APR 09 '04 10:30AM CHEVRON MIDLAND

Logged In 4/12/04 Suspense. 4/12/04

DR PAC 04/0330676

228

ChevronTexaco



1st of 2 Faxes

Tot	Dav	id Catanad	h (NMOC	CD)	From:	Monte Duncan (432-687-7217) (fax 432-
,						687-7871)
Fax:	505	476-3462			Date:	April 9, 2004
Phone:	505	476-3466			Pages:	: Cover + 15 8
Re:	VGS	SAU #233	<b>inj PSI In</b>	crease Request	¢C:	
Urgei	nt	X For R	eview	🗆 Please Con	nment	Please Reply 🛛 🖾 Please Recycl

TPE

#### ·Comments:

Attached is a package requesting an injection pressure increase on Vacuum Grayburg San Andres Unit #233, a Chevron Texaco well located in Lea County, New Mexico.

This package was send by US mail to you on Friday, April 9, 2004. Please call Mario Ballesteros (432-687-7218) or myself (432-687-7217) if you have any questions.

Thanks!

## ChevronTexaco

April 9, 2004

State of New Mexico Energy and Minerals Dept. **Oil Conservation Division** 1220 South St. Francis Drive Santa Fe. New Mexico 87505

RECEIVED APR 1 2 2004

Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, NM 87505

Attention: Mr. David Catanach, Engineering Bureau

### **RE:** Injection Pressure Increase Vacuum Grayburg 233 2630' FSL & 660' FWL Unit Ltr L, Section 1, Township 18-S, Range 34-E Lea County, New Mexico

Dear Mr. Catanach,

ChevronTexaco requests permission to increase the surface injection pressure on Vacuum Grayburg San Andres Unit #233 (API No. 30-025-36355) from 1450 psig to 1950 psig. This request is based upon step rate test conducted on April 7, 2004 by Precision Pressure Data, Inc. The results of the step rate test are attached to this letter. The well location is shown on the attached surface map.

On January 12, 2004 the New Mexico Oil Conservation Division granted approval to increase the surface injection pressure to 1450 psig on this vertical injection well, based on step rate tests conducted on November 14, 2003. The NMOCD approval letter is attached for your information.

The approval to begin injection operations was dependent upon the permanent plugging and abandonment of VGSAU #211 (API No. 30-025-35687), located 710 FSL & 1280 FWL, Unit Letter M, Section 1, T-18-S, R-34-E, NMPM, Lea County, New Mexico. This operation was completed on March 9, 2004 and was reported to the NMOCD by a subsequent C-103 report dated March 17, 2004 and by a letter dated March 23, 2004.

Since this well had been shut-in during the plugging and abandonment of VGSAU #211, the surface pressure had increased from 950 psig (pressure when initially drilled) to 1525 psig as reported before the last step rate. So there was a need to repeat the step rate procedure in order to find a higher surface pressure.

According to the results from this step rate test, a parting pressure was attained @ 3750 psi, which is equivalent to a surface pressure of 1950 psig.

Your prompt consideration and approval of this application will be greatly appreciated. If additional information is required, please contact me at (432) 687-7218.

Sincerely,

Pario A. Fullesteros

Mario A. Ballesteros Petroleum Engineer ChevronTexaco 15 Smith Road, Room #2235 Midland, TX 79705 Telephone: (432) 687-7218 Fax: (432) 687-7871

# VGSAU #233 Step Rate Test Results April 7, 2004

## **Step Rate Test**

## CHEVRON TEXACO VGSAU #233 TEST DATE 4/7/2004

(psig) 1525.00 1804.00 1730.00 1920.00 2040.00 2145.00 2272.00	(psia) 3000.37 3428.00 3577.88 3737.60 3781.00 3820.60 3850.15	FRICTION     1525.00     1797.00     1702.00     1861.00     1939.00     1990.00
1804.00   1730.00   1920.00   2040.00   2145.00   2272.00	3428.00 3577.88 3737.60 3781.00 3820.60	1797.00 1702.00 1861.00 1939.00 1990.00
1730.00 1920.00 2040.00 2145.00 2272.00	3577.88 3737.60 3781.00 3820.60	1702.00 1861.00 1939.00 1990.00
1920.00 2040.00 2145.00 2272.00	3737.60 3781.00 3820.60	1861.00 1939.00 1990.00
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2145.00 2272.00	3820.60	1990.00
2272.00	and the second	
and the second	3950 15	
	3030.15	2054.00
2408.00	3883.10	2116.00
	2408.00	2408.00 3883.10

Run Depth: 4407

Formation: Grayburg San Andres

Tubing Depth: 4311

Tested By : J. Chesshir

Perforations: 4366-4448

Total Depth: 4559

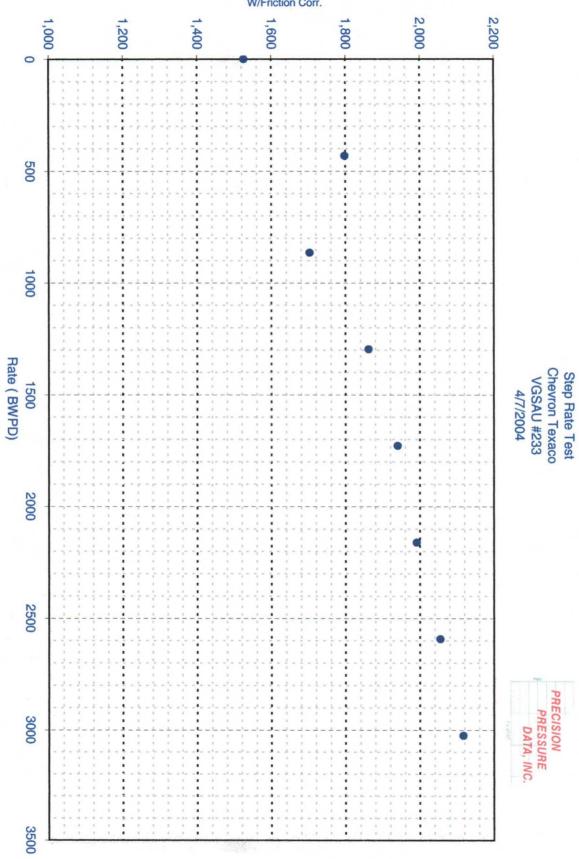
Pkr. Depth: 4311

Instrument #: 75794

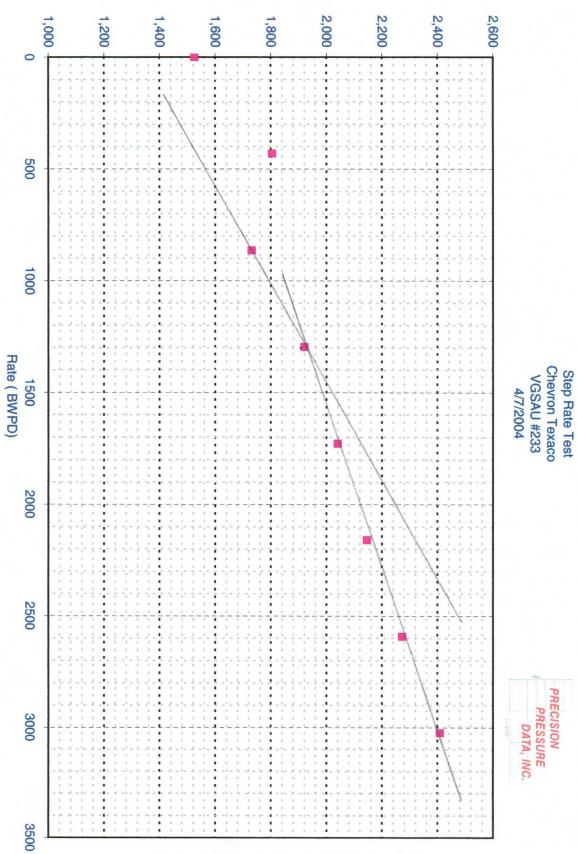
### **TEST RESULTS**

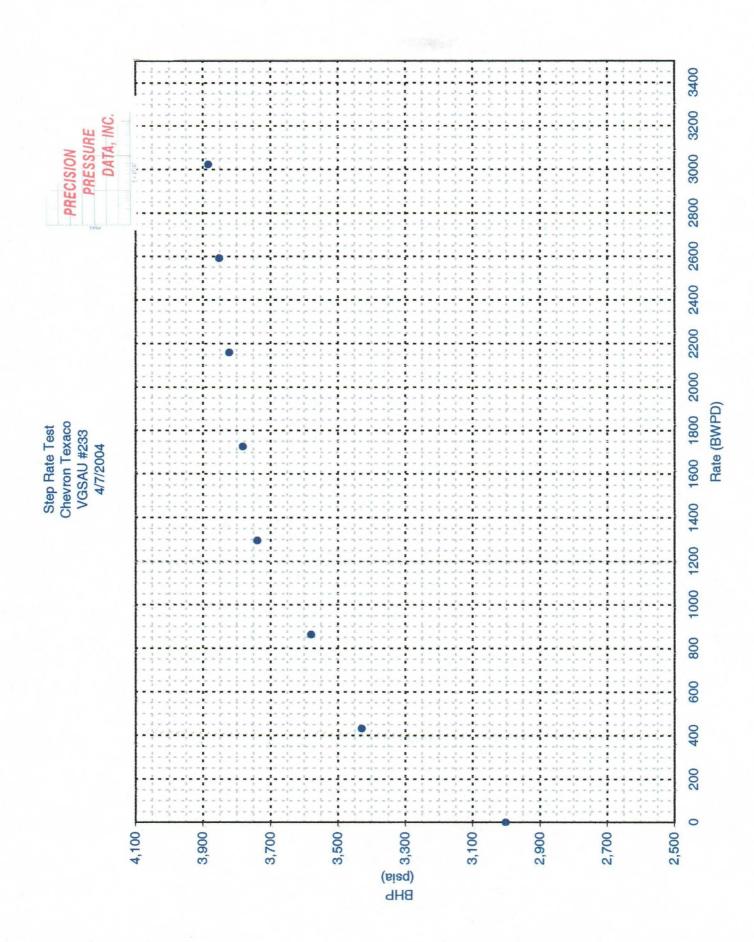
Parting Pressure @ ~3750 BHP (PSIA) @ 1338 BWPD

Psurface (psig) W/Friction Corr.



Psurface (psig)





A MAR

1 4 4 w w w w w y y	
BHP (psia) 3,700 2,700 BHP (psia) 3,700 2,700 2,700	4 500
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400	
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1600 Rate (	Step Rate Test Chevron Texaco VGSAU #233 4/7/2004
Rate (BWPD)	f est
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2200	
2400	
2600 2800	
	PRE
3000	PRECISION PRESSURE DATA, INC.
3000 3200 3400	IRE , INC.
3400	

Hate (BWPD)

## VGSAU #233 Surface Location

1981-801 1 2 0. 668 1980, Hobos, NM 88240 DISTRICT II P. O. Diower ID, Artesie, NV 88210 U STRICT III 1807 - Sie Brozoe Rei, Azleo, NM 87410 01217801 IN 7 D. Box 2089, Sonto Fe, NM 87604-2088

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State of New Mexico Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

7 . Form C-102 Revised February 10, 1994 instructions on book

Submit to Appropriate District Office

State Lease-4 copies Fee Lease-3 copies

AMENDED REPORT

: 4			<sup>7</sup> Paol Coce <sup>3</sup> Pool Name Vacuum Grayburg San Andres						
Property Co.					SProperty N		an Andres		<sup>8</sup> Well Number
·				233					
OGREE No.				3Operator Name					
	l l			Chevron USA Inc.					
					<sup>10</sup> Surface L	ocation			· · · · · · · · · · · · · · · · · · ·
UL ar lotino.	Section	Township	Ronge	Lot lan	Feet from the	North/South line	Feet from the	East/West line	County
L.	1	18-S	34-E		2630'	SOUTH	660'	WEST	Lea
			'' Bo	ottom Hol	e Location If	Different From	Surface		•
ul sruat na.	Section	Township	Ronge	Lot (dn	Feet from the	North/South line	Feet from the	East/West Kne	County
Conjected Acres	or <sub>6</sub> ;	nt or Infill	<sup>1</sup> Consolid	ation Code	<sup>15</sup> Order No.	<u> </u>	L		

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.

<u>A</u>				DERATOR CERTIFICATION
			"t" 15	UPERATOR CENTIFICATION I hereby centify that the information cantained herein is true and condicts to the best of my knowledge and belief.
<b>10</b> 55 <b>10</b>	156 <b>©</b> 56 <b>d</b>	157 <b>57●</b>	◆ 158 58 ◆ ◆ *L" 7 <sup>●</sup> 159 ●	Signoture
		120 👁	VGWU 121	Printed Name
	149 249 C	49 150 •	150 122	Ted Tipton Position
			NM "L" 9 NM "L" 12 160	Manager of Drilling Department
\$ <b>40</b> \$	141 🔮 41	<b>9</b> 142 <b>3</b> 42	● 143 43●	Chevron USA, Inc.
-58.998				Date August 5, 2003
631.	33	1 135 <sub>0</sub>	235 NM "L" 17	"SURVEYOR CERTIFICATION
9125 25 <b>•</b>	126 🔮 26	• 127 27 • • 26	<b>3 3 2</b> 8	I hereby certify that the well location show on this plat was plotted from field notes of actual surveys node by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.
1014.			<del>•</del> 68	Date Surveyes
	13 ,	19	20	August 4, 2003
				Signature & Seal of Prafessianal Surveyar
<b>5</b> to		• 12	• 13	Collin
Ğſ			L	Certificate No. 7254 John S. Piper
D 33C 56O 99O 1320	0 1650 1980 2310	2640 2000 1500	0 1000 500 0	Sheet

🔿 = Stoked Location • = Producing Well 💉 = Injection Well 📀 = Water Supply Well 🔶 = Plugged & Abandon Well 🗇 = Found Section Corner, 2 or 3" Iron Pipe & GLO B.C. 🛛 🔿 = Found /4 Section Corner, 1" Iron Pipe & GLO B.C.

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ADDITIONAL INFORMATION ON THE LOCATION State Plane Coordinates Editing 791198.363 (1927=750019.330) Northing 647309.553 (1927=647244.618) 1983= 103.31,13,375 1983= 32.46'36".657 1927= 32'46'36".316 1927= 103'30'56".127 Latitude Longitude Zone North American Datum Combined Grid Factor Coordinate File 0.99979145 1927 Buckeye.cr5 East Drawing File Field Book VGSAU233.dwg Lea County 23, Pg. 29

## NMOCD Permit to Inject January 12, 2004



## NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON Governor Joanna Prukop Cabinet Secretary Lori Wrotenbery Director Oil Conservation Division ADMINISTRATIVE ORDER NO. WFX-797

### APPLICATION OF CHEVRONTEXACO TO EXPAND ITS ENHANCED OIL TERTIARY RECOVERY PROJECT IN THE VACUUM GRAYBURG-SAN ANDRES POOL IN LEA COUNTY, NEW MEXICO

### ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-4442, as amended, ChevronTexaco has made application to the Division on December 1, 2003 for permission to expand its Vacuum Grayburg San Andres Unit Enhanced Oil Tertiary Recovery Project in the Vacuum Grayburg-San Andres Pool in Lea County, New Mexico.

#### THE DIVISION DIRECTOR FINDS THAT:

(1) The application was filed in due form.

(2) Satisfactory information was provided that all offset operators have been duly notified of the application.

(3) No objection has been received within the waiting period as prescribed by Rule 701(B).

(4) The proposed injection well is eligible for conversion to injection under the terms of Rule 701.

(5) The proposed expansion of the above referenced enhanced oil tertiary recovery project will not cause waste nor impair correlative rights.

#### IT IS THEREFORE ORDERED THAT:

The applicant, ChevronTexaco, is hereby authorized to inject water into the Grayburg-San Andres formation, Vacuum Grayburg-San Andres Pool, through the perforated interval from approximately 4,366 feet to 4,448 feet using 2-3/8-inch plastic lined tubing set in a packer located at a depth of approximately 4,311 feet in the following described well for purposes of tertiary recovery to wit: Administrative Order WFX-797 ChevronTexaco January 12, 2004 Page 2 of 3

> Vacuum Grayburg San Andres Unit Well No. 233 (API No. 30-025-36355) 2630' FSL & 660' FWL (Unit L) Section 1, Township 18 South, Range 34 East; Injection Interval: Perforated 4,366 feet to 4,448 feet Maximum Surface Injection Pressure: 1,450 psi

#### IT IS FURTHER ORDERED THAT:

Prior to commencing injection operations into the Vacuum Grayburg San Andres Unit Well No. 233, the applicant shall plug and abandon the Vacuum Grayburg San Andres Unit Well No. 211 (API No. 30-025-35687) located 710 feet from the South line and 1280 feet from the West line (Unit M) of Section 1, Township 18 South, Range 34 East, NMPM, Lea County, New Mexico, in a manner that is acceptable to the supervisor of the Division's Hobbs District Office.

Subsequent to the completion of plugging operations on the VGSAU Well No. 211, the applicant shall submit documentation to the Santa Fe Office of the Division verifying that this work has been completed. This documentation shall be in the form of a cover letter addressed to the Engineering Bureau complete with all applicable Form C-103's (Sundry Notices). Failure to comply with this directive may result in the cancellation of injection authority.

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure to 1,450 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Vacuum Grayburg-San Andres Pool. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date

Administrative Order WFX-797 ChevronTexaco January 12, 2004 Page 3 of 3

and time: i) plugging operations will be conducted on the VGSAU Well No. 211; ii) of the installation of injection equipment in the injection well; and iii) of the mechanical integrity test so that these operations may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs District Office of the Division of the failure of the tubing, casing or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject well shall be governed by all provisions of Division Order No. R-4442, as amended, and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

<u>PROVIDED FURTHER THAT</u>, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

DONE at Santa Fe, New Mexico, on this 12th day of January, 2004.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

Ori Wedenberry by De

LORI WROTENBERY Director

SEAL

LW/DRC

cc: Oil Conservation Division – Hobbs Case File No. 12592

## ChevronTexaco Information Letter on the P&A of VGSAU #211

ChevronTexaco Russell Pool Technical Team Leader Vacuum Enhanced Oil Recovery Team 15 Smith Road Midland, TX 79705 poolre@chevrontexaco.com

## ChevronTexaco

March 23, 2004

## APPLICATION FOR AUTHORIZATION TO INJECT - OCD FORM C-108 VACUUM GRAYBURG SAN ANDRES UNIT GRAYBURG SAN ANDRES POOL LEA COUNTY, NEW MEXICO

State of New Mexico Energy and Minerals Dept. Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505

Attention: David Catanach, Engineering Bureau

Pursuant to Administrative Order No. WFX-797 dated January 12, 2004, ChevronTexaco has permanently plugged and abandoned Vacuum Grayburg San Andres Unit Well # 211 (API No. 30-025-35687) located 710 feet from the South line and 1280 feet from the West line (Unit M) of Section 1, Township 18 South, Range 34 East, NMPM, Lea County, New Mexico, in a manner that was acceptable to the supervisor of the Division's Hobbs District Office. In accordance with this order, attached is a copy of the subsequent C-103 which was approved on March 19, 2004.

ChevronTexaco will begin injection of water into Vacuum Grayburg San Andres Unit Well #233 (API 30-025-36355) located 2630' from the South line and 660' from the West line (Unit L) of Section 1, Township 18 South, Range 34 East, NMPM, Lea County, New Mexico on 4/1/04 unless notified by your office to do otherwise.

If additional information is required, please contact me at (432) 687-7417.

Sincerely, 1 Pcl

Russell Pool Technical Team Leader, Vacuum Enhanced Oil Recovery Team

File Attachments