

District I
1625 N French Dr, Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St Francis Dr, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
May 27, 2

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED

Submit to appropriate District Of

MAR 10 2008

☐ AMENDED REPC

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

HOBBS OCD

¹ Operator Name and Address CHEVRON U S A INC 15 SMITH ROAD MIDLAND, TEXAS 79705		² OGRID Number 4323 ✓
		³ API Number 30 - 025-05946 ✓
³ Property Code 2688	⁵ Property Name G C MATTHEWS ✓	⁶ Well No 5 ✓
⁹ Proposed Pool 1 EUNICE MONUMENT, GRAYBURG SAN ANDRES ✓		¹⁰ Proposed Pool 2

⁷ Surface Location

UL or lot no J	Section 6	Township 20-S	Range 37-E	Lot Idn	Feet from the 2310	North/South line SOUTH	Feet from the 2310	East/West line EAST	County LEA
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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
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Additional Well Information

¹¹ Work Type Code P ✓	¹² Well Type Code OIL	¹³ Cable/Rotary	¹⁴ Lease Type Code STATE P	¹⁵ Ground Level Elevation 3559'
¹⁶ Multiple NO	¹⁷ Proposed Depth 7400'	¹⁸ Formation GRAYBURG	¹⁹ Contractor	²⁰ Spud Date
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit Liner Synthetic <input type="checkbox"/> _____ mils thick Clay <input type="checkbox"/> Pit Volume _____ bbls		Drilling Method Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>		

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
NO CHANGE					

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 PLUGBACK & FRAC STIMULATE THE GRAYBURG FORMATION IN THE SUBJECT WELL WELL IS CURRENT TA'D.

THE INTENDED PROCEDURE & WELLBORE DIAGRAMS ARE ATTACHED FOR YOUR APPROVAL

A PIT WILL NOT BE USED FOR THIS RECOMPLETION A STEEL FRAC TANK WILL BE UTILIZED

Permit Expires 2 Years From Approval
Date Unless Drilling Underway
Plug back

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 the drilling pit will be constructed according to NMOCD guidelines <input type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> . Signature: Denise Pinkerton	OIL CONSERVATION DIVISION
Printed name DENISE PINKERTON	Approved by: Chris Williams
Title REGULATORY SPECIALIST	Title OC DISTRICT SUPERVISOR/GENERAL MANAGER
	Approval Date MAR 13 2008 Expiration Date

E-mail Address leakejd@chevron.com		
Date 03-06-2008	Phone 432-687-7375	Conditions of Approval Attached <input type="checkbox"/>

G.C. Matthews #5
Eunice Monument; GB-SA
T20S, R37E, Section 6
2310' FSL & 2310' FEL
30-025-05946
Job: PB to Grayburg and Frac

02/27/08

Note: Well is currently TA'd; *CVX owns from 3493' and deeper

Procedure:

1. *This procedure is based on the most recent information regarding wellbore configuration and equipment that could be found in the Midland Office well files and computer databases as of 02/27/08. Verify what is in the hole with the well file in the Eunice Field office. Discuss w/ WEO Engineer, Workover Rep, OS, ALS, and FS prior to rigging up on well regarding any hazards or unknown issues pertaining to the well.*
2. Displace flowline with fresh water. Have field specialist close valve at header. Pressure line according to the type of line. 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 Donnie Ives for repair/replacement. If test is good, bleed off pressure and **open valve** at header. Document this process in the morning report.
3. MI & RU workover unit. Bleed pressure from well, if any. Remove WH. Install BOP's and test as required.
4. PU and GIH with 6 1/8" MT bit on 2-7/8" work string to 5250'. Circulate well clean from 5250'. POH with WS and bit. LD bit.
5. MI & RU WL. Make 3.750" gauge ring run to 4-1/2" CIBP @ 6787'. POH.
6. GIH and conduct GR/CBL/CCL log from 5100' up to TOC. Run log with 500 psi on casing. POH. Inspect logs for good cement bond from approximately 5100' up to 2500'. If bond does not appear to be good across proposed completion interval, discuss with Engineering before proceeding.
7. GIH with 3-3/8" Predator casing guns and perforate the following 1' intervals with 4 JSPF at 120 degree phasing using 32 gram premium charges:

Depth
3603'
3654'
3708'
3756'
3868'
3924'

Note: Use Gray Wireline CNL/GR/CCL Log dated 02/13/2008 for depth correction.

8. POH. GIH and dump bail 35' of cement on CIBP @ 6787'. POH.
9. RD & release WL. RIH w/ 7" PPI packer w/ SCV and 10' element spacing. Test PPI packer in blank pipe. Mark Settings.
10. MI & RU DS Services. Acidize perfs with 600 gal 15% NEFE HCl acid* at a maximum rate of $\frac{1}{2}$ BPM and a maximum surface pressure of **4000 psi** as follows:

Perf	Acid Volume	Max Rate	PPI Setting
3924	100	1/2 bpm	3920-3930
3868	100	1/2 bpm	3860-3870
3756	100	1/2 bpm	3750-3760
3708	100	1/2 bpm	3700-3710
3654	100	1/2 bpm	3650-3660
3603	100	1/2 bpm	3600-3610

Displace acid with 8.6 PPG cut brine water -- do not over displace. Use a SCV to control displacement fluid. Record ISIP, 5 & 10 minute SIP's. RD and release DS services.

* Acid system to contain:

1 GPT A264	Corrosion Inhibitor
8 GPT L63	Iron Control Agents
2 PPT A179	Iron Control Aid
20 GPT U66	Mutual Solvent
2 GPT W53	Non-Emulsifier

11. Release PPI & PU to approximately 3575'. Set pkr @ 3575'. Fish SCV and standing valve. Swab back all intervals together. Recover 100% of treatment and load volumes before shutting well in for night, if possible. Report recovered volumes, pressures, and/or swabbing fluid levels.

Note: Selectively swab perfs with RBP and packer as directed by engineering if excessive water is produced.

12. Open well. Release PPI pkr. POH w/ tbg and PPI pkr. LD PPI tool.
13. MI & RU WL. GIH w/ 7" CIBP to 5075'. Set CIBP @ 5075'.
14. GIH with 3-1/8" slick casing guns and perforate the following 1' intervals with 4 JSPF at 120 degree phasing using 32 gram premium charges:

Top	Bottom	Net Ft	# of Perfs
3502	3612	10	40
3620	3630	10	40
3646	3656	10	40
3662	3672	10	40
3680	3690	10	40

3700	3709	9	36
3712	3722	10	40
3730	3737	7	28
3742	3750	8	32
3757	3767	10	40
3842	3852	10	40
3860	3870	10	40
3919	3925	6	24
3930	3940	10	40
3950	3955	5	20
3960	3970	10	40
		145	580

Note: Use Gray Wireline CNL/GR/CCL Log dated 02/13/2008 for depth correction.

15. GIH and dump bail 35' of cement on top of CIBP @ 5075'. POH. RD & release WL.
16. RIH w/ 7" PPI packer w/ SCV and 12' element spacing. Test PPI packer in blank pipe. RIH to 4000'. Set pkr @ 4000' and pressure test CIBP to 500 psi. Release pkr.
17. MI & RU DS Services. Acidize perfs with 3,200 gal 15% NEFE HCl acid* at a maximum rate of $\frac{1}{2}$ **BPM** and a maximum surface pressure of **4000 psi** as follows:

Interval	Acid Volume	Max Rate	PPI Setting
3960-3970	200	1/2 bpm	3959-3971
3950-3955	200	1/2 bpm	3946-3958
3930-3940	200	1/2 bpm	3929-3941
3919-3925	200	1/2 bpm	3916-3928
3860-3870	200	1/2 bpm	3859-3871
3842-3852	200	1/2 bpm	3841-3853
3757-3767	200	1/2 bpm	3756-3768
3742-3750	200	1/2 bpm	3740-3752
3730-3737	200	1/2 bpm	3728-3740
3712-3722	200	1/2 bpm	3711-3723
3700-3709	200	1/2 bpm	3699-3711
3680-3690	200	1/2 bpm	3679-3691
3662-3672	200	1/2 bpm	3661-3673
3646-3656	200	1/2 bpm	3645-3657
3620-3630	200	1/2 bpm	3619-3631
3602-3612	200	1/2 bpm	3601-3613

Displace acid with 8.6 PPG cut brine water -- do not over displace. Use a SCV to control displacement fluid. Record ISIP, 5 & 10 minute SIP's. RD and release DS services.

* Acid system to contain:

1 GPT A264	Corrosion Inhibitor
8 GPT L63	Iron Control Agents
2 PPT A179	Iron Control Aid
20 GPT U66	Mutual Solvent
2 GPT W53	Non-Emulsifier

18. Release PPI & PU to approximately 3575'. Set pkr @ 3575'. Fish SCV and standing valve. Swab back all intervals together. Recover 100% of treatment and load volumes before shutting well in for night, if possible. Report recovered volumes, pressures, and/or swabbing fluid levels.

Note: Selectively swab perfs with RBP and packer as directed by engineering if excessive water is produced.

19. Open well. Release PPI pkr. POH w/ tbg and PPI pkr. LD PPI tool.
20. PU and GIH w/ 7" Arrow-Set 10k pkr & On-Off tool w/ 2.25" "F" profile and 113 jts of 3-1/2" EUE 8R L-80 work string, testing to 8000 psi. Set pkr at approximately 3490'. Install frac head. Pressure annulus to 500 psi to test csg and pkr. Leave pressure on csg during frac job to aid in observing communication.
21. MI & RU DS Services and Rita Dickey (432)-553-2526. Frac well down 3 1/2" tubing at **40 BPM** with 88,000 gals of YF125, 176,000 lbs. 16/30 mesh Jordan Sand, and 30,000 lbs **resin-coated** 16/30 mesh CR1630 proppant. Observe a maximum surface treating pressure of **7500 psi**.

Pump 2,000 gals 2% KCL water containing 55 gals Baker RE 4777-SCW Scale Inhibitor at **6 BPM**

Pump 1,000 gals 2% KCL water spacer at **20 BPM**

Pump 14,000 gals YF125 pad containing 5 GPT J451 Fluid Loss Additive at **40 BPM**

Pump 14,000 gals YF125 containing 0.5 PPG 16/30 mesh Jordan Sand & 5 GPT J451 FL Additive

Pump 12,000 gals YF125 containing 1.5 PPG 16/30 mesh Jordan Sand

Pump 12,000 gals YF125 containing 2.5 PPG 16/30 mesh Jordan Sand

Pump 14,000 gals YF125 containing 3.5 PPG 16/30 mesh Jordan Sand

Pump 16,000 gals YF125 containing 4.5 PPG 16/30 mesh Jordan Sand

Pump 6,000 gals YF125 containing 5 PPG **resin-coated** 16/30 mesh CR1630 proppant.

Flush to 3600'. **Do not overflush.** Shut well in. Record ISIP, 5, 10, and 15 minute SI tbg pressures. SWI. RD & Release DS Services and Rita Dickey. **Leave well SI overnight.**

22. Open well. Bleed pressure from well, if any. Release pkr. POH LD 3 1/2" work string, on-off tool, and pkr.
23. PU and GIH with 6 1/8" MT bit on 2 7/8" work string to approximately 4200'. If fill is tagged above 4200', cleanout to 4200' using 8.6# PPG cut brine water using air unit if necessary. POH with 2 7/8" tbg and bit. LD bit.
24. PU & GIH with 7" pkr on 2 7/8" tbg string to 3490'. Set pkr at 3490'. Open well. GIH and swab well until there is no sand inflow. Release pkr. POH and LD work string and pkr. PU new 2 7/8" Class "A" production tubing.

25. PU and GIH w/ BP mud anchor jt of 2 7/8" tbg, 2 7/8" x 4' perforated sub, SN, 1 jt 2 7/8" EUE 8R J-55 IPC tbg, 15 jts 2 7/8" EUE 8R J-55 tbg, TAC, and 110 jts 2 7/8" EUE 8R J-55 tbg. Set TAC at 3475' with EOT at 4018' and SN at 3981'.
26. Remove BOP's and install WH. GIH with rods, weight bars, and pump per ALS recommended design. RD & release workover unit.
27. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

Engineer – Richard Jenkins

432-687-7120 Office

432-631-3281 Cell

Well: **G.C. Matthews #5**Field: **Monument**Reservoir: **TA'd****Location:**

2310' FSL & 2310' FEL
 Section: 6 Unit Letter: J
 Township: 20S
 Range: 37E
 County: Lea State: NM

Elevations:

GL: 3559'
 KB: 3569'
 DF:

This wellbore diagram is based on the most recent information regarding wellbore configuration and equipment that could be found in the Midland Office well files and computer databases as of the update date below. Verify what is in the hole with the well file in the Eunice Field Office. Discuss w/ WEO Engineer, WO Rep, OS, ALS, & FS prior to rigging up on well regarding any hazards or unknown issues pertaining to the well.

TOC @ 2660'

TAC @ 3475'

Recommended Tubing Detail:

#Jts:	Size:	Footage	Top Depth
	KB Correction	10	0
110	Jts 2 7/8" EUE 8R J-55 Tbg	3465	10
	TAC	2.7	3475
15	Jts 2 7/8" EUE 8R J-55 Tbg	472.5	3477.7
1	Jts 2 7/8" IPC EUE 8R J-55 Tbg	31	3950.2
	SN	1.10	3981.2
	2 7/8" x 4" Perf Tbg Sub	4.00	3982.3
1	Jt 2 7/8" EUE 8R J-55 Tbg	31.00	3986.3
	Bull Plug	0.50	4017.30
213	Bottom Of String >>	4017.80	

CIBP @ 5075' w/ 35' of cmt on top

TOL @ 5333'

CIBP @ 6787' w/ 35' of cmt on top

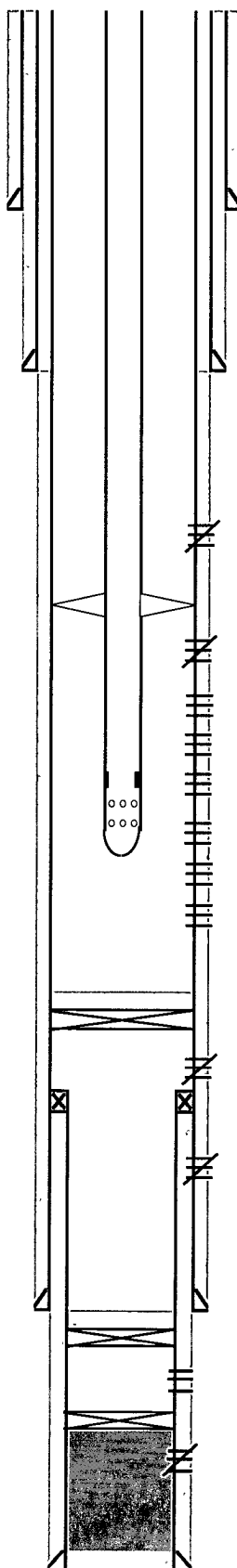
CICR @ 7030'

COTD:

PBTD: 7030'
 TD: 7400'

Updated: 2/17/2008

Proposed
Wellbore Diagram



By: rjdg

Well ID Info:

Refno: FA7068
 API No: 30-025-05946
 L5/L6: UCU764100
 Spud Date: 5/5/1951
 Compl. Date: 11/1951

Surf. Csg: 13-3/8", 48#
Set: @ 326' w/ 325 sks
Hole Size: 17-1/4"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Intern. Csg: 9 5/8", 36#
Set: @ 2650' w/ 1500 sks
Hole Size: 12 1/4"
Circ: no **TOC:** 950'
TOC By: T.S.

Perfs:	Status
3386'-88'	Penrose - Squeezed
3437'-39'	Penrose - Squeezed
3466'-68'	Penrose - Squeezed

*CVX owns from 3493' and deeper ✓

3502'-12'	Grayburg - Squeezed
3546'-48'	Grayburg - Squeezed
3595-3605'	Grayburg - Open
3610'-12'	Grayburg - Squeezed
3620-3630'	Grayburg - Open
3648-3655'	Grayburg - Open
3661-3671'	Grayburg - Open
3700-3720'	Grayburg - Open
3729-3742'	Grayburg - Open
3835-3845'	Grayburg - Open
3848-3855'	Grayburg - Open
3860-3870'	Grayburg - Open
3919-3925'	Grayburg - Open
3930-3940'	Grayburg - Open
3950-3955'	Grayburg - Open
3960-3970'	Grayburg - Open

Perfs:	Status
5139'-5208'	Paddock - Squeezed

Perfs:	Status
5576'-5602'	Blinebry - Isolated Behind Liner
5650-5700'	Blinebry - Isolated Behind Liner

Prod. Csg: 7", 23#
Set: @ 5779' w/ 650 sks
Hole Size: 8-3/4"
Circ: No **TOC:** 2660'
TOC By: T.S.

Perfs:	Status
6862-6986'	Abo - Isolated Below CIBP

Perfs:	Status
7045'-7252'	Abo - Squeezed

Liner: 4-1/2", 11.6#
Top: 5333'
Set: @ 7398' w/ 250 sks
Hole Size: 6 1/4"

Well **G.C. Matthews #5**

Field: **Monument**

Reservoir **TA'd**

Location:

2310' FSL & 2310' FEL
Section 6 Unit Letter: J
Township 20S
Range: 37E
County Lea State NM

Elevations:

GL: 3559'
KB: 3569'
DF:

This wellbore diagram is based on the most recent information regarding wellbore configuration and equipment that could be found in the Midland Office well files and computer databases as of the update date below. Verify what is in the hole with the well file in the Eunice Field Office. Discuss w/ WEO Engineer, WQ Rep, OS, ALS, & FS prior to rigging up on well regarding any hazards or unknown issues pertaining to the well.

**Current
Wellbore Diagram**

Well ID Info:

Refno FA7068
API No 30-025-05946
L5/L6:
Spud Date: 5/5/1951
Compl Date: 11/1951

Surf. Csg: 13-3/8", 48#
Set: @ 326' w/ 325 sks
Hole Size: 17-1/4"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Interm. Csg: 9 5/8", 36#
Set: @ 2650' w/ 1500 sks
Hole Size: 12 1/4"
Circ: no **TOC:** 950'
TOC By: T.S.

Perfs:	Status
3386'-88'	Penrose - Squeezed
3437'-39'	Penrose - Squeezed
3466'-68'	Penrose - Squeezed

***CVX owns from 3493' and deeper**

3506'-08'	Grayburg - Squeezed
3546'-48'	Grayburg - Squeezed
3610'-12'	Grayburg - Squeezed

Perfs:	Status
5139'-5208'	Paddock - Squeezed

Perfs:	Status
5576'-5602'	Blinebry - Isolated Behind Liner
5650'-5700'	Blinebry - Isolated Behind Liner

Prod. Csg: 7", 23#
Set: @ 5779' w/ 650 sks
Hole Size: 8-3/4"
Circ: No **TOC:** 2660'
TOC By: T.S.

Perfs:	Status
6862'-6986'	Abo - Isolated Below CIBP

Perfs:	Status
7045'-7252'	Abo - Squeezed

Liner: 4-1/2", 11 6#
Top: 5333'
Set: @ 7398' w/ 250 sks
Hole Size: 6 1/4"

TOC @ 2660'

TOL @ 5333'

CIBP @ 6787'

CICR @ 7030'

COTD:
PBTD: 7030'
TD: 7400'

Updated: 2/14/2008

By: rjdg

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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 October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-05946	² Pool Code 23000	³ Pool Name EUNICE MONUMENT; GRAYBURG SAN ANDRES
⁴ Property Code 2688	⁵ Property Name G.C. MATTHEWS	⁶ Well Number 5
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁹ Elevation 3559'

¹⁰ Surface Location

UL or lot no. J	Section 6	Township 20-S	Range 37-E	Lot Idn	Feet from the 2310	North/South line SOUTH	Feet from the 2310	East/West line EAST	County LEA
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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 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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.

¹⁶					¹⁷ OPERATOR CERTIFICATION <i>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</i> Signature 03-06-2008 Date DENISE PINKERTON REGULATORY SPECIALIST Printed Name
					¹⁸ SURVEYOR CERTIFICATION <i>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</i> Date of Survey Signature and Seal of Professional Surveyor
					Certificate Number