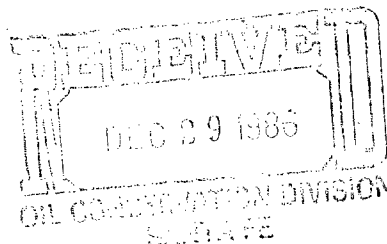




**Sun Production  
Operations Division**  
Southwestern District



December 23, 1986

**Sun Exploration and  
Production Company**  
No 24 Smith Road  
ClayDesta Plaza  
PO Box 1861  
Midland TX 79702 9970  
915 688 0300

Mr. David Catanach  
Energy and Mineral Dept.  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87501

RE: Request Exception to Rule 303-A  
Downhole Commingling  
Sun Exploration & Production Co.  
Elliott B-12 Well No. 1 (NM 032369)  
D, 660' FNL & 660' FWL,  
Sec. 12, T-22-S, R-37-E  
San Andres and Paddock  
Lea County, New Mexico

Dear Mr. Catanach:

Sun requests administrative approval for an exception to Rule 303-A to permit downhole commingling of production in the subject well from the San Andres and Paddock Pools.

The Paddock zone was temporarily abandoned under a bridge plug in December 1985, so that we could recomplete to the San Andres zone. We would now like to downhole commingle the two zones. Neither zone is capable of flowing and therefore requires artificial lift. The royalty interest on both zones are the same. It is uneconomical for Sun to produce the Paddock on rod pump by itself. Also, the well is not presently involved in a secondary recovery project. Sun has wells that are presently downhole commingle with the Paddock at our Elliott A-15 and Elliott B-15 leases.

The additional information concerning this application, as outlined in Rule 303-C, is attached for your consideration.

Thank you,

*Susan Wikstrom*  
Susan Wikstrom  
Production Engineer  
915/688-0421

SW/mcn

cc: Bureau of Land Mangement  
P.O. Box 1778  
Carlsbad, NM 88220

*South Eunice San Andres*



1F6/1655 - (1)

- A. Operator:  
Sun Exploration and Production  
P.O. Box 1861  
Midland, Texas 79702
- B. Lease:  
Elliott B-12 #1 (NM032369)  
Unit D, Sec. 12, T-22-S, R-37-E  
Lea County, New Mexico
- C. Plat Attached
- D. Form C-116 is attached for each zone.
- E. Production decline curves are attached for each zone.
- F. Estimated bottomhole pressure data:  
San Andres: 295 psi @ 4500', datum (est'd from fluid level)  
Paddock: 520 psi @ 4500', datum (est'd from offset Paddock  
build up data)
- G. Both the Paddock and San Andres zones are surface commingled with the Drinkard production at the Elliott B-12 and other leases with no evidence of fluid incompatibility. We foresee no problem with fluid compatibility of the Paddock and San Andres.
- H. The value of the commingled fluids will not be less than the sum of the values of the individual streams.

Before Commingled: San Andres - 14 BOPD x \$13.91/bbl = \$194.74/day  
Paddock - TA'd

After Commingled: San Andres - 14 BOPD x \$13.91/bbl = \$194.74/day  
Paddock - 6 BOPD x \$13.91/bbl = 83.46/day  
Total \$278.20/day

Combined - 20 BOPD x \$13.91/bbl = \$278.20/day

I. Allocation formulas:

$$X = \frac{Y}{Z} (100) \text{ Where } X = \text{Percent allocation of commingled production of desired zone.}$$
  
$$Y = \text{Latest daily rate of desired zone, MCFD or BOPD}$$
  
$$Z = \text{Total combined San Andres and Paddock daily rate, MCFD or BOPD}$$

San Andres: Oil  $X = \frac{14}{20} (100) = 70\%$

Gas  $X = \frac{58}{218} (100) = 27\%$

Paddock: Oil  $X = \frac{6}{20} (100) = 30\%$

Gas  $X = \frac{160}{218} (100) = 73\%$

- J. All offset operators have been notified by a copy of this application:

Anadarko Petroleum Corp.  
P.O. Box 2497, 1300 Independence Plaza  
Midland, Texas 79702

Exxon Company U.S.A.  
P.O. Box 1600  
Midland, Texas 79702-1600

Marathon Oil Company  
P.O. Box 552, 125 W. Missouri St.  
Midland, Texas 79702

Sohio Petroleum Company  
10 Desta Dr., Ste. 600 West  
Midland, Texas 79705

Operator		Pool		County											
Sun Exploration & Production Company			San Andres		Lea										
Address			TYPE OF		Completion										
P.O. Box 1861, Midland, Texas 79702			TEST - (X)		Special <input checked="" type="checkbox"/>										
LEASE NAME		WELL NO.	LOCATION		DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL.	
			U	S	T	R					WATER BBL.S.	GRAV. OIL BBL.S.	GAS M.C.F.		
Elliott B-12		1	D	12	22S	37E				24	8		14	58	4143/1

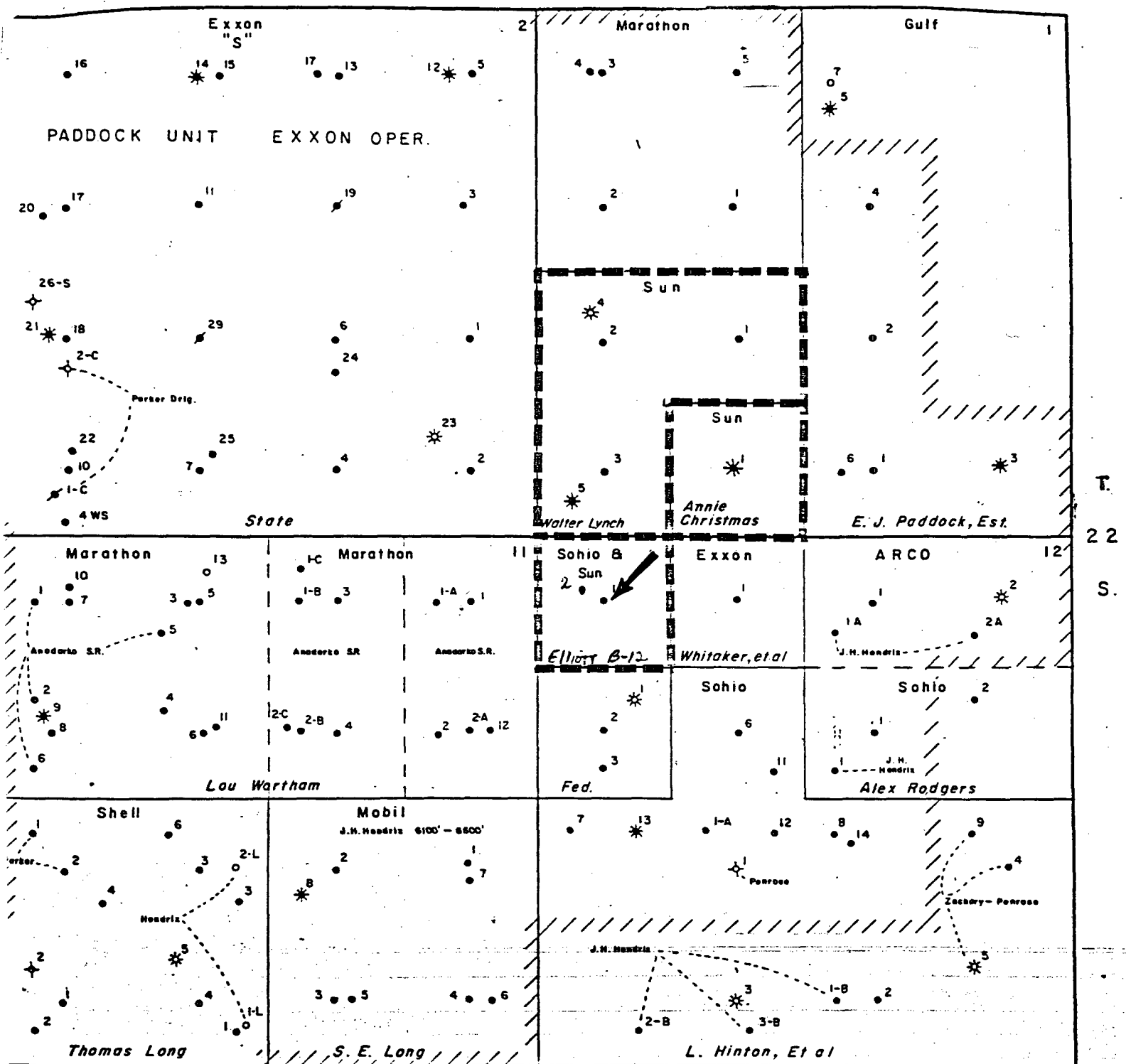
(Date)

Operator	Pool	County
Sun Exploration & Production Company	Paddock	Lea

Sun Exploration & Production Company		Paddock		Lea	
Address		TYPE OF			
P.O. Box 1861, Midland, Texas 79702		TEST - (X)		Scheduled <input type="checkbox"/> Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>	

LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL.
		U	S	T	R							WATER BBL.S.	GRAV. OIL BBL.S.	GAS M.C.F.	
E1110ct B-12	1	D	12	22S	37E	12/5/85	P				24	1	6	160	26667/1

**(Date)**



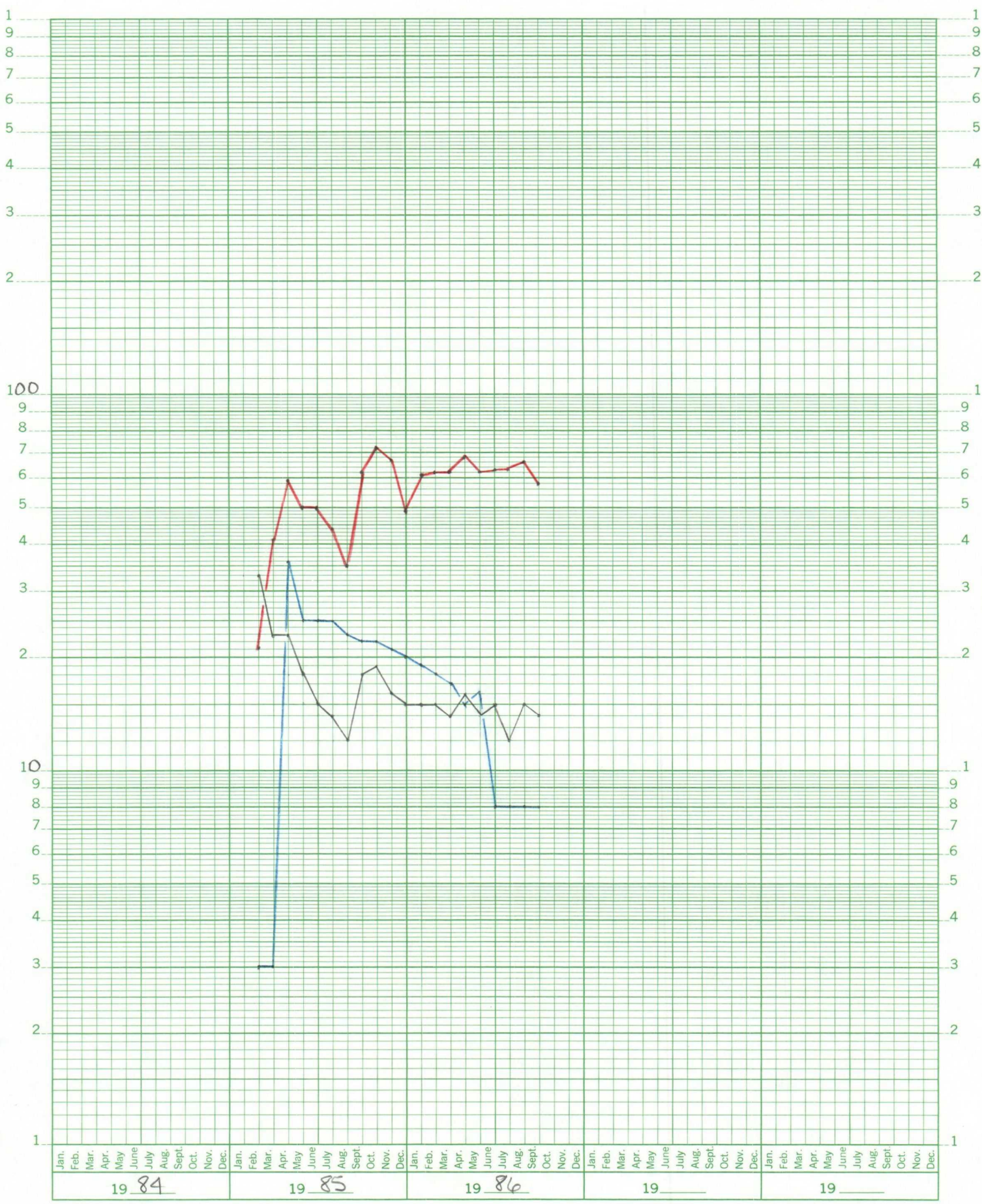
WALTER LYNCH LEASE  
ANNIE CHRISTMAS LEASE  
LYNCH CHRISTMAS LEASE  
ELLIDTT B-12 LEASE  
LEA CO., NEW MEXICO



Elliott B-12 #1  
 EUNICE (SAN ANDRES)

46 6690

5 YEARS BY MONTHS x 3 LOG CYCLES  
 KEUFFEL & ESSER CO. MADE IN U.S.A.



BOPD \_\_\_\_\_ BWPD \_\_\_\_\_ MCFPD \_\_\_\_\_



Elliott B-12 #1  
 PADDOCK (PADDOCK)

46 6690

5 YEARS BY MONTHS x 3 LOG CYCLES  
 KEUFFEL & ESSER CO. MADE IN U.S.A.



BOPD \_\_\_\_\_ BWPD \_\_\_\_\_ MCFPD \_\_\_\_\_



## WELL COMPLETION SKETCHES SUN-5036-4-A

WELL

Elliott B-12 #1

FIELD

Paddock - San Andres

DATE



PRESENT COMPLETION



SUGGESTED COMPLETION

## PERMANENT WELL BORE DATA

GL: 3348

13<sup>3/8</sup>" CSG @ 163'

CMT. CIRC'D

9<sup>5/8</sup>" CSG @ 2804'

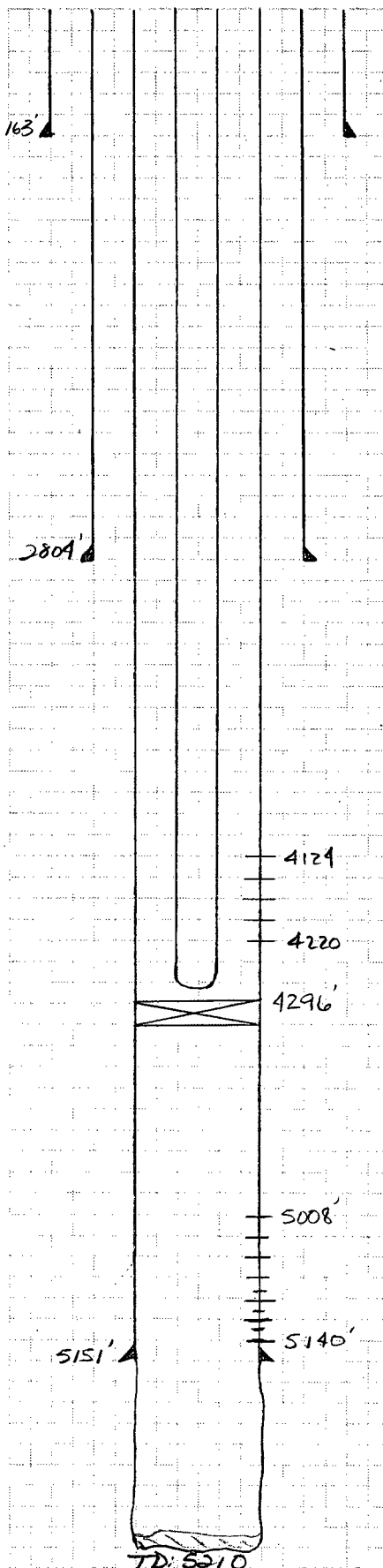
CMT. CIRC'D

7", 23# CSG @ 5151'

OH 5151-5210'

PB: 5200'

TD: 5210'



## DATA ON THIS COMPLETION

2<sup>3/8</sup>" TBG

TS 4252'

76 RODSTRING

1<sup>1/2</sup>" x 12" pmp

SN 4217'

SAN ANDRES:

4124-4220'

(1 JSP2F, 50 holes)

7" BAKER RBP @ 4296'

Paddock:

5008-5079 (10 holes)

5105-5140 (140 holes)

+ 5151-5210' (open hole)

## WELL COMPLETION SKETCHES SUN-5036-4-A

WELL

Elliott B-12 #1

FIELD

Paddock - San Andres

DATE



PRESENT COMPLETION



SUGGESTED COMPLETION TO DHC.

## PERMANENT WELL BORE DATA

GL: 3348'

1 3/8" CSG @ 163'

CMT. CIRC'D.

9 5/8" CSG @ 2804'

CMT. CIRC'D.

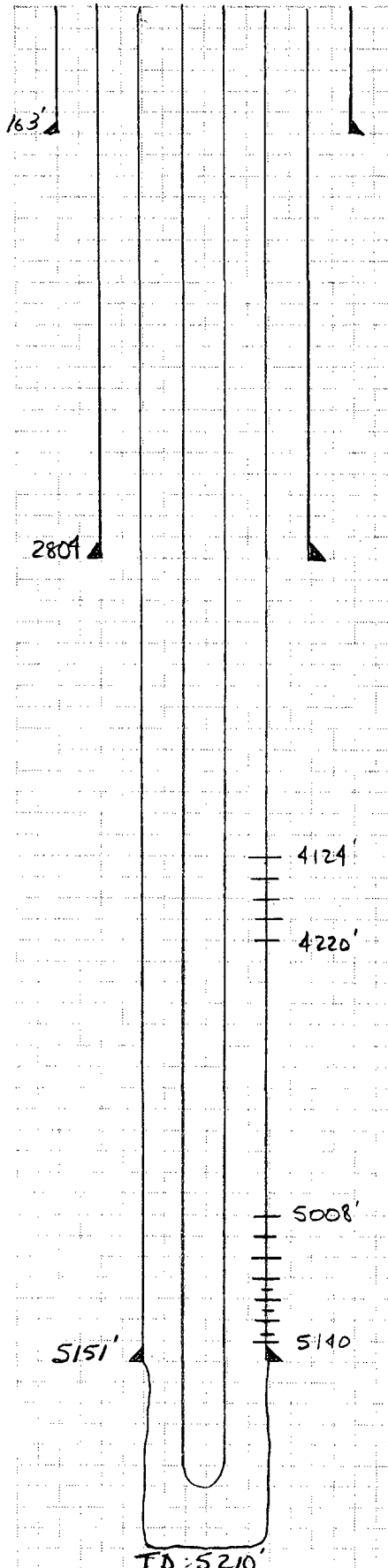
TOC @ 3239' (est'd)

7", 23# CSG @ 5151'

OH 5151-5210'

PB: 5200'

TD: 5210'



## DATA ON THIS COMPLETION

2 3/8" TBG

76 RODSTRING

1 1/2" PMP

SAN ANDRES:

4124 - 4220'

(1 JSP2F, 50 holes)

Paddock:

5008-5079 (10 holes)

5105-5140 (140 holes)

5151-5210 (open hole)