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

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

Form C-101
Revised July 18, 2013

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
Kaiser-Francis Oil Company, P.O. Box 21468, Tulsa, OK 74121-1468	012361
	3. API Number 30-015-25658

4. Property Code	5. Property Name	6. Well No.
025205	Fort 7 Com	1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
O	7	24S	29E	---	660	S	2310	E	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

9. Pool Information

Pool Name	Pool Code
Pierce Crossing (Bone Spring) (Wolfcamp)	50371/50373

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
P	G	R	P	2948.6
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
No	12311	Bone Spring/Wolfcamp	unk	10/22/1986

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water
--	--	--

☑ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17 1/2	13 3/8	48	608	550	Surf
Inter	12 1/4	9 5/8	36	2650	1550	Surf
Prod	8 3/4	7	23	10700	1200	4000

Casing/Cement Program: Additional Comments

Liner: 4 1/2" set from 10350'-12311' w/300 sxs CLH Cmt: TOC @10350'. Lat./Long: +32.2266766/-104.0221770

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.
Signature: Charlotte VanValkenburg

Printed name: Charlotte VanValkenburg
Title: Regulatory Manager
E-mail Address: CharlotV@kfoc.net
Date: 03/14/2014 Phone: 918-491-4314

OIL CONSERVATION DIVISION

Approved By: T. C. Shepard
Title: "Geologist"
Approved Date: 3-17-2014 Expiration Date: 3-17-2016

XXX Conditions of Approval Attached

xxx Permit Conditions of Approval

API: 30-015- 25658 Fort 7 Com #1

OCD Reviewer	Condition
CSHAPARD	Unable to produce until Administrative Approval For Downhole Commingle. 3-17-2014

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-25658	50371	Pierce Crossing (Bone Spring)

[4] Property Code	[5] Property Name	[6] Well Number
025205	Fort 7 Com	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
012361	Kaiser-Francis Oil Company	2948.6 GR

[10] Surface Location

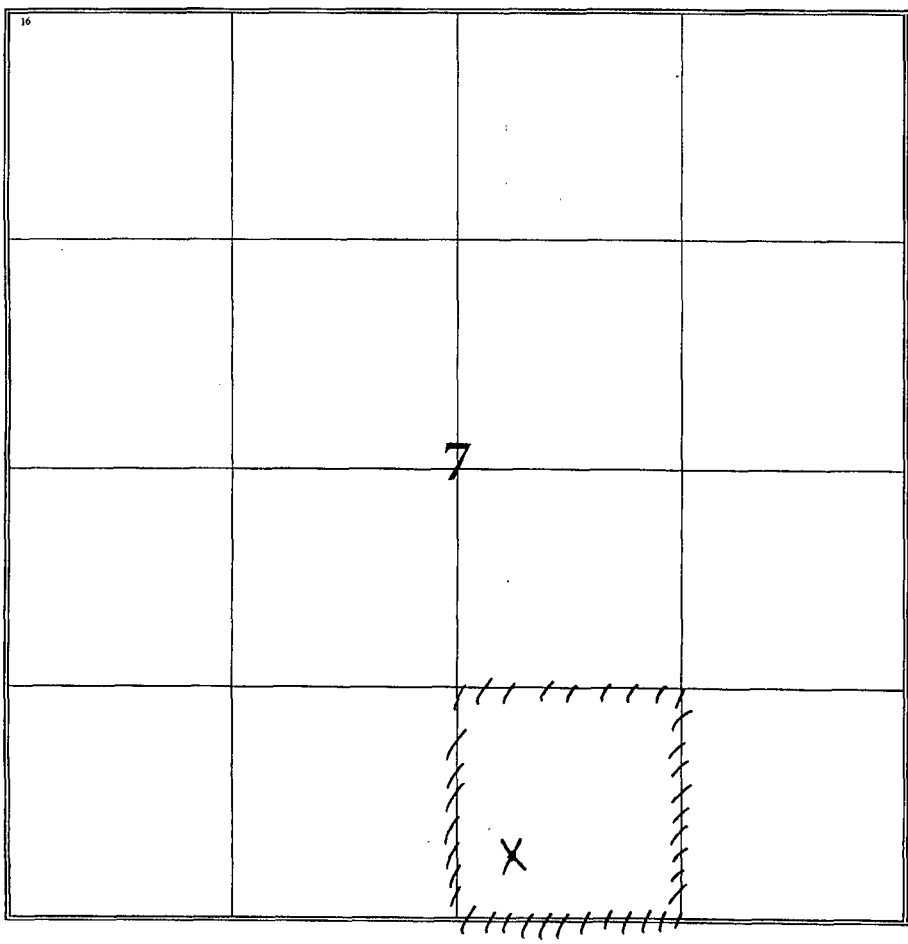
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	7	24S	29E	---	660	S	2310	E	Eddy

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
40	N	-----	-----

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

C. Jay VanValkenburg 03/17/14

Signature Date

Charlotte VanValkenburg

Printed Name

CharlotV@kfoc.net

E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-25658	50373	Pierce Crossing (Wolfcamp)

[4] Property Code	[5] Property Name	[6] Well Number
025205	Fort 7 Com	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
012361	Kaiser-Francis Oil Company	2948.6 GR

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	7	24S	29E	---	660	S	2310	E	Eddy

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

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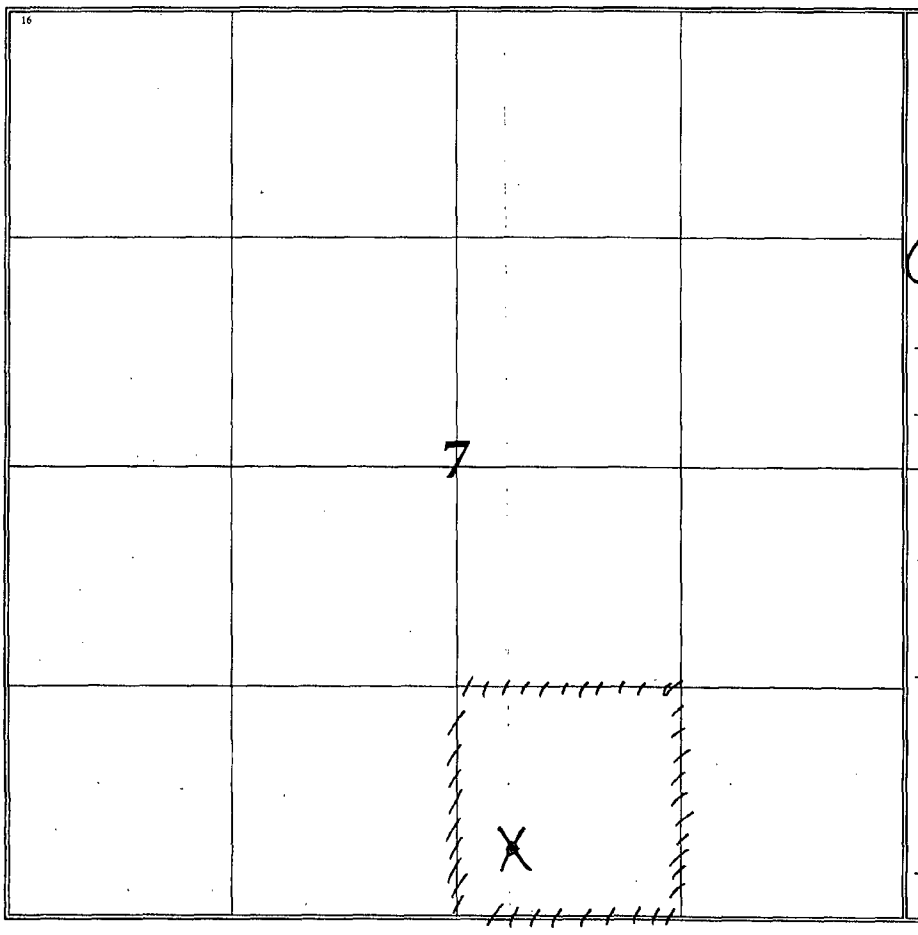
40	N	-----	-----

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



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I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 03/17/14

Charlotte VanValkenburg
Printed Name

CharlotV@kfoc.net
E-mail Address

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I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey

Signature and Seal of Professional Surveyor:

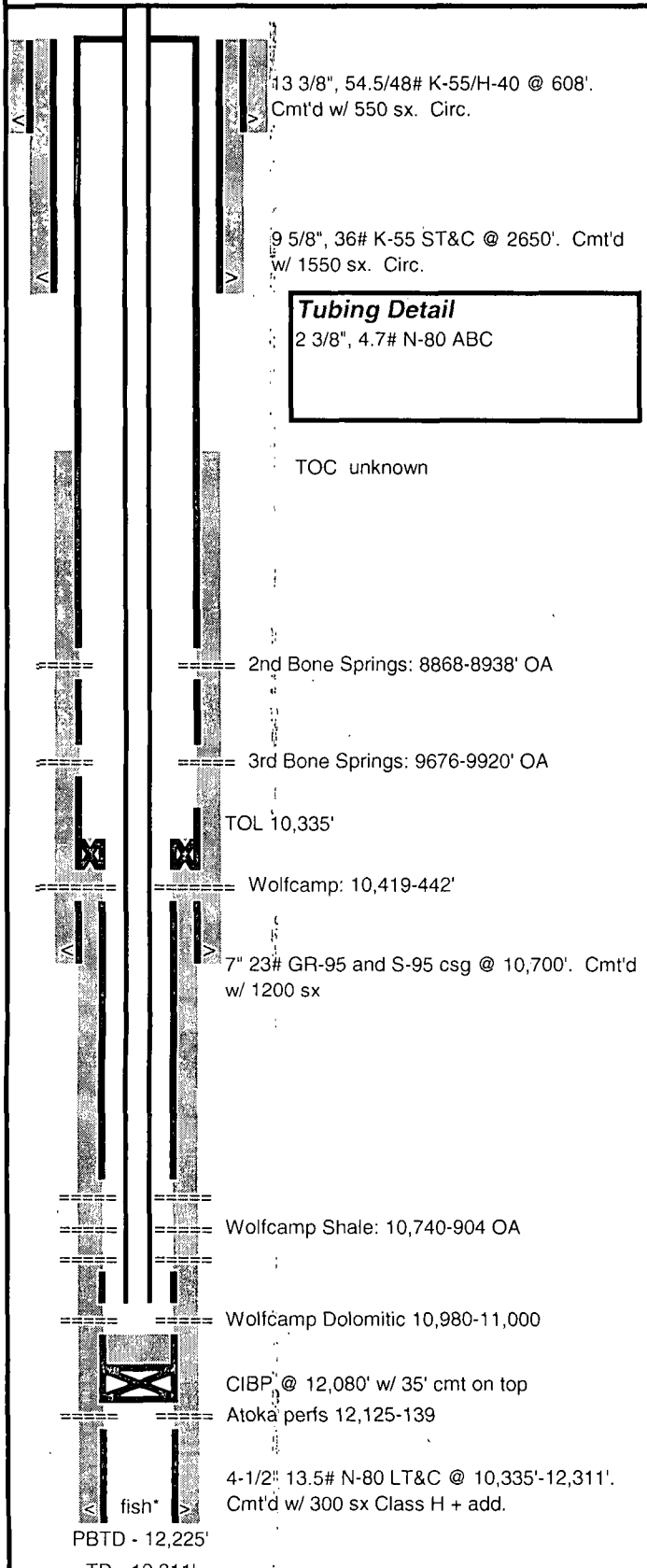
Certificate Number

Kaiser-Francis Oil Company

Location: Section 7-24S-29E
Field: Malaga
County: Eddy
State: New Mexico
Elevation: KB - 2972' GL - 2949'

Fort 7 Com #1 (proposed)

API: 30-015-25658
Spud Date: 10/22/86
Completed: 11/86
Diagram Updated: 7/29/13



Work History:

11/86- Drilled by HNG oil company to TD of 12,311'. Mild deviation.

11/86- RIH w/ workstring. Tagged TOC at 10,065'. Drilled stringers to 10,140'. Solid cement from there to liner top. C/O to 12,225. Tested liner to top to 2000#. Dressed off PBR.

11/86- Perf'd Atoka 12,125-139' (15 holes) through tubing. BD perfs w/ trt'd water at 5700# & 3.5 BPM.

11/86- Az Atoka 12,125-139' w/ 2500 gal 7.5% HCl + add @ 2.5 bpm & 6600#. ISIP-6400. 15-6000. Well IP'd 1100 mcf/d @ 550# FTP.

9/01-Located EOT @ 10,350'. Swabbed.

11/01-RIH w/ CT to 12,225'. Cleaned out some scale bridges. Acidized well w/ 500 gal 15% NeFe. Flush w/ 3 bbls 2% jetted w/ N2.

8/04-Swabbed. Lost tools in hole (see detail below)

10/04-Swabbed. Rec 1 1/4 bbl. **6/06**- Swabbed. Rec 8 BW

2/07-Swabbed. Rec 9 BW. **5/07**- Swabbed. Rec 10 black, nasty water

10/07-Ran 1 1/4" CT string in well. Jetted well in. Well would not make enough gas to keep compressor running.

1/08-tie onto CT-TAG TD @ 12,175'. Jet w/ N2 and recovered 15 BW.

3/08-POOH w/ CT. 4/08-Flushed w/ 2%. Swabbed back.

5/08-Swabbed. Rec 5 BW. **7/08**- Swabbed. Rec 3 BW.

9/08-PU on tbg-couldn't get seal assembly out of PBR. Cut tubing at 10,304'. RIH and jarred free-LD seal assembly. Ran 3 7/8" bit and scraper to 12,122'. Re-perfed 12,129-134 (10 holes). Set pkr at 12,020'. Az Atoka w/ 3000 gal foamed 15% HCl + 750 gal MetOH. AIP-3876#. Flowed back for 2 hrs and died. Swabbed back load-very little gas production post job.

11/08-Swabbed. Line parted. POOH w/ tbg and pkr. Retrieved tools and re-ran tubing open-ended to 12,020'.

5/09-Swabbed. Rec 30 BW. Last three runs 80% Oil. Opened both sides to sales.

*fish consists of swab mandrel w/ 2 cups. 1 1/4" X 4' jars, 1 1/4" X 25' weight bar, 1 1/4" OD swivel (half) 7/8" pin looking up. TOF 12,150'

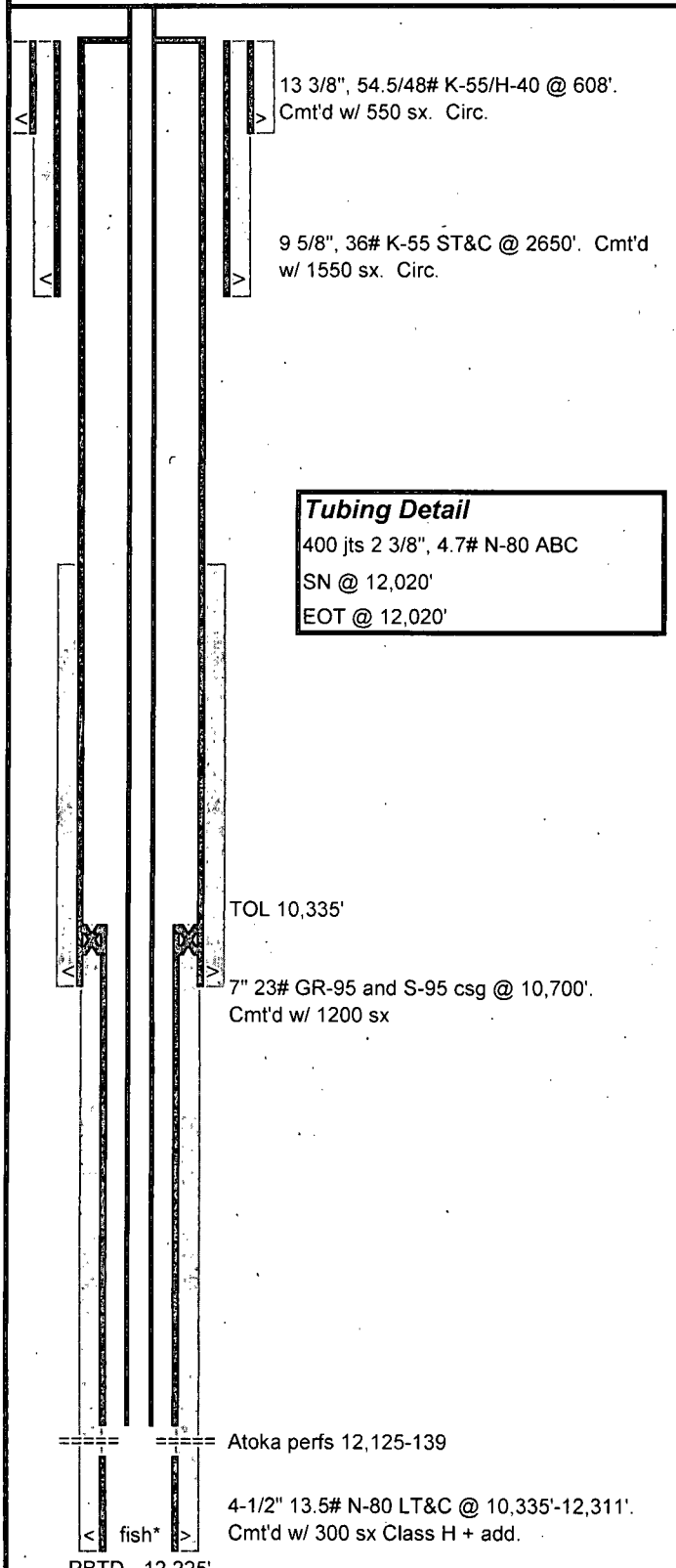
Kaiser-Francis Oil Company

Fort 7 Com #1

Location: Section 7-24S-29E
Field: Malaga
County: Eddy
State: New Mexico
Elevation: KB - 2972' GL - 2949'

API: 30-015-25658

Spud Date: 10/22/86
Completed: 11/86
Diagram Updated: 7/29/13



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Kaiser-Francis Oil Company

2nd Bone Springs Recompletion Procedure

Fort 7 Com #1

Section 7, T24S, R29E
Eddy County, New Mexico
API # 30-015-25658

WELL DATA

Elevation: GL Elev. = 2949' KB Elev. = 2972

Surface Casing: 13-3/8" 54.5/48# K55/H40 @ 608', cemented w/ 550 sx, circ.

Intermediate Csg: 9 5/8" 36# K-55 @ 2,650', cemented w/ 1550 sx, circ.

Intermediate Csg: 7" 23# S-95 & GR-95 @ 10,700', cemented w/ 1200 sx. TOC unknown.

Liner: 4 ½" 13.5# N-80 f/ 10,335' – 12,311', cmt'd w/ 300 sx. Decent cement top and bottom-poor in between.

TD: 12,311' PBTD: 12,225'

Proposed Perfs: - 2nd Bone Springs:8868-76, 8886-92, 8912-16, 8924-38
- 3rd Bone Springs: 9676-80, 9764-68, 9834-38, 9910-20
- Wolfcamp: 10,419-32';10,740-44', 10,760-64, 10,824-28, 10,880-84, 10,900-04; 10,980-11,000

Current perfs: 12,125' -139' Atoka

OD	Weight	Grade	Depth	Conn	Con OD	ID	Drift	Capacity	Burst (80%)	Coll. (80%)	Jt Str. (80%)
7"	23#	S-95	0-10,700'	LT&C	-	6.366	6.241	0.039367	6024	4520	
4 1/2"	13.5#	N-80	10335-12311	LT&C	-	3.92	3.795	0.014927	7216	6832	
2 3/8"	4.7#	N-80	0-12,020'	ABC-Mod	3.063	1.995	1.901	0.003866	8960	9424	83472
3 1/2"	10.2#	P-110		CS	3.916	2.922	2.797	0.008294	10672	9061	249600
3 1/2"	9.3#	P-110		CS	3.916	2.992	2.867	0.008696	10672	9061	228000

Annulus	Capacity
2 3/8" X 7"	0.032782
3 1/2" X 7"	0.026362
2 3/8" X 4 1/2"	0.009448

Tubing String
400 jts 2 3/8" 4.7# N-80
SN @ 12,020'

PROCEDURE

1) MIRU WOR and pump truck. Set pipe racks and cat walk. Note and report tubing and all annuli pressures on first report.

2) Kill well, as necessary, w/ lease brine. ND wellhead. NU BOP w/ 2 3/8" pipe rams. RU tubing scanners. TOOH w/ 2 3/8" tubing scanning and standing back. LD joints w/ less than 70% remaining wall thickness.

3) Flush casing w/ 40 bbls 2% KCl.

4) MIRU ELU and lubricator. RIH w/ GR/JB for 4 ½", 13.5# casing. Carefully work tool through liner top and into liner to just above perfs at 12,085'. POOH. RIH w/ 4 ½" 10K CIBP. Carefully work plug through liner top and into liner and set plug above Atoka perfs at ~12,080'. POOH w/ setting tool. RIH w/ bailer and dump 35' cement on top of plug.

   Note: take note of fluid level going in with plug.

   Note: all depths correlated to SLB CN-LD log run #2 (11-21-86)

5) Load casing w/ 2% KCl. RIH w/ CBL/VDL. Log cement f/ 10,335' to ~300' above the observed TOC w/ 1000# imposed on the well. Correlate CBL to SLB CN-LDL run #1 (11-9-86). Contact Ardmore/Tulsa if cement bond is at all questionable in the proposed perforation area. Test plug/casing to 2000#.

   Note: Send copies of log to: BillyW@KFOC.net, VinceD@KFCO.net and DavidZ@KFOC.net.

6) RIH w/ 3 1/8" casing gun carrying 3319-322T or equivalent charges (0.4" EHD X 38.87" PEN). Perforate Wolfcamp "Dolomitic Carbonate" as follows:

10,980-11,000	3 SPF	120° phasing	61 holes

   Note: all depths correlated to SLB CN-LDL log run #2 (11-21-86)

   Note: zone was drilled w/ ~10# mud. Be ready for surface pressure of 902# post perf.

POOH w/ spent guns. Monitor for any pressure changes at the surface. RDMO. ELU.

7) R/U tubing testers. P/U and TIH w/ 10M, 4 ½" treating packer, on/off tool and 1 25/32" SN on 2 3/8" tubing. Test joints to 8000# going in the hole. Set packer at ~10,940' and land w/ 13K compression. RD tubing testers. Test backside to 1500#. Swab-test Wolfcamp perfs until ready to acidize.

8) RU acid pumpers. Acidize Wolfcamp perfs 10,980'-11,000 w/ 2000 gal 15% HCl down 2 3/8" tubing. Over–displace w/ 2% KCl. Swab back load and monitor for oil and gas production.

Note: Limit max injection pressure to 7000# (subject to tube move) w/ 1000# imposed on the back side.

9) Kill well as necessary w/ 2% KCl. Release on/off tool and equalize well. Latch back on to packer. Release packer and TOOH w/ tubing and packer-laying down tubing.

10) MIRU ELU and pressure control. RIH w/ GR/JB for 4 ½", 13.5# casing. Carefully work tool through liner top and into liner to just above perfs at 10,960'. POOH. RIH w/ 4 ½" 10K CIBP. Carefully work plug through liner top and into liner and <u>set plug above Wolfcamp perfs at ~10,950'</u>. Load hole w/ 2% and test plug to 1500#. POOH w/ setting tool. RIH w/ bailer and dump 35' cement on top of plug.

11) RIH w/ 3 1/8" casing gun carrying 3319-322T or equivalent charges (0.4" EHD X 38.87" PEN). <u>Perforate Wolfcamp "Shale" as follows</u>:

10,740-44'	3 SPF	120° phasing	13 holes
10,760-64'	3 SPF	120° phasing	13 holes
10,824-28'	3 SPF	120° phasing	13 holes
10,880-84'	3 SPF	120° phasing	13 holes
10,900-04'	3 SPF	120° phasing	13 holes

Note: all depths correlated to SLB CN-LDL log run #2 (11-21-86)
Note: zone was drilled w/ ~10# mud. Be ready for surface pressure of 896# post perf.

POOH w/ spent guns. Monitor for any pressure changes at the surface. RDMO. ELU.

12) Take delivery of 10,600' of 3 ½", 10.3# and 600' of 2 7/8", 6.5# , P-110, CS hydril tubing. Strap and tally pipe. Change rams in BOP to accommodate 3 ½" tubing. RU tubing testers. P/U and TIH w/ the following BHA (B to T) on 3 ½" tubing to ~10,710' <u>testing to 10,000#:</u>

A. WLREG
B. XN Nipple (frac hardened)
C. 1 joint tailpipe

D. 2 3/8" X 4 ½" 10K treating
E. ON/Off tool w/ Frac hardened 1.875" profile
F. 2 3/8" 8RD X 2 7/8" CS hydrill XO
G. ~450' of 2 7/8", P-110 CS Hydrill tubing
H. 2 7/8" CS X 3 ½" CS XO
I. Remaining 3 ½", P-110 CS tubing to surface

*Note: optimal make-up torque for 3 ½", 10.2# CS P-110 is 3375 ft/lbs (Max:3800 ft*lbs, Min: 3000 ft*lbs). Calibrate tongs before use.*

*Note: optimal make-up torque for 2 7/8", 6.5# CS P-110 is 2360 ft/lbs (Max:2625 ft*lbs, Min: 2100 ft*lbs). Calibrate tongs before use.*

Note: Make and break connections using low tong speed to prevent gaulding.

Note: Dope pins only with proper pipe dope and use a stabbing guide to make up. Ensure thread protectors are collected, accounted-for and re-installed whenever pipe is picked up or laid down.

13) With the EOT at 10,710', set packer. Land hanger w/ string in 25-30K compression (subject to tube-move). ND BOP. NU 3 1/16' X 10M frac tree. Load annulus w/ 2% KCl. Test 3 ½" X 7" annulus to 1500#.

14) Break down Wolfcamp perfs 10,740-934' OA w/ 10 bbls 2% KCl. Report initial, 5 min, 10 min and 15 min SIPs. RDMO pump truck. RDMO WOR.

Note: impose 1500# on annulus and monitor throughout job.

15) R/U 10M tree-saver. Set steam-cleaned frac tanks and fill w/ 2% KCl (from powder, not substitute) water. RU FBE.

16) RU stimulation company. Pump fracture-stimulation on Wolfcamp perfs down 3 ½" tubing as per attached schedule. Report initial, 5 min, 10 min and 15 min SIPs. RDMO tree saver and stimulation provider.

Note: max treating pressure will be limited to 9000#. Set pop-offs to release at 9500#. Test same.

Note: R/U back side pump to impose 1500# on 3 ½" X 5 ½" annulus and monitor throughout job.

Flow back well, monitor for gas and oil production. Take produced fluid samples every hour and treat w/ emulsion breaker to determine wellhead oil cut. Consult w/ Tulsa before proceeding to next step.

17) When well dies. MIRU WOR. Kill well as necessary w/ produced water. ND wellhead. NU BOP. Release on/off tool and equalize well. Re-latch packer, release packer and TOOH w/ 3 ½" tubing.

18) MIRU ELU and pressure control. RIH w/ GR/JB for 4 ½", 13.5# casing. Carefully work tool through liner top and into liner to just above perfs at 10,720'. POOH . RIH w/ 4 ½" 10K CIBP. Carefully work plug through liner top and into liner and set plug above Wolfcamp perfs at ~10,710'. POOH w/ setting tool. Load hole w/ 2% and test plug to 1500#. RIH w/ bailer and dump 35' cement on top of plug.

19) RIH w/ 3 1/8" casing gun carrying 3319-322T or equivalent charges (0.4" EHD X 38.87" PEN). Perforate Wolfcamp as follows:

10,419-10,432	6 SPF	60° phasing	79 holes

Note: all depths correlated to SLB CN-LDL log run #2 (11-21-86)

POOH w/ spent guns. Monitor for any pressure changes at the surface. RDMO. ELU.

20) RU tubing testers. P/U and TIH w/ the following BHA (B to T) on 3 ½" tubing to ~10,320' testing to 10,000#. **Do not run EOT past liner top at 10,335'**:

A. WLREG
B. "XN" nipple (frac-hardened)
C. 1 joint of tailpipe
D. 10K treating packer
E. On/Off tool w/ "X" Profile (frac-hardened)
F. Remaining 3 ½" tubing to surface.

21) With the EOT at 10,320', set packer. Land hanger w/ string in 25-30K compression (dependent on tube-move). ND BOP. NU 3 1/16' X 10M frac tree. Load annulus w/ 2% KCl. Test 3 ½" X 7" annulus to 1500#.

22) Break down Wolfcamp perfs 10,419-32' w/ 10 bbls 2% KCl. Report initial, 5 min, 10 min and 15 min SIPs. RDMO pump truck. RDMO WOR.

Note: impose 1500# on annulus and monitor throughout job.

23) R/U 10M tree-saver. Fill frac tanks w/ 2% KCl (from powder, not substitute) water. RU FBE.

24) RU stimulation company. Pump fracture-stimulation on Wolfcamp perfs as per attached schedule. Report initial, 5 min, 10 min and 15 min SIPs. RDMO tree saver and stimulation provider.

Note: max treating pressure will be limited to 9000#. Set pop-offs to release at 9500#. Test same.

Note: R/U back side pump to impose 1500# on 3 ½" X 5 ½" annulus and monitor throughout job.

Flow back well, monitor for gas and oil production. Take produced fluid samples every hour and treat w/ emulsion breaker to determine wellhead oil cut. Consult w/ Tulsa before proceeding to next step.

25) When well dies. MIRU WOR. Kill well as necessary w/ produced water. ND wellhead. NU BOP. Release on/off tool and equalize well. Re-latch packer, release packer and TOOH w/ 3 ½" tubing.

26) If the perfs 10,419-10,432' are not commercial, P/U and TIH w/ CICR for 7" 23# pipe on 3 ½" tubing. Set retainer above liner top at ~10,235'. Load and test backside to 1000#. Establish injection rate into perforations. Report same.

27) R/U cementers. Pump FW spacer ahead followed by 150 sx cement and displace. Squeeze Wolfcamp perforations 10,419-432 w/ 150sx Class H neat cement. Hesitate during displacement to build squeeze pressure of 1000-2000#. Sting out of retainer and spot at least 30' (2 bbls) of cement on top of retainer. P/U above TOC and reverse string clean. Displace to 2% KCl and TOOH w/ 3 ½".

Note: impose 1000# on backside during squeeze and monitor for signs of communication during job.

28) MIRU ELU and pressure control. RIH w/ 4" slick gun carrying 3325-321T or equivalent charges (0.41" EHD X 43.58" PEN). Perforate 3rd Bone Springs as follows:

9910-20	2 SPF	120° phasing	21 holes
9834-38	2 SPF	120° phasing	9 holes
9764-68	2 SPF	120° phasing	9 holes
9676-80	2 SPF	120° phasing	9 holes

Note: all depths correlated to SLB CN-LDL log run #1 (11-9-86)

POOH w/ spent guns. Monitor for any pressure changes at the surface.

29) RU tubing testers. P/U and TIH w/ the following BHA (B to T) on 3 ½" tubing to ~9640' testing to 10,000#:

G. WLREG
H. "XN" nipple (frac-hardened)
I. 1 jt of tailpipe
J. 10K treating packer
K. On/Off tool w/ "X" Profile (frac-hardened)
L. Remaining 3 ½" tubing to surface.

30) With the EOT at 9640', set packer. Land hanger w/ string in 25-30K compression (dependent on tube-move). ND BOP. NU 3 1/16' X 10M frac tree. Load annulus w/ 2% KCl. Test 3 ½" X 7" annulus to 1500#.

31) Break 3rd Bone Springs perfs down w/ 10 bbls 2% KCl. Report initial, 5 min, 10 min and 15 min SIPs. RDMO pump truck. RDMO WOR.

Note: impose 1500# on annulus and monitor throughout job.

32) R/U 10M tree-saver. Fill frac tanks w/ 2% KCl (from powder, not substitute) water. RU FBE.

33) RU stimulation company. Pump fracture-stimulation on 3rd Bone Springs perfs as per attached schedule. Report initial, 5 min, 10 min and 15 min SIPs. RDMO tree saver and stimulation provider.

Note: max treating pressure will be limited to 9000#. Set pop-offs to release at 9500#. Test same.

Note: R/U back side pump to impose 1500# on 3 ½" X 5 ½" annulus and monitor throughout job.

Flow back well, monitor for gas and oil production. Take produced fluid samples every hour and treat w/ emulsion breaker to determine wellhead oil cut. When well dies, MIRU WOR. Release pkr and POOH.

34) MIRU ELU and pressure control. Round-trip GR/JB to 9640. RIH and Set 7" 10K CIBP @ 9,630'. POOH w/ setting tool. Load hole w/ 2% KCl. Test plug to 1500#. Dump-bail 35' of cement on plug.

35) RIH w/ 4" slick gun carrying 3325-321T or equivalent charges (0.41" EHD X 43.58" PEN). Perforate 2nd Bone Springs as follows:

8924-38	2 SPF	120° phasing	28 holes
8912-16	2 SPF	120° phasing	9 holes
8886-92	2 SPF	120° phasing	13 holes
8868-76	2 SPF	120° phasing	17 holes

Note: all depths correlated to SLB CN-LDL log run #1 (11-9-86)

POOH w/ spent guns. Monitor for any pressure changes at the surface.

36) RU tubing testers. P/U and TIH w/ the following BHA (B to T) on 3 ½" tubing to ~8830' testing to 10,000#:

M. WLREG
N. "XN" nipple (frac-hardened)
O. 3 joints of tailpipe
P. 10K treating packer
Q. On/Off tool w/ "X" Profile (frac-hardened)
R. Remaining 3 ½" tubing to surface.

37) With the EOT at 8830', set packer. Land hanger w/ string in 25-30K compression (dependent on tube-move). ND BOP. NU 3 1/16' X 10M frac tree. Load annulus w/ 2% KCl. Test 3 ½" X 7" annulus to 1500#.

38) Break 2nd Bone Springs perfs down w/ 10 bbls 2% KCl. Report initial, 5 min, 10 min and 15 min SIPs. RDMO pump truck. RDMO WOR.

Note: impose 1500# on annulus and monitor throughout job.

39) R/U 10M tree-saver. Fill w/ 2% KCl (from powder, not substitute) water. RU FBE.

40) RU stimulation company. Pump fracture-stimulation on 2nd Bone Springs perfs as per attached schedule. Report initial, 5 min, 10 min and 15 min SIPs. RDMO tree saver and stimulation provider.

Note: max treating pressure will be limited to 9000#. Set pop-offs to release at 9500#. Test same.

Note: R/U back side pump to impose 1500# on 3 ½" X 5 ½" annulus and monitor throughout job.

41) Flow back well, monitor for gas and oil production. Take produced fluid samples every hour and treat w/ emulsion breaker to determine wellhead oil cut. When well dies, MIRU WOR. Release pkr, run tailpipe down through perfs to verify everything is clear and POOH. LD workstring.

42) Take delivery of 2 3/8" N-80 production tubing. RIH w/ bit and drill out plugs as needed to commingle production. TOOH. LD bit.

43) RIH w/ BP, MA, perf sub SN and TAC on 2 3/8" tubing. Place the SN @ ~8950 and TAC @ ~8750'. Make some swab runs to verify fluid is clean.

44) Run rods and pump (design forthcoming). Seat pump. Load and test tubing to 300#. Set unit and evaluate pump action. RDMO WOR.

45) Put well on production.