BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF

RESERVE OIL AND GAS COMPANY FOR A

WATERFLOOD PROJECT, LANGLIE-MATTIX POOL

LEA COUNTY, NEW MEXICO

COOPER-JAL UNIT

LANGLIE-MATTIX ZONE

LEA COUNTY, NEW MEXICO

GENERAL

Operator: Reserve Oil and Gas Company

Project: Cooper-Jal Unit - Langlie-Mattix Zone

Pool: Langlie-Mattix

Location of Project:

Township 24 South, Range 36 East, N.M.P.M.

Section 13:	S/2
Section 14:	SE/4 SE/4
Section 23:	S/2 SE/4
Section 24:	All
Section 25:	N/2
Section 26:	NE/4 NE/4

Township 24 South, Range 37 East, N.M.P.M.

Section 18:	All
Section 19:	W/2
Section 30:	NW/4

No. of Wells in Project: At the end of 1969, 30 wells were producing from the Langlie-Mattix Zone; however, the Langlie-Mattix Zone will eventually have 51 wells, 26 of which will be injection wells.

Unit and Project Area: Approximately 2,541 acres

Other Waterflood Projects in Area:

1. The Langlie-Mattix Woolworth Unit, operated by Amerada, is located approximately two miles to the east.

2. The Langlie Jack Unit, operated by Continental Oil, is located approximately one and one-half miles to the east.

GEOLOGICAL AND RESERVOIR DATA

Reservoir: The Langlie-Mattix reservoir in the project area is defined as the lower 250 feet of the Seven Rivers formation and the entire Queen formation.

Productive Zones: The Langlie-Mattix Pool reservoir sands within the unit area are found at a depth of approximately 3500 feet and is either a Seven Rivers or Queen formation depending upon the structural position of the individual well. The Seven Rivers is the predominate producing formation in the Langlie-Mattix Pool within the unit area.

Description of Reservoir Rock: The formations are members of the Whitehorse Group, Guadalupian series of the Permian, and can be described as fine to medium crystalline dolomites and dolomitic limestones interbedded with fine to medium grained sands with zones of porosity occurring irregularly as intercrystalline and fine vugular in the carbonates and as intergranular in the sand bodies.

Structure: Regionally, the unit area is located on the western edge of the Central Basin Platform of the Permian Basin, but locally it is on a structurally low area or syncline. The regional dip in the area is west-southwest toward the Delaware Basin, but it is abruptly interrupted by a structurally high trend produced by the "Cooper-Jal" Reef located to the west of the unit area. The northwest-southeast trending syncline produced by this reversal of dip extends beyond the unit area in both directions and is abnormally low locally to actually form a closed low in which most of the unit is located.

Reservoir Limits: The oil bearing zones are progressively higher structurally to both the west and east until they pinch out or become altered by facies changes in those directions. Along the axis of the syncline, the formations are productive beyond the boundary of the unit.

Average Porosity of Net Pay: 14.2%

Average Permeability of Net Pay: 19.5 md.

PRIMARY OPERATIONS

Date of First Production:	November, 1941
No. of Wells in Project:	Thirty wells were producing during December, 1969; however, many of the Langlie-Mattix Zone wells have been plugged back to the Jalmat Zone, temporarily abandoned, or shut-in. The project will eventually include 51 wells.
Cumulative Oil Production 1-1-70:	2,028,574 barrels
Remaining Primary Reserves 1-1-70:	65,284 barrels
Daily Average Oil Production Per Well 12-69:	2.1 barrels
Original Reservoir Pressure:	Unknown
Oil Gravity:	35° API
Drive Mechanism:	Solution Gas Drive
Stage of Depletion:	Late; the Langlie-Mattix Zone in the unit area is estimated to be 96.9% depleted of primary oil reserves.
Estimated Ultimate Primary Oil Recovery:	2,093,858 barrels

WATERFLOOD OPERATIONS

Proposed Pattern:	Irregular 80-acre five spot
No. of Injection Wells:	26
No. of Producers:	25
Initial Injection Rate:	350 barrels per day per injection well

estimate 1,570,000 addl oil (75% of ult. primary)

WATERFLOOD OPERATIONS, Continued

Estimated Injection Pressure:	1200 psi at the injection wellhead. Injection plant and water distribution system is designed for 1845 psi maximum operating pressure.
Plan of Injecting Water:	Injection into the pay zone through internally coated tubing below a packer.
Source of Injection Water:	Water will be purchased from Skelly's water supply system.
Type of Water:	Non-potable
Treatment of Water:	No treatment of the injection water is anticipated; however, should treatment be deemed advisable, treatment will be commenced.
Additional Oil Recovery Anticipated:	The additional oil recovery attributable to the water injection program is estimated to be 1,570,400 barrels which is 75% of the estimated ultimate primary recovery.

CONCLUSIONS AND RECOMMENDATIONS

The Langlie-Mattix Pool produces by solution gas drive and this portion of the Pool is 96.9% depleted of primary oil and the daily oil production averages only two barrels per well.

Engineering-geological studies and the performance of other nearby Langlie-Mattix waterflood projects indicate that the Langlie-Mattix Pool underlying the unit area can be successfully waterflooded; thereby, increasing the life and ultimate oil production of wells in this unit. The increased recovery due to waterflooding should be approximately 1,570,400 barrels of oil.

Reserve Oil and Gas Company, together with the other working interest owners, have concluded that unitization of the unit area comprising 2,541 acres for the purpose of waterflooding the Queen and lower portion of the Seven Rivers formations is in the best interest of conservation and prevention of waste.

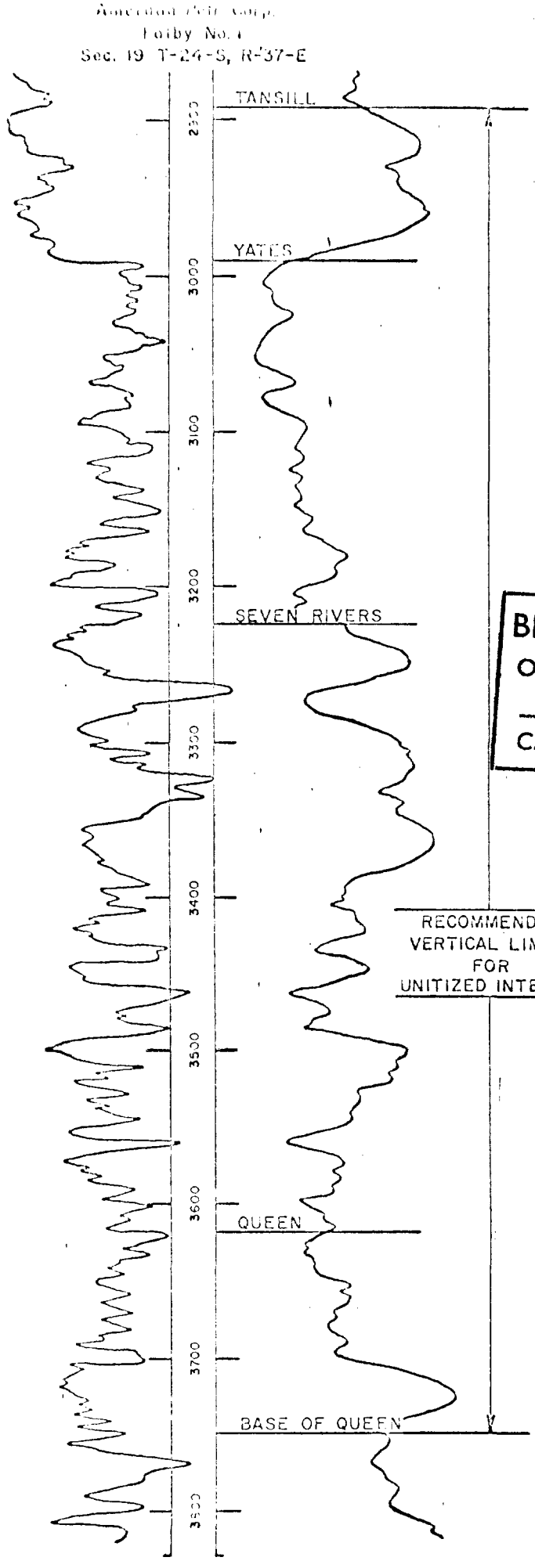


EXHIBIT 2
Proposed Unitized Vertical Limit
Cooper Jal Unit
Lea County, New Mexico

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 4903

EXHIBIT 5
COOPER JAL UNIT
LANGLIE-MATTIX ZONE

TYPICAL SINGLY COMPLETED INJECTION WELL
ROG VAN ZANDT NO. 5

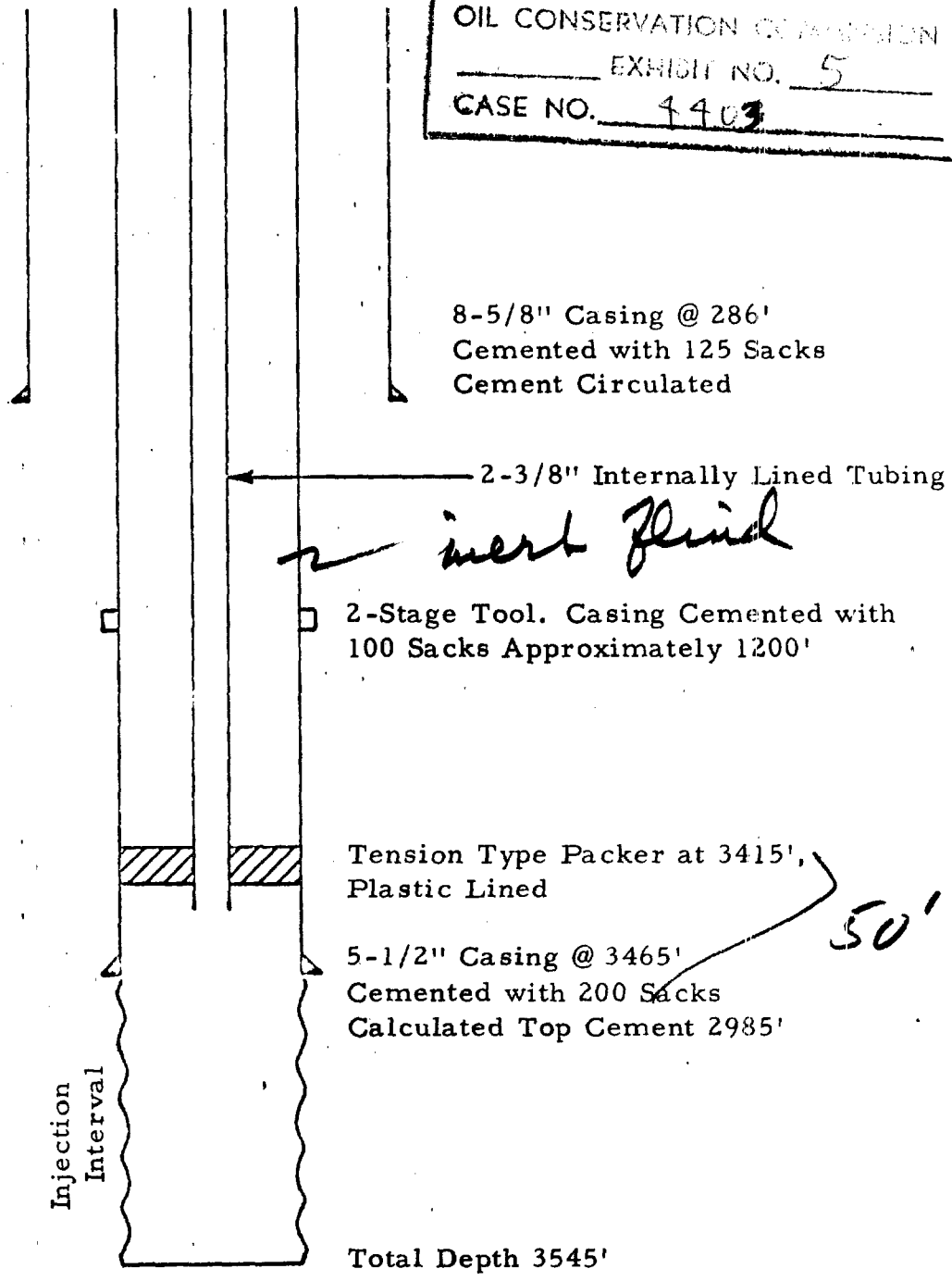


EXHIBIT 6
COOPER JAL UNIT
JALMAT AND LANGLIE-MATTIX ZONES

TYPICAL DUAL INJECTION WELL
AMERADA FALBY NO. 3

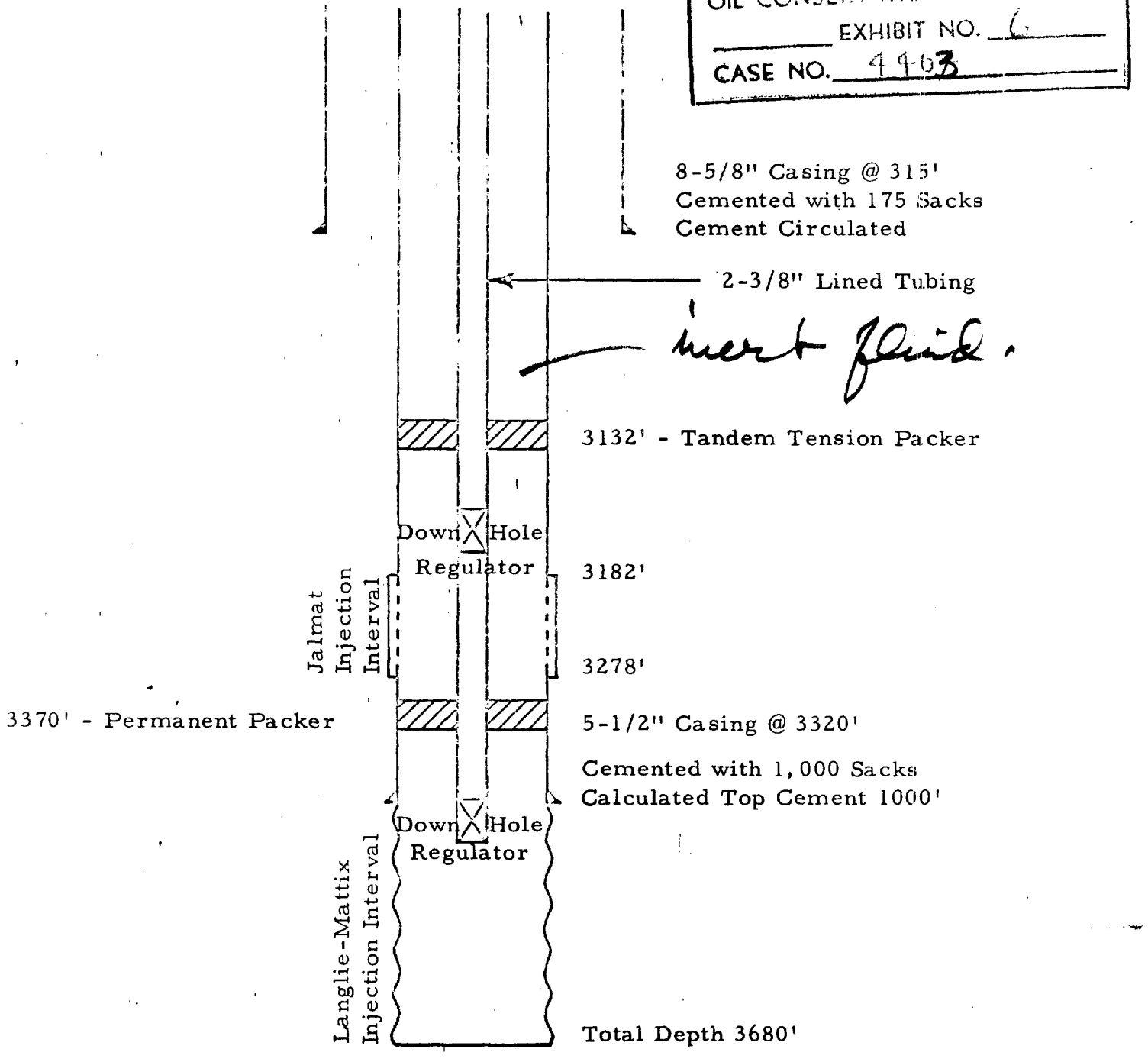
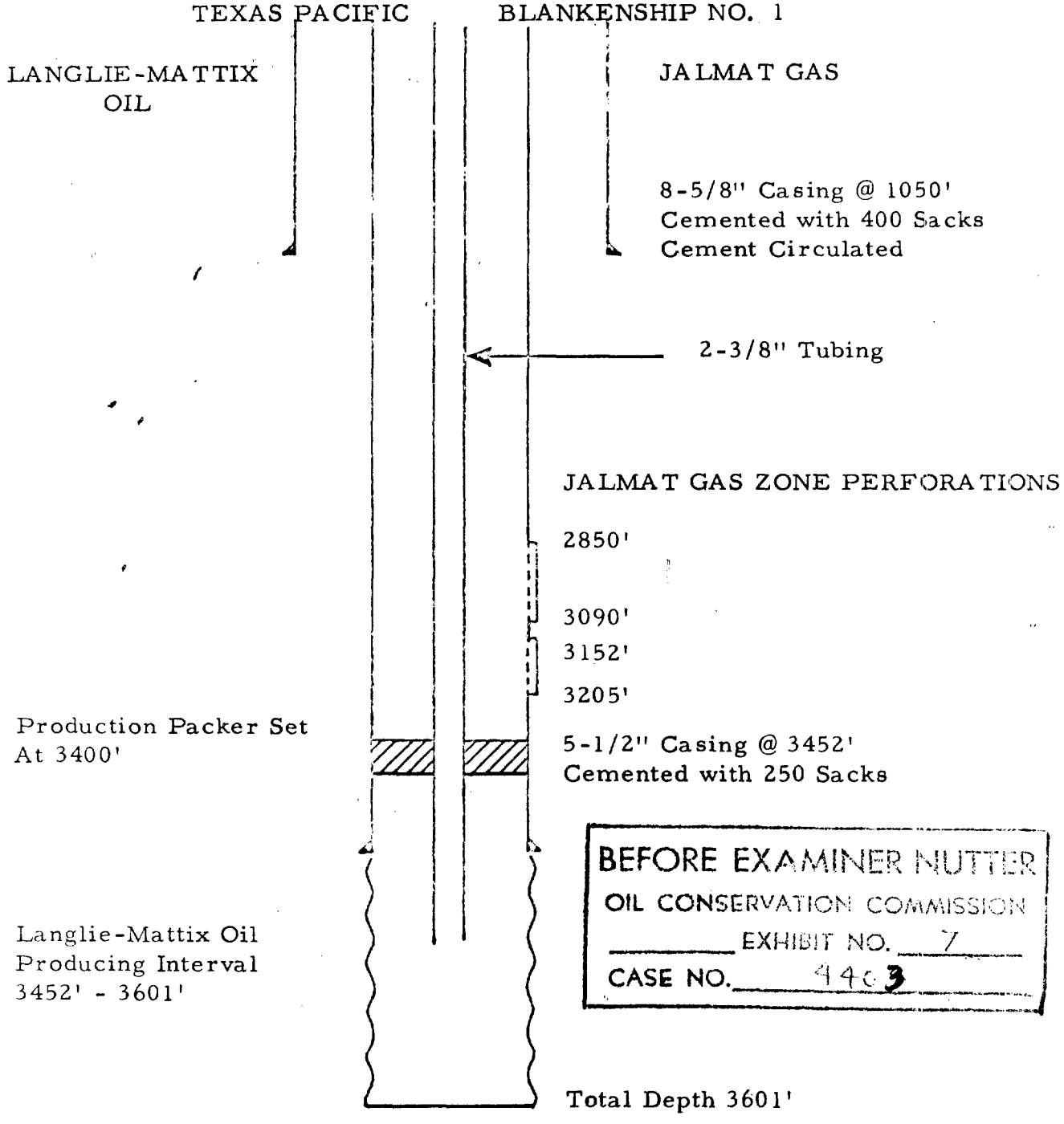


EXHIBIT 7
COOPER JAL UNIT
JALMAT AND LANGLIE-MATTIX ZONES

TYPICAL DUAL PRODUCTION WELL
PRODUCING GAS FROM JALMAT ZONE
AND OIL FROM LANGLIE-MATTIX ZONE

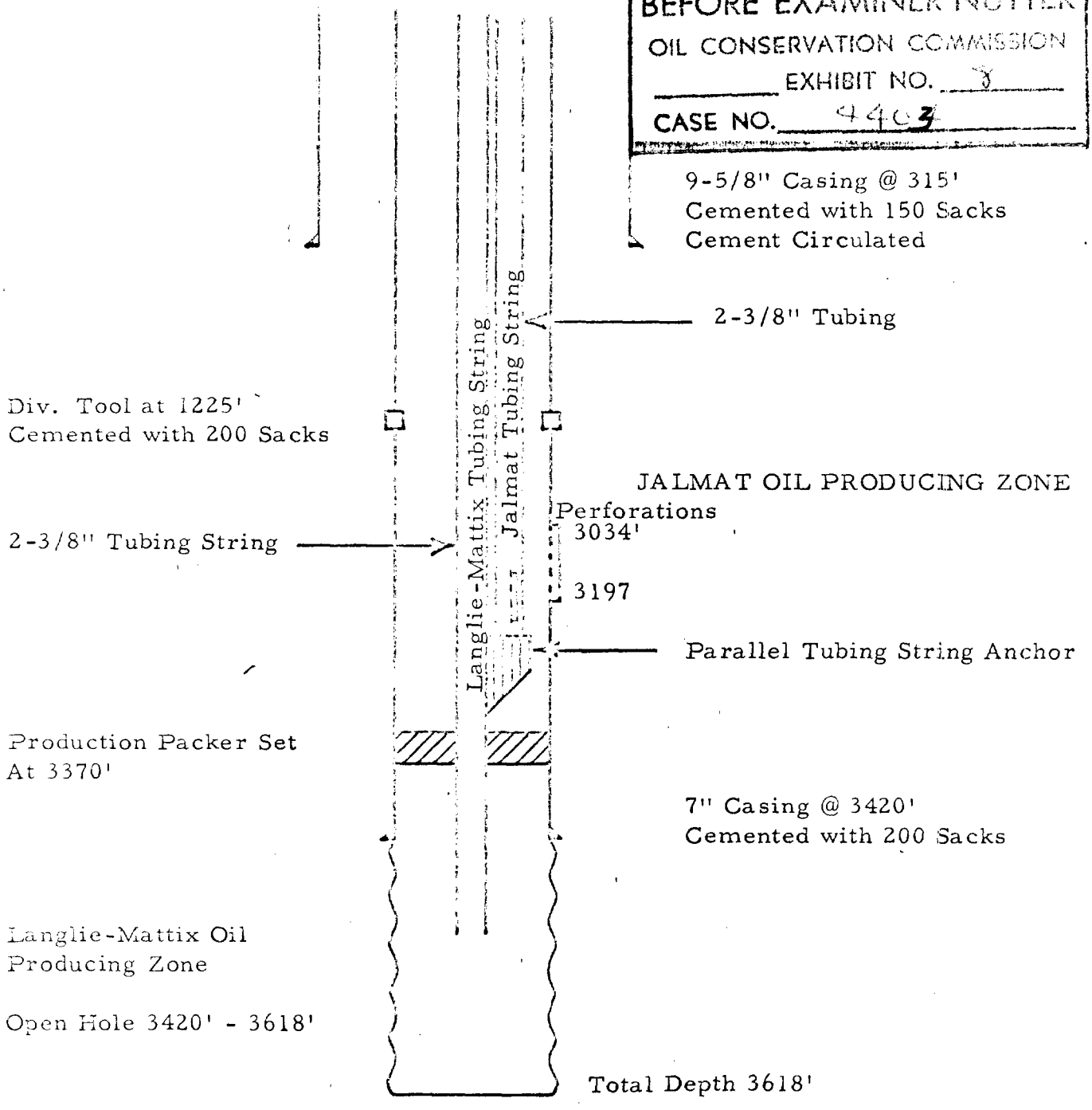


BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 7
CASE NO. 4403

EXHIBIT 8
COOPER JAL UNIT
JALMAT AND LANGLIE-MATTIX ZONES

TYPICAL DUAL PRODUCING WELL
PRODUCING OIL FROM JALMAT ZONE
AND OIL FROM LANGLIE-MATTIX ZONE
CITIES SERVICE JACK "A" FEDERAL NO. 2

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 8
CASE NO. 4403



SKELLY OIL COMPANY
SHERRILL NO. 7
K.B. Elev. 3241'
LANGLIE-MATTIX FIELD
Sec. 31, T 24 S, R 36 E
LEA COUNTY, N.M.

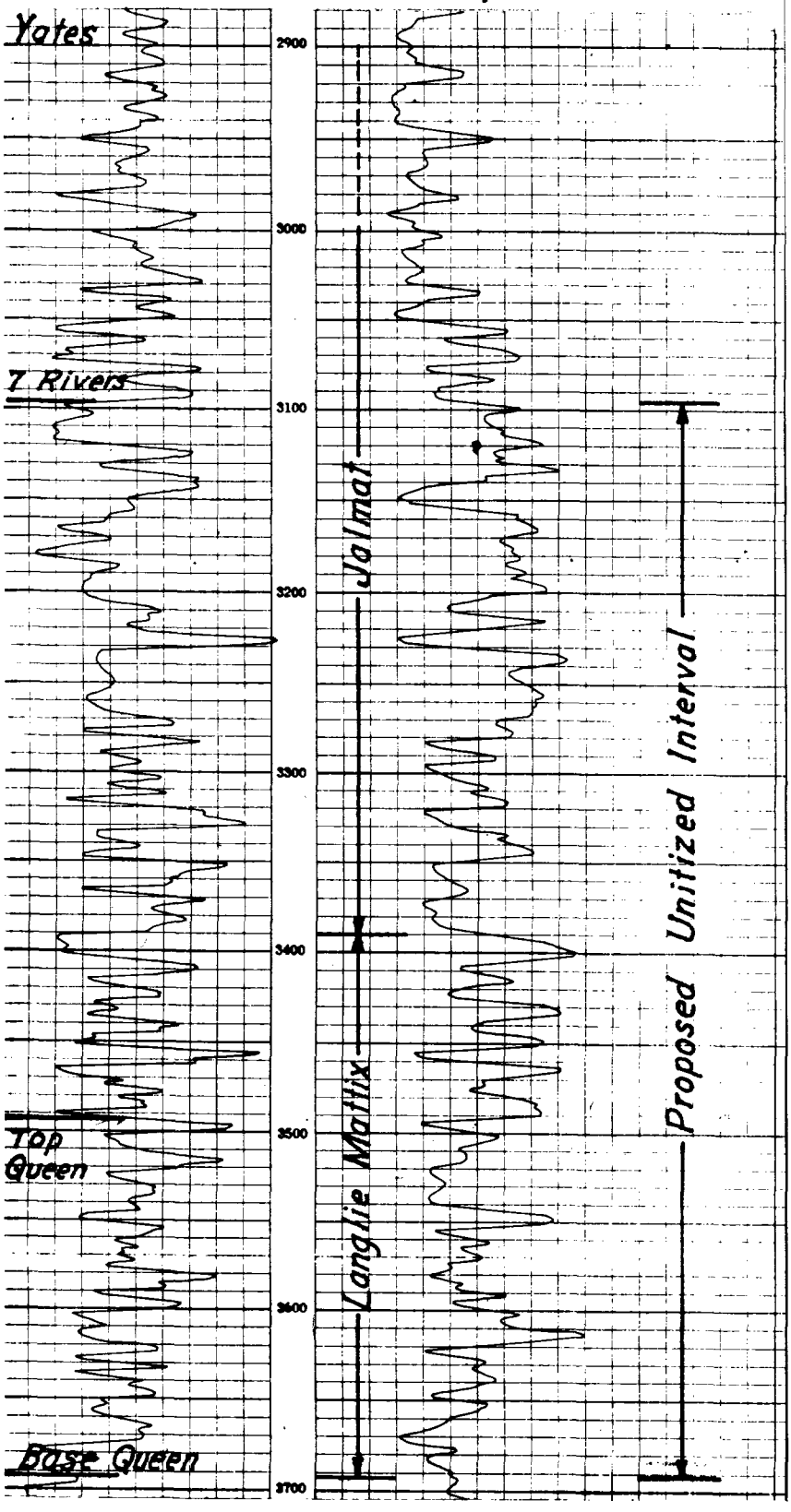


Exhibit 1-C

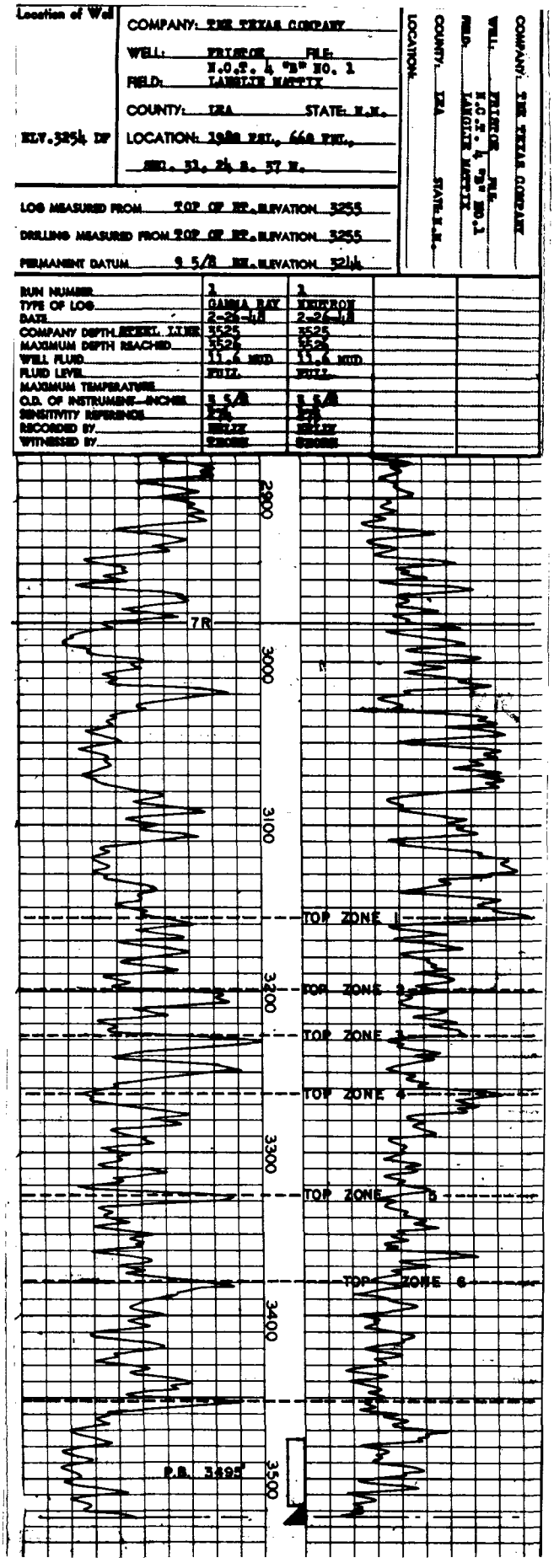

Location of Well
COMPANY: THE TEXAS COMPANY
WELL: PRISTOR FILE: N.G.S. A "B" NO. 1
FIELD: LANGLIE MATTIX
COUNTY: LEA STATE: N.M.
ELV. 3254 DF
LOCATION: 1980 FNL, 660 FWL, SEC. 31, 24 S., 37 E.
LOG MEASURED FROM TOP OF KB, ELEVATION 3255
DRILLING MEASURED FROM TOP OF KB, ELEVATION 3255
PERMANENT DATUM 9 5/8 IN., ELEVATION 3214
RUN NUMBER 1 1
TYPE OF LOG GAMMA RAY NEUTRON
DATE 2-26-48 2-26-48
COMPANY DEPTH-DRILL. LIMIT 3525 3525
MAXIMUM DEPTH REACHED 3525 3525
WELL FLUID 11.6 MUD 11.6 MUD
FLUID LEVEL FULL FULL
MAXIMUM TEMPERATURE
O.D. OF INSTRUMENT—INCHES 1 5/8 1 5/8
SENSITIVITY REFERENCE
RECORDED BY HELTZ HELTZ
WITNESSED BY THORNE THORNE
COMPANY: THE TEXAS COMPANY
WELL: PRISTOR FILE: N.G.S. A "B" NO. 1
FIELD: LANGLIE MATTIX
COUNTY: LEA STATE: N.M.
LOCATION:
2900
7R
3000
3100
TOP ZONE 1
3200
TOP ZONE 2
TOP ZONE 3
TOP ZONE 4
3300
TOP ZONE 5
TOP ZONE 6
3400
P.B. 3495'
3500

Exhibit 1-E

COMPANY R. OLSEN PERSONAL
WELL WELLS #10
FIELD LANGLIE-MATTIX
COUNTY LEA STATE N.MEX.
LOCATION CENTER OF NE/4 NW/4 SEC. 6, T-25-S, R-37-E.

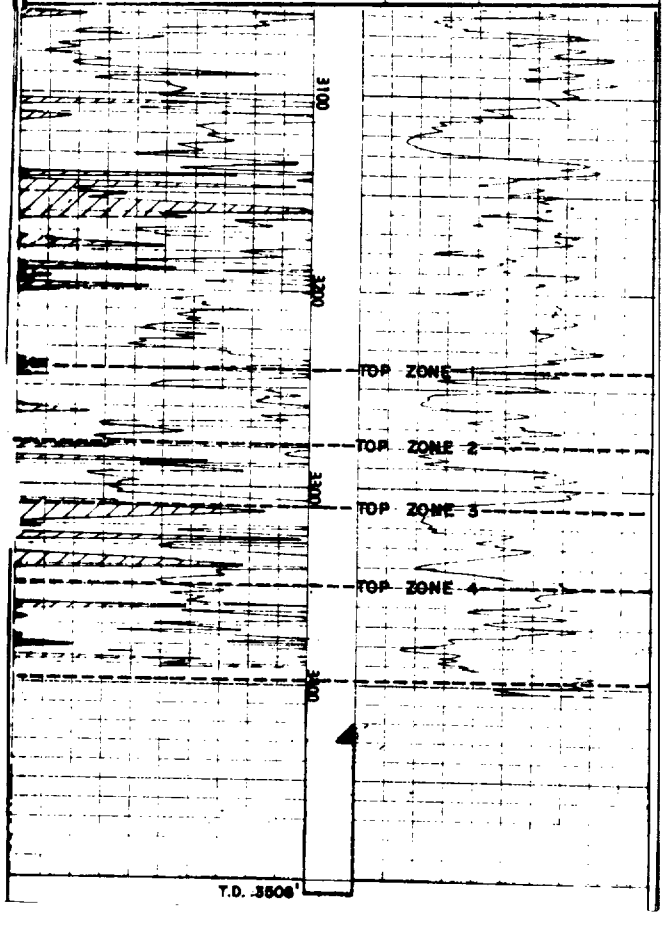
COMPANY: R. OLSEN PERSONAL
WELL: WELLS # 10
FIELD: LANGLIE-MATTIX
COUNTY: LEA STATE N.MEX.
LOCATION: NW/SE
SEC. 6, T-25-S, R-37-E.

LOCATION

FILE NO
LOG NO. 6765

LOG MEAS. FROM TOP ROTARY TABLE ELEV 3454
DRLG MEAS. FROM TOP ROTARY TABLE ELEV 3441
PERM. DATUM GROUND LEVEL ELEV 3441

TYPE OF LOG	G/R	N/N	N/N
RUN NO.	1-NW	1-NW	1-NW
DATE	6-21-57	6-21-57	6-21-57
TOTAL DEPTH (DRILLER)	3440	3440	3440
EFFECTIVE DEPTH (DRILLER)	3440	3440	3440
EFFECTIVE DEPTH (WESTERN)	3407.5	3407.5	3407.5
TOP OF LOGGED INTERVAL	2000	2000	2000
BOTTOM OF LOGGED INTERVAL	3393.5	3405	3405
TYPE OF FLUID IN HOLE	MUD	MUD	MUD
FLUID LEVEL	FULL	FULL	FULL
SOURCE STRENGTH & TYPE		S10A3	S10A3
SOURCE SPACING		13.2	22.9
DETECTOR CLASS	SCINT.	SCINT.	SCINT.
DETECTOR TYPE	D6N1	D6N1	D6N1
DETECTOR LENGTH	4	4	4
O.D. OF INSTRUMENT IN	3 5/8	3 5/8	3 5/8
TIME CONSTANT SEC	2.0	2.0	2.0
LOGGING SPEED FT/MIN	30	30	30
STATISTICAL VARIATION	RECORDED	RECORDED	RECORDED
SENSITIVITY REFERENCE	G-533	D-368	D-3 8
RECORDED BY	ROSS		
WITNESSED BY	MR. FRE[illegible]		



LANE WELLS RADIOACTIVITY LOG

COMPANY

FILE NO.

Location of Well

3261' G.L.

COMPANY: SINCLAIR OIL & GAS CO.

WELL: STATE "C" NO. 2

FIELD: LANGLIE MATTIX

COUNTY: LEA STATE: N.M.

LOCATION: 330' FNL & FEL OF SE.1/4

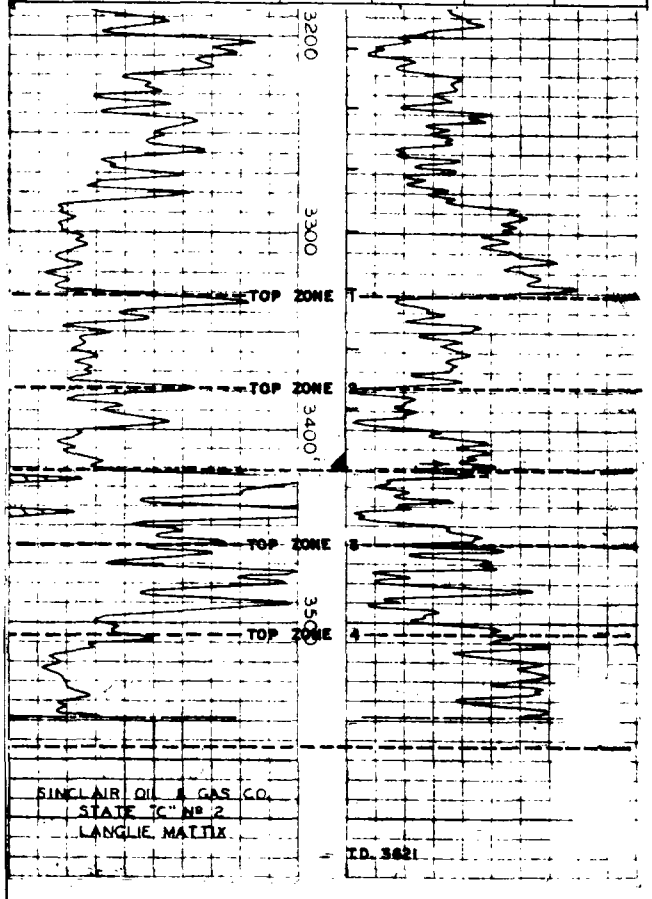
SEC. 2-T-24-S/E

LOG MEAS. FROM GROUND LEVEL ELEV. 3261'

DRLG. MEAS. FROM KELLY BUSHING ELEV. 3271'

PERM. DATUM GROUND LEVEL ELEV. 3261'

TYPE OF LOG		
RUN NO.	1	
DATE	7-7-49	
TOTAL DEPTH (DRILLER) WIRE LINE	3621'	
EFFECTIVE DEPTH (DRILLER)	3621'	
TOP OF LOGGED INTERVAL	3200'	
BOTTOM OF LOGGED INTERVAL	3621'	
TYPE OF FLUID IN HOLE	SALT	
FLUID LEVEL	2900'	
MAXIMUM RECORDED TEMP.		
NEUTRON SOURCE STRENGTH & TYPE		600M
SOURCE SPACING — IN.		8"
LENGTH OF MEASURING DEVICE — IN.	24	24
O.D. OF INSTRUMENT — IN.	2 1/8	2 1/8
TIME CONSTANT — SECONDS	1	1
LOGGING SPEED FT. MIN.		
STATISTICAL VARIATION — IN.		
SENSITIVITY REFERENCE		
RECORDED BY	TOM BELL	TOM BELL
WITNESSED BY		LEON



COMPANY PAN AMERICAN
WELL P. J. LANGLIE A
FIELD JAL NAT
LOCATION SEC. 9, T-25-S, R-37-E
COUNTY LEA
STATE NEW MEXICO

COMPANY PAN AMERICAN PET. CORP.

WELL: P. J. LANGLIE "A" NO. 2

FIELD: JAL NAT

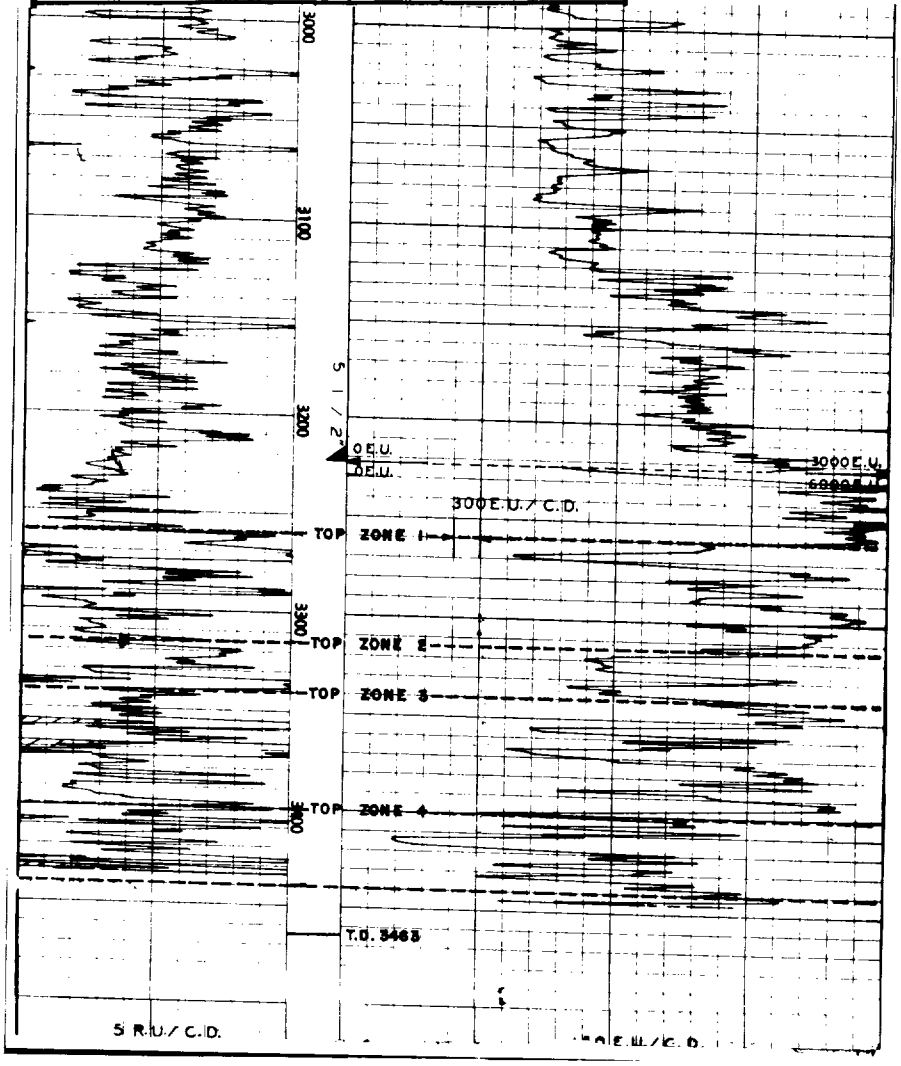
LOCATION: 1980' FSL & 660' FWL OF SEC. 9 T-25-S, R-37-E

COUNTY: LEA STATE: N MEX.

Well Location

LOG ZERO	DERRICK FLOOR	ELEV. 3160
DRLG. ZERO	DERRICK FLOOR	ELEV. 3160
PERM. DATUM	TOP 5 1/2" CASING	ELEV. 3150

TYPE OF LOG	GAMMA RAY	N/NEUTRON
RUN NO	ONE-OW	ONE-OW
DATE	3-7-58	3-7-58
TOTAL DEPTH (DRILLER) STRAIN	3463	3463
EFFECTIVE DEPTH (DRILLER)	3463	3463
TOP OF LOGGED INTERVAL	SURFACE	SURFACE
BOTTOM OF LOGGED INTERVAL	3433	3445
TYPE OF FLUID IN HOLE	WATER	WATER
FLUID LEVEL		27'
MAXIMUM RECORDED TEMP.		
SOURCE STRENGTH & TYPE		SI 84 3
SOURCE SPACING — IN.		13.5
DETECTOR CLASS	SCINT.	SCINT.
DETECTOR TYPE	DM31	DSM1
LENGTH OF MEAS. DEVICE — IN.	4	4
O.D. OF INSTRUMENT — IN.	1 5/8	1 5/8
TIME CONSTANT — SECONDS	2.0-0.9	2.0-0.9
LOGGING SPEED FT./MIN.	30-60	30-60
STATISTICAL VARIATION — IN.	RECORDED	RECORDED
SENSITIVITY REFERENCE	0933	0368
RECORDED BY	DUCKWORTH	DUCKWORTH
WITNESSED BY	KILPATRICK & YORK	



LOCATION

COMPANY: R. OLSEN PERSONAL

WELL: OLSEN PHILLIPS NO. 2

FIELD: LANGLIE MATTIX

COUNTY: LEA STATE N. MEXICO

LOCATION: 660' FWL-2080' FSL SEC. 6. T25S-R37E

FILE NO. ____

LOG NO. ____

LOG MEAS. FROM: 1' ABOVE ROTARY TABLE ELEV 3223.5

DRLG MEAS. FROM: 1' ABOVE ROTARY TABLE ELEV 3223.5

PERM. DATUM: GROUND LEVEL ELEV 3213

COMPANY R. OLSEN PERSONAL

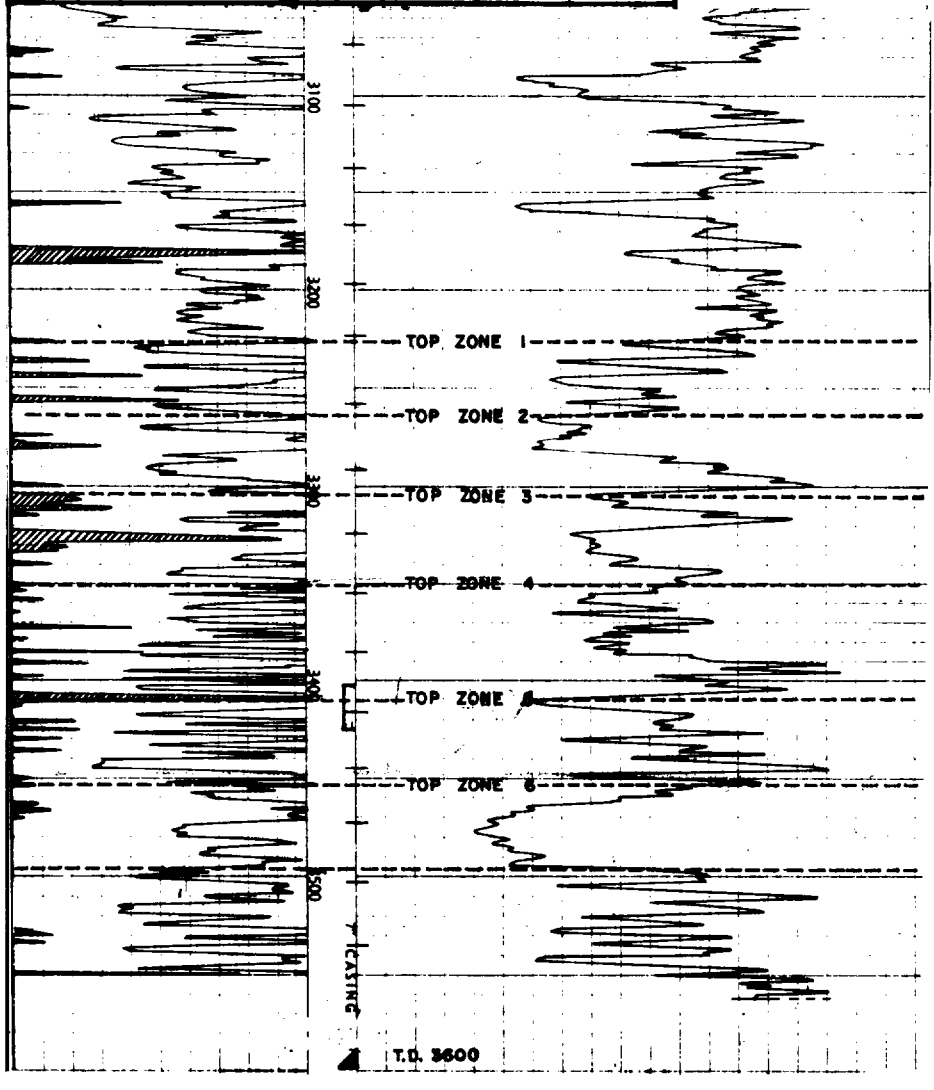
WELL OLSEN PHILLIPS NO. 2

FIELD LANGLIE MATTIX

COUNTY LEA STATE N. MEXICO

LOCATION 660' FWL-2080' FSL SEC. 6 T25S-R37E

	ONE	ONE
RUN NO.		
TYPE OF LOG	G/R	N/N
DATE	7-15-58	7-15-58
TOTAL DEPTH (OPERATOR)	3600	3600
EFFECTIVE DEPTH (OPERATOR)	3565	3565
EFFECTIVE DEPTH (WESTERN)	3562.5	3562.5
TOP OF LOGGED INTERVAL	SURF.	SURF.
BOTTOM OF LOGGED INTERVAL	3549.5	3561
TYPE OF FLUID IN HOLE	MUD	MUD
FLUID LEVEL	FULL	FULL
NEUTRON SOURCE TYPE		SIGA3
SOURCE SPACING ___ IN.		13.5
LENGTH OF DETECTOR 4 IN.	SCINT.	SCINT.
O.D. OF INSTRUMENT ___ IN.	3 5/8	3 5/8
TIME CONSTANT ___ SEC.	2.0	2.0
LOGGING SPEED ___ FT./MIN	30-60	30-60
STATISTICAL VARIATION ___ IN.		
SENSITIVITY REFERENCE	C-933	D-368
RECORDED BY	CARROLL	CARROLL
WITNESSED BY	MR. PREMIN	



COMPANY: R. OLSEN PERSONAL
WELL: OLSEN PHILLIPS # 3
FIELD: LANGLIE MATTIX
COUNTY: LEA STATE: N. MEX.
LOCATION: 660' FSL & 1980' FWL, SEC. 6, T-25-S, R-37-E

LOCATION

FILE NO.
LOG NO. 95835

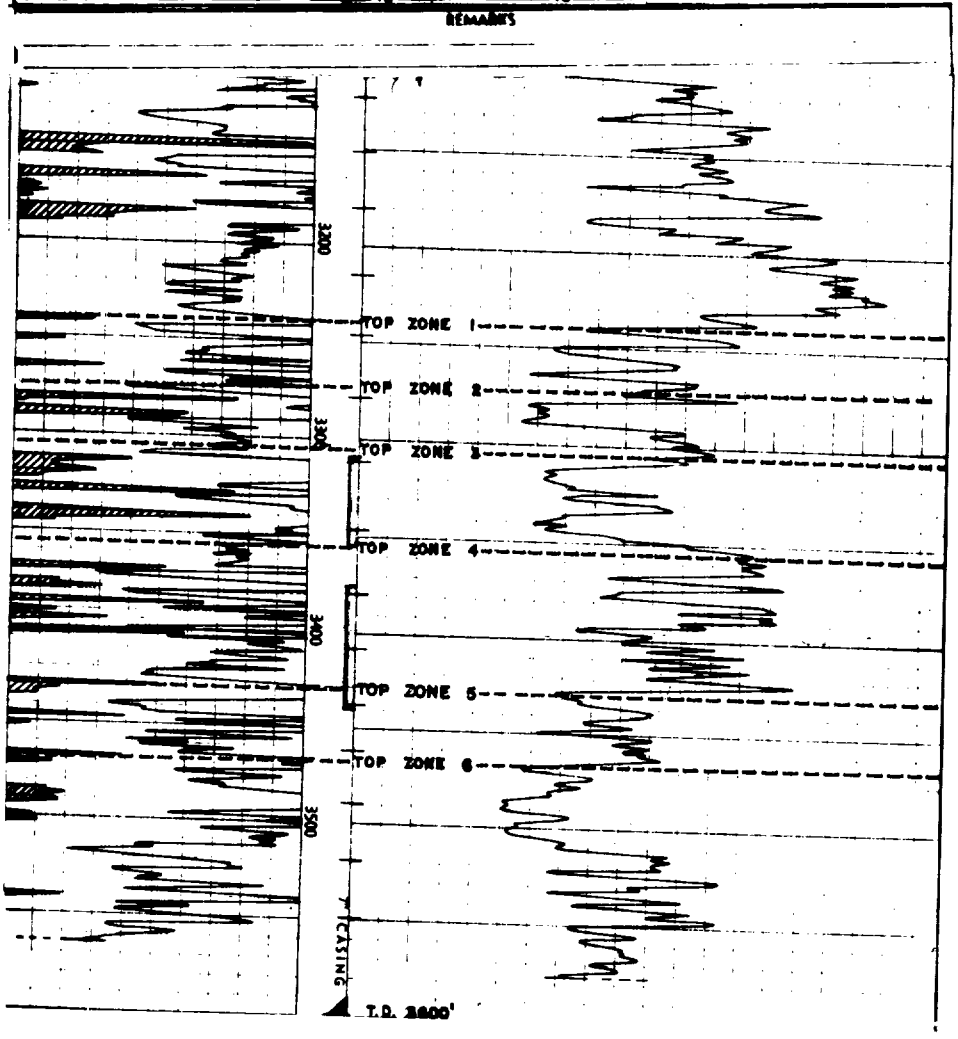
LOG MEAS. FROM: 10.5' ABOVE GROUND LEVEL ELEV. 3216
DRLG. MEAS. FROM: ELEV.
PERM. DATUM: 10.5' ABOVE GROUND LEVEL ELEV.

TYPE OF LOG	G/R	N/N
RUN NO.	1-NW	1-NW
DATE	9-16-58	9-16-58
TOTAL DEPTH (DRILLER)	3600	3600
EFFECTIVE DEPTH (DRILLER)	3550	3550
EFFECTIVE DEPTH (WESTERN)	3577.5	3577.5
TOP OF LOGGED INTERVAL	SURF.	SURF.
BOTTOM OF LOGGED INTERVAL	3574.5	3576
TYPE OF FLUID IN HOLE	OIL	OIL
FLUID LEVEL	30#	30#
SOURCE STRENGTH & TYPE		S10A3
SOURCE SPACING		1.5
DETECTOR CLASS	SCINT.	SCINT.
DETECTOR TYPE	D4G1	D4N1
DETECTOR LENGTH	4"	4"
O.D OF INSTRUMENT IN.	3 5/8	3 5/8
TIME CONSTANT SEC	3.0	3.0
LOGGING SPEED FT MIN	30-60	30-60
STATISTICAL VARIATION	RECORDED	RECORDED
SENSITIVITY REFERENCE	2-903	2-903
RECORDED BY	MC/KITZEY	
WITNESSED BY	MR. FRENCH	

CASING RECORD

BIT SIZE	CASING	WT-LB.	INTERVAL FROM WELL RECORD	INTERVAL FROM RA LOG
			TO	TO
	12 3/4		SURF. TO 288	TO
8 3/4	7"		SURF. TO 3598	TO
			TO	TO

REMARKS



COMPANY R. OLSEN PERSONAL
WELL OLSEN PHILLIPS # 5
FIELD LANGLIE MATTIX
COUNTY LEA STATE N. MEX.
LOCATION 660' FS & EL'S, SEC. 6
T-25-S, R-37-E

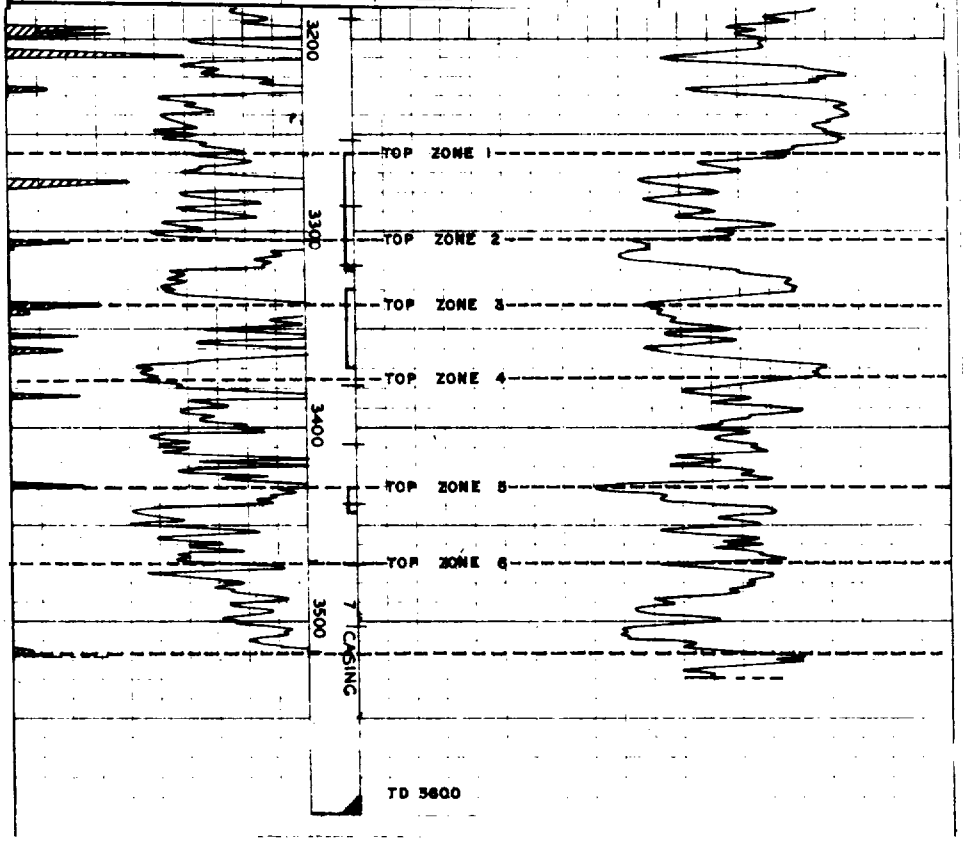
COMPANY R. OLSEN PERSONAL
WELL OLSEN PHILLIPS # 5
FIELD LANGLIE MATTIX
COUNTY LEA STATE NEW MEX.
LOCATION 660' FS & EL'S, SEC. 6
T-25-S, R-37-E

LOCATION

FILE NO.
LOG NO. 125847

LOG MEAS FROM 10.5 ABOVE GROUND LEVEL ELEV.
DRLG MEAS FROM 10.5 ABOVE GROUND LEVEL ELEV.
PERM DATUM GROUND LEVEL ELEV.

	G/R	N/N
TYPE OF LOG		
RUN NO	1-NW	1-NW
DATE	12-17-58	12-17-58
TOTAL DEPTH (DRILLER)		
EFFECTIVE DEPTH (DRILLER)	3535	3535
EFFECTIVE DEPTH (WESTERN)	3530.5	3530.5
TOP OF LOGGED INTERVAL	SURF.	SURF.
BOTTOM OF LOGGED INTERVAL	3517.5	3529
TYPE OF FLUID IN HOLE	OIL	OIL
FLUID LEVEL	FULL	FULL
SOURCE STRENGTH & TYPE		S10AJ
SOURCE SPACING		13.5"
DETECTOR CLASS	SCINT.	SCINT.
DETECTOR TYPE	D4G1	D6N1
DETECTOR LENGTH	4"	4"
O.D OF INSTRUMENT IN	3 5/8	3 5/8
TIME CONSTANT SEC	2.0-3.0	2.0-3.0
LOGGING SPEED FT/MIN	25-60	25-60
STATISTICAL VARIATION	RECORDED	RECORDED
SENSITIVITY REFERENCE	C-933	D-368
RECORDED BY	MC/KINZEY	
WITNESSED BY	MR. WATSON & FRENCH	



Location of Well

COMPANY: ANDERSON PRICHARD OIL CORP.

WELL: LANGLIE G - 2

FIELD: LANGLIE MATTIX

COUNTY: LEA STATE: N.M.

LOCATION: 660' FNL, 1980' FEL,

SECTION 17, 25S, 37E.

COMPANY: ANDERSON PRICHARD OIL CORP.

WELL: LANGLIE G-2

FIELD: LANGLIE MATTIX

COUNTY: LEA STATE: N. M.

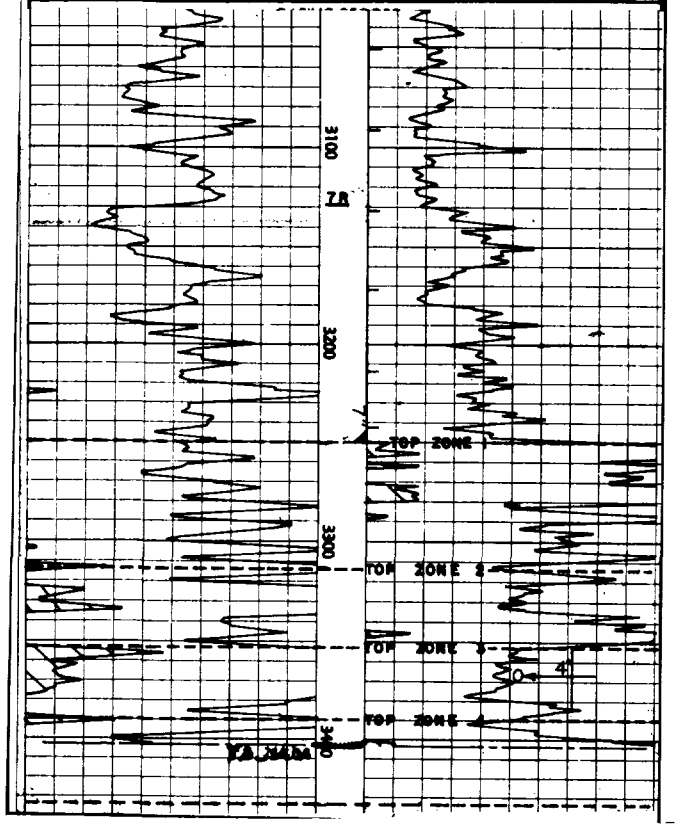
LOCATION:

LOG MEAS. FROM KELLY DRIVE BUSHING ELEV. 3148'

DRLG. MEAS. FROM KELLY DRIVE BUSHING ELEV. 3148'

PERM. DATUM 7" BRADEN HEAD ELEV. 3136'

TYPE OF LOG	GAMMA RAY	NEUTRON		
RUN NO.	1 RE	1 RE		
DATE	12-22-50	12-22-50		
TOTAL DEPTH (DRILLER) STRAIN	3405'	3405'		
EFFECTIVE DEPTH (DRILLER)	3405'	3405'		
TOP OF LOGGED INTERVAL	SURFACE	SURFACE		
BOTTOM OF LOGGED INTERVAL	3405'	3405'		
TYPE OF FLUID IN HOLE	OIL	OIL		
FLUID LEVEL	FULL	FULL		
MAXIMUM RECORDED TEMP.				
NEUTRON SOURCE STRENGTH & TYPE		400M		
SOURCE SPACING — IN.		2.25		
LENGTH OF MEASURING DEVICE — IN.	24	2		
O.D. OF INSTRUMENT — IN.	2 5/8	2 5/8		
TIME CONSTANT — SECONDS	4	4		
LOGGING SPEED FT./MIN.	25-50	25-50		
STATISTICAL VARIATION — IN.				
SENSITIVITY REFERENCE	274	275		
RECORDED BY	TAYLOR	TAYLOR		
WITNESSED BY	COULSON	COULSON		



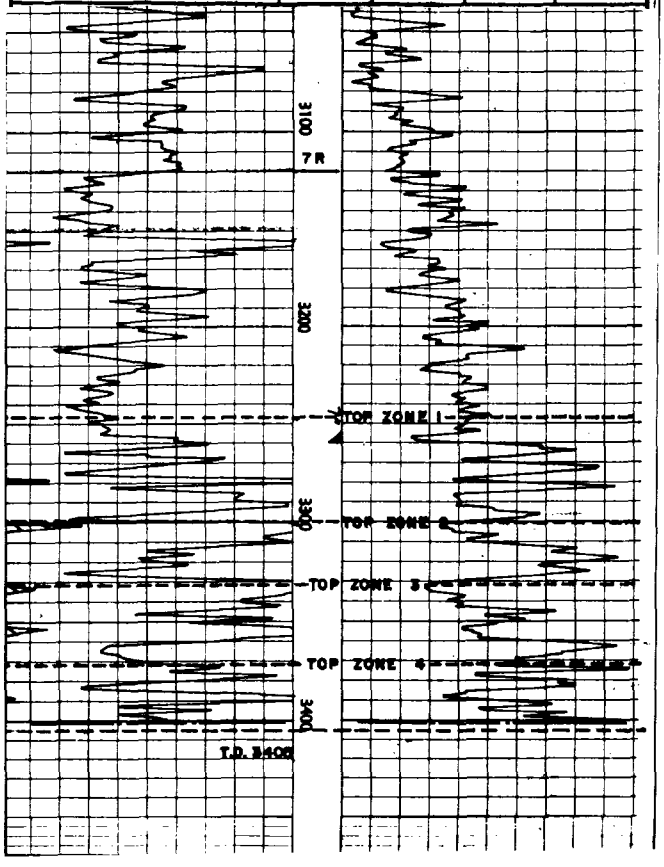
Location of Well	ANDERSON PRICHARD COMPANY: OIL CORPORATION WELL: LANGLIE NO. 6 FIELD: LANGLIE MATTIX COUNTY: LEA STATE: N.M. LOCATION: 1980' FSL, 2310' FEL, SECTION 8, 25S, 37E.	COMPANY: OIL CORPORATION WELL: LANGLIE NO. 6 FIELD: LANGLIE MATTIX COUNTY: LEA STATE: N.M. LOCATION:
ELEVATION OF G.L. 3140'		

LOG MEAS. FROM ROTARY TABLE ELEV.

DRLG. MEAS. FROM ROTARY TABLE ELEV.

PERM. DATUM 9' BELOW ROTARY TABLE. ELEV.

TYPE OF LOG	GAMMA RAY	NEUTRON
RUN NO.	1 RE	1 RE
DATE	2-24-53	2-24-53
TOTAL DEPTH (DRILLER) STRAIN	3404.5'	3404.5'
EFFECTIVE DEPTH (DRILLER)	3404.5'	3404.5'
TOP OF LOGGED INTERVAL	SURFACE	SURFACE
BOTTOM OF LOGGED INTERVAL	3401'	3401'
TYPE OF FLUID IN HOLE	OIL	OIL
FLUID LEVEL	FULL	FULL
MAXIMUM RECORDED TEMP.		
NEUTRON SOURCE STRENGTH & TYPE		400M
SOURCE SPACING — IN.		8.25
LENGTH OF MEASURING DEVICE — IN.	36	8
O.D. OF INSTRUMENT — IN.	3 5/8	3 5/8
TIME CONSTANT — SECONDS	5	4
LOGGING SPEED FT./MIN.	25-48	25-40
STATISTICAL VARIATION — IN.		
SENSITIVITY REFERENCE	274	278
RECORDED BY	HENDERSON	HENDERSON
WITNESSED BY	GOULSON	GOULSON



OLSEN
Phillips No. 4
Sec. 6-O, 25S - 37E
Elev. 3218

SKELLY
Sherrill No. 7
Sec. 31-J, 24S - 37E
Elev. 3241

PRODUCING HORIZON CORRELATION

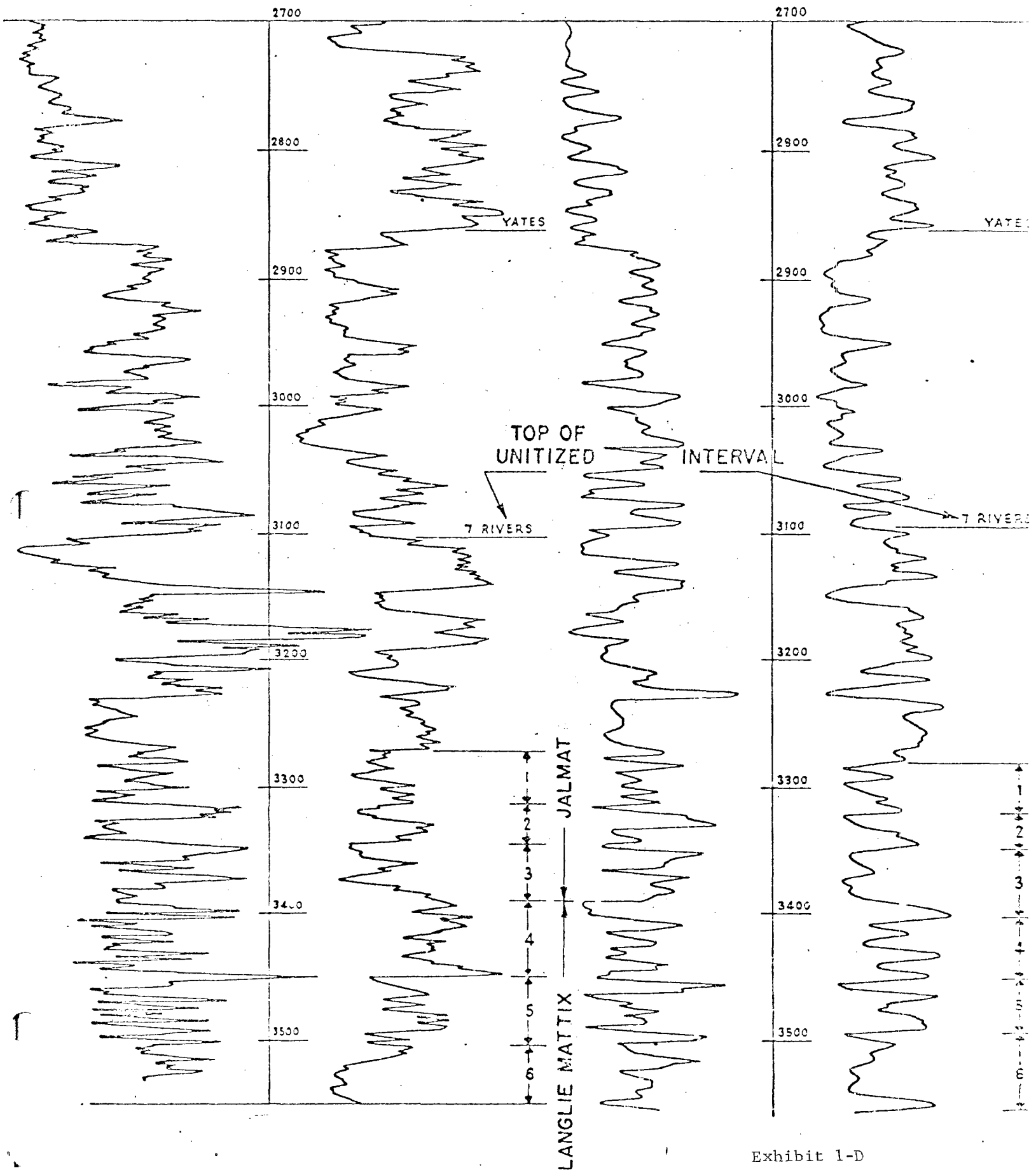


Exhibit 1-D

PETCO
SOUTHERN CALIF. PETR. CO.
PHILLIPS #4
UNNAMED FIELD
LEA COUNTY, N.M.

Case 4403