STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

Case 8976

PLICATION FOR AUTHORIZATION TO INJECT

RECEIVED
AUG 1 1986
OIL CONSERVATION DIVISION

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: CHAVEROO OPERATING COMPANY

Address: 4800 San Felipe Suite 620, Houston, Texas 77056

Contact party: William Graham Phone: 713-627-2875

II. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

II. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

II. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

X. Describe the proposed stimulation program, if any.

X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

I. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

I. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

I. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

/. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: DARRELL McBRIDE Title OPERATIONS MANAGER

Signature: Darrell McBride Date: 7-28-86

the information required under Sections VI, VIII, X, and XI above has been previously bmitted, it need not be duplicated and resubmitted. Please show the date and circumstance the earlier submittal. _____

STRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells:

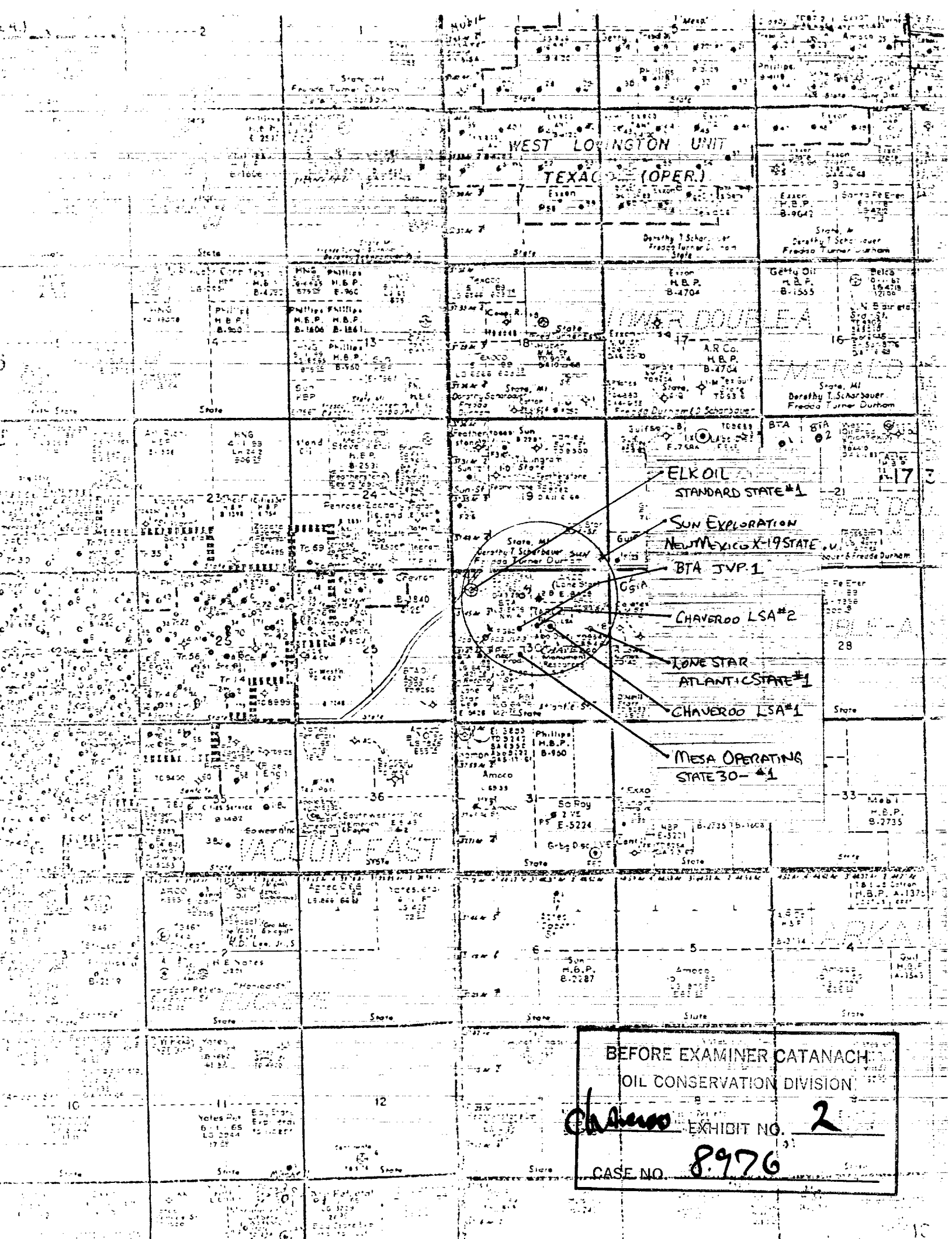
(3) the formation name and depth with expected maximum injection rates and pressures; and

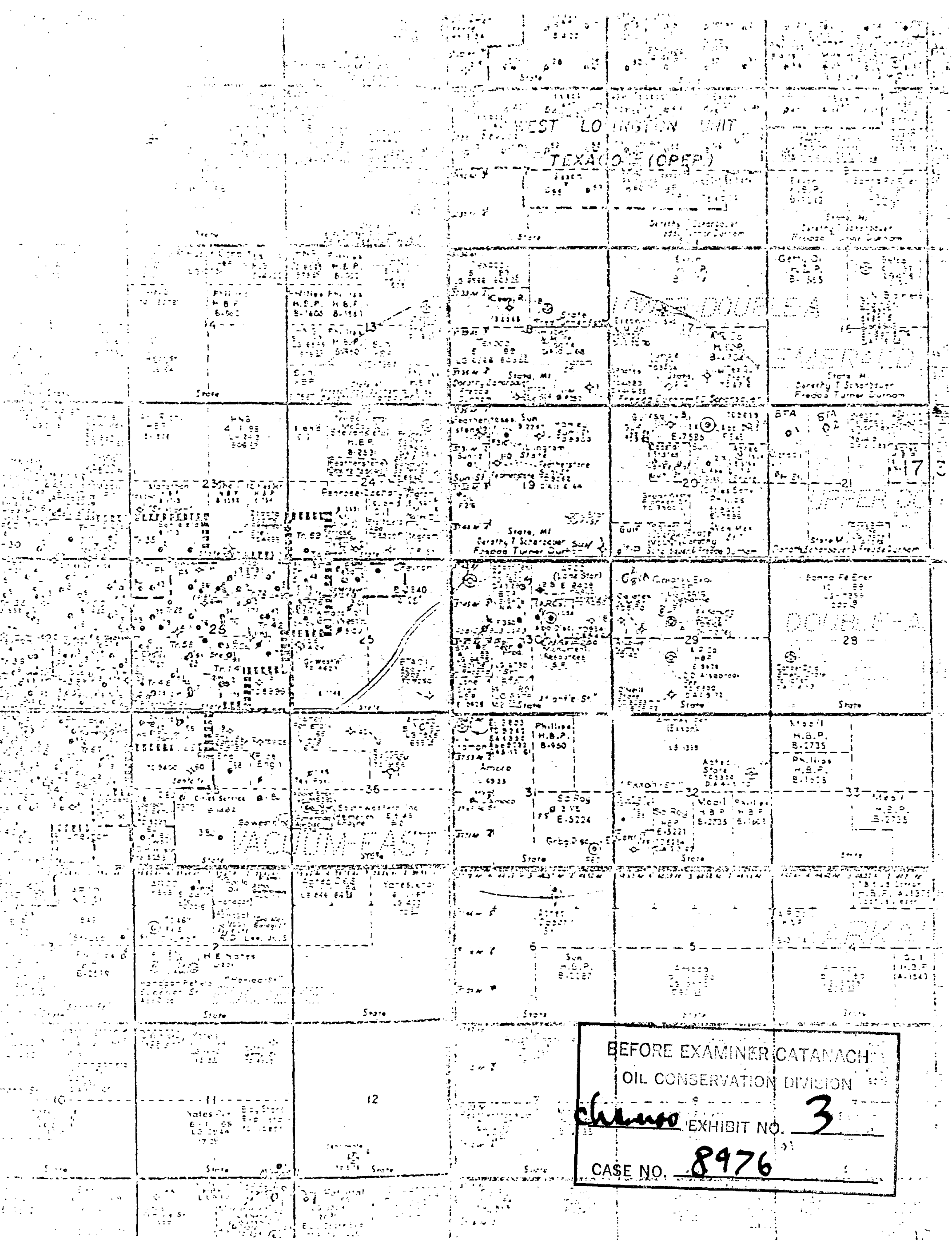
(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
Chanevo EXHIBIT NO. 1
CASE NO. 8976

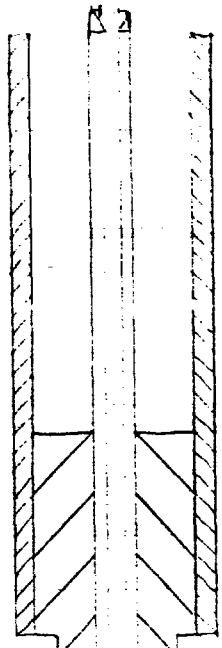

WEST LOVINGTON UNIT
TEXACO (OPER.)
ELK OIL
STANDARD STATE #1
SUN EXPLORATION
NEW MEXICO X-19 STATE
BTA JVP 1
CHAVEROO LSA #2
LONE STAR
ATLANTIC STATE #1
CHAVEROO LSA #1
MESA OPERATING
STATE 30- #1
BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
EXHIBIT NO. 2
CASE NO. 8976



BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
EXHIBIT NO. 3
CASE NO. 8976

ATLANTIC B
STATE #2

PROPOSED INJECTION
WELL FOR
CHEVRON OPERATING



→ 8⅝ SET @ 3465
CMT W/ CMT CIRCULATED

ORIGINAL DRILLED & P/A
TD, AREA TO BE
REENTERED BY
CHEVRON OPERATING

→ SET 2⅜ PLASTIC COATED W/TENSION PACKER @ 4730
SET 5½ 17# @ 4792 & CMT W/300 SXS
(NOTE ZONE NEED TO BE SET ABOVE)

OLD PLUG →
TOP of SAN
ANDRES
INTERVAL

4792
4892

INJECT OPEN HOLE 4792 - 5432

→ TOP 5432

TOP of
GLORIETA
INTERVAL

→ PBTD 5472

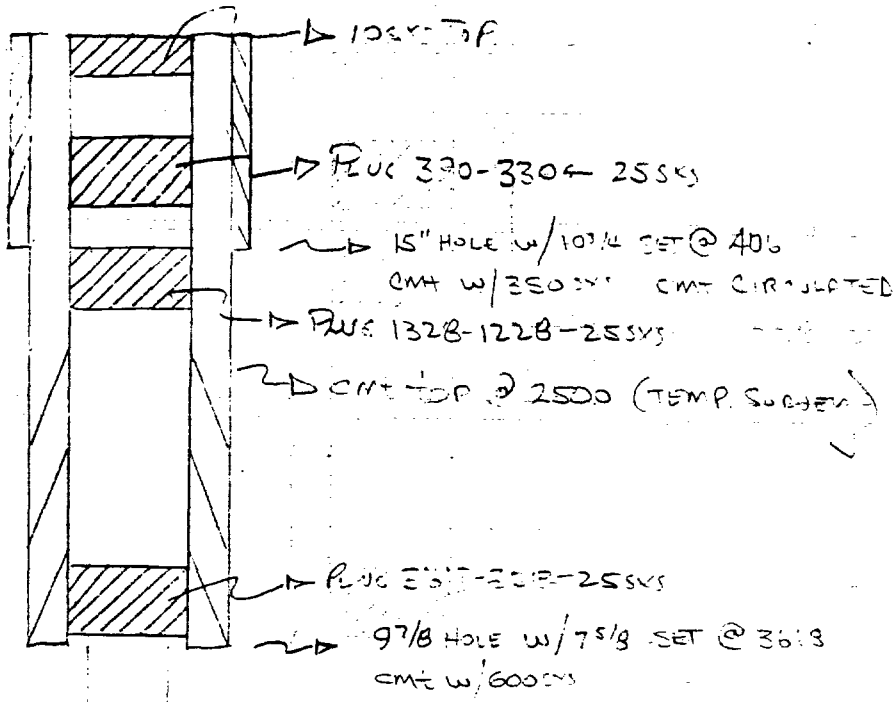
BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
Chevron EXHIBIT NO. 4
CASE NO. 8976

[illegible]	[illegible]	Location & Spud Date	Well Status	Perforated Interval / Total Depth	Hole Size	Casing	Set @	Cement	Top
CHAVEROO OPERATING	LSA #1	G 30,17S,36E 12-8-83	Producing Penn [illegible]	9170-9196 / [illegible] TD	17½	13 3/8	445'	400 sxs	CIRCULATED
					12¼	9 5/8	5155	2150 sxs	CIRCULATED
					7 7/8	5½	5181-9324	525 sxs	(5131-5821 cmt CAL)
MESA	STATE 30 #1	K 30,17S,36E 2-18-84	Producing ABO DETRITAL	8592-9147 / 9181-9213 / TD 9320	17½	13 3/8	405	420 sxs	CIRCULATED
					11	8 5/8	3499	1000 sxs	CIRCULATED 200 sxs
					7 7/8	5½	9322	1590 sxs	CIRCULATED 35 sxs
CHAVEROO OPERATING	LSA #2	E 20,17S,36E 5-28-85	Producing ABO DETRITAL	9168-9230 / TD 9355	17½	13 3/8	390	460 sxs	CIRCULATED 70 sxs
					12¼	8 5/8	3500	1360 sxs	CIRCULATED 175 sxs
					7 7/8	5½	9355	1850 sxs	TOP CMT @ 3300 BOND LOG
BTA OIL PRODUCERS	JVP-#1	F 30,17S,36E 10-25-83	Producing ABO DETRITAL	9116-9207 / TD 9350	17½	13 3/8	406	450 sxs	CIRCULATED
					11	8 5/8	3500	1555 sxs	CIRCULATED/CALCULATED
					7 7/8	5½	9350	1000 sxs	TOC @ 4114
LONE STAR PRODUCING	ATLANTIC STATE "B"	H 30,17S,36E 7-9-64	P/A	TD 9341	15	10¾	406	350 sxs	CIRCULATED
					9 7/8	7 5/8	3618	600 sxs	TOP @ 2500 TEMP. SURVEY
					7 7/8	PLUGS: 9341-9050-60 sxs, 7412-7312-25 sxs, 6598-6498-25 sxs, 4969-4868-25 sxs, 3613-3513-25 sxs, 1328-1268-25 sxs, 390-330-25 sxs, 5 sxs-Top			
ELK OIL COMPANY	STANDARD STATE #1	D 30,17S,36E 9-25-61	P/A	TD 11,604	17½	13 3/8	295	350 sxs	FULL RETURNS NO CMT CIRCULATE
					11	8 5/8	4117	1300 sxs	
					7 7/8	SPOTTED 25 sxs @ 8903, 7097, 6206, 4907, 4102; SPOTTED 50 sxs @ 4400, 4116, 2500, 10 sxs TOP			
SUN EXPLORATION COMPANY	New Mexico X-19 STATE #1	[illegible] 5/?/58	[illegible]	TD 9650	17½	13 3/8	390	420 sxs	
					PLUGGED	9162-9062 122 sxs, 8730-8630-122 sxs, 6645-6545 122 sxs, 4975-4815-122 sxs, 4450-4350-122 sxs, 3550-3450-186 sxs, 1965-1865 136 sxs, 10 sxs Top			

Operator	Well	Location & Spud Date	Well Status	Perforated Interval / Total Depth	Hole Size	Csg Size	Set @	Cement	Top
Chevron [illegible]	[illegible] #1	G 30 [illegible] 12-8-83	Producing [illegible]	9170-9196 [illegible] TD	17½	13⅜	445'	400 sxs	Circulated
					12¼	9⅝	5055	2150 [illegible]	Circulated
					7⅞	5½	5181-9324	525 sxs	(5181-582[illegible] [illegible])
[illegible]	State 30 #1	K 30, 17S, 36E 2-18-84	Producing Abo Detrital	8592-9147 9181-9213 TD 9320	17½	13⅜	405	420 sxs	Circulated
					11	8⅝	3490	1000 sxs	Circulated 200 sxs
					7⅞	5½	9322	1590 sxs	Circulated 35 sxs
Chevron Operating	LSA #2	G 20, 17S, 36E 5-28-85	Producing Abo Detrital	9168-9230 TD 9355	17½	13⅜	390	460 sxs	Circulated 70 sxs
					12¼	8⅝	3500	1360 sxs	Circulated 175 sxs
					7⅞	5½	9355	1850 sxs	Top Cmt @ 3300 Temp Log
3TA Oil Producers	JVP #1	F 30, 17S, 36E 10-25-83	Producing Abo Detrital	9116-9207 TD 9350	17½	13⅜	406	450 sxs	Circulated
					11	8⅝	3500	1585 sxs	Circulated [illegible]
					7⅞	5½	9350	1000 sxs	TOC @ 4114'
Lone Star Producing	Atlantic State "B"	H 30, 17S, 36E 1-9-64	P/A	TD 9341	15	10¾	406	350 sxs	Circulated
					9⅞	7⅝	3618	600 sxs	Top @ 2500 Temp Survey
					7⅞	Plugs	9341-9050-60 sxs, 7412-7312-25 sxs, 6598-6498-25 sxs, 4969-4868-25 sxs, 3613-3513-25 sxs, 1328-1268-25 sxs, 390-330-25 sxs		5 sxs - Top
[illegible]	[illegible]	D 30, 17S, 36E 9-25-61	P/A	TD 11,604	17½	13⅜	295	350 sxs	Full Returns [illegible]
					11	8⅝	4117	1300 sxs	
					7⅞	Spotted 25 sxs @ 9903, 7097, 6206, 4907, 4102; Spotted [illegible] @ 4400, 4116, 2500, 10 sxs Top			
Sun Exploration [illegible] New Mexico [illegible]	[illegible] #1	[illegible] 3/[illegible]/55	[illegible]	TD 9650	17½	13⅜	[illegible]	420 [illegible]	
					Plugged 9162-9062 122 sxs, [illegible]-8630-122 sxs, [illegible]-6545-122 [illegible], 4915-4675-122 sxs, 4450-4350-122 sxs, [illegible]-1863 sxs, 1965-1865-136 sxs, 10 sxs Top				

DOVE STAR PROSPECTS

ATLANTIC STATE B-#1



PLUG 4969-4850 - 25SXS - T San Andres

PLUG 3578-3378 - 25SXS

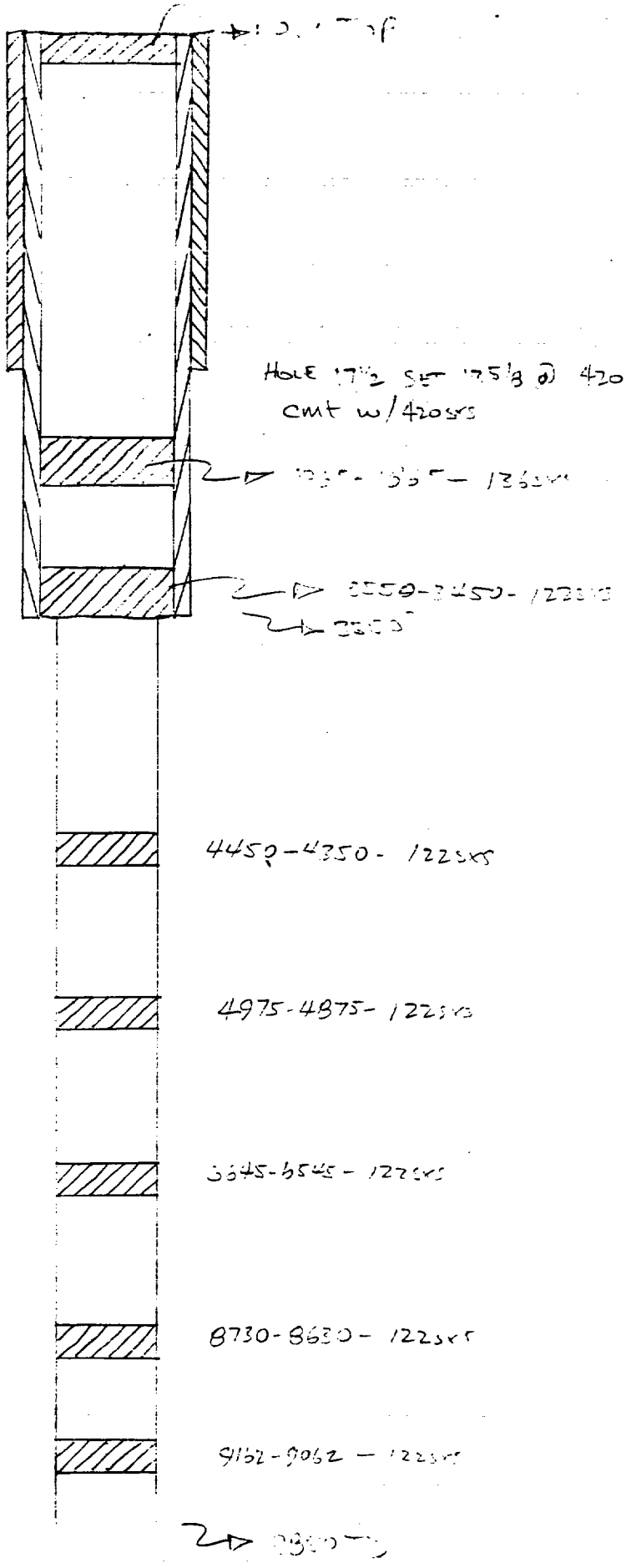
PLUG 7412-7312 - 25SXS

PLUG 9341-9050 - 60SXS

TD @ 9341

BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
EXHIBIT NO. 6
CASE NO: 8976

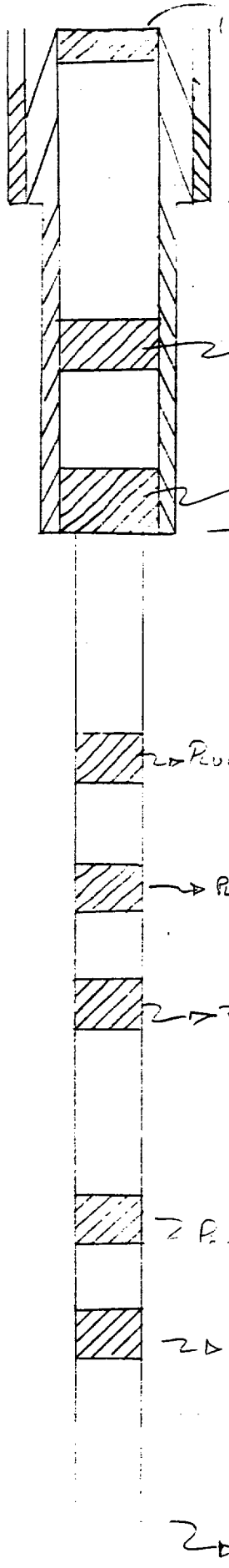
SUN EXPLORATION
COMPANY
/
NEW MEXICO X-19
STATE #1



BEFORE EXAMINER GAYNACH
OIL CONSERVATION DIVISION
chavez EXHIBIT NO. 7
CASE NO. 8976

ELK OIL
COMPANY

STATIONAL STATE #1



BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
EXHIBIT NO. 8
CASE NO: 8976

VISCO Water Analysis

Prepared for CHAVEROO OPERATING
HOBBS N.M.

Don M. Bamert
NALCO Chemical Company
4-Apr-86

Well Number : LSA 2
Water Source : WELLHEAD

DISSOLVED SOLIDS

Cations		mg/l	meq/l		mg/l
Sodium	Na+	60,717.70	2,639.90	as NaCl	
Calcium	Ca++	1,200.00	60.00	as CaCO3	3,000.00
Magnesium	Mg++	600.00	49.38	as CaCO3	2,469.14
Barium	Ba++			as CaCO3	
Total Cations		62,517.70	2,749.28		

Anions		mg/l	meq/l		mg/l
Chloride	Cl-	94,000.00	2,650.80	as NaCl	154,859.97
Sulfate	SO4=	3,000.00	62.40	as Na2SO4	4,437.87
Carbonate	CO3=			as CaCO3	
Bicarb.	HCO3-	2,200.00	36.08	as CaCO3	1,803.28
Total Anions		99,200.00	2,749.28		

Total Solids	161,717.70		
Total Iron,Fe	0.20	as Fe	0.20
Acid to Phen,CO2		as CaCO3	

SCALING INDICES

Temp	CaCO3	CaSO4	BaSO4
50 F	+0.19	-41.78	
77 F	+0.43		
95 F	+0.64	-42.74	
122 F	+1.02	-41.40	
149 F	+1.48		
176 F	+2.02	-38.38	
203 F	+2.64		

Positive values indicate scaling is likely.
Scaling Indices calculated using ASTM standard practices.

OTHER PROPERTIES

pH	6.80
Specific Gravity	1.13
Turbidity	
Oxygen, as O2 ppm	
Sulfide as H2Sppm	
Temperature F	80.00

BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
Chevron EXHIBIT NO. 9
CASE NO. 8976

VISCO Water Analysis

Prepared for CHAVEROO
HOBBS, N.M.

DON BAMERT
NALCO Chemical Company
4-Nov-85

Well Number : GILES LEE
Water Source : HOME

DISSOLVED SOLIDS

Cations		mg/l	meq/l		mg/l
Sodium	Na^{+}	41.03	1.78	as NaCl	
Calcium	Ca^{++}	560.00	28.00	as $CaCO_3$	1,400.00
Magnesium	Mg^{++}	18.23	1.50	as $CaCO_3$	75.00
Barium	Ba^{++}			as $CaCO_3$	
Total Cations		619.25	31.28		

Anions		mg/l	meq/l		mg/l
Chloride	Cl^{-}	728.40	20.54	as NaCl	1,200.00
Sulfate	$SO_4^{=}$	473.20	9.84	as Na_2SO_4	700.00
Carbonate	$CO_3^{=}$			as $CaCO_3$	
Bicarb.	HCO_3^{-}	54.90	0.90	as $CaCO_3$	45.00
Total Anions		1,256.50	31.28		

Total Solids 1,675.75

Total Iron, Fe as Fe
Acid to Phen, CO_2 as $CaCO_3$

SCALING INDICES

Temp	$CaCO_3$	$CaSO_4$	$BaSO_4$
50 F	+0.07	-23.84	
77 F	+0.33		
95 F	+0.51	-54.21	
122 F	+0.79	-45.45	
149 F	+1.09		
176 F	+1.40	-52.04	
203 F	+1.73		

Positive values indicate scaling is likely.
Scaling Indices calculated using ASTM standard procedures.

OTHER PROPERTIES

[illegible] 7.10

BEFORE EXAMINER CAT
OIL CONSERVATION DIVISION
Chaveroo EXHIBIT NO. 10
CASE NO. 8976

HALLIBURTON DIVISION LABORATORY
HALLIBURTON COMPANY
LOVINGTON, NEW MEXICO

LABORATORY WATER ANALYSIS No. W73-584

To Jack Pharis Date 9-17-73

Submitted by: Date Rec.

Well No. St. G "36" #2 Depth Formation San Andres

County Field Source

	9-16-73	9-17-73	
Resistivity	0.133 @ 74° F.	0.117 @ 74° F.	
Specific Gravity	1.051	1.058	
pH	7.0	7.0	
Calcium (Ca)	5,500	6,600	
Magnesium (Mg)	1,200	840	
Chlorides (Cl)	48,000	54,000	
Sulfates (SO4)	1,992	2,592	
Bicarbonates (HCO3)	1,269	1,074	
Soluble Iron (Fe)	Light	Light	

BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
Chavez EXHIBIT NO. 11
CASE NO. 8976

Remarks: *MV = Milligrams per liter

WATER SAMPLE OF SA. [illegible] WELL IN AREA

Respectfully submitted,

Analyst: Brewer

cc:

HALLIBURTON COMPANY
By W. A. Brewer
CHEMIST

NOTICE

alysis

epared for CHAVEROO
HOBBS, N.M.

DON BAMERT
NALCO Chemical Company
4-Nov-85

ll Number : R.D. LEE
ter Source : IRRIGATION WELL

SOLVED SOLIDS

tions		mg/l	meq/l		mg/l
dium	Na+	70.81	3.08	as NaCl	
lcium	Ca++	840.00	42.00	as CaCO3	2,100.00
gnesium	Mg++	24.30	2.00	as CaCO3	100.00
rium	Ba++			as CaCO3	
tal Cations		935.11	47.08		

ions		mg/l	meq/l		mg/l
loride	Cl-	1,092.60	30.81	as NaCl	1,800.00
lfate	SO4=	743.60	15.47	as Na2SO4	1,100.00
rbonate	CO3=			as CaCO3	
carb.	HCO3-	48.80	0.80	as CaCO3	40.00
tal Anions		1,885.00	47.08		
tal Solids		2,820.11			
tal Iron,Fe				as Fe	
id to Phen,CO2				as CaCO3	

ALING INDICES

emp	CaCO3	CaSO4	BaSO4
0 F	+0.08	-8.50	
7 F	+0.34		
5 F	+0.53	-16.74	
2 F	+0.82	-14.29	
0 F	+1.14		
5 F	+1.47	+16.17	
3 F	+1.83		

sitive values indicate scaling is likely.
aling Indices calculated using ASTM standard practices.

ER PROPERTIES

	7.50
ecific Gravity	1.00
rbidity	
ygen, as O2 ppm	
lfide as H2S ppm	
mperature F	70.00

VISCO ater Analysis

Prepared for CHAVERCO
HOBBS, N.M.

DON BAMERT
NALCO Chemical Company
4-Nov-85

Well Number : R. D. LEE / HOME
Water Source :

DISSOLVED SOLIDS

Cations		mg/l	meq/l		mg/l
Sodium	Na+			as NaCl	
Calcium	Ca++	480.00	24.00	as CaCO3	1,200.00
Magnesium	Mg++	194.40	16.00	as CaCO3	800.00
Barium	Ba++			as CaCO3	
Total Cations		674.40	40.00		

Anions		mg/l	meq/l		mg/l
Chloride	Cl-	637.35	17.97	as NaCl	1,050.00
Sulfate	SO4=	507.00	10.55	as Na2SO4	750.00
Carbonate	CO3=			as CaCO3	
Bicarb.	HCO3-	36.60	0.60	as CaCO3	30.00
Total Anions		1,180.95	29.12		

Total Solids 1,855.35

Total Iron,Fe as Fe
Acid to Phen,CO2 as CaCO3

SCALING INDICES

Temp	CaCO3	CaSO4	BaSO4
50 F	-0.31	-20.97	
77 F	-0.05		
95 F	+0.12	-40.42	
122 F	+0.41	-34.57	
149 F	+0.72		
176 F	+1.04	-28.66	
203 F	+1.36		

Positive values indicate scaling is likely.
Scaling Indices calculated using ASTM standard practices.

OTHER PROPERTIES

pH	7.40
Specific Gravity	1.00
Turbidity	
Oxygen, as O2 ppm	
Sulfide as H2S ppm	
Temperature F	70.00

BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
Chaverco EXHIBIT NO. 13
CASE NO. 8976

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:

Mesa Operating Ltd.
P. O. Box 2009
Amarillo, Texas 79189

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 131 072 119

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X [signature]

7. Date of Delivery
AUG 4 1986

8. Addressee's Address (*ONLY if requested and fee paid*)
P.O.B. 2009 87S
Amarillo, Tx 79105

PS Form 3811, July 1983 447-845 DOMESTIC RETURN RECEIPT

Chaveroo 8/20/86

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:

BTA Oil Producers
104 South Pecos
Midland, Texas 79701

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 131 072 118

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X [signature]

7. Date of Delivery

MIDLAND TX 1986

8. Addressee's Address (*ONLY if requested and fee paid*)

PS Form 3811, July 1983 447-845 DOMESTIC RETURN RECEIPT

Chamar 14
CASE NO. 8976

KELLAHIN and KELLAHIN
Attorneys at Law
El Patio - 117 North Guadalupe
Post Office Box 2265
Santa Fe, New Mexico 87504-2265

Jason Kellahin
W. Thomas Kellahin
Karen Aubrey

Telephone 982-4285
Area Code 505

August 4, 1986

HAND-DELIVERED

Mr. Floyd Pondo
Director
Oil and Gas Division
State Land Office
Santa Fe, New Mexico 87501

Dear Mr. Pondo:

Enclosed is a copy of Chaveroo Operating Company's application for salt water disposal. We inadvertently failed to mail you a copy of this application last Thursday when we sent it out to the offset operators. The case is docketed for August 20, 1986. I hope our delay does not inconvenience you.

Very truly yours,

Marsha L. Butler
Legal Assistant

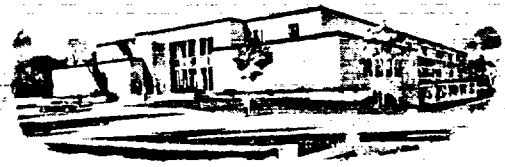
MLB:dd

Enclosure

I hereby acknowledge receipt of the above application on August 4, 1986.

Chaveroo 15
8976

State of New Mexico



Commissioner of Public Lands

JIM BACA
COMMISSIONER

P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

August 7, 1986

Kellahin and Kellahin
Attorneys at Law
Post Office Box 2265
Santa Fe, New Mexico 87504-2265

Re: Chaveroo Operating Company application to convert the Atlantic "B" State #2 Well located in Unit B, Section 30, T17S, R36E

Attention: Marsha L. Butler

Dear Madam:

This letter will acknowledge receipt of your letter dated August 4, 1986.

The Land Commissioner does not object at this time as to the conversion of the above well to be utilized to dispose of salt water, however, he does reserve the right to refuse to grant an easement when to do so would be detrimental to the Trust Lands.

If any of the salt water to be injected is produced from lands not under applicant's state oil and gas lease, then the applicant, in addition to a disposal site easement, will be required to secure a regular right-of-way and easement for a pipeline, roadway or other means of conveyance under the rules pertaining to right-of-way.

Sincerely,

JIM BACA
COMMISSIONER OF PUBLIC LANDS

BY: Floyd O. Prando
Floyd O. Prando, Director
Oil and Gas Division

JB/FOP/cb

cc: David Catanach - OCD

Chaveroo 16
8976

B-30-17-36
ARCO Oil & Gas Co.
Atlantic "B" St. #2

SIMULTANEOUS
DUAL LATEROLOG
MICRO-SFL

COUNTY LEA, N.M.
FIELD DOUBLE A ABO SOUTH
LOCATION
WELL ATLANTIC "B" STATE #2
COMPANY ARCO OIL & GAS CO.

COMPANY ARCO OIL AND GAS COMPANY

WELL ATLANTIC "B" STATE #2

FIELD DOUBLE A ABO SOUTH

COUNTY LEA STATE NEW MEXICO

LOCATION 990' FNL 2310' FEL

API SERIAL NO.	SEC.	TWP	RANGE
	30	17-S	36-E

Other Services:
CNL/LDT
BHC

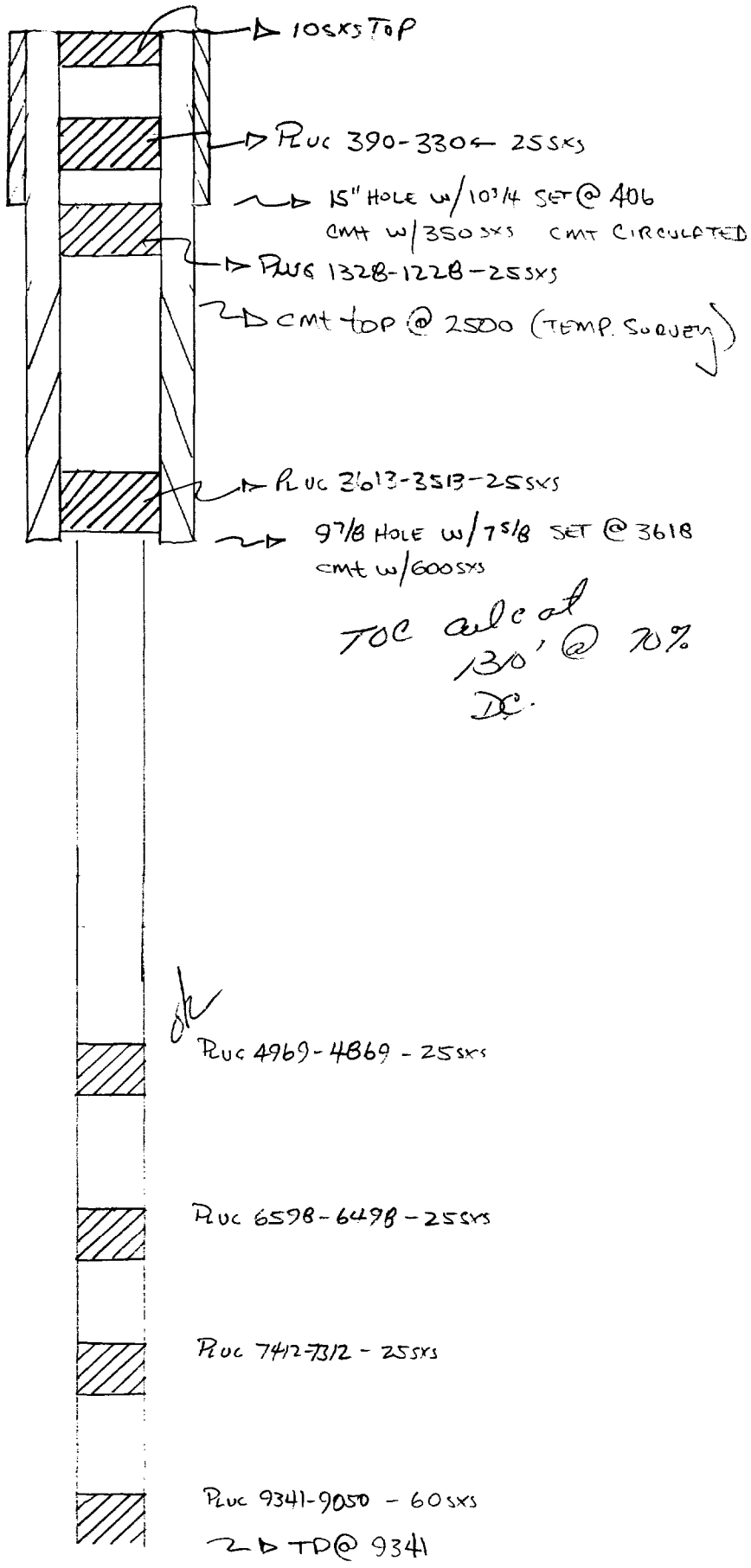
Permanent Datum: G.L. , Elev.: 3881
Log Measured From K.B. 11 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev.: K.B. 3892
D.F.
G.L. 3881

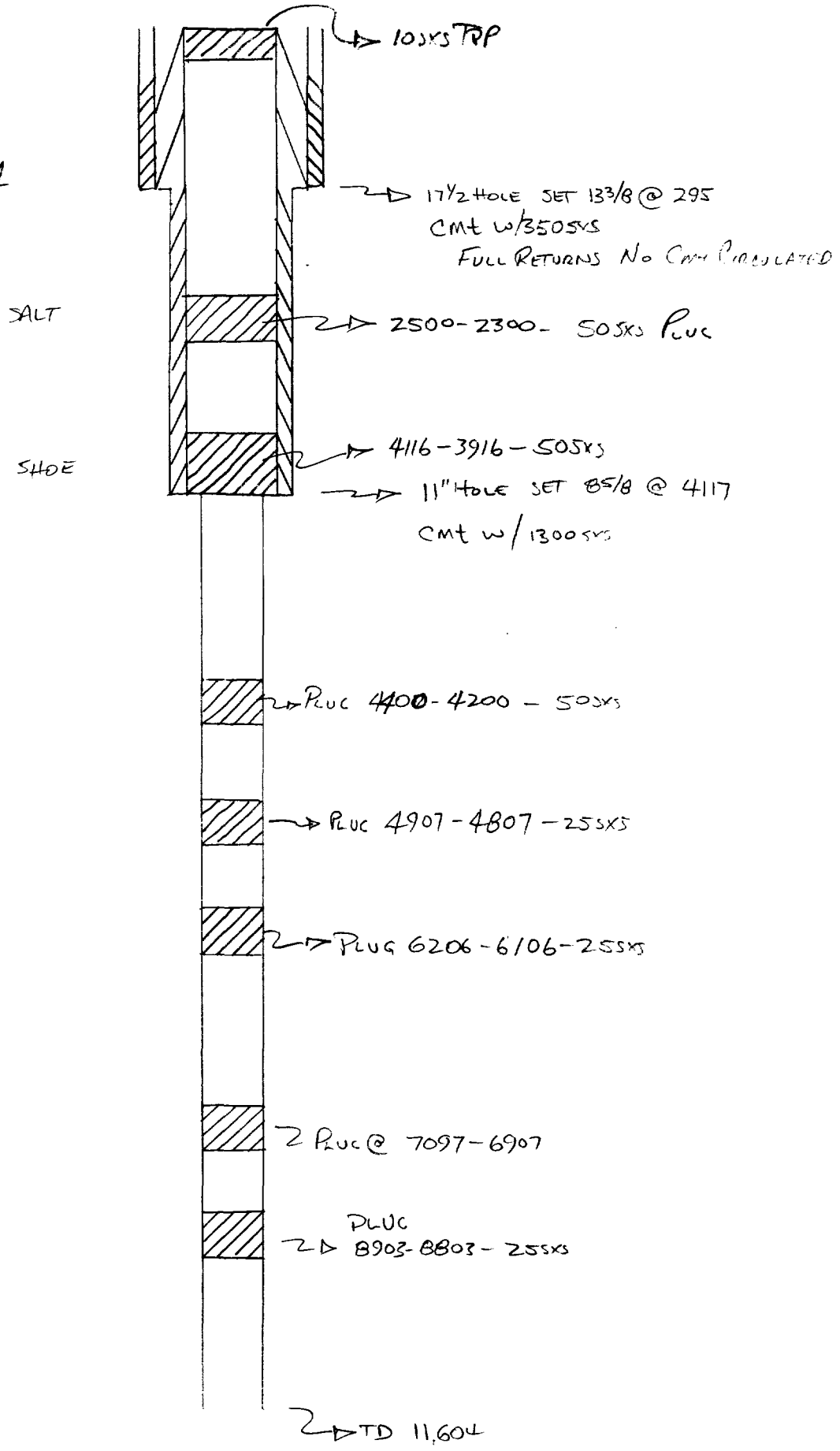
Date	7-4-84		7-8-84					
Run No.	ONE		TWO					
Depth—Driller	9220		9290					
Depth—Logger (Schl.)	9187		9250					
Btm. Log Interval	9152		9249					
Top Log Interval	3460		7400					
Casing—Driller	8 5/8@3465		8 5/8@ 3465		@		@	
Casing—Logger	3460		3460					
Bit Size	7 7/8		7 7/8					
Type Fluid in Hole	POLY MUD		K/A FREE					
Dens. / Visc.	9.3	39	9.2	38				
pH / Fluid Loss	9	8.8 ml	8.5	8.8 ml		ml		ml
Source of Sample	CIRC.		PIT					
Rm @ Meas. Temp.	.067 @75 °F		.062 @ 80 °F		@	°F	@	°F
Rmf @ Meas. Temp.	.050 @75 °F		.047 @ 80 °F		@	°F	@	°F
Rmc @ Meas. Temp.	– @ °F		– @ °F		@	°F	@	°F
Source: Rmf / Rmc	–		M					
Rm @ BHT	.04 @128 °F		.036 @ 136°F		@	°F	@	°F
TIME Circulation Stopped	–		1900 7-7					
TIME Logger on Bottom	2330		0100 7-8					
Max. Rec. Temp.	128 °F		136 °F					°F
Equip. / Location	8141	RSWL	8279	HOBBS				
Recorded By	FRIGON		MOBARAK					
Witnessed By	MITCHELL		LONDER/SPAETH/MITCHELL					

LONE STAR PRODUCING

ATLANTIC STATE B-#1



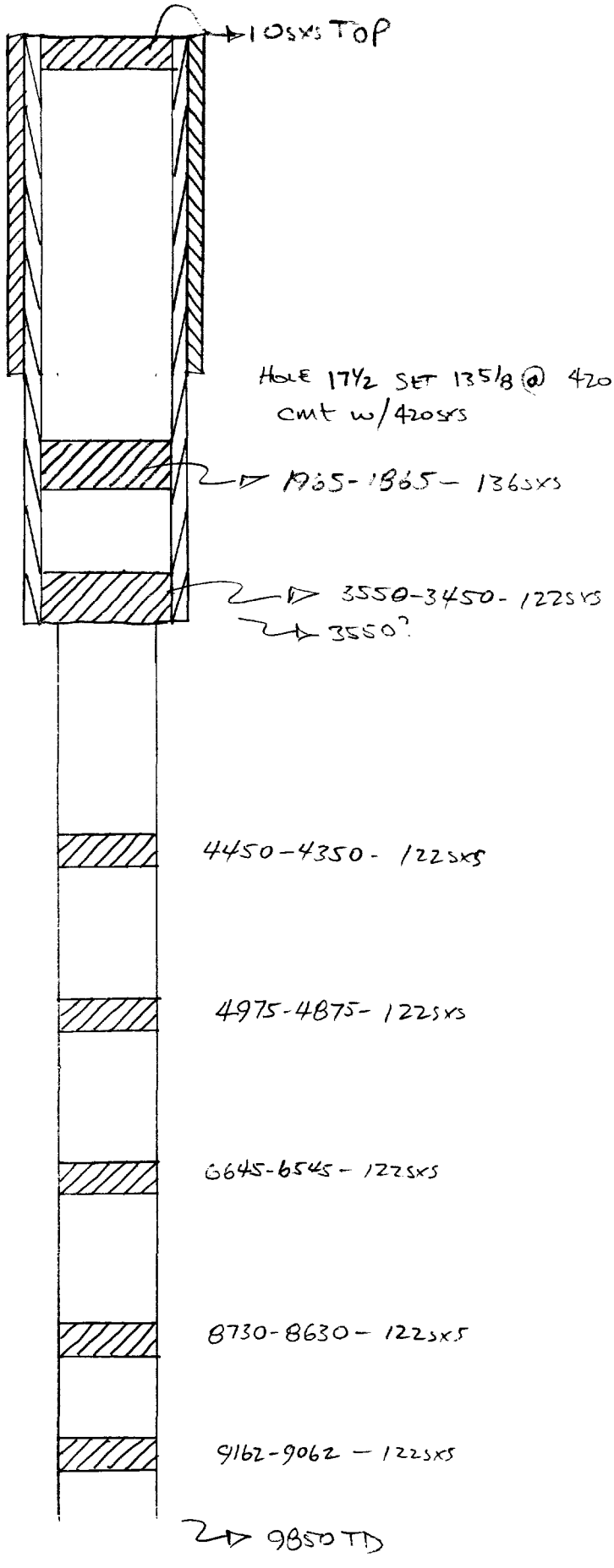
ELK OIL
COMPANY
STANDARD STATE #1



OPERATOR	WELL NAME	LEGAL & SPUD DATE	WELL STATUS	PERFORATED INTERVAL / TOTAL DEPTH	HOLE SIZE – CASING – SET @ — CEMENT — TOP
CHAVEROO OPERATING	LSA #1	G 30,17S,36E 12-8-63	PRODUCING BONE SPRINGS	9190-9196 9324 TD	17½ – 13⅜ – 446' – 400 SXS – CIRCULATED 12¼ – 9⅝ – 5265 – 2150 SXS – CIRCULATED 7⅞ – 5½ – 5181-9324 – 525 SXS – (5181-5821 CMT CAL)
MESA	STATE 30 #1	K 30,17S,36E 2-18-84	PRODUCING ABO DETRITAL	8592-9147 9181-9213 TD 9320	17½ – 13⅜ – 405 – 420 SXS – CIRCULATED 11 – 8⅝ – 3499 – 1000 SXS – CIRCULATED 200 SXS 7⅞ – 5½ – 9322 – 1590 SXS – CIRCULATED 35 SXS
CHAVEROO OPERATING	LSA #2	G 30,17S,36E 5-28-85	PRODUCING ABO DETRITAL	9168-9230 TD 9355	17½ – 13⅜ – 390 – 460 SXS – CIRCULATED 70 SXS 12¼ – 8⅝ – 3500 – 1360 SXS – CIRCULATED 175 SXS 7⅞ – 5½ – 9355 – 1850 SXS – TOP CMT @ 3300 BONE SPG
BTA OIL PRODUCERS	JVP-#1	F 30,17S,36E 10-25-83	PRODUCING ABO DETRITAL	9116-9207 TD 9350	17½ – 13⅜ – 406 – 450 SXS – CIRCULATED 11 – 8⅝ – 3500 – 1585 SXS – CIRCULATED (CALCULATED) 7⅞ – 5½ – 9350 – 1000 SXS – TOC @ 4114'
LONE STAR PRODUCING	ATLANTIC STATE "B"	H 30,17S,36E 7-9-64	P/A	TD 9341	15 – 10¾ – 406 – 350 SXS – CIRCULATED 9⅞ – 7⅝ – 3618 – 600 SXS – TOP @ 2500 TEMP SURVEY 7⅞ – PLUGS 9341-9050-60 SXS, 7412-7312-25 SXS, 6598-6498-25 SXS, 4969-4868-25 SXS 3613-3513-25 SXS, 1328-1268-25 SXS 390-330-25 SXS 5 SXS-TOP
ELK OIL COMPANY	STANDARD STATE #1	D 30,17S,36E 1-25-61	P/A	TD 11,604	17½ – 13⅜ – 295 – 350 SXS – FULL RETURNS NO CMT CIRC 11 – 8⅝ – 4117 – 1300 SXS 7⅞ – SPOTTED 25 SXS @ 8703, 7097, 6206, 4907, 402 SPOTTED 50 SXS @ 4400, 4116, 2500, 10 SXS TOP
SUN EXPLORATION COMPANY	NEW MEXICO X-19 STATE #1	P 30,17S,36E 3/23/85	P/A	TD 9850	17½ – 13⅜ – 420 – 420 SXS PLUGS @ 9162-9062-122 SXS, 8730-8630-122 SXS, 6645-6545-122 SXS 4975-4875-122 SXS, 4450-4350-122 SXS, 3550-3450-186 SXS 1965-1865-136 SXS, 10 SXS TOP

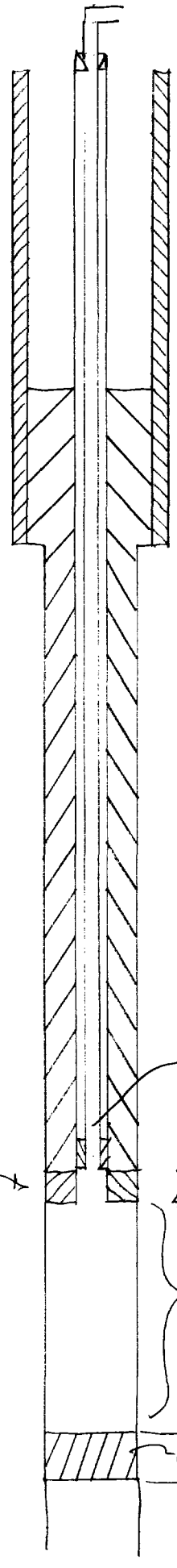
SUN EXPLORATION COMPANY

NEW MEXICO X-19 STATE #1



ATLANTIC 'B'
STATE #2

PROPOSED INJECTION
WELL FOR
CHAVEROO OPERATING



→ 8⅝ SET @ 3465
CMT W/ CMT CIRCULATED

ORIGINALLY DRILLED & P/A
BY ARCO TO BE
REENTERED BY
CHAVEROO OPERATING

MAX INJECTION PRESSURE 1000PSI
MAX INJECTION RATE 2000 BPD

→ SET 2⅜ PLASTIC COATED W/TENSION PACKER @ 4780
SET 5½ 17# @ 4792 & CMT W/300SXS
(NOTE 207SXS NEED TO GET TO 3465)

OLD PLUG → TOP of SAN ANDRES INTERVAL

4792 }
4892 }

INJECT OPEN HOLE 4792 - 6432

→ TOP 6432

TOP of GLORIETA INTERVAL

→ BTM PLUG 6532