

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: TEXACO E+P/IN. Well: SOE '31' Fed No. 9

Contact: MICHAEL ALEXANDER Title: ENG. Phone: 505-397-0419

DATE IN 3-4-96 RELEASE DATE 3-20-96 DATE OUT 4-4-96

Proposed Injection Application is for: **WATERFLOOD** Expansion Initial

Original Order: R- Secondary Recovery Pressure Maintenance

SENSITIVE AREAS

SALT WATER DISPOSAL Commercial Well

WIPP Capitan Reef

Data is complete for proposed well(s)? **YES** Additional Data Req'd **NO**

AREA of REVIEW WELLS

9 Total # of AOR 2 # of Plugged Wells

YES Tabulation Complete YES Schematics of P & A's

YES Cement Tops Adequate NO AOR Repair Required

INJECTION FORMATION

Injection Formation(s) Blonde Springs Bell Canyon Compatible Analysis YES

Source of Water or Injectate AREA PRODUCTION

PROOF of NOTICE

Copy of Legal Notice Information Printed Correctly

Correct Operators Copies of Certified Mail Receipts

YES Objection Received Set to Hearing _____ Date

NOTES: OBJECTION SATISFIED - SANTA FE ENERGY NEGOTIATED INJ. INTERVIEW AND FAX WAIVER. ATTACHED.

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL?

COMMUNICATION WITH CONTACT PERSON:

1st Contact: Telephoned Letter 3-18 Date Nature of Discussion OBJECTION
2nd Contact: Telephoned Letter 4-1 Date Nature of Discussion WAIVER BY S.F.
3rd Contact: Telephoned Letter _____ Date Nature of Discussion _____

DAC 1199



SWD 3-20-96
DIVISION
621
8 52

March 1, 1996

New Mexico Oil Conservation Division
2040 South Pacheco
P.O. Box 6429
Santa Fe, New Mexico 87505

Attention: David Catanach

RE: Application for Salt Water Disposal Well

SDE '31' Federal Lease
Bell Canyon Field
Lea County, New Mexico

Gentlemen:

Texaco Exploration and Production Inc. respectfully requests administrative approval for the conversion of its SDE '31' Federal #9 from a marginal producer within the Bone Springs interval, to a salt water disposal well in the non-commercial Bell Canyon interval. This work will allow Texaco E & P Inc., to eliminate the current disposal costs on the subject lease, and two offsetting leases, from approximately \$800/day. The installation of the proposed disposal well will lower the current economic limit on each well and ultimately allow Texaco E & P Inc. to recover additional oil reserves that would otherwise be left in place.

Texaco E&P Inc. respectfully requests that this application be approved administratively, or through an NMODC sponsored hearing scheduled at the earliest possible time. This is requested so that the necessary operations can be advanced in a prudent manner. If you have any questions concerning the application, please contact me at (505) 397-0419.

Yours very truly,

Michael C. Alexander
Production Engineer

MCA/
Attachments
File
Chrono

cc: Jerry Sexton - NMOCD; Hobbs, New Mexico
Gary Gourley - BLM; Roswell, New Mexico

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no
- II. Operator: Texaco Exploration & Production Inc.
Address: P.O. BOX 730 Hobbs, New Mexico 88240
Contact party: Michael Alexander Phone: (505) 393 - 7191
- 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 Alexander Title Production Engineer

Signature: Michael P. Alexander Date: 3 - 1 - 96

* 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.

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.

NEW MEXICO OIL CONSERVATION DIVISION - Form C-108

III. SALT WATER DISPOSAL WELL DATA

SDE '31' Federal : Bell Canyon Interval

9 - Unit Letter J, 1980'FSL & 1980'FEL, Section 31, T-23-S, R-32-E
Lea County, New Mexico

All pertinent data for the above proposed salt water disposal well is included on the well schematic sheets in this application.

V. SUBJECT AREA MAPS AND AREA OF REVIEW

A map of the subject area, SDE '31' Federal, including all wells within a 2 mile radius is attached. Also attached is a map showing the subject well's area of review (or 1/2 mile radius circle).

VI. TABULATION OF DATA ON WELLS WITHIN AREA OF REVIEW

Currently, Texaco E&P Incorporated operates ten wells on the subject lease (and two offsetting leases, SDE '19' Federal and SDE '18' Federal) producing approximately 400 BOPD, 1,500 MCFPD and 500 BWPD. The subject well is approaching its economic limit and further development potential does not exist within the wellbore. Therefore, Texaco E&P Inc. is proposing to utilize the well to dispose of produced fluids from Texaco's SDE '31' lease, SDE '19' lease and SDE '18' lease within the non-commercial Bell Canyon interval. Attached is a schematic of the subject disposal well and its proposed completion and tubing/packer arrangement. Also attached is a schematic and completion report for each well with the area of review.

The intent of this application is to seek approval, either through a NMOCC administrative approval, or through a New Mexico Oil Conservation Commission sponsored hearing to modify the subject well for salt water disposal. This application is pursuant to the continuation of development and production on Texaco's SDE '31' Federal, SDE '19' Federal and SDE '18' Federal leases, which produce from the Brushy Canyon and Bone Spring intervals. The approval of this application will enhance Texaco E&P Inc. efforts to operate the subject lease as optimally as possible and increase the reserve potential by lowering the economic limit on each producing well.

VI. TABULATION OF DATA ON WELLS WITHIN AREA OF REVIEW (continued)

To date, the following wells within a half mile radius of the proposed salt water disposal well injection wells have been plugged and abandoned :

T-23-S, R-32-E

Section 31 : well(s) : Curtis Hankamer; Continental Fed #1

T-24-S, R-32-E

Section 6 : well(s) : Curtis Hankamer; Bondurant-Federal #1

VII. PROPOSED OPERATION

The proposed completion within the SDE '31' Federal wellbore will be in the Bell Canyon interval with selective perforations between 4600' and 5500'. The packer will be placed within approximately 50' of the top perforation. The tubing will be internally plastic coated. The proposed maximum salt water disposal rate is expected to be 3,000 BWPD. The initial disposal rate is expected to be 500 BWPD. Maximum injection pressure will not exceed 920 psig (0.2 psi/ft OCD allowable rate) until a step rate test establishes a higher limit. Injected fluids will be produced fluids from the Brushy Canyon and Bone Spring intervals. These zones and the proposed injection interval (Bell Canyon) all contain saline waters with total dissolved solids (TDS) and salinity above 10,000 ppm (mg/l). No current recent chemical analysis of the disposal zone is available within the adjacent area, but produced test samples all had TDS and salinity above 10,000 ppm. The system will be closed.

VIII. GEOLOGICAL DATA

The injection interval consists of an interbedded, fine to medium grain sorted sandstone reservoir. The saturation within the reservoir show a low oil saturation which is non-mobile making the formation non-commercial. The Bell Canyon interval has a total thickness of approximately 1400' within the subject area. It overlays the Cherry Canyon (non-productive) and the Brushy Canyon and Bone Spring intervals which are the productive interval within the subject area.

The known sources of fresh water within the subject area exist from approximately 30' to 800' deep. Based on a current geological and

VIII. GEOLOGICAL DATA (continued)

engineering data and a petrophysical rock-properties evaluation, there is no evidence of any natural or artificially created open faults within the unitized interval, or above, which would communicate salt water to the shallow fresh water strata. Texaco E&P Inc., has taken all efforts to insure that all mechanical means of isolation were implemented during drilling and they have been and will continue to be maintained within the proposed disposal well. Attached are copies of the openhole and mud logs across the proposed disposal interval (Bell Canyon) either from the proposed well or an offsetting well within section '31'.

IX. PROPOSED STIMULATION PROGRAM

The subject wells will be stimulated using 4,000 to 10,000 gallons of 20% NEFE HCl acid. Rock salt blocks or ball sealers will be utilized during the jobs.

STATEMENT OF SURFACE OWNER AND OFFSET OPERATOR

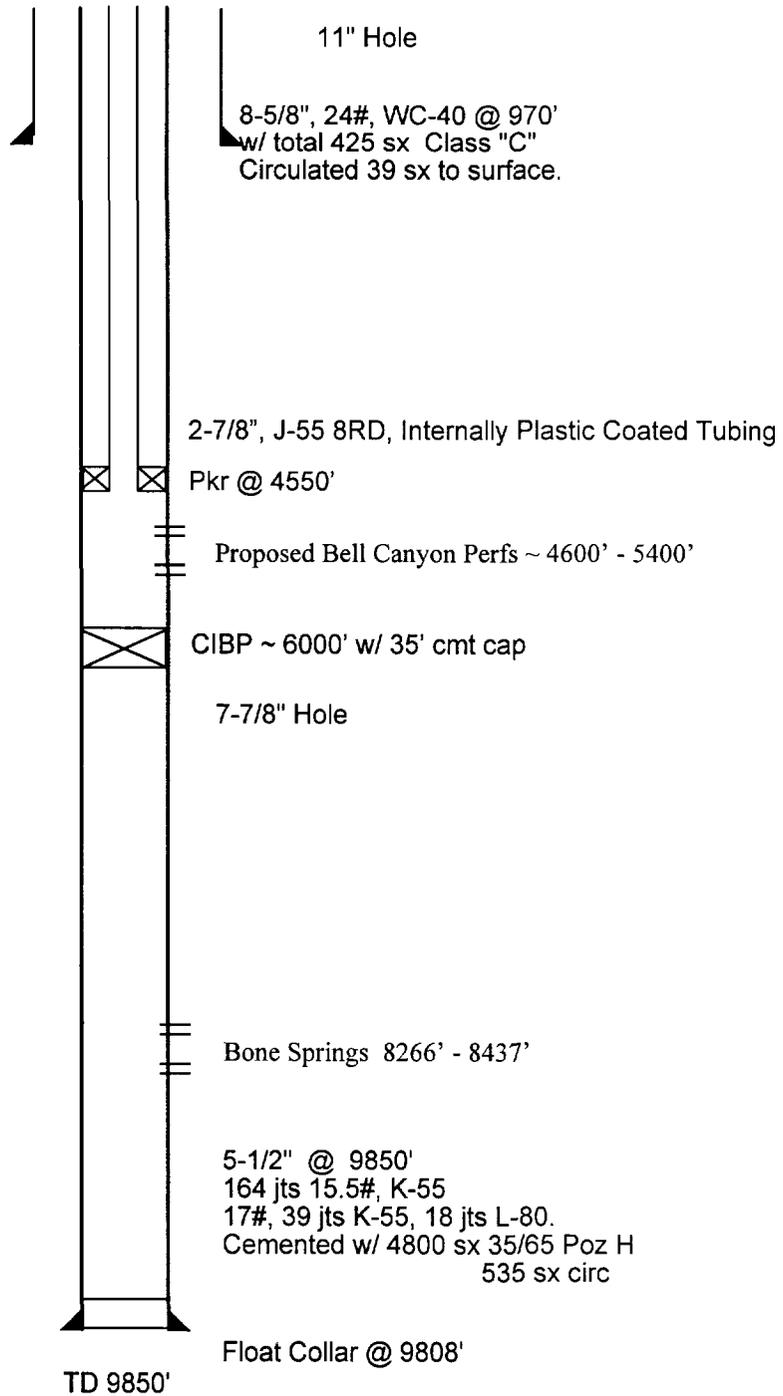
SURFACE OWNER : BUREAU OF LAND MANAGEMENT (BLM)
P.O. BOX 1778
CARLSBAD, NEW MEXICO 88220

OFFSET OPERATOR(S) : SANTA FE ENERGY RESOURCES INC.
500 WEST TEXAS AVE., SUITE 1330
MIDLAND, TEXAS 79701

C-108 APPLICATION
III. PROPOSED DISPOSAL WELL
TEXACO E&P INC., SDE FEDERAL '31' LEASE

SDE Federal 31 Well #9
Triste Draw West
Lea County, New Mexico

Unit Letter J, 1980' FSL, 1980' FEL Sec. 31, T-23S, R-32E



m 3160-4
October 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OPERATOR'S COPY

FORM APPROVED
Budget Bureau No. 1004-0137
Expires: December 31, 1991

ORIGINAL WITH 5 COPIES

RECEIVED
MAY 8 8 49 AM '95

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1. Type of Well: OIL WELL GAS WELL DRY OTHER AREA

2. Type of Completion: NEW WORK OVER DEEPEN PLUG BACK DIFF. RESVR. OTHER

3. Name of Operator
TEXACO EXPLORATION & PRODUCTION INC.

4. Address and Telephone No. P.O. BOX 730, HOBBS, NM 88240 397-0418

5. Location of Well (Report location clearly and in accordance with any State requirements.)

6. Surface
7. Letter J : 1980 Feet From The SOUTH Line and 1980 Feet From The EAST Line
8. proposed prod. zone
SAME

9. Total Depth

10. Date Spudded 3/11/95
11. Date T.D. Reached 4/1/95
12. Date Compl. (Ready to Prod.) 4/22/95

13. Total Depth, MD & TVD 9850'
14. Plug Back T.D., MD & TVD 9574'

15. Producing Interval(s), Of This Completion -- Top, Bottom, Name (MD and TVD)*
8266'-8437': TRISTE DRAW; DELAWARE, WEST

16. Time Electric and Other Logs Run
DL, GR-DIL, GR-CBL

32. CASING RECORD (Report all Strings set in well)

CASING SIZE & GRADE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENT RECORD	AMOUNT PULLED
5/8	24#	970'	11	CL-C 425 SX, CIRC 39	
1/2	17#	9850'	7 7/8	CL-H 4800 SX, CIRC 535	

29. LINER RECORD				30. TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 7/8"	8448'	-

31. Perforation record (interval, size, and number)	32. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
8266'-8298'; 8413'-8437' (112 HOLES)	8266'-8437'	ACID - 2000 GALS 15% NEFE HCL
	8266'-8437'	FRACD W/ 35,000 GALS 30# BORATE XLG
		CARRYING 134,000# 20/40 OTTOWA SAND
		& 24,000# 16/30 RESIN COATED SAND

33. PRODUCTION

33. Date First Production 4/22/95
Production Method (Flowing, gas lift, pumping - size and type pump) PUMPING 2.5" X 1.75" X 20' ROD PUMP
Well Status (Prod. or Shut-In) PROD.

34. Date of Test 4/26/95
Hours tested 24
Choke Size
Prod'n For Test Period
Oil - Bbl. 86
Gas - MCF 146
Water - Bbl. 346
Gas/Oil Ratio 1.698

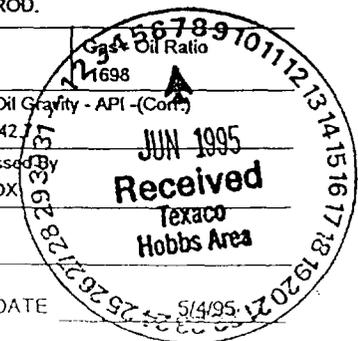
35. Flowing Tubing Press. Casing Pressure Calculated 24-Hour Rate Oil - Bbl. Gas - MCF Water - Bbl. Oil Gravity - API (Corr.) 42.7

34. Disposition of Gas (Sold, used for fuel, vented, etc.) SOLD

35. List of Attachments
DEVIATION SURVEY

36. I hereby certify that the foregoing is true and correct.

SIGNATURE: Monte C. Duncan TITLE: Engr Asst DATE: 5/4/95



C-108 APPLICATION

V. MAP OF SUBJECT AREA

T-23-S, R-31-E

T-23-S, R-32-E

SAND DUNES

SAND DUNES

TRISTE DRAW W

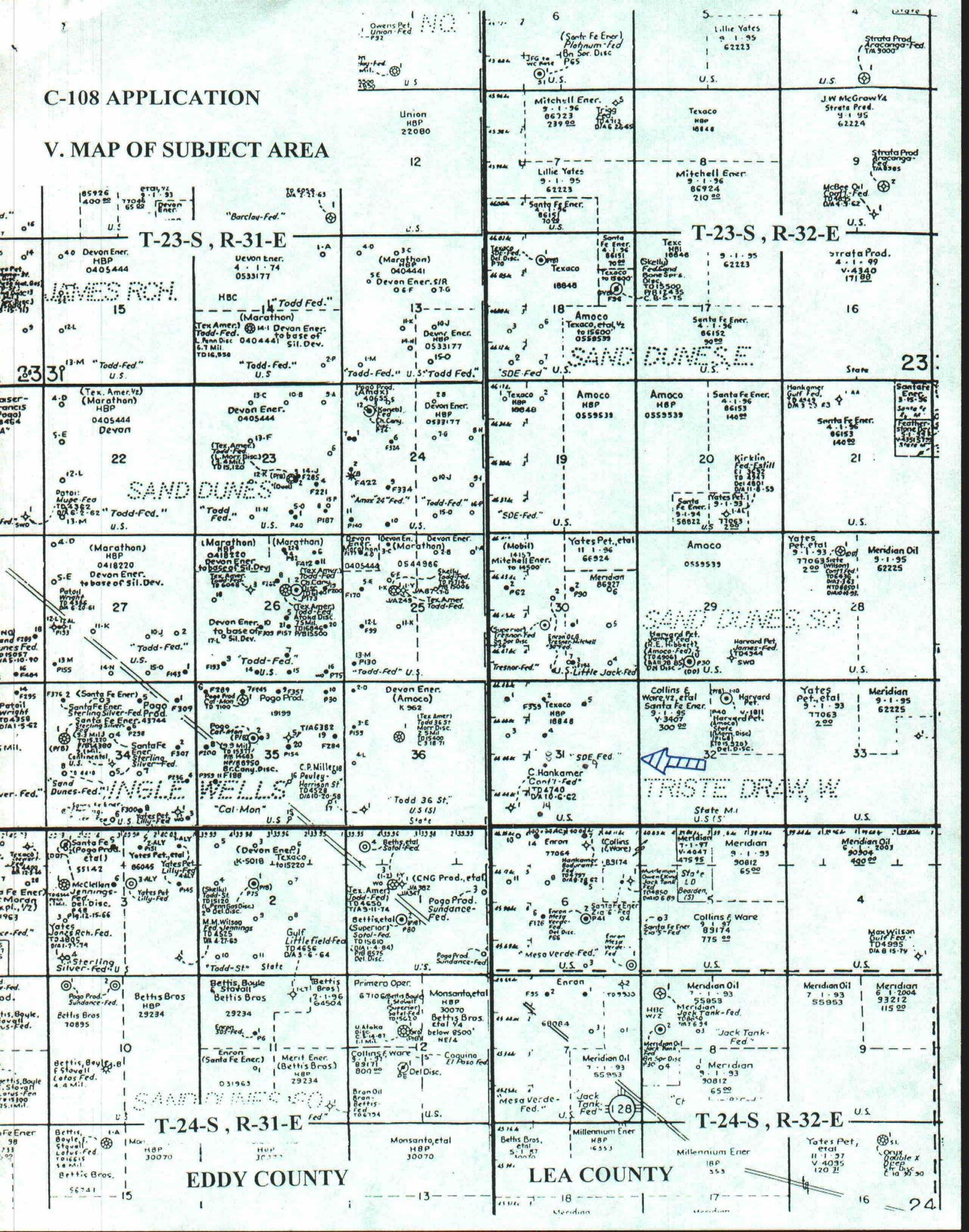
INGLE WELLS

T-24-S, R-31-E

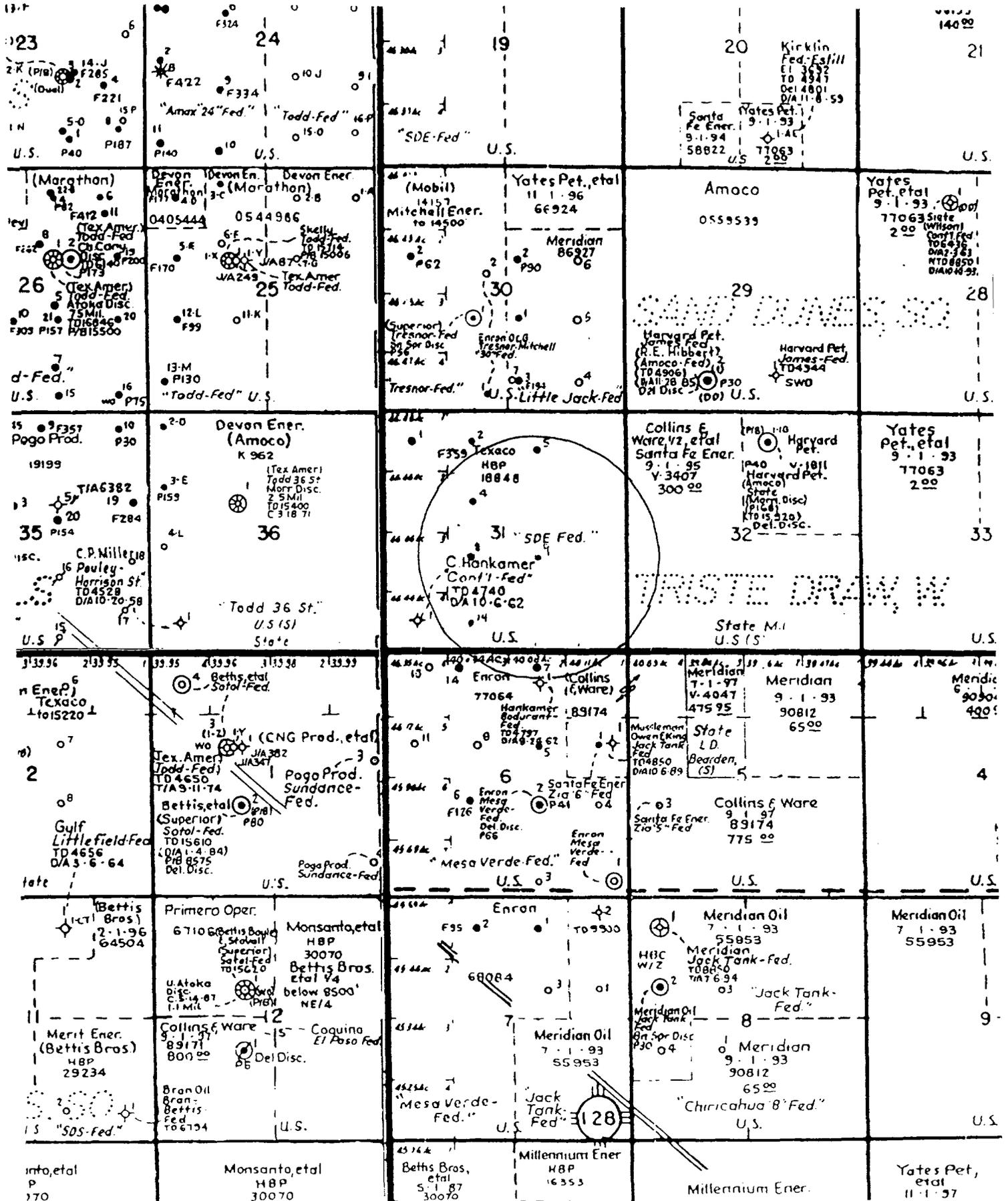
T-24-S, R-32-E

EDDY COUNTY

LEA COUNTY



V. AREA OF REVIEW MAP



SCALE : 1" = 2,800'

ATTACHMENTS

- A) DATA ON WELLS IN AREA OF REVIEW**
 - Schematics & Completion Reports**

- B) ADDITIONAL GEOLOGICAL INFORMATION**
 - Well Log, Mud Log of proposed disposal interval**
 - Water Analysis of produced waters**

- C) PROOF OF NOTIFICATION TO :**
 - SURFACE OWNER**
 - OFFSET OPERATORS**

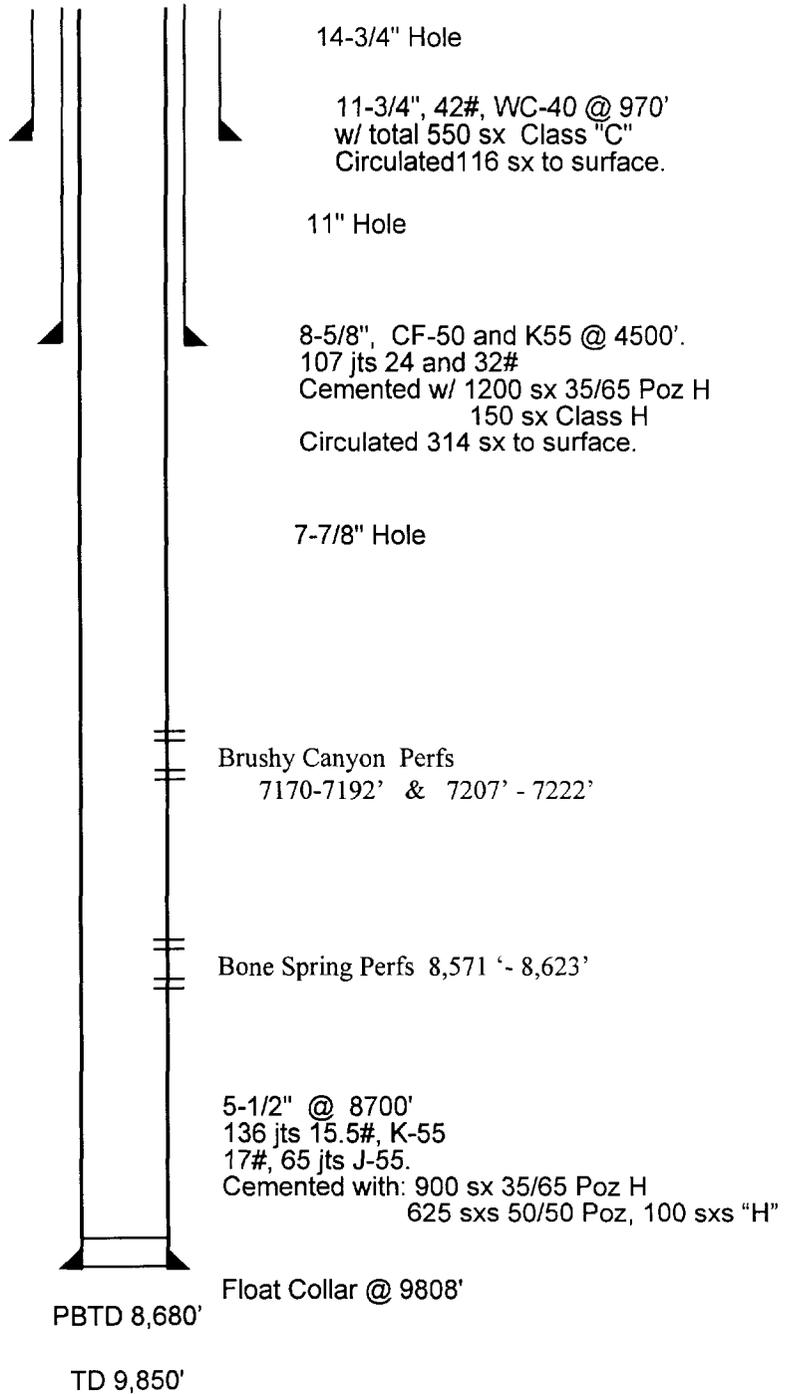
- D) PROOF OF LEGAL NOTICE**

**A) DATA ON WELLS IN AREA OF REVIEW
- Schematics & Completion Reports**

TEXACO E & P INCORPORATED

SDE Federal 31 Well #2 Triste Draw West Lea County, New Mexico

Unit Letter C, 1980' FSL, 1980' FWL Sec. 31 , T-23S, R-32E



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0137
Expires: December 31, 1991

SUBMIT ORIGINAL WITH 5 COPIES

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. Lease Designation and Serial No.
NM 18848

6. If Indian, Alottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and Number
SDE '31' FEDERAL

9. API Well No.
30-025-32701

10. Field and Pool, Exploratory Area
SAND DUNES; BONE SPRING, SOUTH

11. SEC., T., R., M., or BLK. and Survey or Area
Sec. 31, Township 23-S, Range 32-E

1a. Type of Well: OIL WELL GAS WELL DRY OTHER
1b. Type of Completion: NEW WELL WORK OVER DEEPEN PLUG BACK DIFF. RESVR. OTHER

2. Name of Operator
TEXACO EXPLORATION & PRODUCTION INC.

3. Address and Telephone No.
P.O. BOX 730, HOBBS, NM 88240 397-0418

4. Location of Well (Report location clearly and in accordance with any State requirements.)
At Surface
Unit Letter C : 660 Feet From The NORTH Line and 1980 Feet From The WEST Line
At proposed prod. zone

At Total Depth

14. Permit No. Date Issued

12. County or Parish
LEA

13. State
N.M.

15. Date Spudded
10/15/94

16. Date T.D. Reached
10/31/94

17. Date Compl. (Ready to Prod.)
11/24/94

18. Elevations (Show whether DF, RT, GR, etc.)
GR-3579'

19. Elev. Casinhead
3579'

20. Total Depth, MD & TVD
8700'

21. Plug Back T.D., MD & TVD
8680'

22. If Multiple Compl., How Many*

23. Intervals Drilled By -> Rotary Tools
0-8700'

CableTools
-

24. Producing Interval(s), Of This Completion - Top, Bottom, Name (MD and TVD)*
8571' - 8623': SAND DUNES; BONE SPRING, SOUTH

25. Was Directional Survey Made
YES

26. Type Electric and Other Logs Run
DR/CNL/LDT, GR-DLL-SFL, GR SONIC, GR/CCL

27. Was Well Cored
NO

CASING RECORD (Report all Strings set in well)

CASING SIZE & GRADE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENT RECORD	AMOUNT PULLED
11 3/4 WC-40	42#	970'	14"	CL-C 750 SX, CIRC 116	
8 5/8, CF-50	24#	4500'	11"	CL-H 1350 SX	
5 1/2 K-55 &	15.5# & 17#	8700'	7 7/8"	CL-H 1625 SX, CIRC 96	

29. LINER RECORD

30. TUBING RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 7/8"	8537'	-

31. Perforation record (interval, size, and number)
8571' - 8623' (104 HOLES)

32. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
8571'-8623'	ACIDIZED W/ 2000 GALS 7 1/2% HCL
8571'-8623'	FRACD W/ 39000 GALS FLUID & 146180# 20/40 OTTAWA SAND

33. PRODUCTION

Date First Production 11/24/94 Production Method (Flowing, gas lift, pumping - size and type pump) FLOWING Well Status (Prod. or Shut-in) PROD

Date of Test 12/3/94 Hours tested 24 Choke Size 17/64" Prod'n For Test Period Oil - Bbl. 359 Gas - MCF 628 Water - Bbl. 119 Gas - Oil Ratio 1749

Flow Tubing Press. 750 Casing Pressure - Calculated 24-Hour Rate Oil - Bbl. Gas - MCF Water - Bbl. Oil Gravity - API -(Corr.)

Position of Gas (Sold, used for fuel, vented, etc.) VENTED BY APPROVAL OF BLM Test Witnessed By RAY SHORT

35. List of Attachments
DEVIATION SURVEY

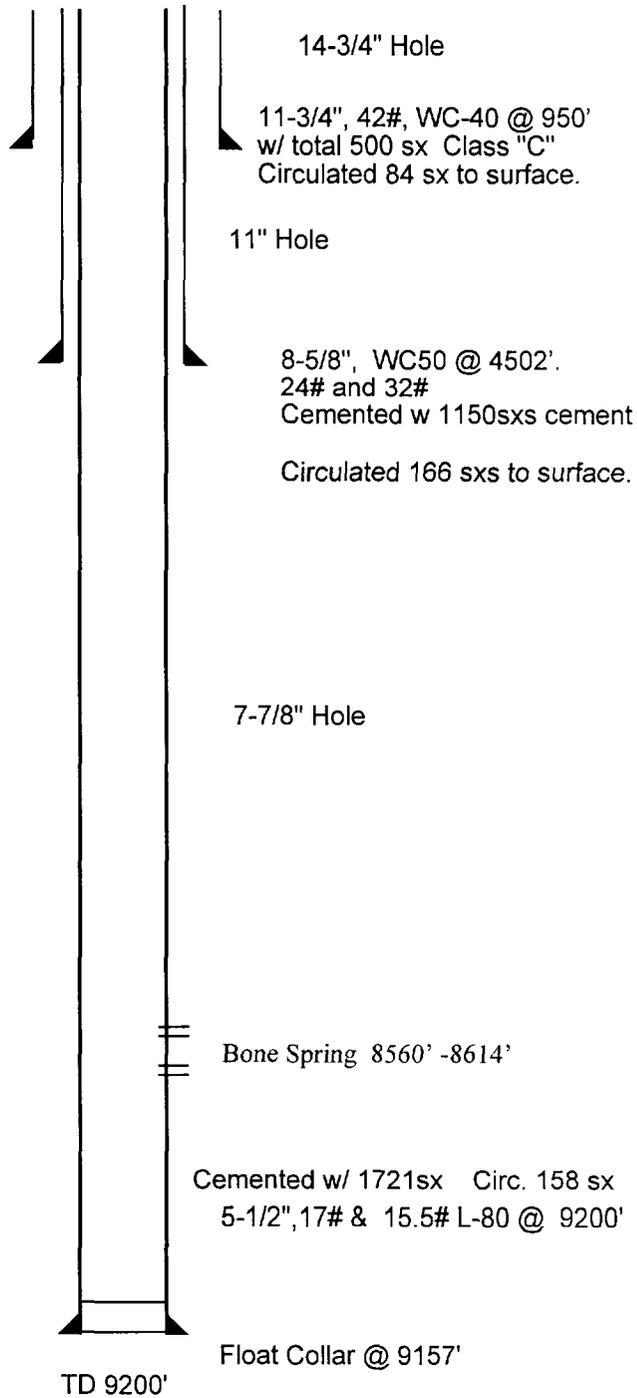
36. I hereby certify that the foregoing is true and correct

SIGNATURE *Monte C. Duncan* TITLE Engr Asst DATE 12/14/94
TYPE OR PRINT NAME Monte C. Duncan

TEXACO E & P INC.

SDE Federal 31 Well #4 Triste Draw West Lea County, New Mexico

Unit Letter F, 1980' FNL, 1980' FWL Sec. 31, T-23S, R-32E



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OPERATION COPY
 FORM 3160-4 (REV. 10-90)
 Expires: December 31, 1991

1 ORIGINAL WITH 5 COPIES

RECEIVED

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. Lease Designation and Serial No.
 NM 18848

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and Number
 SDE '31' FEDERAL

9. API Well No.
 32716
 30-025-37516

10. Field and Pool, Exploratory Area
 SAND DUNES; BONE SPRING, SOUTH

11. SEC., T., R., M., or BLK. and Survey or Area
 Sec. 31, Township 23-S, Range 32-E

1a. Type of Well: OIL GAS DRY OTHER
 WELL WELL WELL WELL
 1b. Type of Completion: NEW WORK DEEPE PLUG DIFF. OTHER
 WELL OVER N BACK RESVR.

2. Name of Operator
 TEXACO EXPLORATION & PRODUCTION INC.

3. Address and Telephone No.
 P.O. BOX 730, HOBBS, NM 88240 397-0418

4. Location of Well (Report location clearly and in accordance with any State requirements.)
 At Surface
 Unit Letter F : 1980 Feet From The NORTH Line and 1980 Feet From The WEST Line
 At proposed prod. zone
 SAME

14. Permit No. Date Issued
 12. County or Parish LEA 13. State NM

15. Date Spudded 12/26/94 16. Date T.D. Reached 1/11/95 17. Date Compl. (Ready to Prod.) 3/18/95 18. Elevations (Show whether DF, RT, GR, etc.) GR-3574' 19. Elev. Casinhead 3574'

20. Total Depth, MD & TVD 9200' 21. Plug Back T.D., MD & TVD 9188' 8750' 22. If Multiple Compl., How Many* 23. Intervals Drilled By -> Rotary Tools Cable Tools
 0-9200' -

24. Producing Interval(s), Of This Completion - Top, Bottom, Name (MD and TVD)*
 8560'-8614': SAND DUNES; BONE SPRINGS, SOUTH 25. Was Directional Survey Made YES

26. Type Electric and Other Logs Run
 ,SDL-DSN-CSNG-CAL, CSL-GR-CAL GR-DSN GR-CCL 27. Was Well Cored YES

28. CASING RECORD (Report all Strings set in well)

CASING SIZE & GRADE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENT RECORD	AMOUNT PULLED
11 3/4	42#	950'	14 3/4	CL-C 500 SX, CIRC 84	
8 5/8	24# & 32#	4505'	11	CL-H 1150 SX, CIRC 166	
5 1/2	15.5# & 17	9200'	7 7/8	CL-H 1721 SX, CIRC 158	

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 7/8"	8458'	8461'

31. Perforation record (interval, size, and number)
 8560'-8614' (108 HOLES)

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
8560'-8614'	ACID - 5000 15% HCL NEFE
8560'-8614'	FRACD W/ 37000 GALS OF 35# BORATE
	XLG 2% KCL & 146000# 20/40 OTTAWA
	SAND

33. PRODUCTION

Date First Production 3/18/95 Production Method (Flowing, gas lift, pumping - size and type pump) FLOWING Well Status (Prod. or Shut-in) PROD.

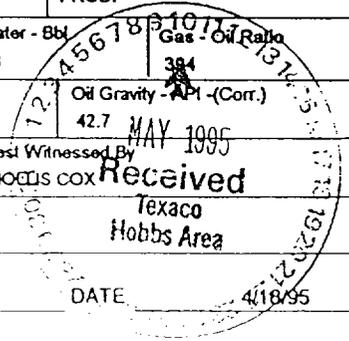
Date of Test 3/18/95 Hours tested 24 Choke Size 15/64 Prod'n For Test Period Oil - Bbl. 310 Gas - MCF 122 Water - Bbl. 43

Flow Tubing Press. Casing Pressure Calculated 24-Hour Rate Oil - Bbl. Gas - MCF Water - Bbl. Oil Gravity - API (Corr.) 42.7

34. Disposition of Gas (Sold, used for fuel, vented, etc.) SOLD Test Witnessed By HOBUS COX Received

35. List of Attachments
 DEVIATION SURVEY
 36. I hereby certify that the foregoing is true and correct

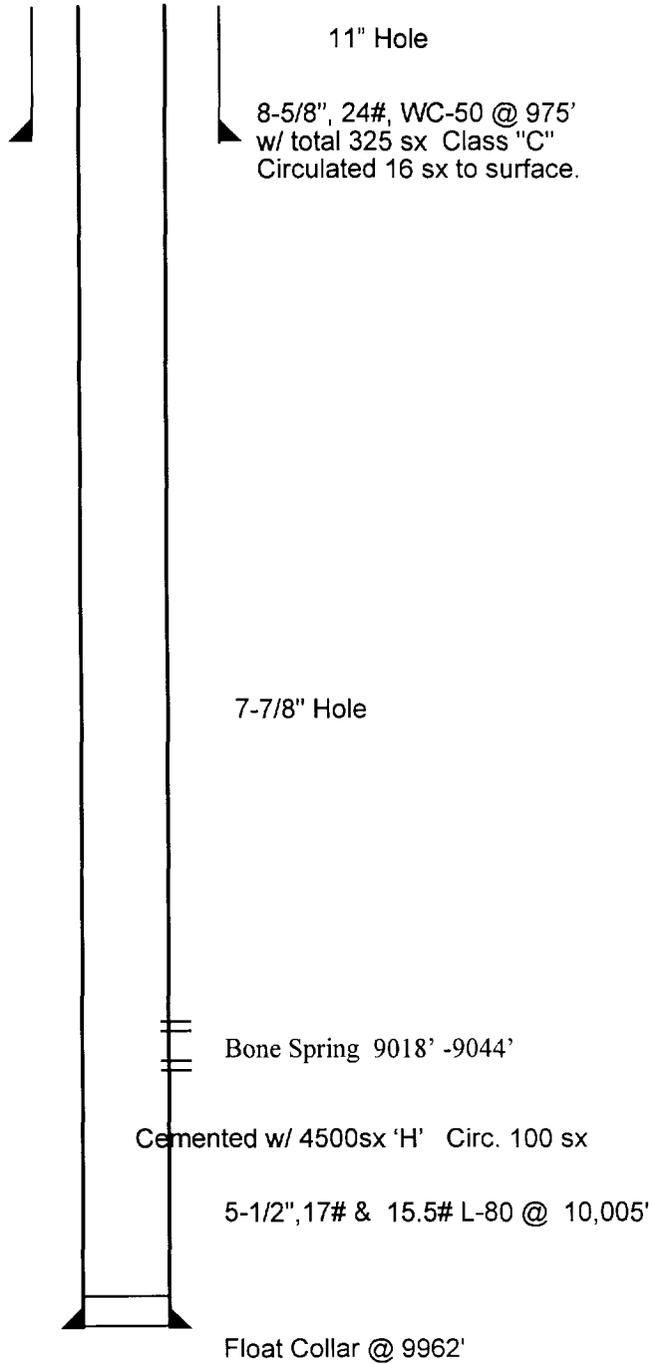
SIGNATURE *Monte C. Duncan* TITLE Engr Asst DATE 4/18/95
 TYPE OR PRINT NAME Monte C. Duncan



TEXACO E & P INC.

SDE Federal 31 Well #5 Triste Draw West Lea County, New Mexico

Unit Letter B, 810' FNL, 1980' FEL Sec. 31 , T-23S, R-32E



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OPERATOR'S COPY
FORM APPROVED
Budget Bureau No. 1004-0137
Expires: December 31, 1991

UBMT ORIGINAL WITH 5 COPIES

COMPLETION OR RECOMPLETION REPORT AND LOG*

a. Type of Well: OIL GAS DRY OTHER
WELL WELL WELL

b. Type of Completion: NEW WORK DEEPEN PLUG DIFF. OTHER
WELL OVER N BACK RESVR.

Name of Operator: TEXACO EXPLORATION & PRODUCTION INC.

Address and Telephone No. P.O. BOX 730, HOBBS, NM 88240 397-0418

Location of Well (Report location clearly and in accordance with any State requirements.)
Surface
Mile Letter B : 810 Feet From The NORTH Line and 1980 Feet From The EAST Line
Proposed prod. zone: SAME

5. Lease Designation and Serial No. NM 18848

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and Number SDE '31' FEDERAL

9. API Well No. 30-025-32717

10. Field and Pool, Exploratory Area SAND DUNES; BONE SPRINGS, SOUTH

11. SEC., T., R., M., or BLK. and Survey or Area Sec. 31, Township 23-S, Range 32-E

12. County or Parish LEA 13. State NM

14. Permit No. Date Issued

15. Date Spudded 2/5/95 16. Date T.D. Reached 3/5/95 17. Date Compl. (Ready to Prod.) 3/28/95 18. Elevations (Show whether DF, RT, GR, etc.) GR-3603' 19. Elev. Casinhead 3603'

20. Total Depth, MD & TVD 10,005' 21. Plug Back T.D., MD & TVD 9894' 22. If Multiple Compl., How Many* 23. Intervals Drilled By → Rotary Tools 0-10,005' Cable Tools -

24. Producing interval(s), Of This Completion - Top, Bottom, Name (MD and TVD)* 9018'-9044': SAND DUNES; BONE SPRING, SOUTH 25. Was Directional Survey Made YES

26. Type Electric and Other Logs Run GR-DIL, GR-SDL-DSN, GR-FWS, GR 27. Was Well Cored NO

8. CASING RECORD (Report all Strings set in well)

CASING SIZE & GRADE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENT RECORD	AMOUNT PULLED
5/8	24#	975'	11	CL-C 325 SX, CIRC 16	
1 1/2	15.5# & 17	10,005'	7 7/8	CL-H 4500 SX, CIRC 100	

9. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2 7/8"	9006'	-

1. Perforation record (interval, size, and number) 9018'-9044'

32. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
9018'-9044'	ACID - 2000 GALS 15% NEFE HCL
9018'-9044'	FRACD W/ 41,000 GALS 35# BORATE XLG
	CARRYING 165,000# 20/40 OTTOWA SAND

3. PRODUCTION

4. Date First Production 3/28/95 Production Method (Flowing, gas lift, pumping - size and type pump) PUMPING 2.5" X 1.75" X 20" ROD PUMP Well Status (Prod. or Shut-In) PROD.

Date of Test	Hours tested	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas to Oil Ratio
3/25/95	24			154	245	97	1.59

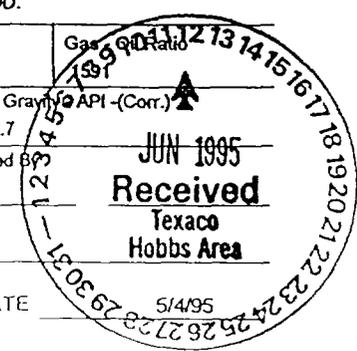
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity
						42.7

4. Location of Gas (Sold, used for fuel, vented, etc.) Test Witnessed by HOLLIS COX

5. List of Attachments DEVIATION SURVEY

I hereby certify that the foregoing is true and correct

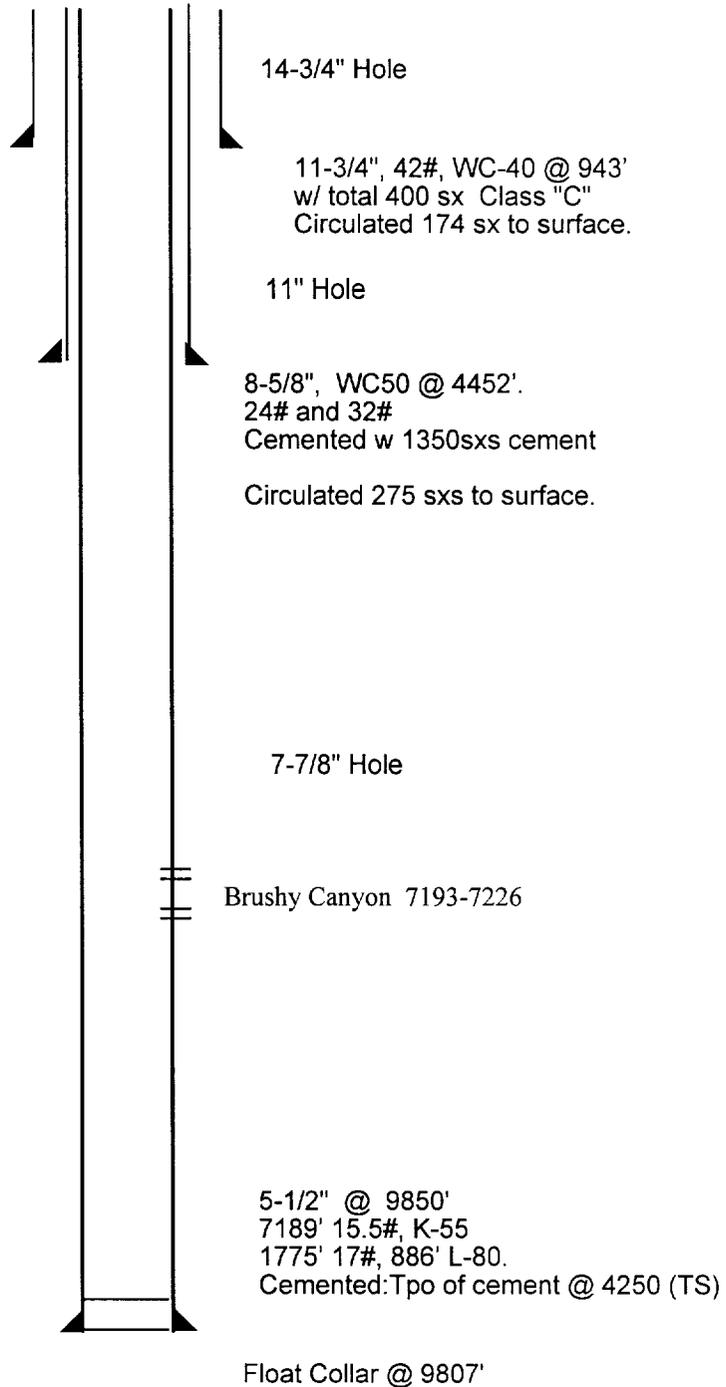
SIGNATURE: *Monte C. Duncan* TITLE: Engr Asst DATE: 3/28/95



TEXACO E & P INC.

SDE Federal 31 Well #8 Triste Draw West Lea County, New Mexico

Unit Letter K, 1980' FSL, 1980' FWL Sec. 31 , T-23S, R-32E



m 3160-4
October 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0137
Expires: December 31, 1991

ORIGINAL WITH 5 COPIES

RECEIVED
MAY 30 10 30 AM '95

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1. Type of Well: OIL GAS DRY OTHER
WELL WELL
2. Type of Completion: NEW WORK DEEPE PLUG DIFF. OTHER
WELL OVER N BACK RESVR.

5. Lease Designation and Serial No.
NM 18848

6. If Indian, Alottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and Number
SDE '31' FEDERAL
8

Name of Operator
TEXACO EXPLORATION & PRODUCTION INC.

9. API Well No.
30-025-32867

Address and Telephone No. P.O. BOX 730, HOBBS, NM 88240 397-0418

10. Field and Pool, Exploratory Area
TRISTE DRAW; DELAWARE, WEST

Location of Well (Report location clearly and in accordance with any State requirements.)
Surface
Well Letter K : 1980 Feet From The SOUTH Line and 1980 Feet From The WEST Line
proposed prod. zone
SAME

11. SEC., T., R., M., or BLK. and Survey or Area
Sec. 31, Township 23-S, Range 32-E

Total Depth

12. County or Parish
LEA
13. State
NM

14. Permit No. Date Issued

18. Elevations (Show whether DF, RT, GR, etc.)
GR-3567, KB-3581'
19. Elev. Casinhead
3567'

15. Date Spudded 4/5/95
16. Date T.D. Reached 4/21/95
17. Date Compl. (Ready to Prod.) 5/4/95

23. Intervals Rotary Tools Drilled By -> 0-9850'
Cable Tools -

20. Total Depth, MD & TVD 9850'
21. Plug Back T.D., MD & TVD 9800'
22. If Multiple Compl., How Many* -

25. Was Directional Survey Made
YES

24. Producing Interval(s), Of This Completion - Top, Bottom, Name (MD and TVD)*
93'-7226' :TRISTE DRAW; DELAWARE WEST

27. Was Well Cored
NO

3. CASING RECORD (Report all Strings set in well)

CASING SIZE & GRADE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENT RECORD	AMOUNT PULLED
1 3/4"	42#	955'	14 3/4	CL-C 550 SX, CIRC 174	
5/8"	24# & 32#	4450'	11	CL-H 1350 SX, CIRC 275	
5-1/2"	15.5 & 17#	9850'	7 7/8	CL-H 1400 SX, CIRC 0	

9. LINER RECORD 30. TUBING RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2-7/8"	7235'	-

1. Perforation record (interval, size, and number)
193'-7226'; BRUSHY CANYON
J. Lora
1995

32. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.
DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED
7193'-7226' ACID-2,000 GALS 7.5% NEFE
7193'-7226' FRACD W/7000 GALS LINEAR GEL W/
8200# 100 MSH SD, 30# BORATE XLG W/
25000# 16/30 RESIN COATED SD

13. PRODUCTION

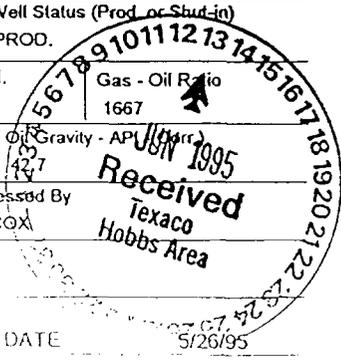
14. Date First Production 5/4/95
Production Method (Flowing, gas lift, pumping - size and type pump) PUMPING 2.5" X 1.75" X 24'
Well Status (Prod. or Shut-in) PROD.

15. Date of Test 5/18/95
Hours tested 24
Choke Size
Prod'n For Test Period
Oil - Bbl. 33
Gas - MCF 55
Water - Bbl. 320
Gas - Oil Ratio 1667
16. Flow Test 1 Press. Casing Pressure Calculated 24-Hour Rate Oil - Bbl. Gas - MCF Water - Bbl. Oil Gravity - API 43.7

17. Disposition of Gas (Sold, used for fuel, vented, etc.)
18. Test Witnessed By HOLLIS COX

19. List of Attachments
20. DEVIATION SURVEY

21. I hereby certify that the foregoing is true and correct.
SIGNATURE *Monte C. Duncan* TITLE Engr Asst DATE 5/26/95
NAME OR PRINT NAME Monte C. Duncan

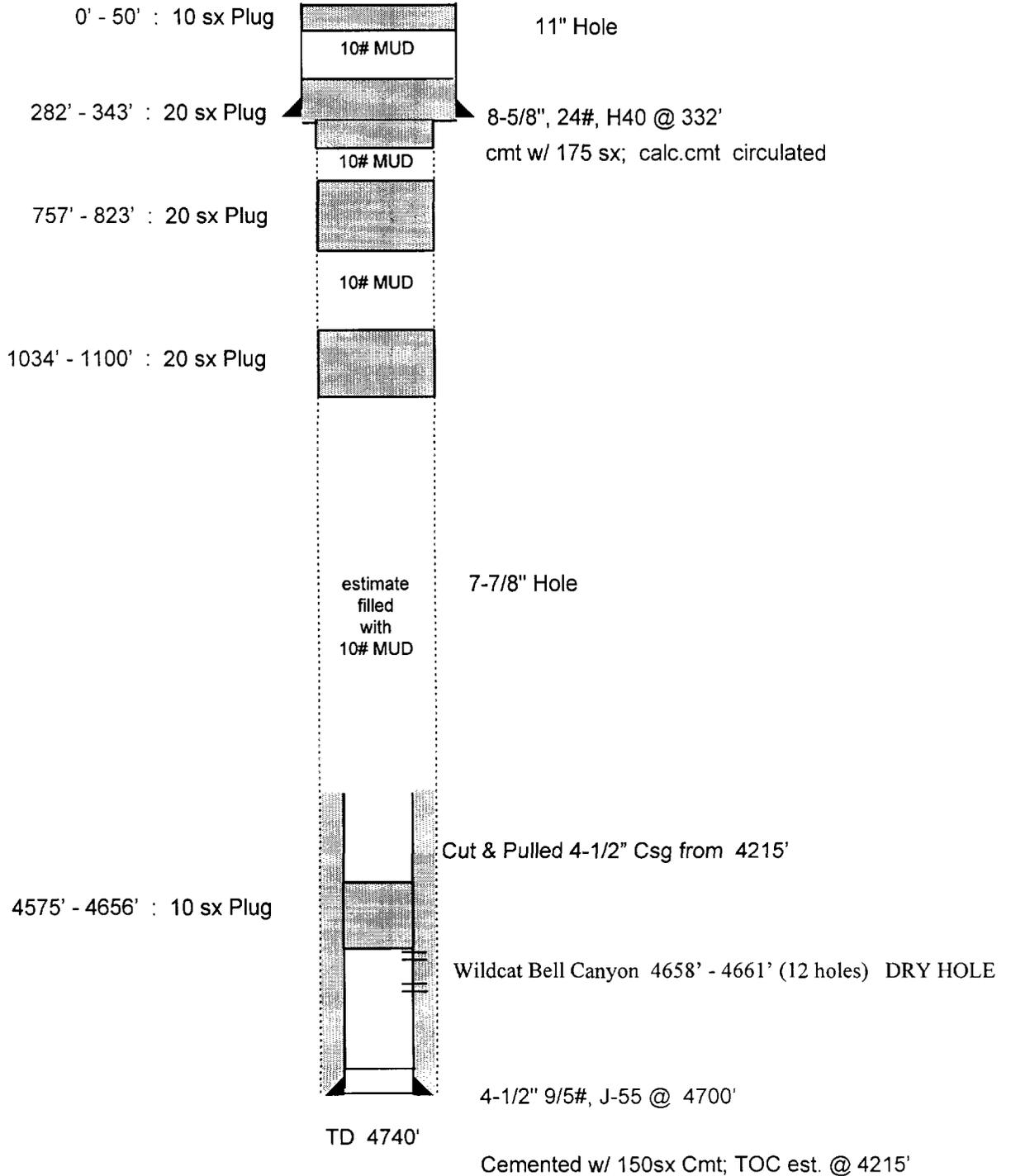


**DRY HOLE
PLUGGED & ABANDONED WELL**

**Curtis Hankamer
Contential Federal #1**

**Wildcat
Lea County, New Mexico**

Unit Letter M, 660' FSL, 660' FWL Sec. 31, T-23S, R-32E



NOTED
NOV 19 1962
HOBBS
HUBBLE

In approved
Budget Bureau No. 43-886.4
U. S. LAND OFFICE New Mexico
SERIAL NUMBER NM-03120
LEASE OR PERMIT TO PROSPECT

Grid for well location coordinates

DEPARTMENT OF THE INTERIOR
HOBB'S OFFICE OCC
UNITED STATES RECEIVED
DEPARTMENT OF THE INTERIOR
NOV 27 AM 10 49
GEOLOGICAL SURVEY
NOV 19 1962

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY
1421 Bank of the Southwest Bldg.
Houston 2, Texas
Company Curtis Hankamer
Address
Lessor or Tract Continental Federal Field Wildcat State New Mexico
Well No. 1 Sec. 31 T. 23S. R. 32E. Meridian NPM County Lea
Location 660 ft. [N.] of E Line and 660 ft. [E.] of W Line of Sec. 31 Elevation 3551'
The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.
Signed Phil C. Hankamer
Date November 15, 1962 Title Engineer

The summary on this page is for the condition of the well at above date.
Commenced drilling September 22, 1962 Finished drilling October 6, 1962

OIL OR GAS SANDS OR ZONES

(Denote gas by G)
No. 1, from None to 555
No. 2, from 50 to 130
No. 3, from 130 to 130
No. 4, from to
No. 5, from to
No. 6, from to

IMPORTANT WATER SANDS

No. 1, from to
No. 2, from to
No. 3, from to

CASING RECORD

Table with columns: Size casing, Weight per foot, Threads per inch, Make, Amount, Kind of shoe, Cut and pulled from, Perforated (From-To), Purpose. Includes entries for 8-5/8 and 4-1/2 casing.

MUDDING AND CEMENTING RECORD

Table with columns: Size casing, Where set, Number sacks of cement, Method used, Mud gravity, Amount of mud used. Includes entries for 8-5/8 and 4-1/2 casing.

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth set
Adapters—Material Size

SHOOTING RECORD

Table with columns: Size, Shell used, Explosive used, Quantity, Date, Depth shot, Depth cleaned out

TOOLS USED

Rotary tools were used from 0 feet to 4740 feet, and from feet to feet
Cable tools were used from feet to feet, and from feet to feet

DATES

Put to producing Dry, 19

The production for the first 24 hours was barrels of fluid of which % was oil; % emulsion; % water; and % sediment. Gravity, °Bé.
If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas

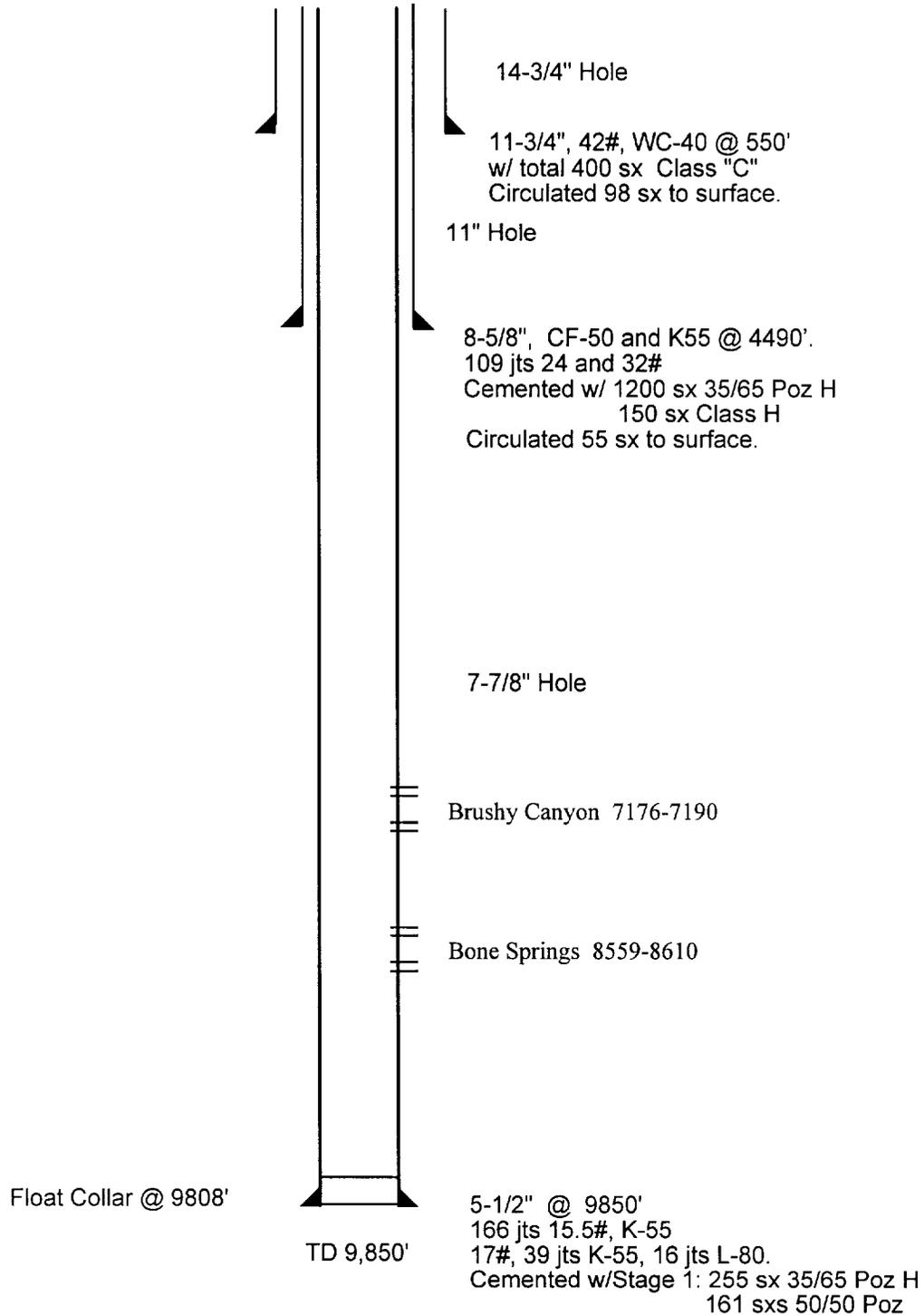
FOLD MARK

TEXACO E & P INC.

SDE Federal 31 Well #14

Triste Draw West
Lea County, New Mexico

Unit Letter N, 660' FSL, 1980' FWL Sec. 31 , T-23S, R-32E



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0137
Expires: December 31, 1991

SUBMIT ORIGINAL WITH 5 COPIES

5. Lease Designation and Serial No.
NM-18848

6. If Indian, Alottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and Number
SDE '31' FEDERAL

9. API Well No.
30-025-32915

10. Field and Pool, Exploratory Area
TRISTE DRAW; DELAWARE, WEST

11. SEC., T., R., M., or BLK. and Survey or Area
Sec. 31, Township 23-S, Range 32-E

12. County or Parish
LEA

13. State
NM

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. Type of Well: OIL GAS DRY OTHER
WELL WELL

1b. Type of Completion:
NEW WORK DEEPEN PLUG DIFF. OTHER
WELL OVER BACK RESVR.

2. Name of Operator
TEXACO EXPLORATION & PRODUCTION INC.

3. Address and Telephone No. P.O. BOX 730, HOBBS, NM 88240 397-0443

4. Location of Well (Report location clearly and in accordance with any State requirements.*)

At Surface
Unit Letter N : 660 Feet From The SOUTH Line and 1980 Feet From The WEST Line

At proposed prod. zone
SAME

At Total Depth

14. Permit No. Date Issued

12. County or Parish
LEA

13. State
NM

15. Date Spudded 5/16/95 16. Date T.D. Reached 6/1/95 17. Date Compl. (Ready to Prod.) 11/24/95 18. Elevations (Show whether DF,RT, GR, etc.) GR-3563' 19. Elev. Casinhead 3563'

20. Total Depth, MD & TVD 9850' 21. Plug Back T.D., MD & TVD 8500' 22. If Multiple Compl., How Many* 23. Intervals Rotary Tools Drilled By --> 0'-9850' CableTools

24. Producing Interval(s), Of This Completion - Top, Bottom, Name (MD and TVD)* 7176-7190' 25. Was Directional Survey Made YES

26. Type Electric and Other Logs Run NONE ON RECOMPLETION 27. Was Well Cored NO

28. CASING RECORD (Report all Strings set in well)

CASING SIZE & GRADE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENT RECORD	AMOUNT PULLED
11 3/4"	42#	550'	14 3/4"	400 SX,CL C, CIR 98	
8-5/8"	24#, 32#	4454'	11"	1350 SX CL H, CIR 98	
5-1/2"	15.5#, 17#	9850'	7-7/8"	416 SX CL H, CIR O	

29. LINER RECORD				30. TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
NONE					2 7/8"	6993'	

31. Perforation record (interval, size, and number)
7176-7192,2 JSPF, 28 HOLES

32. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
7176-7192'	A/1500g 7.5%,1500g12%/3%HCL/HF
	F/6200g30#, 17000# SD

33. PRODUCTION

Date First Production 11/25/95		Production Method (Flowing, gas lift, pumping - size and type pump) PUMPING					Well Status (Prod. or Shut-in) PRODUCING	
Date of Test 12/5/95	Hours tested 24	Choke Size	Prod'n For Test Period	Oil - Bbl. 89	Gas - MCF 19	Water - Bbl. 89	Gas - Oil Ratio 213	
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API -(Corr.) 45.8		

34. Disposition of Gas (Sold, used for fuel, vented, etc.)
SOLD

Test Witnessed By
KEL/DBS

35. List of Attachments

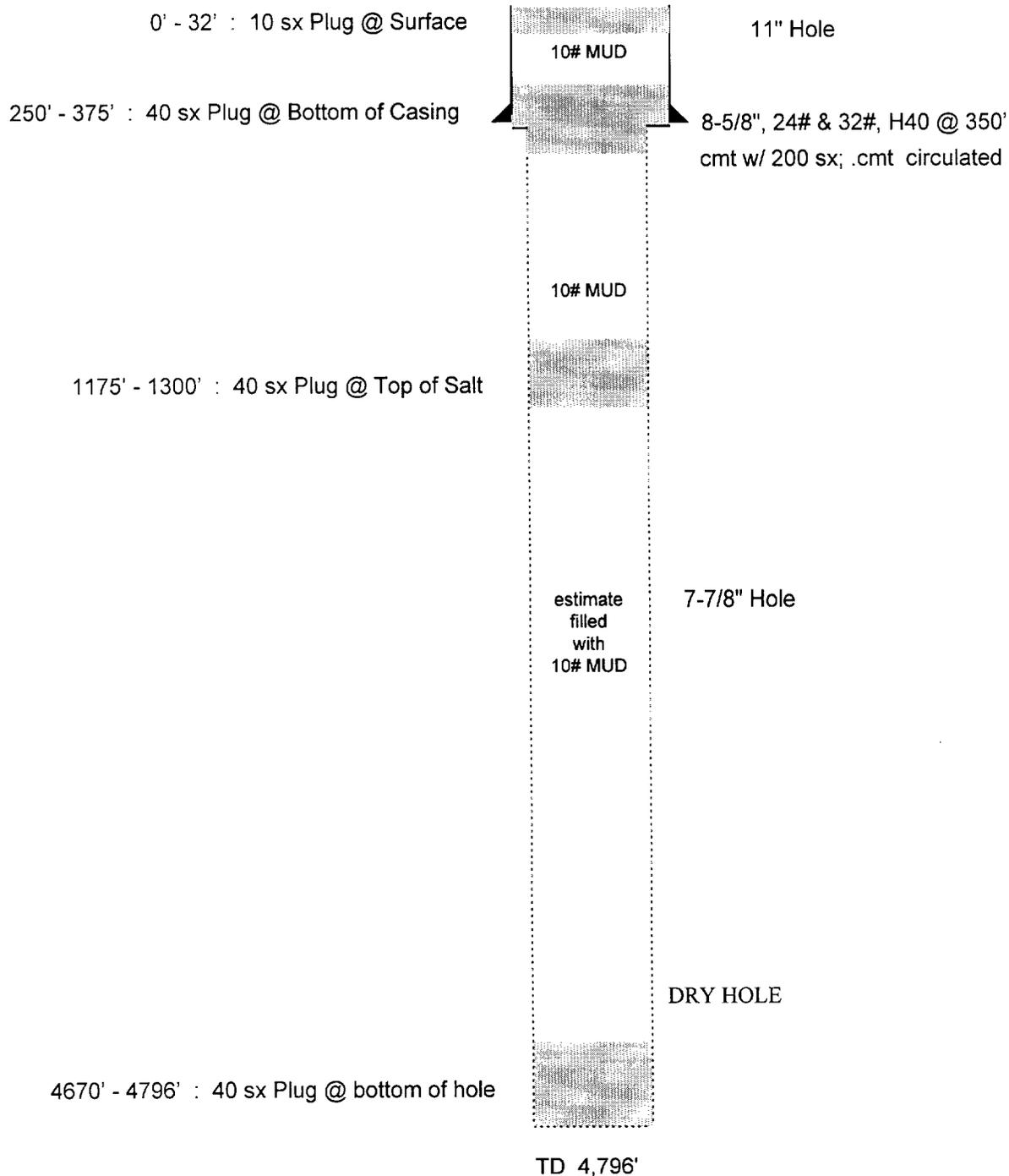
38. I hereby certify that the foregoing is true and correct

SIGNATURE _____ TITLE Clerk DATE 2/2/96
TYPE OR PRINT NAME M. Angie Davila

DRY HOLE PLUGGED & ABANDONED WELL

Curtis Hankamer
Bondurant-Federal #1
Wildcat
Lea County, New Mexico

Unit Letter B, 660' FNL, 1980' FEL Sec. 6, T-24S, R-32E



APPROVED

(SUBMIT IN TRIPLICATE)

	B

JUL 11 1963

UNITED STATES

J. L. GODED
DEPARTMENT OF THE INTERIOR

ACTING DISTRICT ENGINEER GEOLOGICAL SURVEY

*Inspected location & found it okay for P.A.
7-10-63 E.H.*

Land Office NEW

Lease No. LC-068911

Unit B

RECEIVED

SUNDRY NOTICES AND REPORTS ON WELLS 1962

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....	X
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

August 27, 1962

Bondurant-Federal

Well No. 1 is located 660 ft. from N line and 1980 ft. from E line of sec. 6

NW/4 NE/4 Sec. 6 24S 32E NMPM
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Wildcat Lea New Mexico
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 3576.3 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

The above well was plugged and abandoned as follows:

Total depth 4796' with 8-5/8" casing at 300'

Spotted cement plugs as follows:

- 40 sacks at 4796' (bottom of hole)
- 40 sacks at 1300' (top of Salt)
- 40 sacks at 350' (Base of surface casing)

Identification marker and 10 sacks cement at surface.

Location to be cleared as soon as pits are dry.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Curtis Hankamer

Address 214 Security National Bank Bldg.

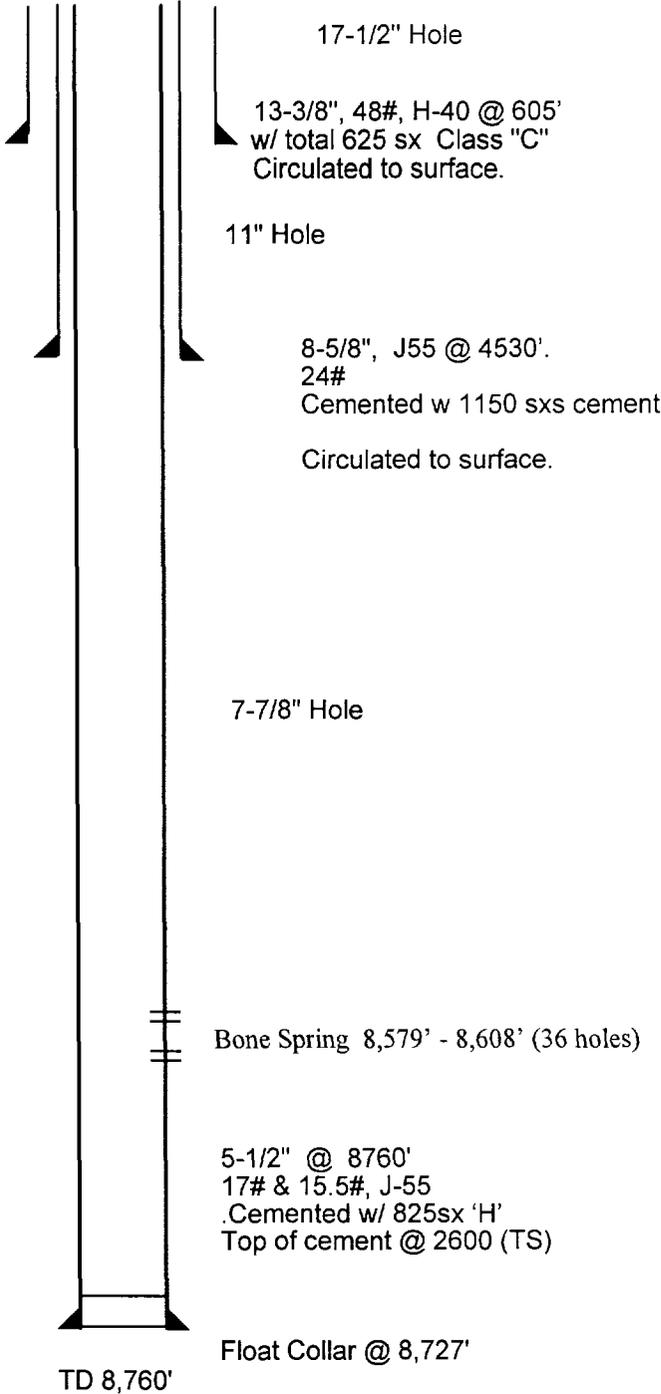
Roswell, New Mexico

By Max M. Wilson
Title Area Manager

Sante Fe Energy Resources, Inc.

**Mesa Verde '6' Federal #7
Mesa Verde Bone Spring
Lea County, New Mexico**

Unit Letter B, 660' FNL, 2540' FEL Sec. 6 , T-24S, R-32E



**DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

(See other instructions on reverse side)

Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other _____		3. LEASE DESIGNATION AND SERIAL NO. NM-77064	
b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESV. <input type="checkbox"/> Other _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Santa Fe Energy Resources, Inc.		7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO. 550 W. Texas, Suite 1330, Midland, TX 79701 915/687-3551		8. FARM OR LEASE NAME, WELL NO. Mesa Verde "6" Federal No. 7	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface (B), 660' FNL & 2540' FEL, Sec. 6, T-24S, R-32E At top prod. interval reported below		9. API WELL NO. 30-025-32613	
At total depth		10. FIELD AND POOL, OR WILDCAT Mesa Verde Bone Spring	
14. PERMIT NO. _____ DATE ISSUED _____		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 6, T-24S, R-32E	
15. DATE SPUNDED 11/22/95		12. COUNTY OR PARISH Lea	
16. DATE T.D. REACHED 12/6/95		13. STATE NM	
17. DATE COMPL. (Ready to prod.) 12/29/95		18. ELEVATIONS (DF, REB, RT, GR, ETC.)* 3568' GR	
19. ELEV. CASINGHEAD		20. TOTAL DEPTH, MD & TVD 8760'	
21. PLUG, BACK T.D., MD & TVD 877/4'		22. IF MULTIPLE COMPL., HOW MANY* N/A	
23. INTERVALS DRILLED BY A11		ROTARY TOOLS N/A	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)* 8579'-8608' (Bone Spring)		25. WAS DIRECTIONAL SURVEY MADE No	
26. TYPE ELECTRIC AND OTHER LOGS RUN DIL; SDL/DSN/GR		27. WAS WELL CORED No	

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13-3/8" H-40	48.0	605'	17-1/2"	625 sx Lite & C (circ'd)	None
8-5/8" J-55	24.0	4530'	11"	1150 sx POZ & C (circ'd)	None
5-1/2" J-55	17.0 & 15.5	8760'	7-7/8"	825 sx Lite & H (TOC 2600)	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
N/A	4642	8491			2-7/8"	8491'	N/A
	8491	TD					

30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
N/A	4642	8491			2-7/8"	8491'	N/A
	8491	TD					

31. PERFORATION RECORD (Interval, size and number)

8579'-8608' (36 holes)	32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.
	DEPTH INTERVAL (MD)
	8579'-8608'
	AMOUNT AND KIND OF MATERIAL USED
	Frac w/46,000 gal gel & 143,361# 20/40 Ottawa sand and 24,240# resin coated sand

33. PRODUCTION

DATE FIRST PRODUCTION 12/21/95	PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump) Flowing	WELL STATUS (Producing or shut-in) Producing
DATE OF TEST 1/4/96	HOURS TESTED 24	CHOKE SIZE 15/64"
PROD'N. FOR TEST PERIOD	OIL - BBL. 170	GAS - MCF. 324
WATER - BBL. 0	GAS - OIL RATIO 1906	
FLOW. TUBING PRESS. 450#	CASING PRESSURE 900	CALCULATED 24-HOUR RATE
OIL - BBL. 170	GAS - MCF. 324	WATER - BBL. 0
OIL GRAVITY - API (CORR.) 42.0		

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)
Sold

35. LIST OF ATTACHMENTS
C-104, Deviation Survey, Logs

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED: Jerry McCullough TITLE: Sr. Production Clerk DATE: 1/26/96

*(See instructions and spaces for additional data on reverse side)

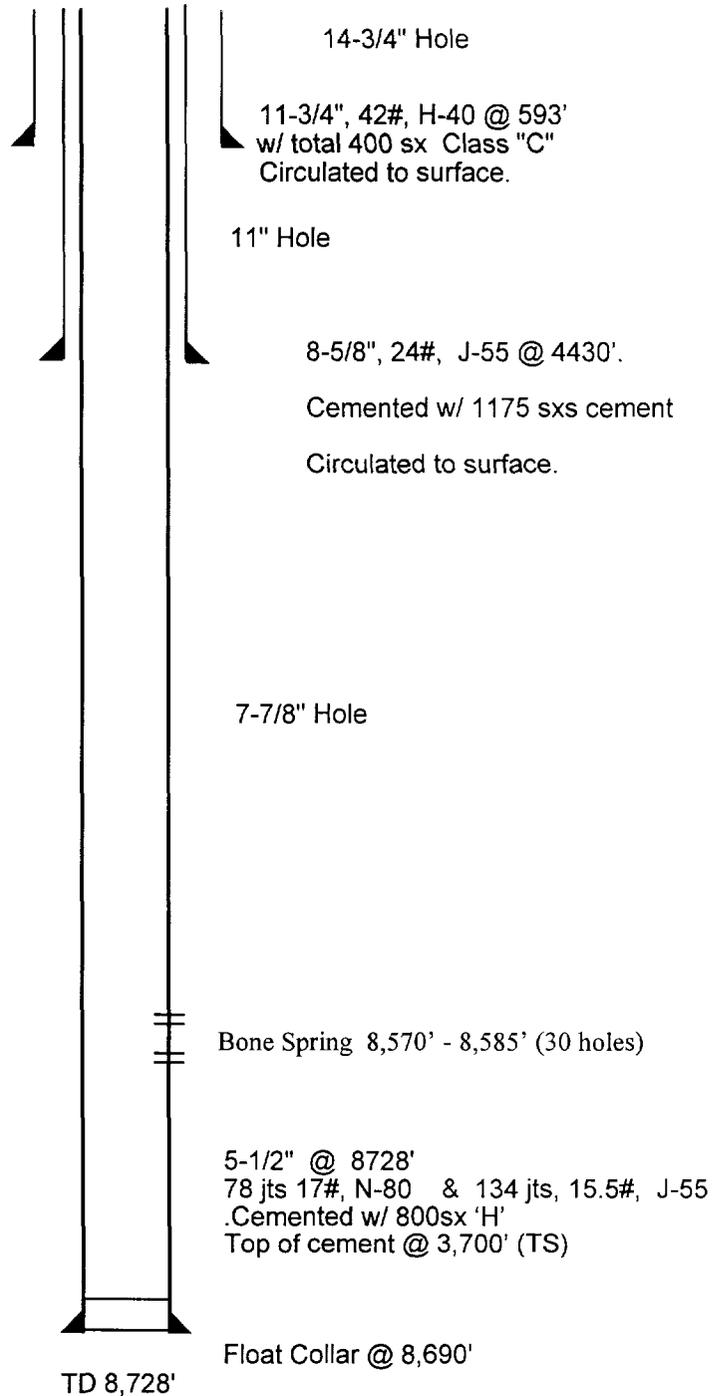
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

<p>46 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.</p> <p>Signature: <u>Jerry McCullough</u></p> <p>Printed name: Terry McCullough</p> <p>Title: Sr. Production Clerk</p> <p>Date: June 7, 1995</p>	<p align="center">OIL CONSERVATION DIVISION</p> <p>Approved by: <u>Betty Gildon</u></p> <p align="center">ORIGINAL SIGNED BY JERRY SEXTON DISTRICT I SUPERVISOR</p> <p>Title: Betty Gildon</p> <p>Approval Date: _____</p> <p>Phone: 915/687-3551</p>
<p>47 If this is a change of operator fill in the OGRID number and name of the previous operator</p> <p><u>Betty Gildon</u> Betty Gildon Reg. Analyst</p> <p>Previous Operator Signature Printed Name Title</p> <p>Enron Oil and Gas Company #7344</p> <p align="right">Date: 6/12/95</p>	

Sante Fe Energy Resources, Inc.

**Mesa Verde '6' Federal # 14
Mesa Verde Bone Spring
Lea County, New Mexico**

Unit Letter C, 330' FNL, 1650' FWL Sec. 6 , T-24S, R-32E



District II

PO Drawer DD, Artesia, NM 87015

District III

1000 Rio Brazos Rd., Aztec, NM 87412

District IV

PO Box 2088, Santa Fe, NM 87504-2088

CONFIDENTIAL

OIL CONSERVATION DIVISION

PO Box 2088
Santa Fe, NM 87504-2088

AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Operator name and Address Enron Oil & Gas Company P. O. Box 2267 Midland, Texas 79702		OGRID Number 7377
THIS WELL HAS BEEN PLACED IN THE POOL DESIGNATED BELOW. IF YOU DO NOT CONCUR NOTIFY THIS OFFICE.		Reason for Filing Code NW
API Number 30 - 0 25 32753	Pool Name Mesa Verde Bone Spring R-10342	Pool Code 96229
Property Code 13210	Property Name Mesa Verde 6 Federal	Well Number 14

II. Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South Line	Feet from the	East/West Line	County
C	6	T24S	R32E		330	north	1650	west	Lea

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South Line	Feet from the	East/West Line	County
---------------	---------	----------	-------	---------	---------------	------------------	---------------	----------------	--------

Lee Code	Producing Method Code	Gas Connection Date	C-129 Perm Number	C-129 Effective Date	C-129 Expiration Date
F	F	2-2-95			

III. Oil and Gas Transporters

Transporter OGRID	Transporter Name and Address	POD	O/G	POD ULSTR Location and Description
7440	EOTT Energy Operating, L.P.	2814187	O	UL C, Sec 6, T24S, R32E
9171	GPM Gas Corporation	2814318	G	UL C, Sec 6, T24S, R32E

V. Produced Water

POD	POD ULSTR Location and Description
939750	UL K, Sec 30, T24S, R34E

Well Completion Data

Spud Date	Ready Date	TD	PBTD	Perforations
1-4-95	1-27-95	8728	8687	8570-8585

Hole Size	Casing & Tubing Size	Depth Set	Sacks Cement
14-3/4	11-3/4	593	400 sx Circulated
11	8-5/8	4430	1175 sx Circulated
7-7/8	5-1/2	8728	800 sx TOC: 3700'
	2-7/8" Tubing	8486	

I. Well Test Data

Date New Oil	Gas Delivery Date	Test Date	Test Length	Tbg. Pressure	Csg. Pressure
1-27-95	2-2-95	2-6-95	24 hrs	570	1490

Choke Size	Oil	Water	Gas	AOF	Test Method
19/64	225	44	400	-	

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Betty Gildon*
 Printed name: Betty Gildon
 Job: Regulatory Analyst
 Phone: 2-16-95 Phone: 915/686-3714

OIL CONSERVATION DIVISION
 Approved by: ORIGINAL SIGNED BY JERRY SEXTON
 Title: DISTRICT I SUPERVISOR
 Approval Date: FEB 20 1995

If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date
-----------------------------	--------------	-------	------

Handwritten initials and date: 6/3

B) ADDITIONAL GEOLOGICAL INFORMATION

- Well Log, Mud Log of proposed disposal interval
- Water Analysis of produced waters



SPECTRAL DENSITY
DUAL SPACED
NEUTRON 11 LOG

COMPANY TEXECO EXPLORATION		WELL SDE FEDERAL 31-9	FIELD TRISTE DRAW WEST	COUNTY LEA	STATE NM
PERMANENT DATUM G.L.		SECT 31	TWP 23S	R&E 32E	ELEV. K.B. 3602
LOG MEASURED FROM K.B.		11	FT. ABOVE PERM DATUM		D.F. N/A
DRILLING MEASURED FROM K.B.					G.L. 3591
DATE 04/03/95	RUN NO. ONE				
DEPTH-DRILLER 9880	DEPTH-LOGGER 9843				
BHM LOG INTER 9840	TOP LOG INTER 4905				
CASING-DRILLER 8-525/970	CASING-LOGGER NOT LOGGED		SEE REMARKS		
BIT SIZE 7 875	TYPE FLUID IN HOLE SALTWATER				
DENS. : VISC. 10.0 : 193	PH : FLUID LOSS 9.0 : 112				
SOURCE OF SAMPLE RMF : MEAS. TEMP. 0.10 @ 75 F	RMC : MEAS. TEMP. 0.04 @ 58 F				
RM @ MEAS. TEMP. 0.08 @ 75 F	RMF @ MEAS. TEMP. 0.07 @ 75 F				
RM @ BHT 0.04 @ 163 F	RMF @ BHT 0.03 @ 163 F				
RMC @ BHT 0.01 @ 163 F					
TIME SINCE CIRC. 18:30 04/02	TIME ON BOTTOM 10:31 04/03				
HX. REC TEMP. 163 F @ 10	EQUIP. : LOCATION 525521TYLER				
RECORDED BY SCHEWITT	WITNESSED BY H. R. JOHNSON				
COMPANY TEXECO EXPLORATION & PRODUCTION		WELL SDE FEDERAL 31-9	FIELD TRISTE DRAW WEST	COUNTY LEA	STATE NM
API NO 30-025-32868		LOCATION 1990 FSL AND 1990 FEL OF SECTION 31		OTHER SERVICES HOIL	

FOLD HERE

SERVICE TICKET NO.: 788919 API SERIAL NO.: 30-025-32868 PGM VERSION: 2.61

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLES RESISTIVITY SCALE CHANGES

DATE: SAMPLE NO. / / TYPE LOG DEPTH SCALE UP HOLE SCALE DOWN HOLE

DEPTH-DRILLER

TYPE FLUID

IN HOLE

DENS. : VISC

PH : FLUID LOSS

SOURCE OF SAMPLE RESISTIVITY EQUIPMENT DATA

RM @ MEAS TEMP 0.08 @ 75 F @ RUN NO TOOL TYPE & NO PAD TYPE TOOL POS. OTHER

RMF @ MEAS TEMP 0.07 @ 75 F @ ONE HDIL-A010 FREE

RMC @ MEAS TEMP 0.03 @ 75 F @

SOURCE: RMF:RMC MEAS :MEAS

RM @ BHT 0.04 @ 163 F @

RMF @ BHT 0.03 @ 163 F @

RMC @ BHT 0.01 @ 163 F @

EQUIPMENT DATA

GAMMA		ACOUSTIC		DENSITY		NEUTRON	
RUN NO.	ONE	RUN NO.		RUN NO.	ONE	RUN NO.	ONE
SERIAL NO.	A015	SERIAL NO.		SERIAL NO.	A011	SERIAL NO.	A011
MODEL NO.	HNGR	MODEL NO.		MODEL NO.	HSDL	MODEL NO.	HDSN
DIAMETER	2.75	NO.OF CENT.		DIAMETER.	2.75	DIAMETER	2.75
DETECTOR MODEL NO.	HNGR	SPACING		LOG TYPE	G-G	LOG TYPE	N-N
TYPE	SCINT			SOURCE TYPE	CS-137	SOURCE TYPE	AM241BE
LENGTH	N/A	LSA [Y/N]		SERIAL NO.	155	SERIAL NO.	42
DISTANCE TO SOURCE	N/A	FWDA [Y,N]		STRENGTH	N/A	STRENGTH	N/A

LOGGING DATA

GENERAL				GAMMA		ACOUSTIC			DENSITY			NEUTRON		
RUN	DEPTH	SPEED	SCALE	L	R	L	R	MATRIX	L	R	MATRIX	L	R	MATRIX
ONE	9843	4905	30	0	150				30	-10	2.71	30	-10	LIME

REMARKS:

NO BOWSPRING RAN ON DSN DUE TO TOOL BEING RAN THROUGH DRILL PIPE

BOTTOM OF DRILL PIPE AT 4850. ALL TIMES CENTRAL ZONE.

ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING

HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PROPERTIES OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT TO THE EXTENT OF THE ORIGINAL LOG DATA. HALLIBURTON WILL NOT BE LIABLE FOR DAMAGES, LOSSES, OR EXPENSES RESULTING FROM THE USE THEREOF.

5" = 100'

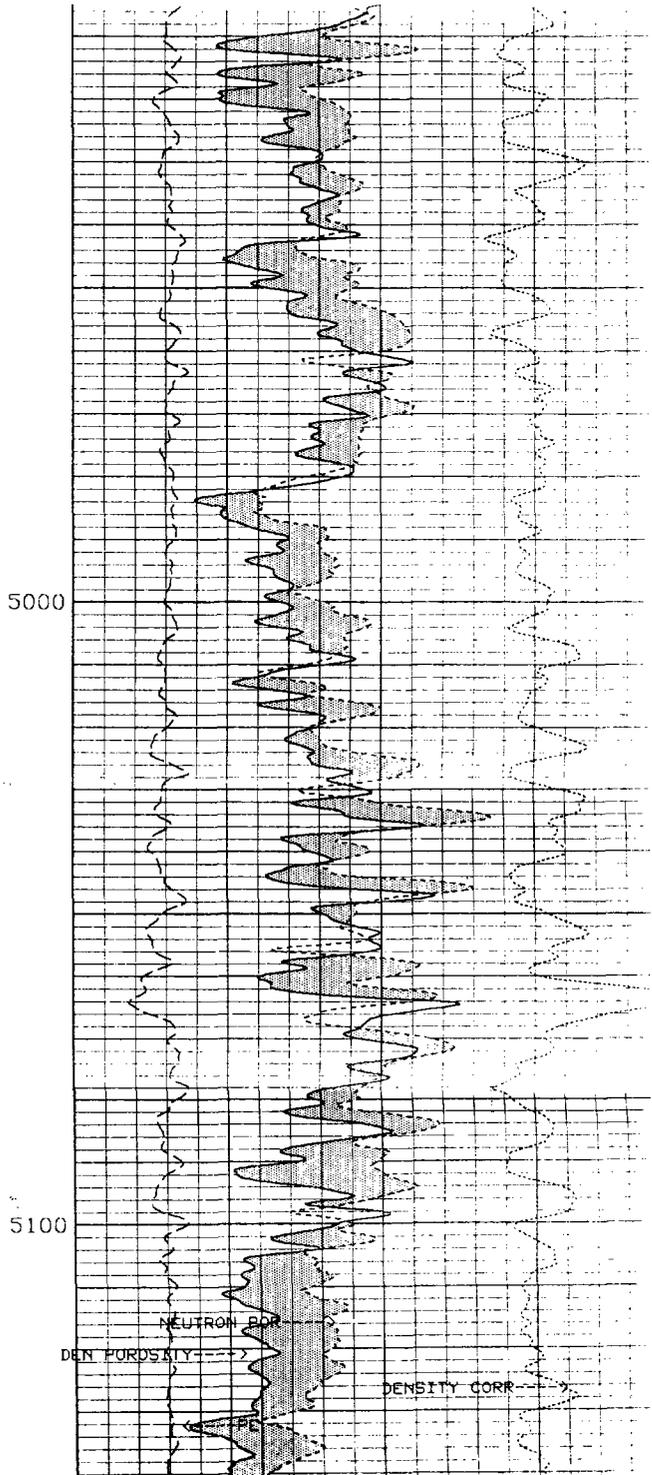
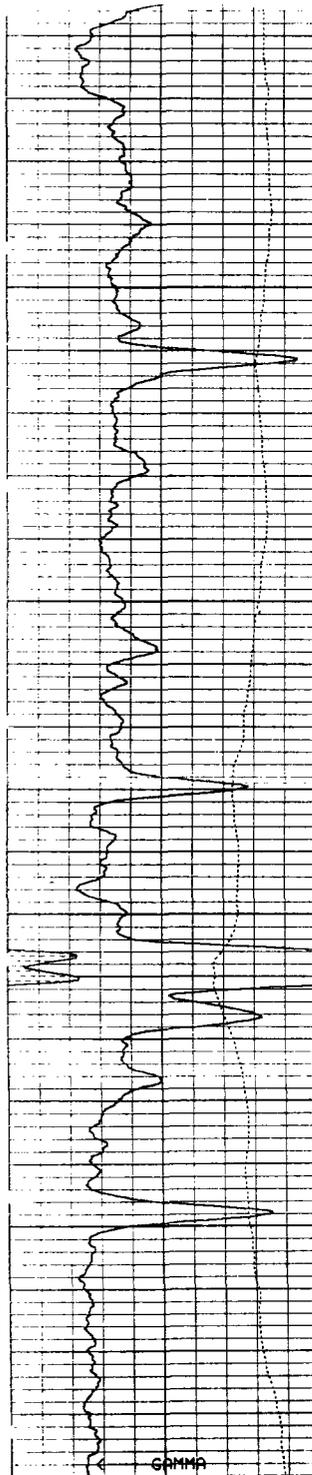
CALIPER		DEN POROSITY	
6	INCHES 16	30	PERCENT
			MATRIX DENSITY = 2.71

RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM, ANY USER OF SUCH DATA, INTERPOLATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT AS-TO GROSS NEGLIGENCE OR WILLFUL MISFEASANCE. FOR ALL USES DAMAGES, OR EXPENSES RESULTING FROM THE USE "HEREOF".

5" = 100'

CALIPER		
6	INCHES	16
GAMMA		
0	GAMMA API	150

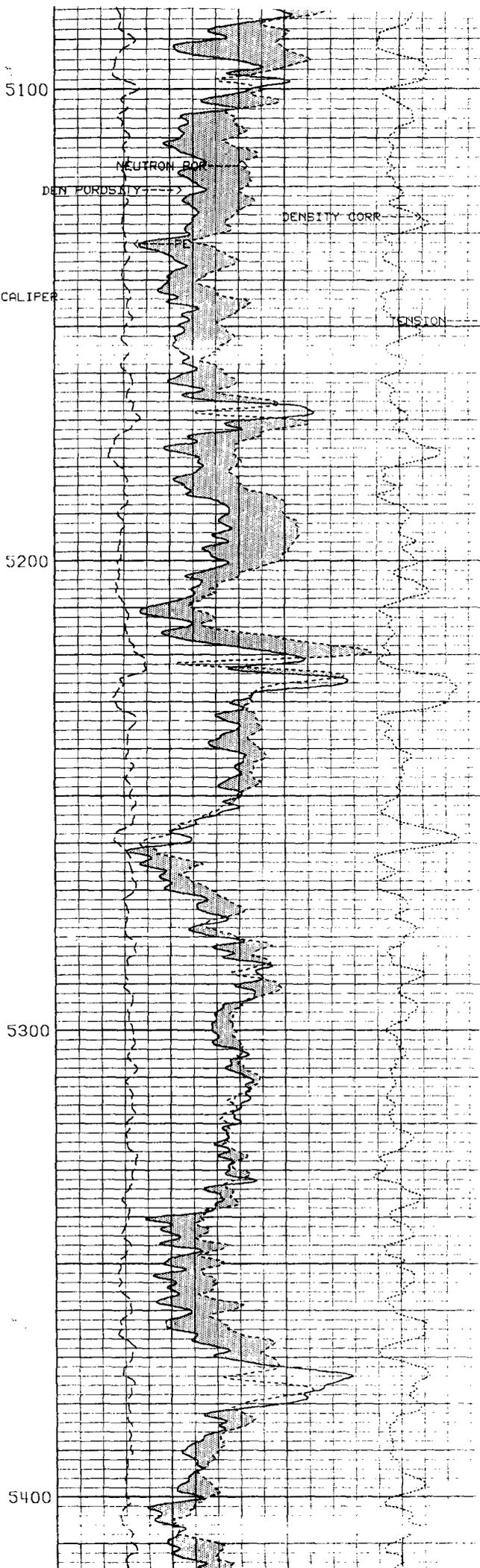
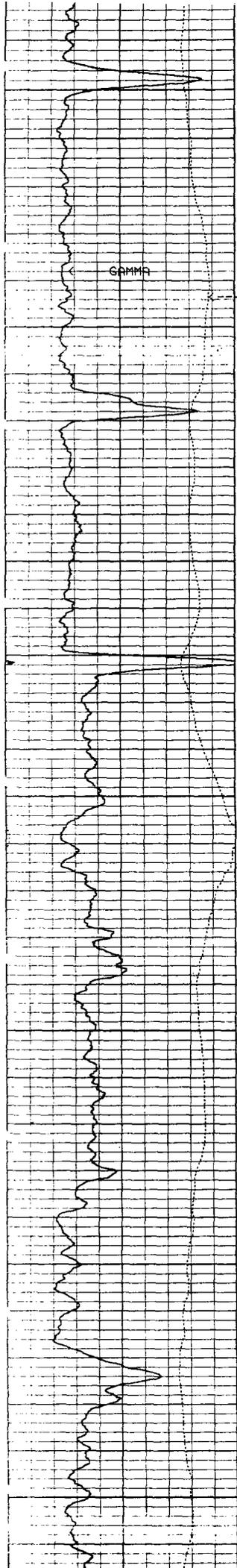
DEN POROSITY			
PERCENT			
MATRIX DENSITY = 2.71			
NEUTRON POR			
PERCENT			
NEUTRON MATRIX = LIME			
PE		TENSION	
0	10	11000	POUNDS
DENSITY CORR			
		-.25	GM/CC

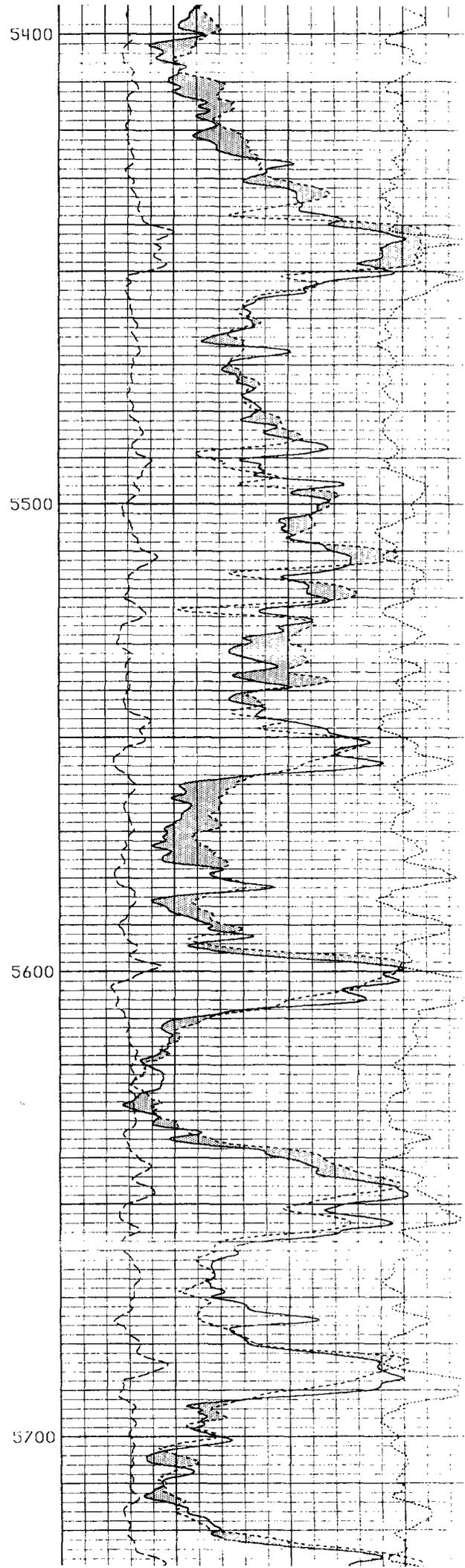
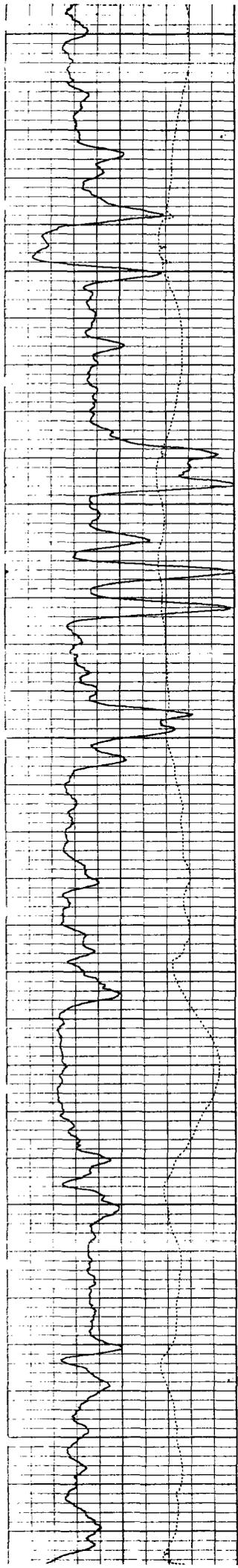


5000

5100

NEUTRON POR
DEN POROSITY
DENSITY CORR





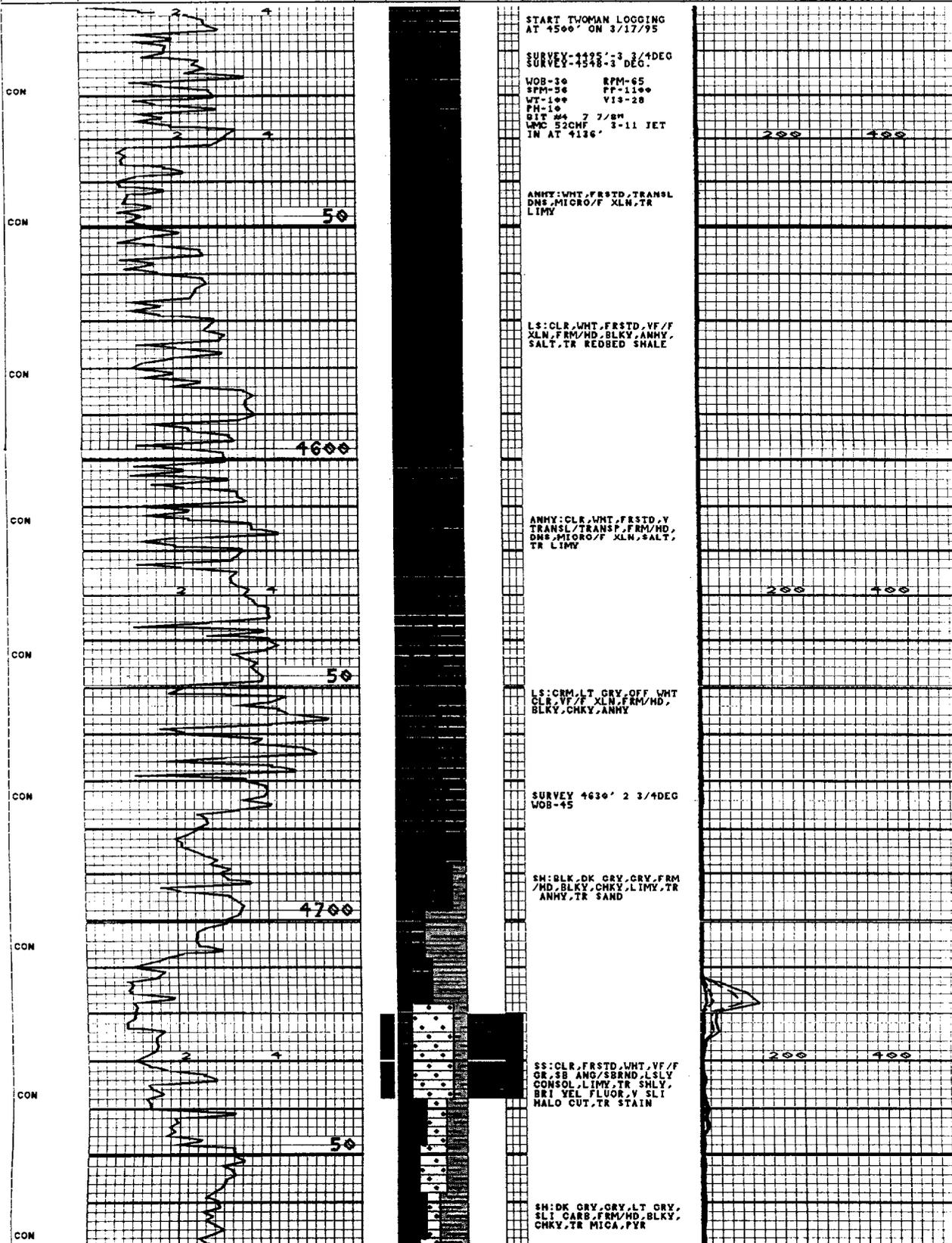


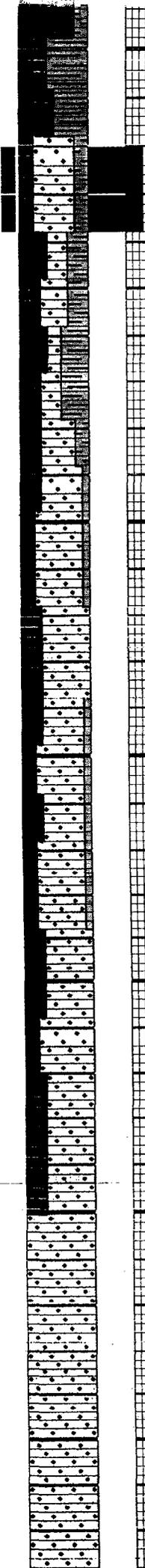
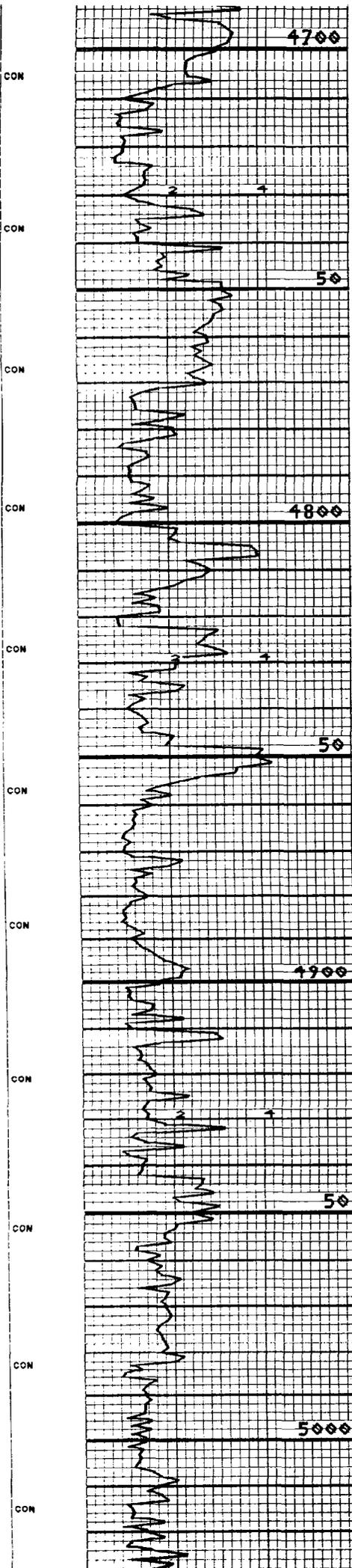
COMPANY: TEXACO E & P INC
WELL: SDE FEDERAL "31" #9
LOCATION: 31-238-32E

LEA COUNTY, NEW MEXICO
LOGGED BY TECHNICAL DRILLING SERVICES
GEOLOGISTS: DAVID STINECIPHER AND B. BELL/TOM ROE
ELEV: G. L.: OR. K. B.:
INTERVAL LOGGED: 4500 TO 9850
DATES LOGGED: 3/17/1995 TO 4/1/1995

NR - NO RETURNS CG - CONN GAS CO - CIRC OUT TG - TRIP GAS DST - DRILL STEM TEST	DC - DEPTH CORRECTION NB - NEW BIT MCB - NEW CORE BIT DCB - DIAMOND CORE BIT DS - DIRECTIONAL SURVEY	LITHOLOGY SYMBOLS SAND LIME DOLO ANHYD	CHERT CONGLOM SHALE SALT	GAS CHROMATOGRAPH ANALYSIS TOTAL GAS - C1 - C2 - C3 - IC4 - NC4 -
---	--	--	-----------------------------------	--

MECH DATA	DRILLING RATE MIN/FT OR FEET/HR	PORO 25%	LITH	FLR CUT -100 FFG	LITHOLOGY DESCRIPTIONS	HYDROCARBON ANALYSIS LOG
-----------	------------------------------------	-------------	------	---------------------	------------------------	--------------------------





/HD, BLKY, CHKY, LIMY, TR
 ANHY, TR SAND

 SS: CLR, FRSTD, WHT, VF/F
 GR, SB ANG/SBRND, LSLY
 CONSOL, LIMY, TR SHLY,
 BRI YEL FLUOR, V SLI
 HALO OUT, TR STAIN

 SH: DK GRY, GRY, LT GRY,
 SLI CARB, FRM/HD, BLKY,
 CHKY, TR MICA, PYR

 SS: CLR, FRSTD, WHT, VF/F
 GR, SLTY, PREDOM UNCON-
 SOL, SBANG/SBRND, SM
 ANG, PYR, LIMY
 SURVEY-4790-2 3/4

 ANHY: CLR, FRSTD, LT GRY
 TRANSL, DNS, VF/F XLN,
 SALT, TR LIMY

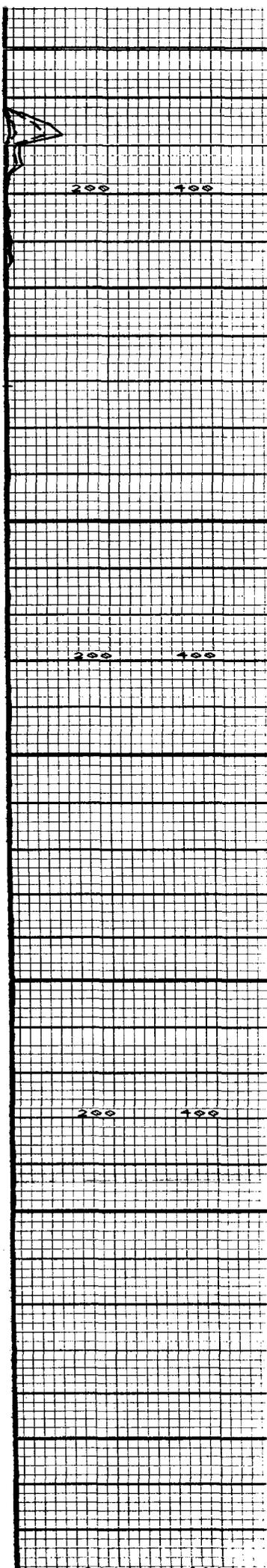
 SS: CLR, FRSTD, LT GRY,
 WHT, VF/F GR, UNCONSOL,
 SLI LIMY, TR PYR

 SS: CLR, FRSTD, WHT, LT
 GRY, UNCONSOL, SBANG/SB
 RND, WL SRD, LIMY, TR
 PYR

 WOB-30/45 RPM-65
 3PM-50 PF-1100

 SS: CLR, FRSTD, WHT, LT
 GRY, SBANG/SBRND, VF/F
 GR, LSLY CONSOL, LIMY,
 TR PYR

 SS: CLR, FRSTD, WHT, LT
 GRY, LSLY CONSOL, LIMY,
 SBANG/SBRND, WL SRD,
 TR PYR



CON

CON

CON

CON

CON

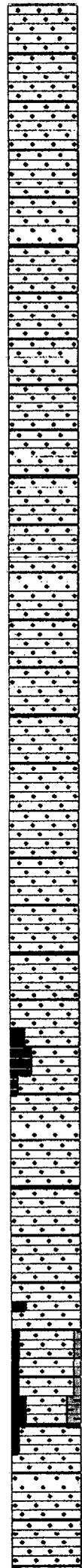
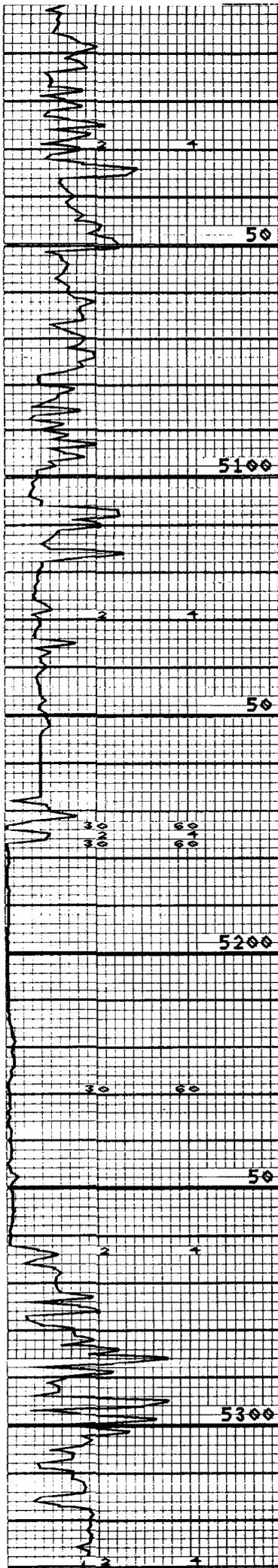
CONN

SVY

CONN

CONN

CONN



SS: CLR, FRSTD, WHT, LT
 GRV, LSLV, CONSOL, LIMY,
 SBANG/SBRND, WL SRTD,
 TR PYR

200 400

SS: CLR, FRSTD, LT GRV,
 UNCONSOL, TR LIMY, SB-
 ANG/SBRND, TR PYR

SS: CLR, FRSTD, LT GRV,
 VF/F GR UNCONSOL, SB-
 ANG/SBRND, SLI LIMY, TR
 PYR

5100

200 400

SS: CLR, FRSTD, LT GRV,
 UNCONSOL, VF/F GR, SLTY
 TR SHLY, LIMY, TR PYR

50

SS: FRSTD, CLR, GRV, VFN
 XXXXDEV 1 1/4 DEGREE
 LSLY CONS, MOD SRT

5200

SS: FRSTD, CLR, GRV,
 VFN GR, S/RD-S/ANG, UNC

200 400

LS: BRN, TN, MIC, XLN, DNS
 HD, SME, SLI, SNDY

50

100 200

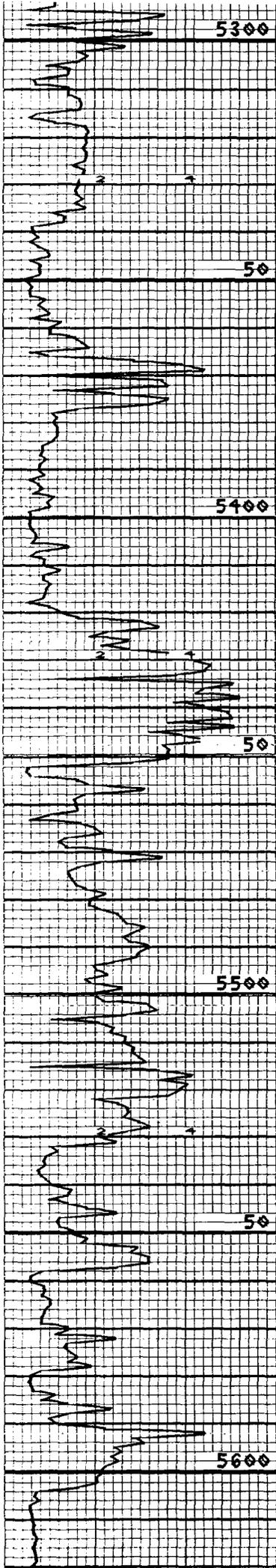
LS: BRN, TN, BUFF, MIC
 XLN, DNS, HD-MOD, HD, SME
 SNDY

5300

SS: LT GRV, FRSTD, CLR,
 VFN GR, S/RD-S/ANG, LSL
 CONS-UNCONS, LIMY IP,
 W/SRT

100 200

CONN
CONN



5300

50

5400

50

5500

50

5600

SS:LT GR,FRSTD,CLR,
VFN GR,S/RD-S/ANG LSL
CONS-UNCONS,LIMY IP,
W/SRT

SS:CLR,FRSTD,VFN GR

LS:TN,BRN,LT BRN,MIC
XLN,DNS,HD-MOD HD,SME
SNDY IP

SS:CLR,FRSTD,SME GR
VFN GR OCC FN GR,S/RD
S/ANG,UNCONSOL-LSLY
CONSOL,MOD SRT

XXXXXXXXX STEEL PITS
OR FLUID LOSSXXXXXXXXX

SS:FRSTD,CLR,GRY,VFN-

SS:FRSTD,GRY,CLR,VFN
SME FN GR,S/ANG-S/RD,
CONSOL-UNCONSOL,MOD
CMT,CALC,W/SRET

SS:FRSTD,CLR,VFN GR,
S/RD-S/ANG,UNCON-LSLY
CONS,W/SRT,SME WHT
CLY

LS:TN,BRN,BUFF,MIC
XLN,DNS,HD,SNDY IP

SS:CLR,FRSTD,VFN GR,

100 200

100 200

100 200

I



Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Texaco Inc.
Date : 12-9-1994
Location: SDE - 31#2 (on 12-9-1994)

Sample 1
1.076
106309
6.73
1.955

Specific Gravity:
Total Dissolved Solids:
pH:
IONIC STRENGTH:

Separator line of dashes

Table with 3 columns: CATIONS, me/liter, mg/liter. Rows include Calcium, Magnesium, Sodium, Iron (total).

Table with 3 columns: ANIONS, me/liter, mg/liter. Rows include Bicarbonate, Carbonate, Sulfate, Chloride.

DISSOLVED GASES
Carbon Dioxide (CO2) 50.0
Hydrogen Sulfide (H2S) 0

Separator line of dashes

SCALING INDEX (positive value indicates scale)

Table with 3 columns: Temperature, Calcium Carbonate, Calcium Sulfate. Rows show scaling index at various temperatures (86F to 160F).

Comments:
cc: Isaac Huskey
Joe Hay
Bob Wallace - Tech Service

I

- C) PROOF OF NOTIFICATION TO :**
- SURFACE OWNER**
 - OFFSET OPERATORS**

P 622 713 430

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to Santa Fe Energy Resour	
Street & Number 500 W. Texas Suite 1330	
Post Office, State, & ZIP Code Midland TX 79701	
Postage	\$ 0.98
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.00
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ 2.98
Postmark or Date APR 1 1996	

HOBBS
PS Form 3800, April 1995

P 622 713 429

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to BUREAU OF LAND MANAGEMENT	
Street & Number PO. BOX 1778	
Post Office, State, & ZIP Code CARLSBAD, N.M. 88220-1778	
Postage	\$ 0.98
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.00
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ 2.98
Postmark or Date APR 1 1996	

PS Form 3800, April 1995

D) PROOF OF LEGAL NOTICE

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

Publisher

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 a supplement thereof for a period.

of _____

1 weeks.

Beginning with the issue dated

February 29, 1996

and ending with the issue dated

February 29, 1996

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 1st day of

March, 1996

Maxilene G. Ruppiano
Notary Public.

My Commission expires
March 24, 1998
(Seal)

LEGAL NOTICE

February 29, 1996

Notice is hereby given of the application of Texaco Exploration & Production Inc., (Attention: Terry L. Frazier, Area Manager, P.O. Box 730, Hobbs, New Mexico, 88240, Telephone (505) 393-7191), to the New Mexico Oil Conservation Commission, Energy and Minerals Department, for approval of the following well(s) to be converted to salt water disposal for the purpose of disposing of produced fluids.

Lease / Unit Name: SDE '31' FEDERAL

Texaco E & P Inc. plans to convert the subject well to a salt water disposal well (using a single string of tubing) in the Bell Canyon formation in the following well(s):

Well Number(s) and Locations(s):

3 - Unit Letter J, 1980' FSL & 1980' FEL, Section 31, T-23-S, R-32-E

Lea County, New Mexico

The disposal formation is the Bell Canyon at a depth from 4600 feet to 5500 feet below the surface of the ground. Expected maximum injection rate is 3000 barrels per day and expected maximum injection pressure is 920 pounds per square inch. This work is part of an ongoing development project. Interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico, 87501, within fifteen (15) days of this publication.

#14420

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.

SWD-621



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

3/6/96

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

GOVERNOR

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:

Texaco E&P Inc SDE 31 Federal "9-J 31-23s-32e"
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed



TEXACO

FAX TRANSMITTAL COVER SHEET

NOTE: DO NOT USE BLUE OR RED INK OR PENCIL ON THIS FORM. THEY WILL NOT REPRODUCE

DATE: 3/18/96 URGENT ROUTINE NO. OF PAGES 2+c

MESSAGE TO: Ben Stone - OCD

TELEPHONE NO. _____ FAX MACHINE NO. _____

DEPT./DIV./SUBS. _____

LOCATION _____ ROOM NO. _____

MESSAGE FROM: Michael Alexander

TELEPHONE NO. 505 397-0419 FAX MACHINE NO. 505 397-0450

DEPT./DIV./SUBS. _____

LOCATION Hobbs, NM ROOM NO. _____

SENDING DEPT. APPROVAL _____ TIME TRANSMITTED _____

RETURN ORIGINAL VIA INTER-OFFICE MAIL

RETURN ORIGINAL CALL SENDER TO PICK UP

ADDITIONAL COMMENTS:

Revised copy of SDE '31' #9 Schematic
and C-10B application (single page revision)

[REVISED PAGE 3/18/96]

VI. TABULATION OF DATA ON WELLS WITHIN AREA OF REVIEW (continued)

To date, the following wells within a half mile radius of the proposed salt water disposal well injection wells have been plugged and abandoned :

T-23-S, R-32-E

Section 31 : well(s) : Curtis Hankamer; Continental Fed #1

T-24-S, R-32-E

Section 6 : well(s) : Curtis Hankamer; Bondurant-Federal #1

VII. PROPOSED OPERATION

The proposed completion within the SDE '31' Federal wellbore will be in the Bell Canyon interval with selective perforations between 5150' and 5700'. The packer will be placed within approximately 50' to 100' of the top perforation. The tubing will be internally plastic coated. The proposed maximum salt water disposal rate is expected to be 3,000 BWP. The initial disposal rate is expected to be 500 BWP. Maximum injection pressure will not exceed 920 psig (0.2 psi/ft OCD allowable rate) until a step rate test establishes a higher limit. Injected fluids will be produced fluids from the Brushy Canyon and Bone Spring intervals. These zones and the proposed injection interval (Bell Canyon) all contain saline waters with total dissolved solids (TDS) and salinity above 10,000 ppm (mg/l). No current recent chemical analysis of the disposal zone is available within the adjacent area, but produced test samples all had TDS and salinity above 10,000 ppm. The system will be closed.

VIII. GEOLOGICAL DATA

The injection interval consists of an interbedded, fine to medium grain sorted sandstone reservoir. The saturation within the reservoir show a low oil saturation which is non-mobile making the formation non-commercial. The Bell Canyon interval has a total thickness of approximately 1400' within the subject area. It overlays the Cherry Canyon (non-productive) and the Brushy Canyon and Bone Spring intervals which are the productive interval within the subject area.

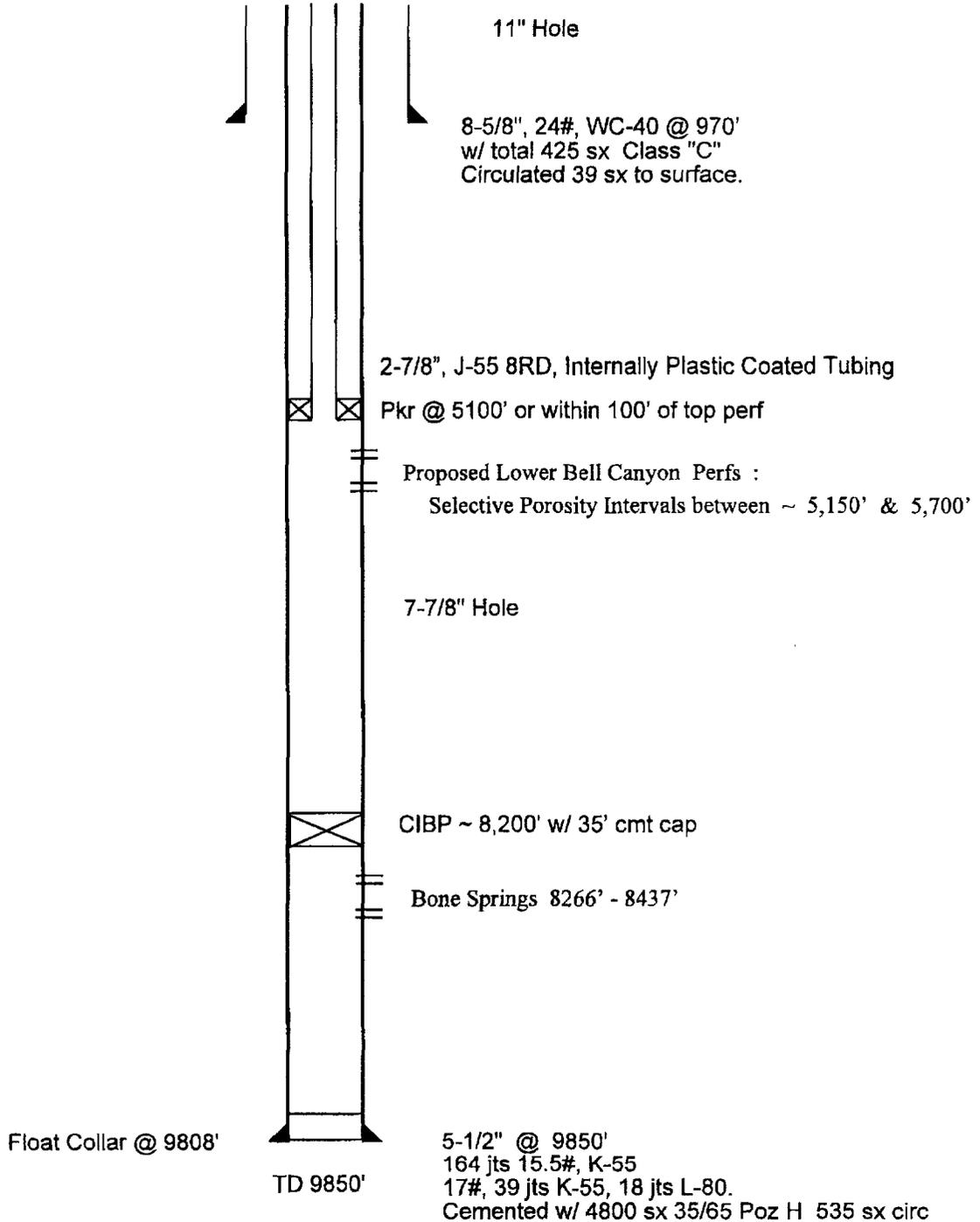
The known sources of fresh water within the subject area exist from approximately 30' to 800' deep. Based on a current geological and

C-108 APPLICATION
III. PROPOSED DISPOSAL WELL
TEXACO E&P INC., SDE FEDERAL '31' LEASE

REVISED 3/18/96

SDE Federal 31 Well #9
Triste Draw West
Lea County, New Mexico

Unit Letter J, 1980' FSL, 1980' FEL Sec. 31, T-23S, R-32E



TO : New Mexico Oil Conservation Division

This letter indicates our approval of Texaco Exploration and Production Inc., submitted C-108 application on the following lease.

WAIVER TO OBJECTION

from

**Santa Fe Resources Inc.
500 West Texas Ave.
Midland, Texas 79701**

to

**Texaco Exploration & Production Inc.'s
C-108 Application
(Application for Salt Water Disposal),
Texaco SDE '31' Federal Well No. 9
Bell Canyon Formation (5150' - 5700')
Unit Letter J, 1980' FSL and 1980' FEL
Section 31, Township 23S, Range 32E**

I do hereby waive any objection to Texaco Exploration and Production Inc.'s request for NMOCD Administrative Approval of the C-108 application for salt water disposal on the SDE '31' Federal Lease, Well #9, as outlined in the revised application package (revisions : second page, Section VII and SDE '31' Federal #9 well schematic) .

Signed: *DD DeLoach*
Title: *DIVISION Mgr - PROD*
Company: *SANTA FE ENERGY RESOURCES INC.*
Date: *4/1/96*

MMH

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. OIL CONS. COMMISSION
P.O. BOX 1980
HOBBS, NEW MEXICO 88240

FORM APPROVED
Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well: <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER	5. Lease Designation and Serial No. NM-18848
2. Name of Operator TEXACO EXPLORATION & PRODUCTION INC.	6. If Indian, Alottee or Tribe Name
3. Address and Telephone No. 205 E. Bender, HOBBS, NM 88240 397-0418	7. If Unit or CA, Agreement Designation
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) (BATTERY LOCATION) Unit Letter <u>F</u> : Feet From The _____ Line and _____ Feet From The _____ Line Section <u>31</u> Township <u>23-S</u> Range <u>32-E</u>	8. Well Name and Number SDE 31 FEDERAL LEASE
	9. API Well No.
	10. Field and Pool, Exploaratory Area SAND DUNES; BONE SPRING, SOUTH Triste Draw; Delaware, West
	11. County or Parish, State LEA, NM

12. Check Appropriate Box(s) To Indicate Nature of Notice, Report, or Other Data

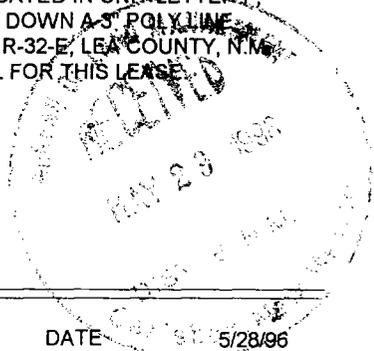
TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Attering Casing
	<input checked="" type="checkbox"/> OTHER: <u>CHANGE SWD SYSTEM</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log Form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

THIS NOTICE IS TO REPORT TO THE BLM A CHANGE IN THE METHOD OF WATER DISPOSAL ON THE ABOVE LEASE. EFFECTIVE 4/15/96, THE WATER PRODUCED BY THESE LEASE IS DISPOSED INTO A SWD SYSTEM OPERATED BY TEXACO EXPLORATION & PRODUCTION INC UNDER NMOCD ADMINISTRATIVE ORDER SWD-621.

- (A) TEPI WELLS AND POOLS:
- | | | |
|----------------------------------|----------------------------|----------------------------------|
| LEASE & WELL NUMBER | LOCATION | POOL |
| SDE 31 FEDERAL WELLS #1, #2, #14 | SECTION 31, T-23-S, R-32-E | TRISTE DRAW; DELAWARE, WEST POOL |
| SDE 31 FEDERAL WELLS #4, #5, #8 | SECTION 31, T-23-S, R-32-E | SAND DUNES; BONE SPRING, SOUTH |
- (B) AMOUNT OF WATER PRODUCED PER DAY: APP 215 BARRELS PER DAY
- (C) WATER IS MOVED BY A WATER TRANSFER PUMP LOCATED AT THE SDE 31 FEDERAL TANK BATTERY LOCATED IN UNIT LETTER F, SECTION 31, T-23-S, R-32-E, LEA COUNTY, N.M. THE PRODUCED WATER IS PUMPED FROM THE BATTERY DOWN A 3" POLY LINE ALONG THE LEASE ROAD TO SDE 31 FEDERAL WELL #9 LOCATED IN UNIT LETTER J, SECTION 31, T-23-S, R-32-E, LEA COUNTY, N.M. THIS WELL HAS RECENTLY BEEN RECOMPLETED TO THE BELL CANYON TO SERVE AS A DISPOSAL WELL FOR THIS LEASE.
- (D) NO PITS ARE INVOLVED IN THIS METHOD OF WATER DISPOSAL



14. I hereby certify that the foregoing is true and correct.

SIGNATURE Monte C. Duncan TITLE Engr Asst DATE 5/28/96

TYPE OR PRINT NAME Monte C. Duncan

(This space for Federal or State office use)

APPROVED BY James C. Jones TITLE Lead PET DATE 6/19/96

CONDITIONS OF APPROVAL, IF ANY: * See Attached COA

(rev. 3/10/94)

BUREAU OF LAND MANAGEMENT
CARLSBAD RESOURCE AREA

Disposal of Produced Water From Federal Wells

Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

1. This agency be notified of any change in your method or location of disposal.
2. Compliance with all provisions of Onshore Oil and Gas Order No. 7.
3. This agency shall be notified of any spill or discharge as required by NTL-3A.
4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
5. All aboveground structures on the lease shall be painted sandstone brown, Federal Std. 595-20318, or 30318, within 90 days if you have not already done so.
6. Any on lease open top storage tanks or pits shall be covered with a wire screen or plastic/nylon netting to prevent entry by birds and other wildlife.
7. This approval does not constitute right-of-way approval for any off lease activities. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.