PATRICK H. LYONS COMMISSIONER

State of New Mexico Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

January 10, 2003

Chevron USA 15 Smith Road Midland, Texas 79702

Attn: Mr. Mike Mullins

Re: Resignation/Designation of Successor Unit Operator

Cotton Draw Unit

Eddy and Lea Counties, New Mexico

Dear Mr. Mullins:

We are in receipt of your resignation/designation of successor unit operator, wherein Texaco Producing Inc. has resigned as unit operator of the Cotton Draw Unit and designated Chevron USA as the successor unit operator.

The Commissioner of Public Lands has this date approved the resignation of Texaco Producing Inc. and the designation of Chevron USA as the successor unit operator of this unit. Our approval is subject to like approval by the Bureau of Land Management and the New Mexico Oil Conservation Division.

This change in operators is effective September 25, 2002. In accordance with this approval, Chevron USA is now responsible for all operations and the reporting of all production from the unit.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

PATRICK H. LYONS

COMMISSIONER OF PUBLIC LANDS

JAMI BAILEY, Director

Oil/Gas and Minerals Division

(505) 827-5744

PL/JB/cpm

xc: Reader File Texaco Producing Inc. OCD--Roy Johnson TRD BLM

COMMISSIONER'S OFFICE Phone (505) 827-5760 Fax (505) 827-5766

ADMINISTRATION Phone (505) 827-5700 Fax (505) 827-5853

GENERAL COUNSEL Phone (505) 827-5713 Fax (505) 827-4262

PUBLIC AFFAIRS Phone (505) 827-1245 Fax (505) 827-5766

New Mexico State Land Office Commissioner of Public Lands Ray Powell, M.S., D.V.M.

COMMERCIAL RESOURCES Phone (505) 827-5724 Fax (505) 827-6157

MINERAL RESOURCES Phone (505) 827-5744 Fax (505) 827-4739

ROYALTY MANAGEMENT Phone (505) 827-5772 Fax (505) 827-4739

SURFACE RESOURCES Phone (505) 827-5793 Fax (505) 827-5711

April 26, 2002

Texaco Exploration and Production Inc. P.O. Box 3109
Midland, Texas 79702

Attention: Mr. Mike Mullins

Re: Cotton Draw Unit

First Revision to Wolfcamp Participating Area

Eddy and Lea Counties, New Mexico

Dear Mr. Mullins:

Your application letter of January 30, 2002 requesting approval of the First Revision to the Wolfcamp Participating Area, Cotton Draw Unit, Eddy and Lea County, New Mexico was received on February 4, 2002.

The Commissioner of Public Lands has this date approved your application for the First Revision to the Wolfcamp Participating area. The effective date of this revision is February 1, 2000. Our approval is subject to like approval by the Bureau of Land Management.

The approved participating area contains 959.92 acres and is described as follows:

Township 25 South, Range 31 East Section 2: lots 1,2,3,4, S/2N/2, S/2 Section 11: N/2

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M. COMMISSIONER OF PUBLIC LANDS

BY:

JAMI BAILEY, Director
Oil, Gas and Minerals Division

(505) 827-5744

RP/JB/pm

kc:

Reader File

OCD-Attention: Mr. Roy Johnson BLM Roswell - Attention Mr. John Simitz

TRD Attn: Mr. Valdean Severson RMD Attn: Ms.Linda Vieira

COMMISSIONER'S OFFICE Phone (505) 827-5760 Fax (505) 827-5766

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SURFACE RESOURCES Phone (505) 827-5793 Fax (505) 827-5711

February 8, 2002

Texaco Exploration & Production, Inc. P.O. Box 3109
Midland, Texas 79702

Attn:

Mr. Mike Mullins

Re:

2002 Plan of Development

Cotton Draw Unit

Eddy & Lea Counties, New Mexico

Dear Mr. Mullins:

The Commissioner of Public Lands has, of this date, approved the above-captioned Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the unit area and the need for further development of the unit may exist. You may be contacted at a later date regarding these possibilities.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M. COMMISSIONER OF PUBLIC LANDS

JAMI BAILEY, Director

Oil, Gas and Minerals Division

(505) 827-5744

RP/JB/cpm

xc: Reader File

OCD

BLM

COMMISSIONER'S OFFICE Phone (505) 827-5760 Fax (505) 827-5766

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GENERAL COUNSEL Phone (505) 827-5713 Fax (505) 827-4262

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New Mexico State Land Office Commissioner of Public Lands Ray Powell, M.S., D.V.M.

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ROYALTY MANAGEMENT Phone (505) 827-5772 Fax (505) 827-4739

SURFACE RESOURCES Phone (505) 827-5793 Fax (505) 827-5711

January 10, 2002

Chevron-Texaco P. O. Box 3109 Midland, Texas 79702

Attention: Mr. Mike Mullins

Re:

Cotton Draw Unit

Commercial Well Determination Cotton Draw Unit Well No. 87 NE/4NE/4 Sec. 11-25S-31E

Eddy and Lea Counties, New Mexico

Dear Mr. Mullins:

This office is in receipt of your letter of July 13, 2001, together with the data that supports your commercial determination regarding the Cotton Draw Unit Well No. 87, NE/4NE/4, Sec. 11-25S-31E.

The Bureau of Land Management, by their letter of November 30, 2001, has advised this office that they have concurred with your determination that the Cotton Draw Unit Well No. 87 is capable of producing unitized substances in paying quantities from the Wolfcamp formation.

Please be advised that the Commissioner of Public Lands concurs with Chevron-Texaco and the Bureau of Land Management's determinations that the Cotton Draw Unit Well No. 87 is a commercial well in the Wolfcamp formation and is entitled to participate in the Wolfcamp participating area. Please submit a copy of the proposed Wolfcamp participating area to this office for our approval.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M. COMMISSIONER OF PUBLIC LANDS

BY:

JAMI BAILEY, Director Oil, Gas and Minerals Division

(505) 827-5744

RP/JB/pm

xc:

Reader File

OCD-Attention: Mr. Roy Johnson

BLM Roswell - Attention Mr. Gary Gourley



Texaco Exploration and Production Inc. Permian Business Unit

500 North Loraine Midland TX 79701 P O Box 3109 Midland TX 79702

January 31, 2002

NM186150 - Cotton Draw Unit Agreement
Eddy and Lea Counties, New Mexico
2002 Plan of Development

Bureau of Land Management Roswell District Office Attn: Mr. Gary Gourley 2909 W. Second Street Roswell, New Mexico 88201-2019 Commissioner of Public Lands
State of New Mexico Land Office
Attn: Mr. Pete Martinez
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Gentlemen:

As Unit Operator of the Cotton Draw Unit, Texaco Exploration and Production Inc. ("Texaco") hereby submits for your approval a plan of development and operations for the subject unit for 2002.

PAST OPERATIONS

As you are aware, effective December 1, 1999, Texaco Exploration and Production Inc. sold its interests in the oil and gas leases encompassing both the Delaware Sand Participating Area and the Delaware Sand "A" Participating Area within the Cotton Draw Unit to Leede Operating Company, L.L.C. Subsequently, Sahara Operating Company (Leede's operating entity) has been approved as Sub-Operator of the Delaware formation underlying the Cotton Draw Unit. Accordingly, this letter will only address operations and activity in formations below the base of the Delaware formation.

There are currently three (3) wells within the Cotton Draw Unit completed from the Devonian formation, which are the Cotton Draw Unit wells #76 (Sec. 1, T25S-R31E), #84 (Section 2, T25S-R31E) and #86 (Section 12, T25S-R31E).

There is one (1) well currently completed in the Atoka formation, being the Cotton Draw Unit well #67 (Section 35, T24S-R31E).

Three (3) wells have been drilled to test the Wolfcamp formation; the Cotton Draw Unit wells #87 (Section 11, T25S-R31E), #88 (Section 7, T24S-R32E) and #89 (Section 3, T25S-R31E). Well #87 was successfully completed from the Wolfcamp formation and has qualified as a commercial well. Accordingly, by letter, dated January 30, 2002, Texaco has filed an application for the First Enlargement of the Participating Area for the Wolfcamp Formation within the Cotton Draw Unit. Wells #88 and #89, drilled to test the Wolfcamp formation, have not been as successful. In the near future, we will provide you with information requesting your concurrence that wells #88 and #89 are non-commercial.

Bureau of Land Management Commissioner of Public Lands January 31, 2002 Page 2

Lastly, we have drilled and are currently attempting to complete the Cotton Draw Unit well #90 (Section 36, T24S-R31E) from the Morrow formation.

Attached for your information is (1) a list, indicating the status of all of the wells within the Cotton Draw Unit that have penetrated depths below the Delaware formation, (2) tabular production for 2001 for the active wells producing from formations below the Delaware formation in the Cotton Draw Unit and (3) three separate maps which display the Morrow, the Devonian and the proposed enlargement of the Wolfcamp Participating Areas within the Cotton Draw Unit. The attached maps also display the wells described above.

DEVELOPMENT PLANS FOR 2002

Texaco will attempt to complete the Cotton Draw Unit well #90 from the Morrow formation. Pending the results from our completion attempt in said well, we will evaluate further opportunities in the Morrow formation. Also, we will be evaluating the results from our recent drilling to establish production from the Wolfcamp formation.

If you have any questions, please contact the undersigned at (915) 687-7273. For your information, our new mailing address is 15 Smith Road, Midland, Texas 79705.

Very truly yours,

Mike Mulles.

Mike Mullins Landman

Attachments

cc: Devon Energy Production Company

Attn: Mr. Ken Gray 20 N. Broadway, Suite 1500 Oklahoma City, OK 73102-8260

State of New Mexico
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

COTTON DRAW UNIT EDDY COUNTY, NEW MEXICO WELL STATUS JANUARY 28, 2002

T.A.'d	Producer
Active	SWD Well
Active	Producer
T.A.'d	Producer
Active	Producer
T.A.'d	Producer
Active	Producer
Active	Producer
Active	Producer
T.A.'d	Producer
T.A.'d	Producer
Completing	Producer
	Active Active T.A.'d Active T.A.'d Active Active Active T.A.'d T.A.'d

						2001	2001 PRODUCTION	TION					
	Jan	Feb	March	April	May	June	July	August	Sept	October	Nov	Dec	Total
Cotton Draw Unit # 67													
Water (bbl)	29	12	7	4	7	0	0	28	0	œ	0	19	114
Gas (mcf)	7375	6166	3222	3574	2318	949	326	3747	333	2304	86	3,705	34105
COLLOIS DIAM CITIC # 70								1 1 1 1 1		1	!	,	
Water (bbl)	52580	45781	82687	63656	69096	52414	39466	60628	36103	28873	711	35,419	56/414
Gas (mcf)	10241	8672	11378	9210	10019	8590	8815	9717	4448	3461	70	4,425	89046
Cotton Draw Unit # 84													
Water (bbl)	87933	99235	110015	93906	107427	70390	130148	125563	101940	100709	5062	138,392	1170720
Gas (mcf)	30204	46684	75090	61845	70031	37316	45371	40948	30227	21142	755	29,219	488832
Cotton Draw Unit # 86)		
Water (bbl)	12635	13141	15342	13023	12911	13781	14618	13190	15018	10634	518	13,338	148149
Gas (mcf)	45770	36892	39913	35358	34591	39368	36040	35717	33913	23337	998	29,736	391633
												 - - -	
Cotton Draw Unit #87											ı	1	
Oil (bbl)	812	684	698	625	689	617	570	508	384	351	00	224	6170
Water (bbl)	713	8 <u>1</u> 8	911	886	861	867	991	780	612	520	27	419	8405
Gas (mcf)	90437	82679	92142	84927	78101	83668	80306	74300	59440	58468	1791	37707	823966
Cotton Draw Unit # 88													
Oil (bbl)	0	0	0	13	0	0	0	0	0	0	0	0	13
Water (bbl)	0	46	0	ω	0	17	0	0	0	0	0	0	66
Gas (mcf)	0	334	68		92	0	0	0	0	0	0	0	495
											i		
Cotton Draw Unit #89											ı	ı	1
Oil (bbl)	0	0	0	0	0	0	0	0	0	0	0	0	0
Water (bbl)	0	0	0	0	0	0	0	0	156	10	0	0	166
Gas (mcf)	0	0	0	0	0	0	0	0	0	0	0	0	0
												The second name of the second na	

		MORROW PARTICIPATING AREA		
27	26	25	30 ⁻ ⇔-1	29
⇔58	T24S-R31	ı E	T24S-R3	2E
34	35	○ 90 36	31	32
3 ⇔67	2 Ø € 6 81	65 ⇔84 ↑ ↑	6	5
10	11	\$87	7 ☆88	8
15	T25S-R3	31E 13	\$\phi 64\$ T24S- 18	-R32E 17

27 ⇔58	PAR 26 T24S-R31E	'A" DEVONIAN TICIPATING AREA 25	30 ^{⇔1} T24S-R3	29 2E
34	35 ⇔67	⊙ 90 36	31	32
3 .⇔67 ∞89	2 ∞65	1 ⇔76	6	5
10	11	87	7 ⊹‡88	8
15	T25S-R31E	13		R32E 17

PETRA 1/30/02 10:44:39 AM

11-1		-			
27	7	26	25	30	2
.☆58		T24S-R31E		T24S-R3	2E
34		35 - ☆ 67	○ 90 36 State Land	31	3
3 ⇔67	~ 89	Ø65 2 ⇔84 State Land ♦81	1 -☆-76	6 Cotton Draw	Unit 5
10		1st Enlargement Of Wolfcamp P/A 11	\$7	7 ≱88	8
15		T25S-R31E	13	☆ ⁶⁴ T24S-	R32E 17
FIRST ENLAI	RGEMENT O	IBIT "A" OF THE PARTICIPATING A FCAMP FORMATION	24 REA	19	2 3046 Ft/In

FOR THE WOLFCAMP FORMATION COTTON DRAW UNIT AGREEMENT EDDY AND LEA COUNTIES, NEW MEXICO



Texaco Exploration and Production Inc. Permian Business Unit

500 North Loraine Midland TX 79701 P O Box 3109 Midland TX 79702

January 30, 2002

NM186150 - Cotton Draw Unit Agreement
Eddy and Lea Counties, New Mexico
Application for the Approval of the
First Enlargement of the Participating Area
for the Wolfcamp Formation

Bureau of Land Management Roswell District Office Attn: Mr. Gary Gourley 2909 W. Second Street Roswell, New Mexico 88201-2019 Commissioner of Public Lands
State of New Mexico Land Office
Attn: Mr. Pete Martinez
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Gentlemen:

By our letter, dated July 13, 2001, your offices were furnished with information on the completion of the Cotton Draw Unit #87 well. Your offices both made the determination that said well qualifies as a commercial well in the Wolfcamp formation, pursuant to the Cotton Draw Unit Agreement.

Accordingly, Texaco Exploration and Production Inc., as Unit Operator of the Cotton Draw Unit Agreement, pursuant to Section 11 of the Unit Agreement, respectfully submits for your approval the selection of the following described lands for inclusion in the First Enlargement of the Participating Area for the Wolfcamp Formation:

Township 25 South, Range 31 East, Eddy County, New Mexico

Section 2:

All

Section 11:

N/2

containing 959.92 acres, more or less

Your records will reflect that the Initial Participating Area for the Wolfcamp Formation covered all of Section 2, Township 25 South, Range 31 East, Eddy County, New Mexico.

In support of our application, attached are the following items:

1) A map, marked as Exhibit "A", showing the pertinent portion of the unit area and the boundary of the proposed First Enlargement of the Participating Area for the Wolfcamp Formation.

Bureau of Land Management Commissioner of Public Lands January 30, 2002 Page 2

- 2) A schedule, marked as Exhibit "B", showing the lands entitled to participation in the unitized substances produced from the Wolfcamp formation, with the percentages of participation of each tract indicated.
- 3) A Wolfcamp structure map, supporting the boundary of the proposed First Enlargement of the Participating Area for the Wolfcamp Formation.

We are furnishing Devon Energy Production Company, L.P., the only other working interest owner, with a copy of this application.

Texaco respectfully requests your approval of the above described lands to constitute the First Enlargement of the Participating Area for the Wolfcamp Formation. The effective date of the participating area will be April 1, 2000, per Section 11 of the Cotton Draw Unit Agreement.

If you have any questions, please contact the undersigned at (915) 687-7273. For your information, our new mailing address is 15 Smith Road, Midland, Texas 79705.

Very truly yours,

Mike Mallis

Mike Mullins Landman

Attachments

cc: Devon Energy Production Company Attn: Mr. Ken Gray 20 N. Broadway, Suite 1500 Oklahoma City, OK 73102-8260

State of New Mexico
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

<u> </u>			
27 -⇔-58	26 T24S-R31E	25	30 ^{⇔1} T24S-R32E
	1245-R31E		12.5 10.5
34	35 -⇔67	⊙ 90 36 State Land	31
3 .⇔.67	2	1 ⇔ 76	6 Cotton Draw Unit
10	1st Enlargement Of Wolfcamp P/A 11	87 ^{‡68} 12 ^{‡86}	7 →88
15	T25S-R31E	13	÷64 T24S-R32E 18
FIRST ENLARGEMENT	KHIBIT "A" T OF THE PARTICIPATING AIDLECAMP FORMATION AW UNIT AGREEMENT	24 REA	19 3046 Ft/In

COTTON DRAW UNIT AGREEMENT EDDY AND LEA COUNTIES, NEW MEXICO

EXHIBIT "B"
FIRST ENLARGEMENT OF THE PARTICIPATING AREA
FOR THE WOLFCAMP FORMATION
COTTON DRAW UNIT AGREEMENT
EDDY AND LEA COUNTIES, NEW MEXICO

	35		-	Tract No
	K-4562		NM 0503	Lease No.
	T25S-R31E Sec. 2: All		T25S-R31E Sec. 11: N/2	Description
	639.92		320.00	Participating Acres
	66.663889 %		33.336111 %	Percentage of Participation
Devon Energy Production Company L.P. – 50 %	Texaco Exploration and Production Inc. -50%	Devon Energy Production Company L.P. – 50 %	Texaco Exploration and Production Inc. – 50 %	Working Interest Owner and Percent Interest

SUMMARY

TOTAL	State	Federal	Type Land
959.92	639.92	320.00	Committed Acres
100.000000 %	66.663889 %	33.336111 %	Percent



Texaco Exploration and Production Inc. Permian Business Unit

500 North Loraine J// P O Box 3109/7. Midland TX 79701 2 Midland TX 79702

July 13, 2001

NM186150 - Cotton Draw Unit
Eddy and Lea Counties, New Mexico
Cotton Draw Unit Well No. 87

Bureau of Land Management Roswell District Office Attn: Mr. Gary Gourley 2909 W. Second Street Roswell, New Mexico 88201-2019 Commissioner of Public Lands
State of New Mexico Land Office
Attn: Mr. Pete Martinez
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Gentlemen:

Texaco Exploration and Production Inc., as operator of the Cotton Draw Unit, recently completed the Cotton Draw Unit #87 well from the Wolfcamp formation, said well being located 772' FNL and 154' FEL of Section 11, T25S-R31E, Eddy County, New Mexico. We have attached information for your review to make a commercial well determination for said well.

At such time that you advise Texaco that the subject well qualifies as a commercial well, we will submit an application for a participating area or an enlargement of an existing participating area to your offices for your review. Please contact the undersigned at (915) 688-4488, with any questions.

Very truly yours,

Mile Muller

Mike Mullins Landman

Attachments

cc: Devon Energy Production Company

Attn: Mr. Ken Gray 20 N. Broadway, Suite 1500

Oklahoma City, OK 73102-8260

State of New Mexico
Oil Conservation Division
2040 S. Pacheco

Santa Fe, New Mexico 87505

TEXACO EXPLORATION AND PRODUCTION INC. COMMERCIALITY DETERMINATION

Well Name: Cotton Draw Unit #87

Formation: Wolfcamp

Location: 772' FNL 154' FEL Section 11 T-25S R-31E Eddy County, New Mexico

Date Spud: 11/29/99

Date Completed: 2/8/2000

Date of First Delivery: 3/23/2000

Total Well Cost (Drilling and Completion): \$1,562,500

Operating Cost: (Estimated) \$ 40,000/year

Severance Tax: 7.09% condensate 7.93% natural gas

Ad Valorem Tax: 1.387%

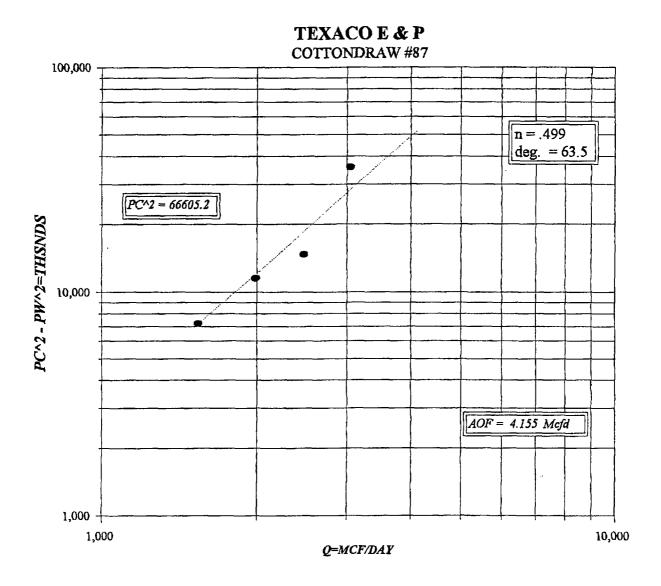
Current Gas Price: \$3.00/MCF Current Oil Price: \$27.00/BBL

Royalty Rate: 12.5% Subject to various overrides

Payout; 1.0 years

Production forecast: 2500 MCF starting 3/23/2000

YEAR	MMCF
2000	528
2001	750
2002	350
2003	200
2004	140



Ö.	COMPANY UNIT L &CO2	: 12790 : 0.809	ЕР Н \$N2	LEASE SECTION: 12790: 0.681	L/H H2S	PRAW: 1	Well No. Township G/GMIX	: Date	:3/22/00	Pc = 8161.2 Pt2 = *******	Pc2 =	7706.2 * 7415.2 * 7100.2 * 7
	<u>d</u>	: 2.441	řI.	:0.010763	(I I)	: 0.0		RANGE		*****		7198.2 ± 5558.2 ±
												3330.2
	VOL 1	: 1542	PSIA 1	: 7706.2			RESV. TEMP	201.9		Pc2-Pw2= 7219.7	Pw2 =	59385.5 *
	VOL 2			: 7415.2						******		54985.2 *
	VOL 3			: 7198.2			SHUT-IN PR	8161.2		******		51814.1 *
	VOL 4	: 3045	PSIA 4	: 5558.2						*****		30893.6 +
				PCR	: 670						0 400	*
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				1011	, 100					Pc2/(Pc2-Pw2) =	9.226	*
	LINE	RATE 1	1	RATE 2	1	RATE 3	1	RATE 4	1		5.732	*
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2	TV	534	534	534	534	534	534	534	534	[Pc2/Pc2-Pw2]n =	3.028	*
3	Ts_	661.9	661.9	661.9	661.9	661.9	661.9	661.9	661.9		2.388	*11
4	T (art)	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0		2.118	*
	PR (est)	11.50	1 114	11.07	1 170	10.74	1 150	8.30	0.981		1.364	*
	Z(est) TZ	1.210 723.8	1.210 723.8	1.179 705.0	1.179 705.0	1.156 691.1	1.156	0.981 586.8	586.8	AOF= Q	4.669	
6 1	TA GH/TZ	0.000	0.000	0.000	0.000	0.000	691.1 0.000	0.000	0.000	AUF- Q	4.757	:11
8	eS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		5.241	•
ğ	1-e-s	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		4.155	*
10	Pt	7706.2	7706.2	7415.2	7415.2	7198.2	7198.2	5558.2	5558.2			±
	Pt2 /1000		59385.5	54985.2	54985.2	51814.1	51814.1	30893.6	30893.6			*
12				0.010763		0.010763			0.0107631			*
13	FC=FTTZ	7.790	7.790	7.588	7.588	7.438	7.438	6.316	6.316			*
14	FcQm	12.01	12.01	15.12	15.12	18.41	18.41	19.23	19.23			*
	L/H(FcQm)		144.3	228.5	228.5	338.9	338.9	369.8	369.8			*
16	Pw	0	0	0	0	0	0	0	0			*
17	Pw2	59305.5	59385.5	54985.2	54985.2	51814.1	51814.1	30893.6	30893.6			*!
18	Ps2	59385.5	59385.5	54985.2	54985.2	51814.1	51814.1	30893.6	30893.6			*
19	Ps	7706.2	7706.2	7415.2	7415.2	7198.2	7198.2	5558.2	5558.2			<u> </u>
20 21	P Dec	7706.2	7706.2	7415.2	7415.2	7198.2	7198.2	5558.2	5558.2			<u> </u>
22	Pr Me	11.50 1.47	11.50 1.47	11.07 1.47	11.07 1.47	10.74	10.74	8.30 1.47	8.30 1.47			<u> </u>
23	Tr	1.210	1.210	1.179		1.156		0.981		197	ORM C122-	n :
£J	ħ	7.410	. T. T. T.	1,113	1 11113	1.130	1 1.170	0.701	1 0.301	II 1	WAL CITY.	-D *

2003



Laboratory Services, Inc.

4016 Floate Drive
Hobbs, New Mexico 88240

Telephone: (605) 397-3713

FOR:

Toxaco E & P, Inc. Attention: Mr. R. W. Lemmons

205 E. Bender

Hobbs, New Mexico 88240

SAMPLE

Sta. #361040684

IDENTIFICATION: Cotton Draw #87 COMPANY:

TEPI

LEASE: PLANT:

DATE SAMPLED: 8/23/00 11:35 am ANALYSIS DATE: 3/24/00: PRESSURE - PSIG 624 SAMPLE TEMP. F 70

ATMOS. TEMP. °F

GAS (XX)

LIQUID (

SAMPLED BY: ANALYSIS BY:

R. W. Lemmons Vickie Walker

REMARKS:

H2S = 0

COMPONENT

65:

COMPONENT		MOL PERCENT	GPM·	
Hydrogen Sulfide	(H2S)	0.000		
Nitrogen	(N2)	0.651		
Carbon Dioxide	(CO2)	0.809		
Methane.	(01)	87.188		
Ethane	(C2)	7.429	1.982	
Propane	(C3)	. 2,140	0.591	
I-Butane	(IC4)	0.427	p.189	
N-Butane	(NC4)	0.684	0.199	
I-Pentane	(IC5)	0.224	0.082	
N-Pentane	(NC5)	0.197	0.071	
Hexane Plus	(C6+)	0.362	0.149	
		100,000	3.218	
BTU/CU.FT DRY	11	84:	MOLECULAR W	T. 18.92
AT 14.650 DRY	11	31		
AT 14.650 WET	Γ 31	1.1	•	· · · · · · · · · · · · · · · · · · ·
AT 1170 DOV	4 1 1	arr ⁱ		

1137.

SPECIFIC GRAVITY-CALCULATED MEASURED

	NEW	MEXICO G.O.R./G. MIX
NO. OF BBLS PRODUCED	====	12.0
API GRAVITY 8 60 DEG.		53.0
SPECIFIC GRAVITY OF GAS	=	0.6540
nibrikinikinikinikiniki	IXXX	*************
TOTAL GAS PRODUCED	=	377
G.O.R.	=	31.438
G.NIX	=	0.748

Submit in duplicate to appropriate district office. See Rule 401 & Rule 1122

State of New Mexico Energy Minerals and Natural Resources Oil Conservation Division 2040 South Pacheco

Form C-122 Revised October, 1999

Santa Fe, NM 87505 MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL TEXACO E & P ease or Unit Name COTTONDRAW Operator Type Test Test Date Well No. **☑** Initial Special 3/22/00 ■ Annual Plug Back TD Completion Date Total Depth Elevation Unit Ltr - Sec - TWP - Rge 13048 Set At Perforations: Csg. Size County 12960 4.276 13048 12895 **EDDY** 18# From: To: Tbg. Size Pool Wt. Set At Perforations: From: To: 2 7/8 6.5 2.441 12790 Type Well-Single-Bradenhead-G.G. or G.O. Multiple Packer Set At Formation 12790 **SINGLE** Producing Thru Baro. Press.-P. Connection Reservoir Temp. F Mean Annual Temp. F 13.2 201 60 SALES tubing %CO₂ %H₂S Gg Prover Meter Run Taps 12790 12790 0.654 0.809 0.681 n/a 3.068 flg n/a TUBING DATA FLOW DATA CASING DATA Duration Orifice Diff. Press Press Press Temp. Temp. Temp. of Line No. p.s.i.g. p.s.i.g. p.s.i.g. Flow *F Size Size *F 8148 n/a Sì pkr n/a 7693 624 3.068 x 1.500 77 60 min 1 18 3.068 x 1.500 60 min 2 626 27 56 7402 3.068 x 1.500 626 42 64 7185 60 min 3 3.068 x 1.500 629 56 5545 62 60 min 4 5 RATE OF FLOW CALCULATIONS Rate of Flow Super Compress Pressure COEFFICIENT Flow Temp. No. Factor F pv P_{m} Q. Mcfd h_wP_m Gravity Factor (24 Hour) Factor Ft. 1542 1 GAS VOLUMES MEASURED BY TOTAL FLOW METER 1992 2 2475 3 3045 4 5 Temp. *R No. P_r Gas Liquid Hydrocarbon Ratio 31.438 Mcf bbl A.P. I. Gravity of Liquid Hydrocarbons 53 1 Deg. 2 0.654 XXXXXXX Specific Gravity Separator Gas N/A 3 TOTAL **FLOW** Specific Gravity Flowing Fluid XXXXX 673 P.S.LA. 670 P.S.I.A 4 Critical Pressure 371 R. 408 5 Critical Temperature R 8161.2 P_c2 66605.2 P. P_r^2 P_{w}^{2} $P_{c}^{2} - P_{w}^{2}$ P_{w} No. (1)7219.7 1 7706.2 59385.5 2 7415.2 54985.2 11620 14791.1 AOF = Q7198.2 51814.1 3 30893.6 35711.6 5558.2 4 $P_{*}^{2} - P_{-}^{2}$ 79825 4.155 0.4986 Angle of Slope (): Absolute Open Flow Mcfd @ 15.025 Slope n: * WELL MADE 12 BBLS OF 53.0 API GRAVITY CONDENSATE DURING TEST. Remarks: Approved By Division: Conducted By: Calculated By: Checked By: PRO WELL TESTING **MB** BM

Form 3180-4 (Ootober 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED Budget Bureau No. 1004-0137 Expires: December 31, 1991

SUBMIT ORIGINAL WI	iH 5 CO	PIES							5. Lease De	esignat	ion and Seri	al No.	
WELL COMP	PLET	ION OR	REC	OMPLE	TION REPO	DR'	T AND LO	OG*	6. If Indian,	Alottee	or Tribe Na	ime	
1a. Type of Well:	OIL WEI			DRY C	THER NEW W	ELL			7. If Unit or	CA, A	greement De	signation	
1b. Type of Completion NEW ✓ WORK	<u>:</u>		Luc 🗍	DIFF.	OTHER				8. Well Nan	ne and	Number		
WELL OVER			ACK	RESVR	OTHER				COTTON				
2. Name of Operator		TEXACO E	EXPLOR	ATION & P	RODUCTION INC) .			87				
3. Address and Teleph	one No.	205 F Re	nder HC	DBBS, NM	88240		397-0	405	9. API Well	No.			
4. Location of Well (Re	nort loca		·			/* 2to		· · · ·			30-015-	30818	
At Surface							·		1		, Exploarato , WOLFCAN	•	
Unit Letter A : At proposed prod. zone	772	Feet From 11	ne NO	RTH Line a	nd 154 Fee	et Fro	m The EAST	Line	11. SEC., 1 Sec. 11		/I., or BLK. a		y or Area Range 31E
At Total Depth					14. Permit No.		Date Issued		12. County	or Pari	ish	13. Stat	e
15. Date Spudded	16 Da	ate T.D. Reach	ned	17. Date Corr	pl. (Ready to Prod.))	18. Elevations	(Show wt	ــــــــــــــــــــــــــــــــــــــ			19. Ele	v. Casinhead
11/29/99	10.00	1/20/00			2/8/00		10. 2.072.0	(0		,,	,		
20. Total Depth, MD & 13097	TVD	21. Plug B	ack T.D., 13048	MD & TVD	22. If Multiple Cor	npl., I	How Many*	23. Inte		ary Too	ls	CableTo	ols
24. Producing Interval(s), Of Th	is Completion		ottom, Name	(MD and TVD)*						25. Was Di	rectional S	Survey Made
12895-12960 WOLFCA	MP										·	YES	
26. Type Electric and C											27. Was We	ell Cored	
SDS, GYRO,PLTEXP,	SONIC,	NGT,										МО	
28.			0.155		NG RECORD (F	₹epo							
CASING SIZE & GRAD	DE	WEIGHT L	BJF1.		EPTH SET	<u> </u>	HOLE SI	<u></u>			RECORD	AMO	DUNT PULLED
13 3/8"				730'		+	1/2"		790 SX				
9 5/8"				4353'			2 1/4"		1700 S				
7"				12,620			1/2"		1290 S			ļ	
5" LINER				13096		15	7/8"		101 SX				
29.			LINE	R RECORE					 io.		TUBING F	FCORD	·
SIZE	Τ	TOP .		OTTOM	SACKS CEMEN	17	SCREEN		SIZE		DEPTH		PACKER SE
	 		 										
	 		<u> </u>										
31. Perforation record	(interva	I, size, and nu	mber)				32. AC	ID, SHO	T, FRACTL	JRE, C	EMENT, S	QUEEZ	E, ETC.
12895-960							DEPTH INT	ERVAL	A	MOUN	T AND KING	MATER	IAL USED
							12895-12960		2000 GAL	S 20%	HCL,		
									16000 GA	LS 20%	SXE		
									2000 GAL	S 20%	HCL		
							'		ı				
33.					PRODUC	TIO	N						
Date First Production 2/	18/00	Production M FLOWING	lethod (Fid	owing, gas lift	, pumping - size and	d type	e pump)				Well Sta	itus (Prod	or Shut-in)
Date of Test 3-23-00	Hours to		Choke S	Size	Prod'n For Test Period	Oil - 48	BЫ.	Gas - M0 2500)F	Water 0	- Bbl.	Gas	- Oil Ratio
Flow Tubing Press. 5920	Cas	ing Pressure	1	Calculated 24 Hour Rate	- Oil - Bbl.		Gas - MCF		Water - 8b	l.	Oil Gr	avity - AP	1 -(Corr.)
34. Disposition of Gas	s (Sold, u	used for fuel, v	ented, etc	:.)						Test	Witnessed E	Ву	
35. List of Attachmen SURVEY,		Λ		4									
36. I hereby certify that the fo	regaing is tr	we and controls	NISE	Na	CENTLE Eng	jine	ering Assis	tant			DATE		4/20/00
TYPE OR PRINT NA	<i>t/</i> ме		J. Deni	se Leake									

REPORT NO. 1287575/6198186

PORT NO. STAR

Schlumberger

PAGE NO. 1

TEST DATE: 3/27&5/22/00

Schlumberger Transient Analysis Report

Based on Model Verified Interpretation Of Schlumberger Well Test Data

COMPANY: DEVON ENERGY	WELL: COTTON DRAW UNIT #87
TEST IDENTIFICATION	WELL LOCATION
Test TypePRESSURE B U	Field W/C
Test No ONE & TWO	County EDDY
Formation WOLFCAMP	State NEW MEXICO
Test Interval (ft)	Location
COMPLETION CONFIGURATION	TEST STRING CONFIGURATION
Casing / Liner Size (in)5	Tubing Length (ft) / I.D. (in) 12,719/2.982
Perforated Interval (ft) 12,895-12,960	Packer Depth (ft) 12,719
Perforated Interval (ft)	Gauge Depth (ft) / Type 12790/WTQR
Perforated Interval (ft)	Downhole Valve (Y/N) / Type N
Perforated Interval (ft)	
Perforated Interval (ft)	TEST CONDITIONS
Perforated Interval (ft)	Tbg / Wellhead Pressure (psi)
Net Pay (ft) 16	
INTERPRETATION RESULTS	ROCK / FLUID / WELLBORE PROPERTIES
Model of Behavior HOMOGENEOUS	Gas Gravity 0.665
Fluid Type Used for Analysis GAS	Viscosity (cp) 0.03617
Estimated Reservoir Pressure (psi) 10,062 @ 12,790	Total Compressibility (1/psi) 3.18E-05
Transmissibility (md.ft/cp) 1313	Porosity (%) 7
Effective Permeability (md) 2.97	Reservoir Temperature (F) 195
Skin (DIM) 20.7	Water Cut (%)
Pressure Drop (skin, psi)2,234	
Radius of Investigation (ft)2,540	
Distance to boundary (ft) 360	
Distance to boundary (ft) 375	

PRODUCTION RATE DURING TEST: 2198 MSCF/D

SUMMARY:

This report contains the analysis of the data acquired during two build up tests, conducted on 27 March 2000 and 22 May 2000, on the Devon Cotton Draw Unit #87 in Eddy County, New Mexico. These tests were conducted by Schlumberger's Hobbs, New Mexico Testing District (505 393 4107). The data was taken using slickline conveyed electronic pressure gauges. The gauges were run in the wellbore with the well flowing, taking gradient stops as specified. Once the gauges were in place, the well was shut in and a build up was taken.

The data was modeled using a homogeneous reservoir model with changing wellbore storage and skin. Log log and semi log analysis techniques were used to interpret this data. Agreement between the two analysis methods was excellent. The permeability was calculated to be 2.97 md, using a thickness of 16 feet. The skin was calculated to be positive 20.7, causing a pressure drop of 2,234 psi. The reservoir pressure was extrapolated from the type curve to be 10,062 psi at gauge depth.

For further discussion of this analysis, please refer to the interpretation discussion on page two of this report. If you have any questions, please call Marc Pearcy at 405 840 2781.

REPORT NO. 1287575/6198186 PAGE NO. 2

ANALYSIS DISCUSSION

Schlumberger

Cotton Draw Unit #87 Interpretation Discussion:

This report contains the analysis of the data acquired during two build up tests, conducted on 27 March 2000 and 22 May 2000, on the Devon Cotton Draw Unit #87 in Eddy County, New Mexico. These tests were conducted by Schlumberger's Hobbs, New Mexico Testing District (505 393 4107).

The data was taken using slickline conveyed, electronic pressure gauges. The gauges were run in the wellbore with the well flowing, taking flowing gradient stops as specified. Once the gauges were in place, the well was shut in and a build up test was taken. Static gradient stops were taken as the gauges were retrieved from the well. The flowing and static gradient stop data and plots were included in a previous data report.

The data from both build up tests was modeled using a homogeneous reservoir with changing wellbore storage and skin. The radial flow regime was reached after approximately 2 hours of build up time on both tests and continued until the data deviated from infinite acting behavior. The infinite acting radial flow regime is indicated by the constant pressure derivative on the plot of log-log pressure and pressure derivative versus shut in time (using the psuedopressure function). As a result of obtaining radial flow data, both log log and semi log analysis techniques could be used in this interpretation. Agreement between the two analysis methods was excellent on the tests analyzed from both wells.

The interpretation plots from both well tests along with the parameters calculated using each interpretation technique are included in the body of this report. A comparison of the parameters calculated from each well test is presented in the table below.

Test 1 (3/27/00)	k	Skin	Ext. Pressure	L ₁ /L ₂ /L ₃
	3.28 md	19.8	10,062 psi	250 ft/550 ft
Test 2 (5/22/00)	2.97 md	20.7	10,046 psi	360 ft/375 ft/2500 ft

The behavior of the pressure derivative during the late time on both tests, was indicative of a decrease in transmissibility away from the wellbore. In order to match this behavior a model was constructed with two no flow outer boundary conditions, 360 feet and 375 feet away from the wellbore. In order to match the original reservoir pressure extrapolated from the initial build up test a third boundary was used 2500 feet away from the wellbore. This indicates no pressure depletion was seen as a result of the production between these two build up tests.

In order to validate this interpretation, a simulation of the test sequence was made using the model created form this analysis. The measured test data was then plotted on the same scale as the simulated data. Agreement between the measured data and the simulated data is excellent. This plot is presented in the body of this report.

If you have any questions, please call Marc Pearcy at 405 840 2781.





Company DEVON ENERGY Field PADUCA SOUTH

Well COTTON DRAW UNIT #87

Test WOLFCAMP/1



Date 27 MARCH 2000

Gauge WTQR897

Depth 12,790

Formation interval 12,895-12,960 Perforated interval 12,895-12,960

TEST TYPE Standard

TEOT THE Oldridge

Porosity Phi (%) 7 Well Radius rw 0.3 ft

Pay Zone h 16 ft

FLUID TYPE Gas

Gas Gravity 0.665117

Pseudo-Critical P 668.077 psia

Pseudo-Critical T 368.922 °R

Reservoir T 195 °F

Reservoir P 10000 psia

Properties @ Reservoir T&P

Total Compr. ct 3.17815E-5 psi-1

Viscosity 0.0361664 cp

Flow Period # 6

Rate 0 MSCF/day

Rate Change 2361 MSCF/day

P at dt=0 6971.66 psia

Pi 10062.3 psia

Time Match 706 (hr)-1

Pressure Match 2.39E-8 (psi2/cp)-1

RESERVOIR Homogeneous

BOUNDARY // Faults

WELL Storage & Skin

Storage C 0.000607 STB/psi

Ci/Cf 3.79993

Alpha 9000

Skin factor 19.8

Delta P Skin 2079.54 psia

kh 52.5 md.ft

k 3.28 md

Mobility k/mu 90.8

Investig. R 2370 ft

Tested Volume 3.51749E6 Barrels

L1 sealing at 250 ft

L2 sealing at 550 ft

Schlumberger

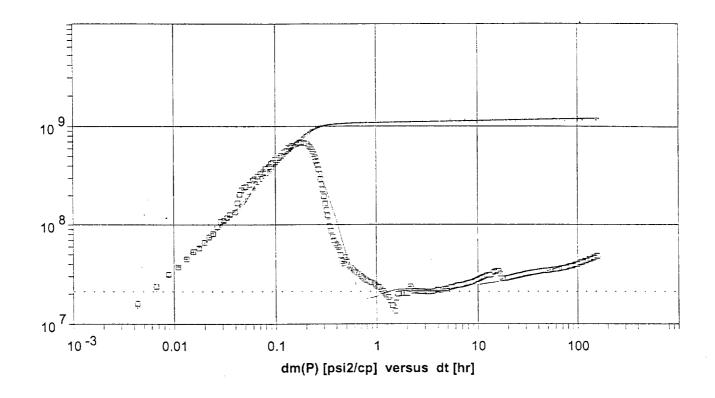
1287575 : Log-Log

Company DEVON ENERGY Field PADUCA SOUTH

Well COTTON DRAW UNIT #87

Test WOLFCAMP/1





Flow Period # 6

Rate 0 MSCF/day

Rate Change 2361 MSCF/day

P at dt=0 6971.66 psia

Smoothing 0

Pi 10062.3 psia

Time Match 706 (hr)-1

Pressure Match 2.39E-8 (psi2/cp)-1

RESERVOIR Homogeneous

BOUNDARY // Faults

WELL Storage & Skin

Storage C 0.000607 STB/psi

Ci/Cf 3.79993

Alpha 9000

Skin factor 19.8

Delta P Skin 2079.54 psia

kh 52.5 md.ft

k 3.28 md

Mobility k/mu 90.8

Investig. R 2370 ft

Tested Volume 3.51749E6 Barrels

L1 sealing at 250 ft

L2 sealing at 550 ft

1287575 : Semi-Log

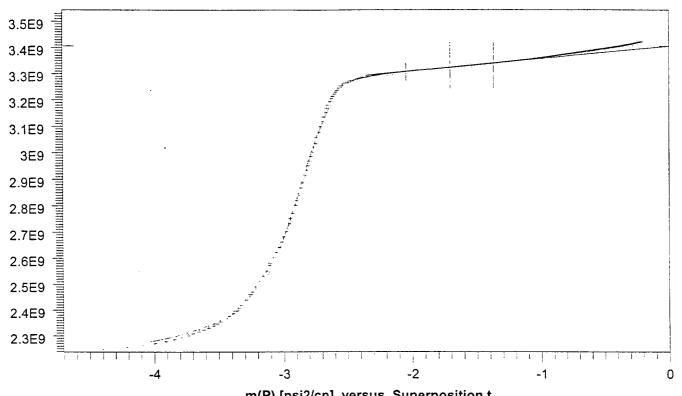


Company DEVON ENERGY Field PADUCA SOUTH

Well COTTON DRAW UNIT #87

Test WOLFCAMP/1





	m(P) [psi2/cp] v	<u>ersus Superposition t</u>	
Flow Desired #	6	DESERVOIR	Homogonooup
Flow Period #			Homogeneous
Rate	•	BOUNDARY	// Faults
Rate Change	2361 MSCF/day	WELL	Storage & Skin
P at dt=0	6971.66 psia	Storage C	0.000607 STB/psi
Pi	10062.3 psia	Ci/Cf	3.79993
		Alpha	9000
STRAIGHT	LINE	Skin factor	19.8
		Delta P Skin	2079.54 psia
From	2.20883 hr		
To	4.85333 hr	kh	52.5 md.ft
Slope	4.86E7 psi2/cp	k	3.28 md
Intercept	3.4046E9 psi2/cp	Mobility k/mu	90.8
value at dt=1hr	3.30523E9 psi2/cp	Investig. R	2370 ft
		Tested Volume	3.51749E6 Barrels
-> m*	3.4046E9 psi2/cp		
-> p*	9890.39 psia	L1 sealing at	250 ft
->PMatch	2.37E-8 (psi2/cp)-1	L2 sealing at	550 ft
-> k.h	52.1 md.ft		
-> k	3.25 md		
-> Skin	19.2		
Delta P Skin			
	TEST #1 - 2	7 MARCH 2000	

1287575 : Simulation

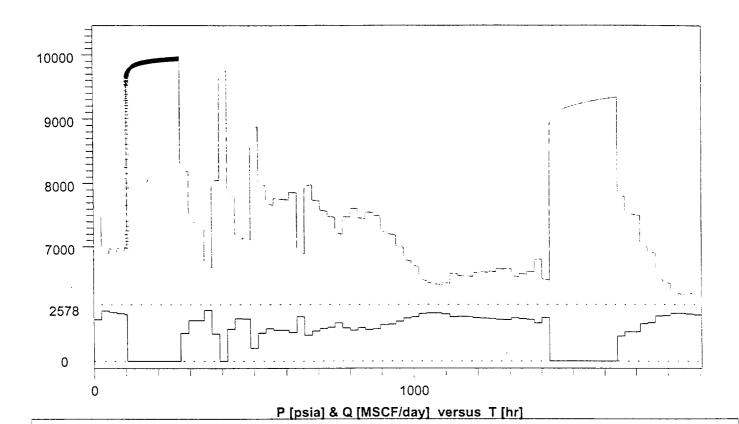


Company DEVON ENERGY Field PADUCA SOUTH

Well COTTON DRAW UNIT #87

Test WOLFCAMP/1





Flow Period # 6

Rate 0 MSCF/day

Rate Change 2361 MSCF/day

P at dt=0 6971.66 psia

Pi 10062.3 psia

Time Match 706 (hr)-1

Pressure Match 2.39E-8 (psi2/cp)-1

RESERVOIR Homogeneous

BOUNDARY // Faults

WELL Storage & Skin

Storage C 0.000607 STB/psi

Ci/Cf 3.79993

Alpha 9000

Skin factor 19.8

Delta P Skin 2079.54 psia

kh 52.5 md.ft

k 3.28 md

Mobility k/mu 90.8

Investig. R 2370 ft

Tested Volume 3.51749E6 Barrels

L1 sealing at 250 ft

L2 sealing at 550 ft



6198186: Main Results

Company DEVON ENERGY Field PADUCA SOUTH

Well COTTON DRAW UNIT #87

Test WOLFCAMP/2



Date 22 MAY 2000

Gauge WTQR931

Depth 12,790

Formation interval 12,895-12,960 Perforated interval 12,895-12,960

TEST TYPE Standard

Porosity Phi (%) 7

Well Radius rw 0.3 ft

Pay Zone h 16 ft

Gas Gravity 0.665117

FLUID TYPE Gas

Pseudo-Critical P 668.077 psia

Pseudo-Critical T 368.922 °R

Reservoir T 195 °F

Reservoir P 10000 psia

Properties @ Reservoir T&P

Total Compr. ct 3.17815E-5 psi-1

Viscosity 0.0361664 cp

Flow Period # 54

Rate 0 MSCF/day

Rate Change 2198 MSCF/day

P at dt=0 5833.49 psia

Pi 10046.4 psia

Time Match 339 (hr)-1

Pressure Match 2.32E-8 (psi2/cp)-1

RESERVOIR Homogeneous

BOUNDARY Rectangle

WELL Storage & Skin

Storage C 0.00115 STB/psi

Ci/Cf 2.94777

Alpha 14200

Skin factor 20.7

Delta P Skin 2234.34 psia

kh 47.5 md.ft

k 2.97 md

Mobility k/mu 82.1

Investig. R 2540 ft

Tested Volume 4.02939E6 Barrels

L1 sealing at 360 ft

L2 none

L3 sealing at 375 ft

L4 sealing at 2500 ft

(

6198186 : Log-Log

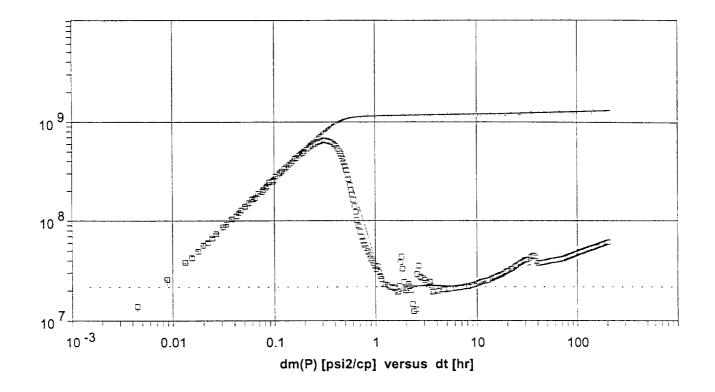
Schlumberger

Company DEVON ENERGY Field PADUCA SOUTH

Well COTTON DRAW UNIT #87

Test WOLFCAMP/2





Flow Period # 54

Rate 0 MSCF/day

Rate Change 2198 MSCF/day

P at dt=0 5833.49 psia

Smoothing 0

Pi 10046.4 psia

Time Match 339 (hr)-1

Pressure Match 2.32E-8 (psi2/cp)-1

RESERVOIR Homogeneous

BOUNDARY Rectangle

WELL Storage & Skin

Storage C 0.00115 STB/psi

Ci/Cf 2.94777

Alpha 14200

Skin factor 20.7

Delta P Skin 2234.34 psia

kh 47.5 md.ft

k 2.97 md

Mobility k/mu 82.1

Investig. R 2540 ft

Tested Volume 4.02939E6 Barrels

L1 sealing at 360 ft

L2 none

L3 sealing at 375 ft

L4 sealing at 2500 ft

Schlumberger

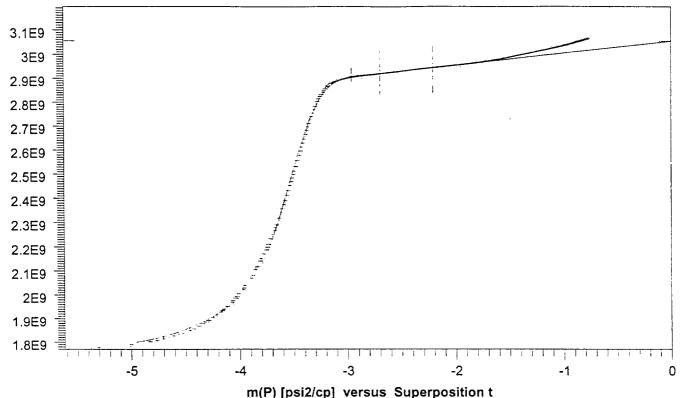
6198186 : Semi-Log

Company DEVON ENERGY Field PADUCA SOUTH

Well COTTON DRAW UNIT #87

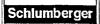
Test WOLFCAMP/2





		ersus Superposition t	· · · · · · · · · · · · · · · · · · ·
Flow Period #	54	RESERVOIR	Homogeneous
Rate	0 MSCF/day	BOUNDARY	Rectangle
Rate Change	2198 MSCF/day	WELL	Storage & Skin
P at dt=0	5833.49 psia	Storage C	0.00115 STB/psi
Pi	10046.4 psia	Ci/Cf	2.94777
		Alpha	14200
STRAIGHT	LINE	Skin factor	20.7
		Delta P Skin	2234.34 psia
From	1.8445 hr		
То	5.7245 hr	kh	47.5 md.ft
Slope	5.06E7 psi2/cp	k	2.97 md
Intercept	3.05335E9 psi2/cp	Mobility k/mu	82.1
value at dt=1hr	2.90353E9 psi2/cp	Investig. R	2540 ft
		Tested Volume	4.02939E6 Barrels
-> m*	3.05335E9 psi2/cp		
-> p*	9000.23 psia	L1 sealing at	360 ft
->PMatch	2.27E-8 (psi2/cp)-1	L2	none
-> k.h	46.5 md.ft	L3 sealing at	375 ft
-> k	2.91 md	L4 sealing at	2500 ft
-> Skin	19.7		
Delta P Skin			
	TEST #2 -	22 MAY 2000	

6198186 : Simulation

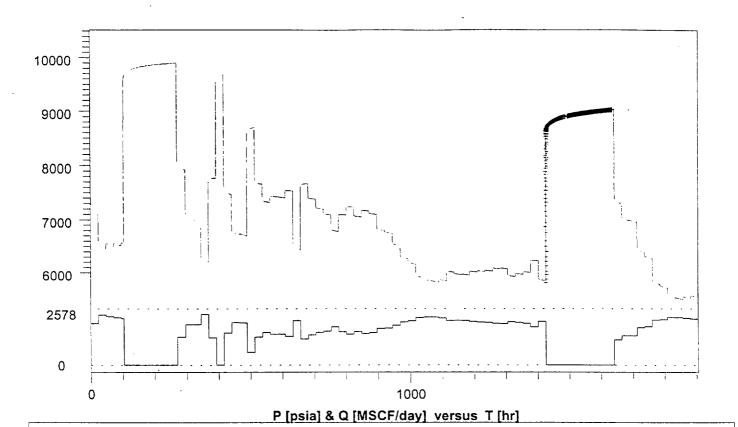


Company DEVON ENERGY Field PADUCA SOUTH

Well COTTON DRAW UNIT #87

Test WOLFCAMP/2





Flow Period # 54

Rate 0 MSCF/day

Rate Change 2198 MSCF/day

P at dt=0 5833.49 psia

Pi 10046.4 psia

Time Match 339 (hr)-1

Pressure Match 2.32E-8 (psi2/cp)-1

RESERVOIR Homogeneous

BOUNDARY Rectangle

WELL Storage & Skin

Storage C 0.00115 STB/psi

Ci/Cf 2.94777

Alpha 14200

Skin factor 20.7

Delta P Skin 2234.34 psia

kh 47.5 md.ft

k 2.97 md

Mobility k/mu 82.1

Investig. R 2540 ft

Tested Volume 4.02939E6 Barrels

L1 sealing at 360 ft

L2 none

L3 sealing at 375 ft

L4 sealing at 2500 ft



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Jennifer A. Salisbury Cabinet Secretary

May 24, 2000

Lori Wrotenberv Director Oil Conservation Division

Texaco Exploration & Production, Inc. P. O. Box 3109 Midland, Texas 79702 Attention: A. Phil Ryan

Administrative Order NSL-4452

Dear Mr. Ryan:

Reference is made to the following: (i) your application dated May 16, 2000; and (ii) the records of the New Mexico Oil Conservation Division ("Division") in Santa Fe including the file on Texaco Exploration & Production, Inc.'s ("Texaco") Cotton Draw Unit Agreement (Case No. 1446: all concerning Texaco's request for its proposed Cotton Draw Unit Well No. 88 to be drilled at an unorthodox Wolfcamp gas well location 2210 feet from the South line and 1360 feet from the West line (Unit K) of Section 7, Township 25 South, Range 32 East, NMPM, Undesignated South Paduca-Wolfcamp Gas Pool, Eddy County, New Mexico.

Lots 1, 2, 3, and 4 and the E/2 W/2 (W/2 equivalent) of Section 7 is to be dedicated to this well in order to form a standard 319.88-acre stand-up gas spacing and proration unit for this pool.

This application has been duly filed under the provisions of Division Rule 104.F, revised by Division Order No. R-11231, issued by the New Mexico Oil Conservation Commission in Case No. 12119 on August 12, 1999.

It is our understanding that Texaco is seeking this location exception based on a 3-D seismic survey of the immediate area, which indicates that a well drilled at the proposed unorthodox gas well location will be at a more favorable geologic position within the Wolfcamp formation than a well drilled at a location considered to be standard within the SW/4 equivalent of Section 7.

Division records indicate that the current boundary of the Texaco operated Cotton Draw Unit Area comprises the following described lands in Eddy County, New Mexico:

TOWNSHIP 24 SOUTH, RANGE 31 EAST, NMPM

Section 25:

S/2

Section 26:

S/2

Section 34:

E/2

Sections 35 and 36:

Phone: (505) 827-7131 * Fax (505) 827-8177 * http://www.emnrd.state.nm.us

Page 2

TOWNSHIP 25 SOUTH, RANGE 31 EAST, NMPM

Sections 1 and 2:

All

Section 3:

E/2

Section 11:

N/2

Sections 12 and 13: All

TOWNSHIP 25 SOUTH, RANGE 32 EAST, NMPM

Section 7:

All

Section 18:

All.

By the authority granted me under the provisions of Division Rule 104.F (2), the abovedescribed unorthodox gas well location is hereby approved.

Sincerely,

Lori Wrotenbery

Director

LW/MES/kv

cc:

New Mexico Oil Conservation Division - Artesia

U. S. Bureau of Land Management - Carlsbad

File: Unit Case No. 1446

Coulledonbery by De

October 15, 1999

Texaco Exploration & Production, Inc. P. O. Box 3109
Midland, Texas 79702
Attention: A. Phil Ryan

Administrative Order NSL-4366

Dear Mr. Ryan:

Reference is made to the following: (i) your application dated October 12, 1999; and (ii) the records of the New Mexico Oil Conservation Division ("Division") in Santa Fe including the file on Texaco Exploration & Production, Inc.'s ("Texaco") Cotton Draw Unit Agreement (Case No. 1446): all concerning Texaco's request for its proposed Cotton Draw Unit Well No. 87 to be drilled at an unorthodox Wolfcamp gas well location 772 feet from the North line and 154 feet from the East line (Unit A) of Section 11, Township 25 South, Range 31 East, NMPM, Undesignated South Paduca-Wolfcamp Gas Pool, Eddy County, New Mexico.

The N/2 of Section 11 is to be dedicated to this well in order to form a standard 320-acre lay-down gas spacing and proration unit for this pool.

This application has been duly filed under the provisions of Division Rule 104.F, revised by Division Order No. R-11231, issued by the New Mexico Oil Conservation Commission in Case No. 12119 on August 12, 1999.

The geologic interpretation submitted with this application indicates that a well drilled at the proposed unorthodox gas well location will be at a more favorable geologic position within the Wolfcamp formation than a well drilled at a location considered to be standard within the NE/4 of Section 11.

Division records indicate that the current boundary of the Texaco operated Cotton Draw Unit Area comprises the following described lands in Eddy County, New Mexico:

TOWNSHIP 24 SOUTH, RANGE 31 EAST, NMPM

 Section 25:
 S/2

 Section 26:
 S/2

 Section 34:
 E/2

 Sections 35 and 36:
 All

TOWNSHIP 25 SOUTH, RANGE 31 EAST, NMPM

Sections 1 and 2: All Section 3: E/2 Section 11: N/2

Administrative Order NSL-4366 Texaco Exploration & Production, Inc. October 15, 1999 Page 2

Sections 12 and 13: All

TOWNSHIP 25 SOUTH, RANGE 32 EAST, NMPM

Section 7:

All

Section 18:

All.

By the authority granted me under the provisions of Division Rule 104.F(2), the above-described unorthodox gas well location is hereby approved.

Sincerely,

Lori Wrotenbery De, Dic

Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Artesia

New Mexico State Land Office - Santa Fe U. S. Bureau of Land Management - Carlsbad

File: Unit Case No. 1446



Texaco Exploration and Production Inc Denver Division

P O Box 2100 Derver CO 30201 4601 DTC Boulevard Denver CO 80237

#1446

NOV - 5 1998

November 2, 1998

Bureau of Land Management Roswell District Office 2909 W. 2nd Roswell, New Mexico 88201 Attn: Mr. John Simitz State of New Mexico Commissioner of Public Lands P.O. Box 1148 Santa Fe, New Mexico 87504-1148 Attn: Pete Martinez

Cotton Draw Unit Well #86 (Section 12, T25S, R31E)
USA NMLC 061862 (Texaco's NM186464)
Initial "A" Participating Area for the Devonian formation
Cotton Draw Unit (Texaco's NM186150)
Eddy and Lea Counties, New Mexico

Gentlemen:

Texaco, as operator of the Cotton Draw Unit, has recently completed the CDU #86 well as a Devonian producer. Enclosed for your file are copies of various completion forms for this well. Texaco and Devon consider this well to be a paying well under the terms of the Unit Agreement and revenues will be paid based upon the Participating Area approved for the CDU #76 well. Please contact me at (303) 793-4512 if you have any questions concerning this matter.

Very truly yours,

David L. Sleeper (303) 793-4512

Permian Business Unit

dls:jm Enclosures

cc: Devon Energy Corporation (Nevada) 1500 Mid America Tower 20 North Broadway Oklahoma City, Oklahoma 73102-8260 Attn: Ken Gray

State of New Mexico
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 875054

3160-4 tober 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0137
Expires: December 31, 1991

18 5/8 87.5# 695' 24 1325 SACKS CIRC , 13 3/8 68# 4261' 17 1/2 3250 SACKS - CIRCUL 0, 9 5/8 47 & 53.5# 12450' 12 1/4 3700 SACKS - TOC @ LINER RECORD 30. TUBING RECORD SIZE TOP BOTTOM SACKS CEMENT SCREEN SIZE DEPTH SET PA	
Variety Vari	
TEXACO EXPLORATION & PRODUCTION INC. 98 98 98 99 99 99 99 9	
Secretary Secr	
10	
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13 3/8	NT PULLE
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ATURE JUNIOU DELETITLE Engineering Assistant DATE OR PRINT NAME J. Denise Leake	10/8/98

1 3160-5 a 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR **PUREAU OF LAND MANAGEMENT**

FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993

5. Lease Designation and Serial No. SUNDRY NOTICES AND REPORTS ON WELLS LC 061862 Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. 6. If Indian, Alottee or Tribe Name Use "APPLICATION FOR PERMIT -- " for such proposals 7. If Unit or CA, Agreement Designation SUBMIT IN TRIPLICATE COTTON DRAW UNIT OIL WELL Ø GAS WELL 8. Well Name and Number Type of Well: O OTHER COTTON DRAW UNIT Name of Operator TEXACO EXPLORATION & PRODUCTION INC. 86 Address and Telephone No. 205 E. Bender, HOBBS, NM 88240 9. API Well No. 397-0405 30-015-29850 location of Well (Footage, Sec., T., R., M., or Survey Description) 10. Field and Pool, Exploaratory Area NW PADUCA DEVONIAN : 2600 Feet From The SOUTH Line and 1500 Feet From The 11, County or Parish, State ST ___ Line Section 12 Township 25-S Range 31-E EDDY , NM Check Appropriate Box(s) To Indicate Nature of Notice, Report, or Other Data TYPE OF SUBMISSION TYPE OF ACTION Abandonment Change of Plans Recompletion **New Construction** Notice of Intent Plugging Back Non-Routine Fracturing Casing Repair Subsequent Report Water Shut-Off Atlering Casing Conversion to Injection Final Abandonment Notice OTHER: OPT Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log Form.) escribe Proposed or Completed Operations (Clearly state all pertinent datalls, and give pertinent dates, including estimated date of starting any proposed

ork. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work,).

)7-98; ON 24 HR OPT, FLOWED 0 BO, 5 BW, & 5000 MCFGPD. AL REPORT

eraby certify that the foregoing is true and			
VATURE -	MAN YAKETLE Engineering Assistant	<u>. </u>	TE 10/8/98
OR PRINT NAME	J. Denise Leake		
Sace for Federal or State office usel			
ROVED BY	TITLE	DATE	
DITIONS OF APPROVAL, IF ANY	:		
5 U.S.C. Section 1001, makes it a crime entations as to any matter within its juri	a for any person knowingly and wilfully to make to any department or agency of the U selection	inited States any false, fictitious or tra	audulent statements or



Texaco Exploration and Production Inc Denver Division

P O Box 2100 Denver CO 80201 4601 DTC Boulevard Denver CO 80237

May 27, 1998

Bureau of Land Management Roswell District Office 2909 W. 2nd Roswell, New Mexico 88201 Attn: Mr. John Simitz State of New Mexico Commissioner of Public Lands P.O. Box 1148 Santa Fe, New Mexico 87504-1148 Attn: Pete Martinez

Cotton Draw Unit Well #84

Initial "A" Participating Area for the Devonian formation
Cotton Draw Unit
Eddy and Lea Counties, New Mexico

Gentlemen:

Texaco, as operator of the Cotton Draw Unit, has recently completed the CDU #84 as a Devonian producer. Enclosed for your file are copies of various completion forms for this well. Texaco and Devon consider this well to be a paying well under the terms of the Unit Agreement and revenues will be paid based upon the Participating Area recently approved for the CDU #76 well. Please contact me at (303) 793-4512 if you have any questions concerning this matter.

Very truly yours,

David L. Sleeper (303) 793-4512

Permian Business Unit

dls:jm Enclosures

cc: Devon Energy Corporation (Nevada)
 1500 Mid America Tower
 20 North Broadway
 Oklahoma City, Oklahoma 73102-8260
 Attn: Ken Gray

State of New Mexico
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Submit to Appropriate District Office State Lease - 6 copies Fee Lease - 5 copies

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-105 Revised 1-1-8

Revised 1-1-89 DISTRICT I OIL CONSERVATION DIVISION WELL API NO. P.O. Box 1980, Hobbs, NM 88240 30-015-29728 P.O. Box 2088 DISTRICT II 5. Indicate Type of Lease Santa Fe, New Mexico 87504-2088 P.O. Box Drawer DD, Artesia, NM 88210 STATE 🛛 FEE 🗍 DISTRICT III 6. State Oil / Gas Lea 1000 Rio Brazos Rd., Aztec, NM 87410 WELL COMPLETION OR RECOMPLETION REPORT AND LOG a. Type of Well: 7. Lease Name or Unit Agreement Name DRY OTHER OIL WELL GAS WELL **COTTON DRAW UNIT** b. Type of Completion: OTHER DIFF PLUG BACK 🔲 NEW WELL WORKOVER DEEPEN [RES. 🔲 2. Name of Operator 8. Well No. 84 TEXACO EXPLORATION & PRODUCTION INC. . 9. Pool Name or Wildcat 3. Address of Operator 205 E. Bender, HOBBS, NM 88240 PADUCA DEVONIAN 4. Well Location Unit Letter 1 : 2615 Feet From The SOUTH Line and 1160 Feet From The EAST Line Township 25-S ___ Range <u>31-E</u> NMPM ___ EDDY COUNTY 14. Elev. Csghead 10. Date Spudded 11. Date T.D. Reached 13. Elevations (DF & RKB, RT, GR, etc.) 12. Date Compl. (Ready to Prod.) 8/24/97 3/9/98 34551 3/19/98 15. Total Depth 16. Plug Back T.D. 17. If Mult. Compl. How Many Zones? Rotary Tools Cable Tools 18. Intervals ROTARY 16,585" Drilled By 16,585 19. Producing Interval(s), of this completion - Top, Bottom, Name 20. Was Directional Survey Made NO 16,295-16,585 DEVONIAN 22. Was Well Cored 21. Type Electric and Other Logs Run YES GR-AIT-DN-BHC-SONIC GR-CBL' 23. CASING RECORD (Report all Strings set in well) DEPTH SET WEIGHT LB./FT: HOLE SIZE CEMENT RECORD AMOUNT PULLED CASING SIZE 700' 18 5/8_ 87.5# 24 **1575 SACKS** 68# 45001 17 1/2 13 3/8 **3250 SACKS** 9 5/8 47 & 53.5# 120001 12 1/4 **3700 SACKS** 14700' 7 5/8 LINER 39# 8 1/2 600 SACKS 20# 5 1/2 16400" 6 1/2 500 SACKS **TUBING RECORD** 24. LINER RECORD 25. воттом SACKS CEMENT SCREEN SIZE SIZE DEPTH SET PACKER SET TOP 3 1/2" 16180' 162001 ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. 26. Perforation record (interval, size, and number) **DEPTH INTERVAL** AMOUNT AND KIND MATERIAL USED 16,295-16,585 OH 16295-16585 ACID FRAC 30,000 GALS DGA320 & 35,000 GALS YF330 28. **PRODUCTION** Production Method (Flowing, gas lift, pumping - size and type pump) Well Status (Prod. or Shut-in) Date First Production 4/8/98 FLOWING Choke Size Gas - MCF Prod'n For Oil - Bhl Hours tested Date of Test Water - Bbl. Gas - Oil Ratio **24 HRS** 14/64* Test Period 0 14,129 5-01-98 6 Flow Tubing Press. Casing Pressure Calculated 24-Oil - Bbl. Gas - MCF Oil Gravity - API -(Corr.) Water - Bbl. Hour Rate 5000 PSI Test Witnessed By 29. Disposition of Gas (Sold, used for fuel, vented, etc.) SOLD 31. I hereby certify that the information on-both rides of this form is true and complete to the best of my knowledge and belief.

SIGNATURE TITLE Engineering Assistant DATE 5/19/98 J. Denise Leake TYPE OR PRINT NAME Telephone No. 397-0405

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true verticle depths shall be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

CDU #84	v Mexico	Northy	western New Mexico 11
	anyon	T. Ojo Alamo	T. Penn "B"
Rustler	666 strawn	T. Kirtland-Fruitland	T. Penn "C"
Salado	1034 toka	T. Pictured Cliffs	T. Penn "D"
Lamar	4356 diss	T. Cliff House	T. Leadville
Ramsey	4375 Pevonian	T. Menefee	T. Madison
Cherrry Canyon	5350 ilurian	T. Point Lookout	T. Elbert
Manzanita Mkr. Blue Mkr.	5550 5788	T. Mancos	T. McCracken
Brushy Canyon	7051 impson	T. Gallup	T. Ignacio Otzte
Bone Springs	8273 McKee	T. Base Greenhorn	T. Granite
Wolfcamp	12132 Ellenburger	T. Dakota	T.
Strawn	13626 Fr. Wash	T. Morrison	T.
Atoka Morrow	13757 14408 elaware Sand	T. Todilto	τ.
Mississippian	15896 one Springs	T. Entrada	Т.
Woodford	16202	T. Wingate	T.
Silurian	16349	T. Chinle	т.
w		T. Permian	Т.
. Cisco (Bough C)	т.	T. Penn "A"	т.

OIL OR GAS SANDS OR ZONES

No. 1, from -	to	No. 3, from	to
-			
No. 2, from	to	No. 4, from	to

IMPORTANT WATER SANDS

include data on rate of water inflow and elevation to which water rose in the hole.

No. 1, from	to	feet	
No. 2, from	to	feet	
No. 3, from	to	feet	

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	То	Thickness in Feet	Lithology	From	То	Thickness in Feet	Lithology
0	666		ANHYDRITE	16202	16349		DOLOMITE
666	1034		SALT				·
1034	4356		LIMESTONE				
4356	4375	1	SAND				
4375	5350		SAND				
5350	5550		LIMESTONE				
5550	5788		SHALE				
5788	7051		SAND ·				
7051	8273		LIMESTONE				
8273	12132		SHALE/LIMESTON		j		-
12132	13626		SAND/LIMESTONE				
13626	13757		SHALE				
13757	14408		LIMETSONE				
14408	15896		LIMESTONE				
15896	16202		SHALE				

Cotton Draw #84

LOCATION
LEASE & WELL

Sec 2, 25S, 31E Eddy County, New Mexico

(Give Unit, Section, Township and Range)

OPERATOR

Texaco E & P P. O. Box 46510 Denver, Co. 80201

DRILLING CONTRACTOR

NABORS DRILLING USA, INC.

The Undersigned hereby certifies that he is an authorized representative of the drilling contractor who drilled the above-described well and that he has conducted deviation tests and obtained the following results:

DEGREES @ DE	PTH	DEGREES @ DE	РТН	DEGREES @ DI	EPTH	DEGREES @ DEPTH
1	289	3/4	6806	1	13988	
3/4	489	3/4	7296	1 1/2	14685	
1	697	3/4	7772	· .		
3/4	1178	1	8236		· · · · · · · · · · · · · · · · · · ·	
3/4	1678	1	8713			
1/2	2178	1 3/4	9191	•		
1	2676	1 3/4	9670		<u> </u>	· <u></u>
1/2	3179	2	9956			
1/2	3655	1 1/4	10435	<u> </u>	· · · · · · · · · · · · · · · · · · ·	
1 3/4	4133	1 1/2	10916			
11	4360	1/2	11416			
1	4848	1 1/2	11881			•
1	5321	1 1/4	12531			
3/4	5814	1/2	13020			
1	6314	1/2	13520			
1/2 1 3/4 1 1 1 1 3/4	3655 4133 4360 4848 5321 5814	1 1/4 1 1/2 1/2 1 1/2 1 1/4 1/2	10435 10916 11416 11881 12531 13020			

Drilling Contractor Nabors Drilling USA, Inc.

Brent Sanders, Engineering Manager

Subscribed and sworn to before me this

day of

March . 1998

DONNA WESTBROOK

By

NOTARY PUBLIC STATE OF TEXAS My Comm. Exp. 12-27-2000 n + 1:

Notary Public

My Commission Expires

MIDLAND

County

TEXAS

Form C-122 Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fc, New Mexico 87504-2083

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

										or Unit Name				
	Operator Texaco E	יואד סי					•	!	Cost	on Draw				
	Type Test	LINC			·				Test D	atc.		Well I	Yo.	
•	Texaco E. Type Test X I	nitial		nmial	Specia	ıl			4-9-	98		#84		
		le	Total L	Эериі: 585	1	'lug Bac	k TD		Elevati	on	-	Unit	ır S∝. •	IWP - Rgc-
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COMMERCIAL RESOURCES (505)-827-5724

SURFACE RESOURCES (505)-827-5795

MINERAL RESOURCES (505)-827-5744

> ROYALTY (505)-827-5772

State of New Mexico
Commissioner of Public Lands

Ray Powell, M.S., D.V.M. 310 Old Santa Fe Trail, P. O. Box 1148 Santa Fe, New Mexico 87504-1148 Phone (505)-827-5760, Fax (505)-827-5766 PUBLIC AFFAIRS (505)-827-5765

ADMINISTRATIVE MOMT. (505)-827-5700

> LEGAL (505)-827-5713

PLANNING (505)-827-5752

May 29, 1998

EnergyPro, Inc. 500-A S. Hangar Drive Georgetown, Texas 78628

Attn:

Mr. Don C. Pfiester

Re:

Preliminary Approval

Proposed T. P. "A" State Unit Lea County, New Mexico

Dear Mr. Pfiester:

This office has received the copy of the unit agreement which you have submitted for the proposed T. P. "A" State Unit area, Lea County, New Mexico. This agreement meets the general requirements of the Commissioner of Public Lands, who has this date granted you preliminary approval as to form and content.

Preliminary approval shall not be construed to mean final approval of this agreement in any way and will not extend any short term leases, until final approval and an effective date have been given.

When submitting your agreement for final approval, please submit the following:

- 1. Application for final approval by the Commissioner setting forth the tracts that have been committed and the tracts that have not been committed.
- 2. Pursuant to Rule 1.045, applications for approval shall contain a statement of facts showing.
 - a. That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy.
 - b. That under the proposed unit operation, the State of New Mexico will receive its fair share of the recoverable oil and gas in place under its lands in the proposed unit area.
 - c. That each beneficiary institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the unit area.
 - d. That such unit agreement is in other respects for the best interest of the trust.
- 3. All ratifications from the Lessees of Record and Working Interest Owners. All signatures should be acknowledged by a notary and one set must contain original signatures.

EnergyPro, Inc. May 29, 1998 Page 2

- 4. Order of the New Mexico Oil Conservation Division. Our approval will be conditioned upon subsequent favorable approval by the New Mexico Oil Conservation Division.
- 5. Please submit two copies of the Unit Agreement.
- 6. A copy of the Unit Operating Agreement (if applicable).
- 7. The filing fee for a Unit Agreement is thirty (\$30.00) dollars for every section or partial section thereof. Please submit a filing fee in the amount of \$60.00.
- 8. On Page 5 of the agreement, Article 17, Effective Date & Term, please fill in the term (5 years and so long as).
- 9. Copies of all the well records for the initial unit well.
- 10. A \$20,000 Surface Improvement Damage Bond for the operator. Enclosed are copies of our Surface Improvement Damage Bond forms.
- 11. The word **Development** is misspelled in Article 3, Page No. 2, of the agreement.
- 12. A ratification is needed for Petroleum Development Corporation.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M. COMMISSIONER OF PUBLIC LANDS

BY:

JAMI BAILEY, Director Oil/Gas and Minerals Division

(505) 827-5744

RP/JB/cpm

pc: Reader File

OCD-Mr. Roy Johnson

1600



COMMERCIAL RESOURCES (505)-827-5724

SURFACE RESOURCES (505)-827-5795

MINERAL RESOURCES (505)-827-5744

> ROYALTY (505)-827-5772

State of New Mexico Commissioner of Public Lands

Ray Powell, M.S., D.V.M. 310 Old Santa Fe Trall, P. O. Box 1148 Santa Fe, New Mexico 87504-1148 Phone (505)-827-5760, Fax (505)-827-5766 PUBLIC AFFAIRS (505)-827-5765

ADMINISTRATIVE MOMT. (505)-827-5700

> LEGAL (505)-827-5715

PLANNING (505)-827-5752

January 15, 1998

Texaco Exploration and Production Inc. P.O Box 2100 Denver Colorado 80201

Attention: Mr. David L. Sleeper

Re:

Cotton Draw Unit

Initial "A" Devonian Participating Area

Eddy County, New Mexico

Dear Mr. Sleeper:

This office is in receipt of your application letters of July 9, 1997 and January 8, 1998 requesting our approval of the Initial "A" Devonian Participating Area for the Cotton Draw Unit, Eddy County, New Mexico.

The Commissioner of Public Lands has this date approved your application for the Initial "A" Devonian Participating area. The effective date of this PA is May 1, 1997. Our approval is subject to like approval by the Bureau of Land Management.

The approved participating area contains 4,152.08 acres and is described as follows:

Township 24 South, Range 31 East

Section 26: S/2

Section 35: Lots 1,2,3,4, N/2 N/2S/2 Section 36: Lots 1, 2, NW/4, N/2SW/4

Township 25 South, Range 31 East

Section 1: Lots 1,2,3,4, S/2N/2, S/2

Section 2: Lots 1,2,3,4, S/2N/2, S/2

Section 12: All

Township 25 South, Range 32 East

Section 7: Lots 1,2,3,4, E/2, E/2W/2 Section 18: Lots 1,2, NE/4, E/2NW/4 Texaco Exploration and Production Inc. January 15, 1998 Page 2

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M. COMMISSIONER OF PUBLIC LANDS

BY:

JAMI BAILEY, Director Oil, Gas and Minerals Division (505) 827-5744

RP/JB/pm

xc:

Reader File

OCD-Attention: Mr. Roy Johnson

BLM Roswell - Attention Mr. John Simitz





State of New Mexico Commissioner of Public Cands

RAY POWELL, M.S., D.V.M. COMMISSIONER

310 OLD SANTA FE TRAIL P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148 (505) 827-5760 FAX (505) 827-5766

January 19, 1998

Canon, Short & Gaston Attorneys at Law P.O. Box 2890 Midland, Texas 79702

Attn:

Mr. Michael J. Canon

Re:

Designation of Sub-Operator

Anderson Ranch Unit Lea County, New Mexico

Dear Mr. Canon:

We have received a designation of sub-operator application, wherein Grand Banks Energy Company has designated Autry C. Stephens as sub-operator of the Anderson Ranch Unit Well No. 19. Your designation of sub-operator is hereby approved.

This designation of sub-unit operator from Grand Banks Energy Company to Autry C. Stephens for the Anderson Ranch Unit Well No. 19 is effective December 12, 1997.

This designation of sub-operator does not relieve the unit operator of the responsibility for compliance with the terms of the unit agreement and applicable state regulations.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M. COMMISSIONER OF PUBLIC LANDS

BY:

JAMI BAILEY, Director Oil, Gas and Minerals Division (505) 827-5744

RP/JB/cpm

xc: Reader File

OCD

TRD

Grand Banks Energy Company

Autry C. Stephens

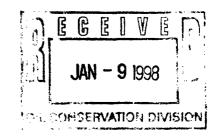


Texaco Exploration and Production Inc Western E&P Region P O Box 2100 Denver CO 80201 4601 DTC Boulevard Denver CO 80237

January 8, 1998

Bureau of Land Management Roswell District Office 2909 W. 2nd Roswell, New Mexico 88201-2019 Attn: Mr. John Simitz

Application for approval of Initial "A" Participating
Area for the Devonian formation
Cotton Draw Unit #76 Well
Cotton Draw Unit
Eddy and Lea Counties, New Mexico



Gentlemen:

Attached are new Exhibits "A" and "B" amending our above noted application sent out under our letter dated July 9, 1997. The new exhibits reflect, as to our originally proposed participating area outline, the addition of NE Section 1, NE Section 7, SW Section 12, W/2NW & SW Section 2, and the deletion of SW Section 25 and SE Section 18. The result of these amendments is a participating area of 4,152.08 acres. Please review the enclosed exhibits and if everything is in order, return your approval of this participating area outline. By copy of this letter, we are asking for like approval from the State Land Office and OCD.

Very truly yours,

TEXACO EXPLORATION AND PRODUCTION INC.

David L. Sleeper

Dls:jm

Enclosures

Cc: State of New Mexico
Commissioner of Public Lands

310 Old Santa Fe Trail Santa Fe, New Mexico 87501

Attn: Pete Martinez

State of New Mexico VOil Conservation Division

2040 S. Pacheco

Santa Fe, New Mexico 87504

Devon Energy Corporation (Nevada) 1500 Mid-America Tower, 20 North Broadway Oklahoma City, Oklahoma

Attn: Ken Gray

EXHIBIT "A"

COTTON DRAW UNIT

INITIAL "A" DEVONIAN PARTICIPATING AREA

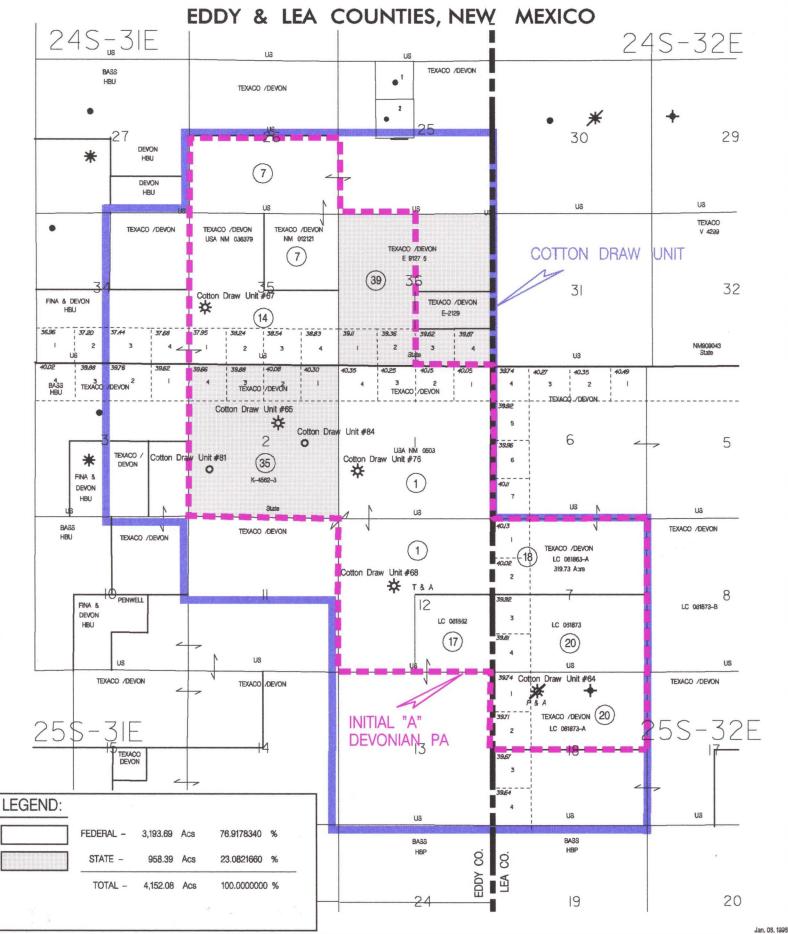


EXHIBIT "B" INITIAL "A" PARTICIPATING AREA DEVONIAN FORMATION COTTON DRAW UNIT AGREEMENT EDDY AND LEA COUNTIES, NEW MEXICO

Tract No.	Lease No.	Description	Participating Acres	Percentage of Participation	Working Interest Owner and Percent Interest
-	NM 0503	T25S-R31E Sec. 1: Lots 1-4, S/2N/2 & S/2 (ALL) Sec. 12: N/2 & SW/4	1,120.80	26.9936995%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%
7	NM 012121	<u>T24S-R31E</u> Sec. 26: S/2 Sec. 35: NE/4	480.00	11.5604709%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%
14	NM 036379	T24S-R31E Sec. 35: NW/4, N/2S/2 Lots 1-4	473.56	11.4053679%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%
17	LC 061862	<u>T25S-R31E</u> Sec. 12: SE/4	160.00	3.8534903%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%
18	LC 061863-A	<u>T25S-R32E</u> Sec. 7: Lots 1, 2, E/2NW/4 & NE/4 (N/2)	320.15	7.7105933%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%
20	LC 061873	T25S-R32E Sec. 7: Lots 3 & 4, E/2SW/4 & SE/4 (S/2)	319.73	7.7004778%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%

Tract No.	Lease No. LC 061873-A	Description T25S-R32E	Participating Acres 319.45	Percentage of Participation 7.6937342%	Working Interest Owner and Percent Interest Texaco Exploration and Production Inc 50%
20	LC 061873-A	T25S-R32E Sec. 18: Lots 1 & 2, E/2NW/4 & NE/4 (N/2)	319.45	7.6937342%	
35	K-4562-3	<u>T25S-R31E</u> Sec. 2: Lots 1-4, S/2N/2 & S/2 (ALL)	639.92	15.4120345%	
39	E-9127-5	T24S- <u>R31E</u> Sec. 36: NW/4, N/2SW/4	318.47	7.6701316%	

TOTAL	State	Federal	Type Land	
4,152.08	958.39	3,193.69	Committed Acres	SUMMARY
100.0000000%	16,6691020%	83.3308980%	Percent	



Texaco Exploration and Production and Western E&P Region

P.C. Box. 2100 Denver CO. 80201 4601 DTC Boulevard Denver CO. 80237

July 21, 1997

Mr. John Simitz Bureau of Land Management Roswell District Office 2909 W. 2nd Roswell, New Mexico 88201

23

Gentlemen:

Our proposed Initial "A" Devonian Participating Area for the Cotton Draw Devonian Field is based on well and 2D and proprietary 3D seismic mapping of the Cotton Draw structure. Interpretation of Devonian penetrations in the Cotton Draw Unit (CDU) #64, CDU #65, CDU #68, and the CDU #76 when combined with structural interpretation of the Cotton Draw 3D seismic survey has resulted in an integrated structural map of the Cotton Draw structure as previously furnished.

The aerial extent of the gas filled portion of the structure has been interpreted from well log and Drill Stem Test evaluation from all of the above referenced penetrations of the Devonian. The west-southwest closure on this structure consists of a large, down to the west, high angle, reverse fault which forms the structural trap in this direction. This fault interpretation indicates that the previous Devonian P. A. needs to be redefined and portions of sections 12, 18 and all of section 13, TWP 25 S, RNG 31 E, need to be excluded from the P. A. since they are either down-thrown or down-dip of the gas/water contact. This information, when combined with the completion of the Devonian discovery in the CDU #76, suggests that the Devonian structure can be expected to produce economic volumes of gas over the majority of the closed portion of the structure down to a proposed gas/water contact of 13,160' Sub Sea. Based on these evaluations and our interpretation of the bounding fault to the west, we have suggested the enclosed Participating Area for this formation.

Very truly yours,

Timothy M. Shepard Geologist Permian Basin Business Unit

cc: State of New Mexico Commissioner of Public Lands P. O. Box 1148 Santa Fe, NM 87504-1148 Attn.: Mr. Pete Martinez

State of New Mexico VOII Conservation Division 2040 S. Pacheco Santa Fe, NM 87504



) 114, 3700 Janver CC 80201 1971 DTO Boulevans Hill HIGO 80237

July 9, 1997

VIA CERTIFIED MAIL - RETURN RECEIPT

Bureau of Land Management Roswell District Office 2909 W. 2nd Roswell, New Mexico 88201 Attn: Mr. John Simitz

Application for commercial determination of Cotton Draw Unit Well #76 and for approval of Initial "A" Participating Area for the Devonian formation Cotton Draw Unit Eddy and Lea Counties, New Mexico

Gentlemen:

Texaco Exploration and Production Inc., as Unit Operator for the Cotton Draw Unit Agreement, pursuant to Section 11 of the unit agreement, respectfully submits for your approval 1) the determination of the Cotton Draw Unit Well #76 (located 1650' FSL & 660' FWL Section 1, T25S, R31E, Eddy County, New Mexico) as a well capable of producing unitized substances in paying quantities and 2) the selection of the following described land to constitute the Initial "A" Participating Area for the Devonian producing zone or formation, to wit:

T-24-S, R-31-E
Section 25: SW/4
Section 26: S/2
Section 35: N/2, N/2S/2, Lots 1-4 (All)
Section 36: NW/4, N/2SW/4, Lots 1 & 2 (W/2)
Eddy County, New Mexico

T-25-S, R-31-E

Section 1: Lots 3 & 4, S/2NW/4, S/2
Section 2: Lots 1-3, SE/4NW/4, S/2NE/4, SE/4
Section 12: N/2, SE/4
Eddy County, New Mexico

<u>T-25-S, R-32-E</u> Section 7: Lots 1-4, E/2W/2, SE/4

Section 18: Lots 1 & 2, E/2NW/4, E/2
Lea County, New Mexico

containing 3,752.22 acres.

Bureau of Land Management Cotton Draw Unit Well #76 July 9, 1997 Page 2

In support of this application we have included the following items:

- (1) An ownership map marked Exhibit "A" showing the pertinent portion of the unit area, and the boundary of the proposed participating area.
- (2) A schedule marked Exhibit "B" showing the lands entitled to participation in the unitized substances produced from the Devonian formation, with the percentages of participation of each tract indicated thereon.
- (3) A Devonian structure map supporting the boundary of the proposed participating area.
- (4) A copy of Form 3160-5 for the subject well.
- (5) Various attachments (in triplicate) including economic and engineering data supporting the proposed participating area and indicating the subject well should be determined commercial under the terms of the Unit Agreement.

We are furnishing Devon Energy Corporation (Nevada), the only other working interest owner, with a copy of this submittal. They have previously agreed with the contents herein.

We respectfully request your determination that the Cotton Draw Unit #76 Well is commercial and request your approval of the hereinabove selected land to constitute the Initial "A" Devonian Participating Area. The effective date of the participating area will be May 1, 1997, per Section 11 of the Cotton Draw Unit Agreement.

If you have any questions for Texaco or need any additional information, please feel free to contact either me, Mr. Jim Dore (303) 793-4868 for engineering, or Mr. Tim Shepard (303) 793-4607 for geology. Thank you for your consideration of the above.

Very truly yours,

TEXACO EXPLORATION AND PRODUCTION INC.

David L. Sleeper (303) 793-4512 Land Representative

dls:jm

cc: State of New Mexico Commissioner of Public Lands P.O. Box 1148 Santa Fe, New Mexico 87504-1148

Attn: Mr. Pete Martinez

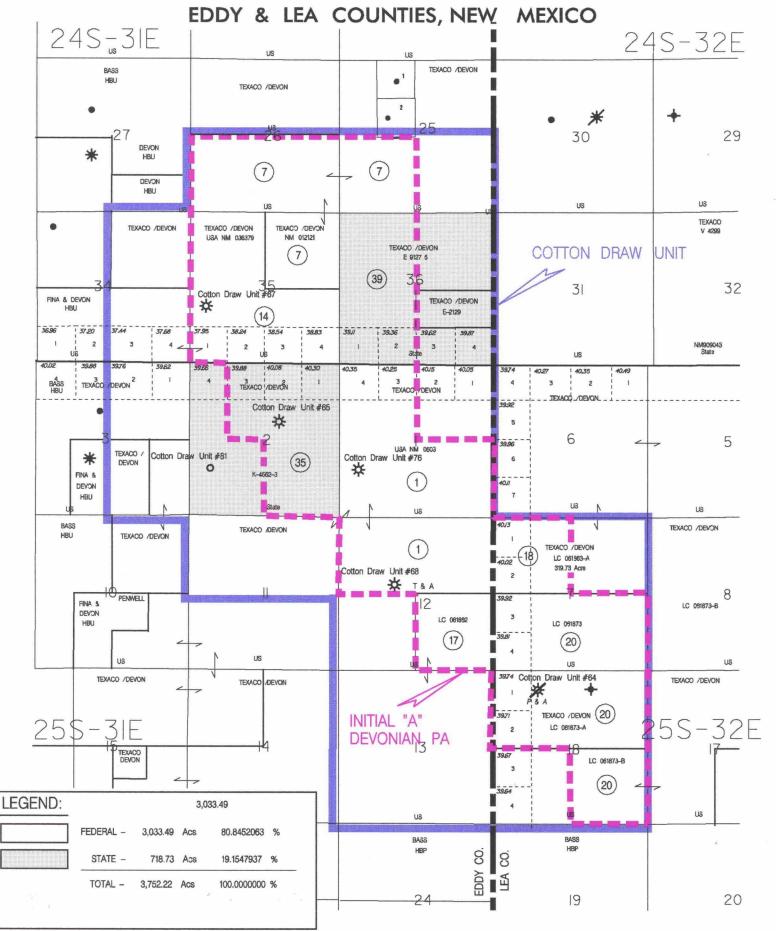
State of New Mexico
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 875054

Devon Energy Corporation (Nevada) 1500 Mid America Tower 20 North Broadway Oklahoma City, Oklahoma 73102-8260 Attn: Ken Gray

EXHIBIT "A"

COTTON DRAW UNIT

INITIAL "A" DEVONIAN PARTICIPATING AREA

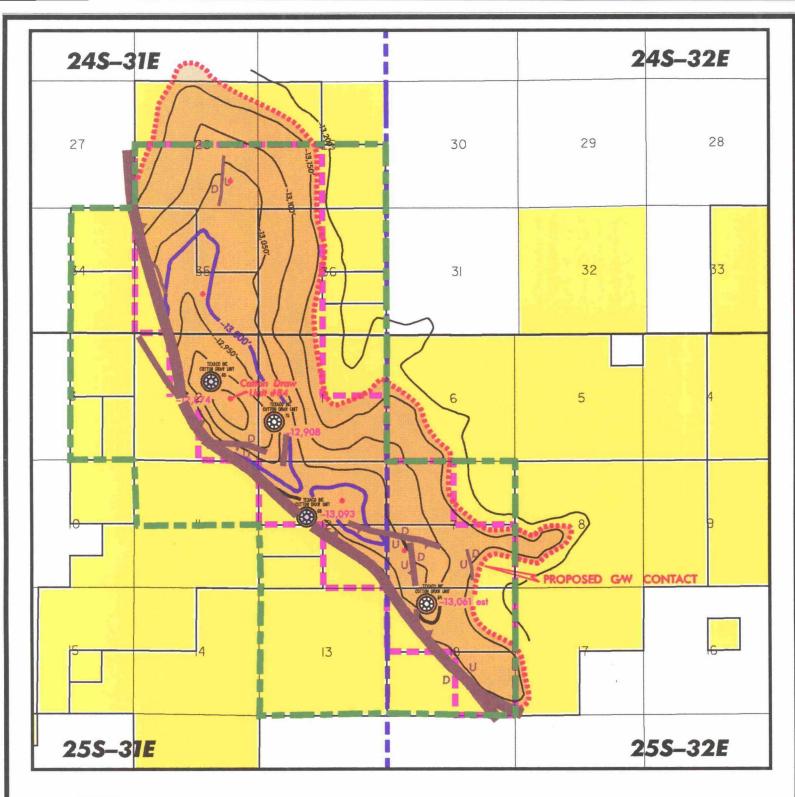


Page 1 of 2

EDDY AND LEA COUNTIES, NEW MEXICO DEVONIAN FORMATION COTTON DRAW UNIT AGREEMENT INITIAL "A" PARTICIPATING AREA EXHIBIT "B"

Working Interest Owner and Percent of Interest	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%
Percentage of Participation	21.3367020%	17.0565692%	12.6207951%	4.2641423%	4.2681399%	8.5210889%
Participating Acres	800.60	640.00	473.56	160.00	160.15	319.73
Description	T25S-R31E Sec. 1: Lots 3&4 S/2NW/4 & S/2 Sec. 12: N/2	T24S-R31E Sec. 26: S/2 Sec. 25: SW/4 Sec. 35: NE/4	T24S-R31E Sec. 35: NW/4, N/2S/2 Lots 1-4	T25S-R31E Sec. 12: SE/4	T25S-R32E Sec. 7: Lots 1, 2, & E/2NW/4 (NW/4)	T25S-R32E Sec. 7: Lots 3 & 4, E/2SW/4 & SE/4 (S/2)
Lease No.	NM 0503	NM 012121	NM 036379	LC 061862	LC 061863-A	LC 061873
Tract No.	-	7	14	17	18	20

			Participating	Percentage of	
Tract No.	Lease No.	Description	Acres	Participation	Working Interest Owner and Percent of Interest
20	LC 061873-A	T25S-R32E Sec. 18: Lots 1 & 2, E/2NW/4 & NE/4 (N/2)	319.45	8.5136266%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%
20	LC 061873-B	<u>T25S-R32E</u> Sec. 18: SE/4	160.00	4.2641423%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%
35	K-4562-3	T25S-R31E Sec. 2: Lots 1-3, SE/4NW/4, S/2NE/4 & SE/4	400.26	10.6672850%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%
39	E 9127-5	T24S-R31E Sec. 36: NW/4, N/2SW/4 & Lots 1 & 2 (W/2)	318.47	8.4875087%	Texaco Exploration and Production Inc 50% Devon Energy Corporation (Nevada) - 50%
			SUMMARY	X	
	Type Land		Committed Acres		Percent
	Federal	1	3,033.49		80.8452063%
	State		718.73		19.1547937%
	TOTAL	L	3,752.22		100.0000000%







TEXACO LEASEHOLD



PROSPECT AREA



DEVONIAN PRODUCTION



DEVONIAN PENETRATION





INITIAL "A" DEVONIAN P.A.





TEXACO E & P INC.

WESTERN E & P REGION AREA



COTTON DRAW DEVONIAN STRUCTURE MAP

EDDY AND LEA COUNTIES NEW MEXICO

STRUCTURE BASE WOODFORD CONTOUR INTERVAL = 50'

CONT. INT.: 50' DATUM: BASE WOODFORD
DATE: JUNE 1994 REV. DATE: JUNE 1997

GEOSCIENTIST: W. R. M. & T. M. S. ENGINEER: J. R. D. LANDMAN: D. L. S.

Form 3160-5 (June 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

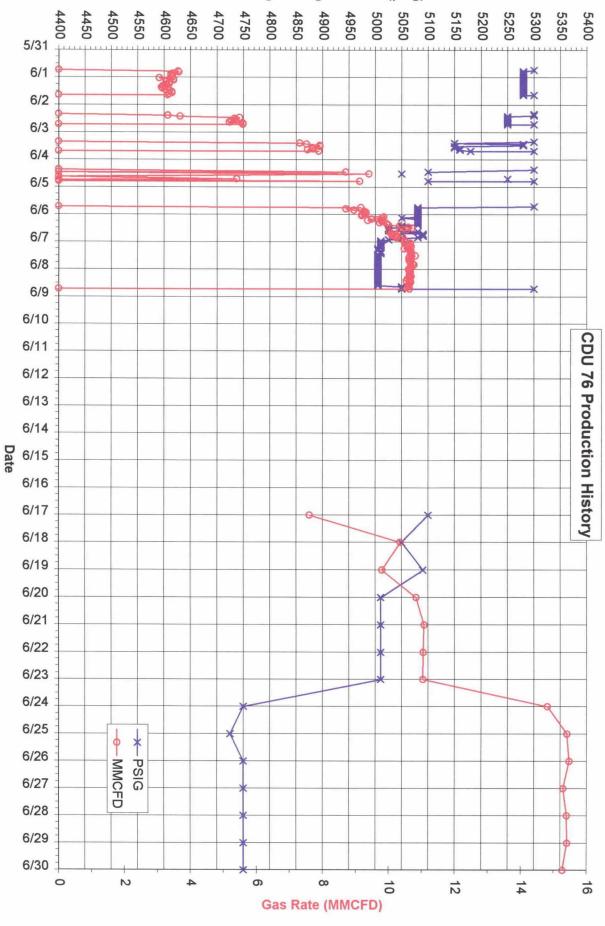
FORM APPROVED Budget Bureau No. 1004-0135

Expires: March 31, 1993

SUBMIT IN TRIPLICATE 1. Type of Well: OIL WELL OTHER 2. Name of Operator TEXACO EXPLORATION & PRODUCTION INC. 3. Address and Telephone No. P.O. Box 2100, Denver Colorado 80201 (303)621-4851 9. AP 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 10. Fit Unit Letter L : 1650 Feet From The SOUTH Line and 660 Feet From The COTT WEST Line Section 1 Township 25-S Range 31-E 12. Check Appropriate Box(s) To Indicate Nature of Notice, Report	init or CA, Agreement Designation TON DRAW UNIT Ill Name and Number COTTON DRAW UNIT 76 I Well No. 30-015-29252 eld and Pool, Exploratory Area TON DRAW (BRUSHY CANYON) ounty or Parish, State EDDY , NEW MEXICO , Or Other Data F ACTION Change of Plans New Construction Non-Routine Fracturing
2. Name of Operator TEXACO EXPLORATION & PRODUCTION INC. 3. Address and Telephone No. P.O. Box 2100, Denver Colorado 80201 (303)621-4851 9. AP 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 10. Fit Unit Letter L: 1650 Feet From The SOUTH Line and 660 Feet From The COTT WEST Line Section 1 Township 25-S Range 31-E 12. Check Appropriate Box(s) To Indicate Nature of Notice, Report	COTTON DRAW UNIT 76 I Well No. 30-015-29252 eld and Pool, Exploratory Area FON DRAW (BRUSHY CANYON) Ounty or Parish, State EDDY , NEW MEXICO Or Other Data F ACTION Change of Plans New Construction
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WEST Line Section 1 Township 25-S Range 31-E Check Appropriate Box(s) To Indicate Nature of Notice, Report	EDDY , NEW MEXICO , or Other Data F ACTION Change of Plans New Construction
Check Appropriate Box(s) To indicate Nature of Notice, Report	or Other Data F ACTION Change of Plans New Construction
Check Appropriate Box(s) To indicate Nature of Notice, Report	F ACTION Change of Plans New Construction
	Change of Plans New Construction
TYPE OF SUBMISSION TYPE O	New Construction
Abandonment	=
Recompletion	Non-Routine Fracturing
Notice of Intent Plugging Back	
Subsequent Report Casing Repair	Water Shut-Off
Final Abandonment Notice Aftering Casing	Conversion to Injection
OTHER: COMPLETION	Dispose Water
	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log Form.)
 Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated directionally drifled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to DRILLED 4-1/2 INCH HOLE TO 16,560'. TD @ 7:00 PM 04-23-97. RU SCHLUMBERGER. RAN GR-CNL-LDT 16605'-16380' GR-BHC SONIC 16600'-16380' AND FMS 13. RU SCHLUMBERGER. RUN AND SET PKR W/ 2 3/8" X 10' PUP JT, SN AND WL ENTRY GUIDE. TO THE WI BAKER MODEL E-22 ANCHOR TBG SEAL ASSEMBLY W/ BAKER MODEL L-10 ON-OFF TO LACK. 04-26-97. FINISHED THE W/ SEAL ASSEMBLY ON 297 JTS 9393' 2-7/8" 6.5# L-80 ABM AND 222 JOINTS 2-7/8 TEST PACKER TO 1000#. 04-27-97. DOWELL FRAC'D W/ 30,000 GALS DGA320 & 35,000 GALS YF330 IN 3 EQUAL STAGES. PUMPED GALS DGA 320 @9100 PSI @ 15 BPM.(BROKE FROM 9100 PSI TO 4000 PSI W/5000 GALS ACID CGALS YF330 AND 10,000 DGA320 @ 3500 PSI @ 15 BPM' 5000 GALS YF330 @1638 BLW FROM TOTAL BLW - 1704. 05-01-97. FLOW ON 4 PT TEST 4TH PT: 9.9809 MMCFD. 5000 PSI, 15/64 CK. FINAL SITP 5320 PSIG. RIG IS 	this work.)*. 16607'-16382'. 04-25-97. OP PACKER @ 16310'. OL, PICKING UP 2-7/8" TBG, 8" 8.7# L-80 BTS-6. 0 500 GALS ACID, 10,000 DN FORMATION)' 10,000 HIS JOB+ 66 PREVIOUS =
14 hereby settly that the Gregoring is true and correct SIGNATURE C.P. Basham SPD TITLE Eng. Assistant. TYPE OR PRINT NAME Sheilla D. Reed-High (This space for Federal or State office use; APPROVED CONDITIONS OF APPROVAL IF ANY: TITLE	DATE 5/20/97

The 18 U.S.C. Section 1001, makes to come to the person or livingly and wild to a make to any pagament or agency of the United States any false in thous at made united statements be excessionary addors that its junisdation.





TEXACO EXPLORATION AND PRODUCTION INC. COMMERCIALITY DETERMINATION

Well Name: Cotton Draw Unit #76

Formation: Devonian

Location: 1,650 ft FSL - 660 ft FWL, Section 1, T25S - R31E, Eddy County, New Mexaco

Date Spud: 10/27/96 Date Completed: 5/1/97

Date of First Delivery: 6/16/97

Total Well Cost (Drilling & Completion): \$4,925,000

Operating Cost (Estimated): \$50,000/Year

Severance Tax: 7.09% Ad Valorem Tax: 1.387%

Current Net Gas Price: \$1.41/MCF

Royalty Rate: 12.5% Subject to various overrides.

Payout: 1.0 Year

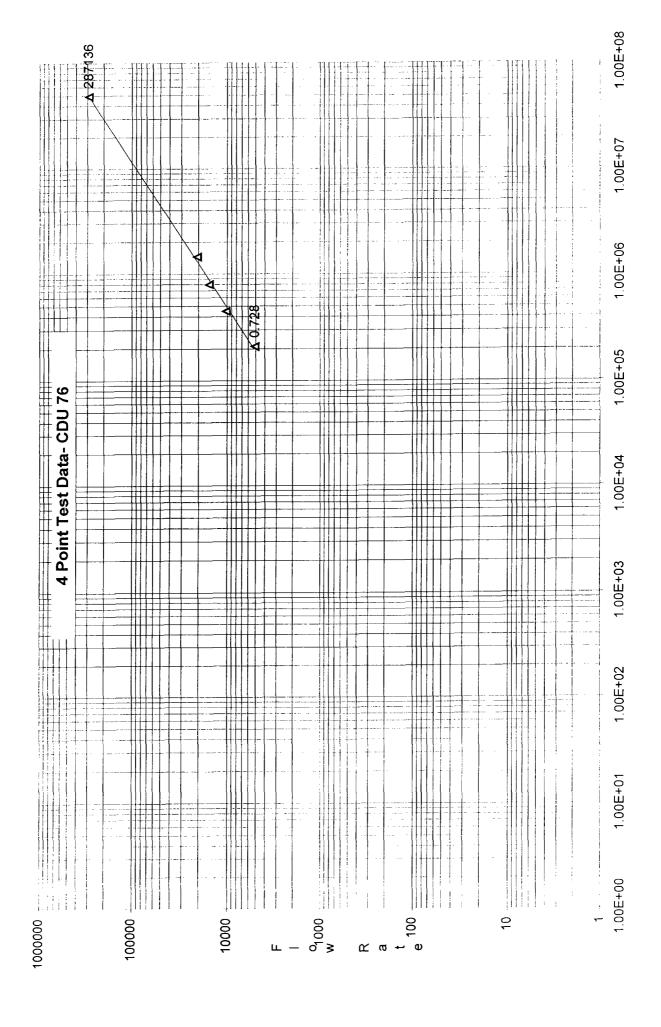
Production Forcast: 15 MMCFD starting 6/25/97

YEAR MMCF 1997 3210

1998 5475

	Gas Well Four point test			(C) Copyright by Douglas M All Rights Res	Boone
Well Name	Cotton Draw Unit 76			Version 3.0	
Field Name			1-Jul-97		
Gas Gravity	0.590		% N2	1.21	%
Cond. (yes=1)	0		% CO2	2.21	%
Depth of Zone	16,400 feet		% H2S	0.40	%
Tubing ID	2.41 inch.		TEMP-res	253	'F
Reservoir Pre	7000 psia		TEMP-surf	60	'F
AOF	287,136 mcfd		Pc	682.73	
N slope	0.728		Tc	350.84	
Pwf measured	FTP	Rate	Pwf	Z	BHP/Z
psia	psia	mcfd	psia		psia
6985	5315	5046	6985	1.1685	5978
6968	5104	10217	6968	1.1674	5969
6943	4725	15300	6943	1.1658	5956
6896	4135	20400	6896	1.1627	5931

Note: This 4 point test was conducted 5/16/97 with bottom hole pressure gauges in well.



REPORT NO. 151037

PAGE NO. 1

STAR

Schlumberger

TEST DATE: 30-MAY-1997 Schlumberger Transient Analysis Report Based on Model Verified Interpretation Of a Schlumberger Well Test

П	COMPANY: TEXACO E & P INC.	WELL: COTTON DRAW UNIT #76
	TEST IDENTIFICATION Test Type	WELL LOCATION Field
	COMPLETION CONFIGURATION Total Depth (MD/TVD) (ft) 16623 Casing Size O.D. (in) 5.5"- 20# Hole Size (in) 4.625 Perforated Interval (ft) 16400 to 16623 Net Pay (ft) 55	TEST STRING CONFIGURATION Tubing Length (ft)/I.D. (in) 6993 / 2.259 Tubing Length (ft)/I.D. (in) 9327 / 2.441 Packer Depth (ft) 16310 Gauge Depth (ft)/Type 16309/WTQR-910
		TEST CONDITIONS Producing Time (hrs) 125 Final Shut-in Duration (hrs) . 160
	INTERPRETATION RESULTS Model of Behavior	ROCK/FLUID/WELLBORE PROPERTIES Gas Gravity

PRODUCTION RATE DURING TEST: 10.6 MMSCF/D = Q-Last

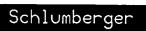
COMMENTS:

A BOTTOMHOLE PRESSURE BUILDUP TEST WAS CONDUCTED FROM 30-MAY-1997 TO 15-JUN-1997 OF THE DEVONIAN FORMATION. THE TEST CONSISTED OF FIVE FLOW PERIODS AND FIVE BUILDUP PERIODS. WITH A 3-DRY FINAL FLOW PERIOD AND A 7-DRY FINAL BUILDUP PERIOD. ANALYSIS OF EACH OF THE DIAGNOSTIC LOG-LOG PLOTS OF PRESSURE AND DERIVATIVE INDICATES THE PRESENCE OF A NATURALLY-FRACTURED (2-POROSITY) SYSTEM WITH SKIN AND VARIABLE WELLBORE STORAGE EFFECTS IN EARLY TIME, TRANSITIONAL FLOW REGIME IN MID TIME, AND INFINITE ACTING RADIAL FLOW FOR THE TOTAL SYSTEM (FISSURES+MATRIX) AT LATE TIME. THE FINAL SHUT-IN PERIOD WAS MATCHED USING A TWO-POROSITY SYSTEM MODEL WITH PSEUDO STEADY STATE INTERPOROSITY FLOW AND VARIABLE WELLBORE STORAGE (SEE ANALYSIS RESULTS AND PLOTS, PAGES 2-6). BASED ON THE MATCH, THE BUILDUP RESPONSE WAS IN INFINITE ACTING RADIAL FLOW AFTER 20-HRS SHUT-IN TIME.

THE TESTED INTERVAL HAS THE CHARACTERISTICS OF HIGH PERMEABILITY EFFECTIVE TO GAS AND A HIGHLY STIMULATED WELLBORE CONDITION AT THE TIME OF THE TEST. NO SEALING OR SUPPORTING OUTER BOUNDARIES WERE OBSERVED WITHIN THE 6700-FT RADIUS OF INVESTIGATION FOR THE TEST. FOR QUESTIONS ABOUT THIS REPORT, PLEASE CONTACT DEBORA HALLFORD AT (303) 843-9090.

REPORT NO. 151037 PAGE NO. 2

CALCULATIONS GAS WELL LOG-LOG ANALYSIS



LOG COELTA M (P) J VS. LOG (DELTA T) PLOT

TWO-POROSITY SYSTEM WITH PSEUDO STEADY STATE INTERPOROSITY FLOW SKIN AND VARIABLE WELLBORE STORAGE PD VS. TD/CD

DATA IDENTIFICATION

FLOW PERIOD # 21. BUILDUP M(P) = 2.096E+09 PSI**2/CP • DELTA T=0 FLOW RATE CHANGE = 10598 MSCF/D

TYPE-CURVE MATCH

CURVE MATCH, CD \times E (2S) = 0.756041 STORATIVITY RATIO, OMEGA = 0.079196 TRANSITION:CURVE, LAMBDA \times E (-2S) = 5.603E-03 PRESSURE MPTCH, PD/DELTA M (P) = 2.469E-07 1/(PSI \times 2/CP) TIME MATCH, (TD/CD)/DELTA T = 45.806 1/HR

CALCULATIONS

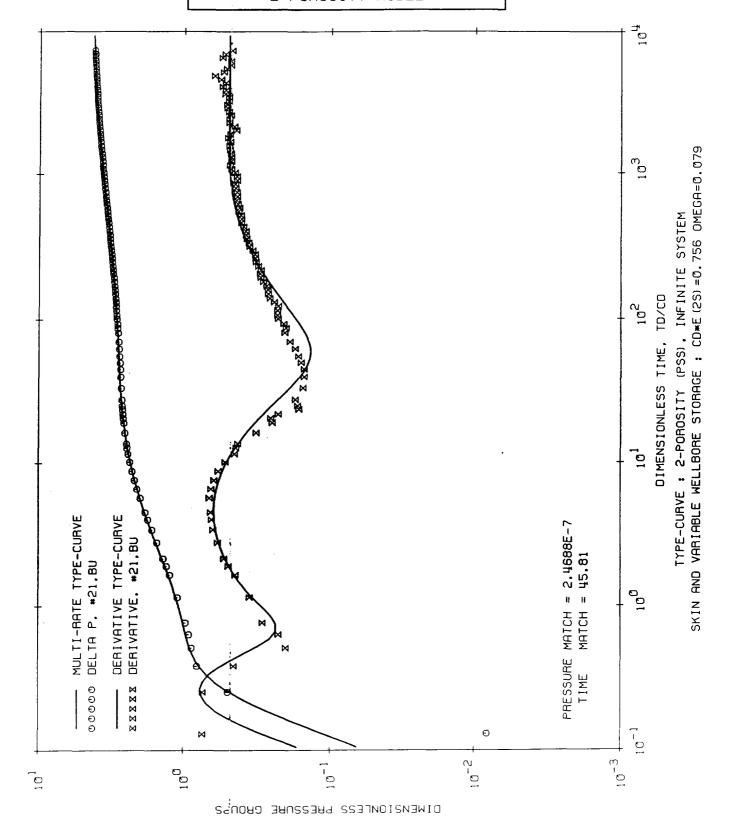
COMMENTS

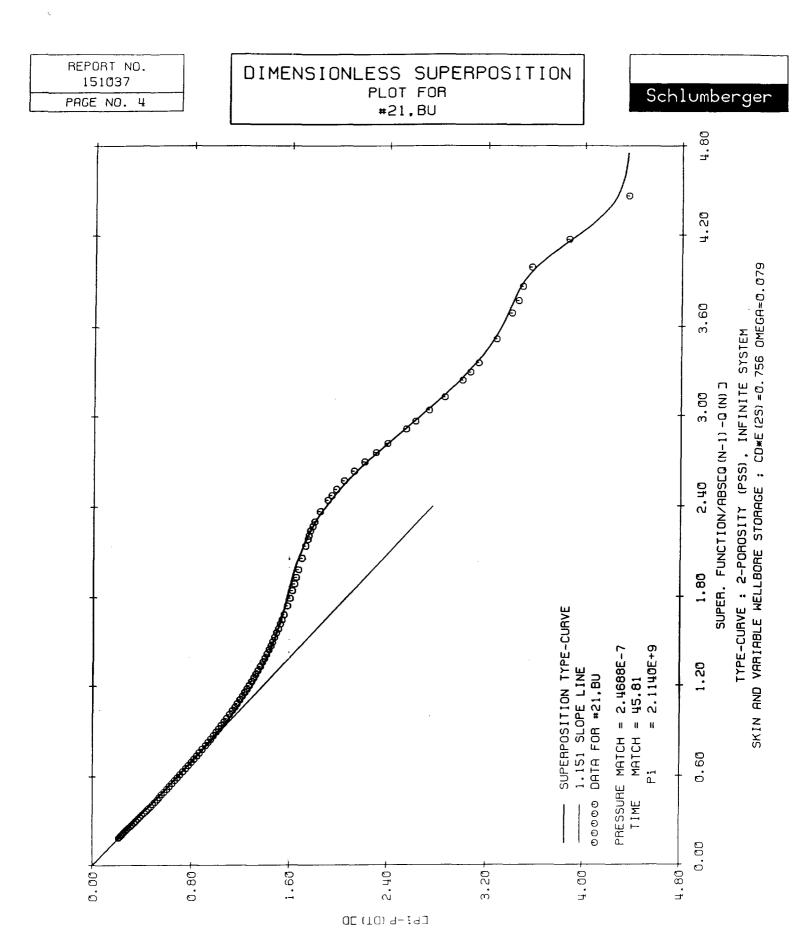
USING 2-POMOSITY (PSS), INFINITE SYSTEM RESERVOIR MODEL WITH SKIN AND VARIABLE WELLBORE STORAGE;
Ca/C=178.5(1) 0.14(2) CoD=0.17(1) 0.85(2)

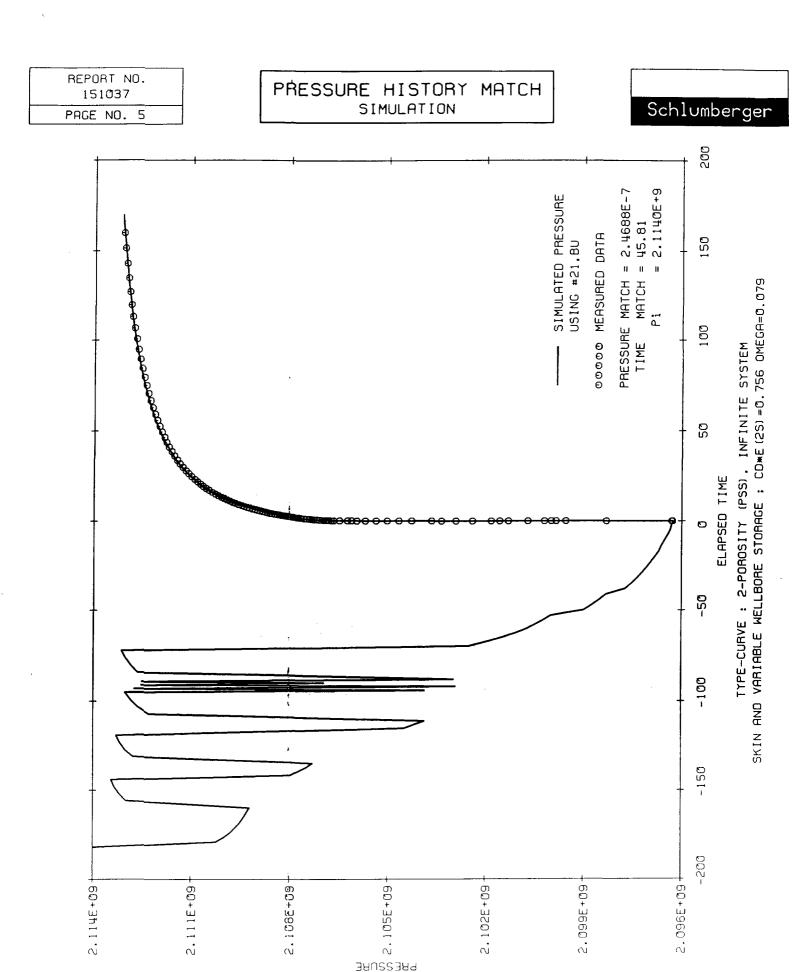
REPORT NO. 151037 PAGE NO. 3

DIMENSIONLESS MULTI-RATE PLOT: LOG-LOG MATCH WITH 2-POROSITY MODEL

Schlumberger







REPORT NO. 151037 PAGE NO. 6

FLOWRATE DATA USED IN ANALYSIS COTTON DRAW UNIT #76

Schlumberger

Page 1 of 1

ET VS. FLOWRATE

USING PRODUCTION HISTORY PROVIDED BY TEXACO COTTON DRAW UNIT #76 - BUILDUP TEST CONDUCTED 30-MAY-1997

	ET (hrs) PRIOR TO FINAL BUILDUP	GAS FLOWRATE (MSCF/D)
1	-182.00	3354.0
2	–160.00	0.00000E-01
3	-144.00	4975.0
Ų	-135.00	0.00000E-01
5	-119.0d	7684.0
6	-111.00	0.00000E-01
7	-95 .00 0	87 00. 0
8	-94.000	0.00000E-01
9	-93.000	9400.0
10	-92.000	0.00000E-01
11	-91.00d	5400.0
12	-90. 00ർ	0.00000E-01
13	-89. ood	9123.0
14	-88 . ơơợ	0.00000E-01
15	-72.00¢	9610.0
16	-53.00₵	10283.
17	-41.000	10649.
18	-29. ಠಠರ	10661.
19	-17.00¢	10634.
20	-5. 000¢	10598.
21	0.0000dE-01	0.00000E-01

ANY INTERPRETATIONS OR RECOMMENDATIONS ARE OPINIONS AND NECESSARILY BASED ON INFERENCES AND EMPIRICAL FACTORS AND ASSUMPTIONS, WHICH ARE NOT INFALLIBLE. ACCORDINGLY, SCHLUMBERGER - GEOQUEST CANNOT AND DOES NOT WARRANT THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION OR MEASUREMENT. UNDER NO CIRCUMSTANCES SHOULD ANY INTEPRETATION OR MEASUREMENT BE RELIED UPON AS THE SOLE BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT OR PRODUCTION DECISION OR ANY PROCEDURE INVOLVING RISK TO THE SAFETY OF ANY DRILLING VENTURE, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE CUSTOMER HAS FULL RESPONSIBILITY FOR ALL DRILLING, COMPLETION, WELL TREATMENT. AND PRODUCTION PROCEDURES, AND ALL OTHER ACTIVITIES RELATING TO THE DRILLING OR PRODUCTION OPERATION.

REPORT NO. 151037

PAGE NO. 7

MODEL-VERIFIED (tm) REPORT

Schlumberger

THIS IS SCHLUMBERGER'S MODEL-VERIFIED (tm) INTERPRETATION REPORT. WITH MODEL-VERIFIED (tm) INTERPRETATION, THE GOAL OF THE SCHLUMBERGER ANALYST IS TO CONSTRUCT A TOTAL SYSTEM RESERVOIR MODEL THAT MATCHES ALL OF YOUR WELL THIS PROVIDES YOU WITH RELIABLE ANSWERS THAT YOU CAN HAVE CONFIDENCE IN.

FROM THE DIAGNOSTIC LOG-LOG PLOT OF PRESSURE AND PRESSURE DERIVATIVE, THE SCHLUMBERGER ANALYST IDENTIFIES THE FLOW REGIMES GOVERNED BY THE INNER BOUNDARY CONDITIONS, BASIC RESERVOIR BEHAVIOR, AND OUTER BOUNDARY CONDITIONS. A RESERVOIR MODEL IS THEN CONSTRUCTED AND THE TEST DATA ARE MATCHED TO IT. IN ORDER TO VERIFY THE QUALITY OF THE MATCH, THE THEORETICAL MODEL RESPONSE (TYPE CURVE) AND THE TEST DATA ARE PLOTTED TOGETHER. THE PRESENTATION OF THE MATCH CAN BE SHOWN IN ANY OF THREE DIFFERENT FORMS.

- 1) LOG-LOG PLOT (DELTA PRESSURE AND DERIVATIVE vs. DELTA TIME)
- 2) SEMI-LOG PLOT (PRESSURE Us. SUPERPOSITION TIME)
- 3) CARTESIAN PLOT (PRESSURE Us. TIME)

SCHLUMBERGER USES SUPERPOSITION TECHNIQUES (MULTI-RATE ANALYSIS) TO ACCOUNT FOR THE WELL'S PRIOR PRODUCTION HISTORY. ESPECIALLY IN CASES WHERE THE PRIOR PRODUCTION IS ERRATIC OR UNUSUAL, SUPERPOSITION IS THE ONLY MEANS OF PROVIDING AN ACCURATE TYPE CURVE MATCH OF THE WELL TEST DATA. FOR GAS WELLS. THE PSEUDO-PRESSURE TECHNIQUE IS USED TO ACCOUNT FOR THE CHANGE IN GAS PROPERTIES WITH CHANGING PRESSURE.

IN SOME INSTANCES. THE WELL TEST DATA WILL NOT BE UNIQUE. i.e., MORE THAN ONE RESERVOIR MODEL WILL MATCH THE TEST DATA. THE MOST APPROPRIATE MODEL CAN BE DETERMINED AS WE WORK WITH YOU AND DISCUSS THE AREA LITHOLOGY AND GEOLOGY.

THE RESERVOIR ANSWERS DERIVED FROM MODEL-VERIFIED (tm) INTERPRETATION CAN INCLUDE; EFFECTIVE PERMEABILITY (K), SKIN DAMAGE (s), RESERVOIR PRESSURE (P*), FRACTURE HALF-LENGTH (X+), FRACTURE CAPACITY (K+w), BOUNDARY CONDITIONS AND DISTANCE TO BOUNDARIES. AS WELL AS THE MODEL OF BASIC RESERVOIR BEHAVIOR.

USING THE RESERVOIR MODEL DETERMINED BY MODEL-VERIFIED (tm) INTERPRETATION. FLOWRATE PREDICTIONS CAN BE MADE FOR THE WELL. ADDITIONALLY, WE CAN HELP YOU OPTIMIZE WELL PERFORMANCE BY USING SCHLUMBERGER'S NODAL ANALYSIS SOFTWARE TO EXAMINE THE WELL'S SENSITIVITY TO DIFFERENT COMPLETION DESIGNS (e.g., FRACTURE HALF-LENGTH, TUBING SIZE, WELLHEAD PRESSURE, SKIN VALUE, SHOT DENSITY). THIS AFFORDS YOU THE OPPORTUNITY TO FORECAST PRODUCTION POTENTIAL FOR THE WELL BEFORE MAKING FINAL COMPLETION/RECOMPLETION DECISIONS.

REPORT NO. 151037 PAGE NO. 8

WELL TEST MODELS

Schlumberger

THE SCHLUMBERGER ANALYST CONSTRUCTS THE TOTAL SYSTEM RESERVOIR MODEL THAT BEST MATCHES YOUR TEST DATA BY CHOOSING THE INNER BOUNDARY CONDITION(S), A BASIC RESERVOIR MODEL, AND THE OUTER BOUNDARY CONDITION(S). COMPONENTS ARE PUT TOGETHER INTO ONE RESERVOIR MODEL AND THE TEST DATA IS MATCHED BY ADJUSTING THE MODEL PARAMETERS (e.g., PERMEABILITY AND SKIN) TO OBTAIN THE BEST FIT. THE FOLLOWING IS A PARTIAL LIST OF THE MODEL COMPONENTS AVAILABLE TO THE SCHLUMBERGER ANALYST FOR MATCHING YOUR WELL TEST DATA.

INNER BOUNDARY CONDITION

NO WELLBORE STORAGE CONSTANT WELLBORE STORAGE VARIABLE WELLBORE STORAGE FINITE CONDUCTIVITY VERTICAL FRACTURE INFINITE CONDUCTIVITY VERTICAL FRACTURE UNIFORM FLUX VERTICAL FRACTURE HORIZONTAL FRACTURE PARTIAL PENETRATION

BASIC RESERVOIR MODEL

HOMOGENEOUS DUAL POROSITY, PSEUDO STEADY STATE INTERPOROSITY FLOW DUAL POROSITY. TRANSIENT INTERPOROSITY FLOW TRIPLE POROSITY DUAL PERMEABILITY RADIAL COMPOSITE

OUTER BOUNDARY CONDITION

INFINITE SYSTEM SINGLE SEALING NO FLOW BOUNDARY PARTIALLY SEALING BOUNDARY SINGLE CONSTANT PRESSURE BOUNDARY TWO INTERSECTING NO FLOW BOUNDARIES (WEDGE GEOMETRY) PARALLEL NO FLOW BOUNDARIES (CHANNEL) GAS CAP/BOTTOM WATER DRIVE CLOSED (NO FLOW) CIRCLE CONSTANT PRESSURE CIRCLE CLOSED (NO FLOW) RECTANGLE CONSTANT PRESSURE RECTANGLE MIXED BOUNDARY RECTANGLE

FOR SOME APPLICATIONS. SUCH AS HORIZONTAL AND LAYERED RESERVOIR TESTS. ALL OF THE POSSIBLE COMBINATIONS ARE NOT AVAILABLE. REFERENCES ON MOST MODEL COMPONENTS CAN BE FOUND IN SPE PAPERS.

REPORT NO. 151037

PAGE NO. 9

SEQUENCE OF EVENTS

Schlumberger

DATE	TIME (HR:MIN)	DESCRIPTION		BHP (PSIA)	WHP (PSIG)
30-MAY 30-MAY 30-MAY 30-MAY 30-MAY	16:10 16:57 17:34 18:15 18:36 19:00	Gradient Stop 0 Ft. Gradient Stop 5000 Ft. Gradient Stop 10000 Ft. Gradient Stop 15000 Ft. Gradient Stop 16000 Ft. Gradient Stop 16200 Ft.	-2873 -2826 -2789 -2748	5287 5839 6370 6871 6968 6987	
31-MAY	16:29	START FLOW	-1414	6997	
01-JUN	16:03	END FLOW & START SHUT-IN	Ø	6992	
02-JUN	08:31	END SHUT-IN	988	6998	
02-JUN	08:32	START FLOW	989	6997	
Ø2-JUN	16:23	END FLOW & START SHUT-IN	1460	6987	
Ø3-JUN	08:23	END SHUT-IN	2420	6997	
Ø3-JUN	08:28	START FLOW	2425	6997	
03-JUN	16:27	END FLOW & START SHUT-IN	2904	6979	
Ø4-JUN	08:42	END SHUT-IN	3879	6997	
OU-JUN	08:42	START FLOW	3879	6997	
04-JUN	22:04	END FLOW & START SHUT-IN	4681	6978	
05-JUN	17:03	END SHUT-IN	5820	6997	
05-JUN	17:05	START FLOW	5822	6997	
08-JUN	17:05	END FLOW & START SHUT-IN	10142		
15-JUN 15-JUN 15-JUN Continu	09:24	END SHUT-IN Gradient Stop 16309 Ft. Gradient Stop 16200 Ft. page	19754 19761 19783		

REPORT NO. 151037

PAGE NO. 10

DISTRIBUTION OF REPORTS

Schlumberger

SCHLUMBERGER has sent copies of this report to the following:

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DENVER, CO 80237
Attn: JIM DORE
(3 copies)

TEXACO E & P INC. 205 EAST BENDER HOBBS, NM 88240 Attn: HOMA RAY SHORT (2 copies)

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MIDLAND, TX
Attn: RUSSELL WIMBERLEY
(2 copies)

Any interpretations or recommendations are opinions and necessarily based on inferences and empirical factors and assumptions, which are not infallible. Accordingly, Schlumberger (Flopetrol Johnston) cannot and does not warrant the accuracy of correctness of any interpretation or measurement. Under no circumstances should any interpretation or measurement be relied upon as the sole basis for any drilling, completion, well treatment or production decision or any procedure involving risk to the safety of any drilling venture, drilling rig or its brew or any other individual. The Customer has full responsibility for all drilling, completion, well treatment, and production procedure, and all other activities relating to the drilling or production operation.

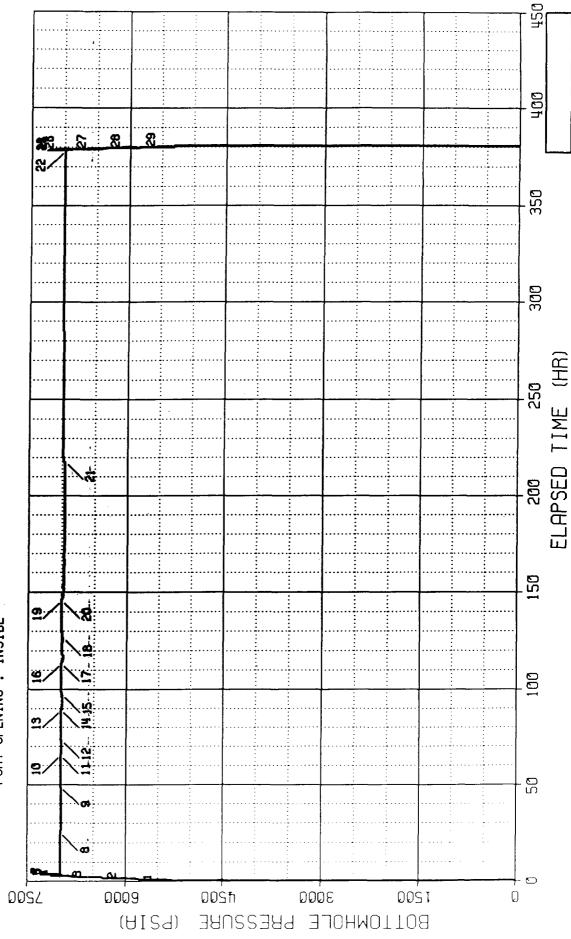
BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 151037 INSTRUMENT NO. WTGR-910

DEPTH: 16309 FT CAPACITY: 16000 PSI PORT OPENING: INSIDE

COMPANY: TEXACO E & P INC. WELL: COTTON DRAW UNIT #76

Electronic Pressure Data



Schlumberger

400 350 COMPANY : TEXACO E & P INC. WELL : COTTON DRAW UNIT #76 300 BOTTOMHOLE PRESSURE LOG ELAPSED TIME (HR) EXPRNDED PLOT OF TEST 150 INSTRUMENT NO. MTGR-910 FIELD REPORT NO. 151037 PORT OPENING : INSIDE CAPACITY : 16000 PSI DEPTH : 16309 FT 100 50 SZDZ S469 שמסמע 0569 98S2 0069 (PSIA) BOTTOMHOLE PRESSURE

450

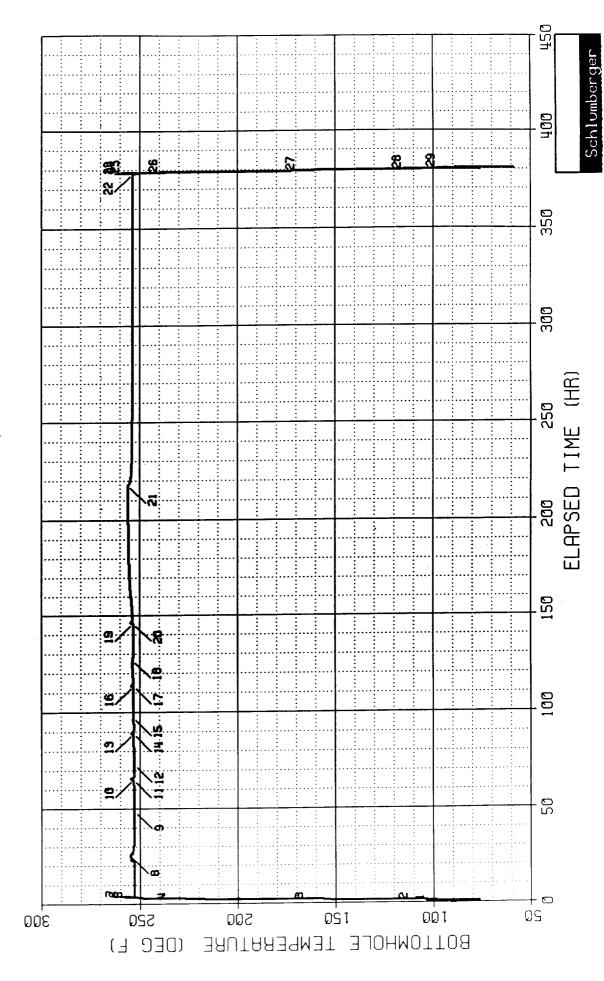
Schlumberger

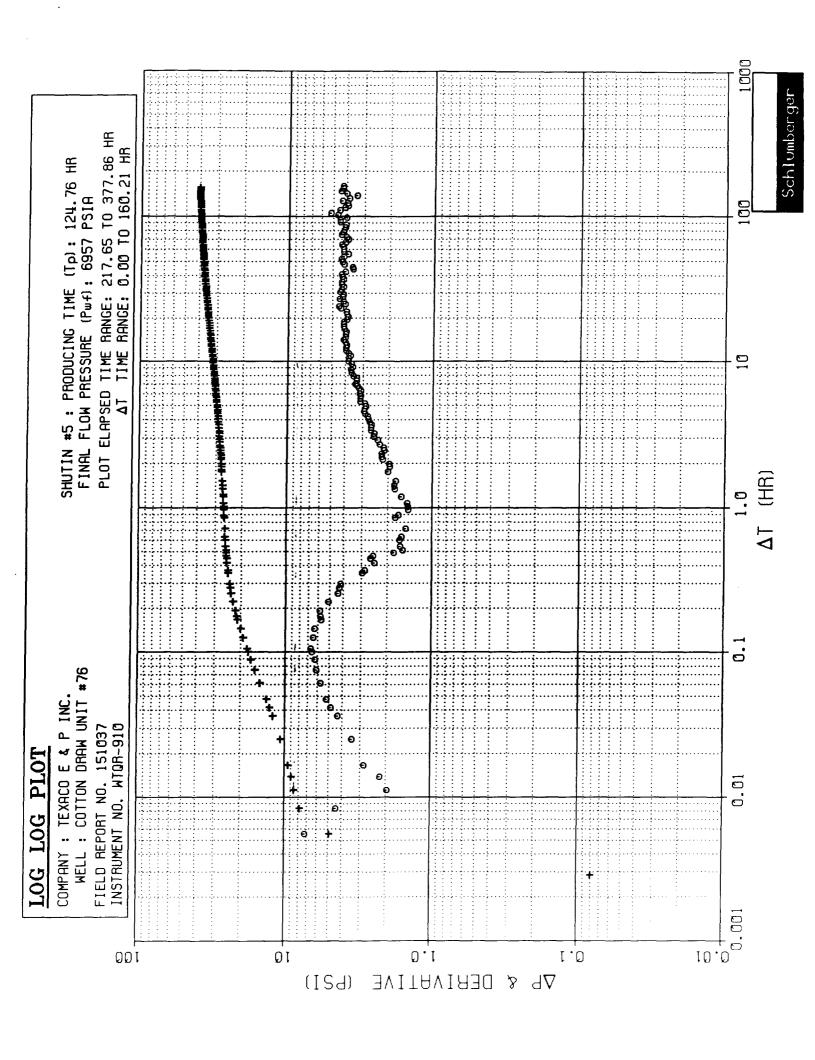
BOTTOMHOLE TEMPERATURE LOG

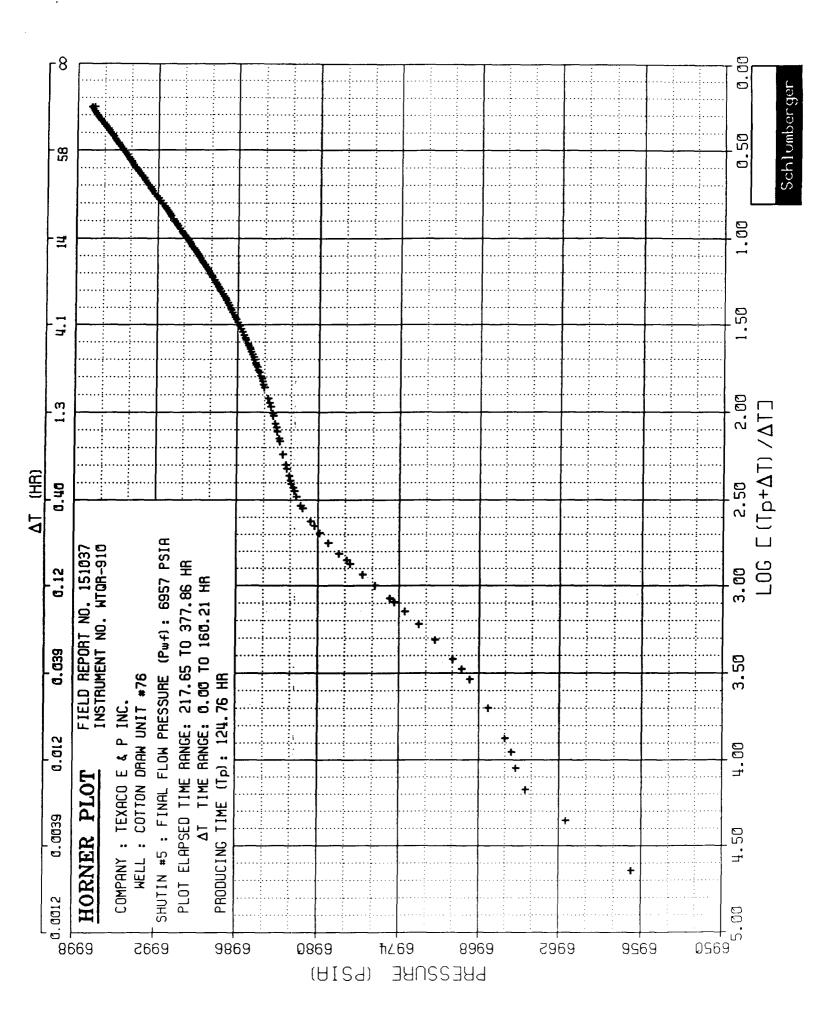
FIELD REPORT NO. 151037 INSTRUMENT NO. WTQR-910 DEPTH : 16309 FT

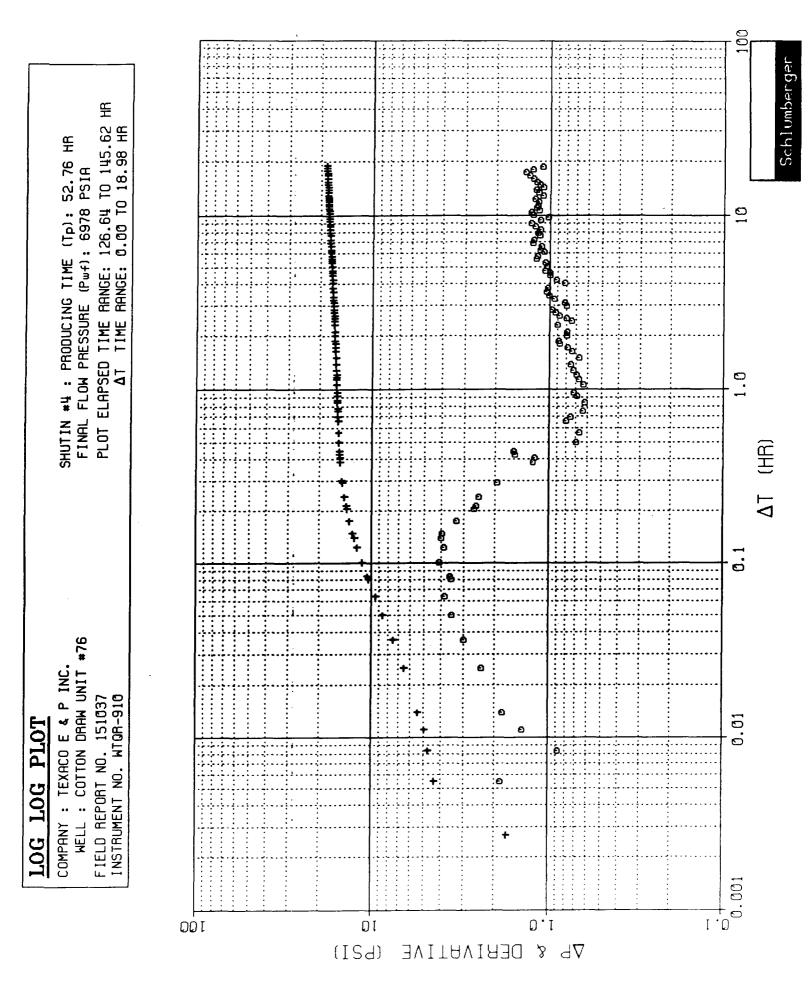
COMPANY: TEXACO E & P INC. WELL: COTTON DRAW UNIT #76

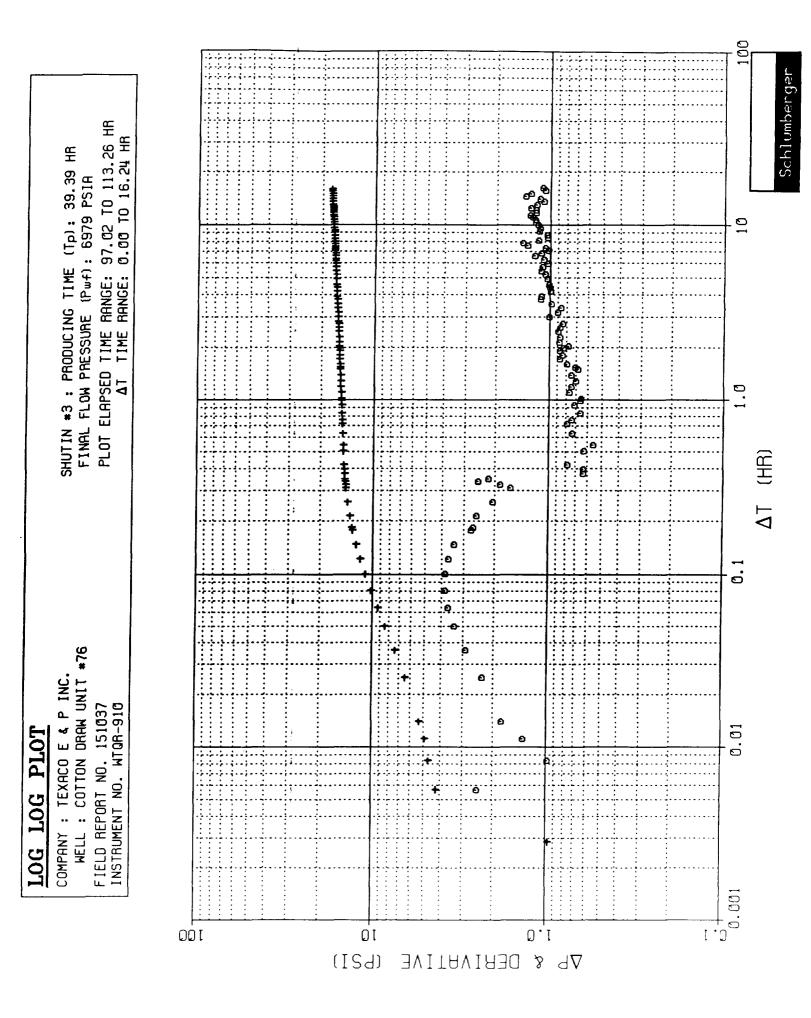
Electronic Temperature Data

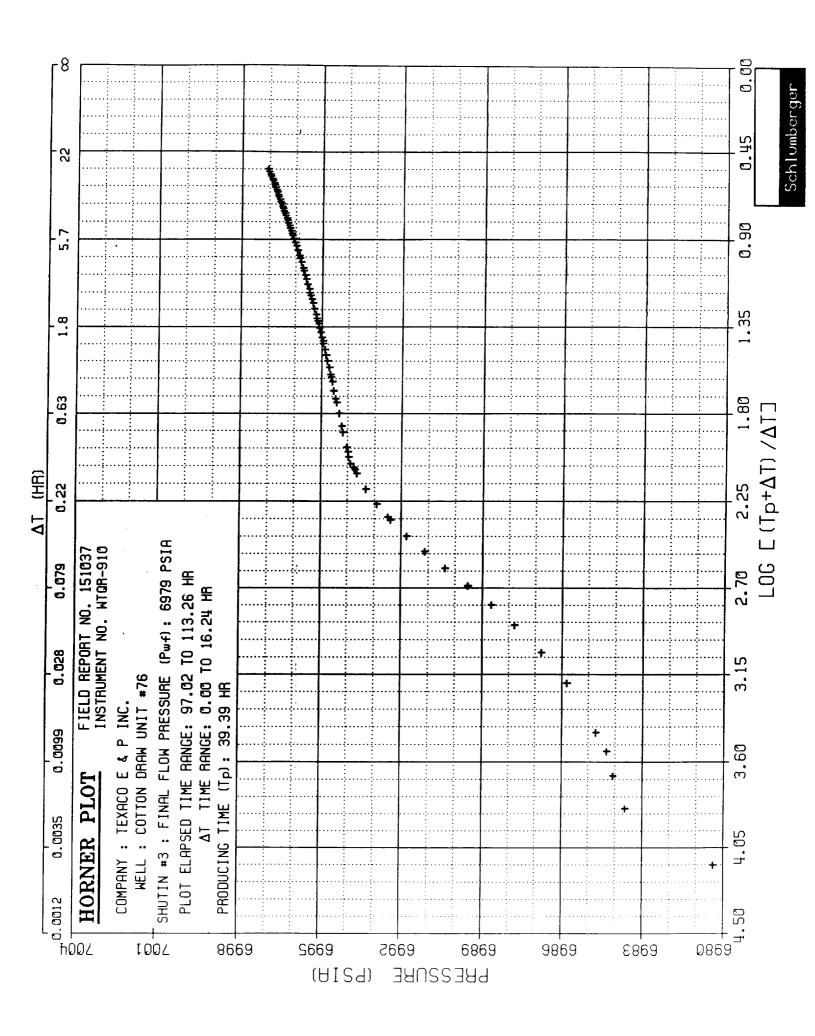


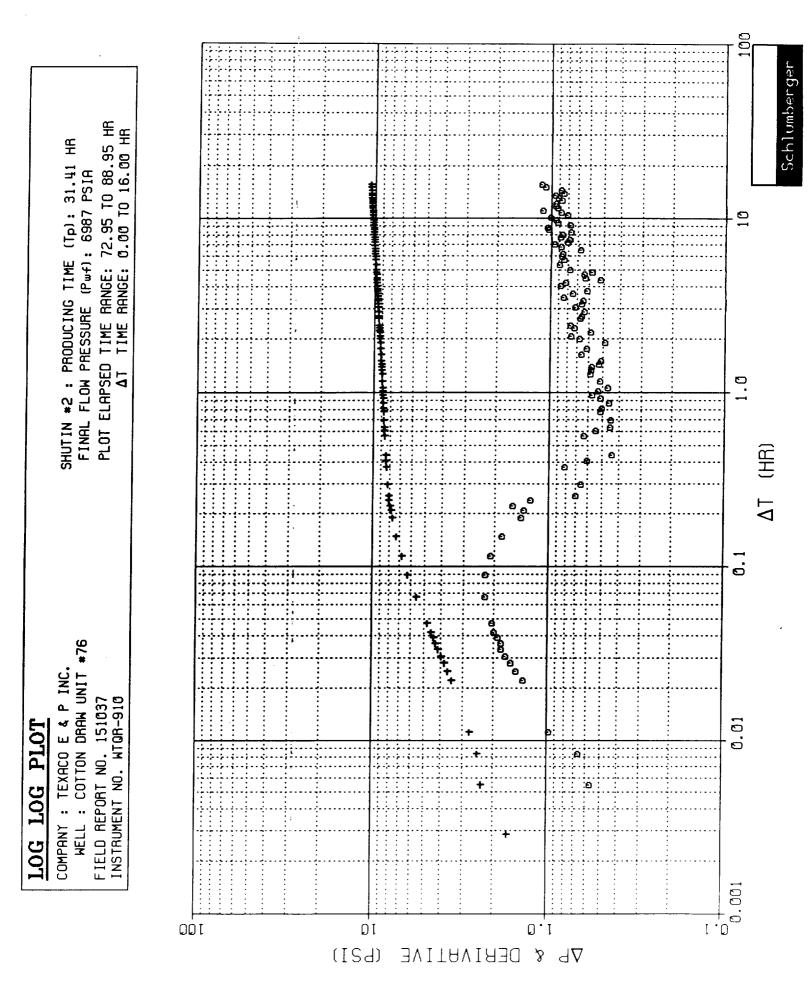


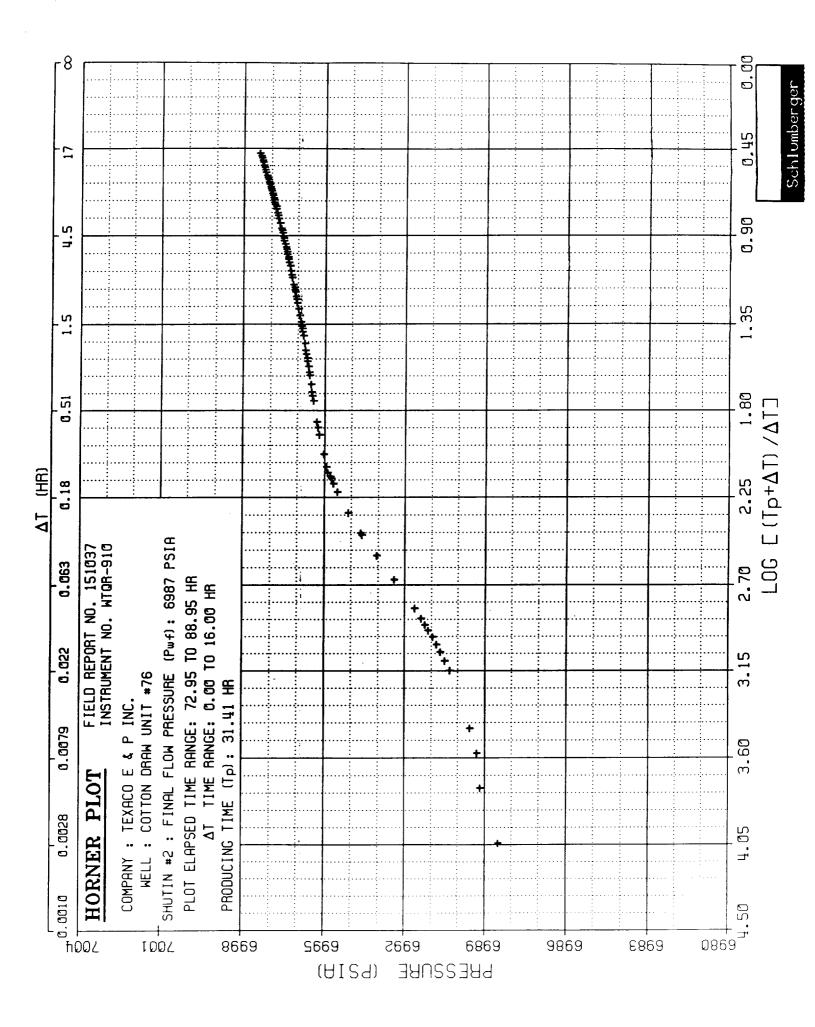




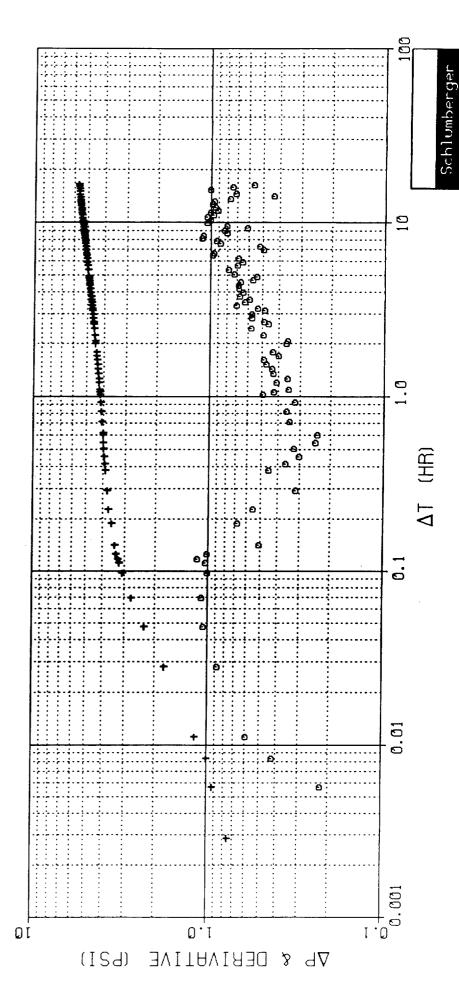


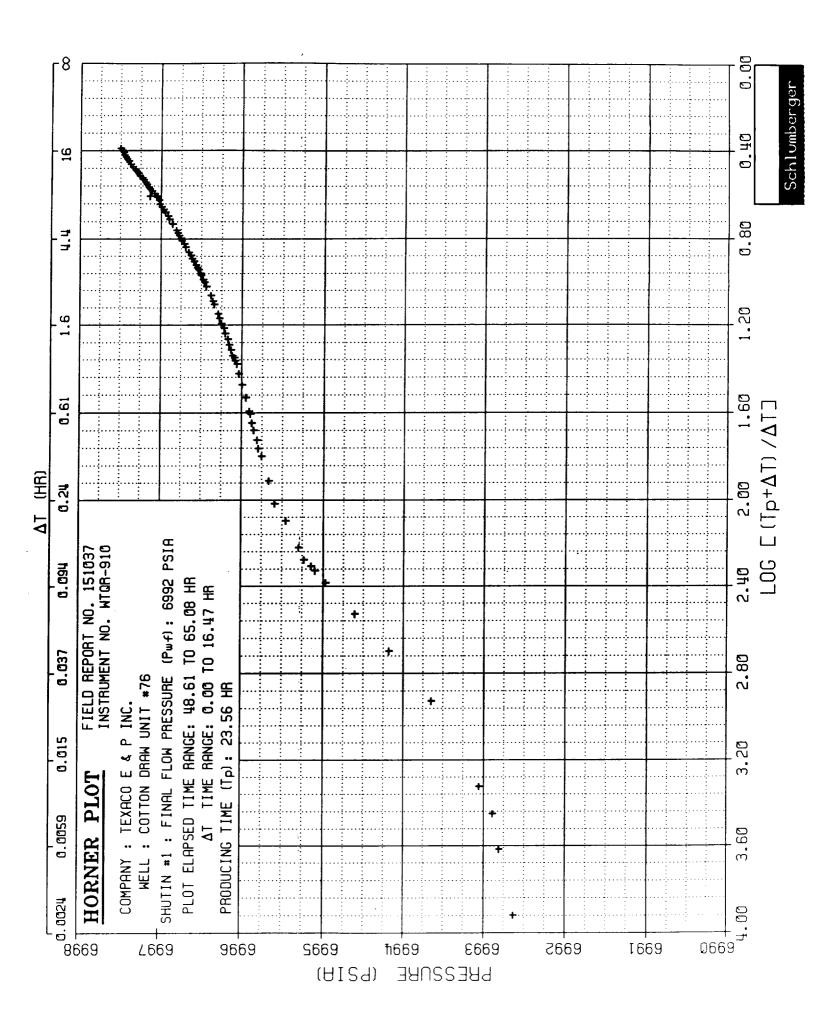






SHUTIN #1: PRODUCING TIME (Tp): 23.56 HR FINAL FLOW PRESSURE (Pw+): 6992 PSIA PLOT ELAPSED TIME RANGE: 48.61 TO 65.08 HR AT TIME RANGE: 0.00 TO 16.47 HR COMPANY : TEXACO E & P INC. WELL : COTTON DRAW UNIT FIELD REPORT NO. 151037 INSTRUMENT NO. WTQR-910 LOG LOG PLOT







Texaco Exploration and Production Inc. Western E&P Region

P O Box 2100 Denver CO 80201 4601 DTO Boulevard Denver CO 80207 #1446

February 22, 1995

District Supervisor
Bureau of Land Management
Roswell District Office
P. O. Box 1397
Roswell, New Mexico 88202-1397

Commissioner of Public Lands P. O. Box 1148 Santa Fe, New Mexico 87504-1148

New Mexico Oil Conservation Division P. O. Box 2088
Santa Fe, New Mexico 87501-2088

All Working Interest Owners (Address List Attached)

COTTON DRAW UNIT

Secondary Recovery Unit Lea County, New Mexico In Reply To: 14-08-0001-5247

3180 (065)

Gentlemen:

As operator of the Cotton Draw Unit, Texaco Exploration and Production Inc. submits a 1995 plan of development and operations for the subject unit for your approval.

PAST OPERATIONS

The unitized interval of the Cotton Draw Unit is the Paduca Delaware Pool. The unit became effective on August 1, 1968, and water injection commenced the same date. Texaco performed all conversions to water injection prior to unitization.

Enclosed for your information is a unit production plot, a current well status list, and a map of the unit.

Total production from the unit from August 1, 1968, through December 31, 1994, is 7,718 MBO and 6244 MMCF. Cumulative injection for the same time period is 39,060 MBW. The average production for the month of December 1994, was 111 BOPD, 92 MCFD, and 1001 BWPD.

Bureau of Land Management Commissioner of Public Lands New Mexico Oil Conservation Division Working Interest Owners February 22, 1995 Page 2

DEVELOPMENT PLANS FOR 1995

Texaco modified injection to a line drive pattern in a portion of the unit during 1993. The line drive configuration was a technical success, reducing field decline rates from 15% to 5%. Unfortunately, the low volumes produced, combined with high operating costs, continued to degrade the economics of the unit. In 1995 we will reduce the area of injection to only the individual wells which are economic to produce. Wells which are subeconomic will be plugged and abandoned. Texaco will perform equipment installations and well workovers as needed to produce the Unit in an efficient manner. We are currently acquiring a 3D Survey to evaluate the deeper potential in the Cotton Draw Unit Area.

Very truly yours,

Mark E. Schneider

Permian West - Hobbs South

Mark E. Schneider

Area Manager

ATTACHMENTS

MES:clf feb\17mes1.doc

COTTON DRAW UNIT LEA COUNTY, NEW MEXICO

Working Interest Owners

Texaco Exploration and Production Inc. P. O. Box 3109
Midland, Texas 79702

Bass Enterprises Prod.
201 Main Street
Fort Worth, TX 76102
ATTN: Joint Interest Manager

Fina Oil & Chemical Company P. O. Box 2990 Midland, TX 79702 ATTN: Mr. Keith Seanard

Devon Energy Corp.
Suite 1500
20 North Broadway
Oklahoma City, OK 73102
ATTN: Mr. Steve Blair

Devon Energy Partners Suite 1500 20 North Broadway Oklahoma City, OK 73102 ATTN: Mr. Steve Blair

COTTON DRAW UNIT Lea County, New Mexico Well Status December 1994

Well			Well		7
No.	STATUS		No.	1	TATUS
1	Active	Injector	28	Active	Producer
2	Active	Injector	29	Shut-In	Producer
3	Active	Injector	30	Shut-In	Injector
4	Active	Producer	31	Shut-In	Producer
5	Plugged and a	Abandoned	33	Active	Producer
6	Active	Injector	34	Plugged as	nd Abandoned
7	Shut-In	Producer	35	Plugged as	nd Abandoned
8	Shut-In	Producer	36	Shut-In	Injector
9	Active	Injector	37	Active	Producer
10	Shut-In	Producer	38	Plugged and Abandoned	
11	Active	Injector	41	Shut-In	Producer
12	Active	Injector	42	Shut-In	Producer
13	Plugged and	Abandoned	43	Shut-In Producer	
15	Active	Producer	44	Shut-In	Producer
16	Active	Producer	45	Plugged and Abandoned	
17	Active	Injector	47	Shut-In	Producer
18	Shut-In	Producer	48	Shut-In	Producer
19	Active	Injector	50	Plugged as	nd Abandoned
20	Active	Producer	51	Active	Producer
21	Shut-In	Producer	52	Active	Producer
22	Active	Producer	55	Plugged and Abandoned	
23	Active	Injector	56	Shut-In	Producer
24	Active	Producer	57	Shut-In	Producer
25	Active	Producer	60	Shut-In	Injector
26	Active	Injector	75	Active	Producer
27	Shut-In	Producer			

R-32-E TERRES IF POCO 63 E3 3 jejuco 8 1 12 **A** Z 1 1 25 LA REST 12.45.0 Ś 20 Truce M(1-) 58 Δ

LEGEND OIL PRODUCEP O SHUT-IN OIL PRODUCEP A MATER INJECTOR A SHUT-IN MATER INJECTOR PAGE DIVICTOR O LOCATION O DRY MOLE

-j-

COTTON DRAW UNIT

26

DELAWARE SAND PARTICIPATING AREA

		1.2	1000		
FEET 0	20 88	1000	8000	6999	<u> 198</u> 00 FEE1

MCFPD

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ОЧМВ

ZHVHZ

MCFPD

Воьр

FABS

1446



MOISONCES. IN DIVISION COMMISSION
0K'dz-24-94

February 16, 1994

District Supervisor
Bureau of Land Management
Roswell District Office
1717 West Second Street
Roswell, New Mexico 88201-2019

Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

New Mexico Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

All Working Interest Owners (Address List Attached)

COTTON DRAW UNIT

Secondary Recovery Unit Lea County, New Mexico In Reply To: 14-08-0001-5247 3180 (065)

Gentlemen:

As operator of the Cotton Draw Unit, Texaco Exploration and Production Inc. submits a 1994 plan of development and operations for the subject unit for your approval.

PAST OPERATIONS

The unitized interval of the Cotton Draw Unit is the Paduca Delaware Pool. The unit became effective on August 1, 1968, and water injection commenced the same date. Texaco performed all conversions to water injection prior to unitization.

Enclosed for your information is a unit production plot, a current well status list and a map of the unit.

-2-

February 16, 1994

Total production since the initiation of the flood through November 30, 1993, is 8,200,100 barrels of oil. Cumulative injection for the same time period is 39,116,000 barrels of water. The average production for the month of November 1993, was 157 BOPD, 78 MCFD and 2,479 BWPD.

DEVELOPMENT PLANS FOR 1994

Texaco modified injection to a line drive pattern in a portion of the unit during 1993. In 1994, we plan to monitor and analyze results of the modification. Future work is dependent on the success of the injection modification. Texaco will perform equipment installations and well workovers as needed to produce the Unit in an efficient manner.

Yours very truly,

R. J. Rowalt

Assistant Division Manager

JHO/srt

Attachments

COTTON DRAW UNIT LEA COUNTY, NEW MEXICO

Working Interest Owners

Texaco Exploration and Production Inc. P. O. Box 3109
Midland, Texas 79702

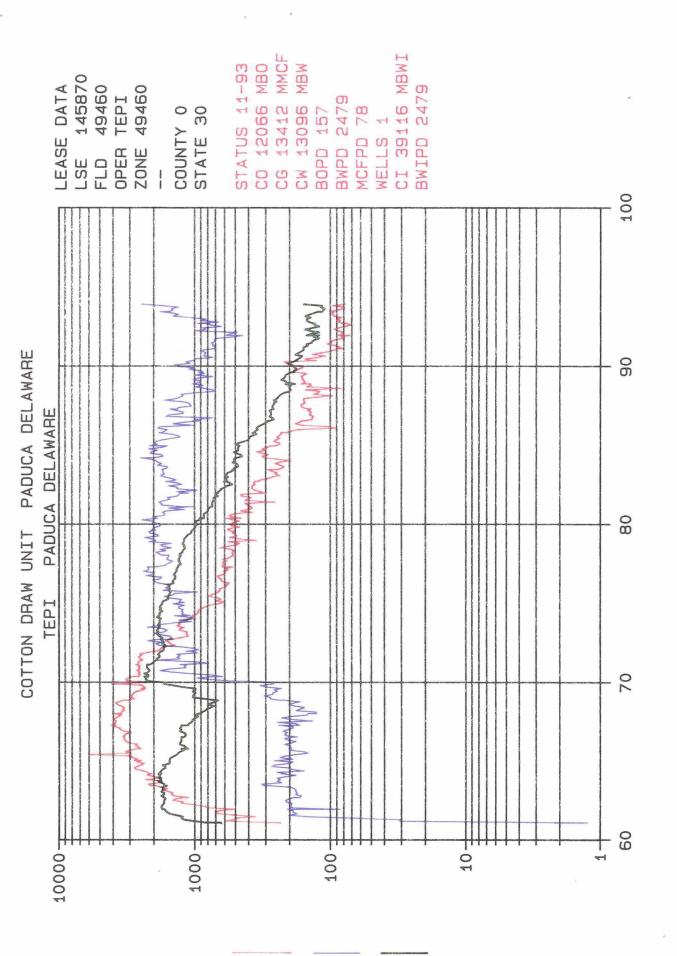
Bass Enterprises Prod.
201 Main Street
Fort Worth, TX 76102
ATTN: Joint Interest Manager

Fina Oil & Chemical Company P. O. Box 2990 Midland, TX 79702 ATTN: Mr. Keith Seanard

Devon Energy Corp. Suite 1500 20 North Broadway Oklahoma City, OK 73102 ATTN: Mr. Steve Blair

Devon Energy Partners Suite 1500 20 North Broadway Oklahoma City, OK 73102 ATTN: Mr. Steve Blair



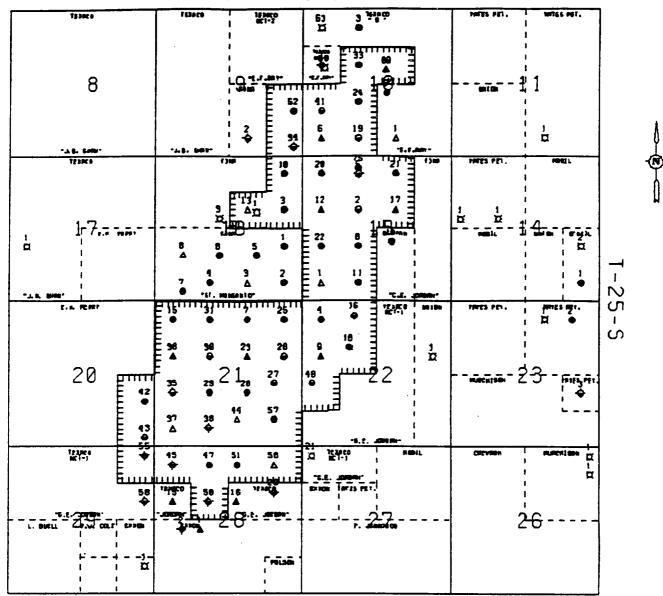


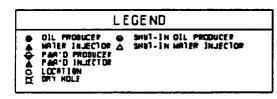
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COTTON DRAW UNIT

DELAWARE SAND PARTICIPATING AREA

			1+2488	8		
FEET 6	•	29 88	1000	1200	6999	19890 FEET

COTTON DRAW UNIT LEA COUNTY, NEW MEXICO WELL STATUS DECEMBER, 1993

WELL			WELL		
NO.	STATUS		NO.	STATUS	
1	Active	Injector	28	Active	Producer
2	Active	Injector	29	Active	Producer
3	Active	Injector	30	Shut-in	Injector
4	Active	Producer	31	Active	Producer
5	Plugged & Al	bandoned	33	Active	Producer
6	Active	Injector	34	Plugged & Al	pandoned
7	Shut-in	Producer	35	Plugged & Al	pandoned
8	Active	Producer	36	Active	Injector
9	Active	Injector	37	Active	Producer
10	Active	Producer	38	Plugged & Al	pandoned
11	Active	Injector	41	Shut-in	Producer
12	Active	Injector	42	Shut-in	Producer
13	Plugged & Al	bandoned	43	Shut-in Producer	
15	Active	Producer	44	Shut-in	Producer
16	Active	Producer	45	Plugged & Al	bandoned
17	Active	Injector	47	Active	Producer
18	Shut-in	Producer	48	Shut-in	Producer
19	Active	Injector	50	Plugged & Al	bandoned
20	Active	Producer	51	Active	Producer
21	Active	Producer	52	Active	Producer
22	Active	Producer	55	Plugged & Abandoned	
23	Shut-in	Injector	56	Shut-in	Producer
24	Active	Producer	57	Active	Producer
25	Active	Producer	60	Active	Injector
26	Active	Injector	75	Active	Producer
27	Shut-in	Producer			



State of New Mexico Commissioner of Public Lands

RAY POWELL, M.S., D.V.M. COMMISSIONER

310 OLD SANTA FE TRAIL P.O. BOX 1148

(505) 827-5760 FAX (505) 827-5766

SANTA FE, NEW MEXICO 87504-1148

SLO REF NO. OG-1374

March 21, 1994

Texaco Exploration & Production, Inc. P.O. Box 3109 500 N Loraine Midland, Texas 79701

Attn: Mr. R. J. Rowalt

Re: 1994 Plan of Development

Cotton Draw Unit Lea County, New Mexico

Gentlemen:

The Commissioner of Public Lands has this date approved the above captioned Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the Unit Area and the need for further development of the unit may exist. You will be contacted at a later date regarding these possibilities.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY B. POWELL, M.S., D.V.M. COMMISSIONER OF PUBLIC LANDS

BY: FLOYD O. PRANDO, Director Oil and Gas Division (505) 827-5744

RBP/FOP/pm

cc: OCD -Roy Johnson

BLM

500 N Loraine P C 835 R 25 Midland TX 7870! Indicate the first term of the first ter

January 18, 1993

District Supervisor
Bureau of Land Management
Roswell District Office
P. O. Box 1397
Roswell, New Mexico 88202-1397

Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

New Mexico Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

All Working Interest Owners (Address List Attached)

RE: COTTON DRAW UNIT

SECONDARY RECOVERY UNIT LEA COUNTY, NEW MEXICO

Gentlemen:

As operator of the Cotton Draw Unit, Texaco Exploration and Production Inc. submits a 1992 plan of development and operations for the subject unit for your approval.

PAST OPERATIONS

The unitized interval of the Cotton Draw Unit is the Paduca Delaware Pool. The unit became effective on August 1, 1968, and water injection commenced the same date. Texaco performed all conversions to water injection prior to unitization.

Enclosed for your information is a unit production plot, a current well status list, and a map of the unit.

-2-

January 18, 1993

Total production since the initiation of the flood through November 30, 1992, is 9,571 MBO. Cumulative injection for the same time period is 41,036 MBW. The average production for the month of November, 1992, was 147 BOPD, 89 MCFD and 1,023 BWPD.

DEVELOPMENT PLANS FOR 1992

Plans for 1992 included the following:

- 1. Plug and abandon Cotton Draw Unit No. 13 (NE Sec. 16-T25S-R32E).
- 2. Clean out and return to injection:

Cotton Draw Unit No. 1 (SW Sec. 15-T25S-R32E) Cotton Draw Unit No. 60 (NE Sec. 10-T25S-R32E)

3. Add perforations and acidize Cotton Draw Unit No. 10 (NE Sec. 16-T25S-R32E)

Texaco completed all work listed above during 1992.

Yours very truly,

D. D. Ulrich

Assistant Division Manager

JFG/srt

Attachments

COTTON DRAW UNIT LEA COUNTY, NEW MEXICO

Working Interest Owners

Texaco Exploration and Production Inc. P. O. Box 3109
Midland, TX 79702

Bass Enterprises Prod.
201 Main Street
Fort Worth, TX 76102
ATTN: Joint Interest Manager

Fina Oil & Chemical Company P. O. Box 2990 Midland, TX 79702 ATTN: Mr. Keith Seanard

Devon Energy Corp. 20 North Broadway Suite 1500 Oklahoma City, OK 73102 ATTN: Mr. Steve Blair

Devon Energy Partners 20 North Broadway Suite 1500 Oklahoma City, OK 73102 ATTN: Mr. Steve Blair

MCFPD

ВМРО

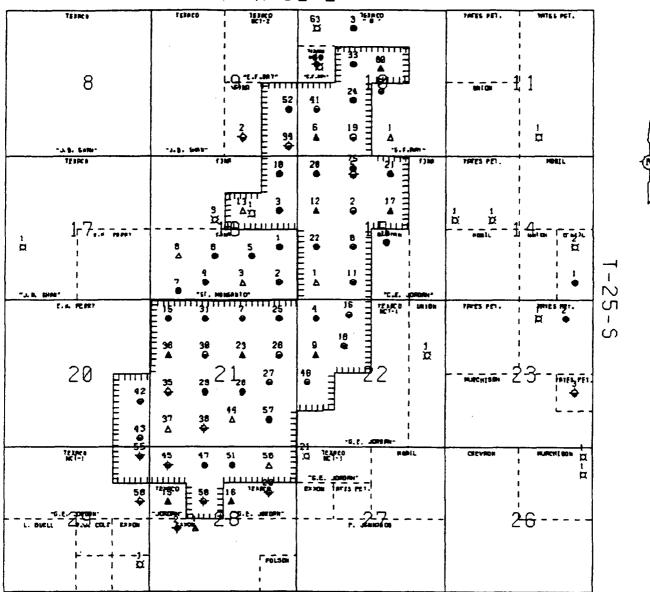
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FARS

COTTON DRAW UNIT LEA COUNTY, NEW MEXICO WELL STATUS NOVEMBER, 1992

WELL	STA	TUS		WELL	ST	ATUS
NO.				NO.		
1	ACTIVE	INJ.		28	ACTIVE	PROD.
2	SHUT-IN	PROD.]	29	ACTIVE	PROD.
3	ACTIVE	PROD.		30	SHUT-IN	PROD.
4	ACTIVE	PROD.		31	ACTIVE	PROD.
5	P&A			33	ACTIVE	PROD.
6	ACTIVE	INJ.		34	P&A	
7	SHUT-IN	PROD.		35	P&A	
8	SHUT-IN	PROD.		36	ACTIVE	INJ.
9	ACTIVE	INJ.		37	SHUT-IN	INJ.
10	ACTIVE	PROD.		38	P&A	
11	SHUT-IN	PROD.		41	SHUT-IN	PROD.
12	ACTIVE	INJ.		42	SHUT-IN	PROD.
13	P&A			43	SHUT-IN	PROD.
15	ACTIVE	PROD.		44	SHUT-IN	INJ.
16	SHUT-IN	PROD.		45	P&A	
17	ACTIVE	INJ.		47	ACTIVE	PROD.
18	SHUT-IN	PROD.		48	SHUT-IN	PROD.
19	SHUT-IN	PROD.		50	P&A	
20	ACTIVE	PROD.		51	ACTIVE	PROD.
21	ACTIVE	PROD.		52	ACTIVE	PROD.
22	ACTIVE	PROD.		55	P&A	
23	ACTIVE	INJ.		56	SHUT-IN	INJ.
24	ACTIVE	PROD.		57	ACTIVE	PROD.
25	ACTIVE	PROD.		60	ACTIVE	INJ.
26	SHUT-IN	PROD.		75	SHUT-IN	PROD.
27	SHUT-IN	PROD.	_			

R-32-E



LEGEND

DIL PRODUCEP SHUT-IN DIL PRODUCER
A MATER INJECTOR SHUT-IN MATER INJECTOR
PAGE INJECTOR
C LOCATION
C DRY HOLE

COTTON DRAW UNIT

DELAWARE SAND PARTICIPATING AREA

		1+24	1888		
FEET 0	28 98	1988	64 88	8888	19999 FEET
_					





Commissioner of Public Lands

P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148

#1446

SLO REF NO. OG-1052

March 27, 1989

Texaco U.S.A.
Attn: Joe E. King
P.O. Box 728
Hobbs, New Mexico 88240

Re: 1989 Plan of Development

Cotton Draw Unit Lea County, New Mexico

Gentlemen:

The Commissioner of Public Lands has this date approved the above captioned Plan of Development.

Our approval is subject to like approval by all other appropriate agencies.

Enclosed is an approved copy for your files.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES

COMMISSIONER OF PUBLIC LANDS

FLOYD O. PRANDO, Director Oil and Gas Division

(505) 827-5744

cc: OCD



January 10, 1989

District Supervisor
Bureau of Land Management
Roswell District Office
P. O. Box 1397
Roswell, New Mexico 88201

Commissioner of Public Lands P. O. Box 1148 Santa Fe, New Mexico 87504-1148

New Mexico Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

All Working Interest Owners (Address List Attached)

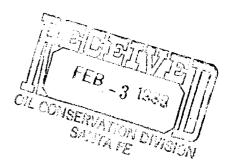
RE: COTTON DRAW UNIT SECONDARY RECOVERY UNIT LEA COUNTY, NEW MEXICO

Gentlemen:

PAST OPERATIONS

The unitized interval of this unit is within the Paduca aware Pool. The Cotton Draw Unit became effective on August 1 1968. Water injection commenced on August 1, 1968 as well. The unit was fully developed with regards to injection well conversions at the onset of the flood. The flood has been operated in a typical manner to date.

A total of 7,951,228 barrels of oil have been recovered since the initiation of the flood through November 31, 1988. A total of 35,693,360 barrels of water have been injected throughout this time period as well. The average production for the month of November, 1988 was 180 BOPD, 165 MCFD and 1034 EWPD.



Bureau of Land Management, Commissioner of Public Lands, New Mexico Oil Conservation Division, and Working Interest Owners

- 2 - January 10, 1989

DEVELOPMENT PLANS FOR 1989

There are presently no immediate plans to modify the established course of development for this unit. Continued monitoring of reservoir performance will be in effect throughout the duration of 1989.

Very truly yours,

PWS:jss

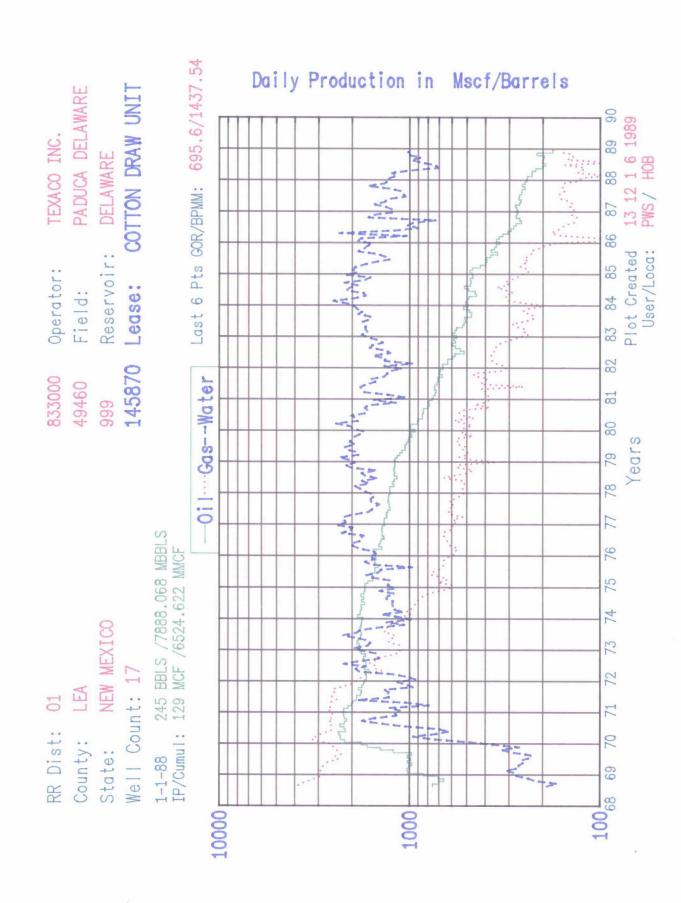
Attachments

COTTON DRAW UNIT WORKING INTEREST OWNERS

Bass Enterprises Prod. Co. First City Bank Tower 201 Main Street Fort Worth, Texas 76102

Pauley Petroleum Inc. P. O. Box 2208 Roswell, NM 88202

Tenneco Oil Company
Southwestern Division
Attn: Div. Petr. Engr.
7990 I.H. 10 West
San Antonio, Texas 78230



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Stote	4665	U.S. 4585	v.s.			v.s.

• PRODUCING WELL

INJECTION WELL.

TEXACO Inc.
COTTON DRAW UNIT
(OPERATOR-TEXACO Inc.)
PADUCA DELAWARE POOL

December 24, 1969

1440

Texaco Inc.
P. O. Box 3109
Midland, Texas 79701

Re: Cotton Draw Unit
Application for First
Enlargement of Morrow
Participating Area
Lea and Eddy Counties
New Mexico

ATTENTION: Mr. J. H. McElroy

Gentlemen:

The Commissioner of Public Lands has this date approved your application for the First Enlargement of Morrow Participating Area to the Gotton Draw Unit, Lea and Eddy Counties New Mexico. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

We are forwarding four sets to the United States Geological Survey in Roswell, New Mexico for their consideration.

Very truly yours,

Ted Bilberry, Director oil and Gas Department

TB/ML/s

cc: USGS-Roswell, New Mexico OCC-Santa Fe, New Mexico



DEC 11 1969

PRODUCING DEPARTMENT -UNITED STATES
MIDLAND DIVISION

TEXACO INC. P. O. BOX 3109 MIDLAND, TEXAS 79701

December 9, 1969

186150 - Cotton Draw Unit
Lea and Eddy Counties.

New Mexico

United States Geological Survey No. 14-08-001-5247

Regional Oil and Gas Supervisor United States Geological Survey Drawer 1857 Roswell, New Mexico

Commissioner of Public Lands State of New Mexico Box 1148 Santa Fe, New Mexico

Oil Conservation Commission State of New Mexico Box 2088 Santa Fe, New Mexico

Gentlemen:

Please refer to our letter of November 14, 1969. The location of Unit Well Number 68 has been changed to 1980' from the West line and 2310' from the North line of Section 12, T-25-S, R-31-E, Eddy County, New Mexico. It will be drilled by Texaco as operator of the Cotton Draw Unit for the account of Texaco Inc. and Pauley Petroleum Inc. It is scheduled as a 16,500' test of the Devonian, Morrow and other formations. Drilling should commence shortly after January 1, 1970.

The location is still within the Initial Devonian Participating Area, and, at the scheduled depth, it will not defer automatic elimination on January 18, 1970.

Yours very truly,

T. Naxwell

R. T. Maxwell Division Landman

RTM: er



P O Box 3109 Midland TX 79702

#1446

March 23, 1990

District Supervisor
Bureau of Land Management
Roswell District Office
P. O. Box 1397
Roswell, New Mexico 88201

Commissioner of Public Lands P. O. Box 1148 Santa Fe, New Mexico 87504-1148

New Mexico Oil Conservation Division P. O. Box 2088
Santa Fe, New Mexico 87501

All Working Interest Owners (Address List Attached)

RE: CCTTON UNIT

SECONDARY RECOVERY UNIT

LEA COUNTY, NEW MEXICO

Gentlemen:

PAST OPERATIONS

The unitized interval of the Cotton Draw unit is the Paduca Delaware pool. This unit became effective on August 1, 1968. Water injection commenced on August 1, 1968 as well. The unit was fully developed with regards to injection well conversions at the onset of the flood. The flood has been operated in a typical manner to date. No workovers were performed during 1989. Enclosed for your information are monthly operations reports for 1989, production plots and a current well status list.

A total of 8,030,781 barrels of oil have been recovered since the initiation of the flood through December 31, 1989. A total of 35,057,213 barrels of water have been injected throughout this time period as well. The average production for the month of December 1989 was 185 BOPD, 159 MCFD and 1297 BWPD.

Bureau of Land Management, Commissioner of Public Lands, New Mexico Oil Conservation Division, and Working Interest Owners

March 23, 1990

DEVELOPMENT PLANS FOR 1990

There are presently no immediate plans to modify the established course of development for this unit. Continued monitoring of casing leaks and stimulation potential will be in effect throughout the duration of 1990.

-2-

Yours very truly,

Texaco Inc.

S. G. snyder

Portfolio Manager

MOS/srt

Attachments

file chrono

186457 - COTTON DRAW UNIT LEA COUNTY, NEW MEXICO

(65% Required)

	•
Working Interest Owners	<pre>% of Unit Participation</pre>
Texaco Inc. (Operator)	23.469388
Bass Enterprises Production Co. First City Bank Tower 201 Main Street Fort Worth, Texas 76102	28.571428
Pauley Petroleum Inc. Attn: Joint Interest P. O. Box 2208 Roswell, New Mexico 88202	23.469388
Fina Oil & Chemical Co. 6 Desta Drive, Suite 4400 Midland, Texas 79705	24.489796

(3-28-90)

MONTHLY OPERATIONS REPORT

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SHUT-IN PRODUCERS
SHUT-IN INJECTORS
RECYCLING INJECTORS
P&A & ASD WELLS

(TR-0)

RECONDITIONED SUPPLY WELLS

Monthly water injection includes 50% of Well #13 after 8-1-80, and Dumulative water injection includes 50% of Well #13 from start of injection.

MJECTORS PRODUCERS

MJ-WITHDRAML RATIO

FELL STATUS

DATA UTILITY SYSTEM		DATE 01/10/90		TIME 15.43.23		PAGE 28
	TEXACO	INC.				
MIDLAND DIVISION	HOBBS DISTRICT		MONTH ENDING 01-01-90	G 01-01-90		
TELD NAME/ LE EASE NO, FR	WELL NO.	WELL STATUS	COMMENTS	CONDITION	SEQUENCE NUMBER	API NUMBER
	(2) JOINTLY OWNED AND OPERATED BY	IED AND OPER	TEXAC			1 1 1 1 1 1 1 1
353 COTTON DRAW UNIT 003000061030320 TEXACO WI = 23.4	1 23.4693900) Z			12138400 12138400 12138400	3002508182
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	ဗ	Μ			12138600	~3002508194
	4	Σď			12138700	J3002508221
	9	ONI			12138800	3002508170
	7	TR-0	HELD FOR SR	03-01-86	12138900	7 3002508215
	60	TR-0	HELD FOR SR	04-15-88	12139000	~3002508185
	6	CNI			12139100	3002508222
	10	W _d			12139200	<3002508195
		TR-0	NO REASON GIVEN	05-26-88	12139300	V3002508187
	12	NI NI			12139400	3002508190
	15	M			12139500	~3002508216
	16	PM			12139600	3002508223
	17	γ.			12139700	3002508188
	18	TR-0	HELD FOR RW	11-02-84	12139800	73002508219
	19	TR-0	HELD FOR SR	04-15-88	12139900	×3002508175
	20	Wd			12140000	. 3002508191
	21	ΡW			12140100	3002508189
	22	M W			12140200	- 3002508192
	23	UNI			12140300	3002508217

SYLTEM	•
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DATA	

2

DATA UTILITY SYCTEM		DATE 01/10/90	-	TIME 15.43.23		PAGE 29
	TEXACO	I NC.			•	
MIDEAND DIVISION			MONTH ENDIR	MONTH ENDING 01-01-90		
FIELD NAME/ LEASE NAME/ LEASE NO. FRS NO.	WELL NO.	WELL STATUS	COMMENTS	CONDITION	SEQUENCE NUMBER	API NUMBER
1	(2) JOINTLY OWNED AND OFERATED	ED AND OFF	RATED BY TEXACO	1 	1 1 1 1 1 1 1	1
	24	P.			12140400	3002508176
	25	PM			12140500	9002508203
	26	TR-0	UNEC. TO OPR.	01-04-82	12140600	~ 3002508204
	. 27	TR-0	HELD FOR SR	03-20-86	12140700	3002508205
	28	ЬМ			12140800	3002508206
	29	ЬМ			12140900	3002508207
	30	TR-0	HELD FOR INJ	11-26-84	12141000	3002508208
	31	Мq			12141100	3002508209
	33	ЬМ			12141200	3002508174
	34	ASP	HELD FOR INJ	11-15-89	12141300	3002508168
	36	ON I			12141400	3002508213
	37	ASD	HELD FOR ASP	04-14-82	12141500	3002508211
	41	TR-0	HELD FOR RW	01-24-80	12141600	3002508179
	42	TR-0	HELD FOR SR	12-11-84	12141700	3002508201
	43	1R-0	HELD FOR RW	10-25-77	12141800	3002508202
	44	ASD	HELD FOR ASP	04-09-82	12141900	3002508214
	47	ASD	HELD FOR ASP	04-12-82	12142000	3002508231
	48	·TR-0	HELD FOR SR	06-22-88	12142100	. 3002508220
	51	МЧ			12142200	3002508232
	52	Мd			12142300	3002508169
	55	ASP	HELD FOR ASP	11-11-89	12142400	3002508235
	99	ASD	HELD FOR ASP	04-10-82	12142500	3002508236

3002508218

12142600 12142700 12142800

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92-06-60

HELD FOR RW

SM-IS

TR-0

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9 15

57

NO REASON GIVEN 05-26-88

06-26-63

HELD FOR SR

ASD

63

COTTON DRAW UNIT 003000061030326

326

E. F. RAY B #1-SWD

3002599099

3002521726

HELD FOR ASP 05-01-73 PROP, 1162 ASSIGNED TO WELL FOR 100% TREATING FAC.

ASD

64

TEXACO MI = 50.0000000

3001510843

12143200 12143200 12143200

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02-20-76

HELD FOR RW

TR-NG

67

COTTON DRAW UNIT 003000061030329 TEXACO WI = 50.0000000

329

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65

COTTON DRAW UNIT 003000061030327 TEXACO WI = 50.0000000

327

3002508193

12143500 12143500 12143500

3002522294

12143600 12143600

NO REASON GIVEN 05-26-88

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69

COTTON DRAW UNIT+ 003000061030362

362

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13

003000061030352 TEXACO WI = 11,7346900

COTTON DRAW UNIT

354

3001520272

12143400 12143400 12143400

04-24-88

TR-NG-CN HELD FOR R.W.

68

COTTON DRAW UNIT 003000061030351 TEXACO WI = 50.0000000

356

API NUMBER

SEQUENCE NUMBER

CONDITION

COMMENTS

WELL STATUS

WELL NO.

LEASE NAME/ FRS NO.

FIELD NAME/ LEASE NO.

TEXACO INC.

HOBBS DISTRICT

MIDLAND DIVISION

(2) JOINTLY OWNED AND OPERATED BY TEXACO

MONTH ENDING 01-01-90

. .:

DATA UTILITY SYSTEM

SUB-AREA	
HOBBS-MONUMENT	
-6104	
SUB-AREA	

SYSTEM	
DATA UTILITY	

. .:

DATA U	DATA UTILITY SYSTEM			DATE 01/1	01/10/90 TIME	ME 15.43.23		PAGE 31
			TEXACO I	INC.				
MIDLAN	MIDLAND DIVISION	новвѕ п	DISTRICT		MONTH ENDING 01-01-90	01-01-90		
FIELD LEASE	NAME/ LEASE NAME/ NO. FRS NO.		WELL NO.	WELL STATUS	COMMENTS	CONDITION	SEQUENCE NUMBER	API NUMBER
 		(2) 301	JOINTLY OWNE	ED AND OPERATED	SATED BY TEXACO			
	TEXACO WI = 42.8461600	91600					12143600	
			7.0	M.			12143700	3002522439
			72	TR0	HELD FOR RW	09-27-71	12143800	3002522738
			73	Md			12143900	3002522882
			74	P.W.			12144000	3002527186
360	FEDERAL USA 'I' 003000061040360 TEXACO WI = 71.4300000	00000		∑	(FORMERLY WAS SHELL'S MIDDLETON	# 3 - A)	12144100 12144100 12144100 12144100	3002520813
359	FEDERAL USA 'J' 003000061040359 TEXACO WI = 71.4300000	00000	-	W	(FORMERLY WAS SHELL'S MIDDLETON	#2-A)	12144200 12144200 12144200 12144200	3002520367
356 . (GATES, J.M.FED. NCT-1 003000061030356 TEXACO WI = 50.0000000	00000	-	O N			12144300 12144300 12144300	3001520821
313	JORDAN,G.E. NCT-1* 003000061030313 TEXACO WI = 50.0000000	00000	10	0-15	UNECON, TO PROD	07-01-88	12144400 12144400 12144400	3002508184
			19	ASD	HELD FOR SR	11-30-62	12144500	3002599098
			20	ASD	HELD FOR ASP	01-03-73	12144600	3002508238
			21	ASD	HELD FOR ASP	03-06-73	12144700	3002508226
302 M	KERSHAW, L.R. 003000061040302 TEXACO WI = 75.0000000	00000	ത	M W	COMP-TUBB		12144800 12144800 12144800	3002520495
			6	FL	*DUAL-DRINKARD		12144900	3002520495

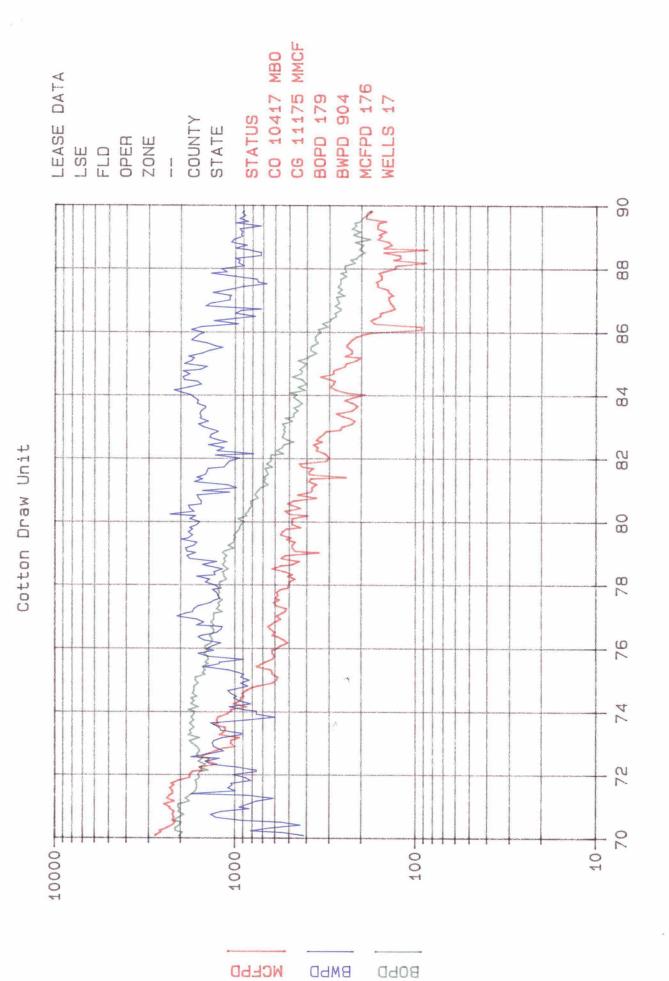
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PRODUCING WELL

INJECTION WELL

TEXACO Inc.
COTTON DRAW UNIT
(OPERATOR-TEXACO Inc.)
PADUCA DELAWARE POOL







COMMISSIONER



Commissioner of Public Lands

1446

SLO REF NO OG-705

P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148

March 24, 1988

Texaco USA Attn: Mr. Joe E. King P. O. Box 728 Hobbs, New Mexico 88240

> Re: 1988 Plan of Development Cotton Draw Unit Lea County, New Mexico

Gentlemen:

The Commissioner of Public Lands has this date approved your 1988 Plan of Development for the above captioned unit area.

Our approval is subject to like approval by all other appropraiate agencies.

Enclosed is an approved copy for your files.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES COMMISSIONER OF PUBLIC LANDS

BY: Prople Vhow
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm encls. cc: OCD BLM



March 7, 1988

District Supervisor Bureau of Land Management Roswell District Office P. O. Box 1397 Roswell, New Mexico 88201

Commissioner of Public Lands P. O. Box 1148 Santa Fe, New Mexico 87504-1148

New Mexico Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

All Working Interest Owners (Address List Attached)

RE: COTTON DRAW UNIT
SECONDARY RECOVERY UNIT
LEA COUNTY, NEW MEXICO

Gentlemen:

PAST OPERATIONS

The unitized interval of this unit is within the Paduca Delaware pool. The Cotton Draw Unit became effective on August 1, 1968. Water injection commenced on August 1, 1968 as well. The unit was fully developed with regards to injection well conversions at the onset of the flood. The flood has been operated in a typical manner to date. No workovers were performed during 1987.

A total of 7,873,403 barrels of oil have been recovered since the initiation of the flood through December 31, 1987. A total of 35,057,213 barrels of water have been injected throughout this time period as well. The average production for the month of November, 1987 was 249 BOPD, 155 MCFD and 1371 BWPD.

Bureau of Land Management, Commissioner of Public Lands, New Mexico Oil Conservation Division, and Working Interest Owners

- 2 -

March 7, 1988

DEVELOPMENT PLANS FOR 1988

There are presently no immediate plans to modify the established course of development for this unit. Continued monitoring of casing leaks and stimulation potential will be in effect throughout the duration of 1988.

Very truly yours,

PWS:jss

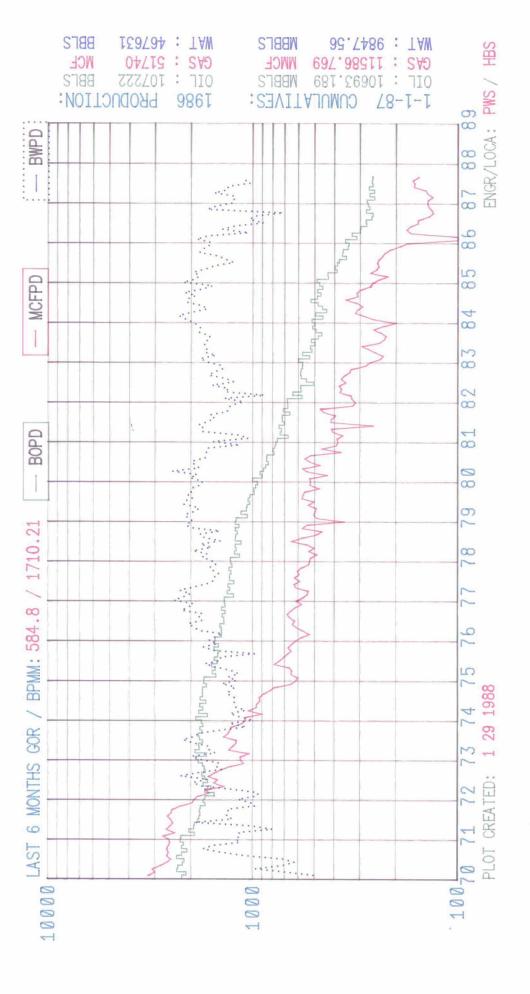
Attachments

COTTON DRAW UNIT WORKING INTEREST OWNERS

Bass Enterprises Prod. Co. First City Bank Tower 201 Main Street Fort Worth, Texas 76102

Pauley Petroleum, Inc. Attn: Jack McGraw 822 Bldg. of the Southwest Midland, Texas 79701

Tenneco Oil Company Southwestern Division Attn: Div. Petr. Engr. 7990 I.H. 10 West San Antonio, Texas 78230



COTTON DRAW UNIT

PROPERTY NAME:

TEXACO INCORPORATED

PRODUCING WELLS YTD:

OPERATOR NAME:

FIELD NAME:

PADUCA DELAWARE

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PRODUCING WELL

INJECTION WELL

TEXACO Inc.
COTTON DRAW UNIT
(OPERATOR-TEXACO Inc.)
PADUCA DELAWARE POOL





SLO REF NO. OG-612

Commissioner of Public Lands

P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148 -

November 25, 1987

Texaco, USA

ATTENTION: Mr. Joe E. King

P. O. Box 728

Hobbs, New Mexico 88240

Cotton Draw Unit Re:

1987 Plan of Development

Gentlemen:

The Commissioner of Public Lands has this date approved your 1987 Plan of Development for the Cotton Draw Unit Area, Lea County, New Mexico. Such plan advises that you will continue to operate the unit according the the established development plan and continue the monitoring of casing lease and stimulation potential throughout 1987.

Our approval is subject to like approval by the New Mexico Oil Conservation Division and the Bureau of Land Management.

Enclosed is an approved copy for your files.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES COMMISSIONER OF PUBLIC LANDS

FLOYD O. PRANDO, Director Oil and Gas Division

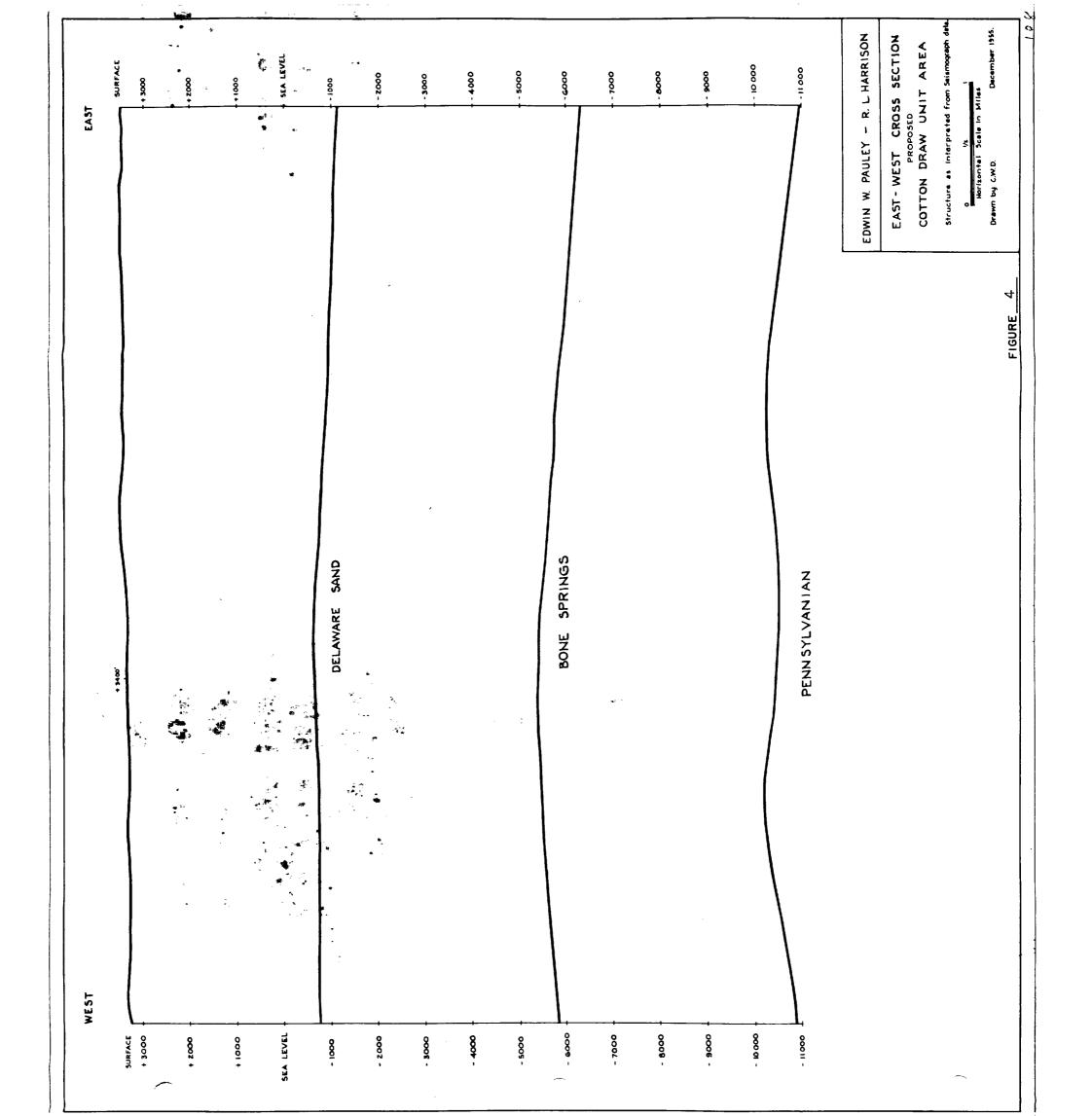
(505) 827-5744

WRH/FOP/pm

encls.

cc: OCD-Santa Fe, New Mexico

BLM-Roswell, New Mexico Attn: Mr. Armando Lopez







COMMISSIONER



Commissioner of Public Lands

P. O. BOX 1148 SANTA FE, N. M. 87504-1148

October 28, 1982

Texaco, USA P. O. Box 3109 Midland, Texas 79702

Re: 1982 Plan of Development

Cotton Braw Unit

Lea and Eddy Counties, New Mexico

ATTENTION: Mr. R. G. Brown

Gentlemen:

The Commissioner of Public Lands has this date approved your 1982 Plan of Development for the Cotton Draw Unit, Lea and Eddy Counties, New Mexico. Such plan proposes to complete the Unit Well No. 75 in the NE/4NW/4 of Section 15, T-25S-R32E and to commence the drilling of the Unit Well No. 76 in the W/2NW/4 of Section 3, T25S-R32E as well as study other improvements and modifications for the water injection system. Our approval is subject to like approval by the United States Minerals Management Service.

Enclosed is an approved copy for your files.

Please remit a Three (\$3.00) Dollar filing fee.

Very truly yours,

ALEX J. ARMIJO COMMISSIONER OF PUBLIC LANDS

RV.

FLOYD O. PRANDO, Assistant Director Oil and Gas Division

AC 505/827-2748

AJA/FOP/pm encls.

cc:

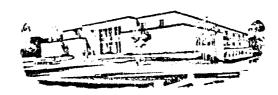
OCD-Santa Fe, New Mexico

USMMS-Albuquerque, New Mexico

Administration







Commissioner of Public Lands September 4, 1981

P. O. BOX 1148
SANTA FE, NEW MEXICO 87501

Texaco U. S. A. P. O. Box 3109 Midland, Texas 79702

Re: Cotton Draw Unit

1981 Plan of Development

Lea and Eddy Counties, New Mexico

ATTENTION: Mr. Alan R. McDaniel

Gentlemen:

Your 1981 Plan of Development, has this date been approved by the Commissioner of Public Lands. Such plan indicates that Texaco is making every reasonable economic effort to assure complete development of State Lands within this unit.

Thank you for the attached plan, your concise and adequate presentation has greatly facilitated our review and approval.

Enclosed is one approved copy for your files. In the future please file three copies with this office of your Plan of Development, also, please remit a Three (\$3.00) Dollar filing fee at your earliest convenience.

Very truly yours,

ALEX J. ARMIJO

COMMISSIONER OF PUBLIC LANDS

RAY D. GRAHAM, Director Oil and Gas Division

AC 505/827-2748

AJA/RDG/pm encls.

cc:

OCD-Santa Fe, New Mexico USGS-Albuquerque, New Mexico

P. 6. BOX 8109 August 13, 1971 186150 Cotton Draw Unit Lea and Eddy Counties,

PRODUCING DEPARTMENT -UNITED STATES
MIDLAND DIVISION

New Mexico

Oil Conservation Commission State of New Mexico P. O. Box 2088 Santa Fe, New Mexico

Gentlemen:

We enclose for your records, copy of Application for Approval of Second Revision "Contraction" of the First Enlarged Morrow Participating Area of the Cotton Draw Unit, Lea and Eddy Counties, New Mexico.

We are, as of this date, submitting for approval, copies to both United States Geological Survey and Commissioner of Public Lands, State of New Mexico.

Yours very truly,

E. H. Watkins Division Landman

WRD: ER

Enclosures

RECOUNTY OF

IN RE: Cotton Draw Unit Area No. 14-08-001-5247, Lea and Eddy Counties, New Mexico Application for approval of Second Revision "Contraction" of the First Enlarged Morrow Participating Area

TO THE REGIONAL OIL AND GAS SUPERVISOR, UNITED STATES GEOLOGICAL SURVEY TO THE COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

Texaco Inc., as Unit Operator for the Cotton Draw Unit, on June 18, 1970, completed Cotton Draw Unit Well No. 68 as a Morrow gas well in the Southeast Quarter of the Northwest Quarter of Section 12, Township 25 South, Range 31 East, Eddy County, New Mexico, being within the boundary of the Cotton Draw Morrow Participating Area. The production has been such that the well could not be classed as capable of production in paying quantities, as defined in Article 9 of the Unit Agreement (quantities sufficient to repay the costs of drilling and producing operations, with a reasonable profit). Article 11 of the Unit Agreement provides that the participating area shall be revised from time to time, when results of further drilling operations reasonably proves land not to be productive in paying quantities, with the effective date of any revision to be the first of the month in which is obtained the knowledge or information on which such revision is predicated, provided, however, a more appropriate effective date may be justified by the Unit Operator and approved by the Supervisor and Commissioner.

Texaco Inc., as Unit Operator for the Cotton Draw Unit Agreement, approved by the Acting Director, United States Geological Survey, effective July 28, 1958, pursuant to the provisions of Section 11 thereof, respectfully submits for the approval of the Regional Oil and Gas Supervisor, United States Geological Survey and the Commissioner of Public Lands, State of New Mexico, the following described lands to constitute the Second Revision "Contraction" of the First Enlarged Morrow Participating Area, to wit:

Township 24 South, Range 31 East, N. M. P. M.

Section 25: S½

Section 26: S¹/₂

Section 34: NE_{4}^{1} and the N_{2}^{1} SE_{4}^{1} and Lots 3 and 4

Section 35: Lots 1, 2, 3 and 4 and

No So and No

Section 36: Lots 1, 2, 3 and 4 and

No So and No

Township 25 South, Range 31 East, N. M. P. M.

Section 1: Lots 1, 2, 3 and 4 and

 $S_{\frac{1}{2}}^{\frac{1}{2}} N_{\frac{1}{2}}^{\frac{1}{2}}$ and $S_{\frac{1}{2}}^{\frac{1}{2}}$

Section 2: Lots 1, 2, 3 and 4 and

 $S_{\frac{1}{2}}$ $N_{\frac{1}{2}}$ and $S_{\frac{1}{2}}$

Section 3: Lots 1 and 2 and

S支 NEt and SEt

Section 11: N2

Section 12: N¹/₂ NW¹/₃

containing 4226.74 acres, more or less.

In support of this application, the following items are attached hereto and made a part hereof:

- (1) An ownership map, marked Exhibit "A", showing boundaries of the unit area and the Second Revision "Contraction" of the First Enlarged Morrow Participating Area, indicated thereon.
- (2) A schedule, marked Exhibit "B", showing the lands entitled to participation in the unitized substances produced from the Second Revision "Contraction" of the First Enlarged Morrow Participating Area, indicated thereon.

Applicant is submitting separately in quintuple to the Supervisor and in quadruple to the Commissioner, a geological report with an accompanying Northwest-Southeast Cross Section, Paduca Morrow Field Area and an engineering report with an accompanying Plot of Producing Rate versus Cumulative Production, supporting and justifying the Revision "Contraction" of the participating area.

This proposed Second Revision "Contraction" of the participating area is predicated upon the knowledge and information obtained following the October, 1970 production. The effective date of this Revision shall be November 1, 1970, pursuant to Section 11 of the Unit Agreement.

This application has been approved by Texaco Inc., as Operator of the Cotton Draw Unit, and consequently, applicant respectfully requests that the Supervisor and the Commissioner approve the hereinabove selection of lands to

Region	nal	Oil	and	Gas	Supervisor
Comm.	of	Pub1	ic	Lands	3

constitute the Second Revision "Contraction" to the First Enlarged Morrow Participating Area, to be effective November 1, 1970.

-3-

Dated this 13th day of August, 1971.

TEXACO INC.

Original digned by

By J.H. Mc Elroy

Attorney-in-Fact

APPROVED:
Regional Oil and Gas Supervisor, United States Geological Survey
APPROVED:
Commissioner of Public Lands, State of New Mexico

cc: New Mexico Oil Conservation Commission, Santa Fe, New Mexico