



L. P. Thompson
Division Manager

E. L. Oshlo
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Production Department
Hobbs Division
North American Production

Continental Oil Company
P.O. Box 460
1001 North Turner
Hobbs, New Mexico 88240
(505) 393-4141

471

48

October 6, 1978

Order # 112412

Oil Conservation Division (3)
Department of Energy & Minerals
State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention Mr. J. D. Ramey, Director

Gentlemen:

Administrative Approval

Administrative approval is requested to authorize water injection into the MCA Unit Wells 61, 106, 255, 263, 291, 298, and 309, in order to improve the Grayburg-San Andres flood pattern sweep efficiency.

Six of the wells proposed for conversion are shut-in producers: MCA Unit Nos. 61, 106, 255, 263, 291, and 309. These wells were shut-in over the past several years because of a high water-cut. The one remaining active producer in the group proposed for conversion, MCA No. 298, is approaching shut-in since it is producing at a rate of 10 BO and 270 BWPD for a 96-1/2 percent water-cut.

Four of the proposed conversions will result in a nine-spot pattern around MCA No. 51, center pattern producer.

Improvement in waterflood pattern sweep is expected because of:

- (a) The lenticular nature of the Grayburg-San Andres reservoirs. The new injection wells should provide an opportunity to sweep previously unswept or partially swept areas.
- (b) Due to reservoir heterogeneity, we have not been able to inject the volume of water necessary to achieve balance with offsetting injectors in some zones in these areas. The new injectors would provide an opportunity for supplemental injectors to help sweep these areas.

Mr. Ramey, Director



Oil Conservation Division (3)
Department of Energy & Minerals
State of New Mexico
October 6, 1978
Page Two

The proposed inputs will provide direct benefit to nine center pattern producing wells. We have conservatively estimated 250,000 barrels of additional waterflood oil recovery over ten years for this project based on flood-front model prediction of improved sweep. The 250,000 barrels represents approximately a 9-1/2 percent increase in waterflood recovery to the nine producers to be affected by the conversions.

The pattern rotation project performance will be closely monitored since it has been considerable potential application in the rest of the MCA Unit waterflood project.

We will appreciate your consideration of this request at your earliest convenience.

Respectfully submitted,

CONTINENTAL OIL COMPANY

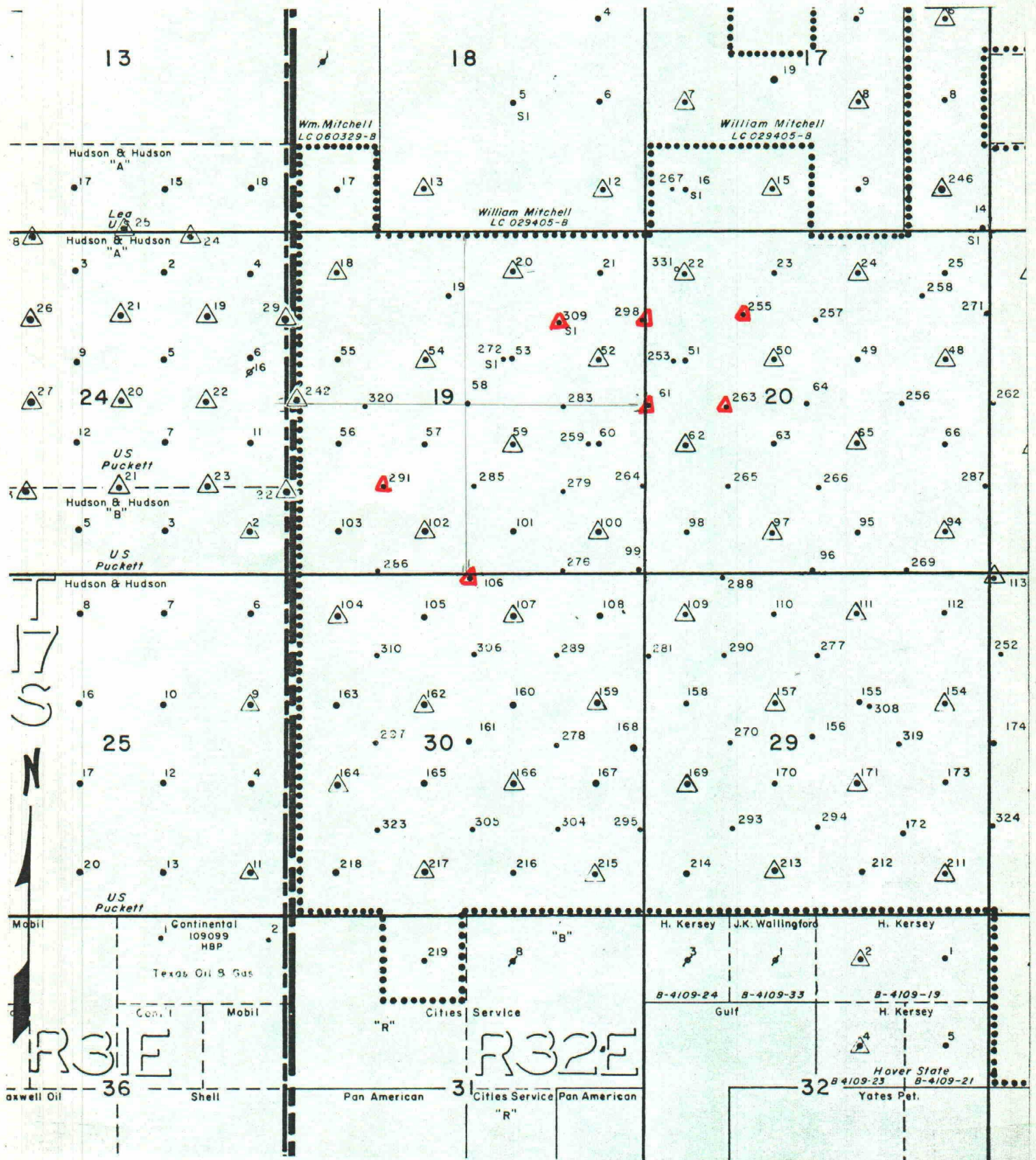
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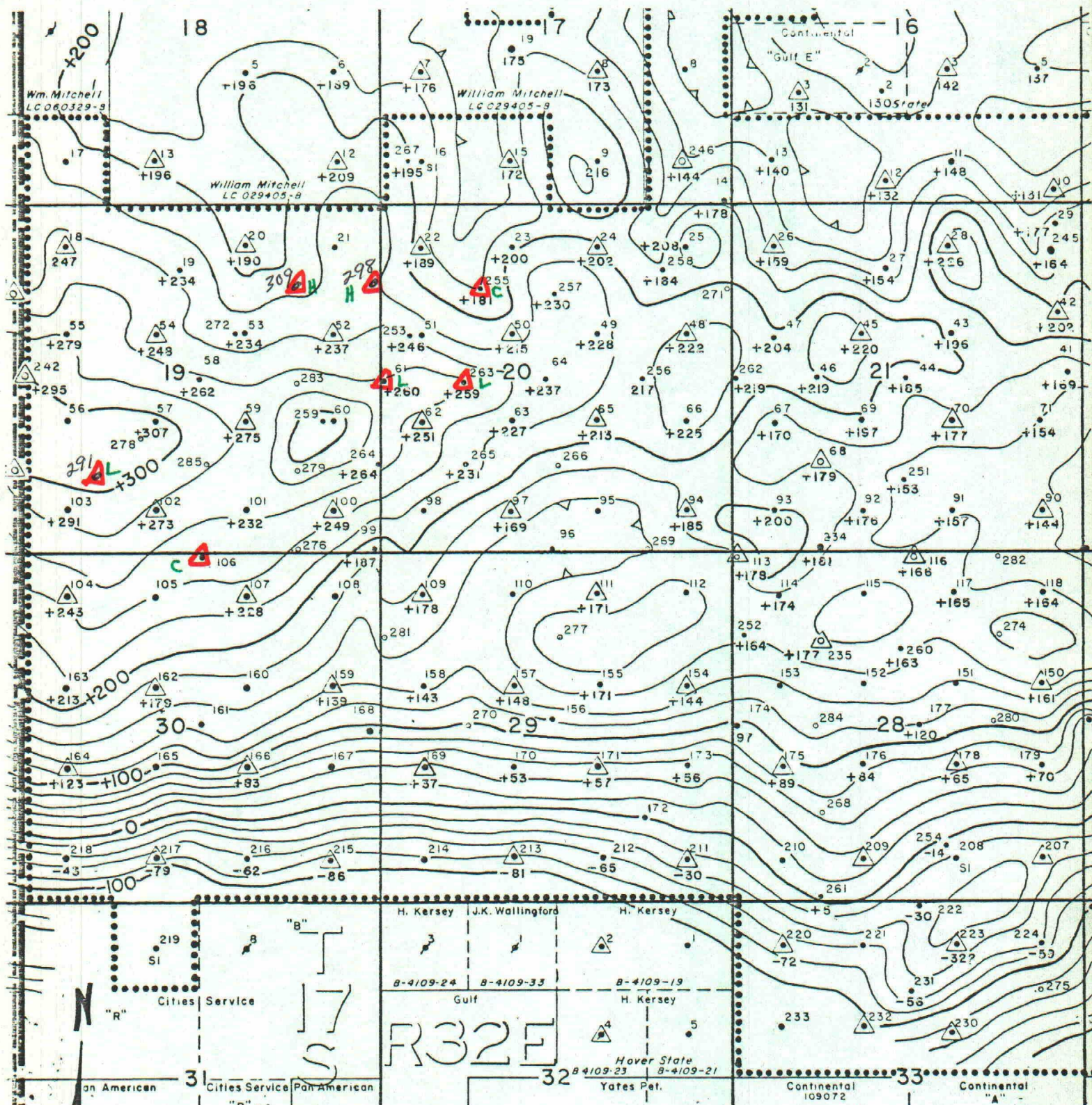
L. P. Thompson

HAI/jj

enc

cc: Jason W. Kellahin, Santa Fe





CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT—HOBBS DIVISION

STRUCTURE MAP—SAN ANDRES

LEA COUNTY, NEW MEXICO

TOP OF 7th ZONE

CI: 20'

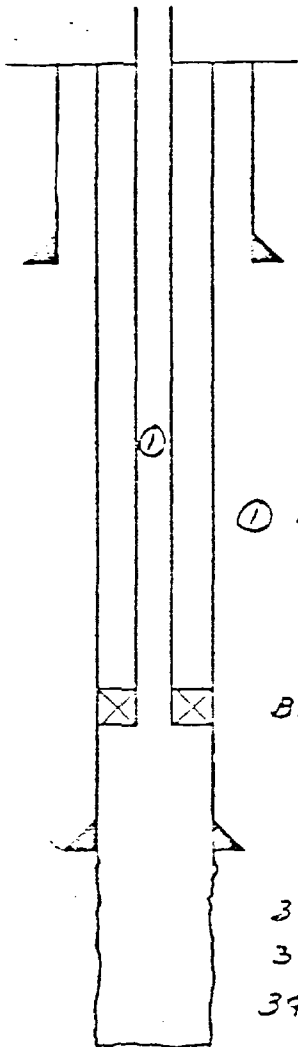
SCALE

0' 1000' 2000'

N Graeger 2-26-71

grw

MCA UNIT N' 61
2615' FS & 25' FWL
20-17-32 ELEV: 3942' DF
HPG 6/1/77



40.5# 8rd
10 3/4" CSG @ 77' SET W/70 SX

EST. TOC 310'

① 2 3/8", J-55, 4.7# E4E 8rd, I.P.C. TBG @ ± 3500'

BAKER MODEL AD-1 TENSION PKR @ 3500'

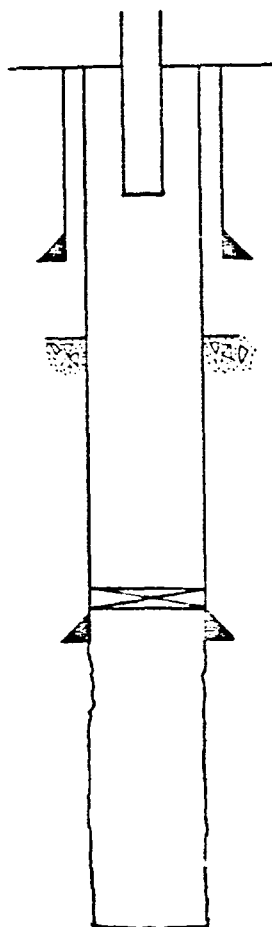
8rd
7" 23# CSG @ 3560' SET W/250 SX
3590'-3630' SHOT W/80 QTS.
3882'-3902' SHOT W/70 QTS.
3922'-3977' SHOT W/170 QTS.

T.D. 4024'

MCA NO. 61

PROPOSED

MCA UNIT NO. 61
2615' FS & 25' FWL
20-17-32 ELEV: 3942' DF



4024' TD

1 JT 2 7/8" TBG W/BLOCK VALVE

10 3/4 @ 77', 70 SX

EST TOC 310'

BAKER RETAINER AT 3500'

23# 7" @ 3560', 250 SX

3590-3630 SHOT W/80 QTS

3882-3902' SHOT W/70 QTS

3922-3977' SHOT W/170 QTS

CABLE TOOLS TO 3977' 9-23-50

LOGS: GRN CALIPER

GAS INJECTION WELL TO 2-1-68

REMEDIAL WORK

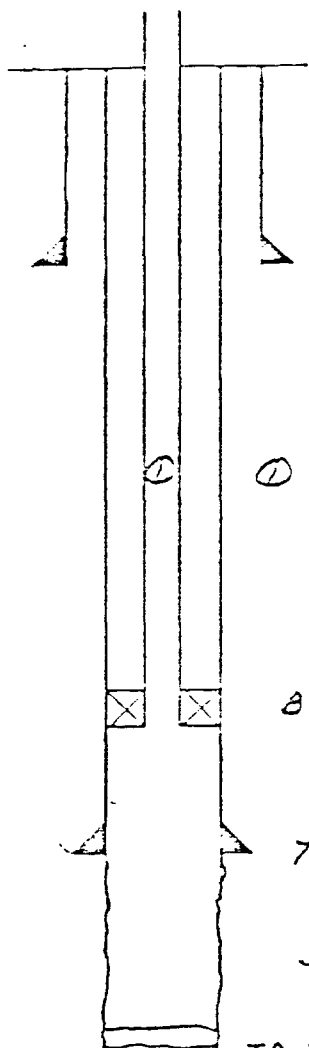
3-2-70 ATTEMPTED TO TREAT BELOW OH PKR @ 3683. HAD COMMUNICATION @ 3683, 95', 3714', 3726', 3745'. PUMPED AWAY 3486 GAL W/PKR @ 3714 AND 1386 GAL AT 3726'. SET PKR @ 3526 & TREATED W/1128 GAL 6000 GAL TOTAL TREATMENT. T.D. 3966.

2-24-71 DEEPEN AND STIMULATE. CO & DEEPENED TO 4024. SPOTTED 12 EBL ACID ON BOTTOM. SET PKR @ 3770 AND TREATED W/REMAINDER OF 3000 GAL. TREATMENT.

5-14-71 STIMULATE. SET PKR @ 3501 W/TAILOPIPE TO 3939'. TREATED W/3000 AND 2000 GAL 15% LTNE IN STAGES. TEMPTROL METHOD.

PRESENT

MCA NO. 106
50' FN & 2365' FWL
30-17-32 ELEV: 3920 D.F.
HPG 6/1/77 '0' - GL



40 # 8rd
10 3/4 csg @ 69' SET w/50 SX

EST TOC 307'

① 2 3/8" J-SS, 4.7 #, ELE 8rd, IFC T3G @ ± 3500'

BAKER MODEL AD-1 TENSION PKR. @ 3500'

7" 8rd
20 # csg @ 3557' SET w/250 SX

3614'-3625' SHOT w/140 QTS.

TD 3975'
CO 3972'

MCA NO. 106

PROPOSED

MCA NO. 106
50' FH & 2635 FW 30-17-32
ELEV 3920 D.F.
"0" - GL

CABLE TOOLS TO 3960, 4-27-49

LOGS: GR/N & CALIPER

1 JT. 2 7/8" TUBING W/BLOCK VALVE,
EUE 8RD

10 3/4 @ 69', 50 SX

EST T O C 307

BAKER RETAINER AT 3500'
7" @ 3557, 250 SX

3575-3710, 20,000 GAL GEL H₂O, 35,000# SD

3710-3795 , 6,000 GAL 15%

3614-3685', SHOT W/140 QTS

3889' PBTD W/25 SX TO SHUT OFF WATER

T.D. 3975

REMEDIAL WORK

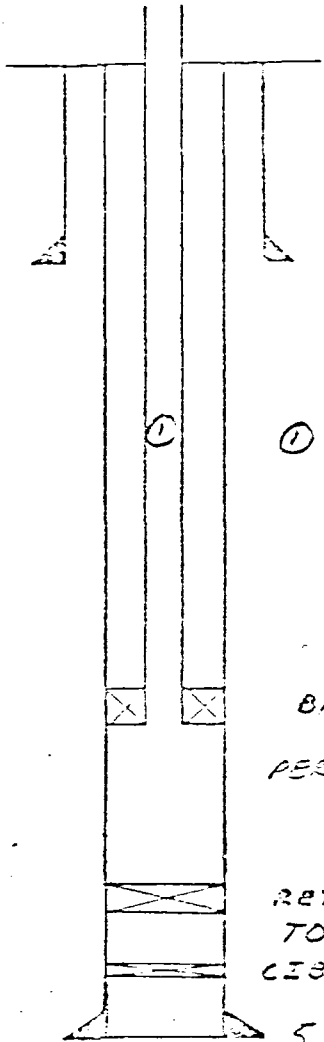
1-16-70, CONVERT FROM GAS INJ. TO PRODUCING

DEEPEN & STIMULATE

9-7-71, C.O. AND D.D. TO 3975' P.B. W/SAND AND SELECTIVELY TREAT

PRESENT

(MCA NO. 255 ()
1295' FN & 1520' FWL
20-17-32 ELEV: 3985'
'0' - 11' AMF
HPG 6/11/77



8 5/8", 24 #, J-55 8rd CSG @ 235' SET W/150 SX (CIRCL.)

① 2 3/8", J-55, 4.7 #, EUE 8rd, IPC TBG @ ± 3500'

BAKER MODEL AD-1 TENSION PRR. @ 3500'

PERF 3671-3738

4067-4073 W/2 JSPP

RETAINER @ 4080'

TOC 4100'

CISB @ 4215' W/1 SX CAP

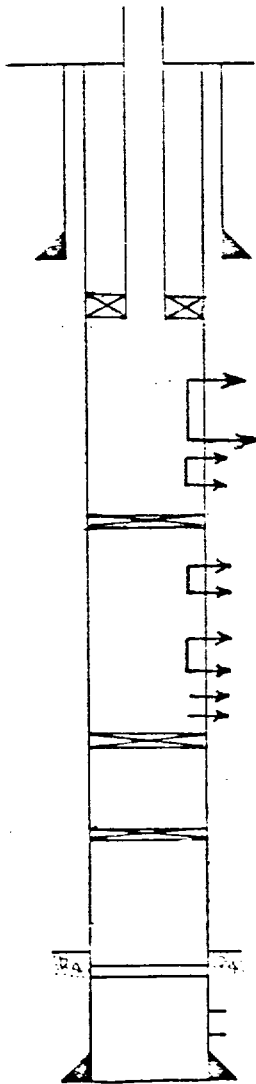
5 1/2", 14 #, J-55 8rd CSG @ 5347' SET W/650 SX

MCA NO. 255

PROPOSED

MCA UNIT NO. 255
1295' FN & 1520' FW
SEC. 20-17S-32E
ELEV. 3985' 11' ABHF

ROTARY TO 5349' 8-17-60
LOGS: GR/A, LL-3



8 5/8" @ 235 W/ 150 SX. CIRC.

RET. PACKER @ 3577' - 2 7/8" OD EUE 8RD TBG. SET AT 3577'

OVERALL PERFS:

3671-87'

3726-38'

CIBP @ 3950'

PERFS:

3977-97'

4031-44,

4067'

4073'

4080' RETAINER
(4091-4101' SQUEEZED)

CIBP 4215'

TOC @ 4100' -Acoustic

5334' PERF PADDOCK

5344' PERF

5 1/2" CSG. @ 5347', 650 SX

RECOMPLETION

3-30-70 PERF'D 4092, 4101, 4106, 4109. SQUEEZED W/150 SX.

PERF'D 4091 AND 4101; TREATED. SQUEEZED W/60 SX.

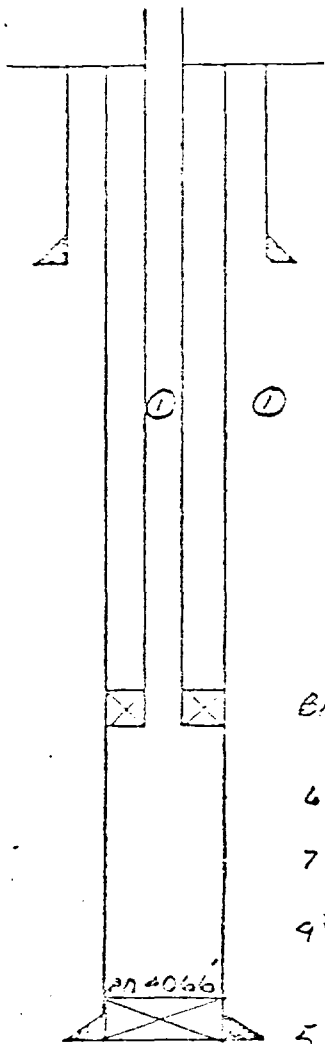
PERF'D 4067 AND 4073. TREAT W/2000 GALLONS. PUT ON PUMP.

8-18-71 SET CIBP @ 3950. PERF 3671-3728. FRAC'D. PUT ON PUMP.

12-4-74 WELL SHUT IN.

PRESENT

MCA NO 263
'0' - 11' AGL
HPG 6/11/77



8 5/8", 20 # CS3 @ 630' SET W/350 SX (CIRC.)

① 2 7/8", J-55, 4.7 #, EUE 8RD, ZPC TBG @ ± 3500'
TOC - 2400'

BAKER MODEL AD-1 TENSION PKR SET @ ± 3500'

6TH ZONE PERFS: 3616' - 3848'

7TH ZONE PERFS: 3745' - 3777'

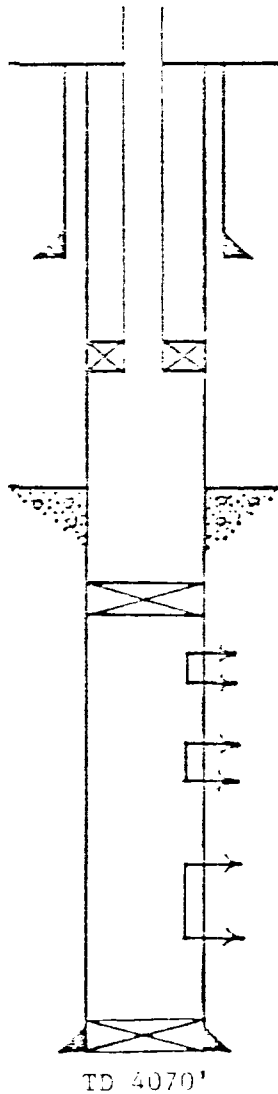
9TH ZONE PERFS: 3969' - 4043'

5 1/2", 14 # CSQ @ 4070' SET W/250 SX
TO 4070'

MCA NO. 263

PROPOSED

MCA UNIT NO. 263
 2594' FS & 1224' FW
 SEC. 20-17S-32E
 ELEV. 3971 DF
 11' AGL



8 5/8" CSG SET W/350 SX AT 680'

2 7/8" EUE SRD (37 JTS) W/BAKER AD-1 TENSION PACKER @ 1113'

TOC @ 2400'

CIBP W/10' CEMENT ON TOP @ 3550'

3616'
 3648'

3745'
 3777'

3969'

4053'

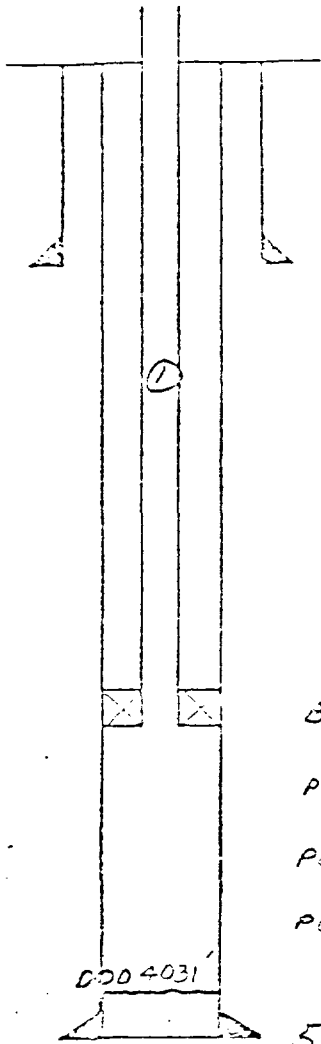
PB - 4066'

5 1/2", 14# CASING W/250 SX @ 4070'

TD 4070'

PRESENT

MCA NO. 291
1345' FS & 1295' PWC
19-17-32 ELEV: 3921' AGC
'O' = 11.3 ALF
HPG 5/1/77



3 5/8", 20 # CSG @ 700' SET W/400 SX (CIRC.)

① 2 3/8", T-55, 4.7 #, EUE 8RD, IPC TBG @

BAKER MODEL AD-1 TENSION PRR @ ± 3500'

PERFS: 6TH ZONE @ 3563, 66, 69, 74, 82, 85, 88, 91

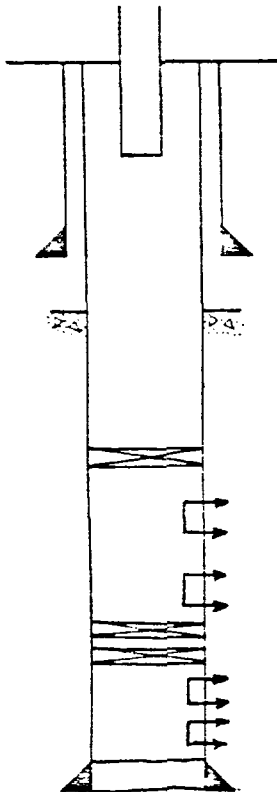
PERFS: 7TH ZONE @ 3690, 93, 95, 99

PERFS: 9TH ZONE @ 3871, 75, 81, 3928, 32, 41, 47

5 1/2", 14 #, CSG @ 4070' SET W/300 SX
4070' TD

MCA NO. 291

PROPOSED



WCA NO. 291
1345' FS & 1295' FW
19-17-32
ELEV 3921' G L
O = 11.3 ALF

ROTARY TO 4070' 7-28-71

1 JT. 2 3/8" TBG W/BLOCK VALVE EUE SRD

8 5/8" @ 700', 400 SX, CIRC

T O C 2500', TEMP SURVEY

LOGS: EPI/NEUTRON PFC

MODEL "K" RETAINER AT 3500'

3563, 66, 69, 74, 82, 85, 88, 91 6TH ZONE

2400 GAL 15% LTNE

FRAC W/20,000 GAL & 30,000# SD

3690, 93, 96, 99 7TH ZONE. 4000 GAL 15% LTNE

PACKER AT 3787'

CIBP AT 3800'

3871, 75, 81, 9TH ZONE. 1500 GAL 15% LTNE

3928, 32, 41, 47, 9TH ZONE. 2000 GAL 15% LTNE

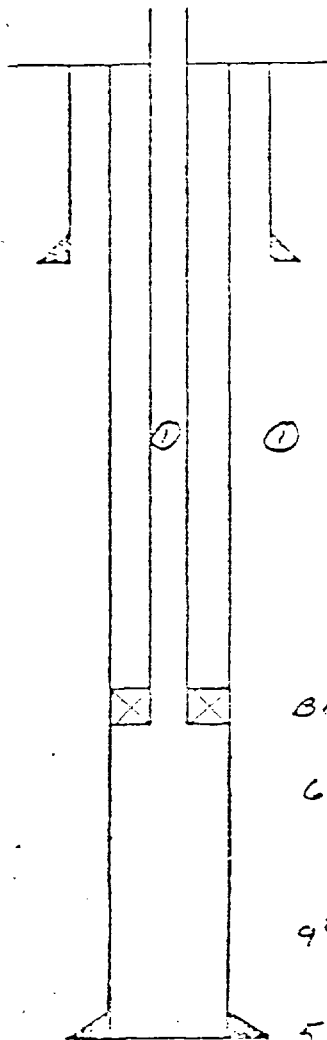
4031 D O D

14# 5 1/2" @ 4070', 300 SX

4070' T D

PRESENT

MCA NO 298
1345' FN & 25' FEL
19-17-32 ELEV 3974 OF
'0' - 12' AGL
MPS 6/11/77



8 5/8", 20 # CSG @ 700' SET W/ 375 SX (CIRC)

TCC - 2800'

① 2 3/8", J-55, 4.7 #, EUE 82d, IPC TBG @ ± 3500'

BAKER MODEL AD-1 TENSION PKR @ ± 3500'

6th ZONE PERFS: 3655, 52, 61, 67, 70, 73

9th ZONE PERFS: 3933, 4001, 07, 16, 33

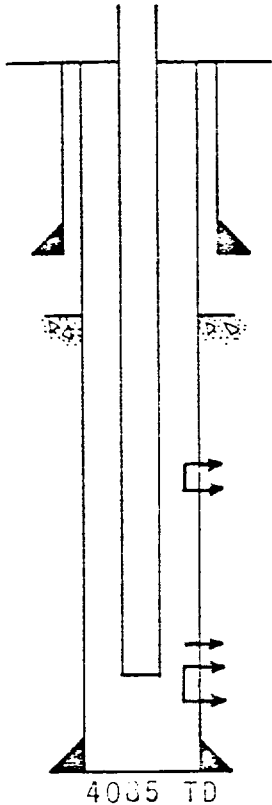
5 1/2", 14 # CSG @ 4035' SET W/ 250 SX
TD 4035'

MCA NO. 298

PROPOSED

WCA NO. 200
1345' FW & 25' FE
10-17-32
ELEV. 3074 DF
0 = 12 AGL

ROTARY TO 4085 7-13-71
LOGS: EPI/H. LL-9



8 5/8" @ 700', 375 SX CIRC

TOC 2000' TEMP SURVEY

3655, 58, 61, 67, 70, 73 FRAC W/15,000 GAL GEL WTR.
22,500# SD

2 7/8" TBG. @ 4017' W/SN @ 3950'

3933
4001
07, 16, 33 3000 GAL 15% LTNE

14# 5 1/2" @ 4085, 250 SX

DRILLING ANOMALIES

HIT AIR & WTR. POCKET @ 1400' DRUG. W/10.1# BRINE

INITIAL POTENTIAL

8/2/71 FLO 347 OIL @ BW 22 HRS.

REMEDIAL WORK

9/15/71 PERF 3655, 58, 61, 67, 70, 73 W/10SPF FRAC DOWN CSG. W/15,000 GAL
GELLED WTR. 22,500# SD. 11.2 D/M RDP @ 3710'
TEST 9-20-71 FLO 378 BW @ BW 24 Hrs.

PRESENT

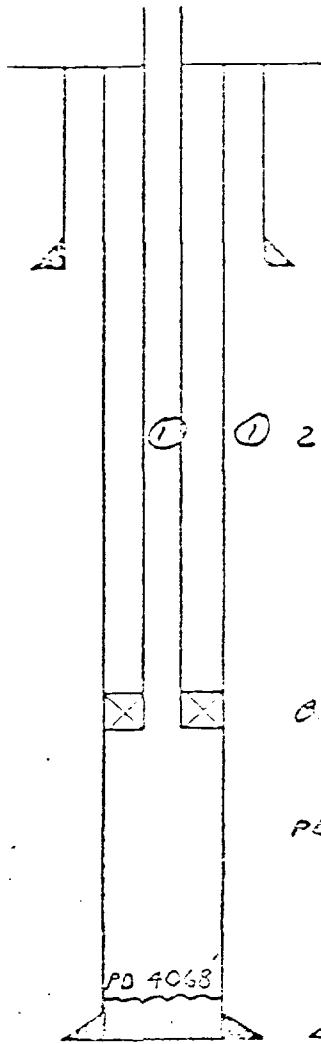
MCA UNIT NO. 309

1395' FM & 1295' FEL 19-17-32

ELEV: 3969' AOF 3961' GR

0' - 11' AGL

HPS 6/1/77



8 5/8" H-40, 20# CSA @ 712' SET W/300 SX

① 2 3/8" J-55, 4.7 #, EUE 8RD, IPC TBG @ ± 3500'

BAKER MODEL AD-1 TENSION PKR @ ± 3500'

PERPS: 3593, 96, 99, 3602, 05, 09, 4041, 43, 45

PD 4063

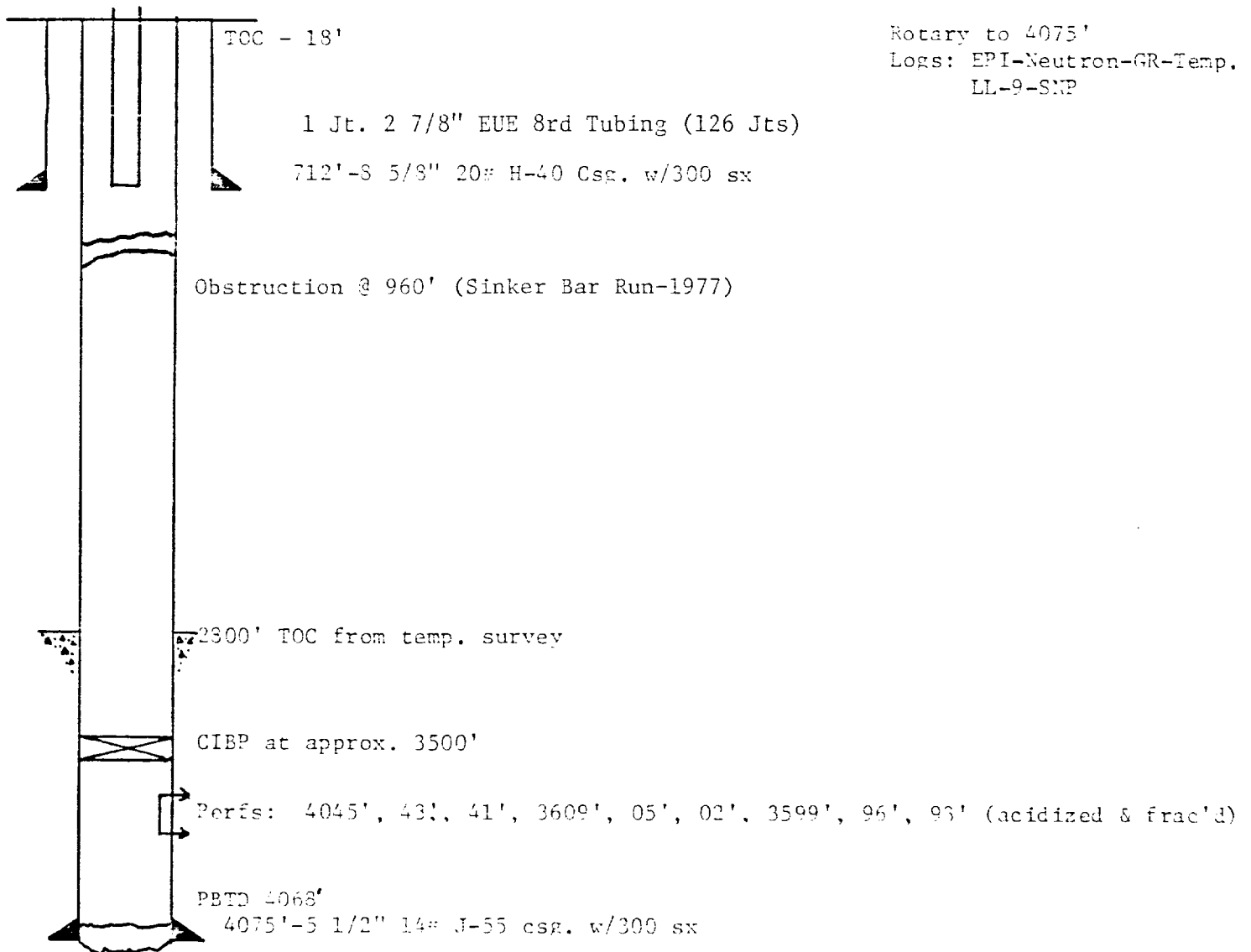
TD 4075'

5 1/2" J-55, 14 # CSG @ 4075' SET W/300 SX.

MCA NO. 309

PROPOSED

MCA UNIT NO. 309
1395' FNL & 1295' FEL OF SEC. 19, T-17S, R-32E
ELEV: 3969' DF - 3961' GR
RAF 11-24-76 "O"-11' AGL



Remedial Work: None

6-22-72 Shut-in and temp. abandon
(Uneconomic to produce)

PRESENT

THE WESTERN COMPANY

Gammastron Caliper Survey

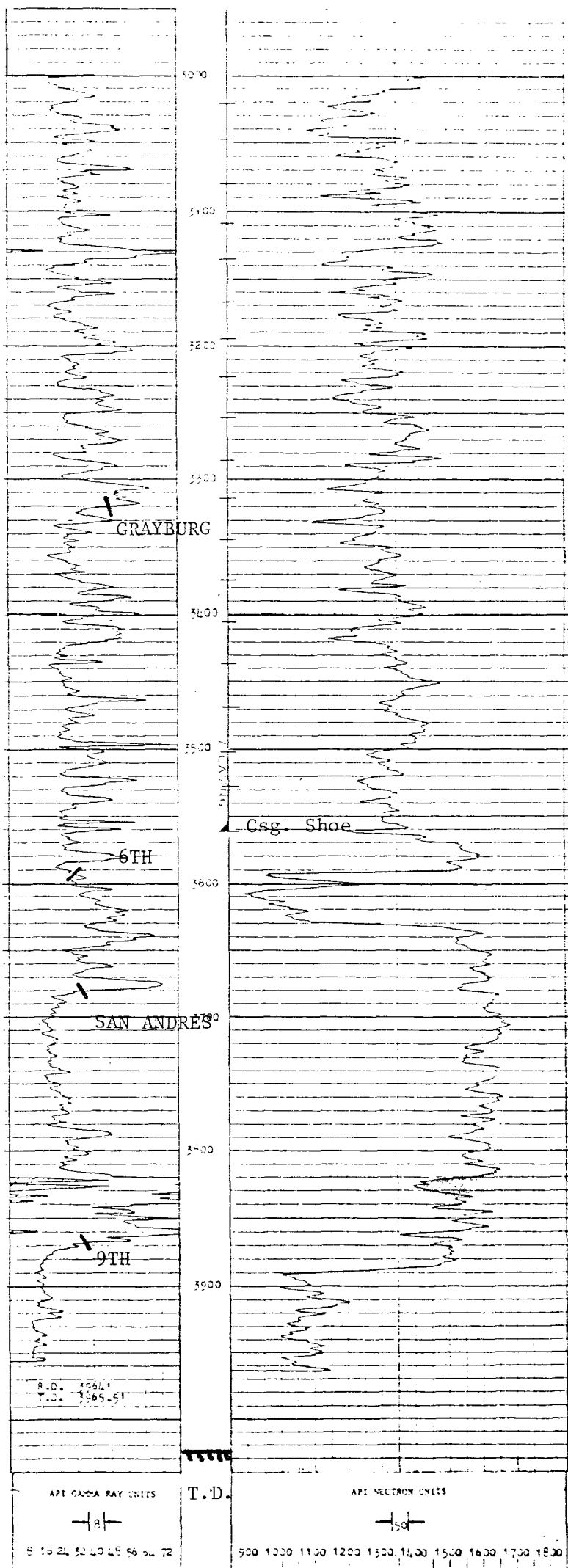
[illegible]

MCA UNIT NO. 61

L-20-17-32

Maljamar Grayburg San Andres
Lea County, New Mexico

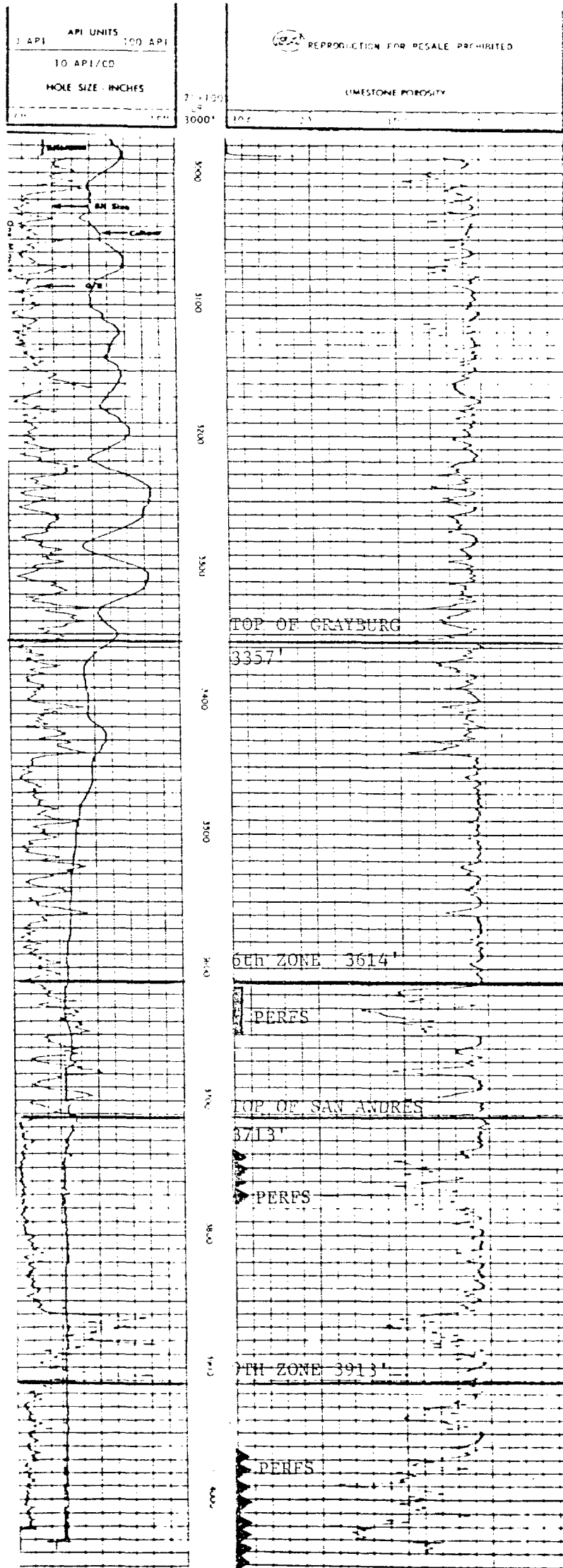
ILLEGIBLE



Dresser Atlas		<i>Tidecall Neutron</i> <i>Gamma Ray</i>	
LOG NO. _____	COMPANY <u>CONTINENTAL OIL COMPANY</u>		
	WELL <u>MCA UNIT NO. 263</u>		
	FIELD <u>MALJAMAR</u>		
	COUNTY <u>LEA</u> STATE <u>NEW MEXICO</u>		
	LOCATION <u>2000' ESE & 1220' ENE</u>		
MEASUREMENTS MC. 20. W. 17.5 H. 12.5		DATE <u>12-1-32</u>	
Permanent Datum <u>Sea</u>		Log Started From <u>0</u>	
Drilling Measured From <u>0</u>		Log Above Permanent Datum <u>0</u>	

ILLEGIBLE

MCA UNIT NO. 263
 L 20-17-32
 Maljamar Grayburg-San Andres
 Lea County, New Mexico



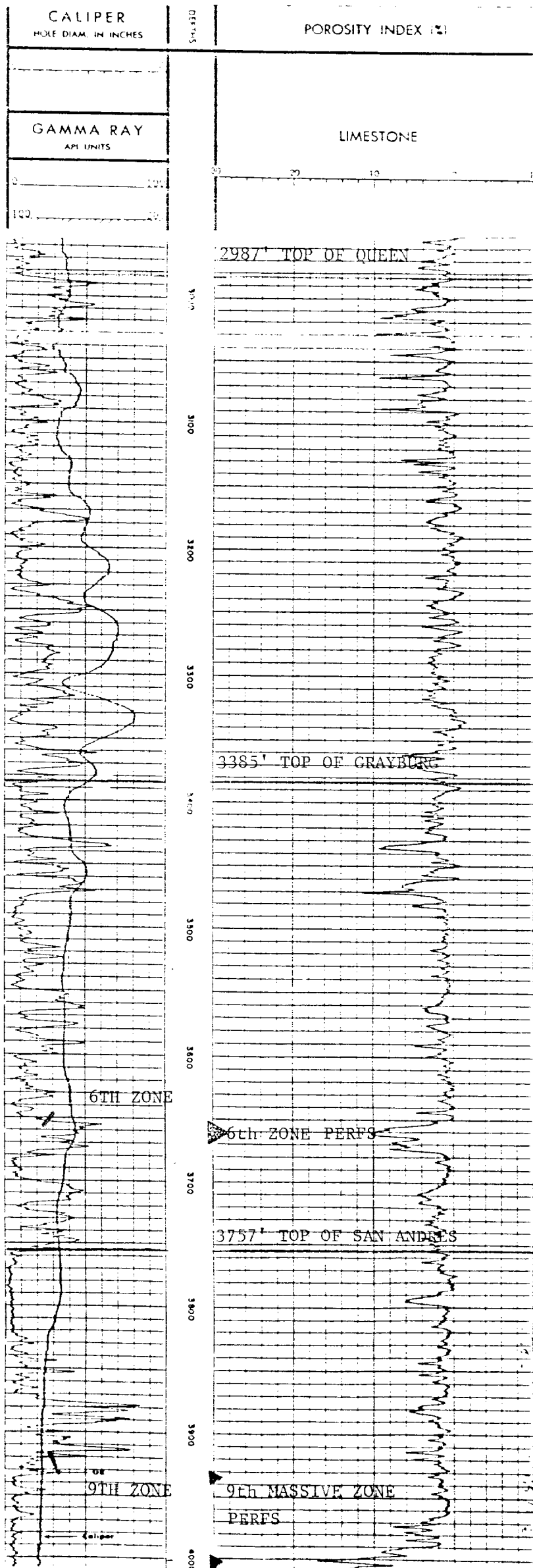
SIDEWALL NEUTRON POROSITY LOG

COUNTY: LEA FIELD: MALJAMAR LOCATION: MCA UNIT NO. 298 WELL: MCA UNIT NO. 298 COMPANY: CONTINENTAL OIL CO.	COMPANY: CONTINENTAL OIL COMPANY																									
	WELL: MCA UNIT NO. 298																									
	FIELD: MALJAMAR																									
	COUNTY: LEA	STATE: NEW MEXICO																								
	Location: H-19-17-32-1E-1E																									
Sec. 19 Twp. 17-S. Rge. 32-E		Other Services: LL-9																								
Permanent Datum: 1112 Elev: 8,222																										
Log Measured From: 1112 Ft. Above Perm. Datum D.F. 2202																										
Drilling Measured From: 1112 G.L. 2202																										
Date: 7-31-71																										
Run No. 1112																										
Type Log: NEUTRON																										
Depth: 1112																										
Depth: 1112																										
Bottom logged interval: 1112																										
Top logged interval: 1112																										
Type fluid in hole: SALT WATER																										
Density: 1.02																										
Level: 1112																										
Max rec. temp., deg F: 1112																										
Operating rig time: 3 HOURS																										
Recorded by: BIRKHEAD, JESSIE																										
Witnessed by: HEATH																										
<table border="1"> <thead> <tr> <th colspan="4">CORE HOLE RECORD</th> <th colspan="4">CASING RECORD</th> </tr> <tr> <th>No.</th> <th>Bit</th> <th>From</th> <th>To</th> <th>Size</th> <th>Wgt.</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>7 7/8</td> <td>1112</td> <td>1112</td> <td>11 1/2</td> <td>3235</td> <td>1112</td> <td>1112</td> </tr> </tbody> </table>			CORE HOLE RECORD				CASING RECORD				No.	Bit	From	To	Size	Wgt.	From	To	1	7 7/8	1112	1112	11 1/2	3235	1112	1112
CORE HOLE RECORD				CASING RECORD																						
No.	Bit	From	To	Size	Wgt.	From	To																			
1	7 7/8	1112	1112	11 1/2	3235	1112	1112																			

MCA UNIT NO. 298

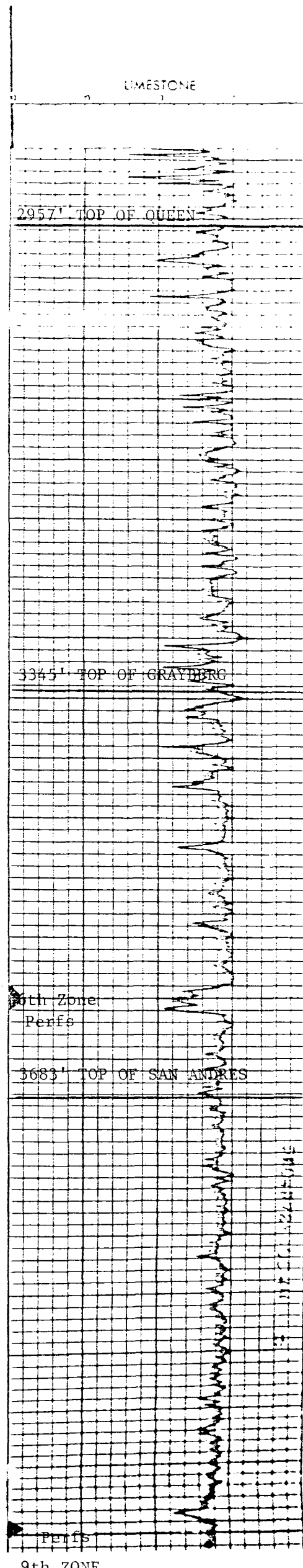
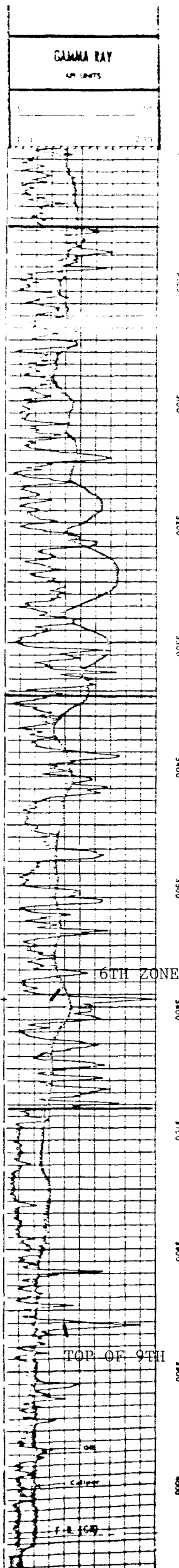
H-19-17-32

Maljamar Grayburg San Andres
Lea County, New Mexico



SIDELAND Schlumberger NEUTRON POROSITY LOG																									
COMPANY: CONTINENTAL OIL COMPANY WELL: MCA 309 FIELD: MALJAMAR COUNTY: LEA STATE: NEW MEXICO Location: 1395' FNL 5' 1295' REL Sec. 3 Twp. 17-S Rge. 1-E Other Services: OIL																									
Permanent Datum: _____ Elev: 1340 Log Measured from: _____ Ft. Above Perm. Datum Drilling Measured from: _____ Date: 11-29-72 Run No.: 1 Type Log: 1-501-501-501 Depth: 1345 Depth: 1345 Bottom logged interval: 1345 Top logged interval: 1345 Type fluid in hole: 1345 Salinity, PPM Cl: 1345 Density: 1345 Sinter: 1345 Max rec. temp., deg. F: 1345 Operating time: 1345 Recorded by: 1345 Witnessed by: 1345																									
<table border="1"> <thead> <tr> <th colspan="4">WELL LOG RECORD</th> <th colspan="4">CASING RECORD</th> </tr> <tr> <th>Time</th> <th>Log</th> <th>Time</th> <th>Log</th> <th>Time</th> <th>Log</th> <th>Time</th> <th>Log</th> </tr> </thead> <tbody> <tr> <td>1345</td> <td>1345</td> <td>1345</td> <td>1345</td> <td>1345</td> <td>1345</td> <td>1345</td> <td>1345</td> </tr> </tbody> </table>		WELL LOG RECORD				CASING RECORD				Time	Log	Time	Log	Time	Log	Time	Log	1345	1345	1345	1345	1345	1345	1345	1345
WELL LOG RECORD				CASING RECORD																					
Time	Log	Time	Log	Time	Log	Time	Log																		
1345	1345	1345	1345	1345	1345	1345	1345																		

MCA UNIT NO. 309
 H-19-17-32
 Maljamar Grayburg San Andres
 Lea County, New Mexico



OIL CONSERVATION COMMISSION
Hobbs DISTRICT

OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE October 19, 1978

RE: Proposed MC _____
Proposed DHC _____
Proposed NSL _____
Proposed SWD _____
Proposed WFX X _____
Proposed PMX _____

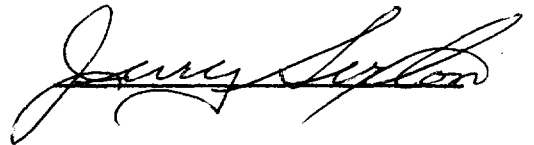
Gentlemen:

I have examined the application dated _____
for the Continental Oil Co. MCA Unit #61, 106, 255, 263, 291, & 309
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

O.K.-----J.S.

Yours very truly,





L. P. Thompson
Division Manager

E. L. Oshlo
Assistant Division Manager

Production Department
Hobbs Division
North American Production

Continental Oil Company
P.O. Box 460
1001 North Turner
Hobbs, New Mexico 88240
(505) 393-4141

October 27, 1978

Oil Conservation Division (3)
Department of Energy & Minerals
State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention Mr. J. D. Ramey, Director

Gentlemen:

Supplementary Information to October 6, 1978 Application for Administrative
Approval to Authorize Water Injection into MCA Unit Wells 61, 106, 255, 263,
291, 298, and 309

Attached are three (3) sets of a tabulation listing those wells within one-half
mile of the ones proposed for injection on the MCA Unit by our application of
October 6, 1978. We trust that this additional information will be sufficient
to permit approval of the application.

Yours very truly,

L. P. Thompson
Division Manager

HAI/jj

enc

cc w/enc: Jason W. Kellahin, Santa Fe

Operator	Well	Location	Producing Interval	TD	Casing		Cement	
					Size	Depth	Sacks	TOC
Conoco	MCA #15	660' FSL & 1980' FWL Sec. 17, T-17S, R-32E	3665'-4104'	4104'	8 5/8" 7"	834' 3634'	50 150	600' 1684'
	MCA #16	660' FSL & 660' FWL Sec. 17, T-17S, R-32E	3576'-4068'	4074' PB-4068'	8 5/8" 7"	802' 3576'	50 150	565' 1626'
	MCA #19	990' FNL & 2790' FEL Sec. 19, T-17S, R-32E	3545'-3826'	4294' PB-3822'	10 3/4" 7"	124' 3545'	95 250	Circ. 295'
	MCA #20	660' FNL & 1980' FEL Sec. 19, T-17S, R-32E	3590'-4026'	4026'	8 5/8" 7"	696' 3590'	50 150	460' 1640'
	MCA #21	660' FNL & 660' FEL Sec. 19, T-17S, R-32E	3577'-4035'	4035'	8 5/8" 7"	749' 3577'	50 150	512' 1625'
	MCA #22	660' FNL & 660' FWL Sec. 20, T-17S, R-32E	3559'-4080'	4080'	8 5/8" 7"	759' 3559'	50 150	522' 1609'
	MCA #23	660' FNL & 1980' FWL Sec. 20, T-17S, R-32E	3616'-4077'	4077'	8 5/8" 7"	802' 3616'	50 150	565' 1656'
	MCA #24	660' FNL & 1980' FEL Sec. 20, T-17S, R-32E	3995'-4106'	4106'	8 5/8" 7" 4 1/2"	848' 3659' 3995'	50 150 150	611' Circ. 2700'
	MCA #49	1980' FNL & 1980' FEL Sec. 20, T-17S, R-32E	3598'-4088'	4088'	7"	3598'	500	2000'

Operator	Well	Location	Producing Interval	TD	Casing		Cement	
					Size	Depth	Sacks	TOC
Conoco	MCA #50	1980' FNL & 1980' FWL Sec. 20, T-17S, R-32E	3669'-3689' 3733'-4081'	4081'	8 5/8" 7" 4 1/2"	810' 3461' 3733'	50 150 300	573' 1428' 650'
	MCA #51	1980' FNL & 660' FWL Sec. 20, T-17S, R-32E	3503'-3990'	3990'	8 5/8" 7" 5"	745' 3503' 3615'	50 150 275	508' 1555' Circ.
	MCA #52	1980' FNL & 660' FEL Sec. 19, T-17S, R-32E	3616'-3644' 3700'-4060'	4060'	8 5/8" 7" 4 1/2"	750' 3505' 3700'	50 150 325	513' 1553' Circ.
	MCA #53	1980' FNL & 1980' FEL Sec. 19, T-17S, R-32E	3472'-4017'	4017' PB-3987'	8 5/8" 7" 5 1/2"	750' 3472' 3586'	50 150 300	513' 2400' Circ.
	MCA #54	1980' FNL & 1980' FWL Sec. 19, T-17S, R-32E	3550'-4020'	4020'	8 5/8" 7" 4 1/2"	745' 3453' 3550'	50 150 185	508' 1503' 1380'
	MCA #55	1980' FNL & 660' FWL Sec. 19, T-17S, R-32E	3570'-3874' 3904'-3977'	3977'	8 5/8" 7" 4 1/2" (Liner)	822' 3420' 3342'- 3904'	50 150 65	585' 1470' Circ.
	MCA #56	1980' FSL & 660' FWL Sec. 19, T-17S, R-32E	3567'-3984'	3989' PBSD- 3984'	8 5/8" 7" 4 1/2"	670' 3401' 3567'	50 150 350	433' 1451' Circ.
	MCA #57	1980' FSL & 1980' FWL Sec. 19, T-17S, R-32E	3461'-3974'	3974'	8 5/8" 7" 5 1/2"	754' 3461' 3550'	50 150 300	517' 1511' Circ.
	MCA #58	2610' FSL & 2640' FEL Sec. 19, T-17S, R-32E	3536'-4016'	4016'	8 5/8" 7"	682' 3536'	50 150	445' 1700'

Operator	Well	Location	Producing Interval	TD	Casing		Cement	
					Size	Depth	Sacks	TOC
Conoco	MCA #59	1980' FSL & 1980' FEL Sec. 19, T-17S, R-32E	3573'-4040'	4040'	8 5/8" 7" 4 1/2" (Liner)	754' 3477' 3191'- 3573'	50 150 50	517' 1527' Circ.
	MCA #60	1980' FSL & 660' FEL Sec. 19, T-17S, R-32E	3495'-3970'	3970'	8 5/8" 7"	757' 3495'	50 150	520' 1545'
	MCA #62	1980' FSL & 660' FWL Sec. 20, T-17S, R-32E	3624'-3657' 3700'-4100'	4100'	8 5/8" 7" 4 1/2"	806' 3499' 3700'	50 150 270	569' 1466' 460'
	MCA #63	1980' FSL & 1980' FWL Sec. 20, T-17S, R-32E	3508'-4027'	4027'	8 5/8" 7"	814' 3508'	50 150	577' 1558'
	MCA #64	2615' FSL & 2610' FWL Sec. 20, T-17S, R-32E	3620'-4039'	4039'	10 3/4" 7"	57' 3620'	45 250	Circ. 2326'
	MCA #65	1980' FSL & 1980' FEL Sec. 20, T-17S, R-32E	3565'-4100'	4100'	12 1/2" 7" 4 1/2" (Liner)	40' 3565' 3128'- 3780'	Not Recorded 150 60	3083' Circ.
	MCA #97	660' FSL & 1980' FWL Sec. 20, T-17S, R-32E	3685'-4077'	4077'	8 5/8" 7" 4 1/2"	760' 3528' 3685'	50 150 300	540' 1495' 800'
	MCA #98	660' FSL & 660' FWL Sec. 20, T-17S, R-32E	3562'-4013'	4013'	8 5/8" 7"	760' 3562'	50 150	523' 1800'
	MCA #99	25' FSL & 25' FEL Sec. 19, T-17S, R-32E	3900'-4010'	4010'	8 5/8" 7" 4 1/2" (Liner)	735' 3600' 3488'- 3900'	65 160 80	428' 1431' Circ.

Operator	Well	Location	Producing Interval	TD	Casing		Cement	
					Size	Depth	Sacks	TOC
Conoco	MCA #100	660' FSL & 660' FEL Sec. 19, T-17S, R-32E	3575'-4040'	4040'	8 5/8" 7" 4 1/2"	721' 3525' 3575'	50 150 275	484' 1492' 440'
	MCA #101	660' FSL & 1980' FEL Sec. 19, T-17S, R-32E	3488'-3967'	3967'	8 5/8" 7"	756 3488'	50 150	519' 1530'
	MCA #102	660' FSL & 1980' FWL Sec. 19, T-17S, R-32E	3604'-3622' 3680'-3950'	3975' PB-3950'	8 5/8" 7" 4 1/2"	721' 3453' 3680'	50 150 300	484' 1420' 475'
	MCA #103	660' FSL & 660' FWL Sec. 19, T-17S, R-32E	3405'-3945'	3945'	8 5/8" 7"	715' 3405'	50 150	478' 1455'
	MCA #104	660' FNL & 660' FWL Sec. 30, T-17S, R-32E	3589'-3719' 3865'-3952'	3980'	8 5/8" 7" 4 1/2" (Liner)	807' 3445' 3335'- 3980'	50 100 100	570' 2145' Circ.
	MCA #105	660' FNL & 1980' FWL Sec. 30, T-17S, R-32E	3456'-3957'	3957'	8 5/8" 7"	830' 3456'	50 100	593' 2156'
	MCA #107	660' FNL & 1980' FEL Sec. 30, T-17S, R-32E	3414'-4010'	4010'	8 5/8" 7"	878' 3414'	50 100	641' 2114'
	MCA #108	660' FNL & 660' FEL Sec. 30, T-17S, R-32E	3440'-3963'	3963'	8 5/8" 7"	900' 3440'	50 150	663' 1490'
	MCA #160	1980' FNL & 1980' FEL Sec. 30, T-17S, R-32E	3450'-3994'	4023' PBD- 3994'	8 5/8" 5 1/2"	925' 3450'	50 100	688' 2150'

Operator	Well	Location	Producing Interval	TD	Casing		Cement	
					Size	Depth	Sacks	TOC
Conoco	MCA #161	2615' FSL & 2615' FWL Sec. 30, T-17S, R-32E	3637'-3990'	4034' PB-3990'	10 3/4" 8 5/8" 7"	29' 764' 3637'	10 0 300	Circ. -- Circ.
	MCA #162	1980' FNL & 1980' FWL Sec. 30, T-17S, R-32E	3635'-3954'	3978' PB-3954'	8 5/8" 7" 4 1/2"	885' 3407' 3635'	50 100 300	648' 1712' 800'
	MCA #242	2565' FSL & 25' FWL Sec. 19, T-17S, R-32E	3544'-3935'	3945' 5350' PBSD- 4120'	7 5/8" 4 1/2"	650' 3945'	300 250	Circ. 1900'
	MCA #253	1980' FNL & 460' FWL Sec. 20, T-17S, R-32E	4016'-4046'	4120'	7 5/8" 4 1/2"	747' 5350'	315 350	Circ. 2075'
	MCA #257	1345' FNL & 2615' FWL Sec. 20, T-17S, R-32E	3959'-4086' 4103'-4105'	5500' PBSD- 4250'	8 5/8" 5 1/2"	262' 5498'	150 1500	Circ. 1725'
	MCA #259	1980' FSL & 860' FEL Sec. 19, T-17S, R-32E	3985'-3995' 4013'-4030'	5266' PBSD- 4050'	13 3/8" 8 5/8" 5 1/2"	109' 2491' 5266'	100 1943 550	Circ. Circ. 2485'
	MCA #264	1345' FSL & 25' FEL Sec. 19, T-17S, R-32E	3602'-3629' 3717'-34' 3949'-4018'	4060'	8 5/8" 5 1/2"	680' 4060'	350 250	Circ. 2400'
	MCA #265	1416' FSL & 1224' FWL Sec. 20, T-17S, R-32E	3664'-3801' 3870'-4007'	4100' PB-4057'	8 5/8" 5 1/2"	700' 4100'	325 250	Circ. 2700'
	MCA # 266	1345' FSL & 2615' FWL Sec. 20, T-17S, R-32E	3792'-4045'	4110' PB-4056'	8 5/8" 5 1/2"	700' 4110'	325 250	Circ. 2100'

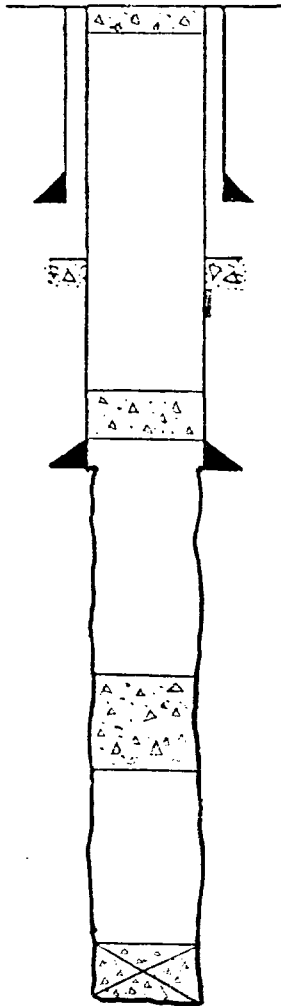
Operator	Well	Location	Producing Interval	TD	Casing		Cement		
					Size	Depth	Sacks	TOC	
Conoco	MCA #267	660' FSL & 460' FWL Sec. 17, T-17S, R-32E	3760'-3798' 3848'-3928' 4066'-4083'	5405' PB-5000'	7 5/8" 4 1/2"	797' 5405'	350 250	Circ. 1950'	
	MCA #276	25' FSL & 1295' FEL Sec. 19, T-17S, R-32E	3647'-3661' 3984'-3997'	4030' PB-4022'	8 5/8" 5 1/2"	700' 4030'	375 300	Circ. 2300'	
	MCA #279	1295' FSL & 1295' FEL Sec. 19, T-17S, R-32E	3588'-3606' 3707'-3728' 3941'-4005'	4050' PB-4031'	8 5/8" 5 1/2"	700' 4050'	350 300	Circ. 2650'	
	MCA #283	2565' FSL & 1295' FEL Sec. 19, T-17S, R-32E	3570'-3590' 3667'-3716' 3905'-3985'	4075' PB-4034'	8 5/8" 5 1/2"	700' 4075'	400 300	Circ. 2400'	
	MCA #285	1345' FSL & 2615' FEL Sec. 19, T-17S, R-32E	3572'-3605' 3696'-3809' 3912'-3950'	4060' PB-4017'	8 5/8" 5 1/2"	650' 4060'	375 300	Circ. 2375'	
	MCA #286	25' FSL & 1295' FWL Sec. 19, T-17S, R-32E	3622'-3644' 3722'-3728' 3863'-3905'	4070' PB-4023'	8 5/8" 5 1/2"	650' 4070'	350 300	Circ. 2700'	
	MCA #288	65' FNL & 1295' FWL Sec. 29, T-17S, R-32E	3682'-3703'	4080' PB-4030'	8 5/8" 5 1/2"	700' 4080'	400 300	Circ. 2131'	
	MCA #289	1165' FNL & 1345' FEL Sec. 30, T-17S, R-32E	3675'-3734' 3794'-3877' 3952'-3993'	4025' PB-4013'	8 5/8" 5 1/2"	700' 4025'	400 300	Circ. 2200'	
	MCA #303	1980' FSL & 1830' FEL Sec. 20, T-17S, R-32E	3730'-3758'	13,965' PB-4390'	13 3/8" 9 5/8" 7"	444' 4740' 5578'	350 4300 138	Circ. Circ. 4775'	

Operator	Well	Location	Producing Interval	TD	Casing		Cement	
					Size	Depth	Sacks	TOC
Conoco	MCA #306	1295' FNL & 2615' FSL Sec. 30, T-17S, R-32E	3683'-3731' 3760'-3820' 3886'-3889' 3952'-3974'	4020' PB-4007'	8 5/8" 5 1/2"	745' 4020'	400 300	Circ. 2150'
	MCA #310	1295' FNL & 1365' FNL Sec. 30, T-17S, R-32E	3647'-3697' 3762'-3769' 3921'-3940'	4025' PB-3970'	8 5/8" 5 1/2"	700' 4025'	350 300	Circ. 2600'
	MCA #320	1195' FNL & 2515' FSL Sec. 19, T-17S, R-32E	3667'-3713' 3761'-3798' 3926'-4007'	4050'	8 5/8" 5 1/2"	700' 4050'	350 300	Circ. 2550'
	MCA #331	660' FNL & 460' FNL Sec. 20, T-17S, R-32E	3642'-3706'	5370' PB-4110'	7 5/8" 4 1/2"	767' 5370'	300 450	Circ. 1815'
	Wm. Mitchell A #19	1980' FNL & 2180' FSL Sec. 19, T-17S, R-32E	Temporarily Shut-in	5362' PB-3574'	13 3/8" 8 5/8" 4 1/2"	86' 2490' 5356'	75 200 360	Circ. 1830' 3750'
	Wm. Mitchell B #9	660' FSL & 1980' FSL Sec. 17, T-17S, R-32E	3672'-3804' 3944'-4107'	4179' PB-4170'	8 5/8" 5 1/2"	231' 4179'	100 800	Circ. 1675'
	Wm. Mitchell B #10	1980' FSL & 330' FSL Sec. 17, T-17S, R-32E	5365'-5386'	5385'	8 5/8" 5" Liner	830' 3810' 3752'- 5365'	50 150 245	593' 1777' Circ.
	Wm. Mitchell B #11	660' FNL & 1780' FSL Sec. 17, T-17S, R-32E	5354'-5359'	5375'	13 3/8" 8 5/8" 5 1/2"	80' 2597' 5375'	50 250 360	Circ. 1772' 2984'

Operator	Well	Location	Producing Interval	TD	Casing		Cement	
					Size	Depth	Sacks	TOC
Conoco	Wm. Mitchell B #12	660' FSL & 660' FEL Sec. 18, T-17S, R-32E	3714'-3720' 3730'-3735' 3748'-3756'	4200'	8 5/8" 5 1/2"	234' 4199'	100 850	Circ. Circ.
			3766'-3774' 4084'-4090' 4104'-4110'					
	Wm. Mitchell B #15	(L) Sec. 20, T-17S, R-32E	5278'-94'	5442' 5297' 5100'	13 3/8" 8 5/8" 5 1/2"	80' 2510' 5387'	60 1445 600	Surface 70' 1934'
	Wm. Mitchell B #17	(K) Sec. 19, T-17S, R-32E	Shut-in	14,246 PB-5100'	13 3/8" 9 5/8" 5 1/2" liner	430' 4676' 4464'- 5343'	350 3050 170	Surface Circ. Circ.
Hudson & Hudson	Wm. Mitchell B #23	(S) Sec. 20, T-17S, R-32E	P & A	5359'	13 3/8" 8 5/8"	80' 2521'	60 185 115	Surface 1st Stage 2nd Stage at 795'
	Puckett A #11	(I) Sec. 24, T-17S, R-31E	3350'-3955'	3955'	8 5/8" 7"	585' 3350'	50 150	Surface 1950'
	Puckett A #16	(H) Sec. 24, T-17S, R-31E	3689'-96' 3868'-80' 3908'-35'	5322' 3955'	13 3/8" 8 5/8" 5 1/2"	53' 840 5313'	75 300 50	Surface Surface 4900'
	Puckett A #23	(J) Sec. 24, T-17S, R-31E	3936'-50'	4000' 3959'	8 5/8" 5 1/2"	662' 4000'	250 350	Surface 1800'

[illegible]

Wm. Mitchell B #23
1980' FSL & 2193' FEL
Sec. 20, T-17S, R-32E



13 3/8" @ 80' w/60 sx (Circ.)

2nd Stage cmnt 115 sx @ 795'

10 sx cmnt 2438'-2470'
8 5/8" @ 2521' w/185 sx

185 sx cmnt 3600' - 4150'

25 sx cmnt 5284'-5359'
TD-5359'