

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

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

CASE NO. 10999

APPLICATION OF KAISER-FRANCIS OIL COMPANY TO AMEND DIVISION ORDER NO. R-10048, EDDY COUNTY, NEW MEXICO.

CERTIFICATE OF MAILING

AND

COMPLIANCE WITH ORDER R-8054

W. THOMAS KELLAHIN, attorney in fact and authorized representative of Kaider-Francis Oil Company, states that the notice provisions of Division Rule 1207 (Order R-8054) have been complied with, that Applicant has caused to be conducted a good faith diligent effort to find the correct addresses of all interested parties entitled to receive notice, that on the 17th day of May 1994, I caused to be mailed by certified mail return-receipt requested notice of this hearing and a copy of the application for the above referenced case along with the cover letter, at least twenty days prior to the hearing set for June 9, 1994, to the parties shown in the application as evidenced by the attached copies of return receipt cards, and that pursuant to Division Rule 20, notice has been given at the correct addresses provided by such rule.

W. Thomas Kellahin

SUBSCRIBED AND SWORN to before me this 6th day of JUNE, 1994.

Notary Public

My Commission Expires: February 12, 1997

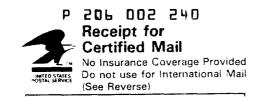
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STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

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CASE NO. 10999

APPLICATION OF KAISER-FRANCIS OIL COMPANY TO AMEND DIVISION ORDER NO. R-10048, EDDY COUNTY, NEW MEXICO.

AFFIDAVIT OF JAMES T. WAKEFIELD

STATE OF OKLAHOMA)) ss. COUNTY OF)

Before me, the undersigned authority, personally appeared James T. Wakefield, who being duly sworn, stated:

A. My name is James T. Wakefield. I am over the age of majority and am competent to make this Affidavit.

B. My qualifications as an expert petroleum engineer are as follows:

(1) Education: B. S. in petroleum engineering from the University of Tulsa in 1972.

NMOCD Case 10999 Affidavit of James T. Wakefield Page 2

(2) Experience:

As a petroleum engineer employed by Kaiser-Francis Oil Company, I have been responsible for and involved in the various requests before the Bureau of Land Management and the Oil Conservation Division for approval to drill Delaware Oil Wells in the Los Medanos-Delaware and/or West Sand Dunes-Delaware Pools in Sections 20 and 21, T23S, R31E, NMPM, Eddy County, New Mexico. I testified as an expert witness before the New Mexico Oil Conservation Division in Case 10887 which resulted in Division Order R-10048 approving the directional drilling of ten such wells including the Pure Gold "B" Well No 10 which is the subject of NMOCD Case 10999. I am personally knowledgeable and familiar with the facts and circumstances of these cases and the following factual chronology.

C. My expert opinions are based on the following facts and events:

CHRONOLOGICAL SUMMARY OF SIGNIFICANT EVENTS

(1) Kaiser-Francis Oil Company ("Kaiser") is the proposed operator for and a working interest owner in the Pure Gold B-10 Well which was one of ten proposed wells to be directionally drilled commencing at unorthodox surface locations in Sections 16, 17, 20, and 21 and drilled to standard bottom hole locations in Sections 20 and 21, all in T23S, R31E, NMPM, Eddy County, New Mexico.

(2) Sections, 16, 17, 20 and 21 of T23S, R31E, are located within the current boundaries of the Oil-Potash Area as defined by Division Order R-111-P.

(3) Sections 17, 20, and 21 are federal tracts administrated by the Bureau of Land Management. Section 16 is a State of New Mexico tract administered by the Commissioner of Public Lands for the State of New Mexico.

(4) At the request of Kaiser-Francis Oil Company, the BLM delineated areas barren of commercial potash in the SE/4 of Section 20 and the SW/4 of Section 21 and along the southern edge of Section 17.

(5) Based upon the foregoing, Kaiser applied to the Division for exceptions to Division Statewide Rule 111 concerning intention deviation and the size of the radius for the bottom hole target and hereby request a 50 foot radius for the bottom hole target. In addition, Kaiser requested exceptions to Division Statewide Rule 104(F) concerning these wells for unorthodox surface locations.

(6) The necessity of directional drilling from the proposed surface location was based upon the assumed presence of measurable potash reserves and the restrictions imposed by the U. S. Bureau of Land Management, which is the surface/mineral agency for Sections 20 and 21.

(7) On January 12, 1994, the Division issued Order R-10048 which approved Kaiser's application for approval to directionally drill these ten wells as identified in Exhibit "A" of that order and which describes:

 Well:
 Pure Gold B-10

 Surface:
 10' FSL x 145' FWL (Unit M) Sec 16

 BHL:
 480' FNL x 480' FEL (Unit A) Sec 20.

(8) Prior to filing its application before the Division, Kaiser had originally sought to have the Bureau of Land Management ("BLM") approve a surface location for the Pure Gold B-10 Well in the S/2SE/4 of Section 17, T23S, R31E but was rejected by the BLM.

(9) Therefore, Kaiser proposed to relocate the Pure Gold B-10 Well at an unorthodox surface location in the adjoining Section 16 and sought and obtained the approval of the NMOCD for that location.

(10) Subsequent to the Division hearing and after issuance of its order, the BLM advised Kaiser that it had reconsidered the surface location for the Pure Gold B-10 Well and would now allow its surface location to be placed in the S/2SE/4 of Section 17 as shown on Exhibit "A" attached.

(11) Therefore, on March 15, 1994, Kaiser-Francis Oil Company's requested BLM approval to amend the surface location. On May 2, 1994, the BLM approved the revised APD which now authorizes the use of a surface location for the Pure Gold B-10 Well 10 feet FSL and 480 feet FEL of said Section 17. See BLM approval attached as Exhibit "B"

(12) The proposed amended surface location in Section 17 means that the Pure Gold B-10 Well will be approximately 400 feet shorter in length than if the well had been located in Section 16 resulting in substantial savings to the Applicant.

(13) This amended unorthodox surface location for the Pure Gold B-10 Well is located more than one-half mile from any verified potash Life of Mine Reserves ("LMR") and therefore is not within any "buffer" area its LMR.

D. I have formed the following opinions based upon my expertise and upon the foregoing chronology of events:

(1) That approval of Kaiser-Francis Oil Company's application in Division Case 10999 will reduce drilling costs, resulting in economic savings to the interest owners in this well, will not violate correlative rights and will help prevent waste and promote the conservation of natural resources.

(2) That the request to amend the surface location should be approved by the Division.

FURTHER AFFIANT SAYETH NOT:

James T. Wakefield

State of Oklahoma)

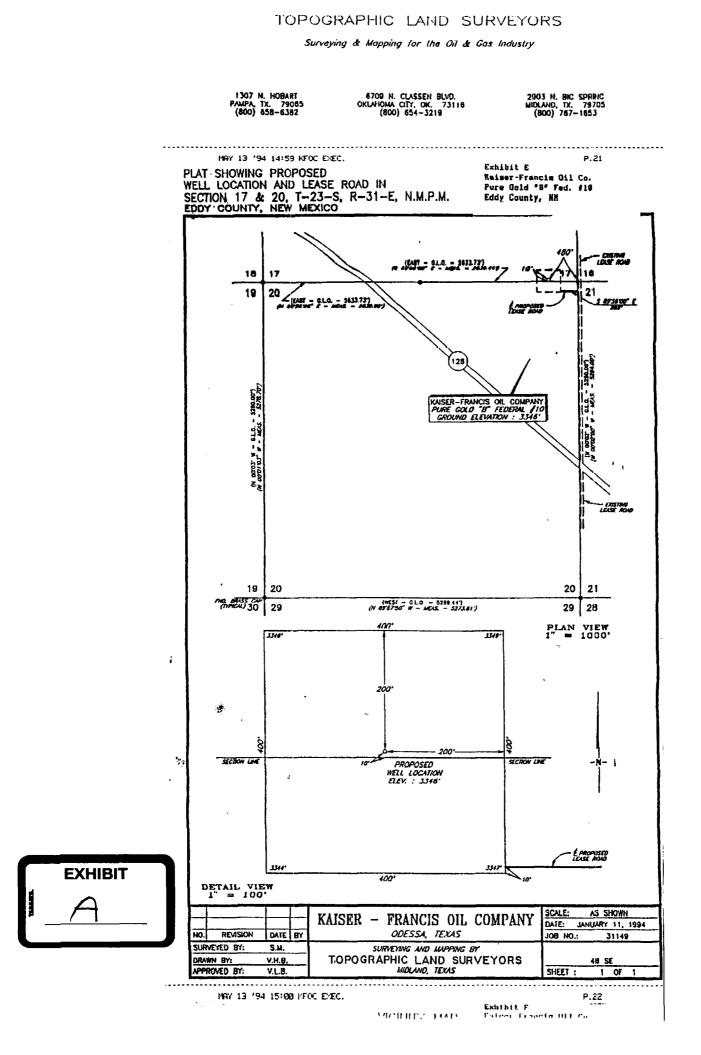
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SUBSCRIBED AND SWORN TO before me this ____ day of June, 1994 by James T. Wakefield.

Notary Public

(SEAL)

My Commission Expires:



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Please see attachments with p	reviously filed amended APD dated 3/1,	194. EXHIBIT
14. I hereby certify that the foregoing is the and corroct Signed	Charlotte Van Valkenburg Been Tille Technical Coordinator	Date 3/15/94
(This space to Fightral or State Affice 1970) Approved by Conditions of approval, if any:	Title Acting Ares Manage	2_ Date 5/2/94
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DISTRICT III 1000 Rio Brazos Ri Aztec, NM 87410		ND ACREAGE DEDICATION I	ection.
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Actual Footage Location 10 feet	from the SOUTH line	and 480 feet from	the EAST line
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			OPERATOR CERTIFICATION I hereby certify that the information herein is true of complete to the best of m knowledge and belief. Signature Milton Griffin
	Bottomhole Location:	480' FNL & 480' FEL, Sec 20	Position Operations Engineer Company
	Bottomhole Location: The acreage dedicated NE/4 NE/4 Sec 20, T23	Sec 20 I to this well is the	Position Operations Engineer Company
	The acreage dedicated	Sec 20 I to this well is the	Position Operations Engineer Company Kaiser-Francis Oil Co. Date
	The acreage dedicated	Sec 20 I to this well is the	Position Operations Engineer Company Kaiser-Francis Oil Co Date March 1, 1994

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EXHIBIT A KAISER-FRANCIS DIL 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 18 degrees is obtained plus or minus to 5627' N.D. POOH for angle dropping assembly.
- 7. Go in hole with 7-7/8" hit + 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 dropping at 1.5 degrees for 100' to TVD depth of 6766.79' at this point you will be vertical and will continue to drill to a TVD depth of 8100'.

- Run 5-1/2", 17#, K55 casing with a stage tool at approximately 6200'. Use 8. 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.
- Perforations and stimulation Lreatments will be determined after running 9. electric logs and setting the 5-1/2" casing. It is anticipated that the Delaware at this location will be partically depleted. The estimated BHP is 2500 psi.

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

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AFFIDAVIT OF JAMES T. WAKEFIELD

STATE OF OKLAHOMA)) ss. COUNTY OF _____)

Before me, the undersigned authority, personally appeared James T. Wakefield, who being duly sworn, stated:

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B. My qualifications as an expert petroleum engineer are as follows:

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NMOCD Case 10999 Affidavit of James T. Wakefield Page 2

(2) Experience:

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 BHL:
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(9) Therefore, Kaiser proposed to relocate the Pure Gold B-10 Well at an unorthodox surface location in the adjoining Section 16 and sought and obtained the approval of the NMOCD for that location.

(10) Subsequent to the Division hearing and after issuance of its order, the BLM advised Kaiser that it had reconsidered the surface location for the Pure Gold B-10 Well and would now allow its surface location to be placed in the S/2SE/4 of Section 17 as shown on Exhibit "A" attached.

(11) Therefore, on March 15, 1994, Kaiser-Francis Oil Company's requested BLM approval to amend the surface location. On May 2, 1994, the BLM approved the revised APD which now authorizes the use of a surface location for the Pure Gold B-10 Well 10 feet FSL and 480 feet FEL of said Section 17. See BLM approval attached as Exhibit "B"

(12) The proposed amended surface location in Section 17 means that the Pure Gold B-10 Well will be approximately 400 feet shorter in length than if the well had been located in Section 16 resulting in substantial savings to the Applicant.

(13) This amended unorthodox surface location for the Pure Gold B-10 Well is located more than one-half mile from any verified potash Life of Mine Reserves ("LMR") and therefore is not within any "buffer" area its LMR.

D. I have formed the following opinions based upon my expertise and upon the foregoing chronology of events:

(1) That approval of Kaiser-Francis Oil Company's application in Division Case 10999 will reduce drilling costs, resulting in economic savings to the interest owners in this well, will not violate correlative rights and will help prevent waste and promote the conservation of natural resources.

(2) That the request to amend the surface location should be approved by the Division.

FURTHER AFFIANT SAYETH NOT:

James T. Wakefield

State of Oklahoma)

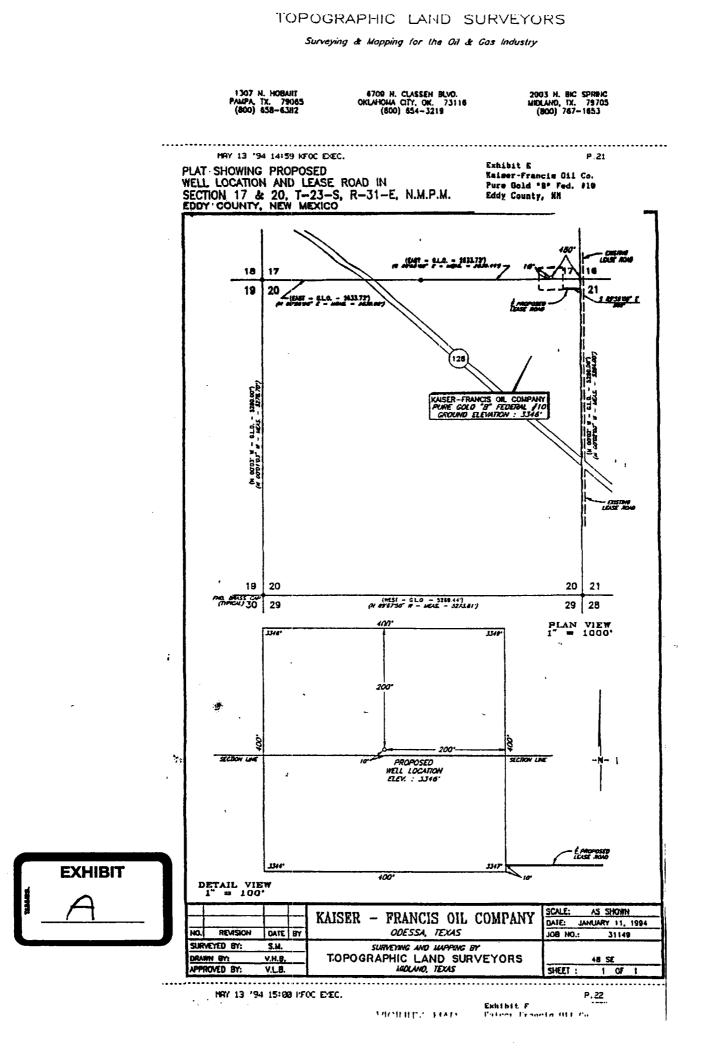
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SUBSCRIBED AND SWORN TO before me this ____ day of June, 1994 by James T. Wakefield.

Notary Public

(SEAL)

My Commission Expires:



MAY 13 '94 14:43 KFOC EXE	OPE	RATOR'S COPY
June 1990) June 1990) JAR J U BUREAUCOF I BUREAUCOF I SUNDRY NOTICES Do not use this common for proposals to dr	TED STATES T OF THE INTERIOR LAND MANAGEMENT AND REPORTS ON WELLS III or to deepen or reentry to a different reservoir. R PERMIT—" for such proposals	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993 5. Lease Designation and Serial No. NM - 38463 6. If Indian, Allottee or Tribe Name
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Type of Well Gas Well Well Other Name of Operator		8. Well Name and No. Pure Gold B Federal #10
Kaiser-Francis Oil Company J. Address and Telephone No. P. O. Box 21468, Tulsa, OK 741 4. Location of Well (Poolage, Sec., T. R., M., or Survey D. Surface: 10' FSL & 480' FEL of	escription)	9. API Well No. n/a 10. Field and Pool. or Exploratory Area W. Sand Dunes. (Delaware) 11. County or Farish, State
Bottomhole: 480' FNL & 480' H	TEL of Sec. 20-235-31E s) TO INDICATE NATURE OF NOTICE, REPO	Eddy, NM
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	A Other Move surface location of well I periment details, and give periment dates, including estimated date of starting	Dispose Waler (Note: Report results of multiple campiletion on Well Campletion or Recentplesion Report and Log form.)

give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

It is proposed to drill vertical holes to 4070' and 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 Sec. 20-235-31E.

An APD was previously filed and was approved for drilling on 12/17/93 at a surface location of 10' FSL & 135' FWL of Sec. 16-23S-31E. On 12/16/93 Craig Cranston with the BLM called to advise that a surface location 625' west of the approved location at 10' FSL & 480' FEL- of Sec. 17-23S-31E would also be approved for drilling. There would be no change in the bottomhole location. Therefore, since this surface location will reduce the direction displacement of the wellbore and result in a significant savings in drilling costs, it is our proposal to move the surface location of the well.

Please see attachments with previous	ly filed amended APD dated 3/1/94	EXHIBIT
		IR
4. I haveby certify that the foregoing-is your and correct	Charlotte Van Valkenburg	- // / / /

Signed C: Pan fallenburg	Title Technical Goordinator	Date 3/15/94
(This space to (Foldral or State office are) Approved by	Tile Acting Ares Manager	Date 5/2/94

The I I I 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, fictitious or fraudulent statements

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DISTRICT II P. O. Drawer DD Artesia, NM 88210	Santa Fe, N	lew Merico 87504-2088	
DISTRICT III 1000 Rio Brozos Rd Aztec, NM 87410		D ACREAGE DEDICATION PLAT	
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EXHIBIT A KAISER-FRANCIS DIL 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 18 degrees is obtained plus or minus to 5627' N.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 + 6-1/4* steel drill collar + 3 point roller reamer + (20) 6-1/4* drill collars. Drill hole dropping at 1.5 degrees for 100' to TVD depth of 6766.79' 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. It is anticipated that the Delaware at this location will be partically depleted. The estimated BHP is 2500 psi.

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