ALPHA TWENTY-ONE PRODUCTION COMPANY

POST OFFICE BOX 1206
JAL, NEW MEXICO 88252

505/395-3056

December 7, 1984

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

DEC 26 1984

RECEIVED

Case 8462

RE: Gregory "A" Federal No. 3
660' FNL & 660' FWL,
Sec. 33, T-25-S, R-37-E,
Lea County, New Mexico

Gentlemen:

Enclosed for your review and approval find our Application for Authorization to Dispose Produced Water into a Zone Non-Productive of Oil and Gas for the above captioned well.

The proposed salt water disposal well is currently temporarily abanoned. Records show that the well was originally drilled to 4000', but plugged back to 3240' with 275 sacks of cement. The well was then produced in the Queen formation through open-hole from 3085' to 3240' as an oil well in the Langlie Mattix pool.

Alpha Twenty-One Production Company proposed to re-enter the well and drill out the cement to the original TD of 4000'. We would then log, set a liner from 2900' to 4000', cement, perforate, and acidize with 1000 gallons. Attached please find an injection well data sheet showing the well after re-entry operations are complete and ready for disposal.

The produced water for disposal will come from our El Paso Tom Federal lease, Sec. 33, T-25-S, R-37-E, Lea County, New Mexico. The average rate should be 23 BW/hour with a maximum rate of 549 BWPD. We can expect the average volume to be 300 BWPD with a maximum volume of 500 BWPD. The system will be closed using a production packer. The average injection rate anticipated will be 800 psi with a maximum rate of 1200 psi. The non-productive zone for disposal will be the San Andres, but since there are no producing San Andres well within a two-mile radius, chemical analysis could not be obtained for the San Andres formation, however chemical analyisis for the produced water to be disposed is attached.

Geological information indicates that the San Andres formation is a dolomite approximately 1300 feet thick at a depth of 3700'. Information also indicates that the fresh water in the area is sparsly located and not plentiful and is usually found in the Red Bed formation. After checking with the New Mexico State Engineer's office and upon a visual inspection, the only fresh water well found within a one-mile radius is owned by Clyde Cooper. This water well is located in the NE, NE, SW, NE of Section 33 and is currently nonproducing, henceforth, no chemical analysis of the fresh water could be obtained.

After a thorough search of the records at the New Mexico Oil Conservation District office in Hobbs, no record of logs for the captioned well could be found on file, but, as stated before, the well will be logged prior to perforating and a copy of the logs will be made available for public record.

All available geological and engineering data has been examined and no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water has been found.

Attached for your review and records, please find the following:

1.) A map that identifies all wells and leases within two miles of the proposed injection well. A one-half mile radius circle has been drawn around the proposed injection well (the area of review).

2.) A tabulation of data on all wells of public record within the area of review which penetrate the disposal zone.

3.) Chemical analysis of produced water to be disposed.

4.) A data sheet and schematic of the proposed disposal well.

5.) A copy of the legal advertisement publication.

6.) Copies of the return receipts on certified mailings offered as proof of notification to offset operators and surface owner.

If any further information is required for the administrative approval of this Application for Authorization to Dispose Produced Water, please contact me. Thank you for your consideration and cooperation in this matter.

Respectfully yours,

Michael D. Oney,
Drilling Superintendent

MDO/tic
Enclosures

cc: Oil Conservation Division
P.O. Box 1980
Hobbs, NM 88240

Bureau of Land Management
Carlsbad Resource Area
P.O. Box 1778
Carlsbad, NM 88240

Alpha Twenty-One Production Co.
200 W. Illinois Street, Suite 200
Midland, TX 79701
ATTN: Mr. Tom Phipps

Surface Owner:

Mrs. Nadine Owen
909 W. Taos
Hobbs, NM 88240

Offset Operators:

Arco Oil & Gas Company
P.O. Box 1710
Hobbs, NM 88240

El Paso Natural Gas Co.
1800 Wilco Building
Midland, TX 79701

Gulf Oil Corporation
P.O. Box 670
Hobbs, NM 88240

Sun Exploration & Prod. Co.
P.O. Box 1861
Midland, TX 79702

Lewis B. Burleson, Inc.
P.O. Box 2479
Midland, TX 79702

Greathouse & Lovelady Oil & Gas, Inc.
P.O. Drawer 2666
Midland, TX 79701

Doyle Hartman
P.O. Box 10426
Midland, TX 79702

Union Texas Petroleum Corp.
1300 Wilco Building
Midland, TX 79701

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

Case 8402

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: ALPHA TWENTY-ONE PRODUCTION COMPANY

Address: P.O. Box 1206 Jal, New Mexico 88252

Contact party: Michael D. Oney Phone: 505-395-3056

III. 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.

VII. 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.).

VIII. 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.

IX. 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.)

XI. 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.

XII. 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.

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

XIV. Certification

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

Name: Michael D. Oney Title Drilling Superintnedent

Signature: Michael D. Oney Date: 12-10-84

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

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

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.

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ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

Case 8462

APPLICATION FOR AUTHORIZATION TO INJECT

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Name: Michael D. Oney Title Drilling Superintnedent

Signature: Michael D. Oney Date: 12-10-84

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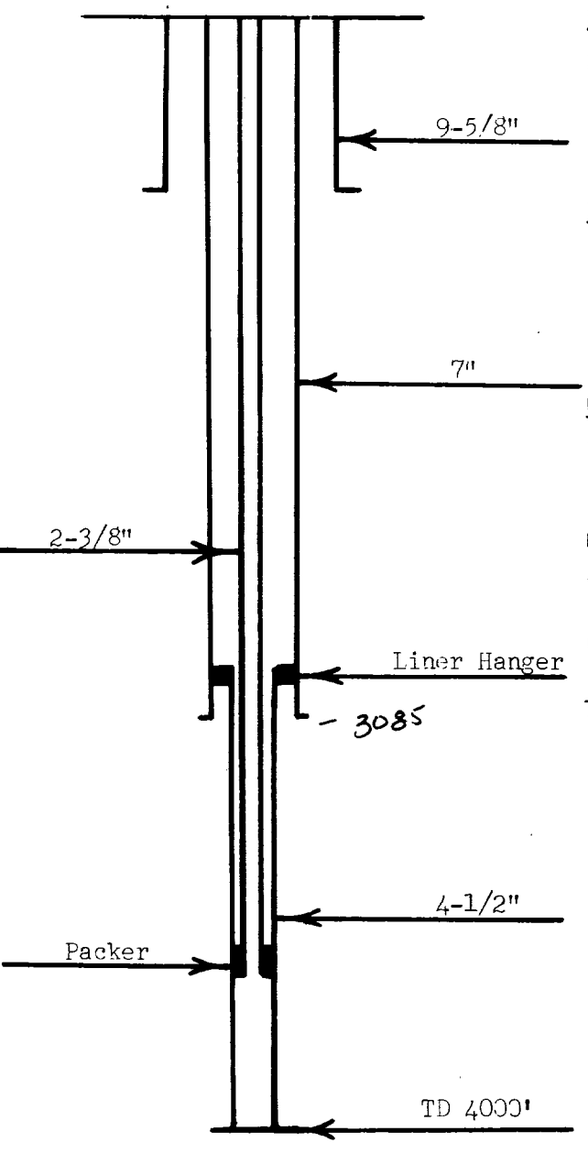
INJECTION WELL DATA SHEET

OPERATOR	LEASE			
ALPHA TWENTY-ONE PRODUCTION COMPANY	GREGORY 'A' FEDERAL			
3	660' FNL-660'FWL	33	T25 South	37 East
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Lea County, New Mexico

Schematic



Tabular Data

Surface Casing

Size 9-5/8" Cemented with 300 sx.

TOC Surface feet determined by Circulated

Hole size 12-1/4"

Intermediate Casing

Size 7" Cemented with 150 sx.

TOC 1839 feet determined by Calculated

Hole size 8-3/4"

Long string--Liner

Size 4-1/2" Cemented with 79 sx.

TOC 2900 feet determined by Calculation

Hole size 6-1/8"

Total depth 4000'

Injection interval

3700 feet to 4000 feet

(perforated or open-hole, indicate which)

Tubing size 2-3/8" lined with plastic (material) set in a

Knickel plated Baker AD-1 (brand and model) packer at 3600 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? / / Yes XX No

   If no, for what purpose was the well originally drilled? Gas well

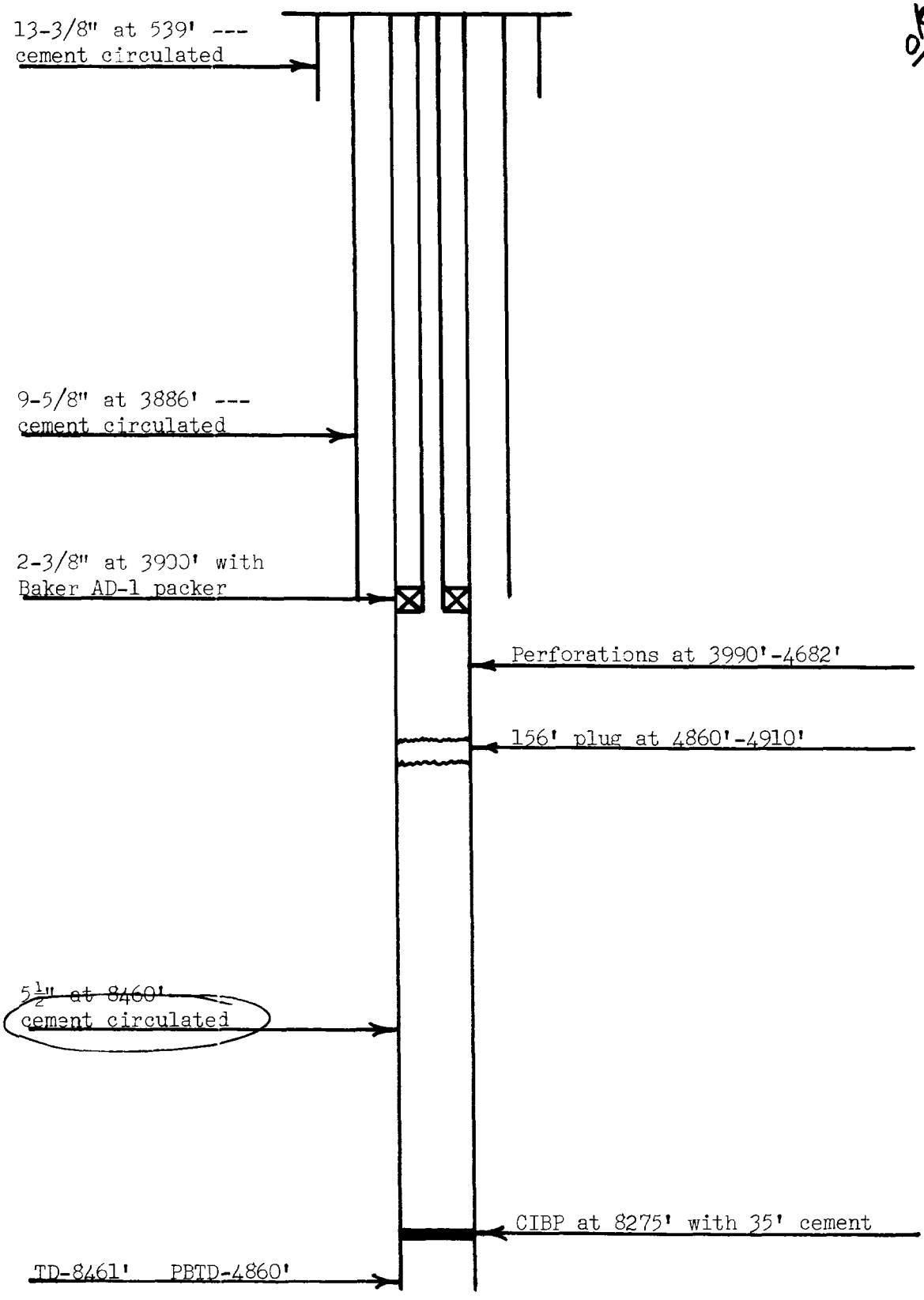
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)

   Open Hole 3085'-3240'

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Jalmat(Yates/Seven Rivers) 2450' Langlie-Mattix(Seven Rivers/Queen) 2900' Crosby(Devonian) 8150'

GREGORY FEDERAL #4 SWD.
Union Texas Petroleum Corp.
Unit K 1980' FSL-1980' FWL
Section 33-T25S-R37E
Elevation: 3008' DF

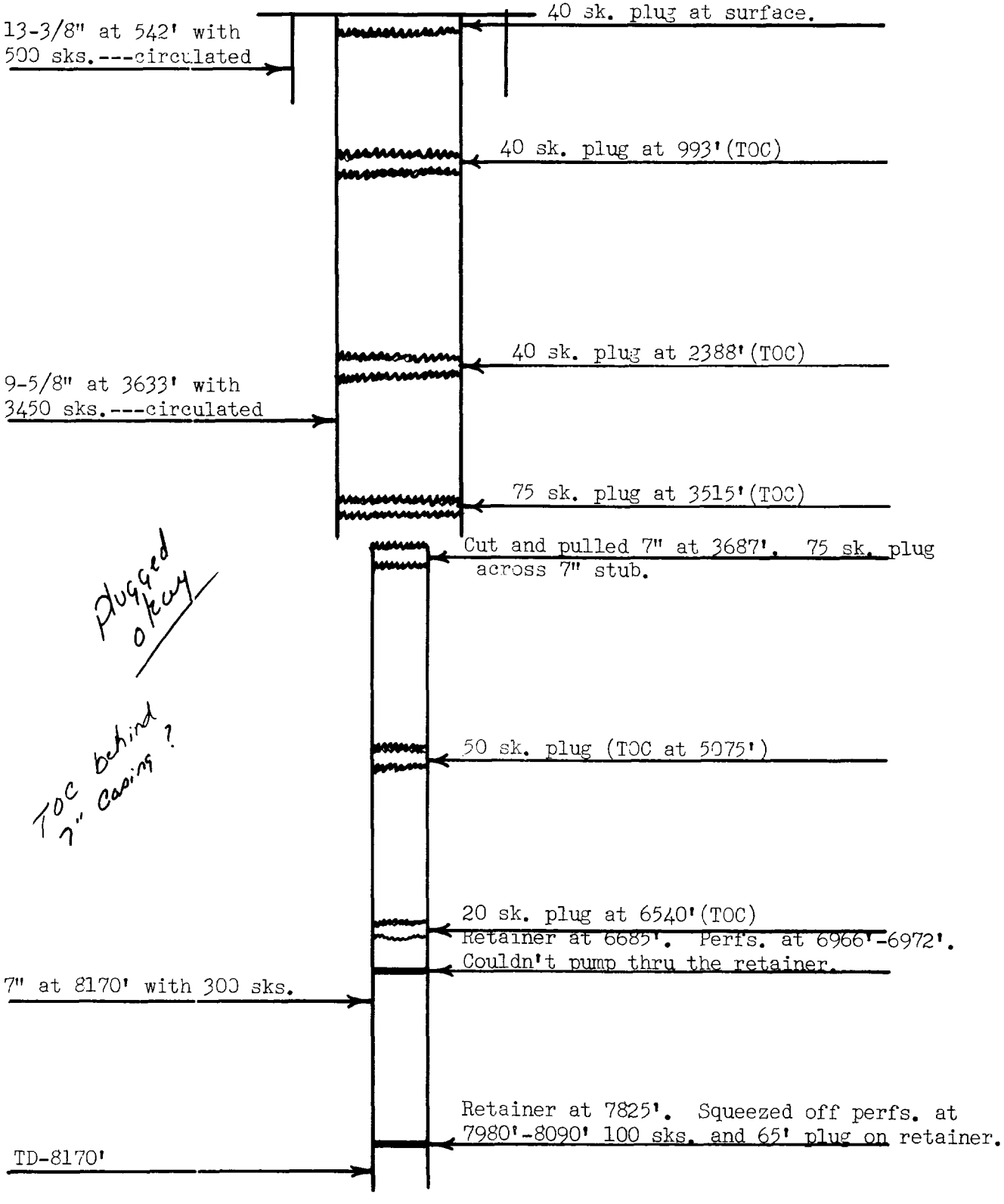
okay



Drilled in 1957. Disposing into the San Andres formation.

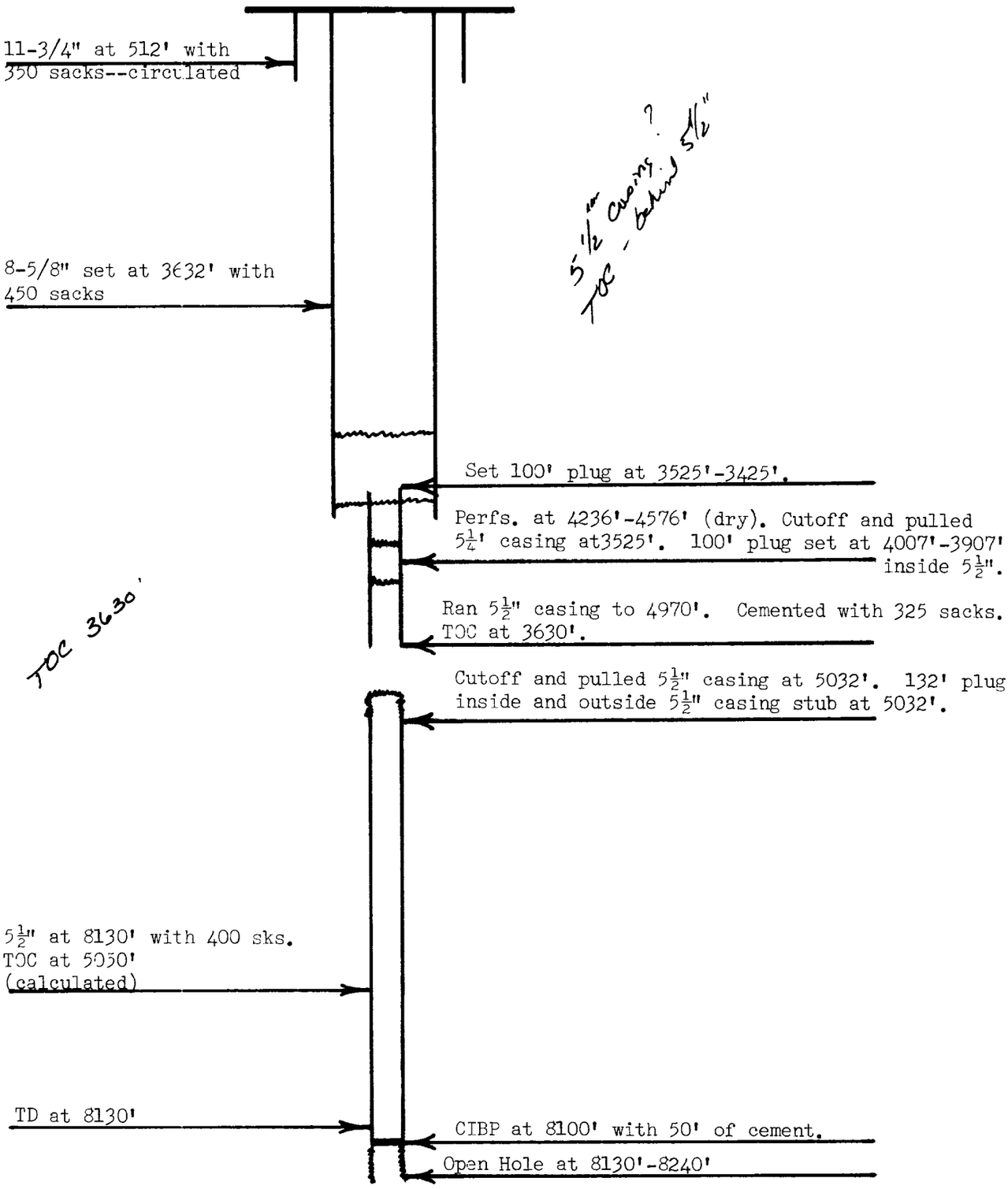
GREGORY FEDERAL #2-Y
El Paso Natural Gas Co.
Unit L 760' FNL-1650' FWL
Section 33-T25S-R37E
Elevation: 3002' GL

Unit letter ? does not coincide with footages.

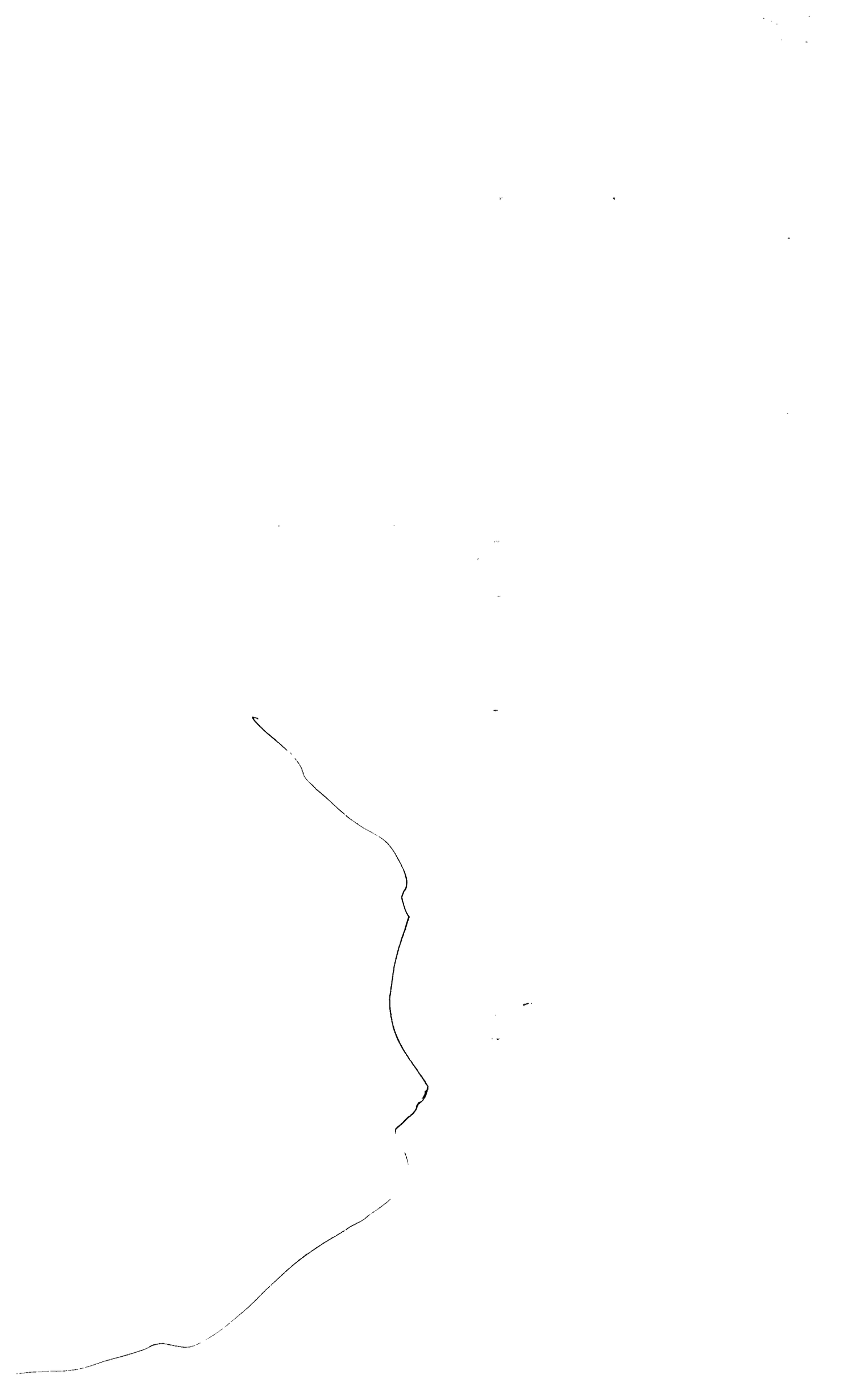


Drilled in 1956.

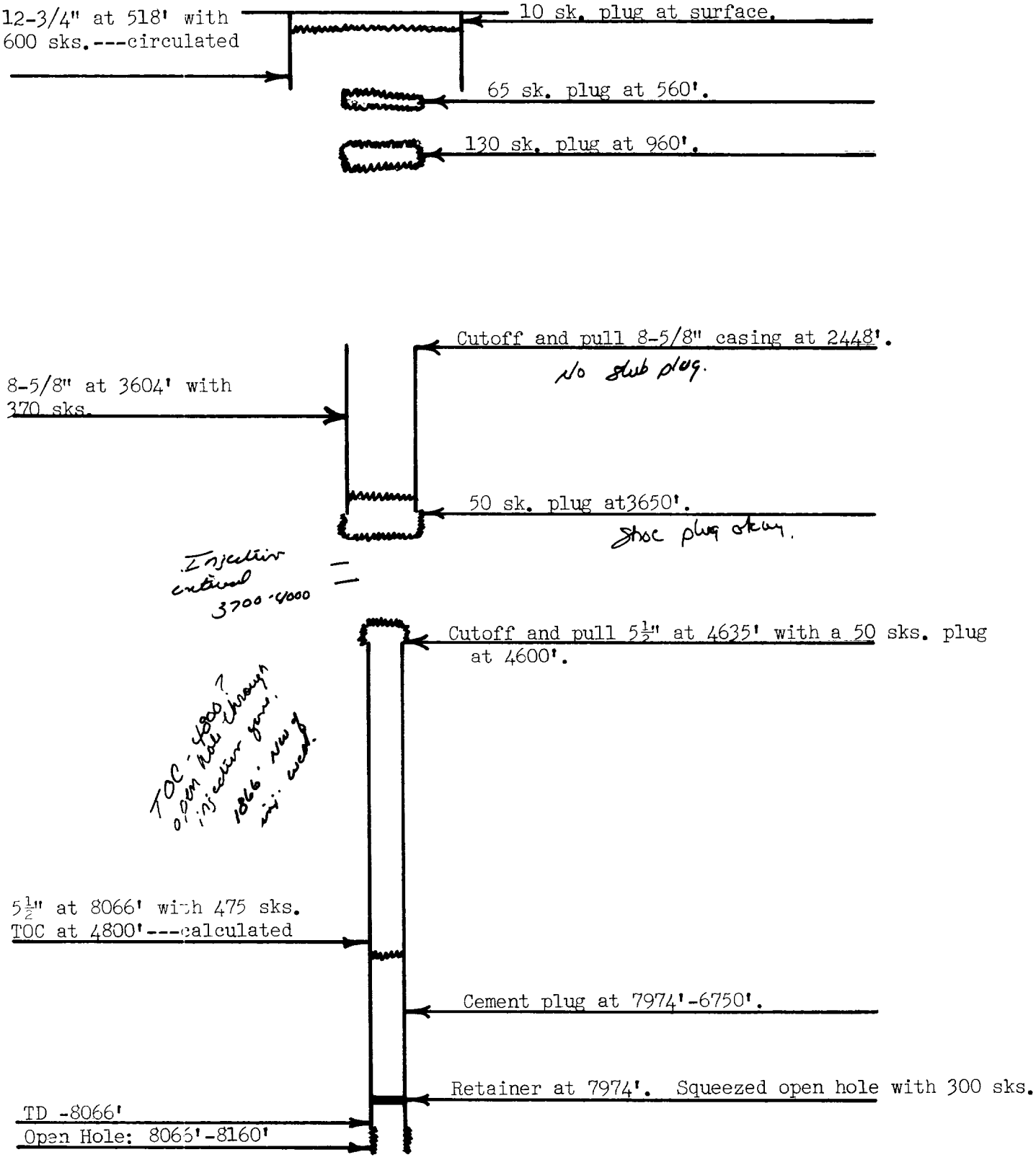
COOK # 3
Lewis Burleson, Inc.
Unit O 660' FSL-1905' FEL
Section 28-T25S-R37E
Elevation: 3001' GL



Well is presently temporarily abandoned.

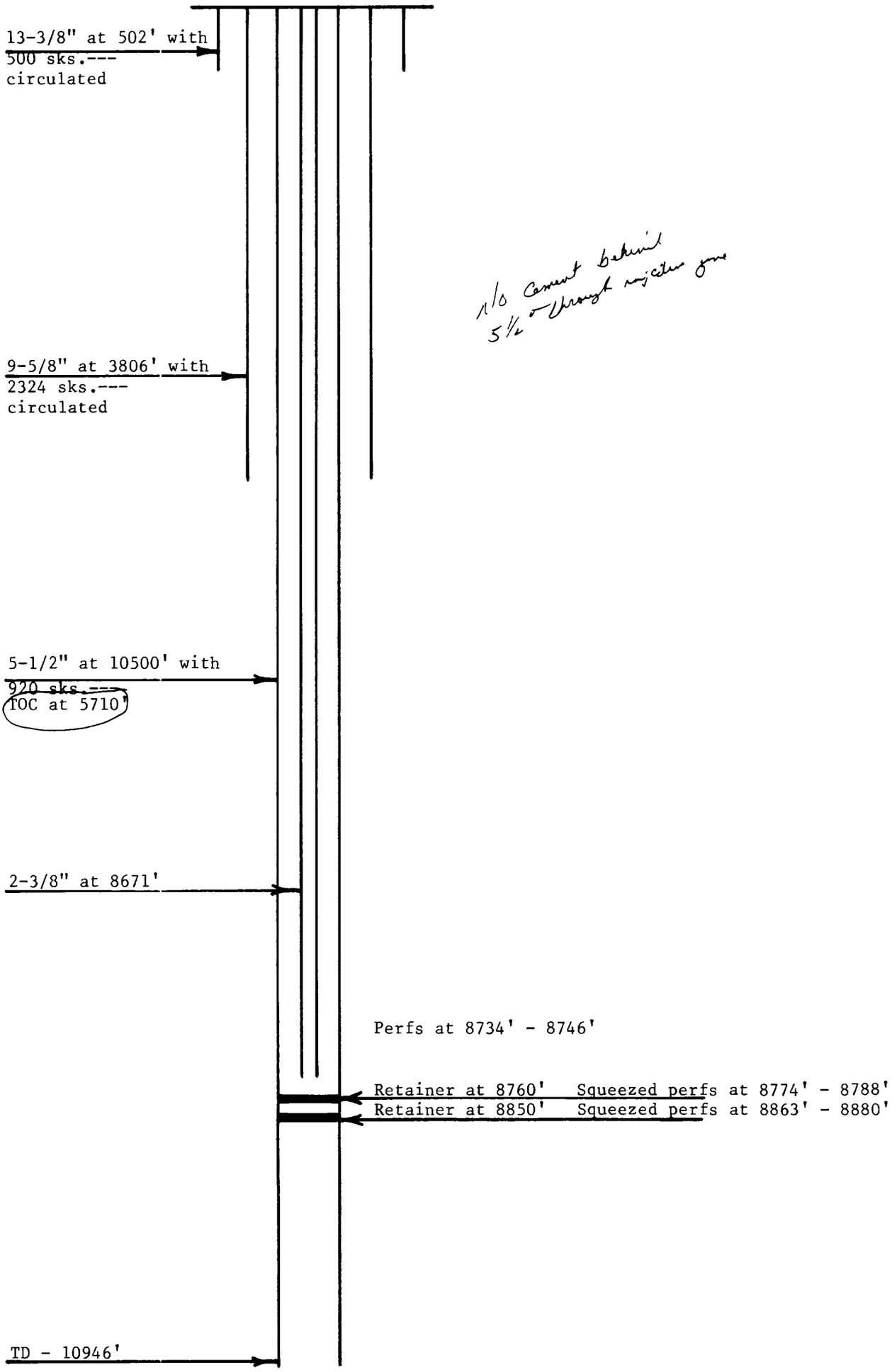


U.S. CROSBY #1
Greathouse and Lovelady Oil & Gas Co. Inc.
Unit N 660' FSL-1980' FWL
Section 28-T25S-R37E
Elevation: 3007' GL



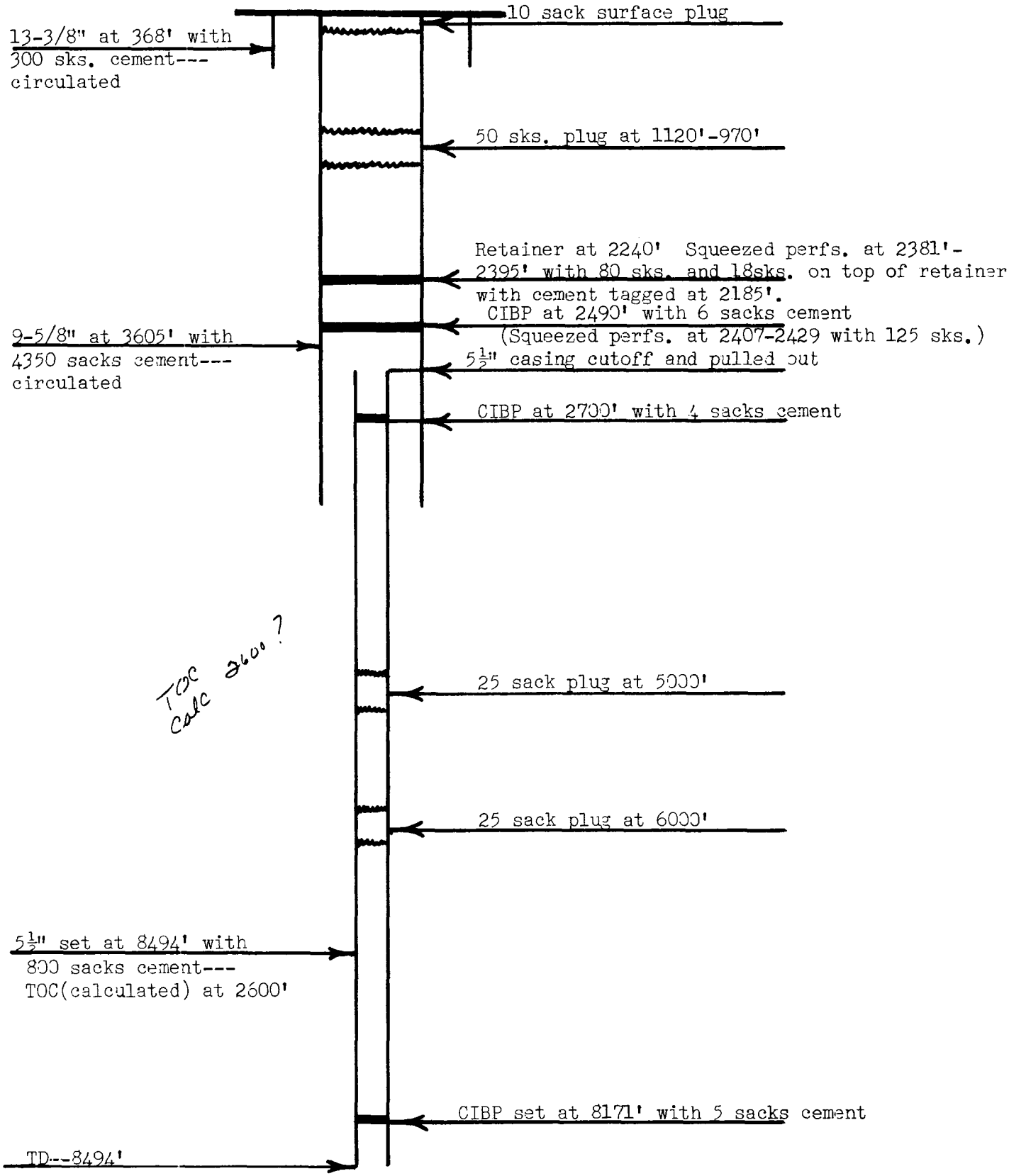
Drilled in 1973. Originally a Crosby Devonian well.

CROSBY DEEP #1
Union Texas Petroleum Corporation
Unit N 330' FSL-1980' FWL
Section 28-T25S-R37E
Elevation: 3006' GL



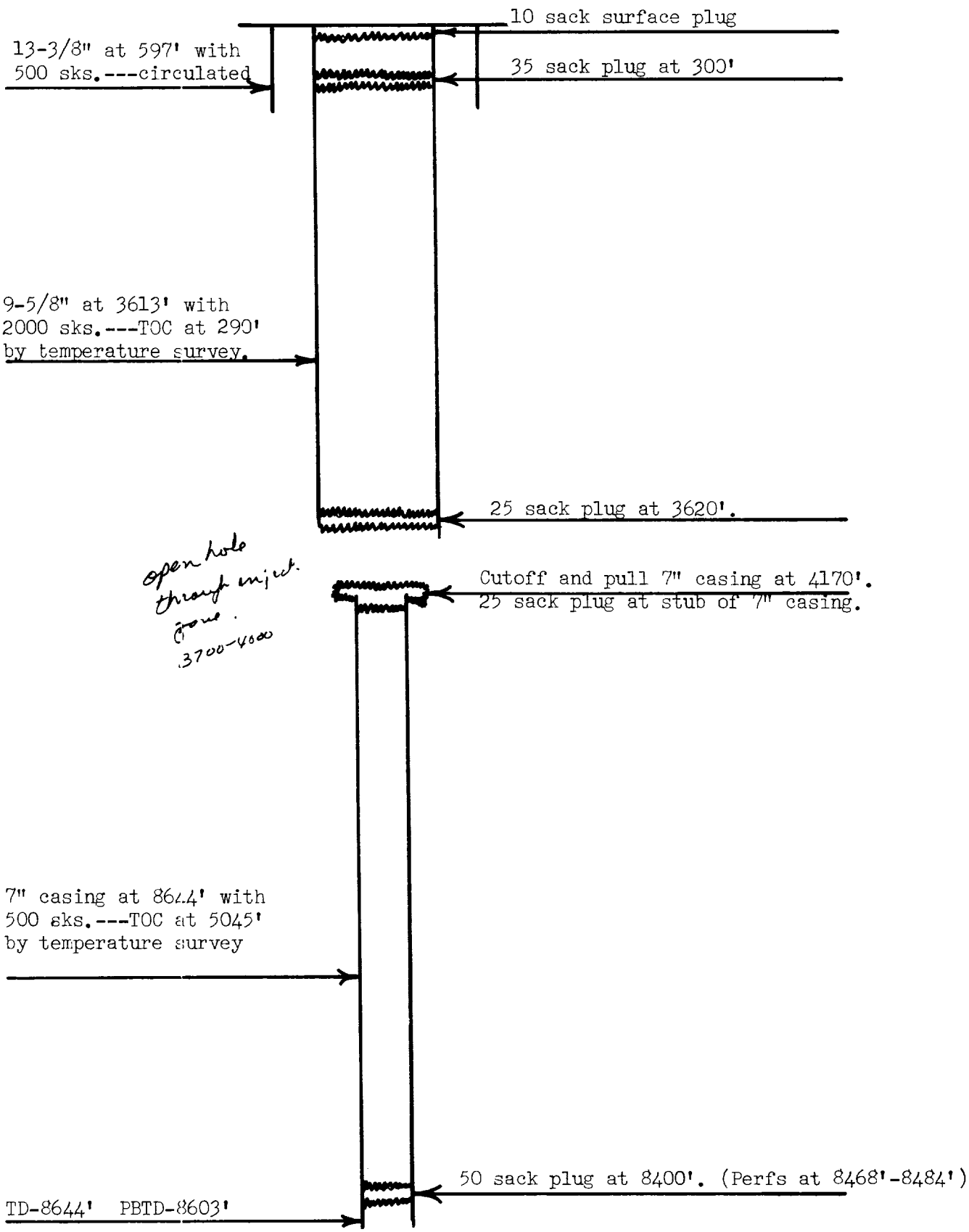
Well was originally drilled in 1971 to the Crosby Devonian formation

ARC FEDERAL #1
Arco Oil and Gas Company
Unit K 1980' FSL-1980' FWL
Section 28-T25S-R37E



Well was originally drilled in 1954 to the Crosby Devonian formation.
P and A 11-3-1977.

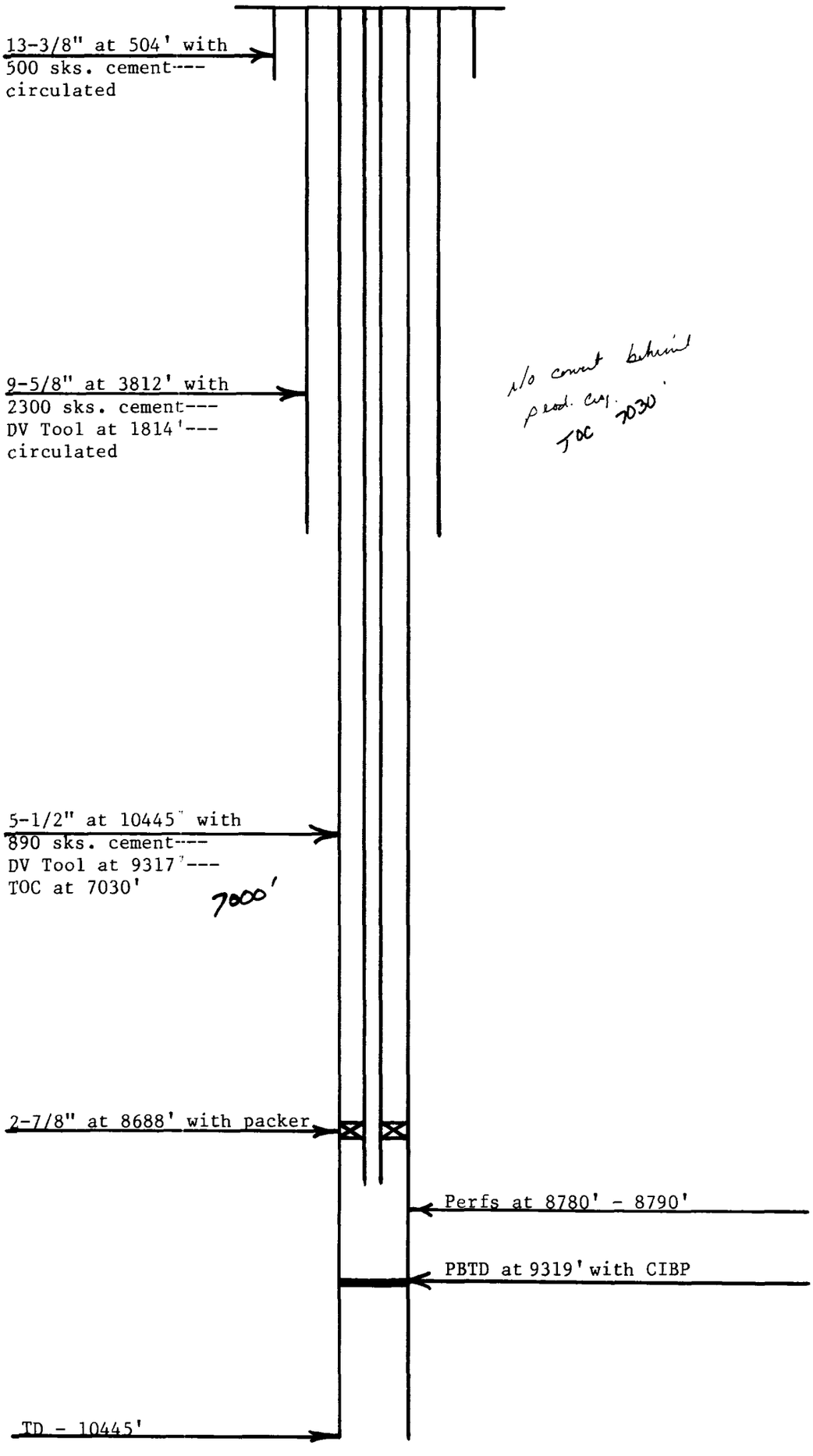
GUTMAN D #1
Texas Pacific Oil Company
Unit I 1830' FSL-660' FEL
Section 29-T25S-R37E
Elevation: 3011' GL



Drilled in 1955.

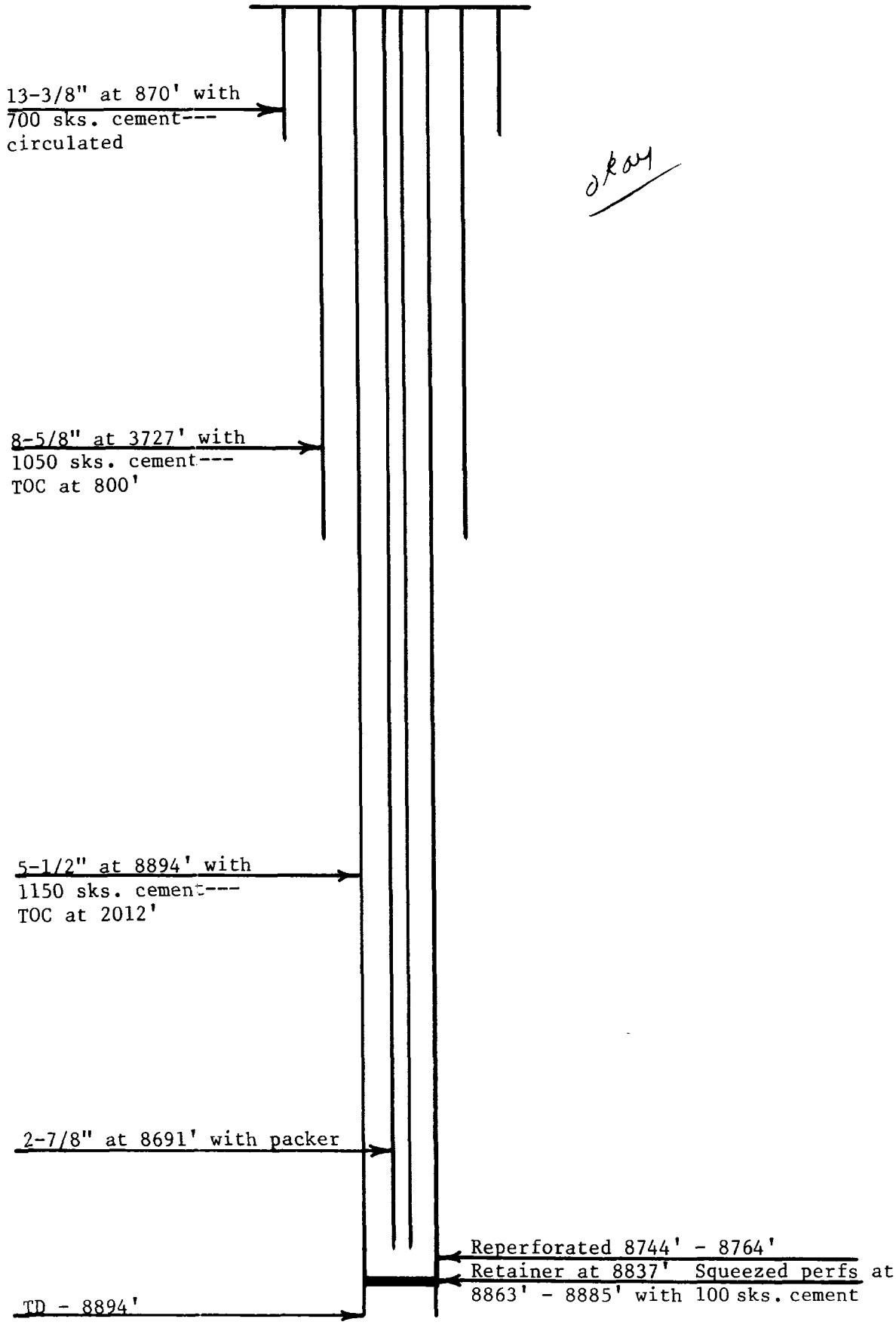
(2)

CROSBY DEEP #2
Union Texas Petroleum Corporation
Unit G 1650' FNL-2310' FEL
Section 33-T25S-R37E
Elevation: 2998' GL



Well was originally drilled in 1972 to the Crosby Fusselman formation.

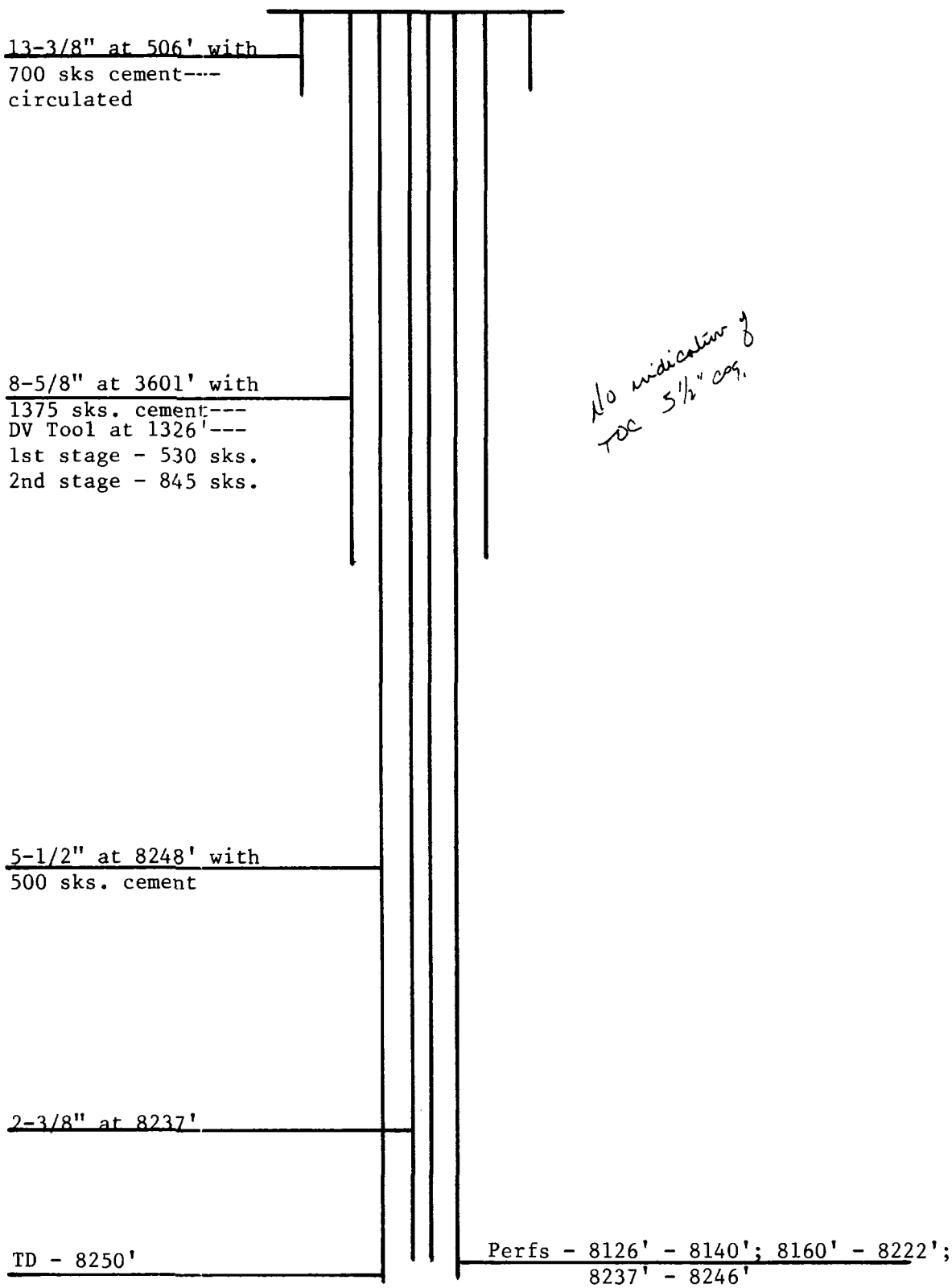
CROSBY DEEP #4
Union Texas Petroleum Corporation
Unit C 785' FNL-1980' FWL
Section 33-T25S-R37E
Elevation: 3006.8' GL



Well was originally drilled in 1978 to the Crosby Fusselman formation.
PBTD at 8775'.

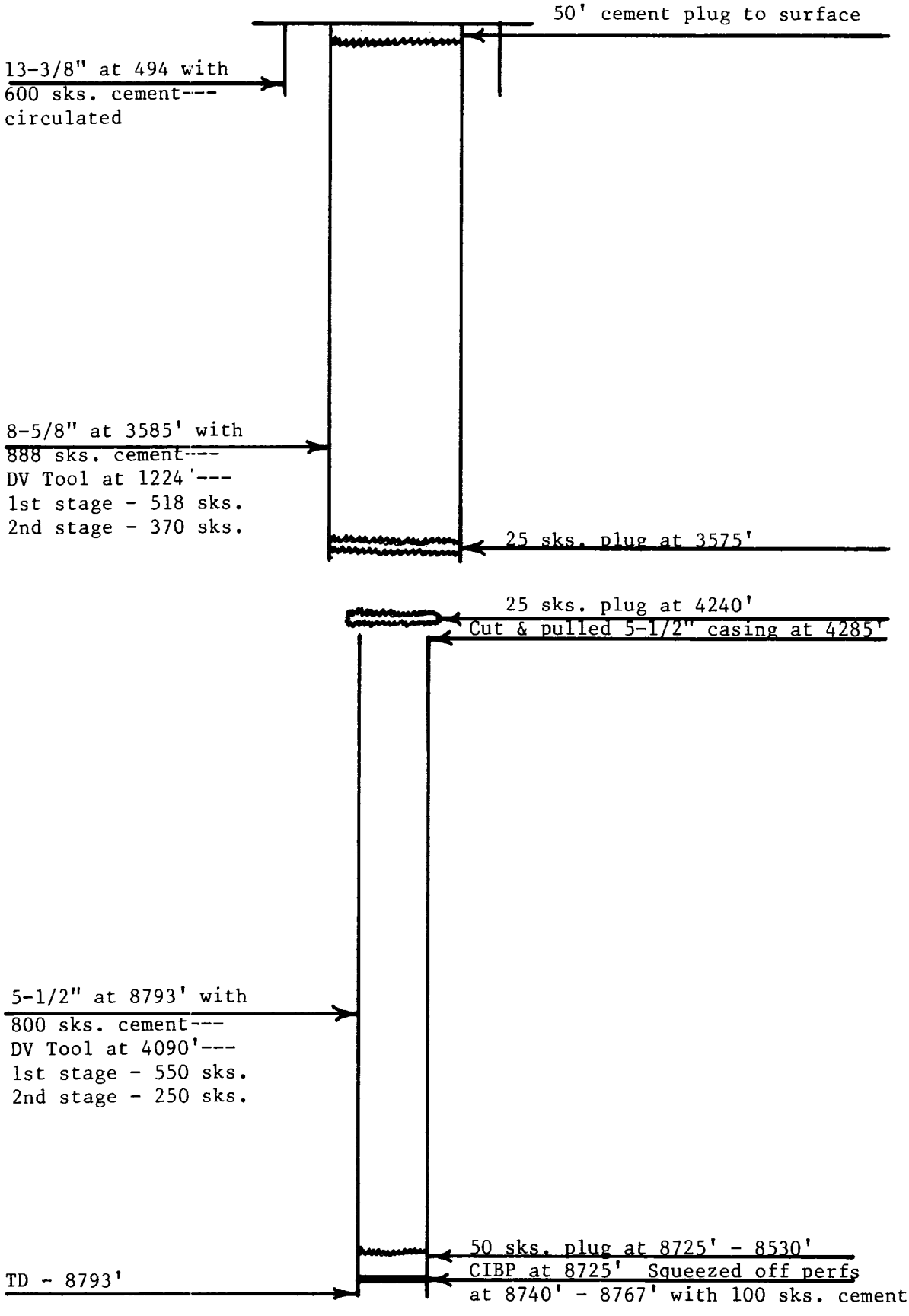
(3)

G.W. SHAHAN #2
Gulf Oil Corporation
Unit B 990' FNL-1650' FEL
Section 33-T25S-R37E
Elevation: 3003' GL



Well was originally drilled in 1956 to the Crosby Devonian formation.

ARNOTT RAMSEY B #3
Gulf Oil Corporation
Unit A 660' FNL-660' FEL
Section 32-T25S-R37E



Well was originally drilled in 1956. Elevation - 3004' GL

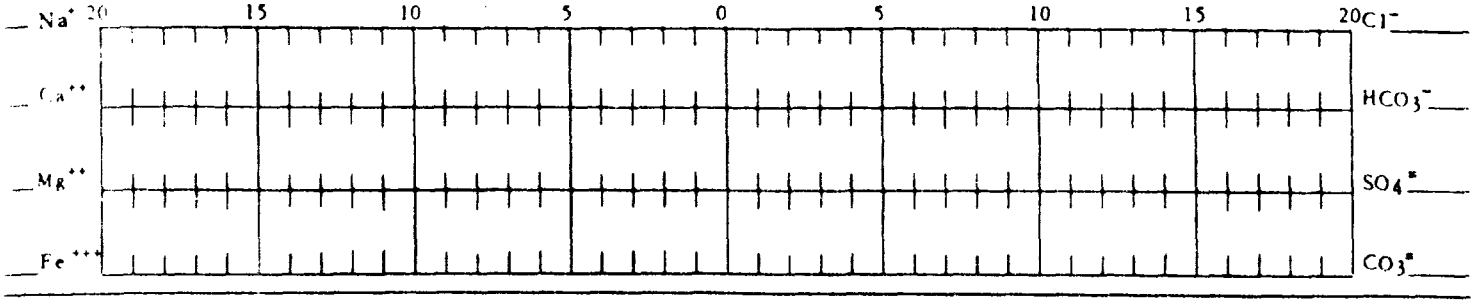
WATER ANALYSIS REPORT

NL Treating Chemicals/NL Industries, Inc.
P. O. Box 4305 Houston, Texas 77210

			SHEET NUMBER
MPANY: Alpha - Twenty One			DATE: 5-11-84
LD		COUNTY OR PARISH: LEA	STATE: N.M.
ASE OR UNIT: El Paso Tom Fed	WELL(S) NAME OR NO.: #1	WATER SOURCE (FORMATION)	
PTH, FT	BHT, F	SAMPLE SOURCE: wellhead	TEMP, F
WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY	
E SAMPLED: 5-7-84	TYPE OF WATER: [X] PRODUCED [ ] SUPPLY [ ] WATERFLOOD [ ] SALT WATER DISPOSA		

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l* SCALE UNIT)



SOLVED SOLIDS

TIONS	me/l*	mg/l*
al Hardness	120	
cium, Ca++	32	640
gnesium, Mg++	88	1073.6
(Total) Fe+++	0.5	10.0
ium, Ba++		
ium, Na+ (calc.)	190.1	4386.1
IONS		
oride, Cl	267	9500
fate, SO4	29.7	1425
bonate, CO		
arbonate, HCO3	10.6	646.6
droxyl, OH		
fide, S	3.9	62.5

DISSOLVED GASES

Hydrogen Sulfide, H_2S	mg/l*
Carbon Dioxide, CO_2	mg/l*
Oxygen, O_2	mg/l*

PHYSICAL PROPERTIES

pH	5.5
Eh (Redox Potential)	MV
Specific Gravity	
Turbidity, JTU Units	
Total Dissolved Solids (calc.)	17743 mg/l*
Stability Index @ F	
@ F	
$CaSO_4$ Solubility @ F	mg/l*
@ F	mg/l*
Max. $CaSO_4$ Possible (calc.)	mg/l*
Max. $BaSO_4$ Possible (calc.)	mg/l*
Residual Hydrocarbons	ppm(Vol/Vo

SPENDED SOLIDS (QUALITATIVE)

n Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

*NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

MARKS AND RECOMMENDATIONS:

Extremely low scaling conditions.
elatively low iron count.

ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
Randy Brown	821			
LYZED: Crum	DATE: 5/25/84	DISTRIBUTION: ☐ CUSTOMER ☐ AREA OR ☐ DISTRICT OFFICE ☐ BTC ENGINEER OR ☐ BTC LAB ☐ BTC SALES SUPERVISOR		

NL TREATING CHEMICALS
NL INDUSTRIES, INC.

SCALING TENDENCIES OF WATERS

COMPANY: ALPHA TWENTY-ONE
SAMPLE POINT: WELL #1
LOCATION: EL PASO TOM FED
DATE: 5/7/84

WATER ANALYSIS (MG/L):

SODIUM:	4386.1
CALCIUM:	640.0
MAGNESIUM:	1073.6
CHLORIDE:	9500.0
SULFATE:	1425.0
BICARBONATE:	646.6
IRON:	10.0
BARIUM:	0.

PH: 5.5

IONIC STRENGTH = 0.3854

INDEX VALUES GREATER THAN ZERO INDICATE SCALING CONDITIONS
INDEX VALUES OF ZERO OR LESS INDICATE A STABLE WATER

TEMP.	CALCITE INDEX	GYPSUM INDEX	ANHYDRITE INDEX	BARITE INDEX
60	-1.43	-0.55	-0.81	-41.53
80	-1.35	-0.58	-0.73	-41.66
100	-1.22	-0.59	-0.65	-41.78
120	-1.06	-0.59	-0.56	-41.89
140	-0.88	-0.58	-0.47	-41.99
160	-0.67	-0.57	-0.37	-42.07
180	-0.43	-0.55	-0.26	-42.14
200	-0.16	-0.53	-0.14	-42.20
220	0.15	-0.51	-0.01	-42.25
240	0.49	-0.48	0.13	-42.22
260	0.86	-0.46	0.28	-42.16

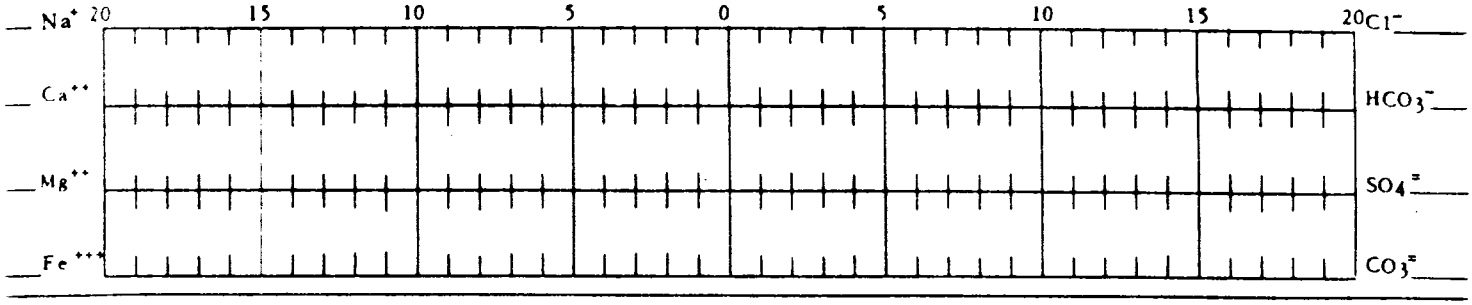
WATER ANALYSIS REPORT

NL Treating Chemicals/NL Industries, Inc.
P. O. Box 4305 Houston, Texas 77210

			SHEET NUMBER
COMPANY: Alpha-Twenty One			DATE: 5-11-84
FIELD	COUNTY OR PARISH: LEA		STATE: N.M.
LEASE OR UNIT: El Paso Tom Fed.	WELL(S) NAME OR NO.: #2	WATER SOURCE (FORMATION)	
DEPTH, FT. / BHT, F	SAMPLE SOURCE: Wellhead / TEMP, F	WATER, BBL/DAY / OIL, BBL/DAY	GAS, MMCF/DAY
DATE SAMPLED: 5-7-84	TYPE OF WATER: [X] PRODUCED [ ] SUPPLY [ ] WATERFLOOD [ ] SALT WATER DISPOSAL		

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l* SCALE UNIT)



DISSOLVED SOLIDS

CATIONS

	me/l*	mg/l*
Total Hardness	6.4	
Calcium, Ca++	16	320
Magnesium, Mg++	52	634.4
Iron (Total) Fe++	0.2	3.75
Barium, Ba++		
Sodium, Na+ (calc.)	172.0	3956.0

ANIONS

	me/l*	mg/l*
Chloride, Cl-	219.7	7800
Sulfate, SO4=	13.0	625
Carbonate, CO3=		
Bicarbonate, HCO3-	4.9	298.9
Hydroxyl, OH-		
Sulfide, S=	2.6	41.7

DISSOLVED GASES

Hydrogen Sulfide, H_2S	_____ mg/l*
Carbon Dioxide, CO_2	_____ mg/l*
Oxygen, O_2	_____ mg/l*

PHYSICAL PROPERTIES

pH	5.5
Eh (Redox Potential)	_____ MV
Specific Gravity	_____
Turbidity, JTU Units	_____
Total Dissolved Solids (calc.)	13679 mg/l*
Stability Index @___F	_____
@___F	_____
$CaSO_4$ Solubility @___F	_____ mg/l*
@___F	_____ mg/l*
Max. $CaSO_4$ Possible (calc.)	_____ mg/l*
Max. $BaSO_4$ Possible (calc.)	_____ mg/l*
Residual Hydrocarbons	_____ ppm(Vol/Vo

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide [ ] Iron Oxide [ ] Calcium Carbonate [ ] Acid Insoluble [ ]

REMARKS AND RECOMMENDATIONS:

Extremely low scaling conditions.

Low iron count.

*NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
Sandy Brown	821			
ANALYZED: Crum	DATE: 5/25/84	DISTRIBUTION: [ ] CUSTOMER [ ] AREA OR [ ] DISTRICT OFFICE [ ] BTC ENGINEER OR [ ] BTC LAB [ ] BTC SALES SUPERVISOR		

NL TREATING CHEMICALS
NL INDUSTRIES, INC.

SCALING TENDENCIES OF WATERS

COMPANY: ALPHA TWENTY-ONE
SAMPLE POINT: WELL #2
LOCATION: EL PASO TOM FED
DATE: 5/7/84

WATER ANALYSIS (MG/L):

SODIUM:	3956.0
CALCIUM:	320.0
MAGNESIUM:	634.4
CHLORIDE:	7800.0
SULFATE:	625.0
BICARBONATE:	298.9
IRON:	5.8
BARIUM:	0.
PH:	5.5

IONIC STRENGTH = 0.2800

INDEX VALUES GREATER THAN ZERO INDICATE SCALING CONDITIONS
INDEX VALUES OF ZERO OR LESS INDICATE A STABLE WATER

TEMP.	CALCITE INDEX	GYPSUM INDEX	ANHYDRITE INDEX	BARITE INDEX
60	-1.97	-1.08	-1.33	-41.42
80	-1.86	-1.11	-1.26	-41.55
100	-1.74	-1.13	-1.18	-41.67
120	-1.59	-1.13	-1.10	-41.78
140	-1.42	-1.12	-1.00	-41.87
160	-1.22	-1.10	-0.90	-41.95
180	-0.99	-1.08	-0.79	-42.01
200	-0.74	-1.06	-0.66	-42.06
220	-0.46	-1.03	-0.53	-42.08
240	-0.15	-1.00	-0.39	-42.07
261	0.20	-0.96	-0.23	-42.00

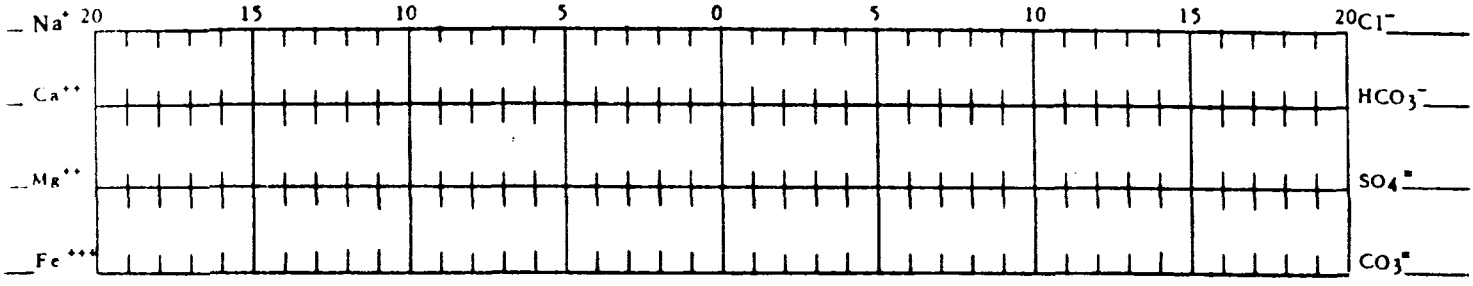
WATER ANALYSIS REPORT

NL Treating Chemicals/NL Industries, Inc.
P. O. Box 4305 Houston, Texas 77210

			SHEET NUMBER
PANY: ALPHA - TWENTY ONE			DATE: 5-11-84
D		COUNTY OR PARISH: LEA	STATE: N.M.
SE OR UNIT: El Paso Tom Federal	WELL(S) NAME OR NO.: #3	WATER SOURCE (FORMATION)	
TH. FT. / BHT, F	SAMPLE SOURCE: wellhead / TEMP, F	WATER, BBL/DAY	OIL, BBL/DAY / GAS, MMCF/DAY
E SAMPLED: 5-7-84	TYPE OF WATER: ☐ PRODUCED ☐ SUPPLY ☐ WATERFLOOD ☐ SALT WATER DISPOSAL		

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l* SCALE UNIT)



DISSOLVED SOLIDS

TIONS	me/l*	mg/l*
al Hardness	44	
cium, Ca++	12	240
nesium, Mg++	32	390.4
(Total) Fe+++	0.7	13.25
ium, Ba++		
ium, Na+ (calc.)	37	851.0
ONS		
oride, Cl-	70.4	2500
ate, SO4=	5.5	262.5
bonate, CO3=		
arbonate, HCO3-	3.7	225.7
roxyl, OH-		
ide, S=	2.1	33.3

DISSOLVED GASES

Hydrogen Sulfide, H_2S	_____ mg/l*
Carbon Dioxide, CO_2	_____ mg/l*
Oxygen, O_2	_____ mg/l*

PHYSICAL PROPERTIES

pH	6.0
Eh (Redox Potential)	_____ MV
Specific Gravity	_____
Turbidity, JTU Units	_____
Total Dissolved Solids (calc.)	3665 mg/l*
Stability Index @____F	_____
@____F	_____
$CaSO_4$ Solubility @____F	_____ mg/l*
@____F	_____ mg/l*
Max. $CaSO_4$ Possible (calc.)	_____ mg/l*
Max. $BaSO_4$ Possible (calc.)	_____ mg/l*
Residual Hydrocarbons	_____ ppm(Vol/Vo

PENDED SOLIDS (QUALITATIVE)

Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

*NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

MARKS AND RECOMMENDATIONS:

o scaling possibilities
on count getting high.

ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
Andy Brown	821			
LYZED: Chem	DATE: 5/25/84	DISTRIBUTION: ☐ CUSTOMER ☐ AREA OR ☐ DISTRICT OFFICE ☐ BTC ENGINEER OR ☐ BTC LAB ☐ BTC SALES SUPERVISOR		

NL TREATING CHEMICALS
NL INDUSTRIES, INC.

SCALING TENDENCIES OF WATERS

COMPANY: ALPHA TWENTY-ONE
SAMPLE POINT: WELL #3
LOCATION: EL PASO TOM FED
DATE: 5/7/84

WATER ANALYSIS (MG/L):

SODIUM:	851.0
CALCIUM:	240.0
MAGNESIUM:	390.4
CHLORIDE:	2500.0
SULFATE:	262.5
BICARBONATE:	225.7
IRON:	13.3
BARIUM:	0.
PH:	6.0

IONIC STRENGTH = 0.1062

INDEX VALUES GREATER THAN ZERO INDICATE SCALING CONDITIONS
INDEX VALUES OF ZERO OR LESS INDICATE A STABLE WATER

TEMP.	CALCITE INDEX	GYPSUM INDEX	ANHYDRITE INDEX	BARITE INDEX
60	-1.41	-1.25	-1.50	-41.08
80	-1.29	-1.29	-1.44	-41.22
100	-1.17	-1.31	-1.36	-41.34
120	-1.04	-1.31	-1.28	-41.44
140	-0.89	-1.31	-1.18	-41.52
160	-0.73	-1.29	-1.08	-41.58
180	-0.54	-1.26	-0.96	-41.62
200	-0.35	-1.23	-0.84	-41.65
220	-0.13	-1.20	-0.70	-41.65
240	0.11	-1.17	-0.55	-41.63
260	0.37	-1.13	-0.40	-41.57

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O.BOX1499

HOBBS, NEW MEXICO 88240

1PANY : ALPHA TWENTY-ONE
TE 3-14-83
:LD,LEASE&WELL : EL PASO TOM FEDERAL #4
1PLING POINT WELLHEAD
TE SAMPLED : 3-9-83

:CIFIC GRAVITY = 1.024
TAL DISSOLVED SOLIDS = 36525
= 6.98

		ME/L	MG/L
CATIONS			
:CIUM	(CA)+2	25.3	507.
:NESIUM	(MG)+2	196.	2390.
)IUM	(NA),CALC.	407.	9378.
ANIONS			
:ARBONATE	(HCO3)-1	32.8	2001.
RBONATE	(CO3)-2	0	0
)ROXIDE	(OH)-1	0	0
.FATE	(SO4)-2	244.	11750
:ORIDE	(CL)-1	352.	12497.
D'SSOLVED GASES			
RBON DIOXIDE	(CO2)	NOT RUN	
)ROGEN SULFIDE	(H2S)	NOT RUN	
'GEN	(O2)	NOT RUN	
)N(TOTAL)	(FE)		.7
:IUM	(BA)+2	NOT RUN	
IGANESE	(MN)	NOT RUN	

SCALING INDEX	TEMP
	30C
	86F
RBONATE INDEX	.351
:CIUM CARBONATE SCALING	LIKELY
.FATE INDEX	-1.0
:CIUM SULFATE SCALING	UNLIKELY

ILLEGIBLE

ALPHA TWENTY-ONE PRODUCTION COMPANY

POST OFFICE BOX 1206
JAL, NEW MEXICO 88252

505/395-3056

December 7, 1984

Arco Oil & Gas Company
P.O. Box 1710
Hobbs, NM 88240

RE: Gregory "A" Federal No. 3
660' FNL & 660' FWL,
Sec. 33, T-25-S, R-37-E,
Lea County, New Mexico

Gentlemen:

As offset operator or surface owner please find enclosed, as required, a copy of Application to Dispose Produced Water into a Formation Non-Productive of Oil and Gas. We plan to dispose produced water from our El Paso Tom Federal lease into the San Andres formation through the above proposed salt water disposal well which is adjacent to our El Paso Tom Federal lease.

If you desire further information, please contact the New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87501.

Respectfully,

Michael D. Oney

Michael D. Oney,
Drilling Superintendent

MDO/tic
Enclosure

cc: Mrs. Nadine Owen, 909 W. Taos, Hobbs, NM 88240
Lewis B. Burleson, P.O. Box 2479, Midland, TX 79702
El Paso Natural Gas Company, 1800 Wilco Building, Midland, TX 79701
Greathouse & Lovelady Oil & Gas, Inc., P.O. Drawer 2666, Midland, TX 79701
Gulf Oil Corporation, P.O. Box 670, Hobbs, NM 88240
Doyle Hartman, P.O. Box 10426, Midland, TX 79702
Sun Exploration & Production Company, P.O. Box 1861, Midland, TX 79702
Union Texas Petroleum Corporation, 1300 Wilco Building, Midland, TX 79701

AFFIDAVIT OF PUBLICATION

State of New Mexico,

County of Lea.

I, Robert L. Summers

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said-paper, and not in a supplement thereof for a period

of One weeks.

Beginning with the issue dated December 9, 1984

and ending with the issue dated December 9, 1984

Robert L. Summers
Publisher.

Sworn and subscribed to before me this 11 day of December, 1984

Jane Paulowsky
Notary Public.

My Commission expires 3-24, 1987

(Seal)

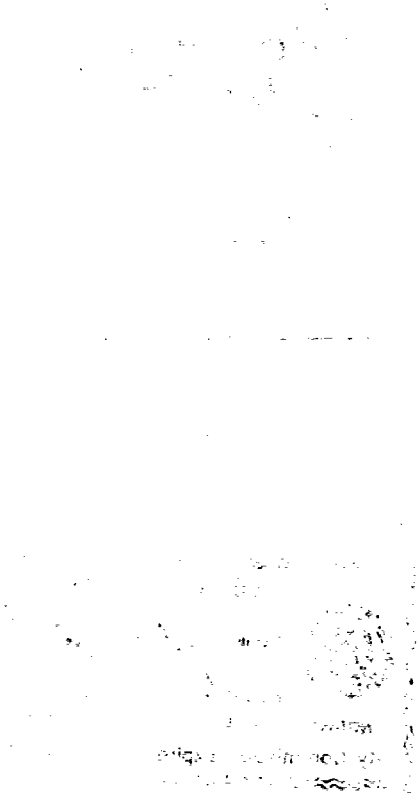
This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

OFFICIAL SEAL
Signature Jane Paulowsky
JANE PAULOWSKY
NOTARY PUBLIC - NEW MEXICO
NOTARY BOND FILED WITH SECRETARY OF STATE
My Commission Expires 3-24-87

Did not state in ad injection zone, rates, or pressures

[redacted]

DEC 1? 1984



PS Form 3811, July 1983

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:

Sun Exploration & Production Co.
P.O. Box 1861
Midland, TX 79702

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 713 192 115

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN RECEIPT

MIDLAND TX DEC 13 1984 SF-3

PS Form 3811, July 1983

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:

Mrs. Nadine Owen
909 W. Taos
Hobbs, NM 88240

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 713 192 104

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X Mrs Nadine Owen

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN RECEIPT

HOBBS NM DEC 13 1984 SPO

PS Form 3811, July 1983

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

El Paso Natural Gas Company
1800 Wilco Building
Midland, TX 79701

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 713 192 111

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X Laura Anderson

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN RECEIPT

DEC 12 1984

PS Form 3811, July 1983

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:

Gulf Oil Corporation
P.O. Box 670
Hobbs, NM 88240

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 713 192 113

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN RECEIPT

DEC 13 1984

PS Form 3811, July 1983

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:

Arco Oil & Gas Company
P.O. Box 1710
Hobbs, NM 88240

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 713 192 109

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X K Crowell

6. Signature – Agent
X

7. Date of Delivery
DEC 1984

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

DOMESTIC RETURN RECEIPT

PS Form 3811, July 1983

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:

Union Texas Petroleum Corporation
1300 Wilco Building
Midland, TX 79701

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 713 192 116

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery
12-14-84

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

DOMESTIC RETURN RECEIPT

PS Form 3811, July 1983

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:

Doyle Hartman
P.O. Box 10426
Midland, TX 79702

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 713 192 114

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X Denice Evans

7. Date of Delivery
D. TX

DOMESTIC RETU

PS Form 3811, July 1983 447-845

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:

Louis B. Burleson Jr.

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 713 192 [illegible]

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery
TX

DOMESTIC RE

PS Form 3811, July 1983 447-845

DOMESTIC RETURN RECEIPT

● **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:

2666
79701

USPO DEC 13 1984 MIDLAND, TX

4. Type of Service:

☐ Registered ☐ Insured
☑ Certified ☐ COD
☐ Express Mail

Article Number

P 713 192 112

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee

X

6. Signature – Agent

X Nancy Howard

7. Date of Delivery

12-13

USPO DEC 13 1984 MIDLAND, TX

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

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

HOBBS DISTRICT OFFICE

December 28, 1984

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

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

Gentlemen:

I have examined the application for the:

Alpha Twenty-One Prod. Co. Sun Gregory A No. 3-D 33-25-37
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

O.K.---J.S.

Yours very truly,

Jerry Sexton
Supervisor, District 1

/mc

ALPHA TWENTY-ONE PRODUCTION COMPANY

505/393-3056

December 7, 1984

DEC 26 1984

RECEIVED

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

RE: Gregory "A" Federal No. 3
660' FNL & 660' FWL,
Sec. 33, T-25-S, R-37-E,
Lea County, New Mexico

Gentlemen:

Enclosed for your review and approval find our Application for Authorization to Dispose Produced Water into a Zone Non-Productive of Oil and Gas for the above captioned well.

The proposed salt water disposal well is currently temporarily abanoned. Records show that the well was originally drilled to 4000', but plugged back to 3240' with 275 sacks of cement. The well was then produced in the Queen formation through open-hole from 3085' to 3240' as an oil well in the Langlie Mattix pool.

Alpha Twenty-One Production Company proposed to re-enter the well and drill out the cement to the original TD of 4000'. We would then log, set a liner from 2900' to 4000', cement, perforate, and acidize with 1000 gallons. Attached please find an injection well data sheet showing the well after re-entry operations are complete and ready for disposal.

The produced water for disposal will come from our El Paso Tom Federal lease, Sec. 33, T-25-S, R-37-E, Lea County, New Mexico. The average rate should be 23 BW/hour with a maximum rate of 549 BWPD. We can expect the average volume to be 300 BWPD with a maximum volume of 500 BWPD. The system will be closed using a production packer. The average injection rate anticipated will be 800 psi with a maximum rate of 1200 psi. The non-productive zone for disposal will be the San Andres, but since there are no producing San Andres well within a two-mile radius, chemical analysis could not be obtained for the San Andres formation, however chemical analyisis for the produced water to be disposed is attached.

Geological information indicates that the San Andres formation is a dolomite approximately 1300 feet thick at a depth of 3700'. Information also indicates that the fresh water in the area is sparsly located and not plentiful and is usually found in the Red Bed formation. After checking with the New Mexico State Engineer's office and upon a visual inspection, the only fresh water well found within a one-mile radius is owned by Clyde Cooper. This water well is located in the NE, NE, SW, NE of Section 33 and is currently nonproducing, henceforth, no chemical analysis of the fresh water could be obtained.

After a thorough search of the records at the New Mexico Oil Conservation District office in Hobbs, no record of logs for the captioned well could be found on file, but, as stated before, the well will be logged prior to perforating and a copy of the logs will be made available for public record.

All available geological and engineering data has been examined and no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water has been found.

Attached for your review and records, please find the following:

1.) A map that identifies all wells and leases within two miles of the proposed injection well. A one-half mile radius circle has been drawn around the proposed injection well (the area of review).

2.) A tabulation of data on all wells of public record within the area of review which penetrate the disposal zone.

3.) Chemical analysis of produced water to be disposed.

4.) A data sheet and schematic of the proposed disposal well.

5.) A copy of the legal advertisement publication.

6.) Copies of the return receipts on certified mailings offered as proof of notification to offset operators and surface owner.

If any further information is required for the administrative approval of this Application for Authorization to Dispose Produced Water, please contact me. Thank you for your consideration and cooperation in this matter.

Respectfully yours,

Michael D. Oney,
Drilling Superintendent

MDO/tic
Enclosures

cc: Oil Conservation Division
P.O. Box 1980
Hobbs, NM 88240

Bureau of Land Management
Carlsbad Resource Area
P.O. Box 1778
Carlsbad, NM 88240

Alpha Twenty-One Production Co.
200 W. Illinois Street, Suite 200
Midland, TX 79701
ATTN: Mr. Tom Phipps

Surface Owner:

Mrs. Nadine Owen
909 W. Taos
Hobbs, NM 88240

Offset Operators:

Arco Oil & Gas Company
P.O. Box 1710
Hobbs, NM 88240

Lewis B. Burleson, Inc.
P.O. Box 2479
Midland, TX 79702

El Paso Natural Gas Co.
1800 Wilco Building
Midland, TX 79701

Greathouse & Lovelady Oil & Gas, Inc.
P.O. Drawer 2666
Midland, TX 79701

Gulf Oil Corporation
P.O. Box 670
Hobbs, NM 88240

Doyle Hartman
P.O. Box 10426
Midland, TX 79702

Sun Exploration & Prod. Co.
P.O. Box 1861
Midland, TX 79702

Union Texas Petroleum Corp.
1300 Wilco Building
Midland, TX 79701

ENERGY AND MINERALS DEPARTMENT

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: ALPHA TWENTY-ONE PRODUCTION COMPANY

Address: P.O. Box 1206 Jal, New Mexico 88252

Contact party: Michael D. Oney Phone: 505-395-3056

III. 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.

VII. 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.).

*VIII. 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.

IX. 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.)

* XI. 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.

XII. 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.

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

XIV. Certification

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

Name: Michael D. Oney Title Drilling Superintnedent

Signature: Michael D. Oney Date: 12-10-84

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

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

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.

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: ALPHA TWENTY-ONE PRODUCTION COMPANY

Address: P.O. Box 1206 Jal, New Mexico 88252

Contact party: Michael D. Oney Phone: 505-395-3056

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

XIV. Certification

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

Name: Michael D. Oney Title Drilling Superintnedent

Signature: Michael D. Oney Date: 12-10-84

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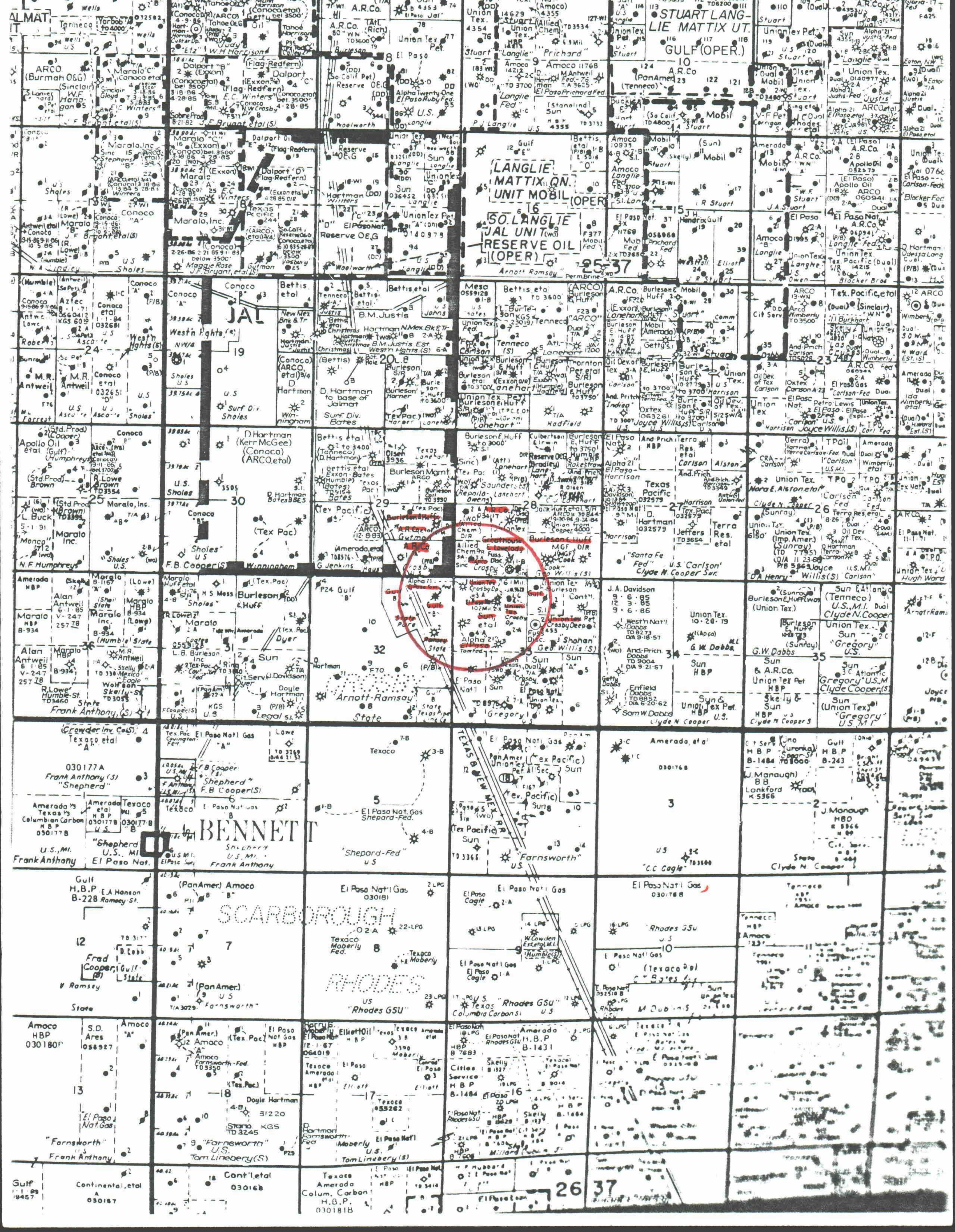


STUART LANGLIE MATTIX UT.
GULF (OPER.)
LANGLIE MATTIX QN. UNIT MOBIL (OPER)
SO. LANGLIE JAL UNIT RESERVE OIL (OPER)
25-37
JAL
BENNETT
SCARBOROUGH
RHODES
TEXAS & NEW MEX
26 37
Frank Anthony
"Shepherd"
"Shepard-Fed"
"Farnsworth"
"C.C Cagle"
"Rhodes GSU"
Arnott-Ramsay
Clyde N. Cooper
Joyce Willis (S)
Geo. Willis (S)
Tom Lineberry (S)
El Paso Nat'l Gas
Burleson & Huff
Sun
Amoco
Texaco
Gulf
Conoco
Maralo, Inc.
Union Tex. Pet.
A.R.Co.
D. Hartman
Doyle Hartman

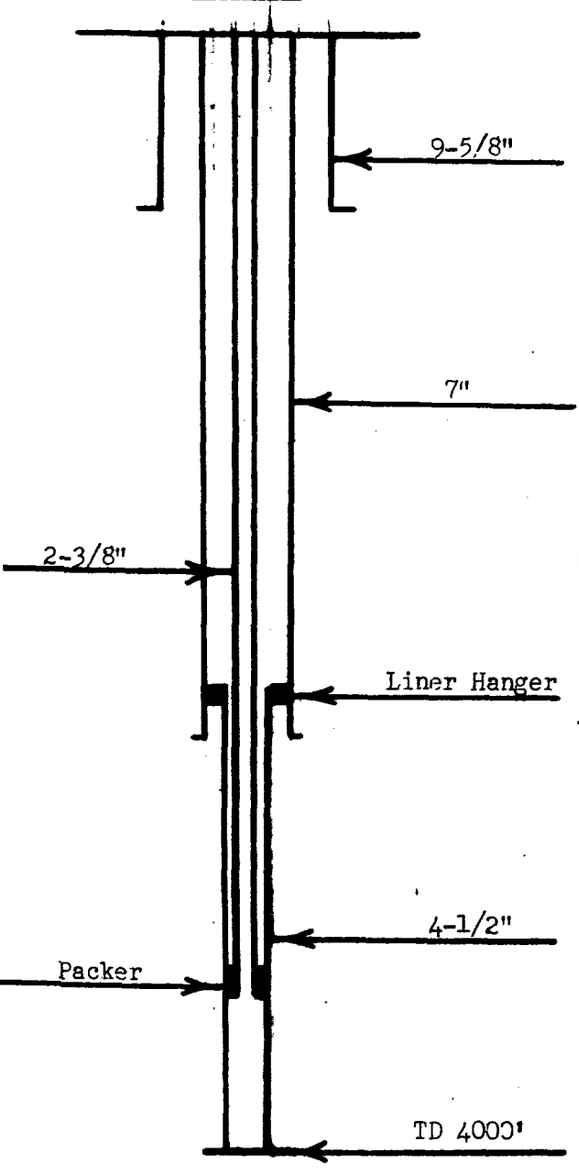
INJECTION WELL DATA SHEET

ALPHA TWENTY-ONE PRODUCTION COMPANY — OPERATOR
GREGORY 'A' FEDERAL — LEASE

3	660' FNL-660'FWL	33	T25 South	37 East
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Lea County, New Mexico

Schematic



Tabular Data

Surface Casing

Size 9-5/8" Cemented with 300 sx.

TOC Surface feet determined by Circulated

Hole size 12-1/4"

Intermediate Casing

Size 7" Cemented with 150 sx.

TOC 1839 feet determined by Calculated

Hole size 8-3/4"

Long string--Liner

Size 4-1/2" Cemented with 79 sx.

TOC 2900 feet determined by Calculation

Hole size 6-1/8"

Total depth 4000'

Injection interval

3700 feet to 4000 feet

(perforated or open-hole, indicate which)

Tubing size 2-3/8" lined with plastic (material) set in a

Knickel plated Baker AD-1 (brand and model) packer at 3600 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? /7/ Yes XX No

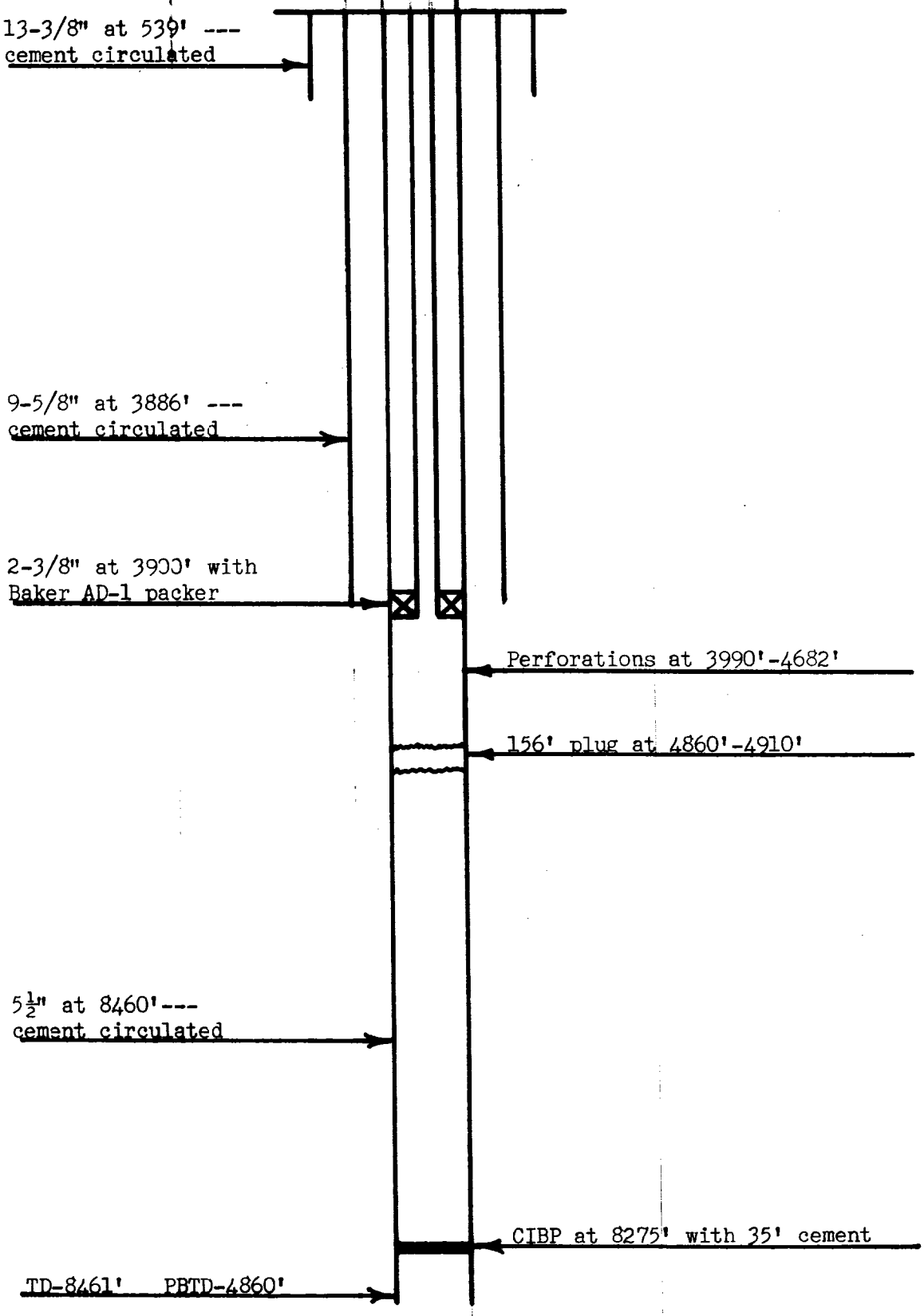
   If no, for what purpose was the well originally drilled? Gas well

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)

   Open Hole 3085'-3240'

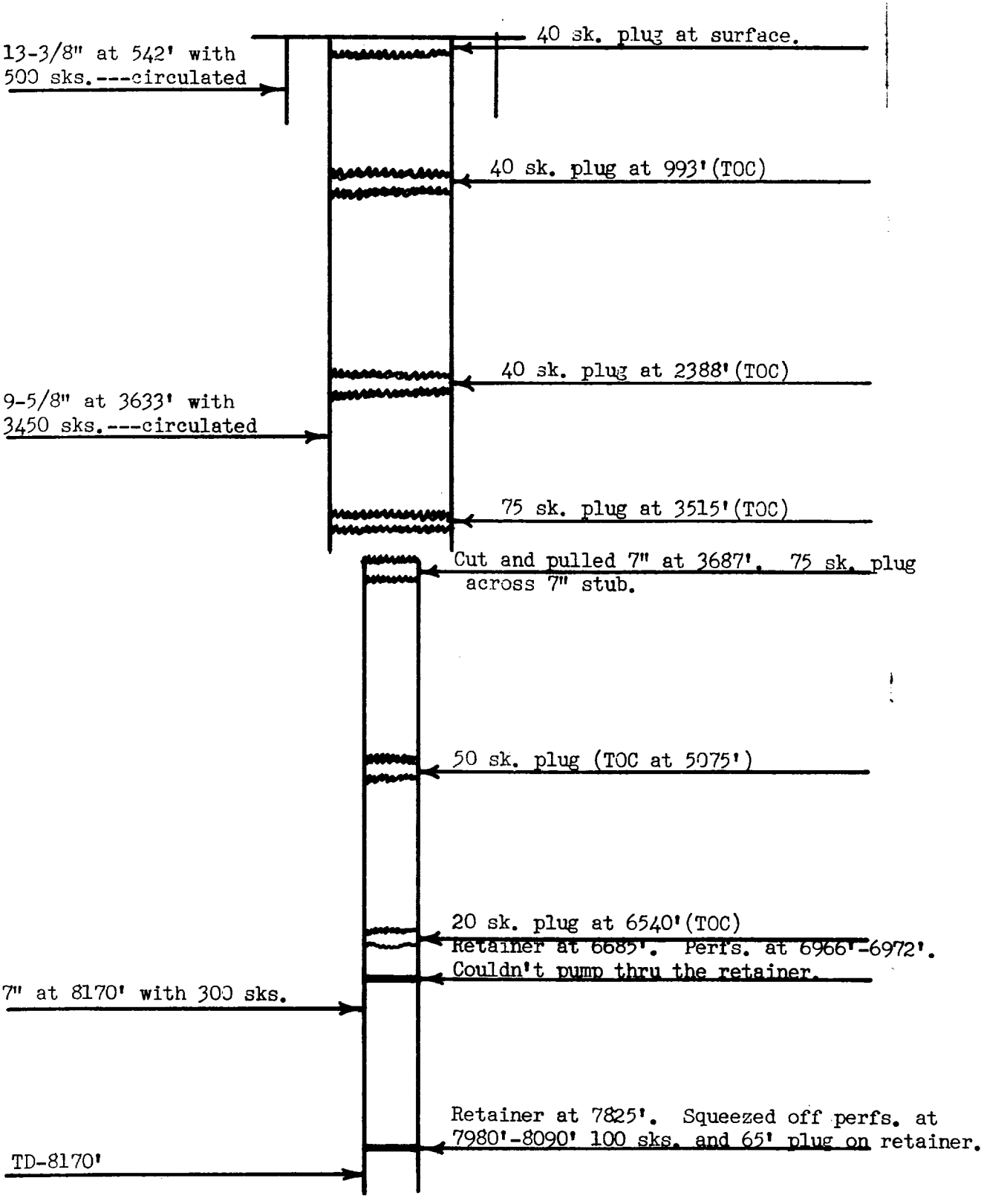
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Jalmat(Yates/Seven Rivers) 2450' Langlie-Mattix(Seven Rivers/Queen) 2900' Crosby(Devonian) 8150'

GREGORY FEDERAL #4 SWD.
Union Texas Petroleum Corp.
Unit K 1980' FSL-1980' FWL
Section 33-T25S-R37E
Elevation: 3008' DF



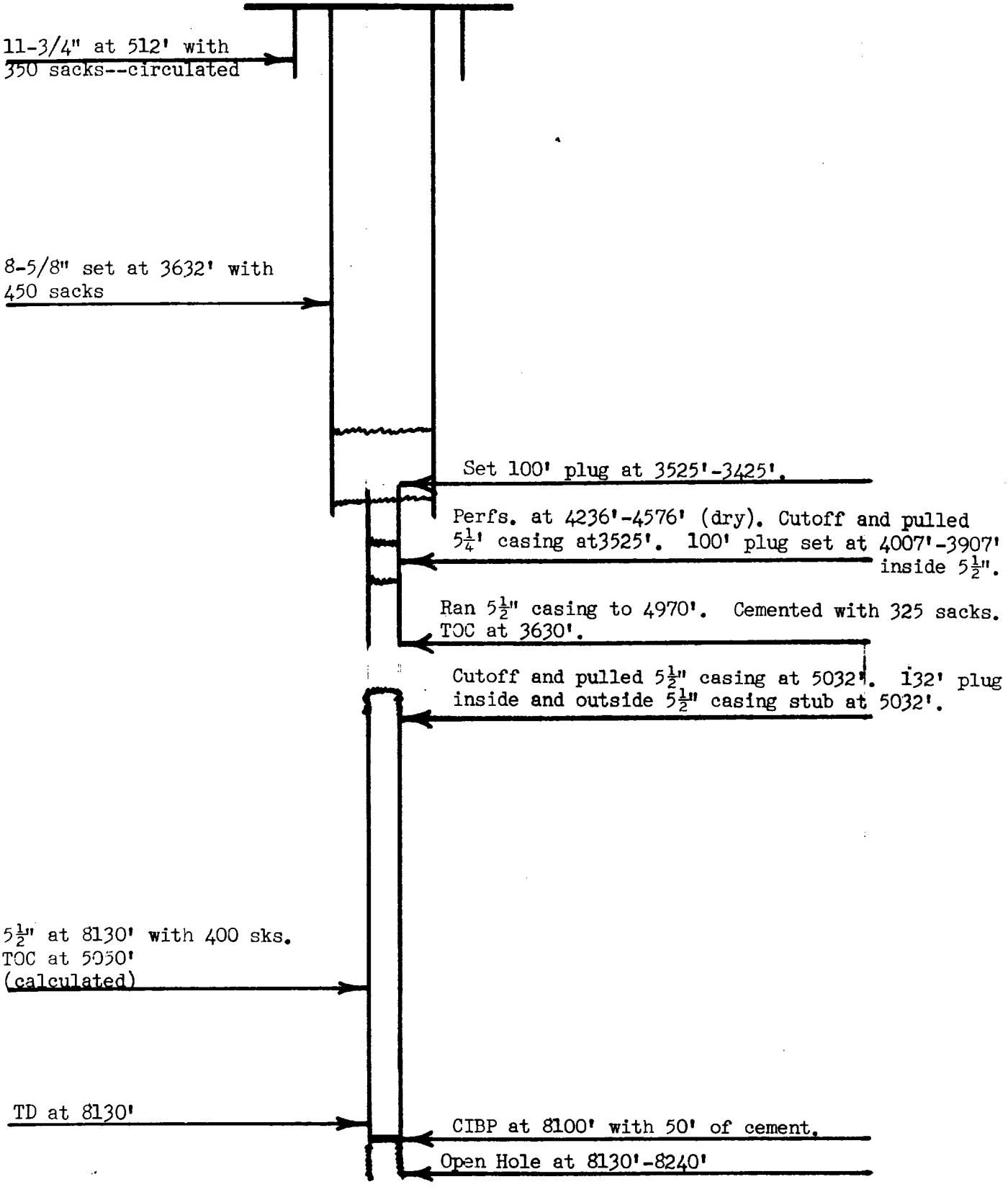
Drilled in 1957. Disposing into the San Andres formation.

GREGORY FEDERAL #2-Y
El Paso Natural Gas Co.
Unit L 760' FNL-1650' FWL
Section 33-T25S-R37E
Elevation: 3002' GL



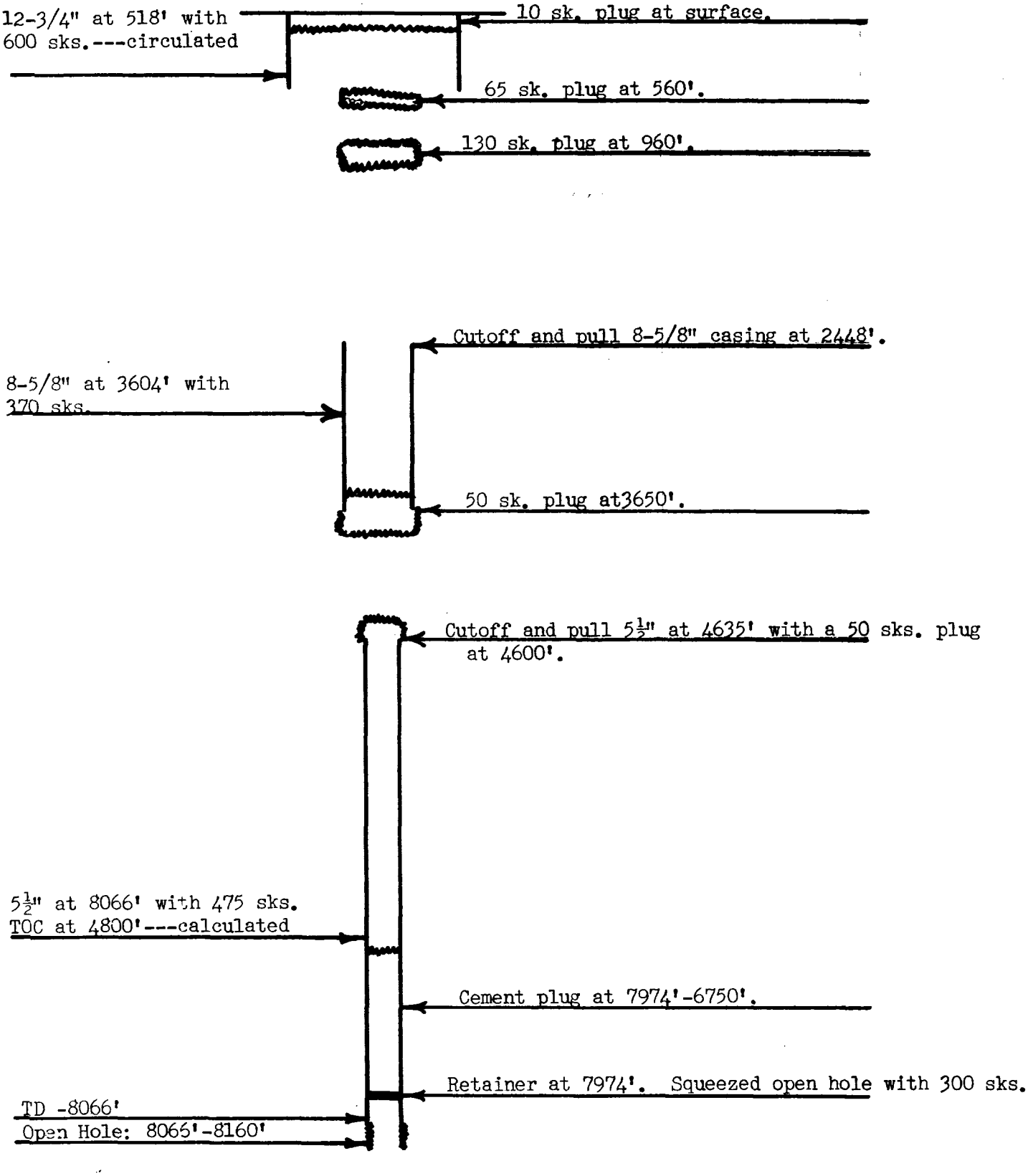
Drilled in 1956.

COOK # 3
Lewis Burleson, Inc.
Unit O 660' FSL-1905' FEL
Section 28-T25S-R37E
Elevation: 3001' GL



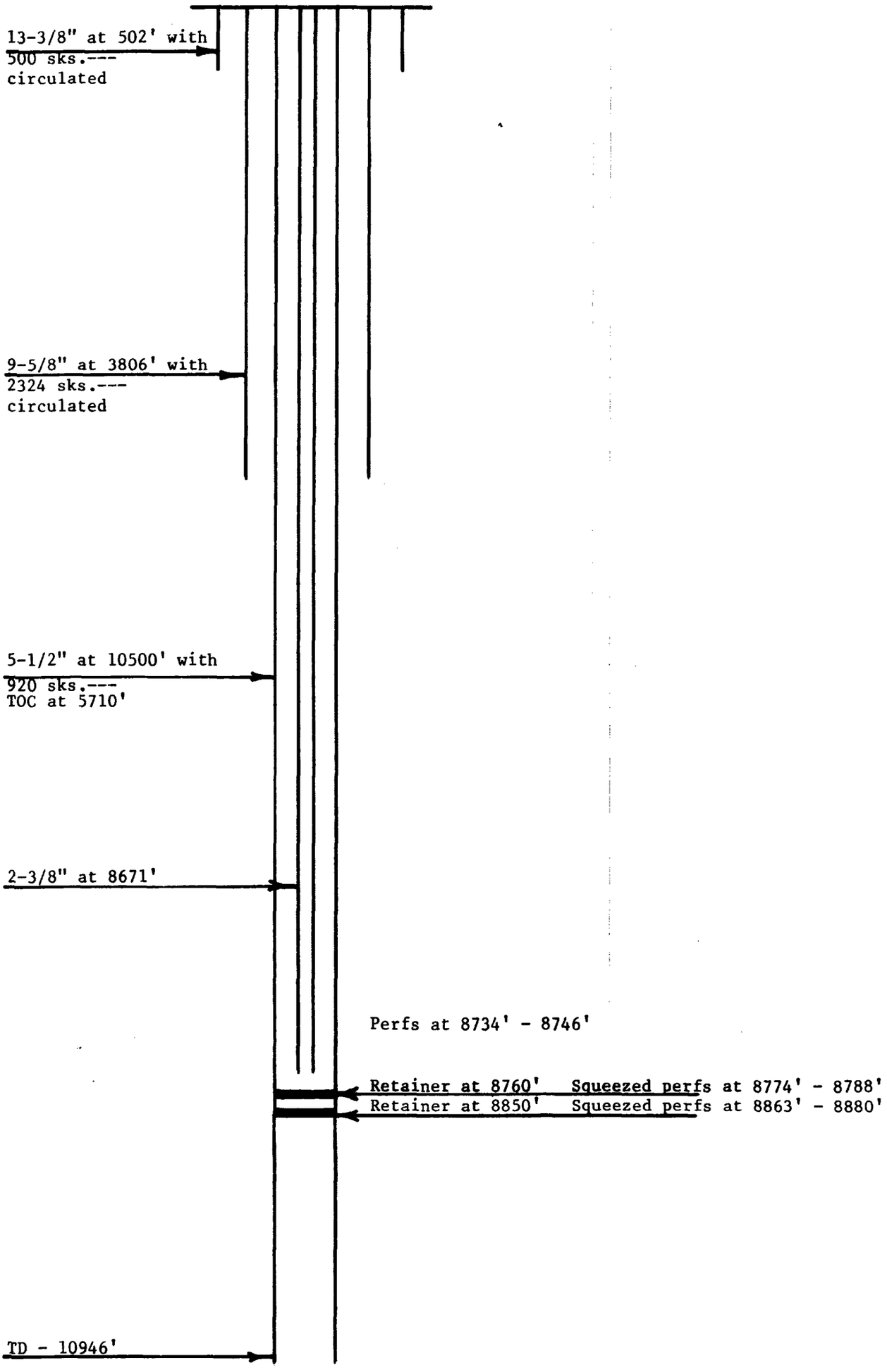
Well is presently temporarily abandoned.

U.S. CROSBY #1
Greathouse and Lovelady Oil & Gas Co. Inc.
Unit N 660' FSL-1980' FWL
Section 28-T25S-R37E
Elevation: 3007' GL



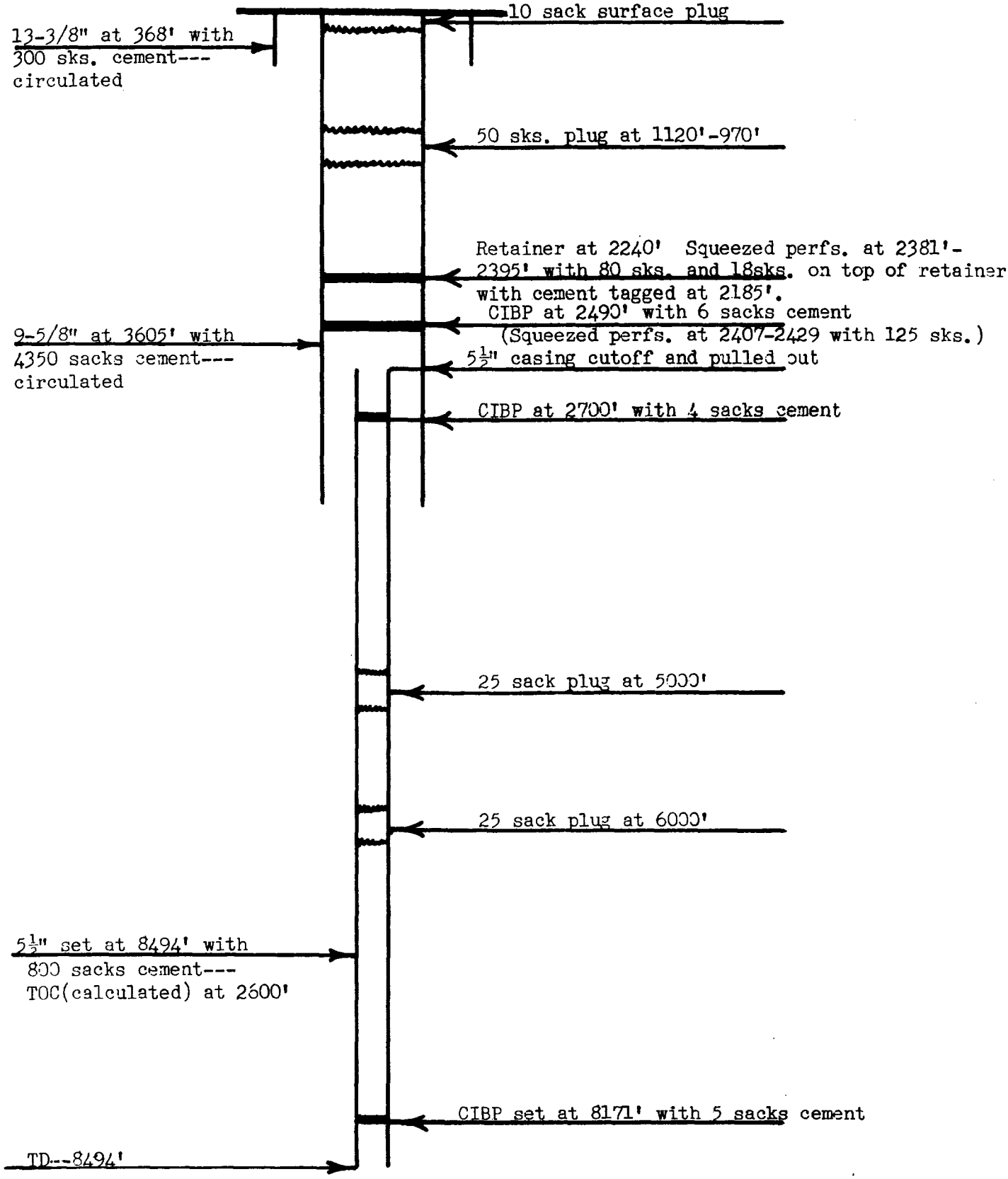
Drilled in 1973. Originally a Crosby Devonian well.

CROSBY DEEP #1
Union Texas Petroleum Corporation
Unit N 330' FSL-1980' FWL
Section 28-T25S-R37E
Elevation: 3006' GL



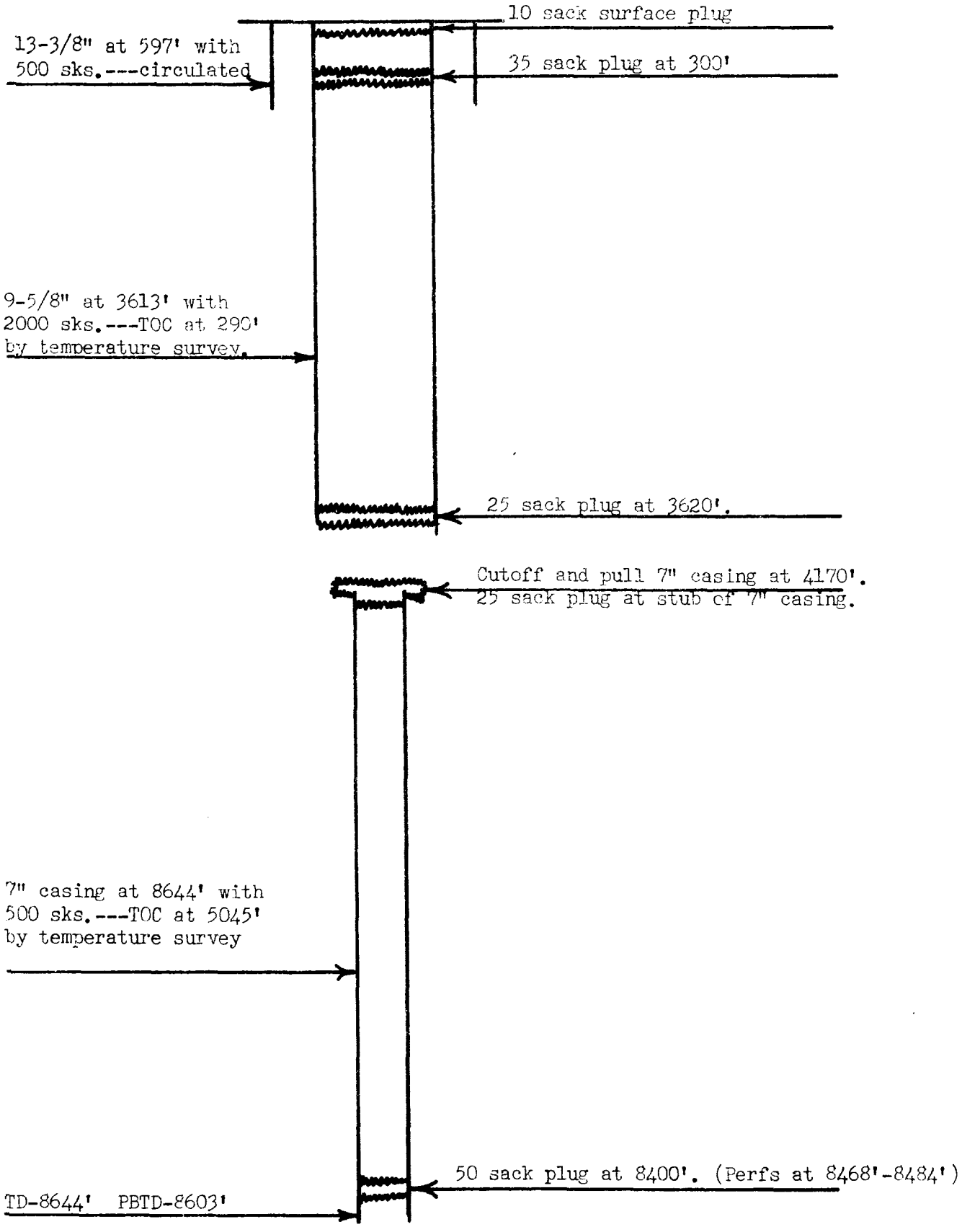
Well was originally drilled in 1971 to the Crosby Devonian formation

ARC FEDERAL #1
Arco Oil and Gas Company
Unit K 1980' FSL-1980' FWL
Section 28-T25S-R37E



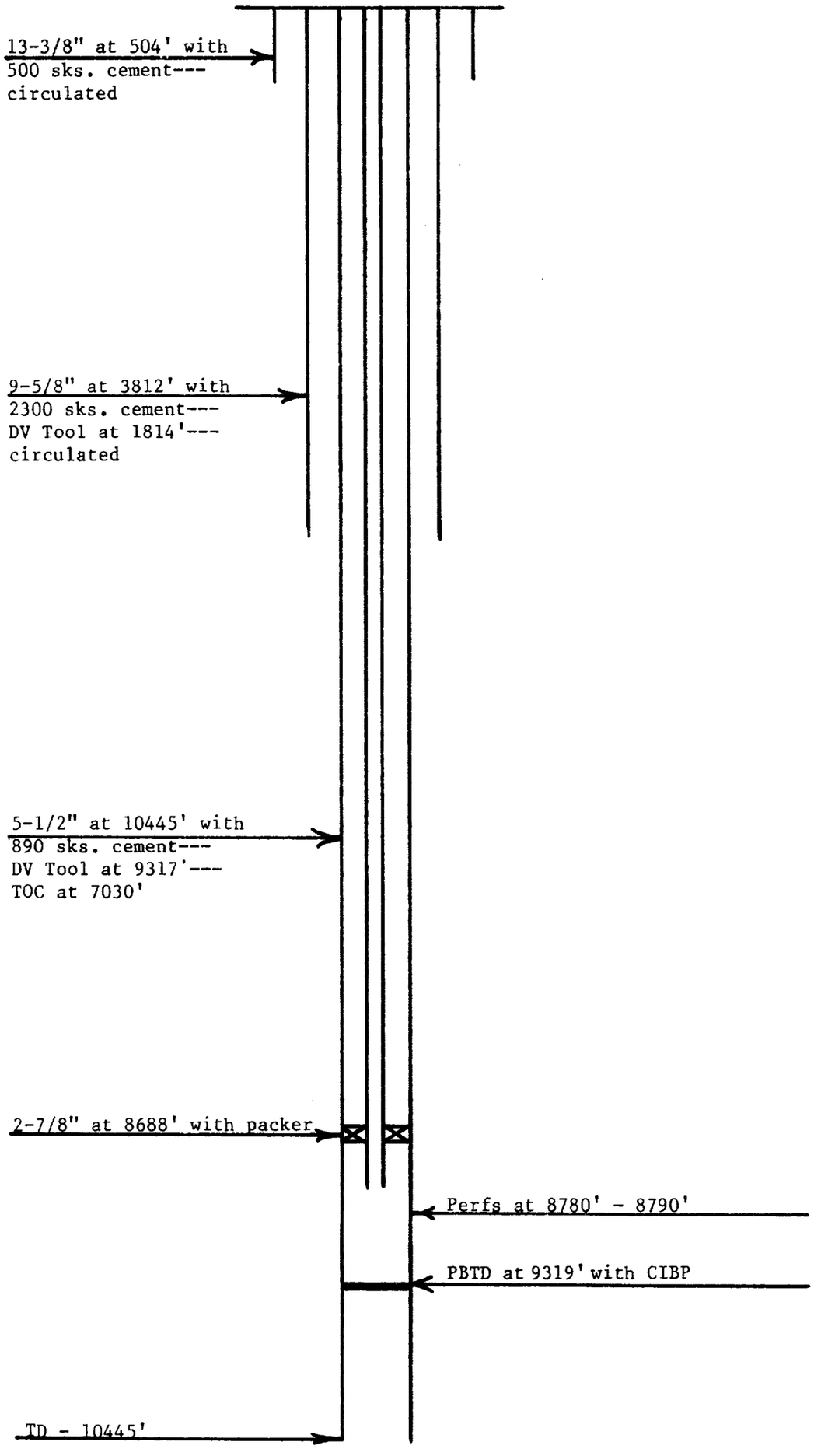
Well was originally drilled in 1954 to the Crosby Devonian formation.
P and A 11-3-1977.

GUTMAN D #1
Texas Pacific Oil Company
Unit I 1830' FSL-660' FEL
Section 29-T25S-R37E
Elevation: 3011' GL



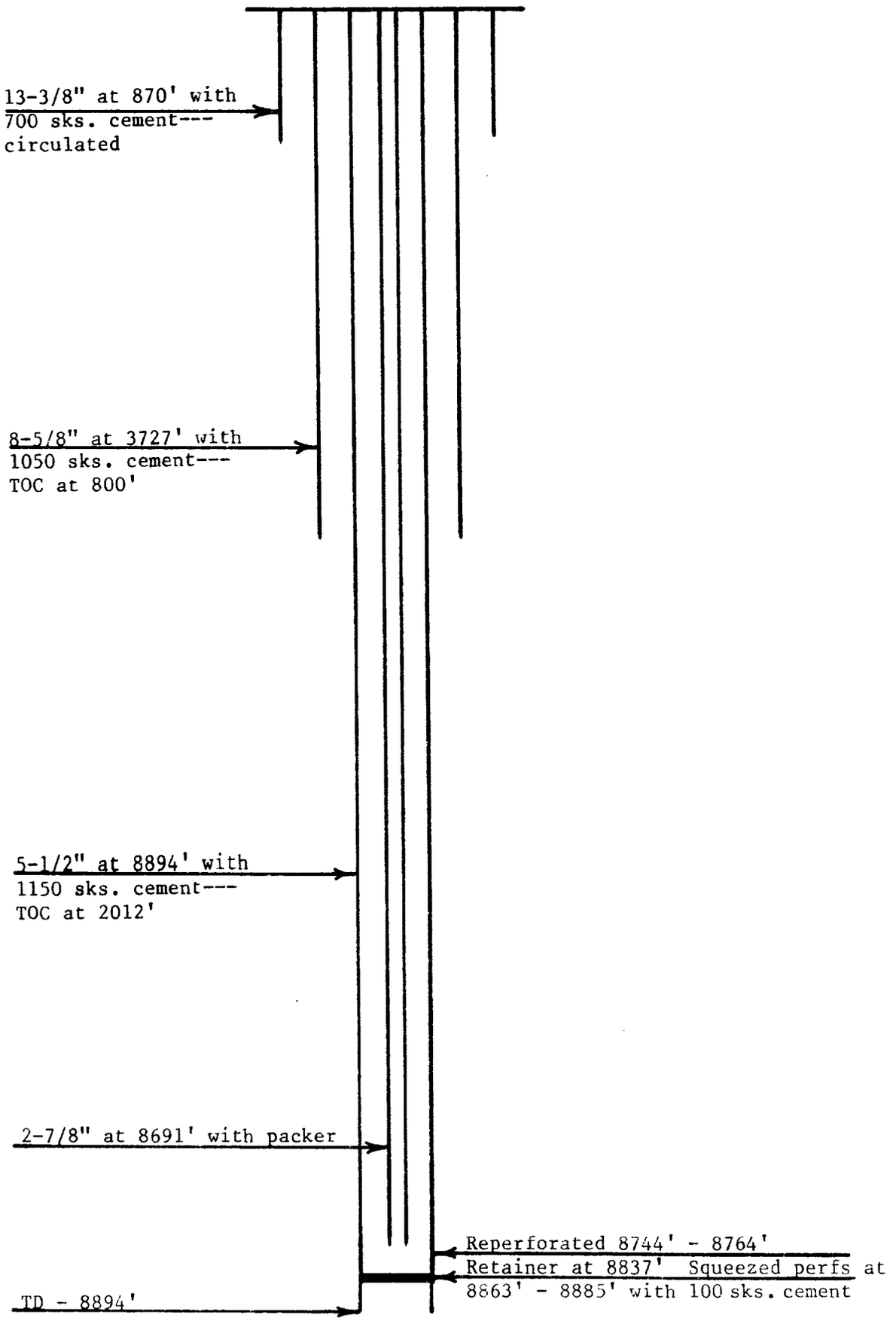
Drilled in 1955.

CROSBY DEEP #2
Union Texas Petroleum Corporation
Unit G 1650' FNL-2310' FEL
Section 33-T25S-R37E
Elevation: 2998' GL



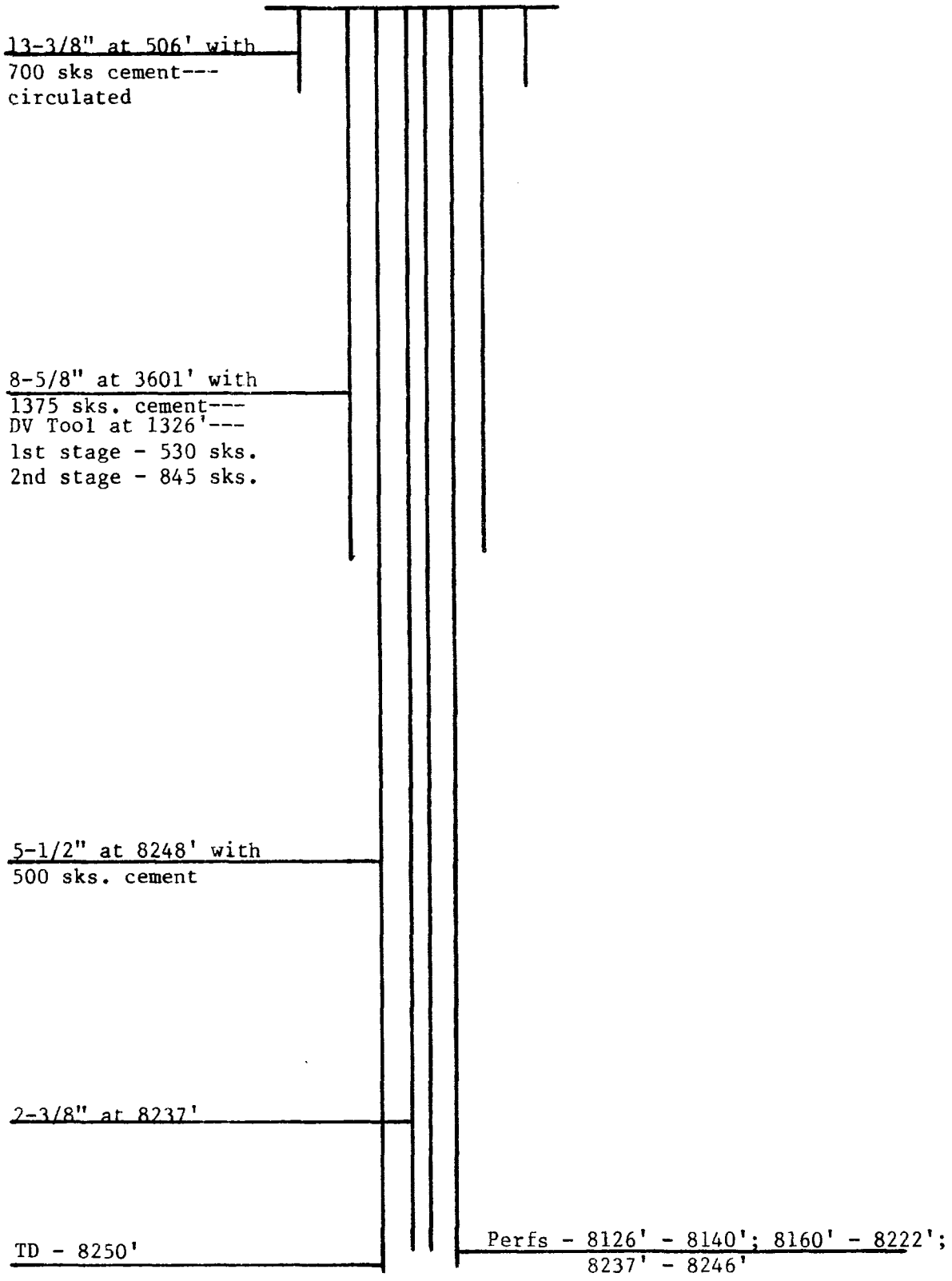
Well was originally drilled in 1972 to the Crosby Fusselman formation.

CROSBY DEEP #4
Union Texas Petroleum Corporation
Unit C 785' FNL-1980' FWL
Section 33-T25S-R37E
Elevation: 3006.8' GL



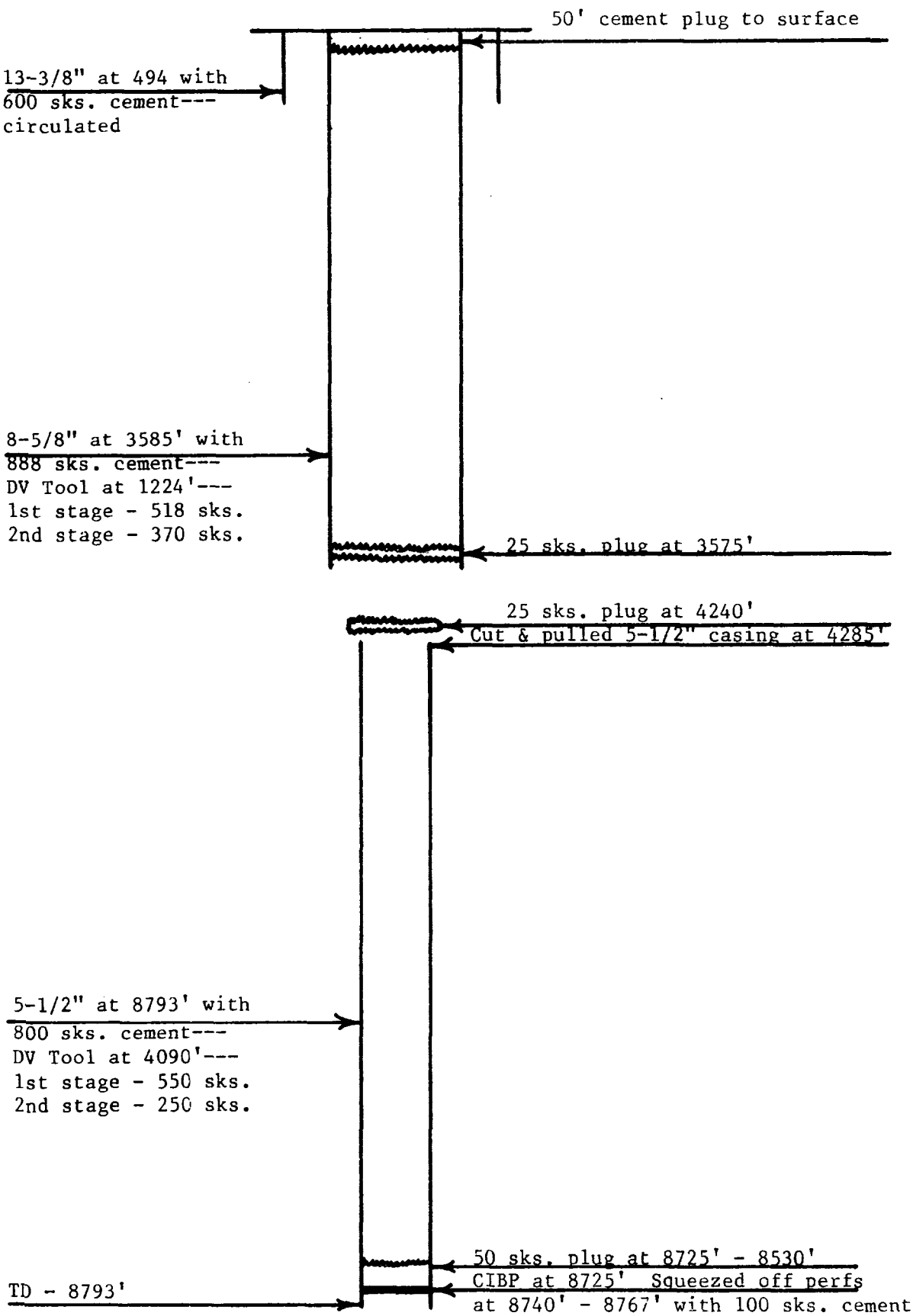
Well was originally drilled in 1978 to the Crosby Fusselman formation.
PBTD at 8775'.

G.W. SHAHAN #2
Gulf Oil Corporation
Unit B 990' FNL-1650' FEL
Section 33-T25S-R37E
Elevation: 3003' GL



Well was originally drilled in 1956 to the Crosby Devonian formation.

ARNOTT RAMSEY B #3
Gulf Oil Corporation
Unit A 660' FNL-660' FEL
Section 32-T25S-R37E



Well was originally drilled in 1956. Elevation - 3004' GL

WAT[illegible] ANALYSIS REPORT

NL

NL Treating Chemicals/NL Industries, Inc
P. O. Box 4305 Houston, Texas 77210

	SHEET NUMBER
Alpha Twenty One	DATE 5-11-84
	COUNTY OR PARISH LEA	STATE N.M.
L[illegible] Tom Fed	WELL(S) NAME OR NO. #1	WATER SOURCE (FORMATION)
	SAMPLE SOURCE wellhead	TEMP. F	WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY
5 [illegible]	TYPE OF WATER: [X] PRODUCED [ ] SUPPLY [ ] WATERFLOOD [ ] SALT WATER DISPOSA[L]

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l* SCALE UNIT)

Scale: 15 10 5 0 5 10 15 20

Na+ / Cl−; Ca++ / HCO_3^-; Mg++ / $SO_4^=$; Fe+++ / $CO_3^=$

DISSOLVED SOLIDS

CATIONS	me/l*	mg/l*
Total Hardness	120	
Calcium	32	640
Magnesium, Mg	88	1073.6
Iron (Total) Fe	0.5	10.0
Barium, Ba		
Sodium, Na (calc.)	190.1	4356.1
ANIONS		
Chloride	267	9500
Sulfate	29.7	1425
Carbonate, CO_3		
Bicarbonate, HCO_3	10.6	646.6
Hydroxyl, OH		
Sulfide	3.9	62.5

DISSOLVED GASES

Hydrogen Sulfide, H_2S	mg/l*
Carbon Dioxide, CO_2	mg/l*
Oxygen, O_2	mg/l*

PHYSICAL PROPERTIES

pH	5.5
Eh (Redox Potential)	MV
Specific Gravity	
Turbidity, JTU Units	
Total Dissolved Solids (calc.)	17743 mg/l*
Stability Index @ ___ F	
@ ___ F	
$CaSO_4$ Solubility @ ___ F	mg/l*
@ ___ F	mg/l*
Max. $CaSO_4$ Possible (calc.)	mg/l*
Max. $BaSO_4$ Possible (calc.)	mg/l*
Residual Hydrocarbons	ppm(Vol/Vo[l])

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide [ ] Iron Oxide [ ] Calcium Carbonate [ ] Acid Insoluble [ ]

REMARKS AND RECOMMENDATIONS:

[Ex]tremely low scaling conditions.
[illegible] low iron count.

*NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
Andy Brown	821			
[signature]	DATE 5/25/84	DISTRIBUTION: [ ] CUSTOMER [ ] AREA OR [ ] DISTRICT OFFICE [ ] BTC ENGINEER OR [ ] BTC LAB [ ] BTC SALES SUPERVISOR		

NL TREATING CHEMICALS
NL INDUSTRIES, INC.

SCALING TENDENCIES OF WATERS

COMPANY: ALPHA TWENTY-ONE
SAMPLE POINT: WELL #1
LOCATION: EL PASO TOM FED
DATE: [illegible]/84

WATER ANALYSIS (MG/L):

[illegible]:	4386.1
CALCIUM:	640.0
[illegible]:	1073.6
[illegible]:	9500.0
[illegible]:	1425.0
[illegible]:	646.6
IRON:	10.0
[illegible]:	0.

PH: 5.5

ION STRENGTH = 0.3854

INDEX VALUES GREATER THAN ZERO INDICATE SCALING CONDITIONS
INDEX VALUES OF ZERO OR LESS INDICATE A STABLE WATER

TEMP.	CALCITE INDEX	GYPSUM INDEX	ANHYDRITE INDEX	BARITE INDEX
60	-1.49	-0.55	-0.81	-41.53
80	-1.35	-0.58	-0.73	-41.66
100	-1.22	-0.59	-0.65	-41.78
120	-1.06	-0.59	-0.56	-41.89
140	-0.88	-0.58	-0.47	-41.99
160	-0.67	-0.57	-0.37	-42.07
180	-0.43	-0.55	-0.26	-42.14
200	-0.16	-0.53	-0.14	-42.20
220	0.15	-0.51	-0.01	-42.23
240	0.49	-0.48	0.13	-42.22
260	0.86	-0.46	0.28	-42.16

ILLEGIBLE

WATER ANALYSIS REPORT

NL Treating Chemicals/NL Industries, Inc
P. O. Box 4305 Houston, Texas 7721

SHEET NUMBER

COMPANY: Alpha-Twenty One | DATE: 5-11-84

FIELD | COUNTY OR PARISH: LEA | STATE: N.M.

LEASE OR UNIT: El Paso Tom Fed. | WELL(S) NAME OR NO.: #2 | WATER SOURCE (FORMATION)

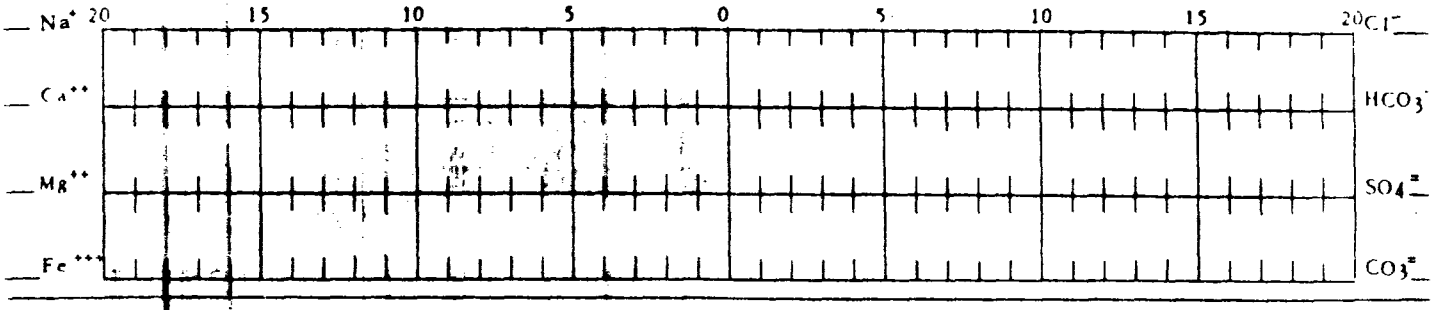
DEPTH, FT.	BHT, F	SAMPLE SOURCE	TEMP, F	WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY
		Wellhead				

DATE SAMPLED: 5-7-84

TYPE OF WATER: [X] PRODUCED [ ] SUPPLY [ ] WATERFLOOD [ ] SALT WATER DISP

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l* SCALE UNIT)



DISSOLVED SOLIDS

CATIONS

	me/l*	mg/l*
Total Hardness	68	
Calcium, Ca++	16	320
Magnesium, Mg++	52	634.4
Iron (Total) Fe++	0.2	3.75
Barium, Ba++		
Sodium, Na+ (calc.)	172.0	3956.0

ANIONS

	me/l*	mg/l*
Chloride, Cl-	219.7	7800
Sulfate, SO4=	13.0	625
Carbonate, CO3=		
Bicarbonate, HCO3-	4.9	298.9
Hydroxyl, OH-		
Sulfide, S=	2.6	41.7

DISSOLVED GASES

Hydrogen Sulfide, H_2S	_____ mg/l*
Carbon Dioxide, CO_2	_____ mg/l*
Oxygen, O_2	_____ mg/l*

PHYSICAL PROPERTIES

pH	5.5
Eh (Redox Potential)	_____ MV
Specific Gravity	_____
Turbidity, JTU Units	_____
Total Dissolved Solids (calc.)	13679 mg/l*
Stability Index @____F	_____
@____F	_____
$CaSO_4$ Solubility @____F	_____ mg/l*
@____F	_____ mg/l*
Max. $CaSO_4$ Possible (calc.)	_____ mg/l*
Max. $BaSO_4$ Possible (calc.)	_____ mg/l*
Residual Hydrocarbons	_____ ppm(Vol

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide [ ] Iron Oxide [ ] Calcium Carbonate [ ] Acid Insoluble [ ]

*NOTE: me/l and mg/l are common used interchangeably for epm and pp respectively. Where epm and ppm a used, corrections should be made f specific gravity.

REMARKS AND RECOMMENDATIONS:
Extremely low scaling conditions.
Iron Count.

ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
Sandy Brown	821			

ANALYZED: Crum | DATE: 5/25/84 | DISTRIBUTION: [ ] CUSTOMER [ ] AREA OR [ ] DISTRICT OFFICE [ ] BTC ENGINEER OR [ ] BTC LAB [ ] BTC SALES SUPERV

NL TREATING CHEMICALS
NL INDUSTRIES, INC.

SCALING TENDENCIES OF WATERS

COMPANY: ALPHA TWENTY-ONE
SAMPLE POINT: WELL #2
LOCATION: EL PASO TOM FED
DATE: 5/7/84

WATER ANALYSIS (MG/L):

SODIUM:	3956.0
CALCIUM:	320.0
MAGNESIUM:	634.4
CHLORIDE:	7800.0
SULFATE:	625.0
BICARBONATE:	298.9
IRON:	5.8
BARIUM:	0.
PH:	5.5

IONIC STRENGTH = 0.2800

INDEX VALUES GREATER THAN ZERO INDICATE SCALING CONDITIONS
INDEX VALUES OF ZERO OR LESS INDICATE A STABLE WATER

TEMP.	CALCITE INDEX	GYPSUM INDEX	ANHYDRITE INDEX	BARITE INDEX
80	-1.97	-1.08	-1.33	-41.42
80	-1.86	-1.11	-1.26	-41.55
100	-1.74	-1.13	-1.18	-41.67
120	-1.59	-1.13	-1.10	-41.78
140	-1.42	-1.12	-1.00	-41.87
160	-1.22	-1.10	-0.90	-41.95
180	-0.99	-1.08	-0.79	-42.01
200	-0.74	-1.06	-0.66	-42.06
220	-0.46	-1.03	-0.53	-42.08
240	-0.15	-1.00	-0.39	-42.07
260	0.20	-0.96	-0.23	-42.00

ILLEGIBLE

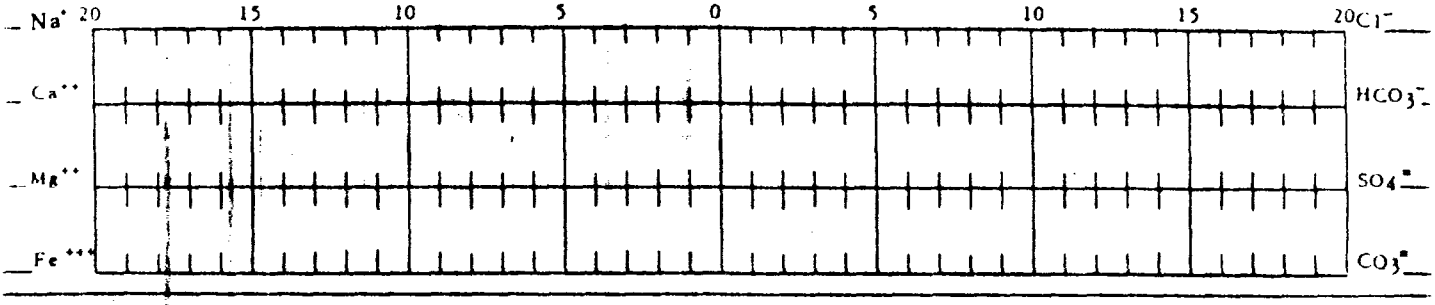
WATER ANALYSIS REPORT

NL Treating Chemicals/NL Industries, Inc
P. O. Box 4305 Houston, Texas 77210

			SHEET NUMBER
PANY: ALPHA - TWENTY ONE			DATE: 5-11-84
D		COUNTY OR PARISH: LEA	STATE: N.M.
SE OR UNIT: El Paso Tom Federal	WELL(S) NAME OR NO.: #3	WATER SOURCE (FORMATION)	
TH. FT. / BHT. F	SAMPLE SOURCE: wellhead / TEMP. F	WATER, BBL/DAY	OIL, BBL/DAY / GAS, MMCF/DAY
E SAMPLED: 5-7-84	TYPE OF WATER: ☐ PRODUCED ☐ SUPPLY ☐ WATERFLOOD ☐ SALT WATER DISPO		

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l* SCALE UNIT)



SOLVED SOLIDS

TIONS	me/l*	mg/l*
al Hardness	44	
cium, Ca++	12	240
nesium, Mg++	32	390.4
(Total) Fe++	0.7	13.25
ium, Ba++		
ium, Na+ (calc.)	37	851.0
ONS		
oride, Cl-	70.4	2500
ate, SO_4	5.5	262.5
bonate, CO_3		
arbonate, HCO_3-	3.7	225.7
roxyl, OH-		
ide, S=	2.1	33.2

DISSOLVED GASES

Hydrogen Sulfide, H_2S	_____ mg/l*
Carbon Dioxide, CO_2	_____ mg/l*
Oxygen, O_2	_____ mg/l*

PHYSICAL PROPERTIES

pH	6.0
Eh (Redox Potential)	_____ MV
Specific Gravity	_____
Turbidity, JTU Units	_____
Total Dissolved Solids (calc.)	3665 mg/l*
Stability Index @____F	_____
@____F	_____
$CaSO_4$ Solubility @____F	_____ mg/l*
@____F	_____ mg/l*
Max. $CaSO_4$ Possible (calc.)	_____ mg/l*
Max. $BaSO_4$ Possible (calc.)	_____ mg/l*
Residual Hydrocarbons	_____ ppm(Vol/

PENDED SOLIDS (QUALITATIVE)

Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

*NOTE: me/l and mg/l are common used interchangeably for epm and pp respectively. Where epm and ppm a used, corrections should be made f specific gravity.

MARKS AND RECOMMENDATIONS:

o scaling passibilities
on count getting high.

ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
Randy Brown	821			
LYZED	DATE: 5/25/84	DISTRIBUTION ☐ CUSTOMER ☐ AREA OR ☐ DISTRICT OFFICE		

NL TREATING CHEMICALS
NL INDUSTRIES, INC.

SCALING TENDENCIES OF WATERS

COMPANY: ALPHA TWENTY-ONE
SAMPLE POINT: WELL #3
LOCATION: EL PASO TOM FED
DATE: 5/7/84

WATER ANALYSIS (MG/L):

SODIUM:	851.0
CALCIUM:	240.0
MAGNESIUM:	390.4
CHLORIDE:	2500.0
SULFATE:	262.5
BICARBONATE:	225.7
IRON:	13.3
BARIUM:	0.
PH:	6.0

IONIC STRENGTH = 0.1062

INDEX VALUES GREATER THAN ZERO INDICATE SCALING CONDITIONS
INDEX VALUES OF ZERO OR LESS INDICATE A STABLE WATER

TEMP.	CALCITE INDEX	GYPSUM INDEX	ANHYDRITE INDEX	BARITE INDEX
60	-1.41	-1.25	-1.50	-41.08
80	-1.29	-1.29	-1.44	-41.22
100	-1.17	-1.31	-1.36	-41.34
120	-1.04	-1.31	-1.28	-41.44
140	-0.89	-1.31	-1.18	-41.52
160	-0.73	-1.29	-1.08	-41.58
180	-0.54	-1.26	-0.96	-41.62
200	-0.35	-1.23	-0.84	-41.65
220	-0.13	-1.20	-0.70	-41.65
240	0.11	-1.17	-0.55	-41.63
260	0.37	-1.13	-0.40	-41.57

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O.BOX1499

HOBBS. NEW MEXICO 88240

1PANY : ALPHA TWENTY-ONE
:E 3-14-83
:LD,LEASE&WELL : EL PASO TOM FEDERAL #4
1PLING POINT: WELLHEAD
:E SAMPLED : 3-9-83

:CIFIC GRAVITY = 1.024
:AL DISSOLVED SOLIDS = 36525
= 6.98

		ME/L	MG/L
CATIONS			
:CIUM	(CA)+2	25.3	507.
:NESIUM	(MG)+2	196.	2390.
)IUM	(NA),CALC	407.	9378.
ANIONS			
:ARBONATE	(HCO3)-1	32.8	2001.
RBONATE	(CO3)-2	0	0
)ROXIDE	(OH)-1	0	0
.FATE	(SO4)-2	244.	11750
.ORIDES	(CL)-1	352.	12497
D'SSOLVED GASES			
RBON DIOXIDE	(CO2)	NOT RUN	
)ROGEN SULFIDE	(H2S)	NOT RUN	
/GEN	(O2)	NOT RUN	
)N(TOTAL)	(FE)		.7
:IUM	(BA)+2	NOT RUN	
NGANESE	(MN)	NOT RUN	

SCALING INDEX	TEMP
	30C
	86F
RBONATE INDEX	.351
:CIUM CARBONATE SCALING	LIKELY
.FATE INDEX	-1.0
:CIUM SULFATE SCALING	UNLIKELY

ILLEGIBLE

ALPHA TWENTY-ONE PRODUCTION COMPANY

POST OFFICE BOX 1206
JAL, NEW MEXICO 88252

505/395-3056

December 7, 1984

Arco Oil & Gas Company
P.O. Box 1710
Hobbs, NM 88240

RE: Gregory "A" Federal No. 3
660' FNL & 660' FWL,
Sec. 33, T-25-S, R-37-E,
Lea County, New Mexico

Gentlemen:

As offset operator or surface owner please find enclosed, as required, a copy of Application to Dispose Produced Water into a Formation Non-Productive of Oil and Gas. We plan to dispose produced water from our El Paso Tom Federal lease into the San Andres formation through the above proposed salt water disposal well which is adjacent to our El Paso Tom Federal lease.

If you desire further information, please contact the New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87501.

Respectfully,

Michael D. Oney

Michael D. Oney,
Drilling Superintendent

MDO/tic
Enclosure

cc: Mrs. Nadine Owen, 909 W. Taos, Hobbs, NM 88240
Lewis B. Burleson, P.O. Box 2479, Midland, TX 79702
El Paso Natural Gas Company, 1800 Wilco Building, Midland, TX 79701
Greathouse & Lovelady Oil & Gas, Inc., P.O. Drawer 2666, Midland, TX 79701
Gulf Oil Corporation, P.O. Box 670, Hobbs, NM 88240
Doyle Hartman, P.O. Box 10426, Midland, TX 79702
Sun Exploration & Production Company, P.O. Box 1861, Midland, TX 79702
Union Texas Petroleum Corporation, 1300 Wilco Building, Midland, TX 79701

AFFIDAVIT OF PUBLICATION

State of New Mexico,

County of Lea.

I, Robert L. Summers

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not in a supplement thereof for a period

of One weeks.

Beginning with the issue dated December 9, 19 84

and ending with the issue dated December 9, 19 84

Robert L Summers
Publisher.

Sworn and subscribed to before me this 11 day of December 1984

Jane Paulowsky
Notary Public.

My Commission expires 3-24, 1987
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

OFFICIAL SEAL
Signature Jane Paulowsky
JANE PAULOWSKY
NOTARY PUBLIC - NEW MEXICO
NOTARY BOND FILED WITH SECRETARY OF STATE
My Commission Expires 3-24-87

LEGAL NOTICE
DECEMBER 9, 1984
Application [illegible] existing well to dis[illegible] Alpha Twenty-One Production Co., Gregory A. Fegan #3, 660 FNL, 660 FWL, Section 33 T-25-S R-37-E, Lea County, New Mexico. Contact: Mike Oney, P.O. Box 1206, Jal, N.M. 88252, 505-395-3056. NOTE: All interested parties must file objections or request for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, N.M. 87501 within 15 days.

PS Form 3811, July 1983

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:

Sun Exploration & Production Co.
P.O. Box 1861
Midland, TX 79702

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number: P 713 192 115

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN RECEIPT

MIDLAND TX DEC 13 1984

PS Form 3811, July 1983

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:

Mrs. Nadine Owen
909 W. Taos
Hobbs, NM 88240

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number: P 713 192 104

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X Mrs Nadine Owen

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN RECEIPT

HOBBS NM DEC 12 1984

PS Form 3811, July 1983

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:

El Paso Natural Gas Company
1800 Wilco Building
Midland, TX 79701

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number: P 713 192 111

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X Laura Anderson

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN

DEC 12 1984

PS Form 3811, July 1983

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:

Gulf Oil Corporation
P.O. Box 670
Hobbs, NM 88240

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number: P 713 192 113

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN

DEC 13 1984

PS Form 3811, July 1983 447-845

DOMESTIC RETURN RECEIPT

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:

2666
79701

USPO DEC 13 1984 MIDLAND TX

4. Type of Service:

☐ Registered ☐ Insured
☑ Certified ☐ COD
☐ Express Mail

Article Number

P 713 192 112

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature – Addressee

X

6. Signature – Agent

X

USPO DEC 13 1984 MIDLAND TX

7. Date of Delivery

12-13

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

PS Form 3811, July 1983

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:

Sun Exploration & Production Co.
P.O. Box 1861
Midland, TX 79702

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 713 192 115

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN RECEIPT

PS Form 3811, July 1983

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:

Mrs. Nadine Owen
909 W. Taos
Hobbs, NM 88240

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 713 192 104

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X Mrs Nadine Owen

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN RECEIPT

PS Form 3811, July 1983

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:

El Paso Natural Gas Company
1800 Wilco Building
Midland, TX 79701

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 713 192 111

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN

PS Form 3811, July 1983

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:

Gulf Oil Corporation
P.O. Box 670
Hobbs, NM 88240

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 713 192 113

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN