

# Memo

From  
DAVID CATANACH  
Petroleum Engineer

To Jerry,

Would you please take a look  
at the PCH'd wells and  
the active wells which are cemented  
w/ 50 SX. Let me know what  
you think.

DAC

COCKBURN #1

Locks EDC

990 FNL-430700 33-17-33

ON WELLS CEMENT W/ 50SX  
MAY WANT BOND LOG FLUID.

Oil Conservation Division Santa Fe, New Mexico 87504  
(505) 827-5807



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

RECEIVED

OIL CONSERVATION DIVISION

HOBBS DISTRICT OFFICE

'91 MAY 3 AM 9 21

4-30-91

BRUCE KING  
GOVERNOR

POST OFFICE BOX 1980  
HOBBS, NEW MEXICO 88241-1980  
(505) 393-6161

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

RE: Proposed:

MC \_\_\_\_\_  
DHC \_\_\_\_\_  
NSL \_\_\_\_\_  
NSP \_\_\_\_\_  
SWD \_\_\_\_\_  
WFX ☒ \_\_\_\_\_  
PMX \_\_\_\_\_

Gentlemen:

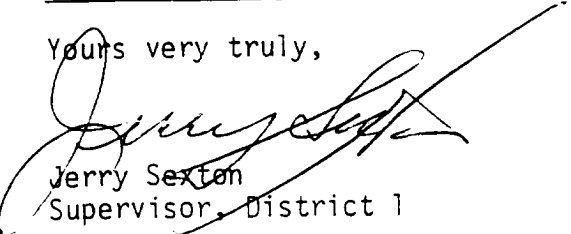
I have examined the application for the:

Cross Timbers Production Co. SMGSAU Tr 9 #2-A 32-17-33  
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

DID NOT GET THE COMPLETE  
APPLICATION

Yours very truly,

  
Jerry Sexton  
Supervisor, District 1

/ed



**Cross Timbers Operating Company**

OIL CONSERVATION DIVISION  
RECEIVED

'91 JUL 1 AM 9 47

June 26, 1991

David Catanach  
NMOCD  
P. O. Box 2088  
Sante Fe, New Mexico 87504

Dear Mr. Catanach:

Enclosed is the additional data requested for Items No.'s VI, VIII, XI, XII and XIV to support our application to convert the SMGSAU Tract 9 Well No. 2 to water injection.

If you have any questions or require additional data, please contact me at (915)682-8873.

Sincerely,

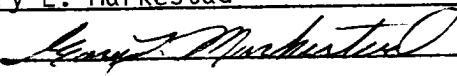
CROSS TIMBERS OPERATING COMPANY

Gary L. Markestad  
Operations Engineer

GLM/kg  
Enclosures

cc: Well File

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage  
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: Cross Timbers Operating Company  
Address: P. O. Box 50847, Midland, Texas 79710  
Contact party: Gary L. Markestad Phone: (915)682-8873
- 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 R-3134  
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: Gary L. Markestad Title Operations Engineer  
Signature:  Date: 6/27/91
- \* 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. \_\_\_\_\_

## 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:

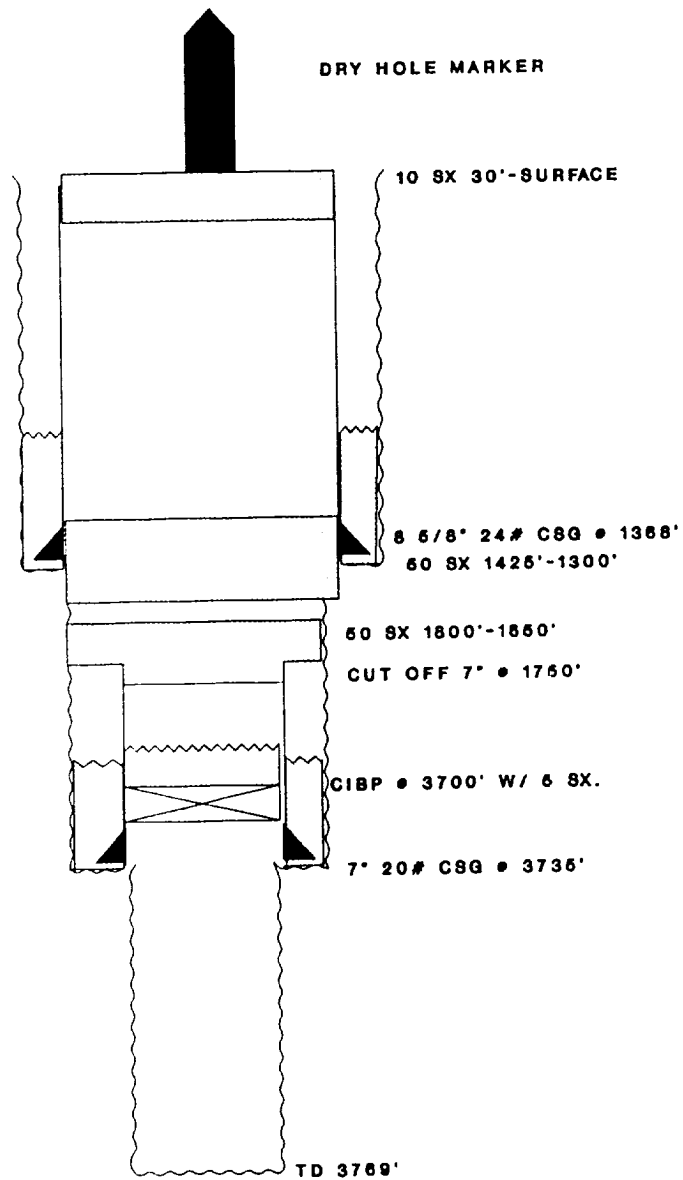
- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates 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.

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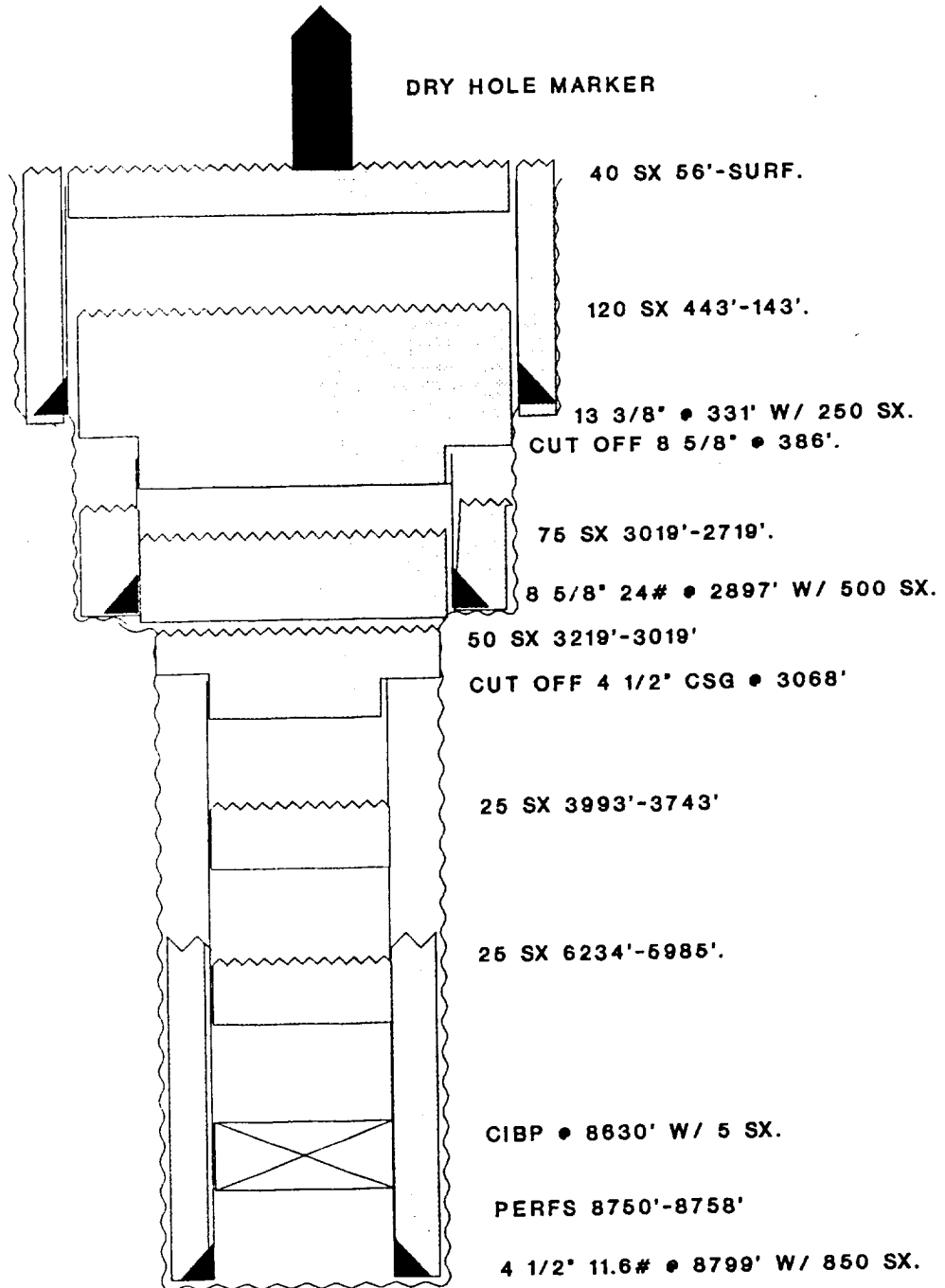
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

**CITIES SERVICE  
OHIO STATE "A" #6  
(P&A 8/70)**



**2310' FNL, 330' FEL, SEC 32, T17S, R33E**

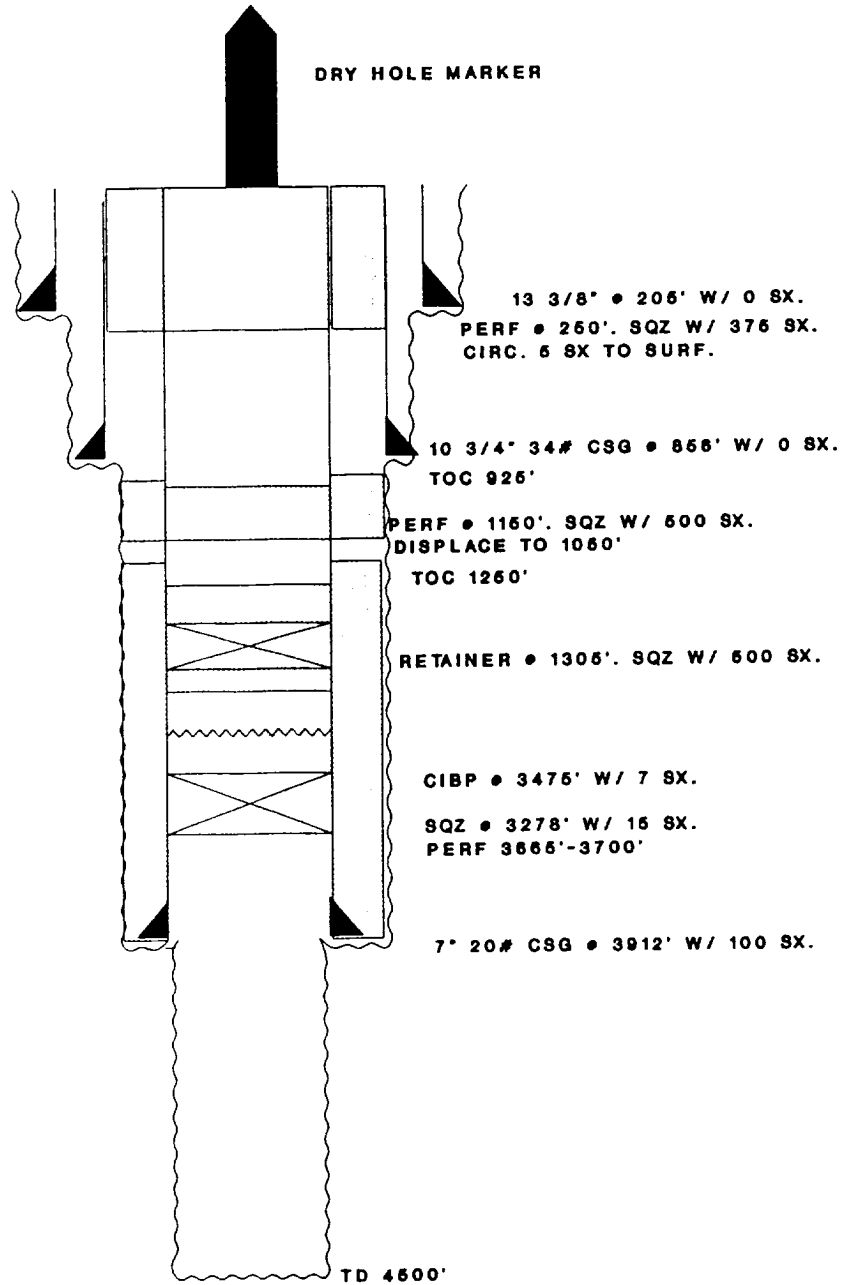
# CITIES SERVICE STATE "CB" #2



2310' FNL, 1700' FEL, SEC 32, T17S, R33E

**CITIES SERVICE  
STATE "CB" #5**

(P&A 2/80)

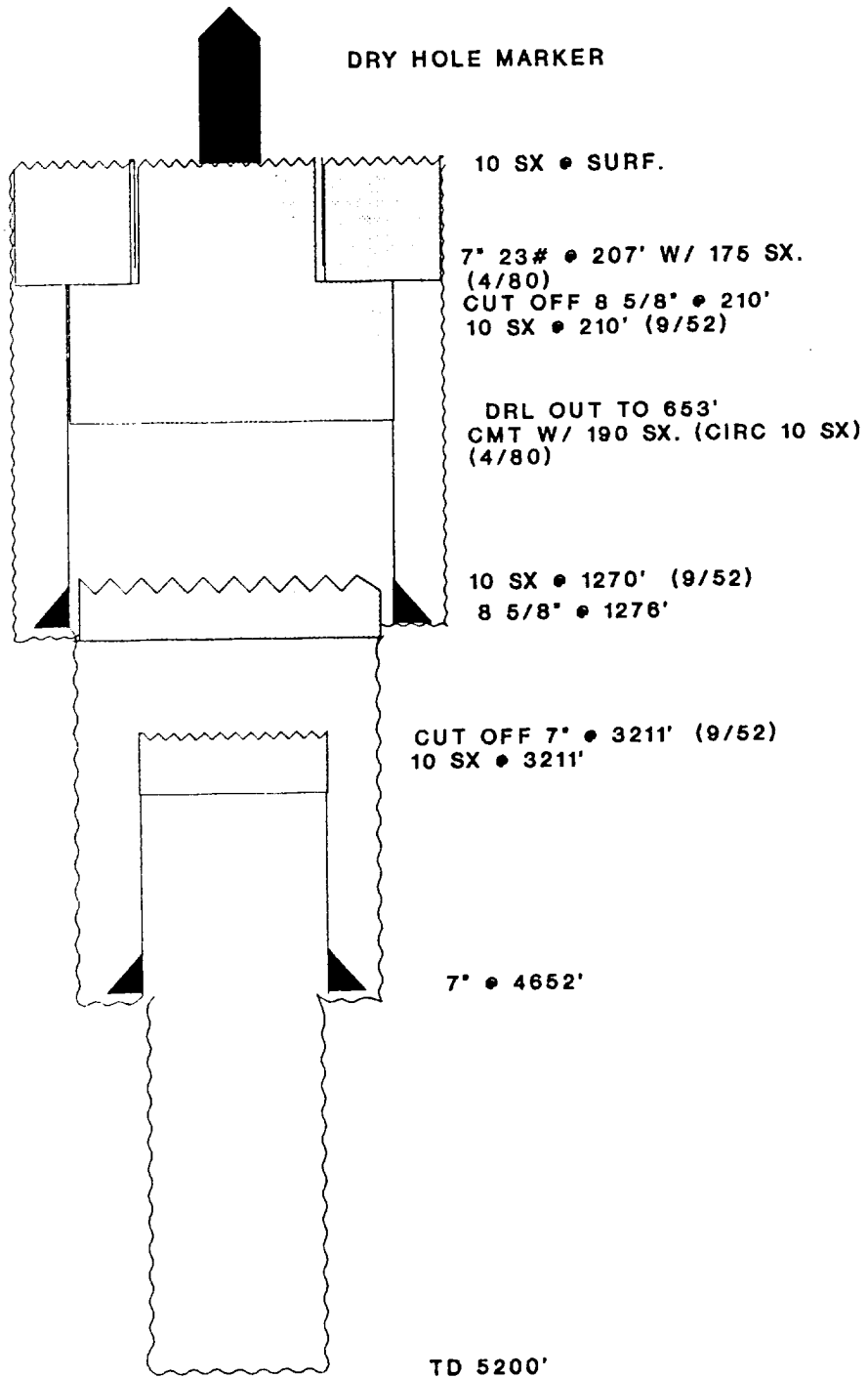


1650' FNL, 1650' FEL, SEC 32, T17S, R33E



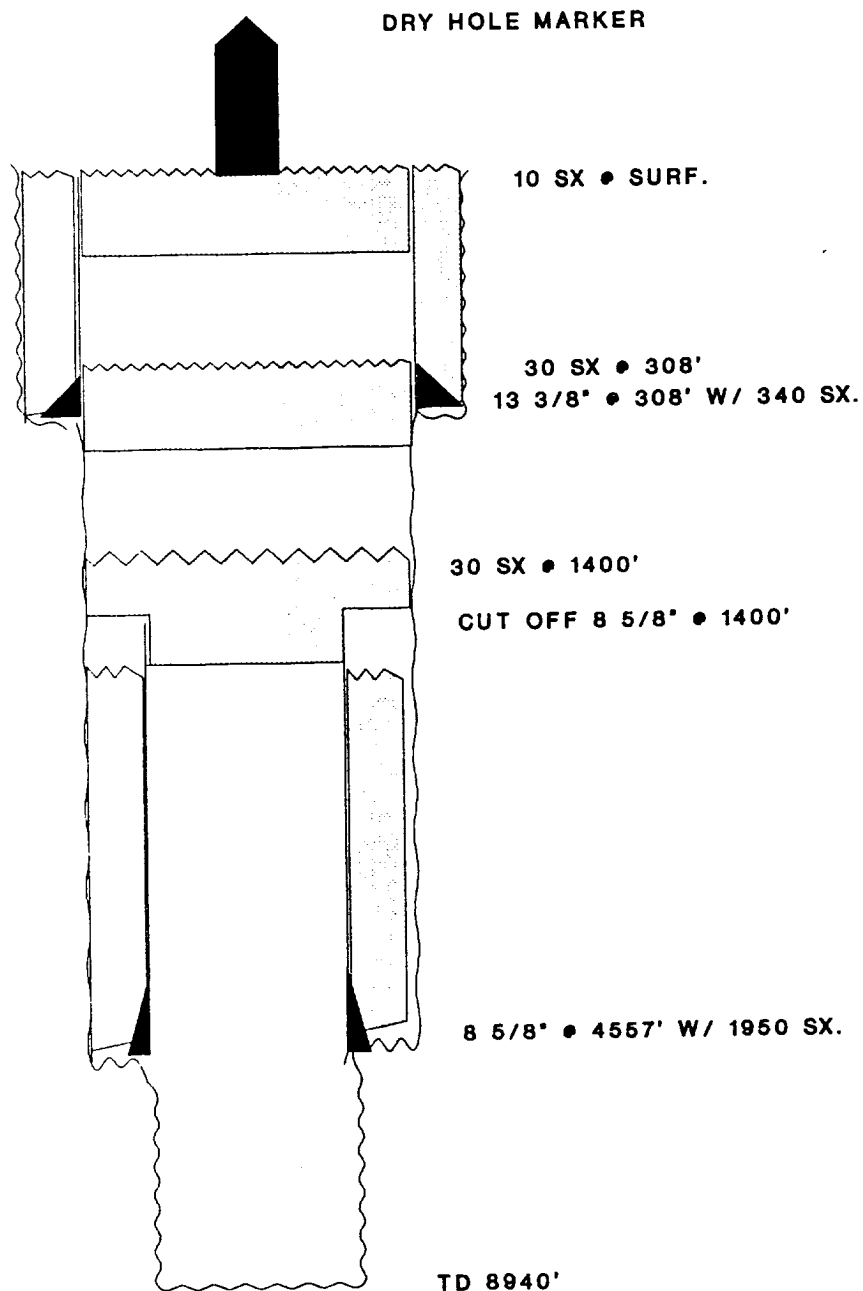
BARNEY COCKBURN  
STATE #2  
(REPLUGGED 4/80)

DRY HOLE MARKER



660' FNL, 1980' FWL, SEC 32, T17S, R33E

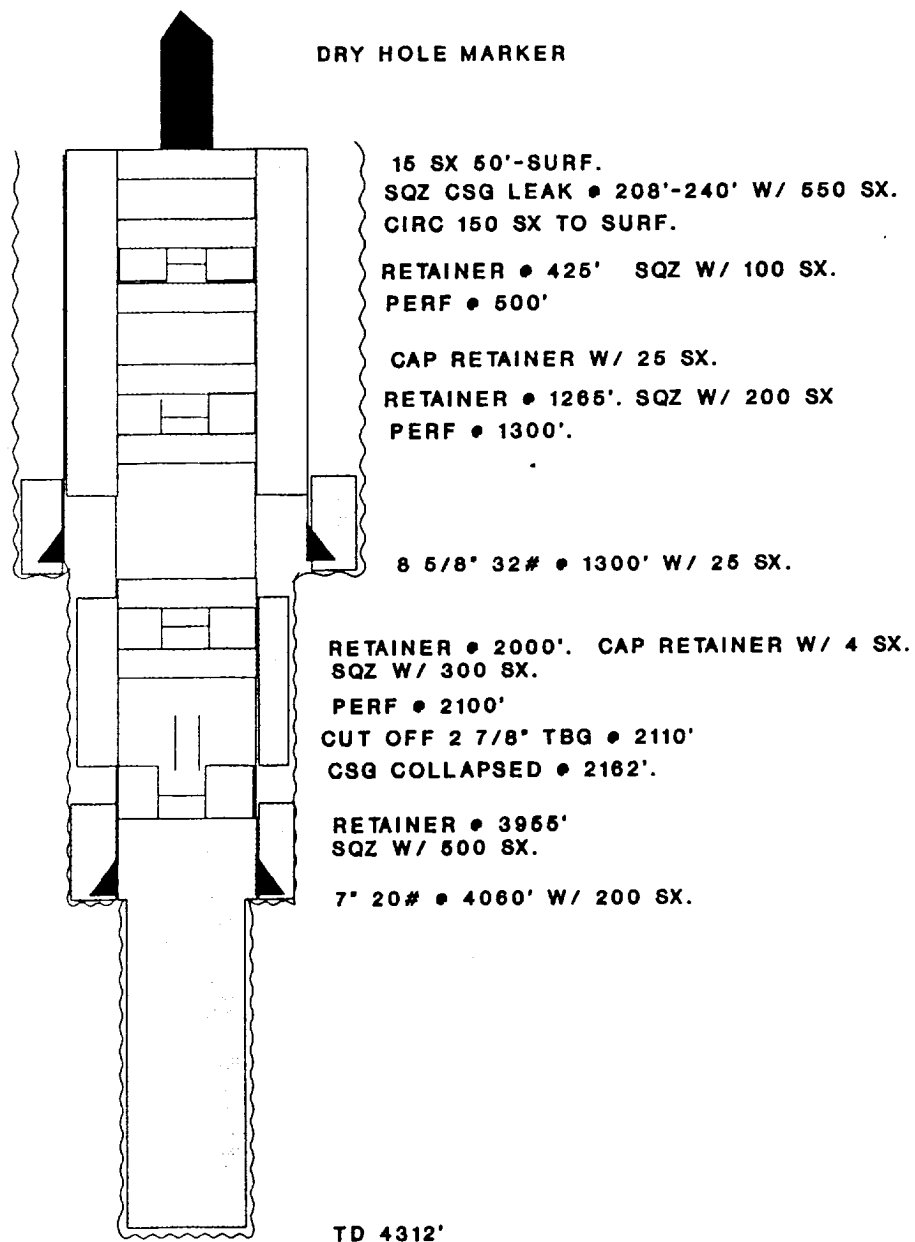
**JAMES P. DUNIGAN  
COCKBURN #1**



**990' FNL, 430' FWL, SEC 33, T17S, R33E**

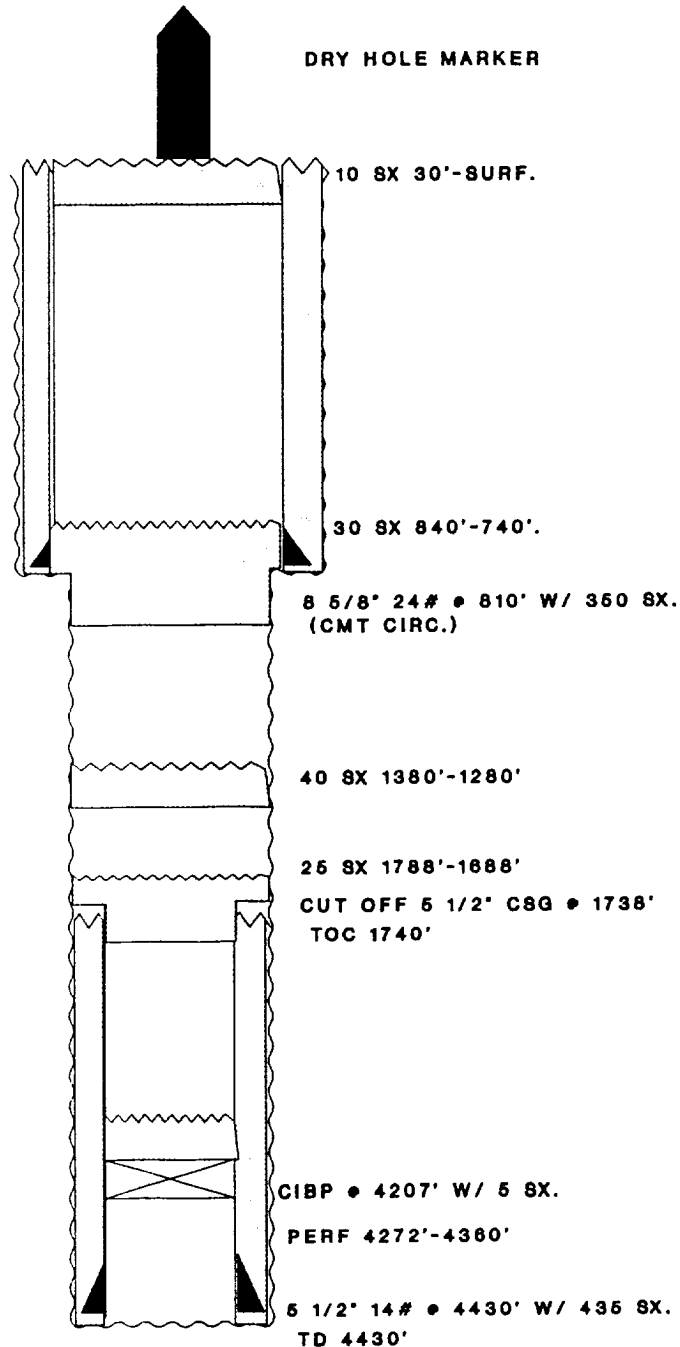
**CROSS TIMBERS OPERATING COMPANY  
SMGSAU TRACT 6 WELL #2**

(P&A 3/82)



660' FSL, 1980' FWL, SEC 29, T17S, R33E

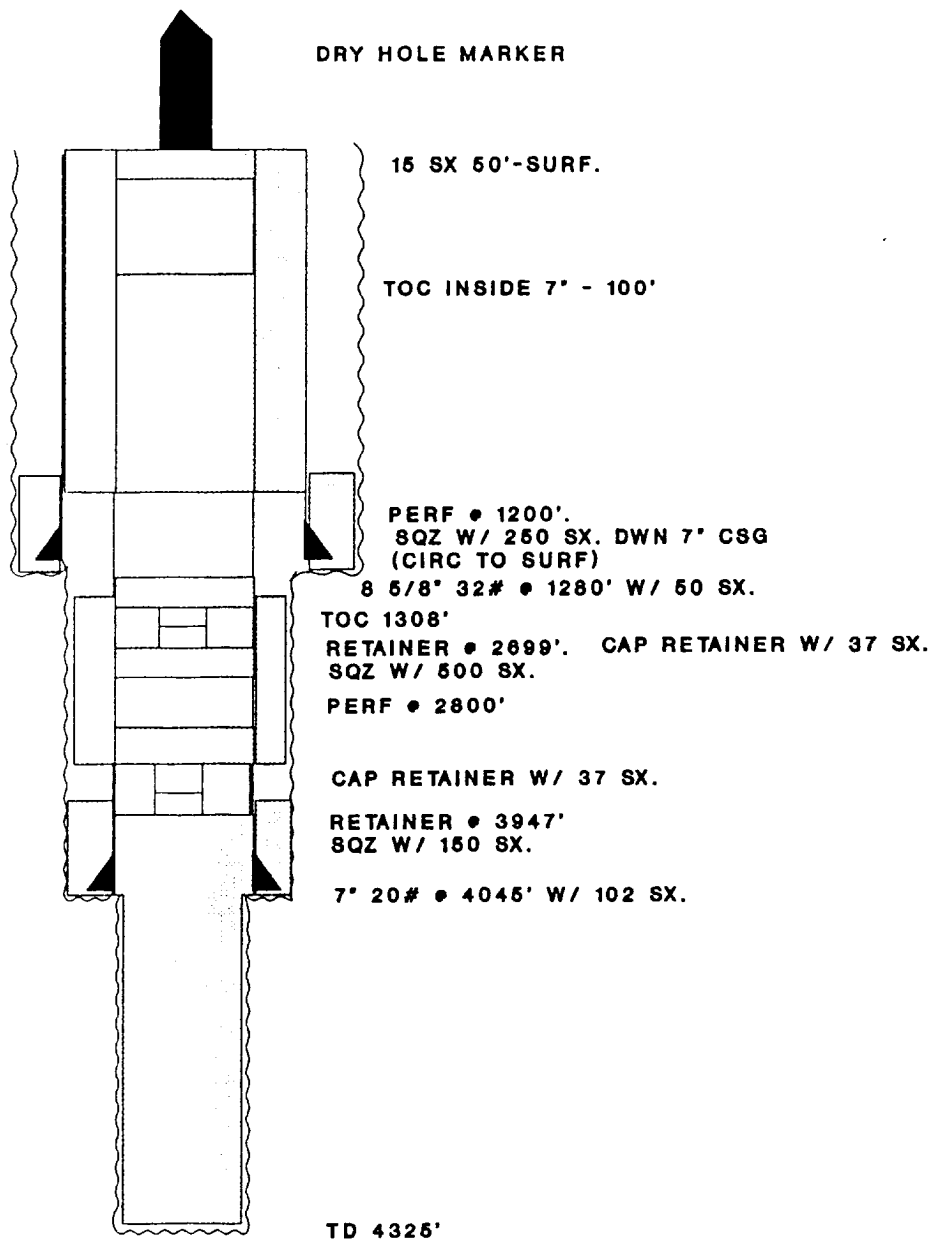
CROSS TIMBERS OPERATING COMPANY  
SMGSAU TRACT 7 WELL #7  
(P&A 7/73)



100' FSL, 1430' FEL, SEC 29, T 17S, R33E

**CROSS TIMBERS OPERATING COMPANY  
SMGSAU TRACT 8 WELL #3**

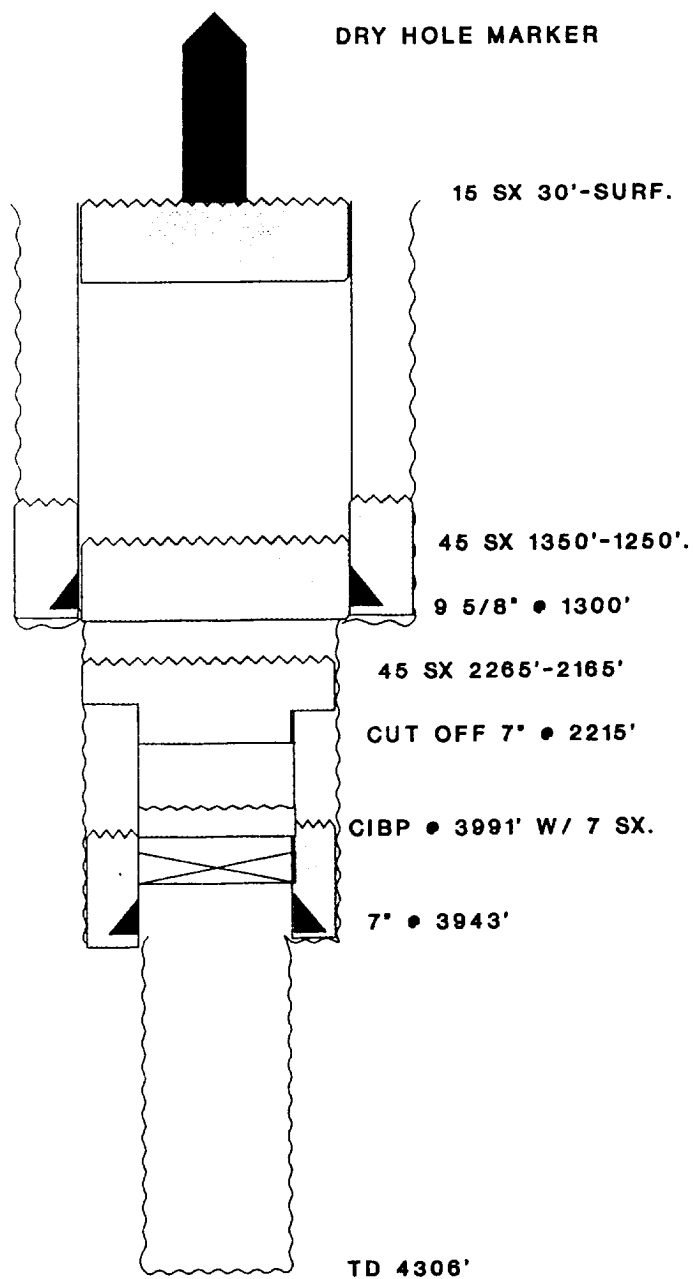
(P&A 6/84)



660' FNL, 1980' FEL, SEC 32, T17S, R33E

**CROSS TIMBERS OPERATING COMPANY  
SMGSAU TRACT 9 WELL #4**

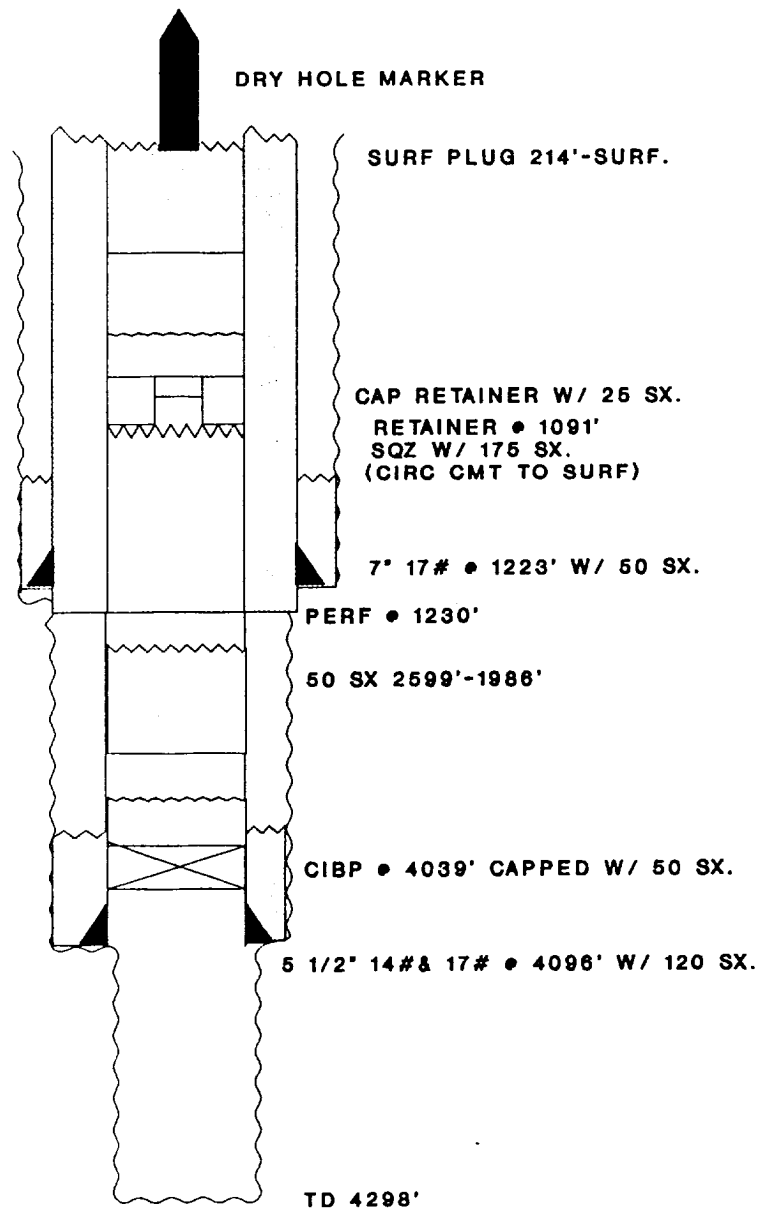
(P&A 7/10/73)



660' FNL, 660' FEL, SEC 32, T17S, R33E

**CROSS TIMBERS OPERATING COMPANY  
SMGSAU TRACT 10 WELL #4**

(P&A 2/83)



**330' FNL, 2970' FEL, SEC 32, T17S, R33E**

ITEM VIII

GEOLOGICAL DATA

Formation Name: Grayburg  
Lithology: Sandstone  
Thickness: 350' gross, 61' net  
Depth: 4,050'

Sources of drinking water: None  
Listed in State Engineer's Report



ITEM XI

CHEMICAL ANALYSIS OF FRESH WATER

No fresh water wells within 1 mile of proposed injection well.

ITEM XII

All available data indicates that the injection interval is not in hydraulic communication with any sources of fresh water in this area.