (Use the reverse side of this form if neccessary.)

  No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the division.



#### OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief..

Signature
Wilton Oreffee
Printed Name

Milton Griffin

Position

Operations Engineer

Company

Kaiser-Francis Oil Co.

Date

November 2, 1993

#### 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 knowledge and belief.

Date Surveyed

SEPTEMBER 2, 1993

Signature and Seal of Professional Surveyor

£ .

Certificate No.

LARRY W. BUSBY R.P.S. #11398

JOB #97699./ 48 SE V.H.B.

### APPLICATION FOR PERMIT TO DRILL KAISER-FRANCIS OIL COMPANY Pure Gold \*B\* Federal No. #7

Surface Location: 2100' FSL & 1600' FEL Bottomhole Location: 1988' FNL & 1834' FEL Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, Kaiser-Francis Oil Company submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

- 1. The geologic surface formation is Quaternary alluvium and other surficial deposits.
- 2. The estimated tops of geologic markers are as follows:

Delaware 4150'
Bone Springs 8000'
TD 8100'

3. We do not anticipate encountering water, and oil and gas formations are as follows:

#### Delaware

- 4. Proposed Casing Program: See Form 3160-3 and Exhibit A.
- 5. Pressure Control Equipment: See Exhibit B.
- 6. Mud Program: See Exhibit C.
- 7. Auxiliary equipment: Blowout preventer.
- 8. Testing, Logging, and Coring Programs: No DST's are anticipated. Approximately 25 rotary drilled sidewall wireline cores will be taken in various Delaware zones between 5900' to 7900'. Electric logs will consist of a Compensated Neutron/Litho Density w/Gamma Ray and Caliper and a Dual Laterolog. A Mudlogging unit will be used from 4150' to TD.
- 9. No abnormal pressures, no abnormal temperatures and no H2S are expected.
- 10. Anticipated starting date: As soon as possible.

## EXHIBIT A KAISER-FRANCIS OIL COMPANY Pure Gold "B" Federal #7 Eddy County, New Mexico

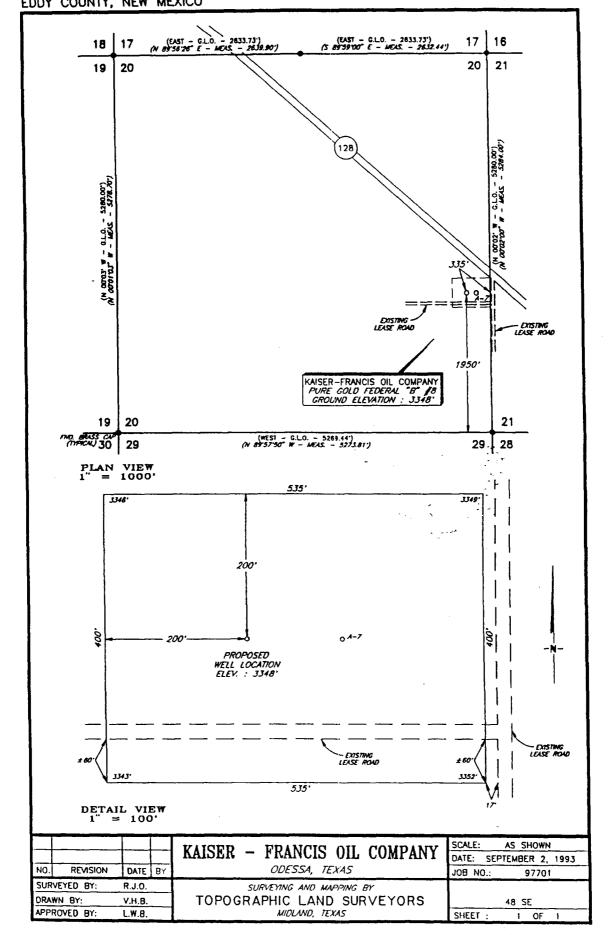
#### SUMMARY

#### Drilling, Casing and Cementing Program

- Drill 17-1/2" hole to 700' and run 13-3/8", 48#, H40 casing. Use guide shoe on bottom joint with a float insert 1 joint above the guide shoe. Run 1 centralizer per joint on bottom 3 joints. Cement with 500 sx Class "C" + 2% CaCl + 1/4 pps Cello Flake lead cement followed by 200 sx Class "C" + 2% CaCl. Drop top plug and displace cement with mud.
- 2. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 600 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 600 psi for 30 minutes.
- 3. Drill 11" hole to 4070' and run a 8-5/8", 32#, J55 casing. Use guide shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and 5 other centralizers. Cement with 800 sx Class C Lite (35:65:6) + 9.5 pps salt + 1/4 pps Celloflake lead cement followed by 200 sx Class C + 1% KCl + 5 pps salt. A Fluid Caliper will be run to determine the exact volume of cement required to circulate cement to the surface.
- 4. Nipple up and install BDP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 1000 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 1000 psi for 30 minutes.
- 5. Go in hole with 7-7/8" bit + 6-1/4" x 30' non-magnetic drill collar + (18) 6-1/4" steel drill collar. Drill 7-7/8" hole to KOP of 4150' and survey with non-magnetic instrument at 4150'. POOH for angle building assembly.
- 6. Go in hole with 7-7/8" bit + 6-1/2" slow-speed motor + 1-1/2" bent sub + 6-1/4" x 30' non-magnetic drill collar + steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. Drill with this assembly building approximately 2 degrees per 100 feet of hole in the proper direction until a maximum angle of 19 degrees 20 minutes is obtained plus or minus to 5117' M.D. POOH for packed hole assembly.
- 7. Go in hole with 7-7/8" bit + 6 point roller reamer + short drill collar + 3 point roller reamer + 6-1/4" non-magnetic drill collar + 3 point roller reamer + 6-1/4" steel drill collar + 3 point roller reamer + (20) 6-1/4" drill collars. Drill hole maintaining 19 degrees 20 minutes deviation plus or minus 7600' TVD and continue to drill to TD with the same deviation to plus or minus 8100' TVD.

 $\sim$   $\cap$ 

- 8. Run 5-1/2", 17#, K55 casing with a stage tool at approximately 6200'. Use a float shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and as required across potential productive intervals. Cement the first stage with 580 sx Class H + additives, and cement the second stage with 690 sx Class C Lite (35:65:6) lead cement followed with 100 sx Class C neat. The exact volume to bring the cement top to 4000' will be determined after logging the well.
- 9. Perforations and stimulation treatments will be determined after running electric logs and setting the 5-1/2° casing.



Form 3160-3 (December 1990)

### UNITED STATES DEPARTMENT OF THE INTERIOR

SUBMIT IN TRIPLICATE\*
(Other instructions on reverse side)

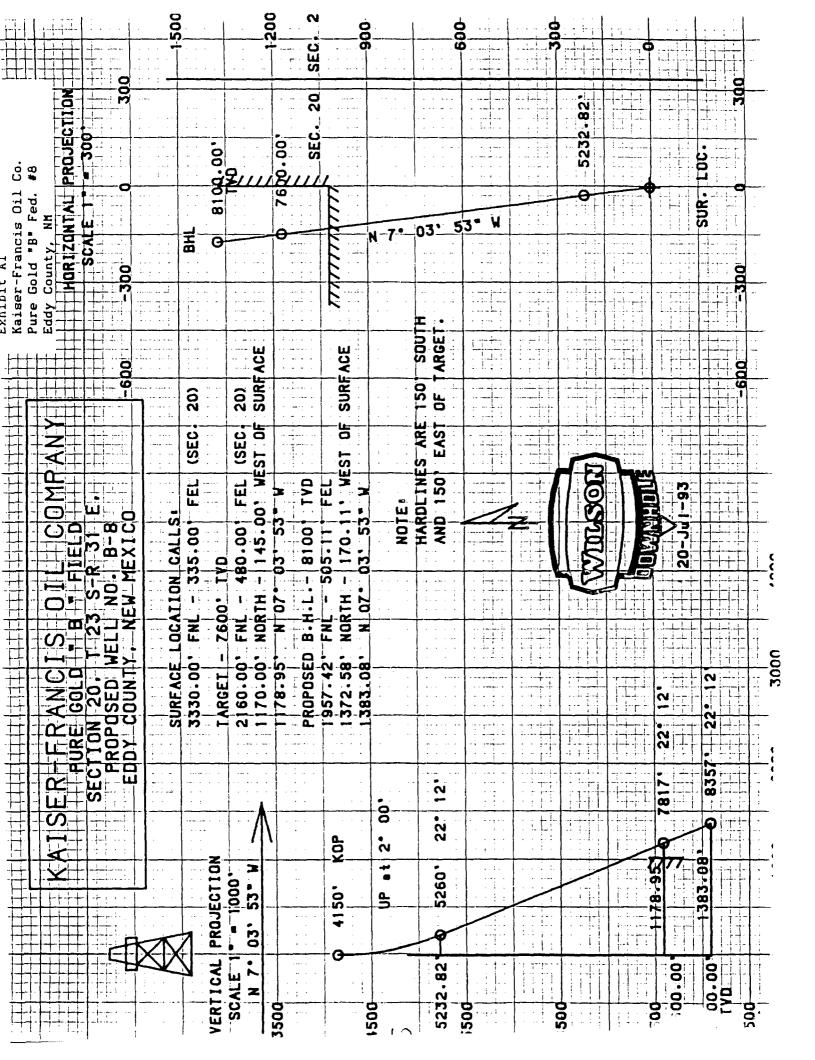
Form approved.

Budget Bureau No. 1004-0136

Expires: December 31, 1991

5. LEASE DESIGNATION AND BERIAL RO.

ADDII	50112715 01	LAND MANAG	EMENT				NM38463	
AFFLI	CATION FOR PE	RMIT TO D	RILL (	OR DE	EPEN		G. IF INDIAN, ALLOTTES	OR TRIBE HAME
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DKI b. tipe of well		DEEPEN [				1		
OIL TO O	AR OTHER		81N01 20NE		MULTIPL	• 🗆 🖯	8. FARM OR LEASE HAME, WEL	L NO.
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Kaiser-Fran	cis Oil Company					-	9. AT WELL HO.	<del></del> ,
- ADDRESS AFO TELETIONE NO.	<u> </u>						8 .	
P.O. Box 21	468. Tulsa. OK	74121-1468					10. FIELD AND POOL, O	E WILDCAT
At nurince			h any Stat	te requirem	ents.*)	1_	West Sand	
1950	)' FSL & 335' FE	L				Î	11. SEC., T., B., M., OR I AND SURVEY OR AR	LE.
At proposed prod. 201		-					Sec 20, T23	c p31F
	FNL & 505' FE		OFFICE*				12. COUNTY OR FARISH	
17 miles Ea	st from Loving						Eddy	NM
O. DISTANCE FROM PROPE	DOED FOR		16. NO. C	F ACRES IN	K LEABE		ACRER ABBIGNED	
LOCATION TO REAREST	LINE, FT. 50	5,				TO TH	IS WELL	
(Also to nearest drig	g. unit mae, m knji		10. rnor	640	<del></del>	20. ROTAR	40	<del></del>
TO MEARENT WELL, DON APPLIED FOR ON TH	RILLING, COMPLETED.	350'		OO' TVD			ary	
I. ELEVATIONS (Show wh					<del></del>	<u> </u>	22. AFFROX. DATE WO	ME WILL START
3348'								
3.		PROPOSED CASE	NG AND C	EMENTING	G PROGRAM	1	· <del>·</del>	<del></del>
SIZE OF HOLE	ORADE, SIZE OF CASING	WEIGHT FER FO	007	RETTING	DEPTIL	1	QUANTITY OF CEME	17
17-1/2	13-3/8	48#		700	)	700	sacks Circula	ted
11	8-5/8	32#		4070	) ~	- 1000	sacks Circula	ted
7-7/8	5-1/2	17#	i	0100	) mm	1 1 270		1. 0 1
1. MIR	RU Rotary.	Stage too	•		;	l	sacks tie bac 200' into 8-5 , g & cmt w/700	/8"
1. MIR 2. Dri 3. Ins 4. Dri 5. Tes 6. Dri 7. If 620 8. RDM	•	Stage too  to 700' ru  test to 6  070', run &  to 8100' TV  indicated, stage w/580	n & se 00#. set 8- D & ru , run &	00' t 13-3/ 5/8" in n elect set 5- 2nd sta	/8° surf ntermedi tric loc -1/2° cs age w/79	lace cs late cs gs. g @ TD	200' into 8-5  g & cmt w/700 g & cmt w/1000 w/stage collar	/8" sx. sx.
1. MIR 2. Dri 3. Ins 4. Dri 5. Tes 6. Dri 7. If 620 8. RDM	till 17-1/2" hole stall 3000# BOP & ill 11" hole to 40 st csg to 1000#. ill 7-7/8" hole to hydrocarbons are 50' and cmt 1st so 10 rotary, instal	Stage too to 700' ru test to 6 070', run & to 8100' TV indicated, stage w/580 l wellhead, proposal is to deepen, ms and measured and	n & se 00#. set 8- D & ru , run & sx & run Ce	t 13-3/ 5/8 in n elect set 5- 2nd sta ement be	/8" surintermediatric log-1/2" csage w/79 ond log,	late cs	200' into 8-5  g & cmt w/700 g & cmt w/1000 w/stage collar rate and stimul	/8"  BX.  BX.  at  ate
1. MIR 2. Dri 3. Ins 4. Dri 5. Tes 6. Dri 7. If 620 8. RDM for	ill 17-1/2" hole stall 3000# BOP 8 ill 11" hole to 40 st csg to 1000#. ill 7-7/8" hole in hydrocarbons are 30' and cmt 1st sido rotary, install production.	Stage too to 700' ru test to 6 070', run & to 8100' TV indicated, stage w/580 l wellhead, proposal is to deepen, ms and measured and	n & se 00#. set 8- D & ru , run & sx & run Ce	t 13-3/ 5/8 in n elect set 5- 2nd sta ement be	/8° surf ntermedi tric log -1/2° cs age w/79 ond log,	late cs	200' into 8-5  g & cmt w/700  g & cmt w/1000  w/stage collar  ate and stimul	/8"  BX.  BX.  at  ate
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1. MIR 2. Dri 3. Ins 4. Dri 5. Tes 6. Dri 7. If 620 8. RDM for	all 17-1/2" hole stall 3000# BOP 8 all 11" hole to 40 all 11" hole to 40 all 7-7/8" hole in hydrocarbons are 30' and cmt 1st sido rotary, install production.  The PROPOSED PROGRAM: If the thing the data on subsurface location are 30 and 30	Stage too to 700' ru to 8100' TV indicated, stage w/580 l wellhead, proposalis to deepen, ns and measured and to	n & se 00#. set 8- D & ru run & sx & run ce	t 13-3/ 5/8 in n elect set 5- 2nd sta ement be	/8° surfintermediatric log- 1/2° cs age w/79 ond log,	ace cs	200' into 8-5  g & cmt w/700 g & cmt w/1000 w/stage collar rate and stimul	/8"  BX.  SX.  at  ate  proposal is to drill or  2-93
1. MIR 2. Dri 3. Ins 4. Dri 5. Tes 6. Dri 7. If 620 8. RDM for	all 17-1/2" hole stall 3000# BOP 8 all 11" hole to 40 all 11" hole to 40 all 7-7/8" hole in hydrocarbons are 30' and cmt 1st all 7-7/8" hole in hydrocarbons are 30' and cmt 1st all 7-7/8" hole in hydrocarbons are 30' and cmt 1st all 7-7/8" hole in the reproduction.	Stage too to 700' ru to 8100' TV indicated, stage w/580 l wellhead, proposalis to deepen, ns and measured and to	n & se 00#. set 8- D & ru run & sx & run ce	t 13-3/ 5/8 in n elect set 5- 2nd sta ement be	/8° surfintermediatric log- 1/2° cs age w/79 ond log,	ace cs	200' into 8-5  g & cmt w/700 g & cmt w/1000 w/stage collar rate and stimul	/8"  BX.  SX.  at  ate  proposal is to drill or  2-93
1. MIR 2. Dri 3. Ins 4. Dri 5. Tes 6. Dri 7. If 620 8. RDM for	all 17-1/2" hole stall 3000# BOP 8 all 11" hole to 40 all 11" hole to 40 all 7-7/8" hole in hydrocarbons are 30' and cmt 1st all 7-7/8" hole in hydrocarbons are 30' and cmt 1st all 7-7/8" hole in hydrocarbons are 30' and cmt 1st all 7-7/8" hole in the reproduction.	Stage too to 700' ru to 700' ru to 8100' TV indicated, stage w/580 l wellhead, proposal is to deepen, ms and measured and to	n & se 00#. set 8- D & ru run & sx & run ce	t 13-3/ 5/8* in n elect set 5- 2nd sta ement be	/8° surfintermediatric log- 1/2° cs age w/79 ond log,	ace csilate cs	200' into 8-5  g & cmt w/700 g & cmt w/1000 w/stage collar rate and stimul	/8"  BX.  SX.  at  ate  proposal is to drill or  2-93



<u>DISTRICT I</u> P. O. Box 1980 Hobbs, NM 88240

DISTRICT II
P. O. Drawer DD
Artesia, NM 88210

### OIL CONSERVATION DIVISION P. 0. Box 2088 Santa Fe, New Mexico 87504-2088

DISTRICT III
1000 Rio Brozos Rd
Aztec NM 87410

330

660

990

1320 1650 1980 2310 2640

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the section. Aztec, NM 87410 Operator Well No. KAISER - FRANCIS DIL COMPANY PURE GOLD FEDERAL 'B' 8 Township Section Unit Letter **EDDY** 23 SOUTH 20 31 EAST, N.M.P.M. 1 Actual Footage Location of Well EAST feet from the SOUTH line and feet from the line Ground Level Elev. Producing Formation 3348 Delaware West Sand Dunes 1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 3. If more than one lease of different ownership is dedicated to the well, have the interest of all the owners been consolidated by communitization, unitization, forced-pooling, etc.?

Yes No If answer is "yes", type of consolidation the reverse side of this form if neccessary.) No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the division. OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief. Simplist? BHL 1950' FNL & 505' FEL Position Operations Engineer Company Kaiser-Francis Oil Co. 0 November 2, 1993 SURVEYOR CERTIFICATION I hereby certify that the *335'* 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 knowledge and belief. Date Surveyed SEPTEMBER 2, 1993 1950' Signature and Seal of Professional Surveyor Certificate No. LARRY W. BUSBY R.P.S. #11398

500

JOB #97701

V.H.B.

48 SE

1000

2000

# APPLICATION FOR PERMIT TO DRILL KAISER-FRANCIS OIL COMPANY Pure Gold "B" Federal No. #8 Surface Location: 1950' FSL & 335' FEL Bottomhole Location: 1957' FNL & 505' FEL Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, Kaiser-Francis Oil Company submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

- 1. The geologic surface formation is Quaternary alluvium and other surficial deposits.
- The estimated tops of geologic markers are as follows:

Delaware 4150'
Bone Springs 8000'
TD 8100'

3. We do not anticipate encountering water, and oil and gas formations are as follows:

#### Delaware

- 4. Proposed Casing Program: See Form 3160-3 and Exhibit A.
- 5. Pressure Control Equipment: See Exhibit B.
- 6. Mud Program: See Exhibit C.
- 7. Auxiliary equipment: Blowout preventer.
- 8. Testing, Logging, and Coring Programs: No DST's are anticipated. Approximately 25 rotary drilled sidewall wireline cores will be taken in various Delaware zones between 5900' to 7900'. Electric logs will consist of a Compensated Neutron/Litho Density w/Gamma Ray and Caliper and a Dual Laterolog. A Mudlogging unit will be used from 4150' to TD.
- 9. No abnormal pressures, no abnormal temperatures and no H2S are expected.
- 10. Anticipated starting date: As soon as possible.

## EXHIBIT A KAISER-FRANCIS OIL COMPANY Pure Gold \*B\* Federal #8 Eddy County, New Mexico

#### SUMMARY

#### Drilling, Casing and Cementing Program

- Drill 17-1/2" hole to 700' and run 13-3/8", 48#, H40 casing. Use guide shoe on bottom joint with a float insert 1 joint above the guide shoe. Run 1 centralizer per joint on bottom 3 joints. Cement with 500 sx Class "C" + 2% CaCl + 1/4 pps Cello Flake lead cement followed by 200 sx Class "C" + 2% CaCl. Drop top plug and displace cement with mud.
- Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 600 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 600 psi for 30 minutes.
- 3. Drill 11" hole to 4070' and run a 8-5/8", 32#, J55 casing. Use guide shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and 5 other centralizers. Cement with 800 sx Class C Lite (35:65:6) + 9.5 pps salt + 1/4 pps Celloflake lead cement followed by 200 sx Class C + 1% KCl + 5 pps salt. A Fluid Caliper will be run to determine the exact volume of cement required to circulate cement to the surface.
- 4. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 1000 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 1000 psi for 30 minutes.
- 5. Go in hole with 7-7/8" bit + 6-1/4" x 30' non-magnetic drill collar + (18) 6-1/4" steel drill collar. Drill 7-7/8" hole to KOP of 4150' and survey with non-magnetic instrument at 4150'. POOH for angle building assembly.
- 6. Go in hole with 7-7/8" bit + 6-1/2" slow-speed motor + 1-1/2" bent sub + 6-1/4" x 30' non-magnetic drill collar + steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. Drill with this assembly building approximately 2 degrees per 100 feet of hole in the proper direction until a maximum angle of 22 degrees 12 minutes is obtained plus or minus of 5260' M.D. POOH for packed hole assembly.
- 7. Go in hole with 7-7/8" bit + 6 point roller reamer + short drill collar + 3 point roller reamer + 6-1/4" non-magnetic drill collar + 3 point roller reamer + 6-1/4" steel drill collar + 3 point roller reamer + (20) 6-1/4" drill collars. Drill hole maintaining 22 degrees 12 minutes deviation plus or minus 7600' TVD and continue to drill to TD with the same deviation to plus or minus 8100' TVD.

- 8. Run 5-1/2\*, 17#, K55 casing with a stage tool at approximately 6200'. Use a float shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and as required across potential productive intervals. Cement the first stage with 580 sx Class H + additives, and cement the second stage with 690 sx Class C Lite (35:65:6) lead cement followed with 100 sx Class C neat. The exact volume to bring the cement top to 4000' will be determined after logging the well.
- 9. Perforations and stimulation treatments will be determined after running electric logs and setting the 5-1/2" casing.

Form 3160-3 (December 1990)

### UNITED STATES DEPARTMENT OF THE INTERIOR

SUBMIT IN TRIPLICATES
(Other instructions on reverse side)

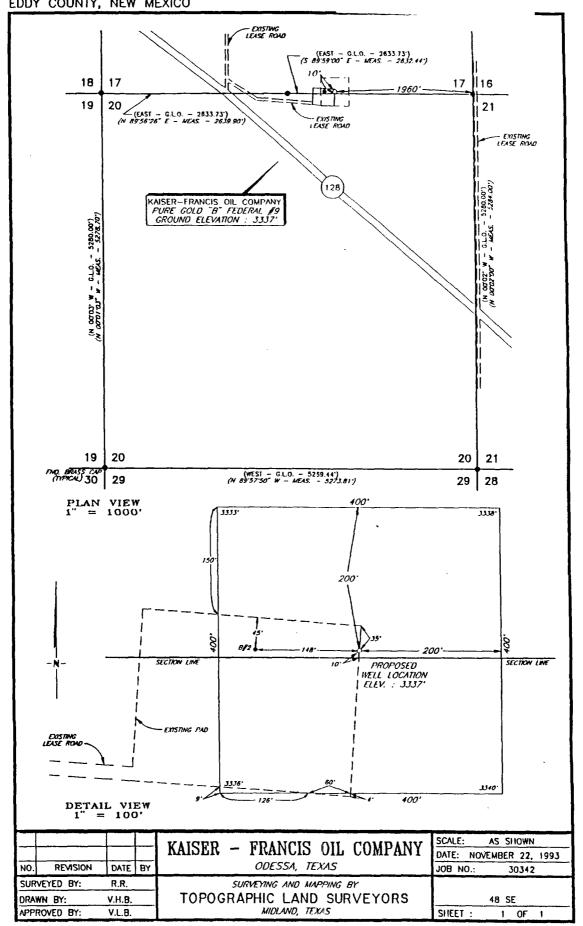
Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

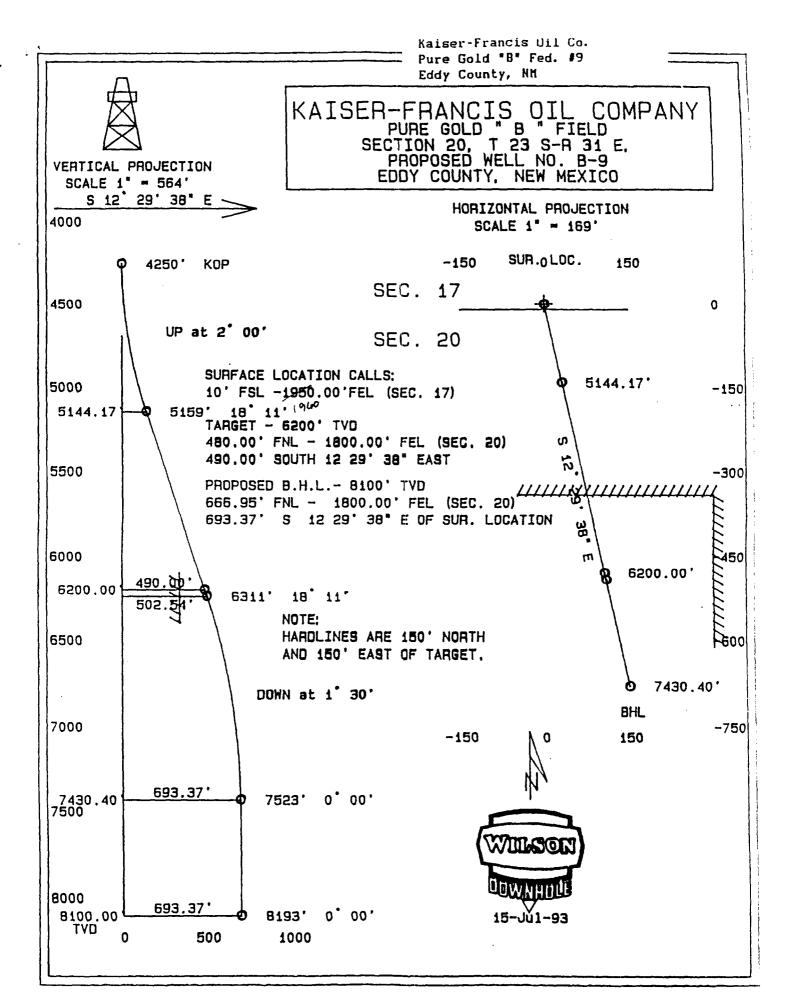
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WELL X	GAR Well	OTHER		81N 201	OLE X MULTIPE	• 🗆 🖯	8. FARM OR LEASE HAARE, W	MLL NO.
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ADDRESS AND TELEPROOF							9	
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OR APPLIED FOR,			160'			l RO	tary	
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		III CAAAA DOD	& test to	PAGN.				
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3. 4.	Drill	1 11 hole to 4		& set {	3-5/8" intermed:	iate cs	g & cmt w/1000	
3. 4. 5.	Drill Test	111 hole to 4 csg to 1000#.	070', run 8				g & cmt w/1000	
3. 4. 5. 6.	Drill Test Drill	l 11° hole to 4 csg to 1000#. l 7-7/8° hole	070', run { to 8100' T	VD & r	un electric lo	js.		3 вх.
3. 4. 5.	Drill Test Drill If hy	l 11° hole to 4 csg to 1000#. l 7-7/8° hole ydrocarbons are	070', run 8 to 8100' T e indicated	YD & r d, run	run electric log & set 5-1/2° cs	js. sg @ TD		3 вх.
3. 4. 5. 6.	Drill Test Drill If hy 6200'	l 11° hole to 4 csg to 1000#. 1 7-7/8° hole drocarbons are ' and cmt 1st	070', run 8 to 8100' T e indicated stage w/58	VD & r d, run 0 sx 8	un electric lo	js. ig 0 TD 30 sx.	w/stage coll	ð sx. ar at
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3. 4. 5. 6. 7.	Drill Test Drill If hy 6200' RDMO	l 11° hole to 4 csg to 1000#. l 7-7/8° hole drocarbons are ' and cmt 1st a rotary, instal	070', run 8 to 8100' T e indicated stage w/58	VD & r d, run 0 sx 8	run electric log & set 5-1/2* cs 2nd stage w/79	js. ig 0 TD 30 sx.	w/stage coll	ð sx. ar at
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3. 4. 5. 6. 7. 8. I ABOVE SPACE DE REPORTED DE REPORTE	Drill Test Drill If hy 6200' RDMO for p	l 11 hole to 4 csg to 1000#. 1 7-7/8 hole drocarbons are and cmt 1st rotary, instal production.	070', run 8 to 8100' T e indicated stage w/58 .1 wellhead	VD & run d, run Ø sx å i, run	run electric log & set 5-1/2* cs 2nd stage w/79 cement bond log,	gs.  gg @ TD  gg sx.  perfor	w/stage coll: rate and stime	3 sx. er at ulate
3. 4. 5. 6. 7. 8.	Drill Test Drill If hy 6200' RDMO for p	l 11 hole to 4 csg to 1000#. 1 7-7/8 hole drocarbons are and cmt 1st rotary, instal production.	070', run 8 to 8100' T e indicated stage w/58 .1 wellhead	VD & run d, run Ø sx å i, run	run electric log	gs.  gg @ TD  go sx.  perfor  and propose	w/stage collerate and stime	B BX.  ar at  llate
3. 4. 5. 6. 7. 8.	Drill Test Drill If hy 6200' RDMO for p	l 11 hole to 4 csg to 1000#. 1 7-7/8 hole drocarbons are and cmt 1st rotary, instal production.	to 8100' Te indicated stage w/58.1 wellhead	VD & run d, run Ø sx & i, run	Tun electric log	gs.  gg @ TD  go sx.  perfor  and propose	w/stage coll: rate and stime	B ex.  ar at  llate
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3. 4. 5. 6. 7. 8.  HABOVE SPACE DI RECEDENTING	Drill Test Drill If hy 6200' RDMO for p	a 11" hole to 4 csg to 1000#. 17-7/8" hole ydrocarbons are y and cmt 1st rotary, instal production.  PROPOSED PROGRAM: 11 int data on subsurface localic	to 8100' Te indicated stage w/58.1 wellhead	VD & r d, run lØ sx & l, run en give dat ed twe vertic	run electric log	gs.  gg @ TD  go sx.  perfor  and propose	w/stage collerate and stime	B BX.  ar at  alate

\*See Instructions On Reverse Side

DATE

Exhibit E Kaiser-Francis Oil Co. Pure Gold "B" Fed. #9 Eddy County, NM





#### State of New Mexico Energy, Minerals, and Natural Resources Department

Form C-102 Revised 1-1-89

DISTRICT 1 P. O. Box 1980 Hobbs, NM 88240

DISTRICT II P. O. Drawer DD Artesia, NM 88210

#### OIL CONSERVATION DIVISION P. O. Box 2088 Santa Fe, New Mexico 87504-2088

DISTRICT III 1000 Rio Brazos Rd Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT All distances must be from the outer boundaries of the section.

## APPLICATION FOR PERMIT TO DRILL KAISER-FRANCIS OIL COMPANY Pure Gold "B" Federal No. #9 Surface Location: 10' FSL & 1960' FEL

Bottomhole Location: 10' FSL & 1960' FEL

Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, Kaiser-Francis Oil Company submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

- 1. The geologic surface formation is Quaternary alluvium and other surficial deposits.
- 2. The estimated tops of geologic markers are as follows:

Delaware 4150'
Bone Springs 8000'
TD 8100'

We do not anticipate encountering water, and oil and gas formations are as follows:

#### Delaware

- 4. Proposed Casing Program: See Form 3160-3 and Exhibit A.
- 5. Pressure Control Equipment: See Exhibit B.
- 6. Mud Program: See Exhibit C.
- 7. Auxiliary equipment: Blowout preventer.
- 8. Testing, Logging, and Coring Programs: No DST's are anticipated. Approximately 25 rotary drilled sidewall wireline cores will be taken in various Delaware zones between 5900' to 7900'. Electric logs will consist of a Compensated Neutron/Litho Density w/Gamma Ray and Caliper and a Dual Laterolog. A Mudlogging unit will be used from 4150' to TD.
- 9. No abnormal pressures, no abnormal temperatures and no H2S are expected.
- 10. Anticipated starting date: As soon as possible.

## EXHIBIT A KAISER-FRANCIS OIL COMPANY Pure Gold "B" Federal #9 Eddy County, New Mexico

#### SUMMARY

#### Drilling, Casing and Cementing Program

- 1. Drill 17-1/2" hole to 700' and run 13-3/8", 48#, H40 casing. Use guide shoe on bottom joint with a float insert 1 joint above the guide shoe. Run 1 centralizer per joint on bottom 3 joints. Cement with 500 sx Class "C" + 2% CaCl + 1/4 pps Cello Flake lead cement followed by 200 sx Class "C" + 2% CaCl. Drop top plug and displace cement with mud.
- 2. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 600 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 600 psi for 30 minutes.
- 3. Drill 11\* hole to 4070' and run a 8-5/8\*, 32\*, J55 casing. Use guide shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and 5 other centralizers. Cement with 800 sx Class C Lite (35:65:6) + 9.5 pps salt + 1/4 pps Celloflake lead cement followed by 200 sx Class C + 1% KCl + 5 pps salt. A Fluid Caliper will be run to determine the exact volume of cement required to circulate cement to the surface.
- 4. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 1000 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 1000 psi for 30 minutes.
- 5. Go in hole with 7-7/8" bit + 6-1/4" x 30' non-magnetic drill collar + (18) 6-1/4" steel drill collar. Drill 7-7/8" hole to KOP of 4250' and survey with non-magnetic instrument at 4250'. POOH for angle building assembly.
- 6. Go in hole with 7-7/8" bit + 6-1/2" slow-speed motor + 1-1/2" bent sub + 6-1/4" x 30' non-magnetic drill collar + 20 steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. Drill with this assembly building approximately 2 degrees per 100 feet of hole in the proper direction until a maximum angle of 18 degrees 11 minutes is obtained plus or minus to 6311' M.D. POOH for angle dropping assembly.
- 7. Go in hole with 7-7/8" bit + 6-1/4" non-mag drill collar + 3 point roller reamer + 6-1/4" steel drill collar + 3 point roller reamer + (20) 6-1/4" drill collars. Drill hole dropping at 1.5 degrees per 100' to the TVD depth of 7430.40' at this point you will be vertical and will continue to drill to a TVD depth of 8100'.

- 8. Run 5-1/2", 17#, K55 casing with a stage tool at approximately 6200'. Use a float shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and as required across potential productive intervals. Cement the first stage with 580 sx Class H + additives, and cement the second stage with 690 sx Class C Lite (35:65:6) lead cement followed with 100 sx Class C neat. The exact volume to bring the cement top to 4000' will be determined after logging the well.
- 9. Perforations and stimulation treatments will be determined after running electric logs and setting the 5-1/2" casing.

#### Form 3160-3 (December 1990)

23,

UNITED STATES

SUBMIT IN TRIPLICATE

(Other Instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

DEPARTMENT OF THE I  BUREAU OF LAND MANAGE  APPLICATION FOR PERMIT TO I  1a. TIPE OF WORK  DRILL  DEEPEN	S. LEASE DESIGNATION AND SERIAL RO.  NM38463 G. IF INDIAN, ALLOTTER OR TRIBS NAME  1. UNIT AGREEMENT NAME			
B. TIPS OF WELL  OIL WELL  OTHER  2. HAMB OF GREATOR	BINGLE X MULTIN	"L# 🔲	8. FARM OR LEASE HAVEL WOLL HO. Pure Gold B Federal	
Kaiser-Francis Oil Company 3. ADDRESS AND TRANSPORMS.			8. AT WELLING. 10	
P.O. Box 21468. Tulsa. OK 74121-1468  1. Locarion of Well (Report location clearly and in accordance will at surface: 10' FSL & 145' FWL Sec 16  At prepared prod. 1886  Bottomhole: 480' FNL & 480' FEL Sec	) th any State requirements.*)  ac 20		West Sand Dunes  11. SEC., T., B., M., OR BLE. AND BURYET OR AREA  Sec 20, T23S, R31E	
14. DINTARCE IN MILES AND DIRECTION FROM NEAREST TOWN OR FOR 17 miles East from Loving	T OFFICE.		12. COUNTY OR FARIER 18. STATE Eddy NM	
18. DISTANCE FROM PROPUEED* 480' LOCATION TO HEAREST PROPERTY ON LEASE LINE, FT. (Also to Bearest drig, unit line, if any) 480'  18. BISTANCE FROM PROPOSED LOCATION*	16. NO. OF ACRES IN LEASE 640 19. PROPOSED PETTI	10 7	17. NO. OF ACREA ABBIGHED TO THIS WELL  40  20. ROTART OR CABLE TOOLS	
or applies for, on this lease, pt. 1450'  21. ELEVATIONS (Show whether DF, RT, GR, etc.)  3352'	8100' TVD	Ro	22. AFFROX. DATE WORK WILL STARY	

PROPOSED CASING AND CEMENTING PROGRAM

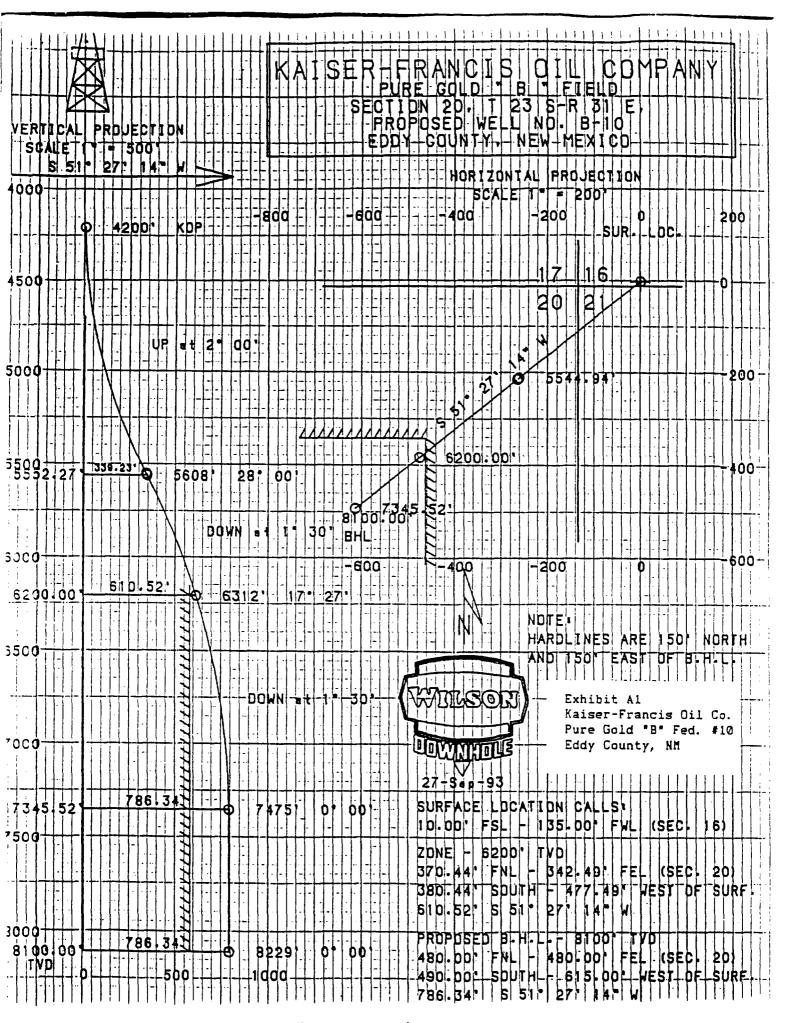
17-1/2     13-3/8     48#     700     700 sacks Circulated       11     8-5/8     32#     4070     1000 sacks Circulated	SIZE OF HOLE	ORADE, SIZE OF CASING	WEIGHT PER POOT	RETTING DEPTIL	QUANTITY OF CEMENT
	17-1/2	13-3/8	48#	700	700 sacks Circulated
	11	8-5/8	32#	4070	1000 sacks Circulated
7-7/8   5-1/2   17#   3100' TVD   1370 sacks tie back @ 200' into 8-5/8"	7-7/8	5-1/2	17#	3100' TVD	1370 sacks tie back @ least

Stage tool @ 6200'

- MIRU Rotary.
- 2. Drill 17-1/2" hole to 700' run & set 13-3/8" surface csg & cmt w/700 sx.
- 3. Install 3000# BOP & test to 600#.
- 4. Drill 11" hole to 4070', run & set 8-5/8" intermediate csg & cmt w/1000 sx.
- 5. Test csg to 1000#.
- 6. Drill 7-7/8" hole to 8100' TVD & run electric logs.
- 7. If hydrocarbons are indicated, run & set 5-1/2° csg @ TD w/stage collar at 6200° and cmt 1st stage w/580 sx & 2nd stage w/790 sx.
- 8. RDMO rotary, install wellhead, run cement bond log, perforate and stimulate for production.

97.14. O		. Give blowout preventer program, If	/
HILLIAN JULIA	<del>//</del>	rations Engineer	DATE 10/12/93
(This space for Federal or State off	ce unr)		
	•		
FERMIT 70	APTRO	'AL DATE	<del></del>
	y that the applicant holds legal or equitable title to tho		
Application approval does not warrant or certif	ly that the applicant holds legal or equitable title to the		

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, flerificus or fraudulent statements or representations as to any matter within its jurisdiction.



DISTRICT I P. O. Box 1980 Hobbs, NM 88240

DISTRICT II
P. O. Drawer DD
Artesia, NM 88210

## OIL CONSERVATION DIVISION P. 0. Box 2088 Santa Fe, New Mexico 87504-2088

DISTRICT III 1000 Rio Brazos Rd Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT All distances must be from the outer boundaries of the section.

operator	KAISER	- FRANC	IS DIL	COMPANY	PURI	E_GOL	D"B" FE	EDERAL	10
Unit Lett		16	Township	23 SOUTH	Range 3	L PAST.	N.M.P.M.	County	EDDY
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335	red Elor. 2'	Producing I			Loci		·		Acres
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3.		solidated b	y commun	itization, unitiz	ation, for	ced-pool	ling, etc.?	the interest of	of all the owners
	Yes No If answer is "yes", type of consolidation								
		by the div		otherwise) or	טחטו מ חס		arg unit, eiimin	dung such ir	iterest, nos been
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						!		Milton	Griffin
	Bott	compole I	Location	: 480' FNL	& 480'	FEL Se	c 20		ions Engineer
	The	i ackeage	dedicat	i ed to this	well is	i !the NE	2/4 NE/4	Company Kaiser	-Francis Oil Co.
	Sec	20, T235	5, R31E.			! }		Octobe	r 12, 1993
						! ! !		SURVEYO	R CERTIFICATION
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# APPLICATION FOR PERMIT TO DRILL KAISER-FRANCIS OIL COMPANY Pure Gold "B" Federal No. 10 Surface Location: 10' FSL & 145' FWL Sec 16 Bottomhole Location: 480' FNL & 480' FEL Sec 20 Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, Kaiser-Francis Oil Company submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

- 1. The geologic surface formation is Quaternary alluvium and other surficial deposits.
- The estimated tops of geologic markers are as follows:

 Delaware
 4150'

 Bone Springs
 8000'

 TD
 8100'

3. We do not anticipate encountering water, and oil and gas formations are as follows:

#### Delaware

- 4. Proposed Casing Program: See Form 3160-3 and Exhibit A.
- 5. Pressure Control Equipment: See Exhibit B.
- 6. Mud Program: See Exhibit C.
- 7. Auxiliary equipment: Blowout preventer.
- 8. Testing, Logging, and Coring Programs: No DST's are anticipated. Approximately 25 rotary drilled sidewall wireline cores will be taken in various Delaware zones between 5900' to 7900'. Electric logs will consist of a Compensated Neutron/Litho Density w/Gamma Ray and Caliper and a Dual Laterolog. A Mudlogging unit will be used from 4150' to TD.
- 9. No abnormal pressures, no abnormal temperatures and no H2S are expected.
- 10. Anticipated starting date: As soon as possible.

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## EXHIBIT A KAISER-FRANCIS OIL COMPANY Pure Gold "B" Federal #10 Eddy County, New Mexico

#### SUMMARY

#### Drilling, Casing and Cementing Program

- Drill 17-1/2" hole to 700' and run 13-3/8", 48#, H40 casing. Use guide shoe on bottom joint with a float insert 1 joint above the guide shoe. Run 1 centralizer per joint on bottom 3 joints. Cement with 500 sx Class "C" + 2% CaCl + 1/4 pps Cello Flake lead cement followed by 200 sx Class "C" + 2% CaCl. Drop top plug and displace cement with mud.
- 2. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 600 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 600 psi for 30 minutes.
- 3. Drill 11\* hole to 4070' and run a 8-5/8\*, 32#, J55 casing. Use guide shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and 5 other centralizers. Cement with 800 sx Class C Lite (35:65:6) + 9.5 pps salt + 1/4 pps Celloflake lead cement followed by 200 sx Class C + 1% KCl + 5 pps salt. A Fluid Caliper will be run to determine the exact volume of cement required to circulate cement to the surface.
- 4. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 1000 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 1000 psi for 30 minutes.
- 5. Go in hole with 7-7/8" bit + 6-1/4" x 30' non-magnetic drill collar + (18) 6-1/4" steel drill collar. Drill 7-7/8" hole to KOP of 4200' and survey with non-magnetic instrument at 4200'. POOH for angle building assembly.
- 6. Go in hole with 7-7/8" bit + 6-1/2" slow-speed motor + 1-1/2" bent sub + 6-1/4" x 30' non-magnetic drill collar + 20 steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. Drill with this assembly building approximately 2 degrees per 100 feet of hole in the proper direction until a maximum angle of 28 degrees is obtained plus or minus to 5608' M.D. POOH for angle dropping assembly.
- 7. Go in hole with 7-7/8" bit + 6-1/4" non-magnetic drill collar + 3 point roller reamer + (20) 6-1/4" steel drill collars. Drill the hole dropping at 1-1/2 degrees per 100' deviation into the Bone Spring plus or minus 7345.52' TVD. At this point you will be vertical and you will continue to drill to a TVD of 8100'.

- 8. Run 5-1/2\*, 17\*, K55 casing with a stage tool at approximately 6200'. Use a float shoe on bottom and a float coller 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and as required across potential productive intervals. Cement the first stage with 580 sx Class H + additives, and cement the second stage with 690 sx Class C Lite (35:65:6) lead cement followed with 100 sx Class C neat. The exact volume to bring the cement top to 4000' will be determined after logging the well.
- 9. Perforations and stimulation treatments will be determined after running electric logs and setting the 5-1/2" casing.