

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, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

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

¹ Operator Name and Address CHEVRON USA INC 15 SMITH ROAD, MIDLAND, TX 79705		² OGRID Number 4323
		³ API Number 30 025 06911
⁴ Property Code 30020	⁵ Property Name HENDERSON, V. M.	⁶ Well No. 5

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
B	30	21S	37E		660	NORTH	1980	EAST	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 PENROSE SKELLY GRAYBURG					¹⁰ Proposed Pool 2				

¹¹ Work Type Code P	¹² Well Type Code O	¹³ Rotary or C.T. R	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 3497'
¹⁶ Multiple No	¹⁷ Proposed Depth 6017'	¹⁸ Formation GRAYBURG	¹⁹ Contractor	²⁰ Spud Date 11/20/2003

²¹ Proposed Casing and Cement Program					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4"	9 5/8"	32.3#	1236'	800 SX	CIRC
8 3/4"	7"	20# & 23#	5210'	500 SX	2330'
6 1/8"	4" Liner	11.6#	5068-6007	200 SX	5068'

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

CHEVRON U.S.A. INC. INTENDS TO RECOMPLETE THE SUBJECT WELL FROM THE PADDOCK POOL TO THE PENROSE SKELLY GRAYBURG POOL, ACIDIZE & FRAC.

THE INTENDED PROCEDURE AND WELL BORE DIAGRAMS IS ATTACHED FOR YOUR APPROVAL.

Permit Expires 1 Year From Approval
Date Unless Drilling Underway
PLUG-BACK

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.		OIL CONSERVATION DIVISION	
Signature <i>Denise Leake</i>		Approved By: <i>[Signature]</i> PETROLEUM ENGINEER	
Printed Name Denise Leake		Title:	
Title Regulatory Specialist		Approval Date: NOV 17 2003	
Date 11/12/2003		Expiration Date:	
Telephone 915-687-7375		Conditions of Approval: Attached ☐	

V. M. Henderson # 5
Penrose Skelly Field
T21S, R37E, Section 30
Job: PB To Grayburg Formation, Acidize, And Frac

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 TAC. POH with 2 3/8" tbg string.
3. PU and GIH with 6 1/4" MT bit and 2 7/8" work string to 5050'. POH with work string and bit. LD bit.
4. PU and GIH with 4 1/2" tbg-set CIBP to 5500'. Set CIBP at 5500'. Dump 35' cmt on top of CIBP. PUH to 5400'. Reverse circulate well clean from 5400' using 8.6 PPG cut brine water. POH with 2 7/8" work string. PU and GIH with 7" tbg-set CIBP to 5000'. Set CIBP at 5000'. Dump 35' cmt on top of CIBP. PUH to 4900'. Reverse circulate well clean from 4900' using 8.6 PPG cut brine water. Pressure test csg and CIBP to 350 psi. POH with 2 7/8" work string. **Note: Do not exceed 350 psi casing pressure due to cement squeezed perfs from 3506-81'.**
5. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct GR/CBL/CCL log from 4965' up to 2200'. POH. Inspect logs for good cement bond from approximately 4300' up to 3500'. 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 3653-56', 3662-66', 3670-76', 3693-99', 3704-10', 3716-22', 3729-35', 3746-50', 3756-60', 3774-80', 3792-98', 3810-14', 3818-21', 3830-36', 3842-48', and 3884-91' with 4 JSPF at 120 degree phasing, using 23 gram premium charges. POH. RD & release electric line unit. **Note: Correlate logs and run flat with Welex Radioactivity Log conducted 12/24/58.**
6. PU and GIH w/ 7" PPI pkr (with 10' element spacing) and SCV on 2 7/8" work string to approximately 3650'. Test tbg to 5500 psi while GIH.

7. MI & RU DS Services. Acidize perms 3653-3891' with 3,200 gals anti-sludge 15% HCl acid * at a maximum rate **as shown below** and a maximum surface pressure of **3500 psi**. Spot acid across perms at beginning of each stage and let soak to lower breakdown pressure and prevent communication. Pump job as follows:

Interval	Amt. Acid	Max Rate	PPI Setting
3884-91'	200 gals	½ BPM	3883-93'
3842-48'	200 gals	½ BPM	3840-50'
3830-36'	200 gals	½ BPM	3828-38'
3818-21'	200 gals	½ BPM	3816-26'
3810-14'	200 gals	½ BPM	3806-16'
3792-98'	200 gals	½ BPM	3790-3800'
3774-80'	200 gals	½ BPM	3772-82'
3756-60'	200 gals	½ BPM	3754-64'
3746-50'	200 gals	½ BPM	3742-52'
3729-35'	200 gals	½ BPM	3727-37'
3716-22'	200 gals	½ BPM	3714-24'
3704-10'	200 gals	½ BPM	3702-12'
3693-99'	200 gals	½ BPM	3691-3701'
3670-76'	200 gals	½ BPM	3668-78'
3662-66'	200 gals	½ BPM	3658-68'
3653-56'	200 gals	½ BPM	3648-58'

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 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

8. Release PPI pkr and PUH to approximately 3640'. 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 perms as directed by Engineering if excessive water is produced.**
9. Open well. Release PPI pkr. POH with tbg and PPI packer. LD PPI tool.

Well: **V. M. Henderson # 5**Field: **Paddock**Reservoir: **Paddock****Location:**

660' FNL & 1980' FEL
 Section: 30
 Township: 21S
 Range: 37E
 County: Lea State: NM

Elevations:

GL: 3497'
 KB: 3508'
 DF: 3506'

Current
Wellbore Diagram

Well ID Info:

Chevno: FA8008
 API No: 30-025-06911
 L5/L6: U482000
 Spud Date: 11/19/58
 Compl. Date: 1/8/59

Surface Csg: 9 5/8", 32.3#, Unknown Grade
Set: @ 1236' w/ 800 sks
Hole Size: 12 1/4"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Tbg Detail:

BP @ 5690'
 1 jt. 2 3/8" tbg
 2 3/8" x 4' perf sub
 SN @ 5656'
 1 jt. 2 3/8" EUE 8R J-55 IPC tbg
 5 jts. 2 3/8" EUE 8R J-55 tbg
 TAC @ 5496'
 188 jts. 2 3/8" EUE 8R J-55 tbg

Perfs:	Status:
3506'	Eumont - Cmt Sqzd
3512'	Eumont - Cmt Sqzd
3520'	Eumont - Cmt Sqzd
3527'	Eumont - Cmt Sqzd
3533'	Eumont - Cmt Sqzd
3541'	Eumont - Cmt Sqzd
3550'	Eumont - Cmt Sqzd
3556'	Eumont - Cmt Sqzd
3562'	Eumont - Cmt Sqzd
3568'	Eumont - Cmt Sqzd
3574'	Eumont - Cmt Sqzd
3581'	Eumont - Cmt Sqzd

3686-3714'	Grayburg - Cmt Sqzd
3742-62'	Grayburg - Cmt Sqzd
3770-92'	Grayburg - Cmt Sqzd
3816-26'	Grayburg - Cmt Sqzd
3850-74'	Grayburg - Cmt Sqzd

5172-88'	Paddock - Cmt Sqzd
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Prod. Csg: 7" 20 & 23#, Unknown Grade
Set: @ 5210' w/ 500 sks
Hole Size: 8 3/4"
Circ: No **TOC:** 2330'
TOC By: TS

5562-72'	Blaine - Open
5608-12'	Blaine - Open
5622-40'	Blaine - Open

5779-98'	Blaine - Below CIBP
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Liner: 4 1/2" OD, 11.6#, K-55
Set: Bottom @ 6007' w/200 sx cmt; Top @ 5068'
Hole size: 6 1/8"
Circ: Yes **TOC:** 5068'
TOC By: Circulated

CIBP @ 5730'
 (10' cmt on top)

COTD: 5720'
PBTD: 5720'
TD: 6017'

Updated: 11/11/03

By: A. M. Howell

Well: **V. M. Henderson # 5**Field: **Penrose Skelly**Reservoir: **Grayburg****Location:**

660' FNL & 1980' FEL
 Section: 30
 Township: 21S
 Range: 37E
 County: Lea State: NM

Elevations:

GL: 3497'
 KB: 3508'
 DF: 3506'

Proposed Wellbore Diagram

Well ID Info:

Chevno: FA8008
 API No: 30-025-06911
 L5/L6: U493800
 Spud Date: 11/19/58
 Compl. Date: 1/8/59

Surface Csg: 9 5/8", 32.3#, Unknown Grade
Set: @ 1236' w/ 800 sks
Hole Size: 12 1/4"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Tbg Detail:

BP @ 3935'
 1 jt. 2 7/8" tbg
 2 7/8" x 4' perf sub
 SN @ 3900'
 9 jts. 2 7/8" EUE 8R J-55 tbg
 TAC @ 3625'
 117 jts. 2 7/8" EUE 8R J-55 tbg

Perfs:	Status:
3506'	Eumont - Cmt Sqzd
3512'	Eumont - Cmt Sqzd
3520'	Eumont - Cmt Sqzd
3527'	Eumont - Cmt Sqzd
3533'	Eumont - Cmt Sqzd
3541'	Eumont - Cmt Sqzd
3550'	Eumont - Cmt Sqzd
3556'	Eumont - Cmt Sqzd
3562'	Eumont - Cmt Sqzd
3568'	Eumont - Cmt Sqzd
3574'	Eumont - Cmt Sqzd
3581'	Eumont - Cmt Sqzd

3653-56'	Grayburg - Open
3662-66'	Grayburg - Open
3670-76'	Grayburg - Open
3693-99'	Grayburg - Open
3704-10'	Grayburg - Open
3716-22'	Grayburg - Open
3729-35'	Grayburg - Open
3746-50'	Grayburg - Open
3756-60'	Grayburg - Open
3774-80'	Grayburg - Open
3792-98'	Grayburg - Open
3810-14'	Grayburg - Open
3818-21'	Grayburg - Open
3830-36'	Grayburg - Open
3842-48'	Grayburg - Open
3884-91'	Grayburg - Open

5172-88'	Paddock - Cmt Sqzd
----------	--------------------

Prod. Csg: 7" 20 & 23#, Unknown Grade
Set: @ 5210' w/ 500 sks
Hole Size: 8 3/4"
Circ: No **TOC:** 2330'
TOC By: TS

5562-72'	Blaine - Open
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5622-40'	Blaine - Open

5779-98'	Blaine - Below CIBP
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Liner: 4 1/2" OD, 11.6#, K-55
Set: Bottom @ 6007' w/200 sx cmt; Top @ 5068'
Hole size: 6 1/8"
Circ: Yes **TOC:** 5068'
TOC By: Circulated

CIBP @ 5000'
 (35' cmt on top)

CIBP @ 5500'
 (35' cmt on top)

CIBP @ 5730'
 (10' cmt on top)

COTD: 4965'
PBTD: 4965'
TD: 6017'

Updated: 11/11/03

By: A. M. Howell