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

HOBBS OCD
JUL 18 2018
RECEIVED

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
Cimarex Energy Co. of Colorado 600 N. Marienfeld, Suite 600 Midland, TX 79701	162683
	3. API Number 30-025-33184

4. Property Code	5. Property Name	6. Well No.
29209	Eureka 36 State	#1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
F	36	16S	34E		1980'	North	1650'	West	Lea

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
Wolfcamp/Abo VACUUM; LOWER WOLFCAMP, NORTH VACUUM; ABO, NORTH	~~62180~~ 61760

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
P	G		S	4042'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
Y	12,962'	Wolfcamp/Abo		12/07/1997

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

Casing/Cement Program: Additional Comments

We would like to plugback and recomplete into the Wolfcamp and if that is not successful we will plugback the Wolfcamp and recomplete into the Abo.

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:	OIL CONSERVATION DIVISION Approved By: Karen Sharp
Printed name: Fatima Vasquez	Title: Staff Mgr
Title: Regulatory Analyst	Approved Date: 7-23-18 Expiration Date: 7-23-20
E-mail Address: fvasquez@cimarex.com	
Date: 07/17/2018 Phone: 432-620-1933	Conditions of Approval Attached

AFE No: ----------RC

Eureka 36 State Com #1

Procedure to R/C Wolfcamp C & Lower Abo

Well Data:

KB	16' above GL
TVD	12,972' (PBTD @ 12,415')
Casing	13-3/8" 48# @ 425', 70 sxs
	8-5/8" 32# @ 4,780', 2185 sxs
	5-1/2" 17/20# @ 12,972', 1675 sxs
Tubing	389 Jts 2-3/8" 4.7# tbg
Perfs	Atoka 12,503' – 12,523'

Wolfcamp C Procedure:

1. MIRU. Have RU and operational safety meeting on location; discuss all risk and potential dangers. Check surface pressures and blow down or kill well as needed.

2. Set flowback tanks for swabbing.

3. Deliver 275 jts 2-7/8" tbg to location (see proposed tubing detail on step 48). This is approx. 8,900' of tbg. Will need to rent work string for the remaining length to get to 12,400'.

4. ND wellhead and flowline. NU 5K dual hydraulic BOP and spool.

5. Load hole with 3% KCL water and test existing plug to 2,300 psi to verify integrity.

6. PU one joint of 2-3/8" tbg and tag CIBP @ 12,415'. TOH & LD tubing (Note: possible tight spots @ 11,741', 11,800', 11,864', 11,884', 11,912', 11,923').

7. PU 2-7/8" tbg/work string w/ used 4-3/4" bit, 5-1/2" scraper and TIH to 12,400'. TOH. LD bit and scraper.

8. Set any additional cement plugs per NMOCD requirements.

Perforate

9. MU & RIH w/ 4" select fire casing guns and gamma ray on wireline.

10. Correlate gamma ray back to Halliburton Dual Laterolog dated 1/17/96.

11. Perforate 10,726'-10,624' every foot w/ 1 SPF (35 holes), 120 deg, 0.41" EHD, as follows:

Top Shot (ft)	Bottom Shot (ft)	Length (ft)	Perforations
10,726	10,731	5	5
10,706	10,716	10	10
10,693	10,698	5	5
10,652	10,655	3	3
10,640	10,648	8	8
10,636	10,638	2	2
10,624	10,628	4	4

NOTE: SHORT COLLAR LOCATED AT ~10,384'.

12. POH with perf guns and inspect to ensure all shots fired. Shut well in. RDMO wireline.

Acidize

13. PU 2-7/8" x 5" 10K Weatherford Arrow-set packer and downhole pressure gauge (for Wolfcamp test). TIH while hydrotesting work string/tbg to 8,000 psi.

14. Rig up Petroplex crew to acidize per procedure below.

15. Spot 95 gal acid across perfs from 10,624'-10,731'.

16. TOH to +/-10,560'

17. Reverse circulate 5-10 bbls to ensure no acid in the annulus.

18. PU and set packer in 16,000 lbs compression @ ± 10,560'.

19. Establish rate w/ 3% KCL.

20. Acidize perfs 10,624'-10,731' @ 7-8 BPM starting with 10,000 scf N2 followed by 1,500 gals 15% HCl w/ NE surfactant, iron reducer, and clay stabilizer. Drop 70 ball sealers spaced out evenly (approx. one ball sealer per 20 gals HCl).

21. **DO NOT EXCEEED 2325 PSI ON SURFACE.**

22. Flush well w/ 61 bbls of 3% KCL water and 1,000 scf/bbl N2 to top perf. RDMO Petroplex.

23. Record ISIP in 5, 10, and 15 minutes while SI.

Produce well

24. RU flowback iron. Flow well back at 4 BPH until it dies. Consult with Midland office to discuss well results prior to continuing.

Abo Procedure (If Wolfcamp is deemed unsuccessful):

25. Unset packer.

26. TOOH with work string & tbg, laying down packer.

27. MIRU wireline and install 5K lubricator. MU and RIH w/ 5-1/2" 10K CIBP. Set CIBP @ 10,584'. POH w/ wireline. (Set any additional cement plugs per NMOCD requirements.)

28. MU and RIH w/ dump bailer on wireline to top of CIBP @ 10,584'. Dump bail 35' of cement over CIBP. POH w/ wireline. (Make sure sufficient time is allowed for cement to set)

29. Load hole with 3% KCL water and test plug to 2,200 psi.

Perforate

30. MU & RIH w/ 4" select fire casing guns and gamma ray on wireline.

31. Correlate gamma ray back to Halliburton Dual Laterolog dated 1/17/96.

32. Perforate 8,817'-8,864' every foot w/ 1 SPF (17 holes), 120 deg, 0.41" EHD, as follows:

Top Shot (ft)	Bottom Shot (ft)	Length (ft)	Perforations
8,861	8,864	3	3
8,849	8,852	3	3
8,841	8,845	4	4
8,817	8,820	3	3

33. POH with perf guns and inspect to ensure all shots fired. Shut well in. RDMO wireline.

Acidize

34. Rig up Petroplex crew to acidize per procedure below.

35. PU 2-7/8" x 5" 10K Weatherford Arrow-set packer. TIH to bottom perf hydrotesting tbg/work string to 8,000 psi.

36. Spot 41 gals of acid across perfs from 8,820'-8,864'.

37. TOH to +/- 8,760'.

38. Reverse circulate 5-10 bbls to ensure no acid in the annulus.

39. PU and set packer in 13,000 lbs compression @ ± 8,760'.

40. Establish rate w/ 51 bbls of 3% KCL.

41. Acid frac perfs 8,817'-8,864' @ 7-8 BPM starting with 500 gals non-emulsifying 15% HCl acid and 20,000 gals of 15% CRA HCl. Drop 34 ball sealers spaced out evenly (approx. one ball sealer per 600 gals HCl). – Fracture pressure is 6350 psi down hole (approx. 2250 psi surface)

42. Flush well w/ 51 bbls of 3% KCL water to top perf. RDMO Petroplex.

Produce well

43. Swab well.

44. Turn the well into the battery when oil production starts. Flow well back until either sufficient production data is achieved or the well dies.

45. Set 912 pumping unit.

46. Deliver rods to location (see proposed rod detail below).

47. Release frac tanks and flow back equipment.

48. RU pulling unit.

49. Release packer and TOH w/ work string and Weatherford Arrowset Packer. LD packer assembly and 2-7/8" work string. (contact Mark Martino/Paul Stock before sending tubing off location) PU and TIH w/ the following tubing BHA. Set TAC in 17 pts tension.

Tubing Detail (Proposed)

Eureka 36 State #1

		KB Correction	16
Quantity	Description	Length	Setting Depth
273	2-7/8" 6.5# L-80 8rd EUE Tubing	8872.50	8888.50
1	5" X 2-7/8" TAC	2.35	8890.85
1	2-7/8" 6.5# L-80 8rd EUE Tubing	32.50	8923.35
1	2-7/8" Mechanical SN	1.10	8924.45
1	2 7/8" 6.5# L-80 tubing sub	2.40	8926.85
1	2-7/8" Echometer Gas Separator	5.10	8931.95
1	2-7/8" 6.5# L-80 8rd EUE Tubing	32.50	8964.45
1	2-7/8" bull plug	3.00	8967.45

50. ND 5K BOP and spool, NU B-5 flange adapter and flowline.

51. TIH w/ the following rod BHA:

CIMAREX

AFE No: ----------RC

Rod Detail (Proposed)

Eureka 36 State #1

Quantity	Description	Length	Setting Depth
1	1-1/2 x 30' SMPR	30.00	30.00
114	1" WFT HD Rods	2,850.00	2880.00
114	7/8" WFT HD Rods	2,850.00	5730.00
113	3/4" WFT HD Rods	2,825.00	8555.00
13	1-1/2" Grade C Sinker Bars	325.00	8880.00
1	2-1/2" x 1-1/4" x 30' RHBC Pump	30.00	8910.00

52. Space out rods, subs, and PR. Load and test tubing to 500 psi.

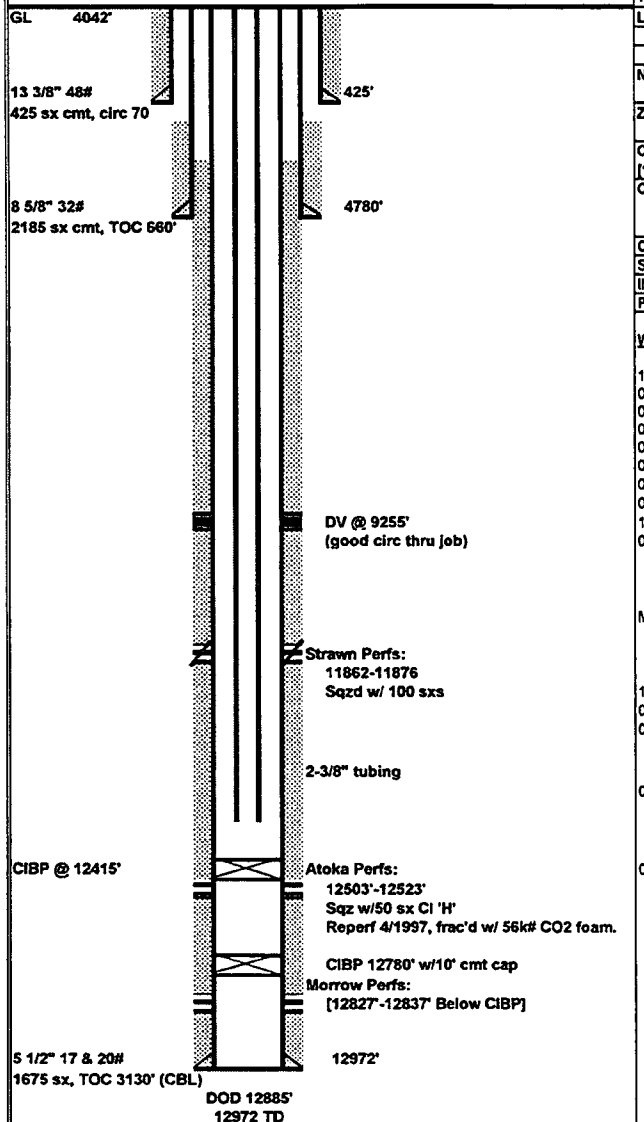
53. Install horsehead, polish rod and stuffing box.

54. Put unit in the long hole (168" Stroke), turn on, and run unit at 7.0 SPM.

55. RDMO WSU and return well to production.

WELLBORE SCHEMATIC AND HISTORY

CURRENT - COMPLETION SCHEMATIC



LEASE NAME: Euroka 36 State	Well # 1		API # 30-025-33184		LEASE # 309608-029
TYPE COMPLETION:	■ SINGLE	☐ DUAL			
LOCATION: 1980' FNL & 1650' FWL, Sec 36, T16S R34E					
TD 12972'	PBD 12,415' (CIBP w/ 35' cmt)		KB 4058'		
COD	DOD		GL 4042'		
NO. PROD. WELLS ON LEASE	FLOWING x		PUMPING		
ZONE TO BE WORKED ON:			CURRENT COMPLETION ZONE: Atoka		
CSG. PERFS: [11862'-11876' Szq'd] 12503'-12523' [12827'-12837' Below CIBP]			OPEN HOLE :		
CURRENT TEST (SHOW DATE)	GAS		OIL		
	GAS		OIL		

CASING BREAKDOWN						
SURF.	17 1/2" hole	SIZE: 13 3/8" 48#	425 sx cmt, circ 70		DEPTH	425'
INTER.	12 1/4" hole	SIZE: 8 5/8" 32#	2185 sx cmt, TOC 660'		DEPTH	4780'
PROD.	7 7/8" hole	SIZE: 5 1/2" 17 & 20#	1675 sx, TOC 3130' (CBL)	DV Tool @ 9255'	DEPTH	12972'

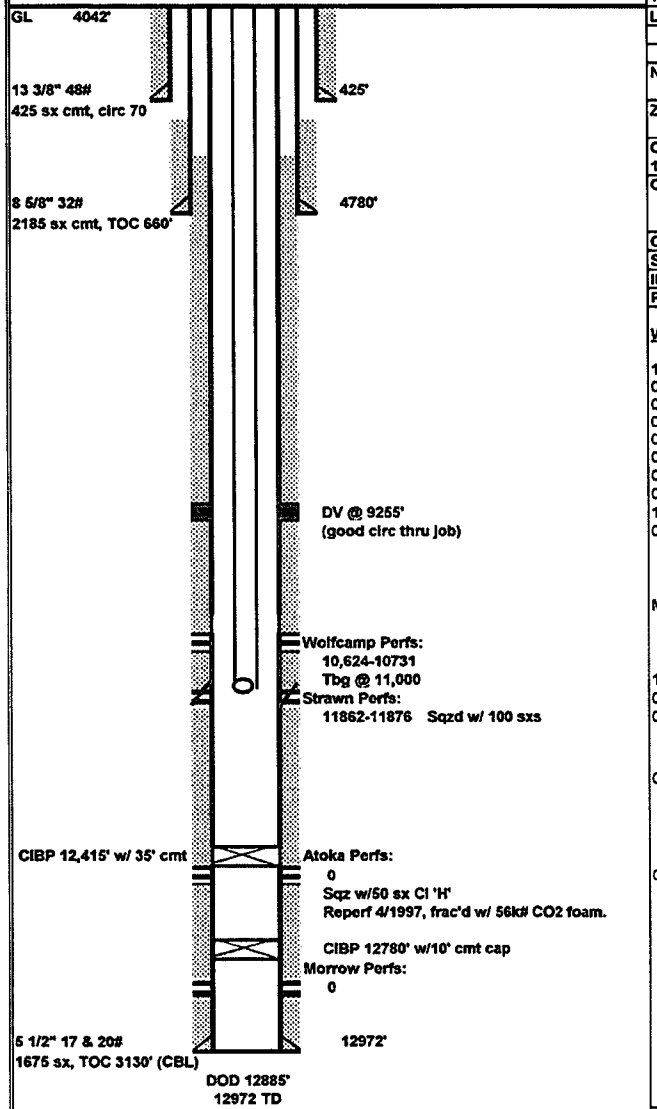
WELL HISTORY

12/07/95	Spud.
02/06/96	Perf Atoka 12503'-12518' w/4 SPF (61 holes). Acdz w/1500 gal MOD 101 acid w/additives. Frac'd w/ 8k# Co2/Meth foam
03/16/96	Sqz Atoka perfs 12503'-12518' w/50 sx Class 'H'. Sqz w/additional 32 sx 50/50 Micro Matrix PO2 blend cmt.
03/26/96	Perf Morrow 12827'-12837' w/4 SPF. Acdz w/1000 gal MSR150 w/additives.
04/24/96	RIH & set CIBP 12780' w/10' cmt cap.
04/25/96	RIH & set CIBP 12450'. Perf Strawn 11862'-11876' w/4 SPF (56 holes). Set pkr @ 11715' Pump 500 gal 15% HCL w/NEFE additives into perfs.
04/27/97	Squeezed Strawn perfs w/ 100 sx. Set packer @ 12351'. Perf Atoka 12503-23'. Frac w/ 56k# co2 foam.
02/23/06	Ran capillary string.
10/15/07	POOH w/capillary string.
02/06/08	Last day of production - 0 BO + 30 MCF + 0 BW.
May 2007	Tubing and Packer Detail 397 joints 2-7/8" L-80 tubing (last reported, may have changed to 2-3/8") Guiberson Uni IV 10k Pkr w/ 1.81" profile and OOT @ 12351'
1120/2010	Braden head leaking, sqz surface casing with 50+100 sxs class C.
02/08/10	Swabbing, tagged at 11741', couldn't work deeper.
02/13/10	1.5" GR tag @ 12650', 1.865" GR tight spot @ 11864' GL, @ 11884', @ 11912' and @ 11923'. Couldn't get through the last, cut line, recv'd fish next day
04/19/10	pumped 240bbls 7% dn annulus, strawn perfs appear to be broken down. Pump 24 bbls ISO-SOLV flushed w/ 10 bbls 7% KCl (assume down tubing). Tbg loaded and caught 2250# after 3 bbls isosolv. After 24 bbls isosolv had communication with tbg and csg, reversed out 130bbls 10# brine (404bwltr) SI **Apparent tubing leak.**
07/20/12	TA'd with CIBP @ 12415'. No drag on 4.375 GR/JB run. Press to 550 psi, chart holding, slight leak from stem of east gate valve.

PREPARED BY: Laci Luig	CREATED: 9/11/2008	UPDATED: C. McGehee 10/8/09

WELLBORE SCHEMATIC AND HISTORY

PROPOSED 1 - COMPLETION SCHEMATIC-



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TYPE COMPLETION:	■ SINGLE	☐ DUAL	☐		
LOCATION: 1980' FNL & 1650' FWL, Sec 36, T16S R34E					
TD 12972'	PBD 12463' (CIBP w/ 35' cmt)		KB 4058'		
COD	DOD		GL 4042'		
NO. PROD. WELLS ON LEASE	FLOWING x		PUMPING		
ZONE TO BE WORKED ON:			CURRENT COMPLETION ZONE: Wolfcamp		
CSG. PERFS: 10624-10731 Wolfcamp			OPEN HOLE :		
CURRENT TEST (SHOW DATE)					
	GAS		OIL		
	GAS		OIL		

CASING BREAKDOWN						
SURF.	17 1/2" hole	SIZE: 13 3/8" 48#	425 sx cmt, circ 70		DEPTH	425'
INTER.	12 1/4" hole	SIZE: 8 5/8" 32#	2185 sx cmt, TOC 660'		DEPTH	4780'
PROD.	7 7/8" hole	SIZE: 5 1/2" 17 & 20#	1675 sx, TOC 3130' (CBL)	DV Tool @ 9255'	DEPTH	12972'

WELL HISTORY

12/07/95	Spud.
02/08/96	Perf Atoka 12503'-12518' w/4 SPF (61 holes). Acdz w/1500 gal MOD 101 acid w/additives. Frac'd w/ 8k# Co2/Meth foam
03/16/96	Sqz Atoka perfs 12503'-12518' w/50 sx Class 'H'. Sqz w/additional 32 sx 50/50 Micro Matrix PO2 blend cmt.
03/26/96	Perf Morrow 12827'-12837' w/4 SPF. Acdz w/1000 gal MSR150 w/additives.
04/24/96	RIH & set CIBP 12780' w/10' cmt cap.
04/25/96	RIH & set CIBP 12450'. Perf Strawn 11862'-11876' w/4 SPF (56 holes). Set pkr @ 11715' Pump 500 gal 15% HCL w/NEFE additives into perfs.
04/27/97	Squeezed Strawn perfs w/ 100 sx. Set packer @ 12351'. Perf Atoka 12503-23'. Frac w/ 56k# co2 foam.
02/23/06	Ran capillary string.
10/15/07	POOH w/capillary string.
02/06/08	Last day of production - 0 BO + 30 MCF + 0 BW.

May 2007 Tubing and Packer Detail
397 joints 2-7/8" L-80 tubing (last reported, may have changed to 2-3/8")
Guiberson Uni IV 10k Pkr w/ 1.81" profile and OOT @ 12351'

1120/2010	Braden head leaking, sqz surface casing with 50+100 sxs class C.
02/08/10	Swabbing, tagged at 11741', couldn't work deeper.
02/13/10	1.5" GR tag @ 12650', 1.865" GR tight spot @ 11864' GL, @ 11884', @ 11912' and @ 11923'. Couldn't get through the last, cut line, recv'd fish next day
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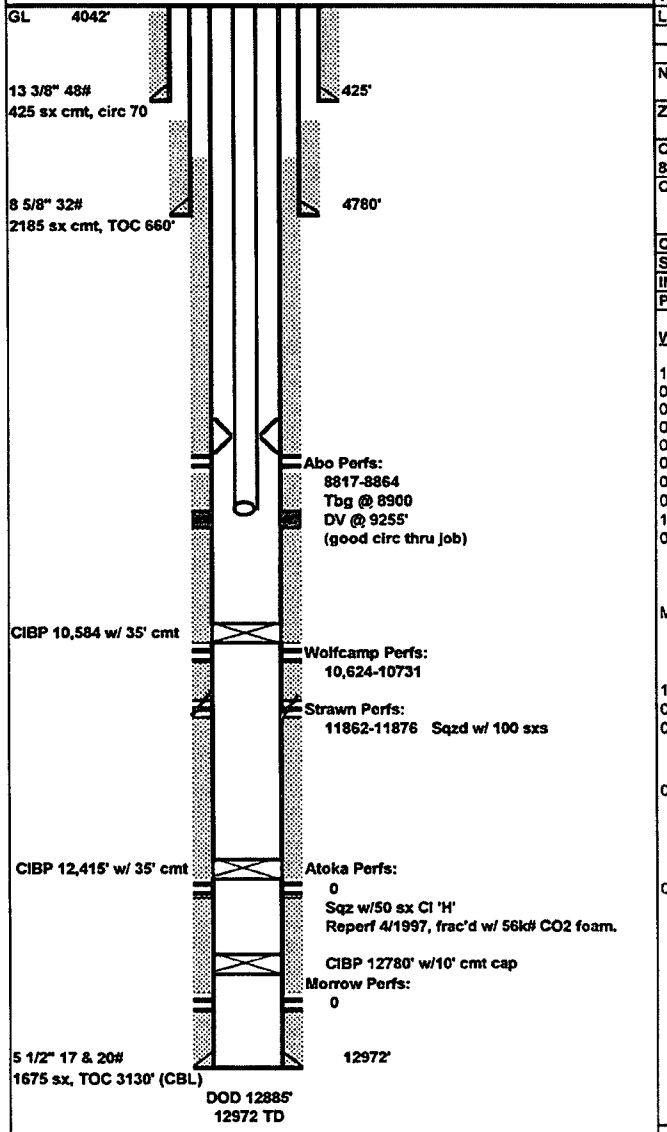
PREPARED BY:	Laci Luig	CREATED:	9/11/2008	UPDATED:	C. McGehee 10/8/09

WELLBORE SCHEMATIC AND HISTORY

PROPOSED 2- COMPLETION SCHEMATIC



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COD	DOD			GL 4042'	
NO. PROD. WELLS ON LEASE		FLOWING		PUMPING x	
ZONE TO BE WORKED ON:				CURRENT COMPLETION ZONE: Abo	
CSG. PERFS: 8817'-8864' Abo				OPEN HOLE :	
CURRENT TEST (SHOW DATE)					
	GAS			OIL	
	GAS			OIL	

CASING BREAKDOWN						
SURF.	17 1/2" hole	SIZE:	13 3/8" 48#	425 sx cmt, circ 70		DEPTH 425'
INTER.	12 1/4" hole	SIZE:	8 5/8" 32#	2185 sx cmt, TOC 660'		DEPTH 4780'
PROD.	7 7/8" hole	SIZE:	5 1/2" 17 & 20#	1675 sx, TOC 3130' (CBL)	DV Tool @ 9255'	DEPTH 12972'

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