

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

WELL API NO.

30-025-06622

5. Indicate Type of Lease

STATE ☒

FEE ☐

6. State Oil / Gas Lease No.

7. Lease Name or Unit Agreement Name

HARRY LEONARD NCT-E

8. Well No.

3

9. Pool Name or Wildcat

PENROSE SKELLY GRAYBURG

SUNDY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMI
(FORM C-101) FOR SUCH PROPOSALS.

1. Type of Well: OIL WELL ☒ GAS WELL ☐ OTHER

2. Name of Operator
CHEVRON USA INC

3. Address of Operator
15 SMITH ROAD, MIDLAND, TX 79705

4. Well Location

Unit Letter B : 660' Feet From The NORTH Line and 1980' Feet From The EAST Line

Section 16 Township 21-S Range 37-E NMPM LEA COUNTY

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

3510' KB

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐

OTHER: INTENT TO FRAC STIMULATE GRAYBURG ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPERATION ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

CHEVRON U.S.A. INTENDS TO FRAC STIMULATE THE SUBJECT TO INCREASE PRODUCTION FROM THE GRAYBURG RESERVOIR. THE WELL WAS COMPLETED IN THE GRAYBURG IN JULY 2002 AND ACIDIZED, BUT NEVER FRACED.

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



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

SIGNATURE Denise Leake TITLE Regulatory Specialist

DATE 10/30/2003

TYPE OR PRINT NAME

Denise Leake

Telephone No. 915-687-7375

(This space for State Use)

APPROVED Harry W. Wink
CONDITIONS OF APPROVAL, IF ANY:

OFFICIAL REPRESENTATIVE II/STAFF MANAGER

DATE

NOV 10 2003

DeSoto/Nichols 12-93 ver 1.0

Harry Leonard (NCT-E) # 3
Penrose Skelly Field
T21S, R37E, Section 16
Job: Frac Stimulate Grayburg Formation

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. Release pkr. POH with 2 7/8" tbg string.
3. PU and GIH with 6 1/4" MT bit, 7" csg scraper, and 2 7/8" work string to 4500'. POH with work string, bit and scraper. LD bit and scraper.
4. PU and GIH w/ 7" PPI pkr (with 20' element spacing) and SCV on 2 7/8" work string to approximately 3750'. Test tbg to 5500 psi while GIH.
5. MI & RU DS Services. Acidize perms 3773-3988' with 3,000 gals anti-sludge 15% HCl acid * at a maximum rate **as shown below** and a maximum surface pressure of **3500 psi**. Spot acid to bottom of tbg at beginning of each stage. Pump job as follows:

Interval	Amt. Acid	Max Rate	PPI Setting
3975-88'	200 gals	1 BPM	3972-92'
3950-66'	400 gals	1 BPM	3949-69'
3934-42'	200 gals	1 BPM	3928-48'
3920-24'	200 gals	1 BPM	3912-32'
3898-3910'	200 gals	1 BPM	3896-3916'
3873-78'	200 gals	1 BPM	3870-90'
3851-68'	200 gals	1 BPM	3850-70'
3833-45'	400 gals	1 BPM	3828-48'
3810-24'	400 gals	1 BPM	3808-28'
3789-3806'	400 gals	1 BPM	3788-3808'
3773-86'	200 gals	1 BPM	3768-3788'

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 perms.

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 1000 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

6. 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.
7. Open well. Release PPI pkr. POH with tbg and PPI packer. LD PPI tool.
8. PU and GIH w/ 7" Lok-Set pkr & On-Off tool w/ 2.25" "F" profile and 118 jts. of 3 1/2" EUE 8R L-80 work string, testing to 7500 psi. Set pkr at approximately 3600'. Install frac head. Pressure annulus to 500 psi to test csg and pkr. Leave pressure on csg during frac job to observe for communication.
9. MI & RU DS Services and Cardinal Surveys. Frac well down 3 1/2" 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**. Tag frac with 2 radioactive isotopes (1 in main proppant body and 1 in resin-coated stage). 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 3600' with 1,315 gals WF135. **Do not overflush.** Shut well in. Record ISIP, 5, 10, and 15 minute SI tbg pressures. SWI. RD & Release DS Services and Cardinal Surveys. **Leave well SI overnight.**

10. Open well. GIH and swab well until there is no sand inflow. MI & RU Cardinal Surveys electric line unit. Install lubricator and test to 1000 psi. GIH and conduct after-frac GR/Temp/CCL log from 4500' up to 3200'. POH. RD & release electric

line unit. **Note: Correlate logs and run flat with Pan Geo Atlas Gamma Ray Neutron Log run 6/7/61.**

11. Release pkr and POH with 3 1/2" work string. Lay down 3 1/2" work string and pkr. LD 2 7/8" work string.
12. PU and GIH w/ BP mud anchor jt of 2 7/8" tbg, 2 7/8" x 4' perforated sub, SN, 9 jts 2 7/8" EUE 8R J-55 tbg, TAC, and 118 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Set TAC at 3750', with EOT at 4075' and SN at 4045'.
13. Remove BOP's and install WH. GIH with rods, weight bars, and pump per ALS recommended design. RD & release pulling unit.
14. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

AMH
10/23/2003

Well: Harry Leonard E # 3

Field: Penrose Skelly

Reservoir: Grayburg

Location:

660' FNL & 1980' FEL
 Section: 16
 Township: 21S
 Range: 37E
 County: Lea State: NM

Current
Wellbore Diagram

Well ID Info:

Chevno: FA7726
 API No: 30-025-06622
 L5/L6: U492000
 Spud Date: 9/11/48
 Compl. Date: 11/3/48

Elevations:

GL: 3497'
 KB: 3510'
 DF: 3509'

Surf. Csg: 13 3/8", 48#, SS Csg
 Set: @ 304' w/ 300 sks
 Hole Size: 17 1/4"
 Circ: Yes TOC: Surface
 TOC By: Circulated

Intermed. Csg: 9 5/8", 36#, H-40
 Set: @ 2800' w/ 1200 sks
 Hole Size: 12 1/4"
 Circ: Yes TOC: Surface
 TOC By: Circulated

Tubing Detail:

#Jts.	Size:	Footage
	KB Correction	13.00
118	2 7/8" J-55 Cl. 'A'	3741.41
	7"x2 7/8" TAC	2.31
8	2 7/8" J-55 Cl. 'A'	253.03
1	2 7/8" J-55 Cl. 'B' IPC	31.00
	2 7/8" API S.N.	1.10
127	Pump Intake >>>	4041.85
	2 7/8" Perf. Sub	4.08
	2 7/8" BPMA Jt.	31.67
	EOT >>>	4077.60

Rod Detail:

#Rods:	Size:	Footage
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TAC @ 3756'

Perfs:	Status:
3773-86'	Grayburg - Open
3789-93'	Grayburg - Open
3801-06'	Grayburg - Open
3810-15'	Grayburg - Open
3820-24'	Grayburg - Open
3833-38'	Grayburg - Open
3842-45'	Grayburg - Open
3851-68'	Grayburg - Open
3873-78'	Grayburg - Open
3898-3910'	Grayburg - Open
3920-24'	Grayburg - Open
3934-42'	Grayburg - Open
3950-57'	Grayburg - Open
3962-66'	Grayburg - Open
3975-88'	Grayburg - Open

RBP @ 5770'
 (20' sand on top)

Perfs:	Status
5813-15'	Blaineby - Open
5844-46'	Blaineby - Open
5876-78'	Blaineby - Open
5894-96'	Blaineby - Open
5944-46'	Blaineby - Open
5961-63'	Blaineby - Open

6467-69'	Drinkard - Open
6488-90'	Drinkard - Open
6521-23'	Drinkard - Open
6551-53'	Drinkard - Open
6585-87'	Drinkard - Open
6609-11'	Drinkard - Open
6625-40'	Drinkard - Cmt Sqzd

CICR @ 6622'

Prod. Csg: 7", 23#, J-55 & HY
 Set: @ 6649' w/ 700 sks
 Hole Size: 8 3/4"
 Circ: No TOC: 3200'
 TOC By: Temperature Survey

OH from 6654-92' filled with 10/20 frac sand

Baker Model D Pkr @ 6692'
 (Cut over at 6610' and pushed to 6692')

COTD: 5750'
 PBD: 5750'
 TD: 6710'

Updated: 7-2-02

By: LPW

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