



Texaco E & P

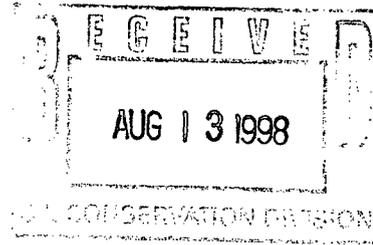
205 E. Bender Blvd.
Hobbs NM 88240
505 393 7191

DHC 9/2/98

2092

August 10, 1998

NMOCD
2040 South Pacheco
Santa Fe, New Mexico 87505



Attn : Mr. David Catanach

RE : Nash Draw Downhole Commingling Application
Remuda Basin State #4
660 FSL & 1980 FWL, N-19-23S-30E
Eddy County, New Mexico

Dear Mr. Catanach,

Texaco Exploration & Production, Inc. respectfully requests to downhole commingle the Brushy Canyon and Bone Spring intervals in our Remuda Basin State #4 well. Interest ownership between the Brushy Canyon and Bone Spring formations is common. Due to the current wellbore configuration, dual completion of the Brushy Canyon and Bone Spring intervals would likely result in numerous mechanical difficulties. Texaco proposes that the subject downhole commingled well be assigned an oil allowable equal to the top unit allowable of the shallowest commingled horizon. In this instance, the proposed allowable would equal 142 barrels of oil per day, which is the current top allowable of the Nash Draw – Brushy Canyon pool. The proposed allowable is in conformance with Division Rule No. 303(C) (Downhole Commingling). The producing characteristics of both the Brushy Canyon and Bone Spring formations in the area are unique and downhole commingling is necessary in order to economically and efficiently drain and develop the oil and gas reserves associated with this well. Allocation percentages will be based upon Bone Spring production tests dated 8/21/95 and 9/20/95 and a Brushy Canyon production test dated 7/23/98. Bottomhole pressure and oil gravity estimates for the Bone Spring interval are inferred from intervals currently producing from the nearby South Sand Dunes – Bone Spring pool. Texaco respectfully requests that approval be granted at the earliest possible convenience so that operations can be advanced in a prudent manner. If you have any questions concerning the request, please contact me at (505) 397-0405.

Sincerely,

Denise Leake
Engineering Assistant

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

811 South First St., Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

Form C-107-A
New 3-12-96

APPROVAL PROCESS:

Administrative Hearing

EXISTING WELLBORE

YES NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Texaco Exploration & Producing Inc. Address 205 East Bender Hobbs, New Mexico 88240

Lease Remuda Basin State Well No. 4 Unit Ltr. - Sec - Tws - Rge N-19-23S-30E County Eddy

Spacing Unit Lease Types: (check 1 or more)
OGRID NO. 022351 Property Code 17551 API NO. 30-015-28420 Federal State (and/or) Fee _____

The following facts are submitted in support of downhole commingling:	Lower Zone	Intermediate Zone	Upper Zone
1. Pool Name and Pool Code	Nash Draw - Bone Spring		Nash Draw - Brushy Canyon 47545
2. Top And Bottom of Pay Section (Perforations)	7160' - 8338'		6976' - 7012'
3. Type of production (Oil or Gas)	Oil		Oil
4. Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current	(Current) a. 320 psig	a.	a. 158 psig
	(Original) b.	b.	b.
Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original			
6. Oil Gravity (* API) or Gas BTU Content	37.9 deg API @ 60 deg F		41.2 deg API @ 60 deg F
7. Producing or Shut-In? Production Marginal? (yes or no)	Shut-In Yes		Producing Yes
	* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: 08/21/95 8207' - 8338' Rates: 15 bopd, 100 bwpd, 0 mcf/gpd Date: 09/20/95 7160' - 7196' Rates: 6 bopd, 61 bwpd, 28 mcf/gpd	
	* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	07/23/98 13 bopd, 62 bwpd, 170 mcf/gpd
8. Fixed Percentage Allocation Formula -% for each zone	Oil: 62 % Gas: 14 %	Oil: % Gas: %	Oil: 38 % Gas: 86 %

9. If allocation Formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones? Yes No
If not, have all working, overriding, and royalty interests been notified by certified mail? Yes No
Have all offset operators been given written notice of the proposed downhole commingling? Yes No
11. Will cross-flow occur? Yes No If yes, are fluids compatible, will the Formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. Yes No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with other? Yes No
13. Will the value of production be decreased by commingling? Yes No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Land or the United States Bureau of Land Management has been notified in writing of this application. Yes No
15. NMOCD Reference Cases for Rule 303(C) Exceptions: ORDER NO(S) _____
16. ATTACHMENTS:

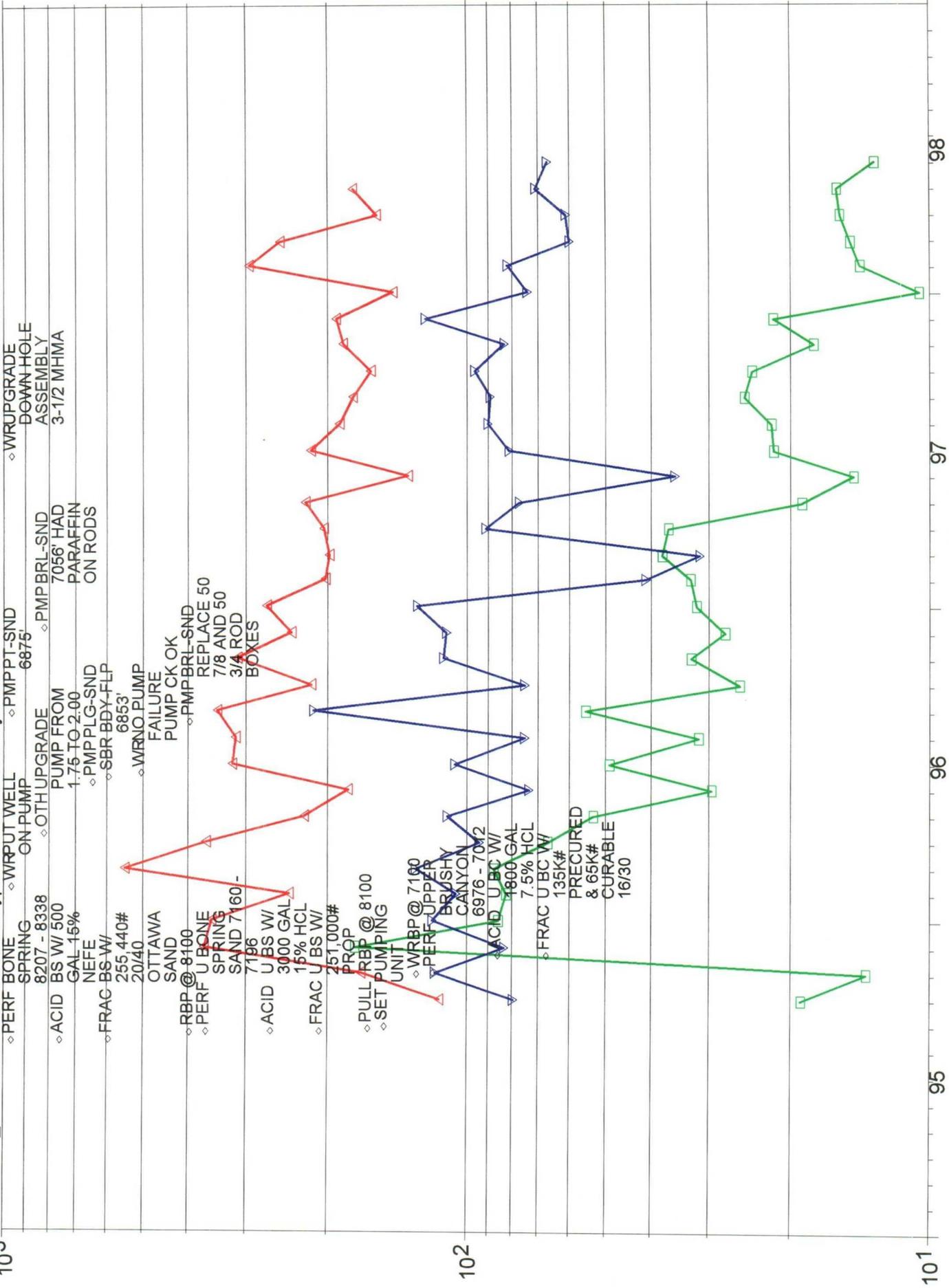
- * C-102 for each zone to be commingled showing its spacing unit and acreage deication.
- * Production curve for each zone for at lease one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Notification list of all offset operators.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data or documents required to support commingling.

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

SIGNATURE J. Denise Leake TITLE Engineering Assistant DATE 08-10-98
TYPE OR PRINT NAME J. Denise Leake TELEPHONE NO. (505) 397-0405

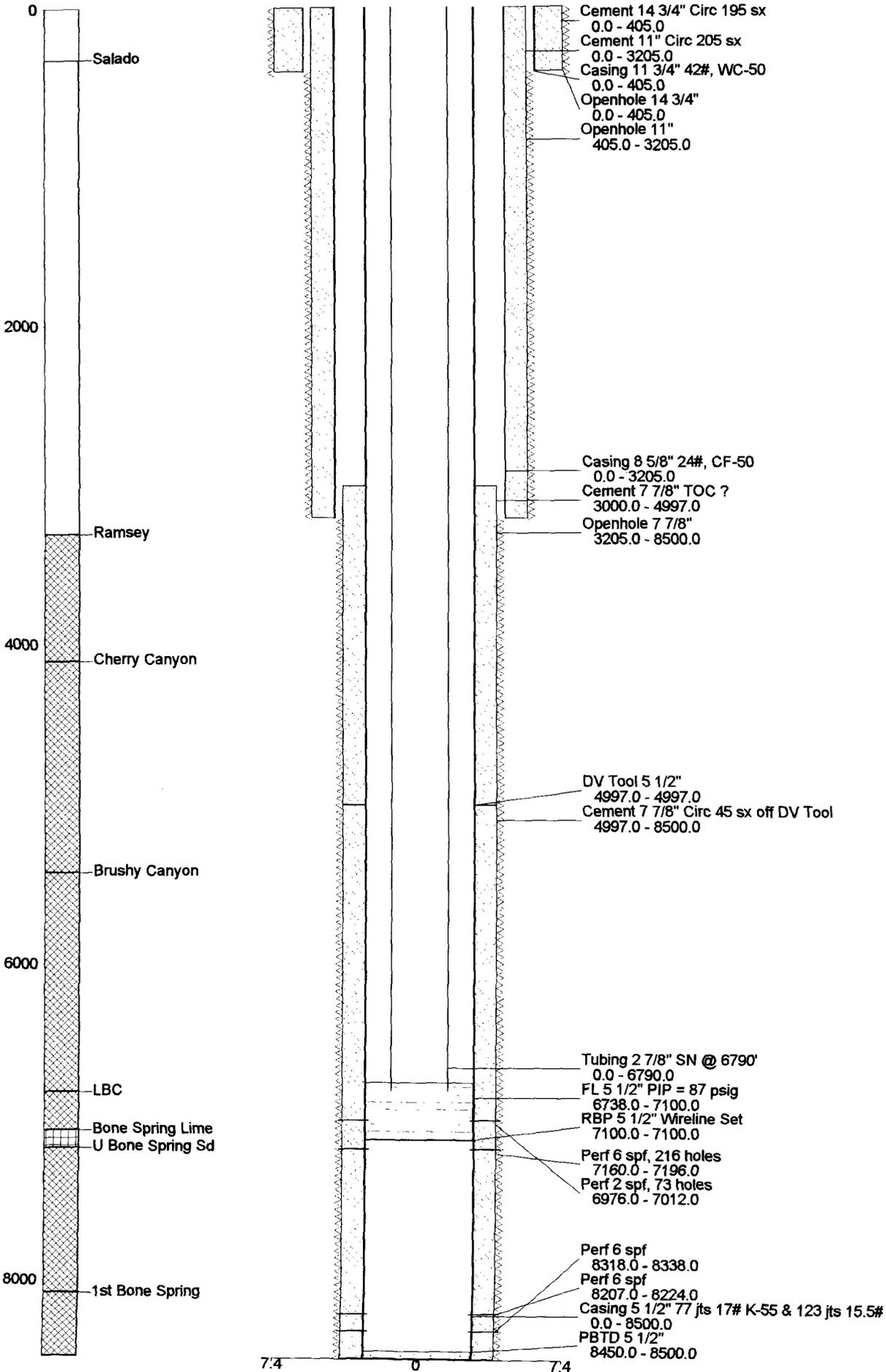
Remuda Basin State #4 660 FSL & 1980 FWL, N-19-23S-30E

Well: RBS_4 ID: 30015284200000 Type: BCANYON Daily



—□— Bopd
—△— Mcf/d
—▽— Bwpd

Name: RBS 4 ID: 30015284200000 Type: BCANYON Date: 19980807
 KB: 11.8 TD: 8500.0 PBTD: 8450.0 Comp Date: 19950812





WELL : REMUDA BASIN 19 STATE 4
 FIELD : WILDCAT
 DATE : NM EDDY
 AREA : DEN-HB
 OBJECTIVE : BONE SPRINGS

ACTIVITY: PUMP TEST ...
 TD : 8,500 ATD : 8,500
 FTG : 0 GL :
 HRS : 0.00 PBTD : 8,450
 LITH : / /
 IDC\$/ft : 19.39 CLASS : OSWC

RPT No: 68 DSS: 68 CD : 49
 API : 30 015 28420
 EST No : 656004
 SUPRV : LOCKLAR
 PH : 505-393-4994
 CONTR : PETERSON FTG

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	N1	N2	N3	WOB	RPM	I	O	D	L	B	G	O	R	

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
	0.00							

DESCRIPTION:

BOP DAYS :

MUD PROPERTIES	
Time :	Solids :
MW : 9.0	Oil :
VIS : 29	10 sec Gel : 1
pH : 10.0	10 min Gel : 1
Chl :	CA :
WL : 10.0	Pm :
HTHP :	Pf :
FC :	Ex Lime :
PV : 1	Elec Stab :
YP : 1	MBT :

HYDPAULICS			
	PUMP#1	PUMP#2	
Liner Size :	5.500	5.500	
Lngh Strk :	16.00	16.00	
SPM :		52	
GPM :	0	308	
PSI :	1200		
AV (DP) :	0.0	AV (DC) : 0.0	
PSI Drop :	0	HP/IN2 : 0.0	
SLOW PUMP RATES			
PUMP#1	psi @	spm	
PUMP#2	600 psi @	36 spm	

TUBULARS			
Proposed		Actual	
SIZE	MD	SIZE	MD
11.750	400	11.75	405
8.630	3,200	8.63	3,205
		5.50	8,500

MUD COST	
DAILY TOTAL :	\$0
CUM. TOTAL :	\$1,497

ESTIMATE COSTS		
MOH	CASH	TOTALS
D.H. :	\$28,100	\$177,100
Comp. :	\$66,000	\$121,600
Total :	\$94,100	\$298,700

ACTUAL COSTS		
MOH	CASH	TOTALS
D.H. :	\$28,349	\$164,789
Comp. :	\$43,180	\$171,018
Total :	\$71,529	\$335,807
Daily :	\$0	\$0

quantity - item name	MUD MATERIAL	
0 -CAUSTIC SODA	0 -GEL	0 -STARCH

HRS	DESCRIPTION OF WORK
24.00	PM 6 BO, 61 BW, 28 MCF, FL-6804.

DIRECTIONAL SURVEYS			
M Dpth	INCL	AZIM	DLS
7,440	0.75	N 0.0 E	0.05
7,932	1.75	N 0.0 E	0.20
8,430	1.75	N 0.0 E	0.00
8,500	1.25	N 0.0 E	0.71

PERFS		
ZONE	FROM	TO
BONE SPRINGS	7,160	7,196

PACKERS	
DEPTH	MODEL
8,100	RBP

REMARKS

PERCY

PUMP TEST REPORT

WELLNAME: REMUDA BASIN 19 STATE 4
 FIELD: WILDCAT
 AFE NO.: 656004

WELL ID NO.: 656004
 API NO.: 30 015 28420

ZONE NO:	<u>2</u>	REPORT DATE:	<u>09/21/95</u>
TEST DATE :	<u>09/20/95</u>	TEST DURATION (hrs) :	<u>24.00</u>
OIL VOLUME :	<u>6.0</u>	LOAD OIL LEFT TO RECOVER :	
WATER VOLUME :	<u>61.0</u>	LOAD WATER LEFT TO RECOVER :	
GAS VOLUME :	<u>28.0</u>	PUMP SIZE :	<u>2.500</u>
LOAD OIL RECOVERED :		PUMP BORE :	<u>1.500</u>
LOAD WATER RECOVERED :		STROKE LENGTH :	<u>144.000</u>
GOR :	<u>5</u>	PUMP STROKES (spm) :	<u>9</u>
FLUID LEVEL :	<u>6.804</u>	PUMP EFFICIENCY (%) :	
PUMP TEST COMMENTS :		FLUID LEVEL CHANGE (+/-) :	

17% AUTO



WELL : REMUDA BASIN 19 STATE 4 **ACTIVITY:** PREP TO PERF.... **RPT No:** 38 **DSS:** 38 **CD :** 19
FIELD : WILDCAT **TD :** 8,500 **ATD :** 8,500 **API :** 30 015 28420
STATE : NM EDDY **FTG :** **GL :** **EST No :** 656004
AREA : DEN-HB **HRS :** **PBTD :** 8,450 **SUPRV :** ELMORE
OBJECTIVE : BONE SPRINGS **LITH :** / **PH :** 505-393-4994
IDC\$/Ft : 19.39 **CLASS :** OSWC **CONTR :** PETERSON **FTG**

RUN#	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	N1	N2	N3	WOB	RPM	I	O	D	L	B	G	O	R

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
	0.00							

DESCRIPTION: **BOP DAYS :**

MUD PROPERTIES	
Time :	Solids :
MW : 9.0	Oil :
VIS : 29	10 sec Gel : 1
pH : 10.0	10 min Gel : 1
Chl :	CA :
WL : 10.0	Pm :
HTHP :	Pf :
FC :	Ex Lime :
PV : 1	Elec Stab :
YP : 1	MBT :

HYDRAULICS			
PUMP#1		PUMP#2	
Liner Size :	5.500	5.500	
Lngh Strk :	16.00	16.00	
SPM :		52	
GPM :	0	306	
PSI :	1200		
AV (DP) :	0.0	AV (DC) :	0.0
PSI Drop :	0	HP/IN2 :	0.0
SLOW PUMP RATES			
PUMP#1	psi @	spm	
PUMP#2	600 psi @	36 spm	

TUBULARS			
Proposed		Actual	
SIZE	MD	SIZE	MD
11.750	400	11.75	405
8.630	3,200	8.63	3,205
		5.50	8,500

MUD COST	
DAILY TOTAL :	
CUM. TOTAL :	\$1,497

ESTIMATE COSTS		
MOH	CASH	TOTALS
D.H. :		
Comp. :		
Total :	\$0	\$0

ACTUAL COSTS		
MOH	CASH	TOTALS
D.H. :	\$28,349	\$164,789
Comp. :	\$43,180	\$90,968
Total :	\$71,529	\$255,757
Daily :	\$0	\$3,400

quantity	item name	MUD MATERIAL	
0	-CAUSTIC SODA	0	-GEL
0		0	-STARCH

HRS	DESCRIPTION OF WORK
1.00	SITP 1200#. FL TST. 5 BO.
1.00	SW TST. 36 BLW.
5.00	FL TST. 10 BO, 46 BLW, 54 BW.
	KILL WELL W/100 BBLS KCL. ND TREE. TOH W/ 3 1/2" <-100 BLW>.

Zone #1

DIRECTIONAL SURVEYS			
M Dpth	INCL	AZIM	DLS
7,440	0.75	N 0.0 E	0.05
7,932	1.75	N 0.0 E	0.20
8,430	1.75	N 0.0 E	0.00
8,500	1.25	N 0.0 E	0.71

PERFS		
ZONE	FROM	TO

PACKERS	
DEPTH	MODEL

REMARKS

PERCY SWAB TEST REPORT

WELLNAME: REMUDA BASIN 19 STATE 4
 FIELD: WILDCAT
 AFE NO.: 656004
 WELL ID NO.: 656004
 API NO.: 30 015 28420

ZONE NO.: 1
 TEST DATE : 08/21/95
 NIPPLE DEPTH : 8.100
 INITIAL CSG PSI :
 INITIAL TBG PSI :
 INITIAL FLUID LEVEL : 600
 BO TAKEN :
 BW TAKEN :
 GAS TAKEN :
 SWAB TEST COMMENTS:

REPORT DATE: 08/22/95
 TEST HRS : 1.0
 TOTAL SWABS : 5
 FINAL CSG PSI :
 FINAL TBG PSI : 100
 FINAL FLUID LEVEL : 1.000
 BLO LEFT :
 BLW LEFT : 46.0

SHUT IN TIME :
 FLUID LAST HRS :
 BLO RECOVD :
 BLW RECOVD : 35.0

RUN #	TIME	INITIAL LEVEL	PULLED FROM	FLD RECVD	OIL CUT	TOTAL GAS
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PERC

FLOW TESTING SUMMARY REPORT

WELLNAME: REMUDA BASIN 19 STATE 4

FIELD: WILDCAT

AFE NO.: 656004

WELL ID NO.: 656004

API NO.: 30 015 28420

ZONE NO.: 1

REPORT DATE: 08/22/95

TEST DATE : 08/21/95

TEST HRS : 6.00

OIL VOLUME : 15.00

BLO LEFT TO RECOVER :

WATER VOLUME : 54.00

BLW LEFT TO RECOVER :

GAS VOLUME :

LOAD OIL RECOVERED :

LOAD WATER RECOVERED : 46.00

INITIAL TUBING PSI : 1.200

GOR :

FINAL TUBING PSI : 100

CHOKE SIZE (#64in.) : 18.00

CASING PSI :

FLOW TEST COMMENTS :

DISTRICT I
P. O. Box 1980, Hobbs, NM 88240

DISTRICT II
P. O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P. O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102
Revised February 10, 1994

Instructions on back

Submit to Appropriate District Office

State Lease-4 copies
Fee Lease-3 copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

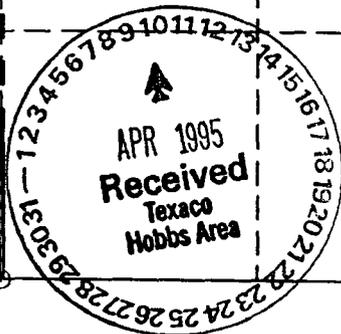
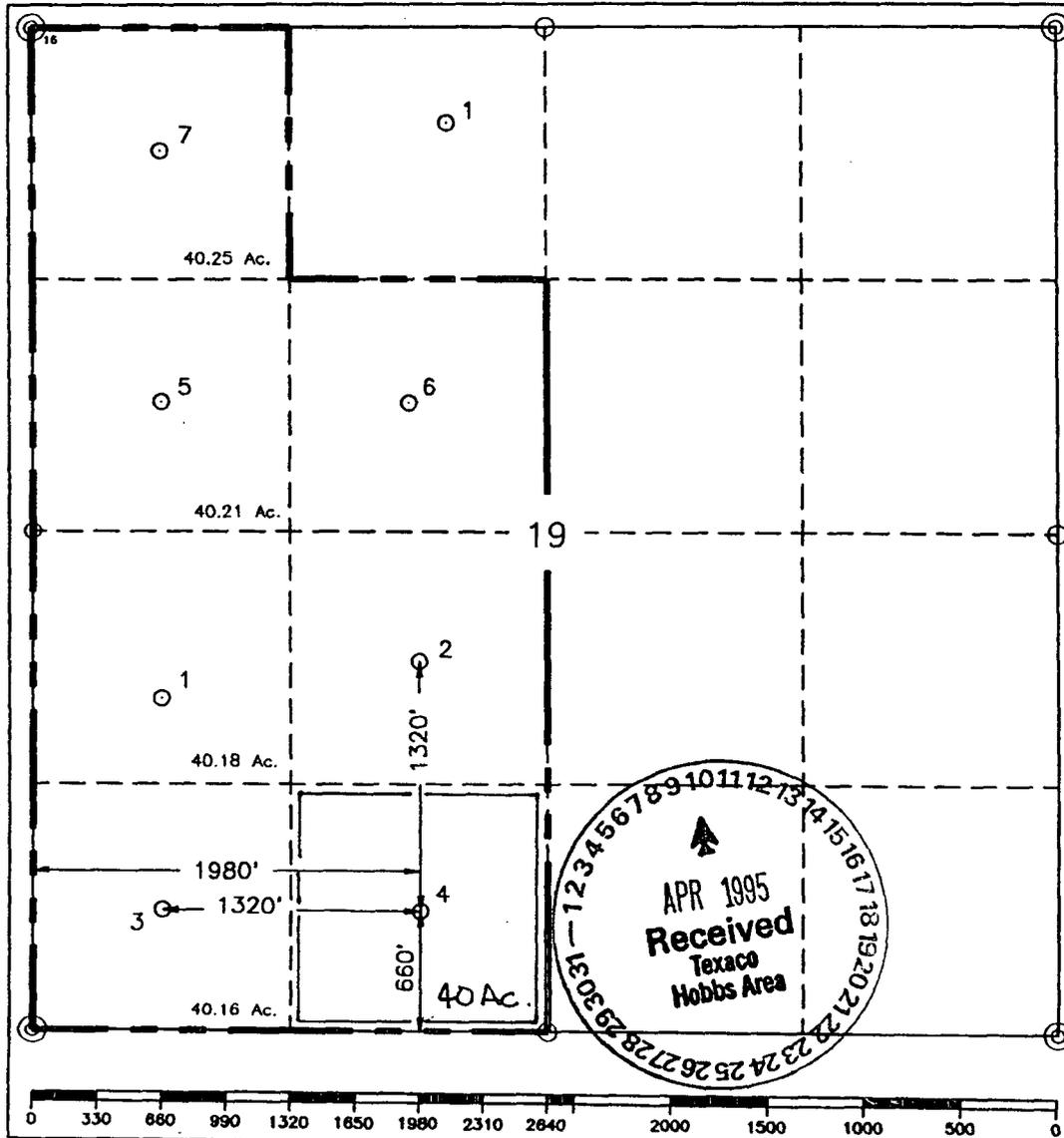
¹ API Number 30-015-28420		² Pool Code 96035		³ Pool Name Undesignated Wildcat; Grp. 4	
⁴ Property Code		⁵ Property Name Remuda Basin "19" State			⁶ Well Number 4
⁷ GRID No. 22351		⁸ Operator Name TEXACO EXPLORATION & PRODUCTION, INC.			⁹ Elevation 3041

¹⁰ Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	19	23-S	30-E		660'	South	1980'	West	Eddy

¹¹ Bottom Hole Location if Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION.



¹⁶ OPERATOR CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Signature	<i>C. Wade Howard</i>
Printed Name	C. Wade Howard
Position	Engineer's Assistant
Company	Texaco Expl. & Prod. Inc.
Date	February 24, 1995
¹⁷ SURVEYOR CERTIFICATION	
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.	
Date Surveyed	February 3, 1995
Signature & Seal of Professional Surveyor	<i>John S. Piper</i>
Certificate No.	7254 John S. Piper
Sheet	

Leake, J Denise

From: Sleeper, David L
Sent: Monday, August 10, 1998 8:37 AM
To: Wacker, Jason H
Cc: Leake, J Denise; Bittel, Kevin D
Subject: RE: Remuda Basin State

Jason

Here you go:

Yates Petroleum Corporation 105 So. 4th St., Artesia, NM 88210 Attn: Randy Patterson - Leasehold owner of SE/4 of Sec. 19;

Maralo Inc. 223 W. Wall, Midland, TX 79701 Attn: Dick Loughry - Operator of N/2 of Sec. 30;

I would also notify:

Bass Enterprises Production Co., Perry R. Bass, Tr., Sid R. Bass, Inc., Thru Line Inc., Keystone, Inc. and Lee M. Bass, Inc. 201 Main St., Fort Worth, TX 76102-3131 Attn: J. Wayne Bailey.

-----Original Message-----

From: Wacker, Jason H
Sent: Friday, August 07, 1998 8:25 AM
To: Sleeper, David L
Cc: Leake, J Denise
Subject: Remuda Basin State

David,

The Carlsbad FMT plans to downhole commingle the Bone Spring and Delaware intervals in the Remuda Basin State #4. We must notify all offset operators of this work. Please provide a list of offset operators for the subject lease, including names of contacts and business addresses. Thanks for your help!

Jason Wacker
Texaco Exploration & Production, Inc.
Production Engineer
Carlsbad FMT
Tex-Net 676-3484
(505) 397-0484