DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-101
Revised February 10,199
Instructions on bac
Submit to Appropriate District Offic
State Lease - 6 Copie
Fee Lease - 5 Copie
☐ AMENDED REPORT

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

1 Operator Name and Address	2 OGRID Number
CHEVRON USA INC 15 SMITH ROAD, MIDLAND, TX 79705	4323
	3 API Number 30-025-06839

4 Property Code	5 Property Name	6 Well No.
2615	EUNICE KING	3

7 Surface Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
F	28	21-S	37-E		1980'	NORTH	1980'	WEST	LEA

8 Proposed 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

9 Proposed Pool 1	10 Proposed Pool 2
PENROSE SKELLY GRAYBURG	

11 Work Type Code	12 WellType Code	13 Rotary or C.T.	14 Lease Type Code	15 Ground Level Elevation
D	O	ROTARY	P	3458' GL
16 Multiple	**17 Proposed Depth**	**18 Formation**	**19 Contractor**	**20 Spud Date**
No	3900'	GRAYBURG		9/22/2003

21 Proposed Casing and Cement Program

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
NO CHANGE					

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zoneand proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

CHEVRON U.S.A. INTENDS TO DRILL THE SUBJECT DEEPER IN THE GRAYBURG POOL & FRAC STIMULATE.

THE INTENDED PROCEDURE & WELLBORE DIAGRAMS IS ATTACHED FOR YOUR APPROVAL.

Permit Expires 1 Year From Approval
Date Unless ~~Drilling~~ Underway
Deepen

RECEIVED
SEP 2003
Hobbs
OCD

23 I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Denise Leake

Printed Name: Denise Leake

Title: Regulatory Specialist

Date: 9/15/2003 Telephone: 915-687-7375

OIL CONSERVATION DIVISION

Approved By:

Title: PETROLEUM ENGINEER

Approval Date: SEP 23 2003 Expiration Date:

Conditions of Approval: Attached ☐

DeSoto/Nichols 3-94 ver 1.10

Eunice King # 3
Penrose Skelly Field
T21S, R37E, Section 28
Job: Drill Well Deeper To Grayburg Formation And Frac Stimulate

Procedure:

1. Displace flowline with fresh water. Have field specialist close valve at header. Pressure line according to the type of line. AGU, EMSU, and EMSUB buried fiberglass lines will be tested with 300 psi. All polypipe (SDR7 and SDR11) will be tested w/100 psi. All steel lines will be tested w/500 psi. If a leak is found, contact Larry Williams for repair/replacement. If test is good, bleed off pressure and **open valve** at header. Document this process in the morning report.

2. MI & RU pulling unit. Bleed pressure from well, if any. Pump down csg with 8.6 PPG cut brine water, if necessary to kill well. POH with rods and pump. Remove WH. Install BOP's and test to 1000 psi. POH LD 2 3/8" production tbg string. **Note: Minimize water pumped into well since deepening will be performed using foam due to low pressure Upper Grayburg interval.**

3. PU and GIH with 4 ¾" MT bit and DC's on 2 7/8" work string to TD at 3788'. MI & RU foam unit(s). LD and drill well deeper to 3900' using foam. Circulate well clean from 3900'. POH with 4 ¾" bit and drill string. LD bit. RD and release foam unit(s). **Note: Geology will be monitoring drilling penetration rate while deepening well. Proposed TD may be adjusted during drilling operation.**

4. PU treating packer and GIH on 2 7/8" work string to 3550'. Set pkr at 3550' and conduct open hole swab test of interval 3598-3900'. Report oil cut, recovered fluid volumes, pressures, and/or swabbing fluid levels. Obtain 1 qt. sample of formation fluids and deliver to Cardinal Laboratories in Hobbs for analysis. Release pkr at 3550'. POH with pkr and 2 7/8" work string. LD pkr.

5. PU and GIH with 4 ¾" MT bit and 2 7/8" work string to TD at 3900'. POH with work string and bit. LD bit. PU and GIH 500' of 4" OD, 10.46#, FL4S K-55 liner and setting tool on 2 7/8" work string to TD at 3900'. Set liner with bottom at 3900' and top at 3400'.

6. RU DS Services cementing equipment. Cement liner using 100 sks LWL Class C cement mixed to 14.8 PPG w/ 1.35 CFY. Release from liner hanger. RD and release DS Services cementing equipment. POH with 2 7/8" work string and setting tool. LD setting tool. Shut well in and WOC overnight.

7. PU and GIH with 4 ¾" MT bit and 2 7/8" work string to top of 4" liner at 3400'. Drill out cmt in 5 ½" csg if necessary. POH with work string and bit. LD bit. PU 3 ¼" MT bit, 20 jts 2 3/8" L-80 work string, and GIH on 2 7/8" work string to top of 4" liner at 3400'. LD and drill out cement in 4" liner to 3890'. Reverse circulate well clean from 3890' using 8.6 PPG

cut brine water. POH with 2 3/8" - 2 7/8" work string and bit. LD bit. Pressure test casing, liner top, and liner to 350 psi. **Note: Do not exceed 350 psi due to sqzd csg leak at 1275'. If liner top leaks, cement sqz until successfully pressure tests to 350 psi before continuing.**

8. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct GR/Compensated Neutron/CCL log from 3890' up to 2000'. POH. **Note: Fax log to Robert Martin ((915) 687-7267) for correlation and picking perfs.** GIH and conduct GR/CBL/CCL log from 3890' up to 2000'. POH. Inspect logs for good cement bond from approximately 3890' up to 3400'. If bond does not appear to be good across proposed completion interval, discuss with Engineering before proceeding. Cmt squeeze as necessary to obtain good cmt across completion interval. GIH with 3 1/8" DP slick casing gun and perforate from 3690-3880' with 4 JSPF at 120 degree phasing, using 23 gram premium charges. POH. RD & release electric line unit. **Note: Exact perfs will be adjusted after conducting logs.**

9. PU and GIH w/ 4" PPI pkr (with 10' element spacing) and SCV on 2 3/8" - 2 7/8" work string to approximately 3650'. Test tbg to 5500 psi while GIH.

10. MI & RU DS Services. Acidize perfs with 100 gals per foot anti-sludge 15% HCl acid ** at a maximum rate of **½ BPM** and a maximum surface pressure of **3500 psi**. Spot acid to bottom of tbg at beginning of each stage. Displace acid with 8.6 PPG cut brine water -- do not overdisplace. Use a SCV to control displacement fluid. Record ISIP, 5 & 10 minute SIP's. RD and release DS services. **Note: Pickle tubing in 1 run of 500 gals acid, prior to acidizing perfs. Pickle acid is to contain only 1/2 gal A264 and 1 gal W53. Also, if communication occurs during treatment of any interval, monitor casing pressure and attempt to complete stage w/o exceeding 350 psi csg pressure. If cannot, then move PPI to next setting depth and combine treatment volumes of the intervals.**

** Acid system is to contain:	1 GPT A264	Corrosion Inhibitor
	8 GPT L63	Iron Control Agent
	2 PPT A179	Iron Control Aid
	20 GPT U66	Mutual Solvent
	2 GPT W53	Non-Emulsifier

Release PPI pkr and PUH to approximately 3650'. Swab back all intervals together. Recover 100% of treatment and load volumes before shutting well in for night, if possible. Report recovered fluid volumes, pressures, and/or swabbing fluid levels. **Note: Selectively swab perfs as directed by Engineering if excessive water is produced.**

11. Open well. Release PPI pkr. POH with tbg and PPI packer. LD PPI tool.

12. PU and GIH w/4" Lok-Set pkr & On-Off tool w/ 1.78" "F" profile and 109 jts. of 3 ½" EUE 8R L-80 work string, testing to 7500 psi. Set pkr at approximately 3425'. Install frac head. Pressure annulus to 350 psi to test csg and pkr. Leave pressure on csg during frac job to

observe for communication. **Note: Do not exceed 350 psi csg pressure due to liner top and sqzd csg leak at 1275'.**

13. MI & RU DS Services. Frac well down 3 ½" tubing at **40 BPM** with 66,000 gals of YF135, 138,000 lbs. 16/30 mesh Jordan Sand, and 30,000 lbs **resin-coated** 16/30 mesh CR4000 proppant. Observe a maximum surface treating pressure of **7400 psi**. Pump job as follows:

    Pump 2,000 gals 2% KCL water containing 110 gals Baker SCW-358 Scale Inhibitor
    Pump 1,000 gals 2% KCL water spacer
    Pump 25,000 gals YF135 pad containing 5 GPT J451 Fluid Loss Additive
    Pump 5,000 gals YF135 containing 1.5 PPG 16/30 mesh Jordan Sand
    Pump 6,000 gals YF135 containing 2.5 PPG 16/30 mesh Jordan Sand
    Pump 7,000 gals YF135 containing 3.5 PPG 16/30 mesh Jordan Sand
    Pump 8,000 gals YF135 containing 4.5 PPG 16/30 mesh Jordan Sand
    Pump 10,000 gals YF135 containing 5.5 PPG 16/30 mesh Jordan Sand
    Pump 5,000 gals YF135 containing 6 PPG **resin-coated** 16/30 mesh CR4000 proppant

    Flush to 3562' with 1,312 gals WF135. **Do not overflush.** Shut well in. Record ISIP, 5, 10, and 15 minute SI tbg pressures. SWI. RD & Release DS Services. **Leave well SI overnight.**

14. Open well. GIH and swab well until there is no sand inflow. Release pkr and POH with 3 ½" work string. Lay down work string and pkr.

15. PU 3 ¼" MT bit and GIH on 2 3/8" - 2 7/8" work string to TD at 3890'. If sand fill is encountered, MI & RU foam unit(s) and cleanout to 3890' using foam. POH with 2 3/8" - 2 7/8" work string and MT bit. LD work string and bit.

16. PU and GIH w/ BP mud anchor jt of 2 3/8" tbg*, 2 3/8" x 4' perforated sub, SN, 10 jts 2 3/8" EUE 8R J-55 tbg*, TAC, and 114 jts 2 3/8" EUE 8R J-55 tbg, testing to 5000 psi. Set TAC at 3525', with EOT at 3850' and SN at 3815'. * **Note: All tbg inside 4" liner should have special clearance couplings.**

17. Remove BOP's and install WH. GIH with rods, weight bars, and pump per ALS recommended design. RD & release pulling unit.

18. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

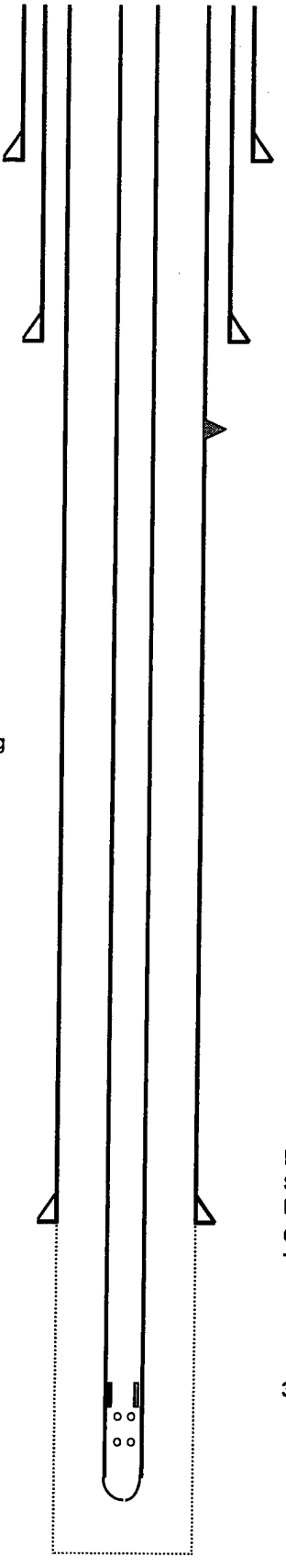
AMH
9/11/2003

Well: **Eunice King # 3** Field: **Penrose Skelly** Reservoir: **Grayburg**

Location:
1980' FNL & 1980' FWL
Section: 28
Township: 21S
Range: 37E
County: Lea State: NM

Elevations:
GL: 3458'
KB: 3468'
DF: 3467'

Current
Wellbore Diagram



Well ID Info:
Refno: FA7936
API No: 30-025-06839
L5/L6: U491600
Spud Date: 6/1/37
Compl. Date: 7/2/37

Surf. Csg: 13 3/8" ERW
Set: @ 36' w/ 40 sks
Hole Size: 17 1/4"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Interm. Csg: 7 5/8", 22#, SCLW
Set: @ 1225' w/ 600 sks
Hole Size: 9 7/8"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Sqzd Csg Leak @ 1275'
(Cement sqzd with 200 sks 11/84)

Tbg Detail:
BP @ 3747'
1 jt. 2 3/8" tbg
2 3/8" x 4' perf sub
SN @ 3710'
117 jts. 2 3/8" EUE 8R J-55 tbg

Prod. Csg: 5 1/2", 17#, SCLW
Set: @ 3598' w/ 150 sks
Hole Size: 6 3/4"
Circ: No **TOC:** 2690'
TOC By: Calculated

3598-3788' **Grayburg - Open Hole**

COTD: 3788'
PBTD: 3788'
TD: 3788'

Updated: 9/10/03

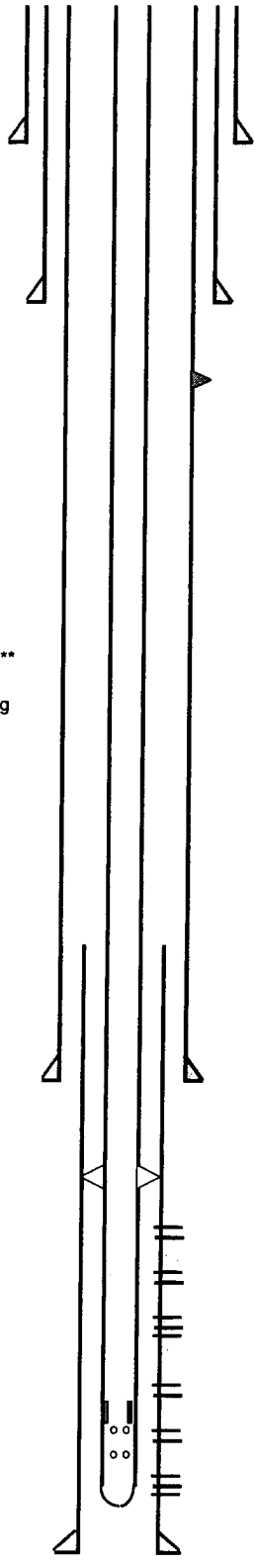
By: A. M. Howell

Well: **Eunice King # 3** Field: **Penrose Skelly** Reservoir: **Grayburg**

Location:
1980' FNL & 1980' FWL
Section: 28
Township: 21S
Range: 37E
County: Lea State: NM

Elevations:
GL: 3458'
KB: 3468'
DF: 3467'

Proposed Wellbore Diagram



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Set: @ 1225' w/ 600 sks
Hole Size: 9 7/8"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Sqzd Csg Leak @ 1275'
(Cement sqzd with 200 sks 11/84)

Tbg Detail:
BP @ 3850'
1 jt. 2 3/8" tbg**
2 3/8" x 4' perf sub
SN @ 3815'
10 jts. 2 3/8" EUE 8R J-55 tbg**
TAC @ 3525'
114 jts. 2 3/8" EUE 8R J-55 tbg

** All tbg inside liner to have special clearance couplings.

Prod. Csg: 5 1/2", 17#, SCLW
Set: @ 3598' w/ 150 sks
Hole Size: 6 3/4"
Circ: No **TOC:** 2690'
TOC By: Calculated

Perfs:	**Status**
3690-3880'	Grayburg - Open ***

*** Exact perfs will be picked after conducti

COTD: 3890'
PBTD: 3890'
TD: 3900'

Liner: 4" OD 10.46#, FL4S J-55
Set: @ 3900' w/ top @ 3400'
Hole Size: 4 3/4"
Circ: Yes **TOC:** 3400' (Top of liner)
TOC By: Circulated

Updated: 9/10/03 **By:** A. M. Howell