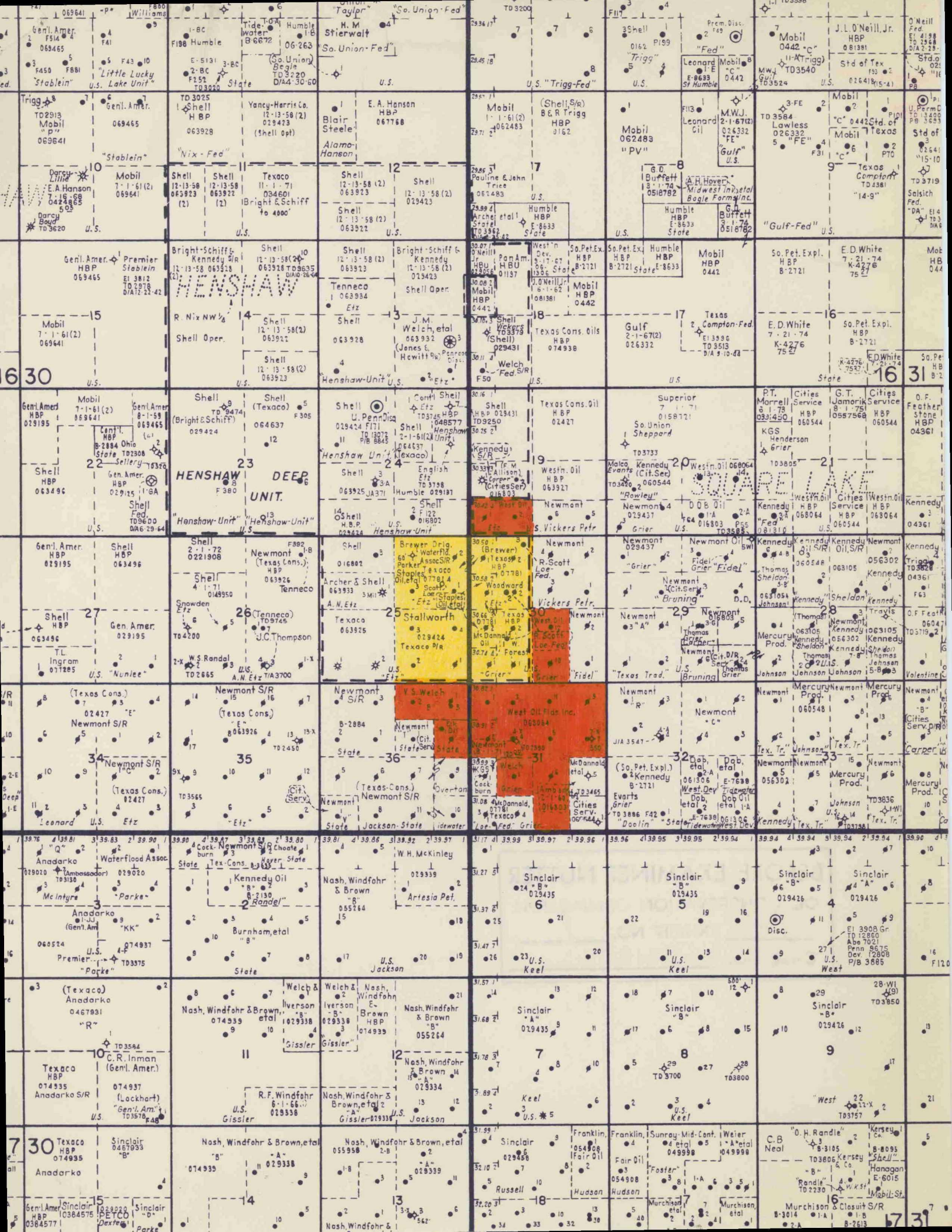
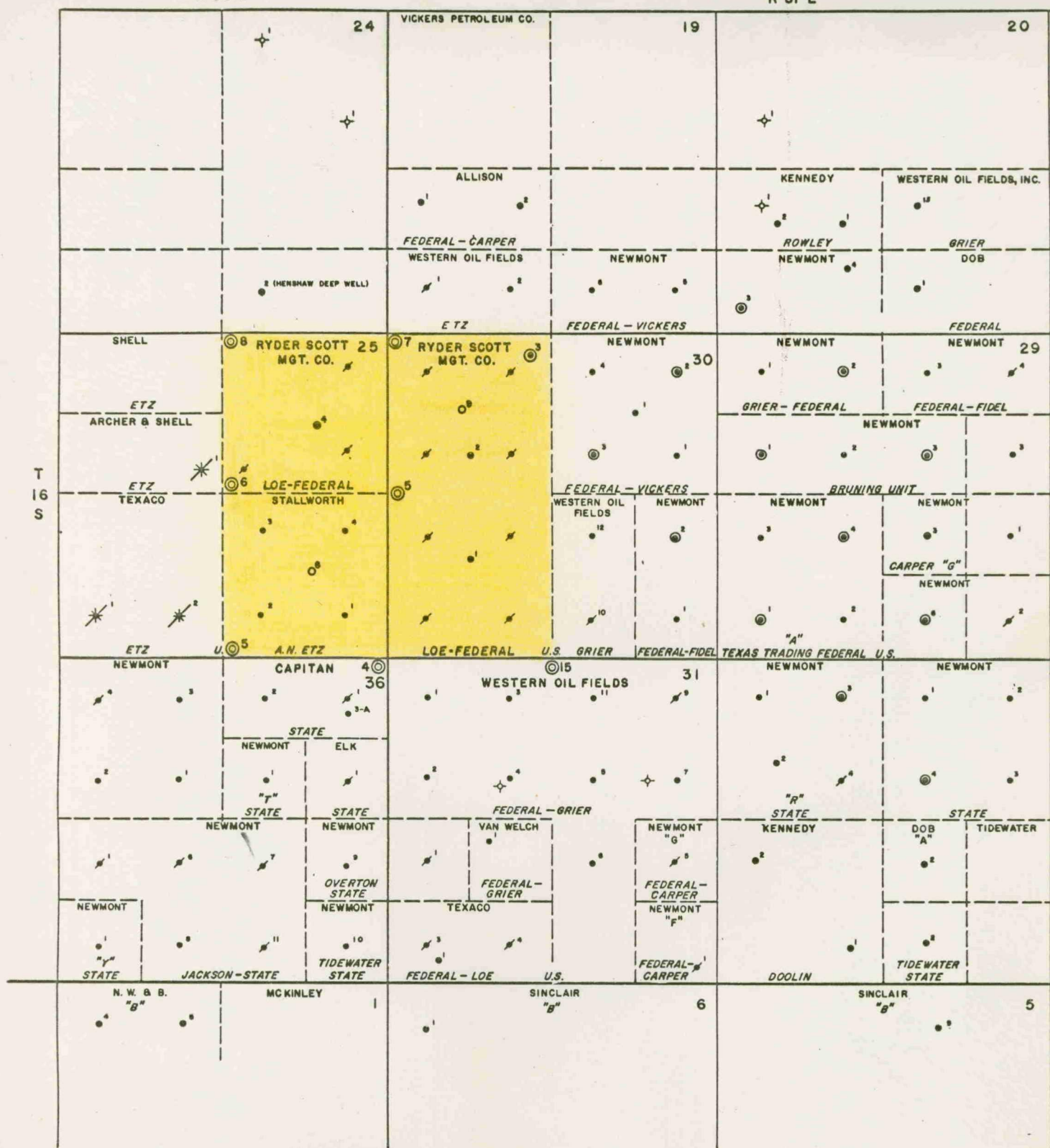




BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
RSMC EXHIBIT NO. 1
CASE NO. 3310

R 30 E

R 31 E



BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

RSMC EXHIBIT NO. 2

CASE NO. 3310

Ryder Scott Management Company

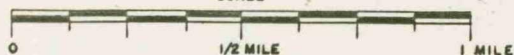
LEGEND:

- PRODUCING OIL WELL
- ✱ ABANDONED OIL WELL
- ✱ DRY HOLE
- ✱ GAS WELL
- ✱ ABANDONED GAS WELL

- ⊙ WATER INJECTION WELL
- ⊙ LOCATION-INJECTION
- LOCATION-PRODUCTION

SQUARE LAKE FIELD
EDDY COUNTY, NEW MEXICO

SCALE



MONTHLY RECORD OF PRODUCTION

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

Operator CIMA CAPITAN, INC.
 Lease KELLY, STATE & GRIGG
 Field SQUARE LAKE
 County EDDY
 State N. M.

Well No. CIMA EXHIBIT NO. 10
 Well Loc. CASE NO.
 Remarks COMPOSITE TOTAL
4 WELLS - OIL PRODUCTION

	1965	1964	1963
	OIL PROD. - BBLs.	GAS PROD. - MCF	Water - Gals.
JAN.	40	107	166
FEB.	47	90	173
MAR.	15	51	220
APR.	43	42	200
MAY	60	94	196
JUNE		58	185
JULY		70	235
AUG.		94	242
SEPT.		73	189
OCT.		83	209
NOV.		49	200
DEC.		63	137
TOTAL		874	2352
CUMU.		212 713	210 361

	1959	1958	1957
	OIL PROD. - BBLs.	GAS PROD. - MCF	Water - Gals.
JAN.	179	204	377
FEB.	139	168	309
MAR.	217	223	177
APR.	86	140	180
MAY	182	171	169
JUNE	156	271	269
JULY	164	212	201
AUG.	149	191	279
SEPT.	202	211	239
OCT.	115	209	193
NOV.	107	211	216
DEC.	152	189	209
TOTAL	1848	2400	2818
CUMU.	204162	201762	198944

	1953	1952	1951
	OIL PROD. - BBLs.	GAS PROD. - MCF	Water - Gals.
JAN.	163	239	304
FEB.	154	199	347
MAR.	189	320	295
APR.	143	69	210
MAY	140	152	381
JUNE	129	66	374
JULY	119	145	291
AUG.	152	174	70
SEPT.	133	127	381
OCT.	112	143	80
NOV.	353	93	297
DEC.	1475	161	77
TOTAL	3264	1888	3101
CUMU.	182345	180457	177396

	1962	1961	1960
	OIL PROD. - BBLs.	GAS PROD. - MCF	Water - Gals.
JAN.	81	71	129
FEB.	32	57	91
MAR.	170	128	127
APR.	147	112	114
MAY	314	120	96
JUNE	206	100	109
JULY	186	95	112
AUG.	236	90	90
SEPT.	219	87	78
OCT.	145	47	161
NOV.	235	38	78
DEC.	88	26	84
TOTAL	2109	971	1271
CUMU.	208252	207281	206010

	1956	1955	1954
	OIL PROD. - BBLs.	GAS PROD. - MCF	Water - Gals.
JAN.	276	413	913
FEB.	236	333	642
MAR.	352	462	1018
APR.	368	437	835
MAY	268	434	716
JUNE	282	406	489
JULY	313	316	569
AUG.	290	291	550
SEPT.	217	158	524
OCT.	185	174	401
NOV.	216	218	358
DEC.	196	260	402
TOTAL	3184	2912	7239
CUMU.	195760	192848	185609

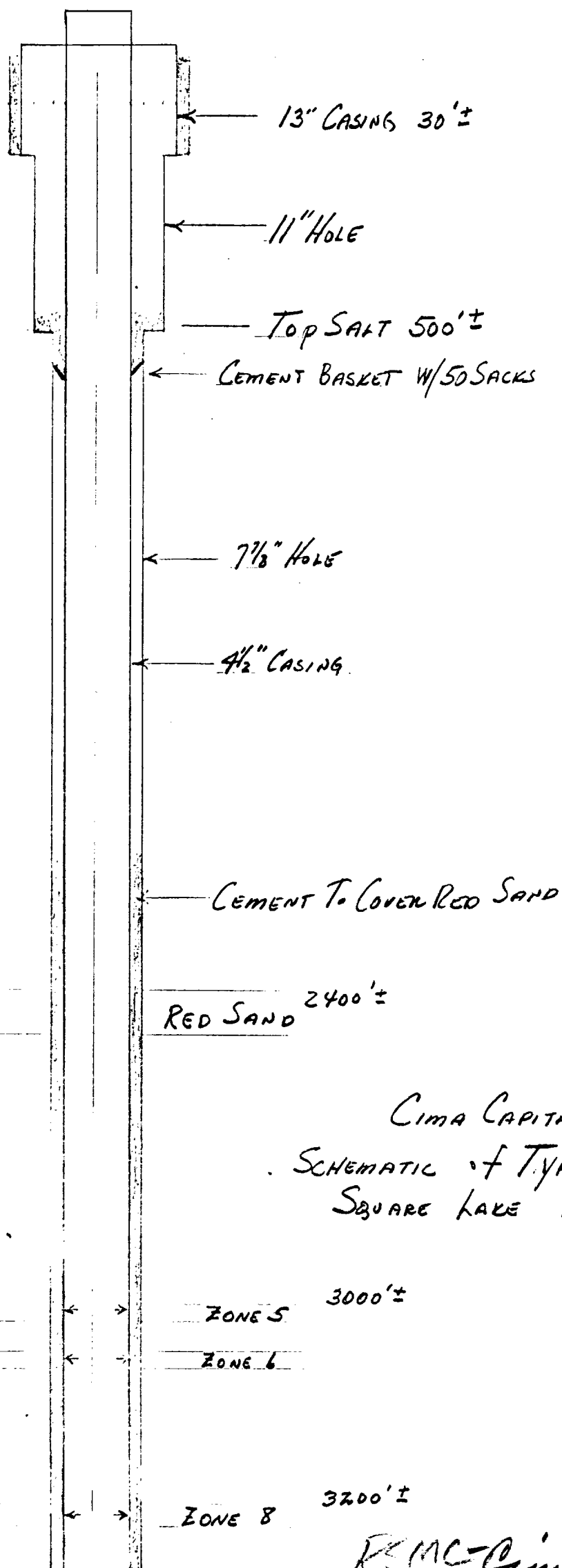
	1950	1949	1948
	OIL PROD. - BBLs.	GAS PROD. - MCF	Water - Gals.
JAN.	226	257	254
FEB.	465	345	257
MAR.	287	284	263
APR.	404	204	248
MAY	298	72	431
JUNE	262	283	328
JULY	654	71	327
AUG.	677	552	211
SEPT.	208	134	205
OCT.	202	583	185
NOV.	301	378	82
DEC.	250	460	78
TOTAL	4232	3623	2869
CUMU.	173124	169561	166632

WESTERN OILFIELDS, INC.

PRODUCTION HISTORY
Square Lake Field
16 Wells

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
<i>Conda</i>	EXHIBIT NO. <i>10</i>
CASE NO.	<i>530</i>

<u>Year</u>	<u>Barrels</u>	<u>Cumulative</u>
1941	2736	2736
1942	24414	27150
1943	79986	107136
1944	101470	208606
1945	68476	277082
1946	39008	316090
1947	22462	338552
1948	23066	361618
1949	21081	382699
1950	10788	393487
1951	12276	405763
1952	13557	419320
1953	11507	430827
1954	10716	441543
1955	10157	451700
1956	9961	461661
1957	7676	469337
1958	7728	477065
1959	7492	484557
1960	6088	490645
1961	11769	502414
1962	16683	519097
1963	8032	527129
1964	5031	532160



CIMA CAPITAL, INC.

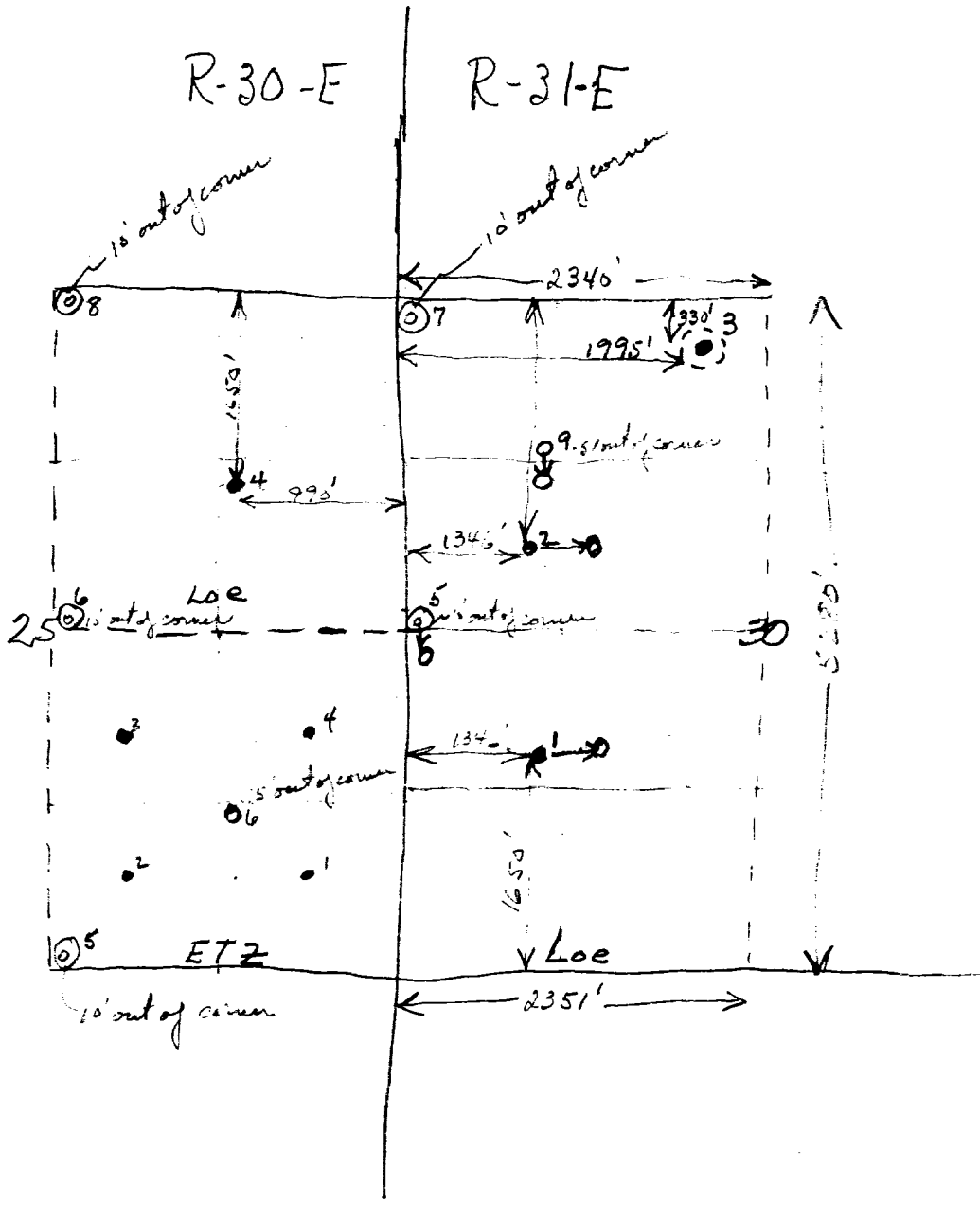
SCHEMATIC of TYPICAL INJECTOR
SQUARE LAKE PROJECT

RE MC-Cima

EXHIBIT No. 14

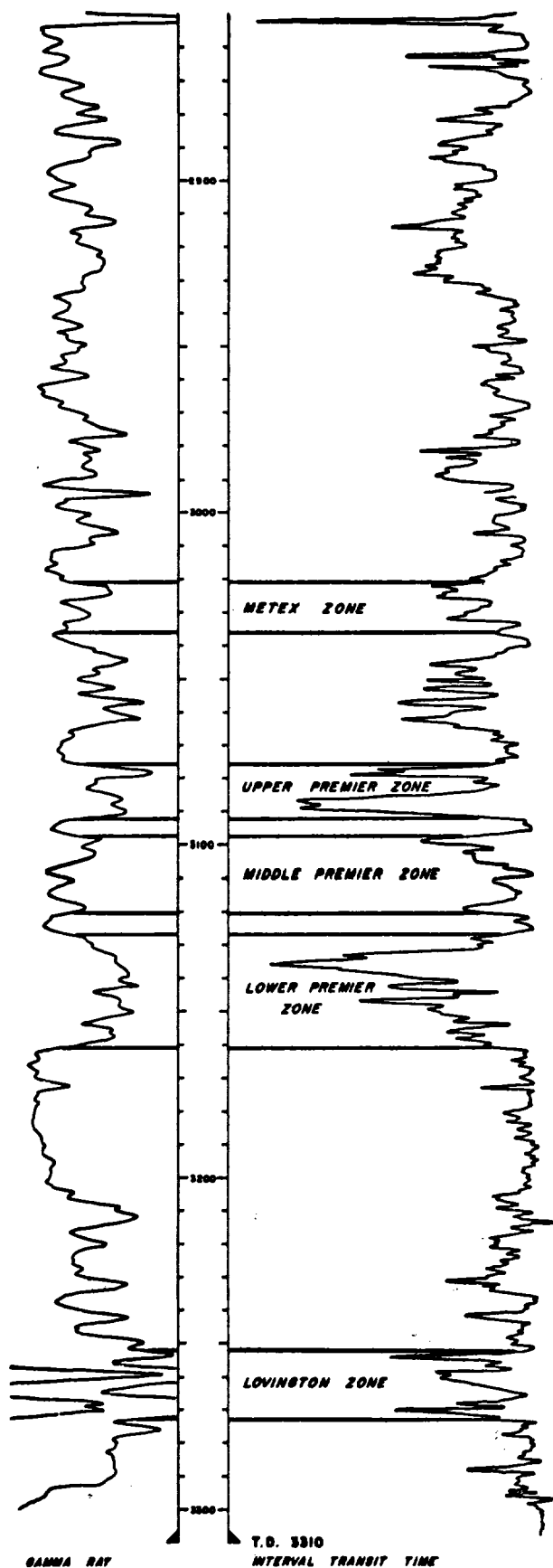
CE 3-10

T
16
S



Loe Federal

F1	1650' FSL + 1346' FWL	Sec 20	T-16-S	E-21-E
F2	1980' FNL + 1346' FWL	"	"	"
F3	330' FNL + 1995' FWL	"	"	"
F4	1650' FNL + 999' FEL	Sec, 25	"	R-30-E



GAMMA RAY

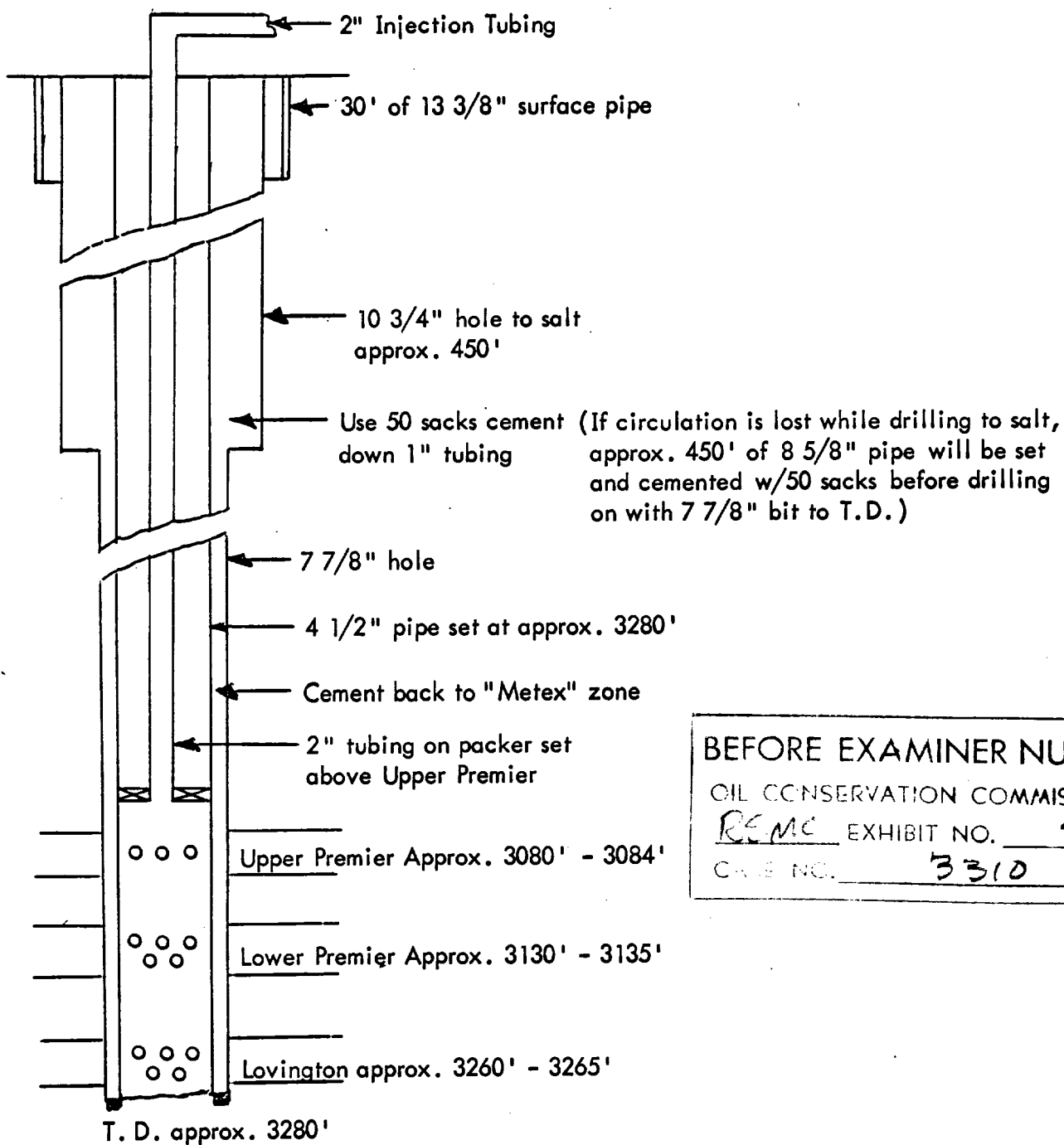
T.D. 3310
INTERVAL TRANSIT TIME

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
RSMK EXHIBIT NO. 3
CASE NO. 3310

TYPICAL LOG SECTION
FEDERAL-LOE NO. 1

Ryder Scott Management Company
AND
Stallworth Oil and Gas

SQUARE LAKE FIELD
EDDY COUNTY, NEW MEXICO



BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

REMC EXHIBIT NO. 4

CASE NO. 3310

Diagram of Proposed Well Completion
for Injection Wells

Ryder Scott Management Company
and
Stallworth Oil and Gas

Square Lake Field
Eddy County, New Mexico

OIL PRODUCTION HISTORY

A. N. Etz Lease
Square Lake Field
Eddy County, New Mexico

<u>Year</u>	<u>Month</u>	<u>Number of Wells</u>	<u>Oil Production Barrels</u>	<u>Cumulative Oil Production Barrels</u>
1942-1959		4	206,574	206,574
1960		4	5,014	211,588
1961		4	5,940	217,528
1962		4	3,871	221,399
1963		4	3,114	224,513
1964		4	3,085	227,598
1965	January	4	318	227,916
	February	4	334	228,250
	March	4	369	228,619
	April	4	189	228,808
	May	4	308	229,116
	June	4	299	229,415
	July	4	223	229,638
	August	4	165	229,803

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

REMC EXHIBIT NO. 5

CASE NO. 3310

OIL PRODUCTION HISTORY

Loe-Federal Lease
Square Lake Field
Eddy County, New Mexico

<u>Year</u>	<u>Month</u>	<u>Number of Wells</u>	<u>Oil Production Barrels</u>	<u>Cumulative Oil Production Barrels</u>
1942-1949		11	288,382	288,382
P & A from 1949 to 1964				
1964		2	7,293	295,675
1965	January	2	1,391	297,066
	February	2	1,423	298,489
	March	2	1,719	300,208
	April	3	2,092	302,300
	May	3	2,136	304,436
	June	3	2,005	306,441
	July	4	2,417	308,858
	August	4	2,413	311,271

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

ESMC EXHIBIT NO. 6

CASE NO. 3310

Martin Water Laboratories
BOX 1488 MONAHANS, TEXAS W 13-4781
RESULT OF WATER ANALYSES

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
RSMC EXHIBIT NO. 7
LABORATORY NO. M6596
CASE NO. 6-2-59 3310
SAMPLE RECEIVED 6-2-59
RESULTS REPORTED 6-10-59

TO: Mr. L. D. Crumly
503 Oil & Gas Building, Midland, Texas

COMPANY Caprock Water Co. - Waterflood LEASE Caprock Water Co.
FIELD OR POOL Division Caprock Water (Ogallala Formation)

SECTION _____ BLOCK _____ SURVEY _____ COUNTY Lea & Eddy STATE New Mexico

SOURCE OF SAMPLE AND DATE TAKEN:

- NO. 1 Water - taken from raw water supply at edge of Cap. 6-2-59
NO. 2 Water - taken from Skelly Camp residence approxi. midpoint of 3" line. 6-2-59
NO. 3 Water - taken from truck loading storage at Loco Hills at end of 3" line. 6-2-59
NO. 4 _____

REMARKS: Analyses performed under the name of Treat-Rite Water Labs. by the undersigned.

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60 degs. F	1.0008	1.0006	1.0007	
pH When Sampled	7.7	7.6	7.5	
pH When Received	7.7	7.6	7.5	
Total Alkalinity as CaCO ₃	176	156	160	
Supersaturation as CaCO ₃	4	-	0	
Undersaturation as CaCO ₃	-	4	-	
Total Hardness as CaCO ₃	188	162	164	
Calcium as CaCO ₃	147	127	128	
Magnesium as CaCO ₃	41	35	36	
Sodium and/or Potassium				
Sulfate as SO ₄	35	32	29	
Chloride as NaCl	42	45	47	
Iron as Fe	0.36	0.20	0.12	
Manganese as Mn				
Barium as Ba	0.0	0.0	0.0	
Turbidity Electric	1.3	1.9	1.3	
Color as Pt	1.5	1.5	0.8	
Dissolved Solids at 103 deg. C				
Total Solids at 103 deg. C				
Total Solids, Calculated				
Temperature Degs. F.	68	75	75	
Carbon Dioxide, Calculated	7.5	8.0	10.1	
Dissolved Oxygen, Winkler	8.2	7.2	8.4	
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity OHMS/CC at 60 Degs. F.	2,000	2,100	2,100	
Total Suspended Oil				

All Results Reported As Parts Per Million

Additional Determinations And Remarks

~~The above analyses are considered sufficiently substantial evidence that this water can be satisfactorily transferred through a bare steel line. A thin protective calcium carbonate scale is anticipated which should greatly reduce corrosion. The transferred water should not require plant filtration but wellhead filters are recommended, as a small amount of insoluble iron will undoubtedly be encountered. These conclusions are based on anticipated reasonable similarity of the above with the water from the wells to be drilled. Contact me for any further details or discussions.~~

BY _____

Bradford

LABORATORIES

WATER ANALYSIS RESULTS

CLIENT: Yucca Water Company

Sample No.	X1	X2	X3	X4
Date Sampled	3/16/60	3/16/60	3/16/60	3/16/60
Time Sampled	9:00 am	10:15 am	11:00 am	1:35 pm
Date Received				
Time Received				
Location:	Water Supply Well #1	Tank Influent at Plant	Tank Effluent At Plant	Loco Hills Meter Station
Fresh Water System Lea & Eddy Counties, New Mexico				
Appearance When Sampled	Clear	V. Sl. Hazy; Fine Or. Sed.	V. Sl. Hazy	Hazy; Sl. Yell. Cast
Appearance After Standing	V. Sl. Hazy Sl. Or. Sed.	Sl. Hazy; Yell. Sed	Sl. Hazy; Yel. Sed.	Hazy; Sl. Or. Sed.
Odor	None	None	None	None
Taste	None	None	None	None
Temperature °F	64	58	58	58
pH	7.1	7.4	7.4	7.4
Carbon Dioxide ppm CO ₂	27	13	13	10
Dissolved Oxygen ppm O ₂	6.0	4.7	6.7	1.1
Residual Chlorine ppm Cl ₂	nd	nd	nd	nd
Turbidity ppm	1.6	14	2.9	7.9
Manganese ppm Mn	0	0	0	0
Iron (Total) ppm Fe	0.2	1.4	1.0	1.2
Alkalinity to Phenolphthalein ppm CaCO ₃	0	0	0	0
Alkalinity to Methyl Orange ppm CaCO ₃	146	146	144	138
Sulfates ppm SO ₄	23	26	25	24
Chlorides ppm Cl	35	32	52	27
Total Hardness ppm CaCO ₃	180	174	178	160
Silica ppm SiO ₂	30	34	34	29
Calcium ppm Ca	58	53	56	50
Magnesium ppm Mg	8	10	9	9
Complex Phosphate ppm				
Total Solids ppm	313	308	356	293

17.1 ppm equal 1 grain per U. S. gallon. - "nd" means not determined.

COMMENTS

	Water Supply Well #1	Tank Influent	Tank Effluent	Loco Hills Meter Station
Total Suspended Solids(ppm)	1.3	4.1	4.4	7.0
Soluble Iron ppm Fe	0.18	0.03	0.01	0.02

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

KENC EXHIBIT NO. 8

CASE NO. 3310

MONTHLY RECORD OF PRODUCTION

Operator CIMA CAPITAN, INC.
 Lease KELLY, STATE & GRISWOLD
 Field SQUARE LAKE
 County EDDY
 State N. M.

Well No. _____
 Well Loc. _____
 Remarks COMPOSITE TOTAL
4 WELLS - OIL PRODUCTION

	1965	1964	1963
	OIL PROD. - BBL.	GAS PROD. - MCF	WATER - BBL.
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AUG.		94	242
SEPT.		73	189
OCT.		83	209
NOV.		49	200
DEC.		63	137
TOTAL		874	2352
CUMU.		212 713	210 361

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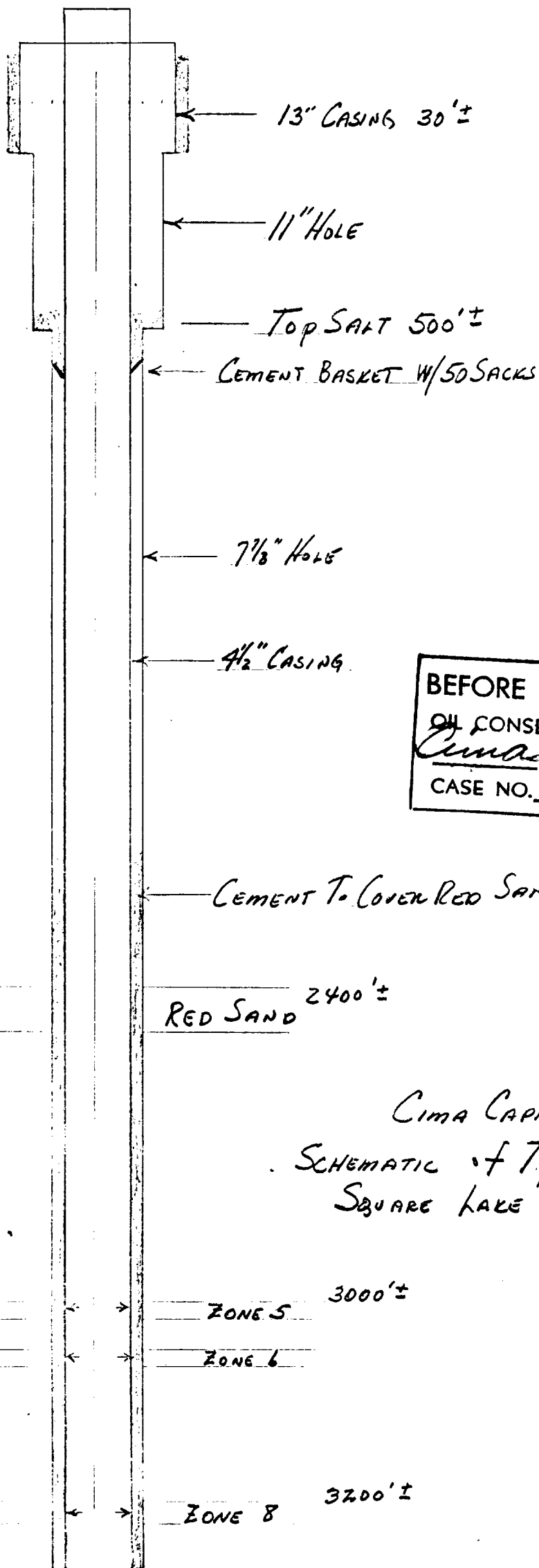
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OCT.	202	583	185
NOV.	301	378	82
DEC.	250	460	78
TOTAL	42321	3623	2869
CUMU.	173124	169561	166632

Printed - Cima Capitán 10/6/5310



BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Cima EXHIBIT NO. 14
CASE NO. 3310

CIMA CAPITAN, INC.
SCHEMATIC of TYPICAL INJECTOR
SQUARE LAKE PROJECT

EXHIBIT No. _____



ZONE 5



ZONE 6

3100

3200

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Cuma EXHIBIT NO. 15
CASE NO. 3370

Gamma Ray

Sonic Curve →

LOVINGTON

Ryder-Scott
LOE 773

Mech. Zero

GAMMA RAY FIRST READING

GR Zero

CIMA CAPITAN, INC. - SQUARE LAKE PROJECT - WELL DATA

<u>Lease & Well No.</u>	<u>Location</u>	<u>Compl. Date</u>	<u>I.P.</u>	<u>Surf. Csg.</u>	<u>Casing</u>	<u>T.D.</u>	<u>Elev.</u>	<u>Stimulation</u>	<u>Primary Recovery</u>
Kelly State 1 (1330 FN & 1310 FE)	H-36-16-30	9-30-49	10	10" 544 W/50	6" @ 2815 W/100	3332		Shot 3128-48 80 Qts	13801
State No. 3. 810 FN & 600 FE	A-36-16-30	3-19-54	35 AF	10" 482 W/50	7" @ 2815 W/100	3255	3807	Frac:Straddle packers 3 zones 3MG & #1 zone	59854
State No. 2 660 FN & 1980 FE	B-36-16-30	8-8-42	300 NAT	8" 494 50	7" @ 2795 W/100	3035 3220 (1953)	3819	Frac:Lovington 1953 3 MG & # Prod.increase to 60 B/D	62132
State No. 1 (P & A 1949) 660 FN & 660 FE	A-36-16-30	2-14-42	60(NAT)	8" 500 W/50 Sx	7" @ 28a W/100	3040	3807		
Grier No. 1	L-31-16-31	4-11-43	85	8" @ 502 W/50	7" @ 2838 W/100	3171 PB 3098	3782	Shot 3080 - 98	39113
Kelly-Tellyer 1	H-36-16-30	3-14-42	60		5½" @ 2804	3114 DD 3121 (1944)	3815		

174900

BEFORE EXAMINER NUTTER
OF CONSERVATION COMMISSION
Case EXHIBIT NO. 16
CASE NO. 2016

Exhibit No. _____

WESTERN OIL FIELDS, INC - SQUARE LAKE PROJECT - WELL DATA

<u>Lease & Well No.</u>	<u>Location</u>	<u>Compl. Date</u>	<u>I.P.</u>	<u>Casing</u>	<u>T.D.</u>	<u>Elev.</u>	<u>Stimulation</u>	<u>Prim. Recovery</u>
Grier	1 D-31-16-31	10-19-41	390 AS	5½" @ 2967 W/100	3360	3822	200 qts	68424
	2 E-31-16-31	5-13-42	400 AS	7" @ 2945 W/100	3222	3808	200 qts	61429
	3 C-31-16-31	7-18-42	520 AS	7" @ 2989 W/100	3252	3839	?	56086
	4 F-31-16-31	9-27-42	240 AS	7" @ 2965 W/100	3270	3811	90 qts	50652
5	G-31-16-31	7-29-42	240 AS	7" @ 2985 W/100	3238	3828	?	40428
6	J-31-16-31	4-16-45	200 AF	7" @ 2988 W/100	3185	3807	Frag 3mgo & 3m#	44345
7	H-31-16-31	9-30-43	240 AS	5½" @ 3055 W/100	3285	3852	170 qts	25282
11	B-31-16-31	12-7-43	240 AS	7" @ 3018 W/100	3401	3832	490 qts	50135
12	J-30-16-31	2-29-44	120 AS	7" @ 2975 W/100	3228	3822	210 qts	54095
ETZ	2 N-19-16-31	5-11-45	60 AS	7" @ 2978 W/100	3302	3865	290 qts	36157
Grier	9 A-31-16-31	P & A						15268
	10 O-30-16-31	P & A						25805
	13 J-20-16-31							17917
	14 I-20-16-31							2756
ETZ	1 M-19-16-31	P & A						10739
								559518

SEPT 15 1941
RESERVATION COMMISSION
Curtis
3-2-41

Exhibit No. _____