

APPLICATION FOR AUTHORIZATION TO INJECT

VACUUM DRINKARD

- I. Purpose: ☐ Secondary Recovery ☒ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☒ no
- II. Operator: TEXACO EXPLORATION AND PRODUCTION INC.
Address: P. O. BOX 3109, MIDLAND, TX 79702
Contact party: JAMES A. HEAD Phone: (915) 688-4613
- 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 on with the Division they need n
- XI. Attach a chemical analysis of available and producing) with location of wells and dates s
- XII. Applicants for disposal wells examined available geologic s or any other hydrologic conn source of drinking water.
- XIII. Applicants must complete the
- 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: JAMES A. HEAD Title: ASSET MANAGER
Signature: James A. Head Date: 11/1/94
- 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.

BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico

Case No. 11152 Exhibit No. 1

Submitted by: Texaco Exploration and Production Inc.

Hearing Date: December 1, 1994

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.

**VACUUM DRINKARD FIELD
PRESSURE MAINTENANCE PROJECT
APPLICATION FOR AUTHORIZATION TO INJECT WATER**

ATTACHMENT III TO FORM C-108

Attached is a description of the eight wells proposed for injection for this project. Six wells are to be drilled for injection while two are existing producers to be converted. Also attached are the completion records of the two wells to be converted as well as their wellbore schematics. For the new wells a typical wellbore schematic is included.

ATTACHMENT V TO FORM C-108

Attached are two maps of the project area. The first shows all wells drilled in the project area within two miles of the proposed injectors which are shown in yellow triangles. The second map shows all wells drilled through to the injection interval. The red circles are one-half mile radius around each proposed injector to identify the area of review.

ATTACHMENT VI TO FORM C-108

Attached is a listing of all wells that have penetrated the injection interval in the area of review of the proposed injectors. Also included are wellbore schematics of the wells.

**ATTACHMENT VII TO FORM C-108
DATA ON PROPOSED OPERATION**

Proposed average and maximum daily rate for the project:

Average Daily Rate:	5000 BWPD (625 BWPD/well)
Maximum Daily Rate:	8000 BWPD (1000 BWPD/well)

The injection system is closed.

The proposed average and maximum* surface injection pressures are:

Average injection pressure	1400 PSIG
Maximum injection pressure	1500 PSIG

* Until a fracture gradient is determined, maximum injection pressure will be based on a 0.2 psi/ft gradient.

The source of injection water will be produced water from the Glorieta and Grayburg-San Andres Formations. This will be supplied from the Vacuum Glorieta West Unit and the Vacuum Grayburg San Andres Unit waterfloods. As shown on the attached water analysis of Drinkard produced water and the above mentioned sources, the waters are compatible.

ATTACHMENT VIII TO FORM C-108

FORMATION DESCRIPTION

The Drinkard formation is a microcrystalline dolomite deposited in a patch reef environment. The structure is a southeasterly dipping stratigraphic trap with permeability pinchouts in all directions.

The Drinkard is in the Paleozoic era, Permian System, Leonard Age and Yeso group.

The top of the Drinkard is found at approximately 7450' to 7600' and is approximately 500 feet thick.

No known faults cut through the Drinkard that may act as conduits for gas, oil, or injection fluids to seep into fresh water aquifers above the injection zone within the proposed injection project. There are water injection projects above the Drinkard in the Paddock (Vacuum Glorieta West Unit) and the Grayburg-San Andres (Vacuum Grayburg-San Andres Unit and Central Vacuum Unit). The productive formation below the Drinkard is the Abo Reef. No contamination of the Ogallala through faults cutting these shallower zones has been observed.

Listed below are the formations and depths of oil productive zones in this area.

Grayburg-San Andres	4300'
Glorieta-Paddock	5900'
Blinbery	6500'
Drinkard	7450'
Abo	8300'
Wolfcamp	9400'
Penn Reef	10000'
Devonian	12000'

ATTACHMENT IX TO FORM C-108

PROPOSED STIMULATION PLAN FOR A TYPICAL INJECTION WELL

All injection wells will be cased hole completions selectively perforated. The stimulation program initially will be medium sized acid jobs using 15% HCL. As the project matures restimulation with larger acid treatments may be required.

ATTACHMENT X TO FORM C-108

WELL LOGS

As the new wells are drilled, logs will be filed with the Division.

Logs on New Mexico "O" NCT-1 No. 36 and New Mexico "R" NCT-3 No. 26 have previously been sent to the Division.

ATTACHMENT XI TO FORM C-108

CHEMICAL ANALYSIS OF FRESH WATER WITHIN ONE MILE OF INJECTION WELLS

The attached map shows the location of two fresh water wells in the vicinity of the proposed pressure maintenance project which have chemical analysis. Attached are the attendant water analyses.

ATTACHMENT XII TO FORM C-108

Texaco has examined available geological and engineering data and finds no evidence of open faults or any other hydrologic connection between the injection zone and any underground source of drinking water.

ATTACHMENT XIII TO FORM C-108

NOTIFICATION OF SURFACE OWNERS AND OPERATORS

Texaco has notified by certified letter the surface owner and offset operators of the intent to inject as well as the drilling of nonstandard locations.

See the attached list of Offset Operators and surface owner.

Attached is a copy of the legal notice and affidavit of publication in the Hobbs Daily News-Sun.

VACUUM DRINKARD
PRESSURE MAINTENANCE PROJECT
ATTACHMENT III TO FORM C-108
APPLICATION FOR AUTHORIZATION TO INJECT
PROPOSED INJECTION WELLS

<u>OPERATOR</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>API NUMBER</u>	<u>UNIT</u>	<u>SEC</u>	<u>TWN</u>	<u>RANGE</u>	<u>FOOTAGE LOCATION</u>	<u>STATUS</u>
TEXACO E&P INC.	N. M. "R" ST. NCT-3	28	N/A	P	1	18S	34E	1310 FSL 110 FEL	NEW LOCATION
TEXACO E&P INC.	N. M. "R" ST. NCT-1	17	N/A	G	6	18S	35E	2530 FNL 2530 FEL	NEW LOCATION
TEXACO E&P INC.	N. M. "R" ST. NCT-1	16	N/A	G	6	18S	35E	1410 FNL 2630 FEL	NEW LOCATION
TEXACO E&P INC.	N. M. "L" ST.	17	N/A	H	1	18S	34E	2560 FNL 10 FEL	NEW LOCATION
TEXACO E&P INC.	N. M. "L" ST.	16	N/A	A	1	18S	34E	1310 FNL 10 FEL	NEW LOCATION
MARATHON OIL	WARN ST. A/C 2	25	N/A	C	6	18S	35E	113 FNL 1429 FWL	NEW LOCATION
TEXACO E&P INC.	N. M. "R" ST. NCT-3	26	3002531993	J	1	18S	34E	1980 FSL 1755 FEL	PRODUCING
TEXACO E&P INC.	N. M. "O" ST. NCT-1	36	3002532339	N	36	17S	34E	330 FSL 2210 FWL	PRODUCING

C108 ATTACHMENT III
WELLS TO BE CONVERTED TO WATER INJECTION

OPERATOR	WELL NAME API NO.	LOCATION	COMPLETION DATE	TD	PTD	CASING SIZE	CASING DEPTH	CEMENT SACKS	TOP	METHOD	PRODUCING INTERVAL	STIMULATION	CURRENT STATUS	REMARKS
Texasco E&P Inc.	N. M. "R" ST. NCT-3 No. 26 3002531983	1980 FS / 1750' FE SEC 1, T16S R34E (J)	9/13/83	8000	7950	8-5/8 8-1/2	1470 8000	650 1750	0 0	CIRC CIRC	7585-7829	FRAC40000	PROD	Drinkard
Texasco E&P Inc.	N. M. "O" ST. NCT-1 No. 36 3002532339	330 FSL 2210 FWL SEC 38 T17S R34E (N)	3/20/94	8100	8100	8-5/8 8-1/2	1470 8100	650 1376	1000 0	TS CIRC	7498-7762	A25000	PROD	Drinkard

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-105
Revised 1-1-89

WELL API NO. 30-025-31993
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. B-1306

7. Lease Name or Unit Agreement Name NEW MEXICO 'R' STATE NCT-3
8. Well No. 26
9. Pool name or Wildcat VACUUM DRINKARD

4. Well Location Unit Letter J : 1980 Feet From The SOUTH Line and 1755 Feet From The EAST Line Section 1 Township 18-SOUTH Range 34-EAST NMPM LEA County

10. Date Spudded 06-11-93	11. Date T.D. Reached 07-03-93	12. Date Compl. (Ready to Prod.) 09-07-93	13. Elevations (DFA RKB, RT, GR, etc.) GR-3987', KB-4001'	14. Elev. Casinghead 3987'
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15. Total Depth 8000'	16. Plug Back T.D. 7950'	17. If Multiple Compl. How Many Zones? 1	18. Intervals Drilled By Rotary Tools 0 - 8000'	Cable Tools
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19. Producing Interval(s), of this completion - Top, Bottom, Name 7585' - 7829'; DRINKARD	20. Was Directional Survey Made YES
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21. Type Electric and Other Logs Run GR-DLL-MSFL-LSS, GR-CNL-LDT, GR-FMI	22. Was Well Cored YES
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23. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8	24#	1470'	11	CL-C 650 SX CIRC. 148 SX	
5 1/2	15.5# & 17#	8000'	7 7/8	CL-H 1750 SX, CIRC. 127 SX	
				DV @ 5003'	

24. LINER RECORD					25. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 7/8	7852'	

26. Perforation record (interval, size, and number) 7585' - 7829'; 2 JSPF, 284 HOLES.		27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
		DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
		7585' - 7829'	ACID: 25000 GAL 20% HCL
			ACID/FRACT'D: 40000 GAL 65 QUALITY
			CO2 FOAMED 20% HCL

28. PRODUCTION							
Date First Production 07-16-93		Production Method (Flowing, gas lift, pumping - Size and type pump) PUMPING - 2.5 X 1.5 X 24				Well Status (Prod. or Shut-in) PRODUCING	
Date of Test 09-13-93	Hours Tested 24	Choke Size	Prod'n For Test Period	Oil - Bbl. 79	Gas - MCF 129	Water - Bbl. 17	Gas - Oil Ratio 1633
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.) 40.80	

29. Disposition of Gas (Sold, used for fuel, vented, etc.) SOLD	Test Witnessed By EDDIE WELBORN
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30. List Attachments DEVIATION SURVEY
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31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief			
Signature C.P. Basham / SDH	Printed Name C.P. BASHAM	Title DRLG. SUPT.	Date 09-16-93

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Northwestern New Mexico

OIL OR GAS SANDS OR ZONES

IMPORTANT WATER SANDS

LITHOLOGY RECORD (Attach additional sheet if necessary)

OCD HUBBS
OFFICE

Submitt to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-105
Revised 1-1-89

WELL API NO. 30-025-32339
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. 548570

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well: OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER _____	7. Lease Name or Unit Agreement Name NEW MEXICO 'O' STATE NCT-1
b. Type of Completion: NEW WELL ☒ WORK OVER ☐ DERRIS ☐ PLUG BACK ☐ DIFF. RESER. ☐ OTHER _____	
2. Name of Operator TEXACO EXPLORATION AND PRODUCTION INC.	8. Well No. 36
3. Address of Operator P. O. Box 3109, Midland, Texas 79702	9. Pool name or Wildcat VACUUM DRINKARD

4. Well Location Unit Letter <u>N</u> : <u>330</u> Feet From The <u>SOUTH</u> Line and <u>2210</u> Feet From The <u>WEST</u> Line Section <u>36</u> Township <u>17-SOUTH</u> Range <u>34-EAST</u> NMPM LEA County

10. Date Spudded 02-09-94	11. Date T.D. Reached 02-26-94	12. Date Compl. (Ready to Prod.) 03-11-94	13. Elevations (DF & RKB, RT, GR, etc.) GR-3995', KB-4009'	14. Elev. Casinghead 3995'
15. Total Depth 8100'	16. Plug Back T.D. 8050'	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By Rotary Tools 0 - 8100'	Cable Tools
19. Producing Interval(s), of this completion - Top, Bottom, Name 7498' - 7762'; DRINKARD				20. Was Directional Survey Made YES
21. Type Electric and Other Logs Run GR-DLL-MSFL, GR-SDL-DSN-CSNG, GR-CCL				22. Was Well Cored NO

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8	24#	1470'	11	CL-C 650 SX, CIRC. 145 SX	
5 1/2	15.5# & 17#	8100'	7 7/8	CL-H 1375 SX, CIRC. 92 SX,	
				TOC BY T.S @ 1000',	
				DV TOOL @ 5013'.	

24. LINER RECORD					25. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 7/8	7779'	

26. Perforation record (interval, size, and number) 7498' - 7762'; 2 JSPF, 200 HOLES.	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. DEPTH INTERVAL 7498' - 7762' AMOUNT AND KIND MATERIAL USED ACID 25000 GAL 15% HCL
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PRODUCTION

28. Date First Production 03-06-94		Production Method (Flowing, gas lift, pumping - Size and type pump) PUMPING				Well Status (Prod. or Shut-in) PRODUCING	
Date of Test 03-20-94	Hours Tested 24	Choke Size	Prod'n For Test Period	Oil - Bbl. 64	Gas - MCF 54	Water - Bbl. 2	Gas - Oil Ratio 844
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.) 39.40	

29. Disposition of Gas (Sold, used for fuel, vented, etc.) SOLD	Test Witnessed By GLEN BOLAND
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30. List Attachments
DEVIATION SURVEY

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature C.P. Basham / SDH Printed Name C.P. BASHAM Title DRLG. SUPT. Date 03-22-94

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy	1466'	T. Canyon	T. Ojo Alamo	T. Penn. "B"
T. Salt		T. Strawn	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt		T. Atoka	T. Pictured Cliffs	T. Penn. "D"
T. Yates		T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers		T. Devonian	T. Menefee	T. Madison
T. Queen	3660'	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg		T. Montoya	T. Mancos	T. McCracken
T. San Andres	4245'	T. Simpson	T. Gallup	T. Ignacio Otzte
T. Glorieta	5837'	T. McKee	Base Greenhorn	T. Granite
T. Paddock	5910'	T. Ellenburger	T. Dakota	T.
T. Blinebry	6325'	T. Gr. Wash	T. Morrison	T.
T. Tubb	7328'	T. Delaware Sand	T. Todilto	T.
T. Drinkard	7495'	T. Bone Springs	T. Entrada	T.
T. Abo	7903'	T.	T. Wingate	T.
T. Wolfcamp		T.	T. Chinle	T.
T. Penn		T.	T. Permian	T.
T. Cisco (Bough C)		T.	T. Penn "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from 7498' to 7762' No. 3, from to
No. 2, from to No. 4, from to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

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

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology
7495'	7903'	408'	DOLOMITE
7903'	8100'	197'	DOLOMITE & SHALE

RECEIVED

MAR 28 1994

OCD HOBBS
OFFICE

RECEIVED

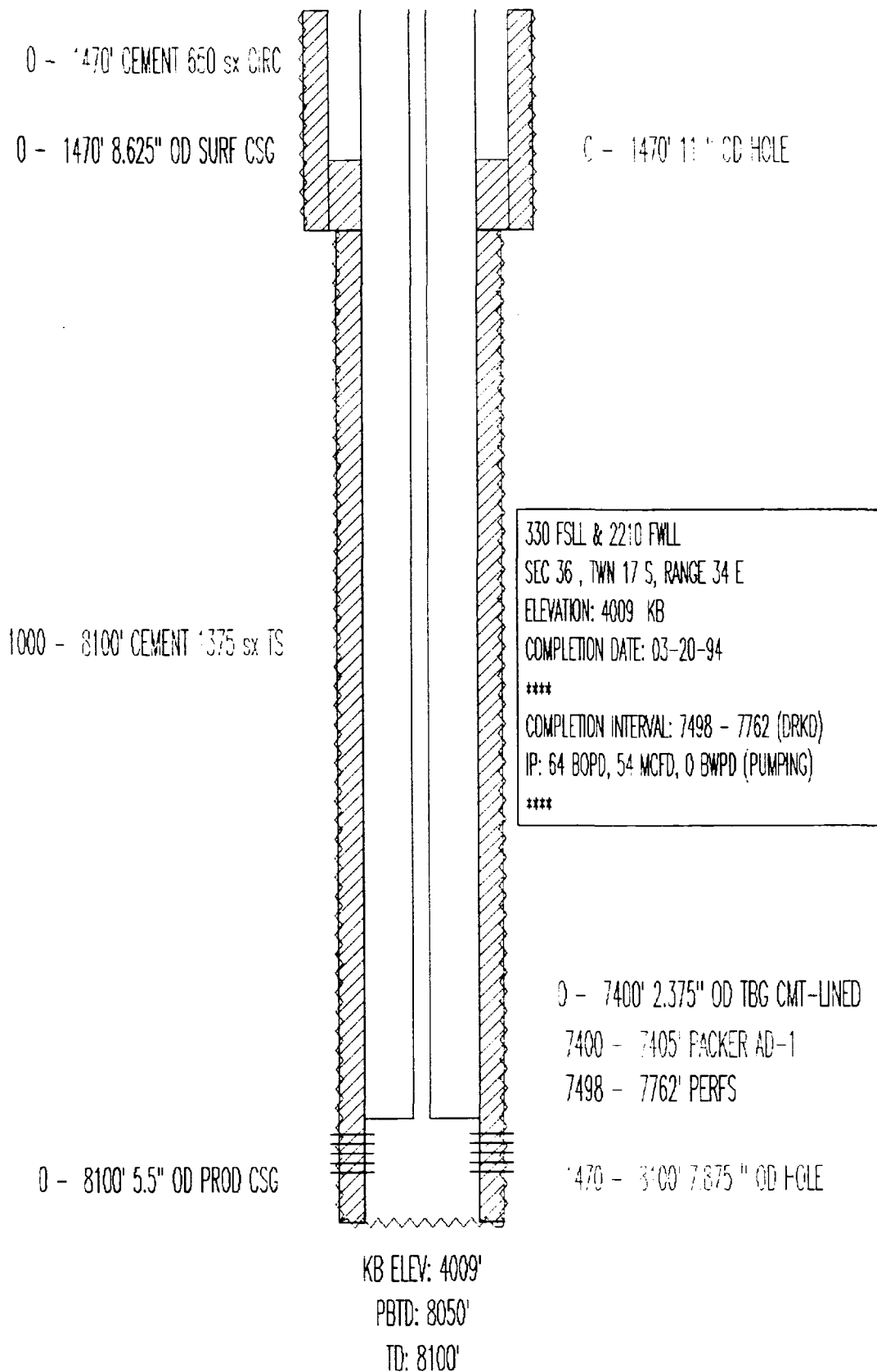
MAR 28 1944

OCD HOBBS
OFFICE

PRODUCING
DRINKARD

TEXACO EXPL & PROD
NEW MEXICO "O" ST. NO. 36
API# 3002532339

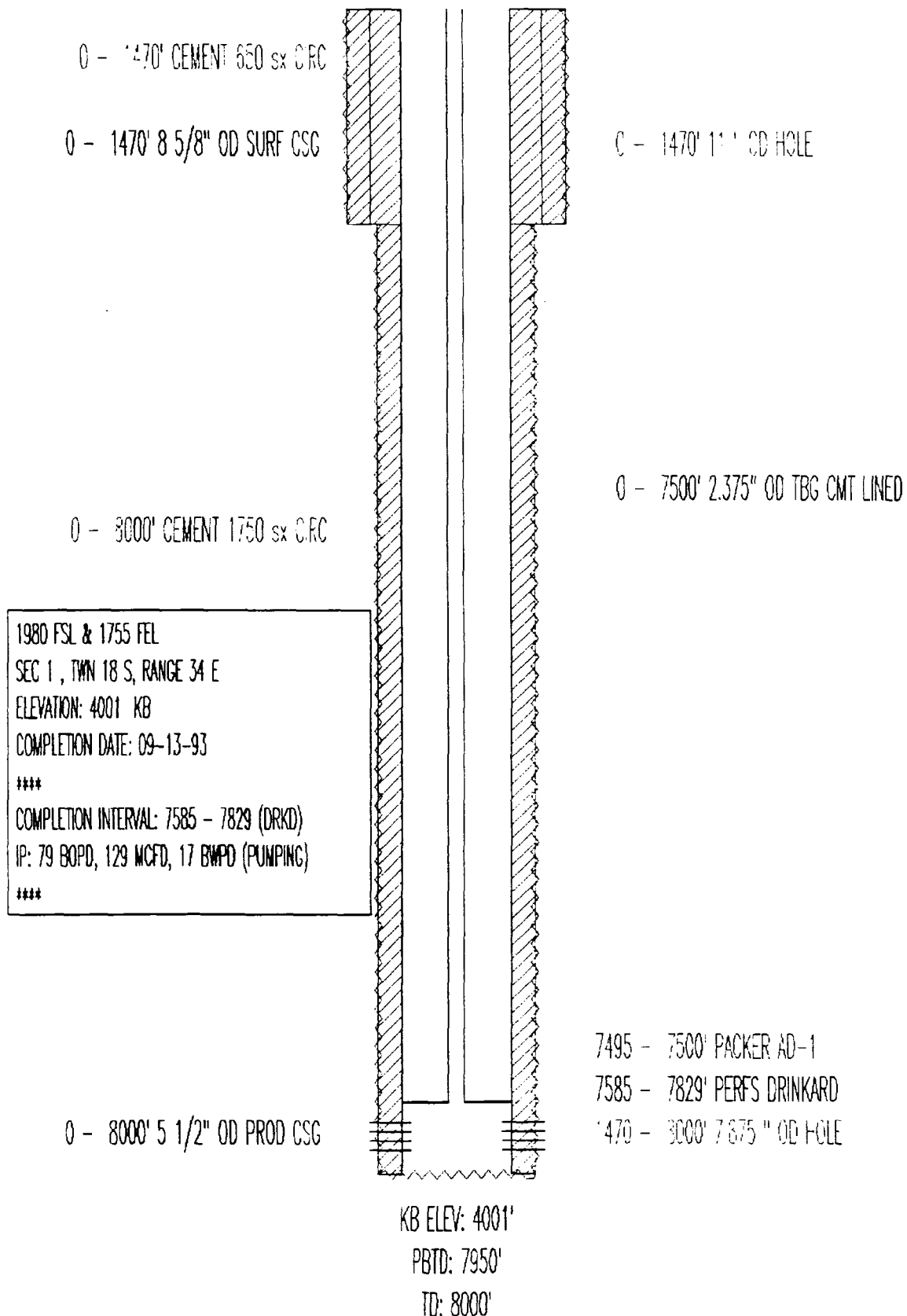
PROPOSED INJECTION WELL



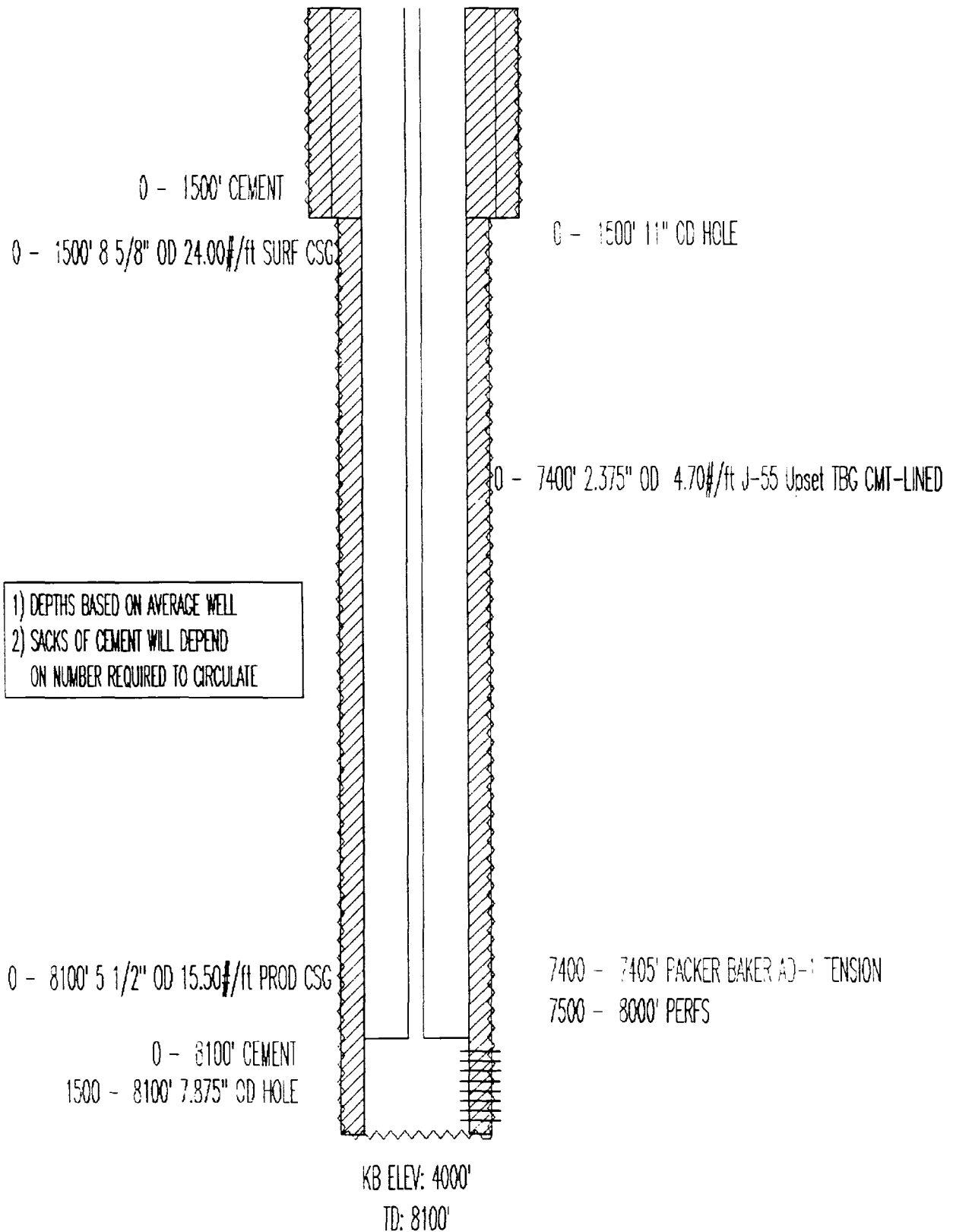
PRODUCING
DRINKARD

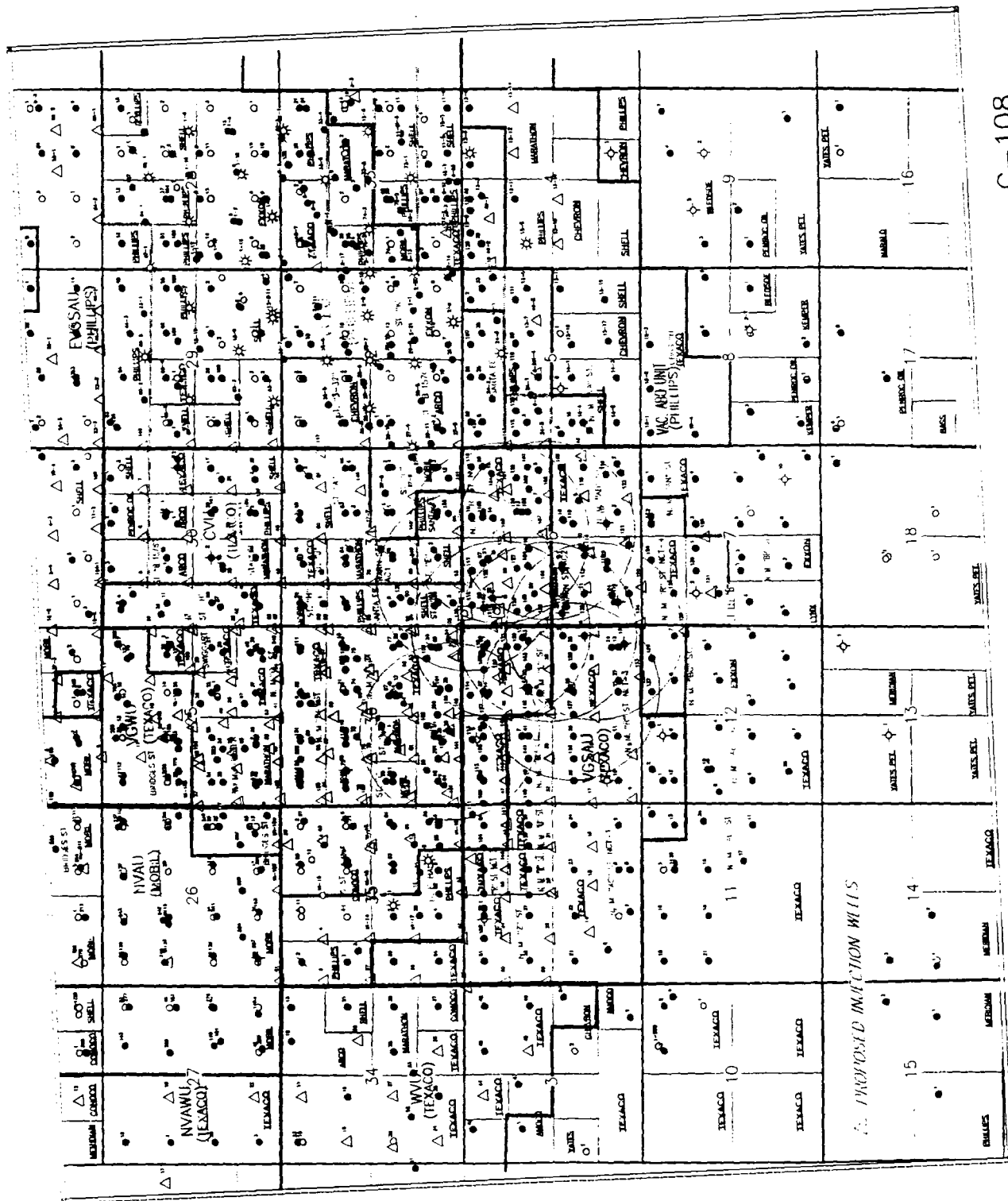
TEXACO EXPL & PROD
NEW MEXICO "R" ST. NCT-3 NO. 26
API# 3002531993

PROPOSED INJECTION WELL



TYPICAL VACUUM DRINKARD NEW INJECTION WELL

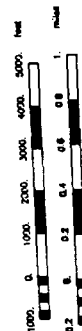




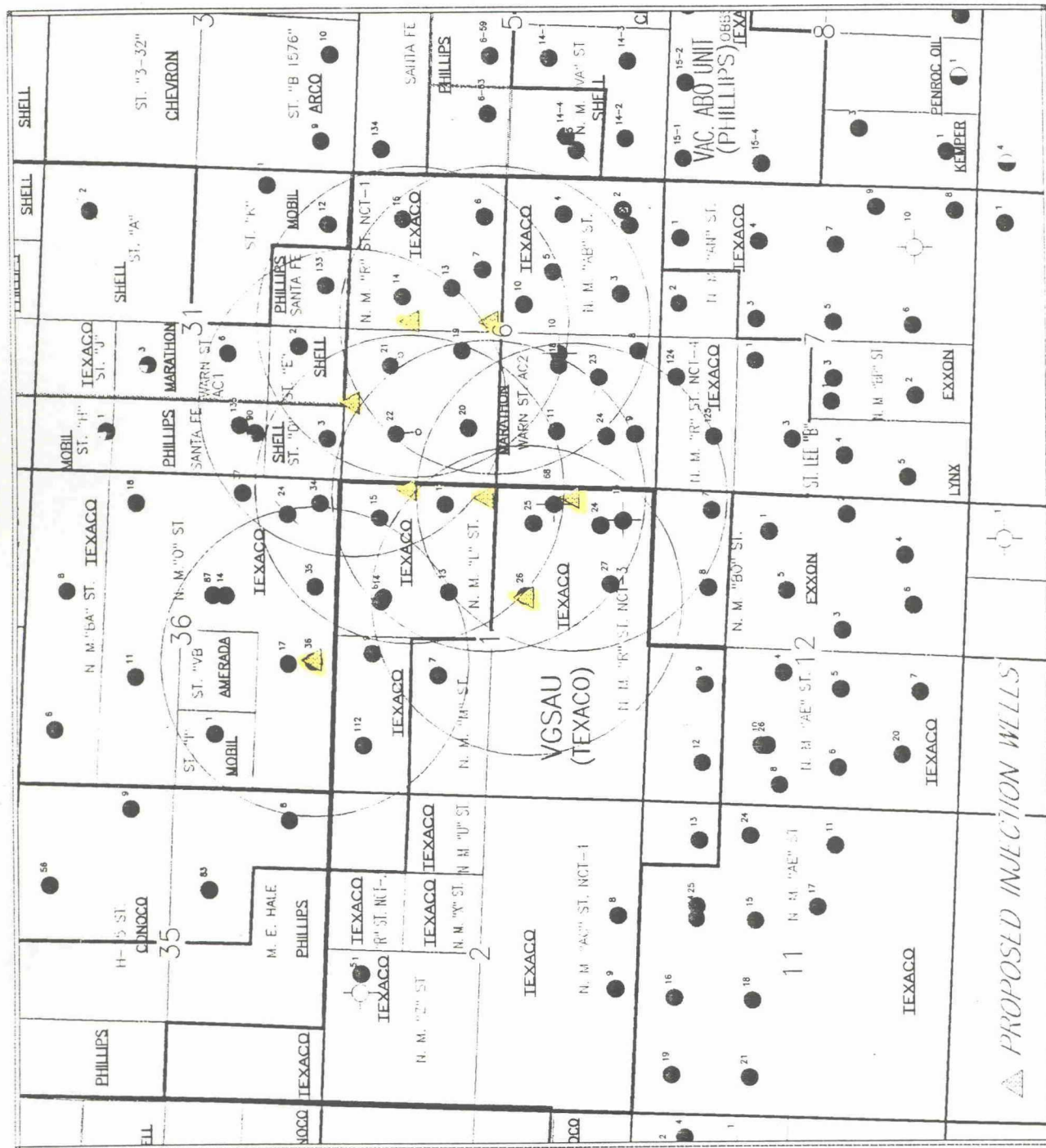
C-108

ATTACHMENT V

Scale 1:54000.



Texaco Exploration & Prod. Inc.	
LEASELINE INJECTION WELLS VACUUM DRINKARD FIELD LEA COUNTY NEW MEXICO	
Map, Scale	Scale 1:54000
10/7/74	



WELLS IN A PINT RATED INJECTION INTERVAL

Texaco Exploration & Prod. Inc.

LEASELINE INJECTION WELLS
VACUUM DRINKARD FIELD
LEA COUNTY NEW MEXICO

11/7/94

Scale 1:32000

Scale 1:32000.



C-108

ATTACHMENT V

C108 ATTACHMENT VI
WELLS WITHIN 1/2 MILE RADIUS OF REVIEW

OPERATOR	WELL NAME API NO.	LOCATION	COMPLETION DATE	TD	PSTD	CASING SIZE	CASING DEPTH	CEMENT BACKS	TOP	METHOD	PRODUCING INTERVAL	CURRENT STATUS	REMARKS
Marathon Oil Co	Warm St a/c 2 No. 8 3002530002	330' FSL, 2337' FWL SEC 6, T16S R35E (N)	3/13/62	8687	8818	13-3/8 8-5/8 5-1/2	357 3198 8666	350 1440 900	0 0 3770'	CIRC CIRC CBL	7039 - 8169' 8458 - 8730'	SI	Abo and Drinkard are downhole coning
Marathon Oil Co	Warm St a/c 2 No. 9 3002530003	330' FSL, 913' FWL SEC 6, T16S R35E (N)	9/16/71	8771	8737	13-3/8 9-5/8 5-1/2	356 3159 8769	350 1200 850	0 0 2915'	CIRC CIRC CBL	7600 - 8068' 8423 - 8702'	SI	Abo and Drinkard are downhole coning
Marathon Oil Co	Warm St a/c 2 No. 10 3002530020	1650' FSL, 2232' FWL SEC 6, T16S R35E (N)	5/25/63	8870	8823	13-3/8 9-5/8 5-1/2	371 3307 8868	315 1540 560	0 0 225'	CIRC CIRC CBL	8644 - 8791'	P/A	Pumped 80 ac cnt plug w/TOC @ 4488' PUH to 3337' ramped 25 ac cnt w/CaCl plug TOC @ 3113' PUH to 1519' pumped 20 ac cnt w/TOC @ 1329' PUH to 424' pumped 20 ac cnt w/TOC @ 234' POOH w/ 2-7/8" BG, ND BOPB Pumped 6 ac cnt plug to surface
Marathon Oil Co	Warm St a/c 2 No. 11 3002530031	1650' FSL, 910' FWL SEC 6, T16S R35E (L)	11/11/62	8799	7605	13-3/8 8-5/8 5-1/2	360 3400 8797	350 1550 1200	0 0 745'	CIRC CIRC CBL	7630-8042' 8485-8659'	PROD Aband	Drinkard Recompleted from Abo 10/6/2
Marathon Oil Co	Warm St a/c 2 No. 18 3002531987	1650' FSL, 2035' FWL SEC 6, T16S R35E (N)	4/5/63	8250	8163	11-3/4 8-5/8 5-1/2	1480 2853 8249	850 950 1485	0 0 0	CIRC CIRC CIRC	7654 - 8034'	PROD	Drinkard
Marathon Oil Co	Warm St a/c 2 No. 19 3002531927	2010' FSL, 2230' FWL SEC 6, T16S R35E (F)	5/10/63	8180	8090	11-3/4 8-5/8 5-1/2	1460 2832 8180	850 950 1350	0 0 6640'	CIRC CIRC CBL	7632 - 8044'	PROD	Drinkard
Marathon Oil Co	Warm St a/c 2 No. 20 3002531934	2160' FSL, 910' FWL SEC 6, T16S R35E (E)	6/13/63	8166	8056	11-3/4 8-5/8 5-1/2	1453 2865 8166	1000 850 1865	0 0 0	CIRC CIRC CIRC	7615 - 7977'	PROD	Drinkard
Marathon Oil Co	Warm St a/c 2 No. 21 3002531969	1109' FSL, 1963' FWL SEC 6, T16S R35E (C)	7/17/63	8200	8059	11-3/4 8-5/8 5-1/2	1465 2823 8158	750 900 1560	0 0 1050'	CIRC CIRC CBL	7623 - 7988' 7580 - 7953'	PROD	Drinkard Directionally drilled BHL 835' FNL, 2185' FNL
Marathon Oil Co	Warm St a/c 2 No. 22 3002532034	1218' FSL, 860' FWL SEC 6, T16S R35E (D)	8/21/63	8138	8048	11-3/4 8-5/8 5-1/2	1444 2787 8138	900 1100 1780	0 0 0	CIRC CIRC CIRC	7580 - 7953' 8138	PROD	Drinkard Directionally drilled BHL 832' FNL, 843' FNL
Marathon Oil Co	Warm St a/c 2 No. 23 3002532187	990' FSL, 1920' FWL SEC 6, T16S R35E (N)	12/4/63	6300	6205	11-3/4 8-5/8 5-1/2	1477 2636 8300	800 800 1550	0 0 2920'	CIRC CIRC CBL	7640 - 8030'	PROD	Drinkard
Marathon Oil Co	Warm St a/c 2 No. 24 3002532189	990' FSL, 400' FWL SEC 6, T16S R35E (N)	10/25/63	8170	8060	11-3/4 8-5/8 5-1/2	1460 2830 8170	850 1048 1860	0 0 2490'	CIRC CIRC CBL	7606 - 8041'	PROD	Drinkard
Texas E&P Inc.	Vacuum, Golieta West Unit No. 90 3002520270	2130' FSL, 660' FEL SEC 31, T17S R35E (L)	2/16/64	10500	10239	13-3/8 8-5/8 7	377 4774 10500	350 782 1110	0 2400 4700	CIRC CALC CBL	6030-8136' 8163-9309' 10008-10018'	PROD SI SI	Recompleted the Golieta 3/18/77 Wellcamp & Abo parts picked off 3/18/77 Formerly Phillips Petroleum Corporation Santa Fe No. 87
Phillips Petroleum Corporation	Santa Fe No. 133 3002532333	435' FSL 1930' FEL SEC 31, T17S R35E (O)	2/23/64	8100	8100	13-3/8 8-5/8 5-1/2	1539 5145 8100	1750 2400 625	0 0 5000	CIRC CIRC CALC	7540-7508'	PROD	Drinkard
Phillips Petroleum Corporation	Santa Fe No. 135 3002532438	1743' FSL, 609' FWL SEC 31, T17S R35E (L)	5/19/64	8052	7954	8-5/8 5-1/2	1500 8052	850 2494	0 0	CIRC CIRC	7532-7684' 7704-7858'	PROD	Drinkard
Texas E&P Inc.	N. M. "O" St. NCT-1 No. 37 3002532450	1650' FSL, 330' FEL SEC 38, T17S R34E (I)	5/3/64	8184	8029	8-5/8 5-1/2	1476 8148	575 1700	0 0	CIRC CIRC	7503-7918	PROD	Drinkard
Texas E&P Inc.	N. M. "O" St. NCT-1 No. 35 3002532338	355' FSL, 1875' FEL SEC 38, T17S R34E (O)	3/26/64	8100	7980	8-5/8 5-1/2	1460 8100	650 2025	0 0	CIRC CIRC	7518-7751' 7488-7482'	PROD	Drinkard
Texas E&P Inc.	N. M. "O" St. NCT-1 No. 34 3002532271	340' FSL, 330' FEL SEC 38, T17S R34E (P)	1/7/64	8000	7980	8-5/8 5-1/2	1460 8000	650 3285	0 0	CIRC CIRC	7551-7872'	PROD	Drinkard

C108 ATTACHMENT VI
WELLS WITHIN 1/2 MILE RADIUS OF REVIEW

OPERATOR	WELL NAME API NO.	LOCATION	COMPLETION DATE	TD	PSTD	CASING SIZE	CASING DEPTH	CEMENT BACKS	TOP	METHOD	PRODUCING INTERVAL	CURRENT STATUS	REMARKS
Texasco E&P Inc.	N. M. "O" ST. NCT-1 No. 24 3002520948	860 FSL 860 FEL SEC 36, T18S R34E (P)	7/14/64	10300	10300	13-3/8 8-5/8	1534 4418	1200 1700	0 0	CIRC CIRC	5942-5200 10206-10212	SI	Glorieta perfs abandoned by CIBP at 5155 Aloia tested dry plugged back to Glorieta Wolfcamp perfs sized w 40 sz Also perfs abandoned by CIBP at 8595
Texasco E&P Inc.	N. M. "L" ST. No. 8 3002520514	770 FNL 2090 FEL SEC 1, T18S R34E (B)	2/6/71	12255	12155	13-3/8 8-5/8	1510 4600	1200 1700	0 0	CIRC CIRC	9939-9954 5681-6152	SI	Wolfcamp Glorieta Sgs w/ 28 sz
Texasco E&P Inc.	NEW MEXICO "L" ST. No. 12 3002531992	1800 FNL 860 FEL SEC 1, T18S R34E (H)	8/24/63	8000	7968	8-5/8 5-1/2	1478 8000	650 1925	0 1800	CIRC TS	7540-7931 TS	PROD	Sgs w/ 10 sz Sgs w/ 150 sz thru retainer @ 9200
Texasco E&P Inc.	NEW MEXICO "L" ST. No. 13 3002532007	1740 FNL 1950 FEL SEC 1, T18S R34E (G)	10/28/63	7690	7970	8-5/8 5-1/2	1470 7990	650 1785	0 0	CIRC CIRC	7568-7877 CIRC	PROD	Drifted
Texasco E&P Inc.	NEW MEXICO "L" ST. No. 14 3002532008	8107 FNL 19807 FEL SEC 1, T18S R34E (B)	11/5/63	7950	7928	8-5/8 5-1/2	1470 7950	650 2105	0 0	CIRC CIRC	7546-7627 CIRC	PROD	Drifted
Texasco E&P Inc.	NEW MEXICO "L" ST. No. 15 3002532009	6807 FNL 5107 FEL SEC 1, T18S R34E (A)	10/2/63	7950	7930	8-5/8 5-1/2	1470 7950	780 3175	0 0	CIRC CIRC	7494-7606 CIRC	PROD	Drifted
Texasco E&P Inc.	Central Vacuum Unit No. 124 3002503069	330 FNL 1904 FNL SEC 7, T18S R35E (C)	2/16/69	8840	4708	10-3/4 8-5/8	336 3128	300 750	0 0	CIRC CIRC	8143-8760 7997-8014	ABDN	Also perfs plugged back to San Andres Drifted perfs plugged back to San Andres Formerly N. M. "R" ST. NCT-4 No. 1
Texasco E&P Inc.	Central Vacuum Unit No. 125 3002503100	960 FNL 913 FNL SEC 7, T18S R35E (D)	1/30/68	8800	7799	11-3/4 8-5/8	336 3313	300 465	0 1300	CIRC CALC	8512-8658 7840-7907	SQZD	Also perfs abandoned; Lost tbg in hole Drifted perfs plugged back to San Andres Formerly N. M. "R" ST. NCT-4 No. 2
Texasco E&P Inc.	N. M. "R" ST. NCT-1 No. 6 3002520953	2310 FNL 760 FEL SEC 6, T18S R35E (H)	5/6/63	8850	8840	11-3/4 8-5/8	357 3080	350 1800	0 0	CIRC CIRC	8275-9718 TS	SI	Also Reef Perf and sgs w 860 sz @ 3100'
Texasco E&P Inc.	N. M. "R" ST. NCT-1 No. 7 3002520903	2310 FNL 1650 FEL SEC 6, T18S R35E (G)	7/26/71	8850	8525	11-3/4 8-5/8	360 3032	400 1650	0 0	CIRC CALC	8245-8310 8533-8689	SI	Also Reef sgs perfs thru retainer w/250sz Perf and sgs w 50 sz @ 3050'
Texasco E&P Inc.	N. M. "R" ST. NCT-1 No. 13 3002531980	1905 FNL 2130 FEL SEC 6, T18S R35E (G)	8/9/63	8150	8112	11-3/4 5-1/2	1460 8150	860 2100	0 300	CIRC TS	7609-8070 TS	PROD	Drifted
Texasco E&P Inc.	N. M. "R" ST. NCT-1 No. 14 3002532016	8807 FNL 20007 FEL SEC 6, T18S R35E (B)	9/10/63	8150	8130	8-5/8 5-1/2	1455 8150	650 2800	0 1550	CIRC TS	7572-8101 TS	PROD	Drifted
Texasco E&P Inc.	N. M. "R" ST. NCT-1 No. 15 3002532019	5107 FNL 8407 FEL SEC 6, T18S R35E (A)	12/14/63	8150	8140	8-5/8 5-1/2	1487 8150	650 2235	0 0	CIRC CIRC	7701-8098 CIRC	PROD	Drifted
Texasco E&P Inc.	NEW MEXICO "AB" ST. No. 10 3002531981	23107 FSL 21107 FEL SEC 6, T18S R35E (J)	12/24/63	8200	8155	8-5/8 5-1/2	1495 8200	650 2195	0 0	CIRC CIRC	7757-7968 CIRC	PROD	Drifted
Texasco E&P Inc.	NEW MEXICO "AB" ST. No. 3 3002503066	660 FSL 1990 FEL SEC 6, T18S R35E (O)	12/24/61	8858	8115	10-3/4 7-5/8	343 5404	250 900	0 0	CIRC CIRC	7600-7981 8253-8846	PROD	Drifted Also Reef isolated by CIBP @ 8115' Cmt 17-5/8 0-1800' w 450 sz
Texasco E&P Inc.	NEW MEXICO "AB" ST. No. 4 3002503067	1650 FSL 660 FEL SEC 6, T18S R35E (I)	12/22/61	9080	9066	10-3/4 7-5/8	327 5228	350 900	0 650	CIRC CALC	8208-8826 CALC	SI	Also Reef
Texasco E&P Inc.	NEW MEXICO "AB" ST. No. 5 3002520163	1800 FSL 1650 FEL SEC 6, T18S R35E (J)	3/14/63	8851	2765	11-3/4 8-5/8	340 3070	300 1400	0 0	CIRC CIRC	8172-8794 8300-8588	P&A	Also and Paddock 2-7/8 TBG CUT AT 1860'

C108 ATTACHMENT VI
WELLS WITHIN 1/2 MILE RADIUS OF REVIEW

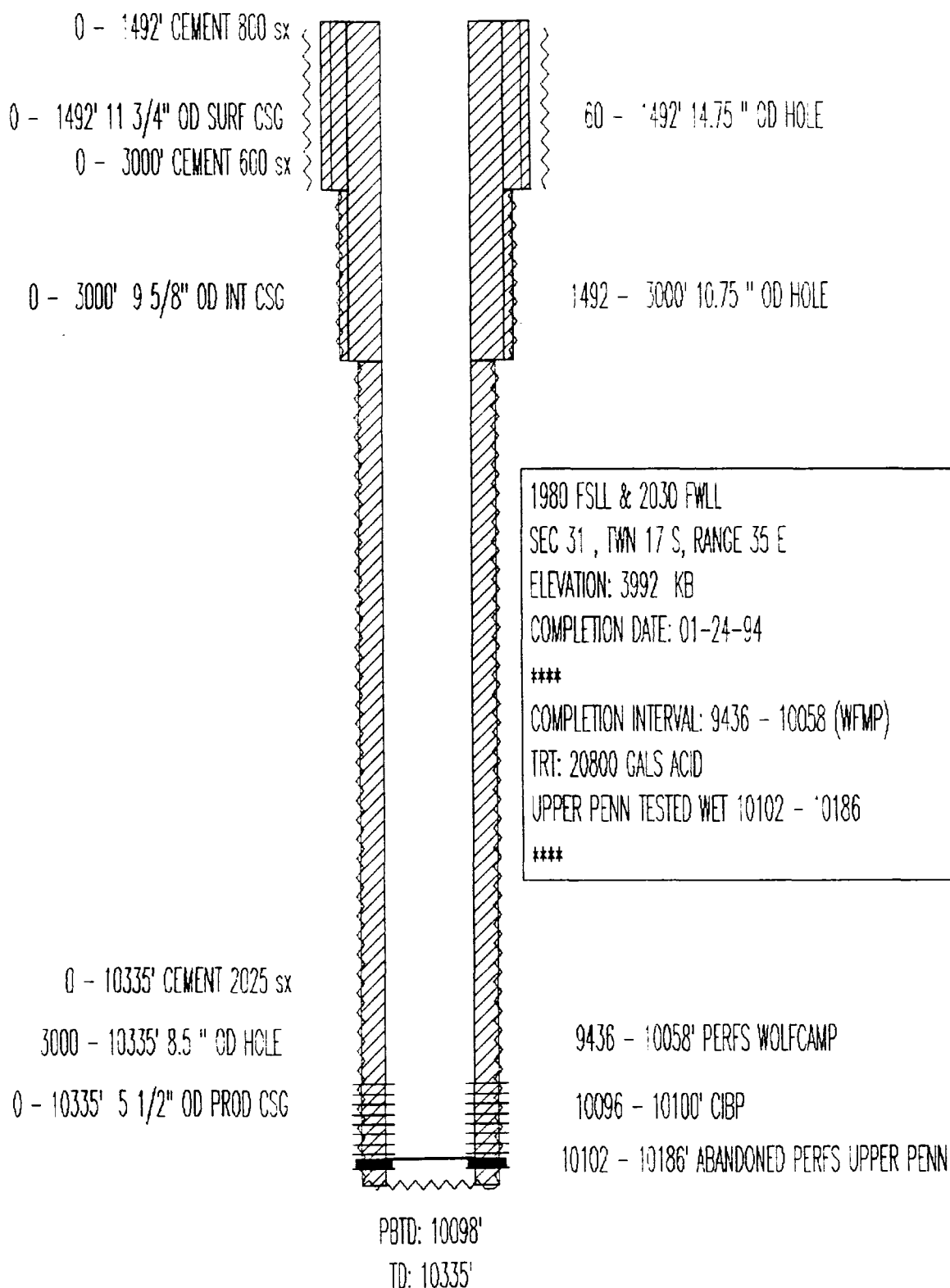
OPERATOR	WELL NAME API NO.	LOCATION	COMPLETION DATE	TD	PSID	CASING SIZE	CASING DEPTH	CEMENT SACKS	TOP	METHOD	PRODUCING INTERVAL	CURRENT STATUS	REMARKS
Texasco E&P Inc.	N. M. "R" ST. NCT-3 No. 27 3002532004	660 FSL 1650 FEL SEC 1, T16S R34E (O)	5/6/64	8100	7560	8-5/8 5-1/2	1470 8100	600 2400	0 0	CIRC CIRC	7656-7902	SI	400 SX PLUG 1750-1900' 100 SX PLUG 1454-1750' 100 SX PLUG 0-1454'
Texasco E&P Inc.	N. M. "R" ST. NCT-3 No. 15 3002530960	487 FSL 560 FEL SEC 1, T16S R34E (O)	6/5/64	10200	10200	13-3/8 8-5/8 2-7/8	355 4800 10200	400 1700 2400	0 0 0	CIRC CIRC CIRC	6405-8708' 8452-8882' 9659-9976'	P & A	Abso Reef & Wolfcamp Set CIBPs in both strings @ 8600', 8440', 8800' Cut log @ 4620' Set plugs @ 4620', 2820', 1860' Perf & sep 400' at 455' to surf
Texasco E&P Inc.	Vacuum Grayburg SA Unit No. 68 3002521110	1655 FSL 330 FEL SEC 1, T16S R34E (I)	10/9/64	8600	8600	0 11-3/4 8-5/8 2-7/8	402 3250 8000	350 1650 1800	0 0 3235	CIRC CIRC CBL	8472-8572' 5968-6129' 4536-4696'	P & A	CIBP W/35' CAPS @ 8235', 5950', & 4755' 902 PERFS @ 3280' & 400' CIRC CMT. Formerly N. M. "R" ST. NCT-3 No. 16
Texasco E&P Inc.	N. M. "R" ST. NCT-3 No. 24 3002529625	860' FSL 660' FEL SEC 1, T16S R34E (O)	11/4/61	11894	7982	40 26 20 9-5/8 7 5	40 407 1565 5000 11100 10778- 11878	40 1000 2150 3700 2050 175	0 0 0 0 0 0	CIRC CIRC CIRC CIRC CIRC	10182-10283' 11182-11238' 7638-7900'	ABDN ABDN PROD	Upper Perm Lower Miss. Driftand
Texasco E&P Inc.	N. M. "R" ST. NCT-3 No. 25 3002531930	1980 FSL 860 FEL SEC 1, T16S R34E (I)	4/30/63	8000	7950	11-3/4 5-1/2	1470 8000	1690 1690	0 0	CIRC CIRC	7566-7908'	PROD	Driftand
Shell Oil	STATE "E" No. 2 3002520623	660 FSL 1700 FWL SEC 31, T17S R35E (N)	5/10/64	10406	8085	13-3/8 8-5/8 7	332 3284' 8609'	300 574 1600	0 0 0	CIRC CIRC 90ZD	7818-7904' 5969-6223' 9218-9418'	PROD 90ZD ABDN	Abandoned Wolfcamp Perfs w/ CIBP @ 8095' Squeezed Paddock perfs with 150 Perf & sep @ 3320' circ cmt to surface
Shell Oil	STATE "D" No. 3 3002532286	330 FSL 695 FWL SEC 31, T17S R35E (M)	2/15/64	8049	8049	13-3/8 8-5/8 5-1/2	1463 3200 8049	1255 1015 1010	0 0 0	CIRC CIRC	7525-7844'	PROD	Driftand
EXXON	N. M. "BO" ST. NCT-3 No. 7 3002520176	965 FNL 330 FEL SEC 12, T16S R34E (A)	4/21/63	9000	9000	13-3/8 8-5/8 4-1/2	302 3403 8896	325 650 1200	0 2100 4000	CIRC CALC CALC	6343-6855' 6814-6853' 8620-8748'	PROD ABDN ABDN	Tested Wolfcamp and plugged back to Abso Reef Perf and sep @ 1900' w/ 1050' ex
Mobil	STATE "K" No. 12 3002532413	330 FSL 690 FEL SEC 31 T17S R35E (P)	3/17/64	8083	8083	8-5/8 5-1/2	1480 8083	450 800	0 4400	CIRC CALC	7828-7962'	PROD	Driftand
Marathon Oil Co	Wain St AC-1 No. 8 3002533311	1960 FSL 2030 FWL SEC 31 T17S R35E (K)	1/24/64	10335	10098	11-3/4 8-5/8 5-1/2	1492 3000 10355	800 600 2025	0 0 0	CIRC CIRC CIRC	9436-10058' 10102-10186'	PROD	Initial completion in Upper Perm. tested vel. Set CIBP at 10068' isolate Upper Perm. Recompleted to Wolfcamp
Texasco E&P Inc.	N. M. "O" ST. NCT-1 No. 14 3002520008	1874 FSL 2088 FEL SEC 36 T17S R34E (N)	7/26/63	12154	12154	13-3/8 8-5/8 2-7/8 2-7/8	1593 4825 12152 10816	1200 1700 1250	0 2545 5270	CIRC CALC CBL	12114-12122' 11202-11270' 8649-8682' 10344-10462' 9170-9254' 10344-10036'	90ZD ABDN ABDN ABDN PROD PROD	Producing from the Wolfcamp 9-5/8 string Braided sept w/600' ex cmt
Texasco E&P Inc.	Vacuum Gloria West Unit No. 87 3002521637	2090 FSL 2085 FEL SEC 36 T17S R34E (J)	1/23/66	10200	8185	11-3/4 8-5/8 4-1/2	1499 4825 10200	1300 1100 1050	0 2400 4100	CIRC CALC CALC	10088-10164' 5930-6160'	ABDN PROD	Plugged back from Perm Reef to the Gloria Formerly N. M. "O" ST. No. 25
Texasco E&P Inc.	Vacuum Gloria West Unit No. 112 3002520515	560 FNL 760 FWL SEC 1, T16S R34E (O)	11/16/63	12215	6100	13-3/8 8-5/8 2-7/8 2-7/8 2-7/8	1492 478 9473 10228 10202	1150 1700 2250	0 2700 0	CIRC CALC CIRC	6078-6094' 9068-9310' 9337-9960' 6044-8048'	90ZD 90ZD SI PROD	Formerly N. M. "M" ST. No. 5 Braided sept 9-5/8' cap w/ 650' at 0-2100' Gloria perfs abandoned due to junk Abso string plugged back to Gloria Wolfcamp string still in
Texasco E&P Inc.	N. M. "W" ST. No. 7 3002520494	1800 FNL 1880 FWL SEC 1, T16S R34E (I)	10/11/63	12200	7885	13-3/8 8-5/8	1513 4805	1100 1700	0 1900	CIRC CALC	9967-10043' 6016-6028'	ABDN ABDN	Wolfcamp and Gloria perfs Absh Producing from Driftand

C100 ATTACHMENT VI
WELLS WITHIN 1/2 MILE RADIUS OF REVIEW

OPERATOR	WELL NAME API NO.	LOCATION	COMPLETION DATE	TD	PSID	CASING SIZE	CASING DEPTH	CEMENT BACKS	TOP	METHOD	PRODUCING INTERVAL	CURRENT STATUS	REMARKS
Texaco E&P Inc.	N. M. "M" ST. No. 9 3002520494	680 FNL 2310 FWL SEC 1, T18S R34E (C)	2/21/84	8100	8053	8-5/8	1470	850	0	CIRC	7530-7658'	PROD	Drilled
						5-1/2	8100	1825	0	CIRC			
Mobil	State CC. Com Unit No. 1 3002520372	1960 FSL 560 FWL SEC 36 T17S R34E (L)	8/12/84	12040	10222	18	360	350	0	CIRC	8115-8185	ABDN	Crnt plug set in 2-7/8" string Also and Wolfcamp Commingled in 4-1/2" csg
						10-3/4	4887	2625	0	CIRC	11872-12628'	ABDN	
Texaco E&P Inc.	N. M. "O" ST. NCT-1 No. 17 3002520125	760 FSL 2040 FWL SEC 36 T17S R34E (N)	6/22/83	12042	10070	13-3/8	1612	1200	0	CIRC	8087-9224'	SOZD	Crnt plug set in 2-7/8" string Also and Wolfcamp Commingled in 4-1/2" csg
						8-5/8	4750	1700	2700	CALC	8082-10004'	SOZD	Penn Reef arg casing collapsed @ 9350'
						2-7/8	10864	1325	2180	CBL	10130-10140'	SOZD/ABN	Tested Also recompled in Wolfcamp
						3-1/2	10282				11834-11860'	ABDN	Plugged back Devonian to Wolfcamp
						2-7/8	10875				8082-10028'	SI	Wolfcamp Shu In

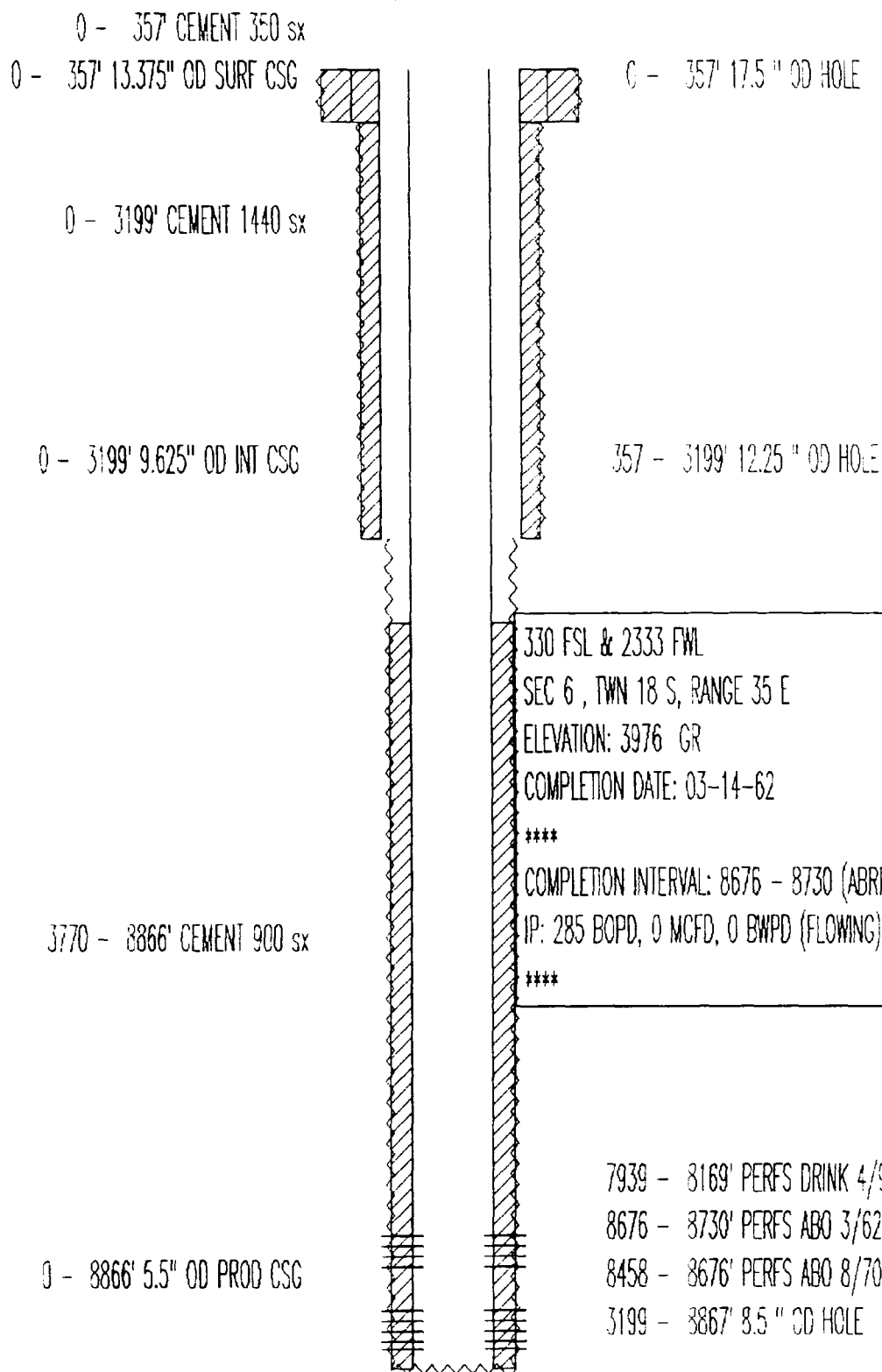
PRODUCING
WOLFCAMP

MARATHON OIL
WARN STATE A/C-1 NO. 6
API# 3002532311



CURRENT STATUS - SHUT IN
ABO & DRINKARD COMMINGLED

MARATHON OIL
WARN-STATE A/C-2 NO. 8
API# 3002503082



KB ELEV: 3976'
PBTD: 8818'
TD: 8867'

SHUT IN
ABO AND DRINKARD COMMINGLED

MARATHON OIL
WARN-STATE A/C-2 NO. 9
API# 30025030830000

0 - 356' CEMENT 350 sx
0 - 356' 13.375" OD SURF CSG

0 - 356' 17.5" OD HOLE

0 - 3159' CEMENT 1400 sx

0 - 3159' 9.625" OD INT CSG

356 - 3159' 12.25" OD HOLE

2915 - 8769' CEMENT 850 sx

330 FSL & 913 FWL

SEC 6, TWN 18 S, RANGE 35 E

ELEVATION: 3889 DF

COMPLETION DATE: 06-01-62

COMPLETION INTERVAL: 8541 - 8608 (ABRF)

IP: 337 BOPD, 0 MCFD, 0 BWPD (FLOWING)

0 - 8769' 5.5" OD PROD CSG

7800 - 8068' PERFS DRINK 1/93

8541 - 8608' PERFS ABO 6/62

8423 - 8541' PERFS ABO 8/71

3159 - 3771' 8.5" OD HOLE

KB ELEV: 3979'

PRD: 8737'

TD: 8771'

PLUGGED & ABANDONED

MARATHON OIL
WARN-STATE A/C-2 NO. 10
API# 3002520020

- 0 - 10' CEMENT PLUG 6 SX
- 0 - 371' CEMENT 3.5 sx
- 0 - 371' 13.375" OD SURF CSG
- 234 - 424' CEMENT PLUG 20 SX
- 1329 - 1519' CEMENT PLUG 20 SX
- 0 - 3307' CEMENT 1540 sx

0 - 371' 17.5" OD HOLE

- 3113 - 3357' CEMENT PLUG 25 SX
- 0 - 3307' 9.625" OD INT CSG

371 - 3307' 12.25" OD HOLE

- 225 - 8868' CEMENT 560 sx
- 4486 - 5070' CEMENT PLUG 60 SX

1650 FSL & 2232 FWL
SEC 6, TWN 18 S, RANGE 35 E
ELEVATION: 3989 DF
COMPLETION DATE: 05-29-63

COMPLETION INTERVAL: 8644 - 8791 (ABO)
IP: 190 BOPD, 0 MCFD, 0 BWPD (FLOWING)

- 0 - 8868' 5.5" OD PROD CSG

8644 - 8791' PERFS

3307 - 3870' 8.5" OD HOLE

PBTD: 8823'

TD: 8870'

PRODUCING
DRINKARD

MARATHON OIL
WARN STATE A/C-2 NO. 11
API# 3002520031

0 - 360' 13.375" OD SURF CSG

0 - 360' 17.5 " OD HOLE

0 - 360' CEMENT 250 sx

0 - 3400' CEMENT 1550 sx

0 - 3400' 8.625" OD INT CSG

360 - 3400' 12.25 " OD HOLE

745 - 8797' CEMENT 1255 sx

1650 FSL & 910 FWL

SEC 6 , TWN 18 S, RANGE 35 E

ELEVATION: 3992 DF

COMPLETION DATE: 08-07-63

COMPLETION INTERVAL: 8485 - 8655 (ABO)

TRT: 2000 GALS ACID (8485 - 8655)

IP: 169 BOPD, 0 MCFD, 0 BWPD (FLOWING)

7805 - 7810' CIBP

7630 - 7790' PERFS DRINKARD 11/92

0 - 8797' 5.5" OD PROD CSG

3400 - 3799' 7.675 " OD HOLE

8485 - 8655' PERFS ABO 8/63

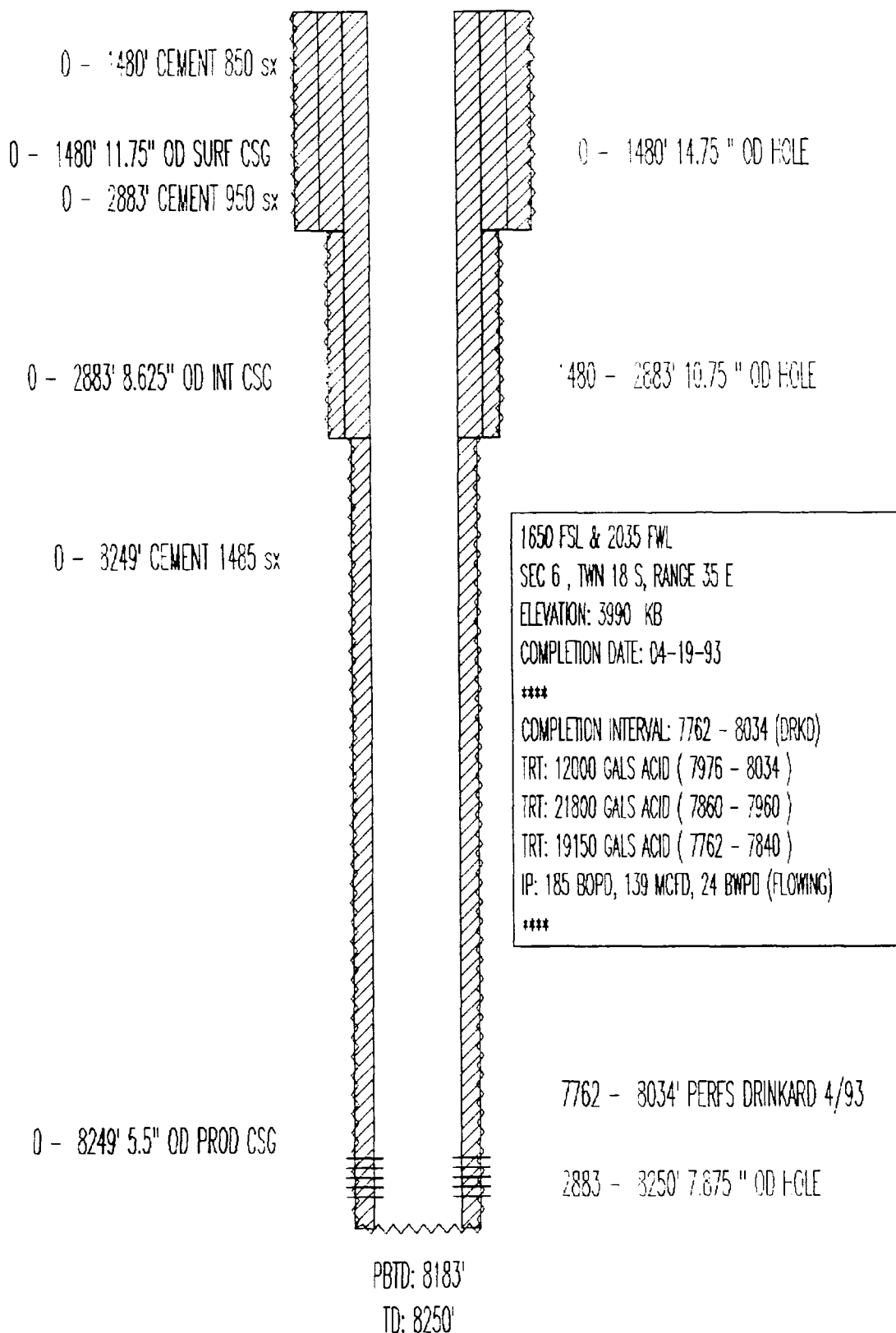
KB ELEV: 3992'

PBTD: 7805'

TD: 8799'

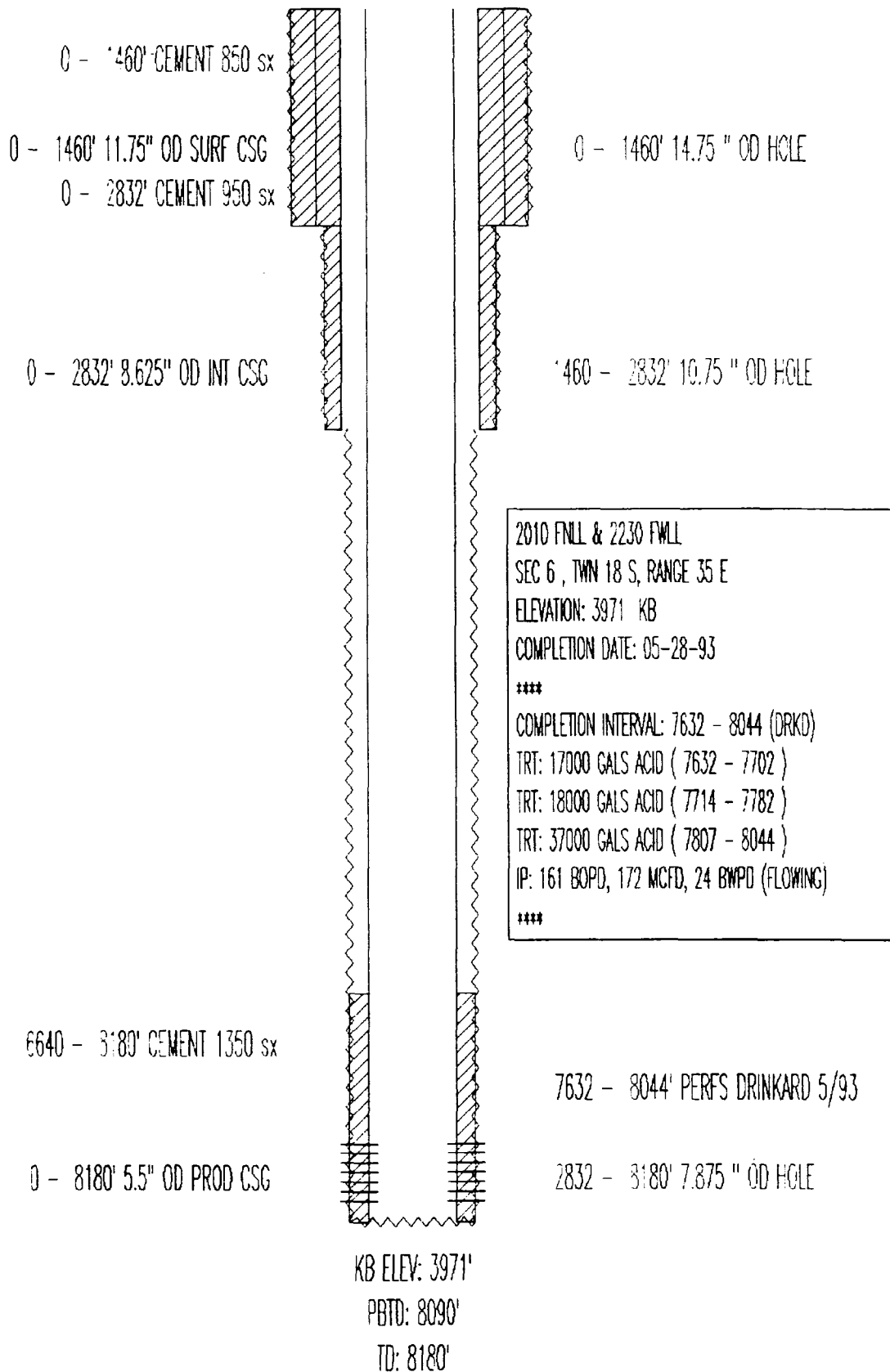
PRODUCING
DRINKARD

MARATHON OIL
WARN STATE A/C-2 NO. 18
API# 3002531887



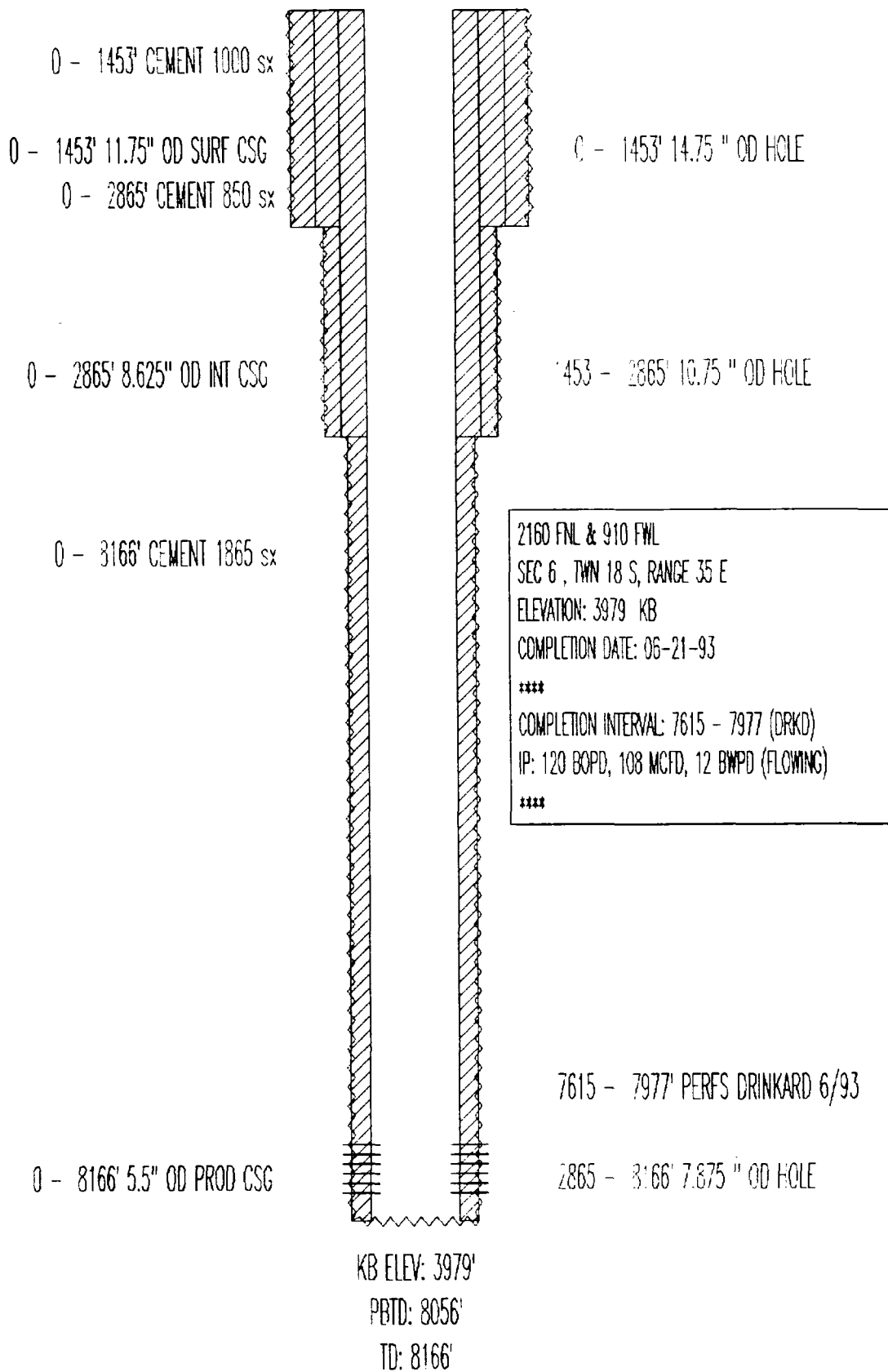
PRODUCING
DRINKARD

MARATHON OIL
WARN STATE A/C-2 NO. 19
API# 3002531927



PRODUCING
DRINKARD

MARATHON OIL
WARN STATE A/C-2 NO. 20
API# 3002531934



PRODUCING
DRINKARD

MARATHON OIL
WARN STATE A/C-2 NO. 21
API# 3002531969

0 - 53' 16" OD SURF CSG

0 - 53' CEMENT 0 sx

0 - 1465' CEMENT 750 sx

0 - 1465' 11.75" OD INT CSG

0 - 2823' CEMENT 900 sx

0 - 2823' 8.625" OD INT CSG

1050 - 3158' CEMENT 1560 sx

0 - 8158' 5.5" OD PROD CSG

0 - 53' 20" OD HOLE

53 - 1465' 14.75" OD HOLE

1465 - 2823' 10.75" OD HOLE

1109 FNL & 1993 FWL

SEC 6, TWN 18 S, RANGE 35 E

ELEVATION: 3988 KB

COMPLETION DATE: 07-28-93

COMPLETION INTERVAL: 7623 - 7989 (DRKD)

TRT: 29500 GALS ACID (7800 - 7989)

TRT: 19200 GALS ACID (7712 - 7771)

TRT: 15834 GALS ACID (7623 - 7693)

IP: 375 BOPD, 301 MCFD, 62 BWPD (FLOWING)

7623 - 7989' PERFS DRINKARD 7/93

2823 - 3200' 7.875" OD HOLE

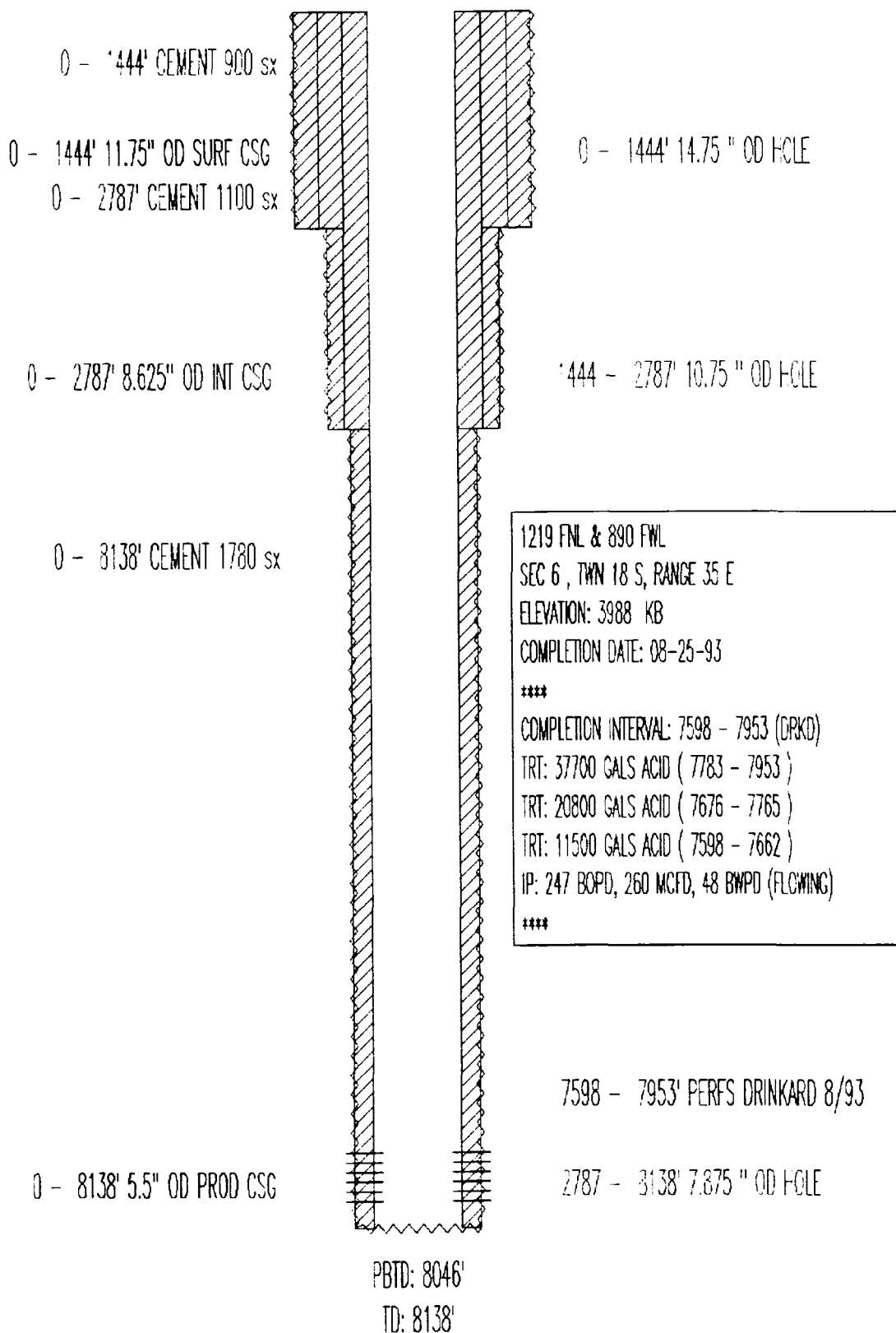
KB ELEV: 3988'

PBTD: 8069'

TD: 8200'

PRODUCING
DRINKARD

MARATHON OIL
WARN STATE A/C-2 NO. 22
API# 30025320340000



PRODUCING
DRINKARD

MARATHON OIL
WARN STATE A/C-2 NO. 23
API# 3002532187

0 - 40' CEMENT 0 sx
0 - 40' 16" OD SURF CSG

C - 40' 20" OD HOLE

0 - 1477' CEMENT 800 sx
0 - 1477' 11.75" OD INT CSG
0 - 2836' CEMENT 800 sx

40 - 1477' 14.75" OD HOLE

0 - 2836' 8.625" OD INT CSG

1477 - 2836' 10.75" OD HOLE

2920 - 8300' CEMENT 1550 sx

990 FSLL & 1920 FWLL
SEC 6, TWN 18 S, RANGE 35 E
ELEVATION: 3993 KB
COMPLETION DATE: 12-15-93

COMPLETION INTERVAL: 7747 - 8030 (DRKD)
TRT: 40000 GALS ACID (7870 - 8030)
TRT: 17500 GALS ACID (7747 - 7844)
IP: 235 BOPD, 239 MCFD, 177 BHPD (PUMPING)

0 - 8300' 5.5" OD PROD CSG

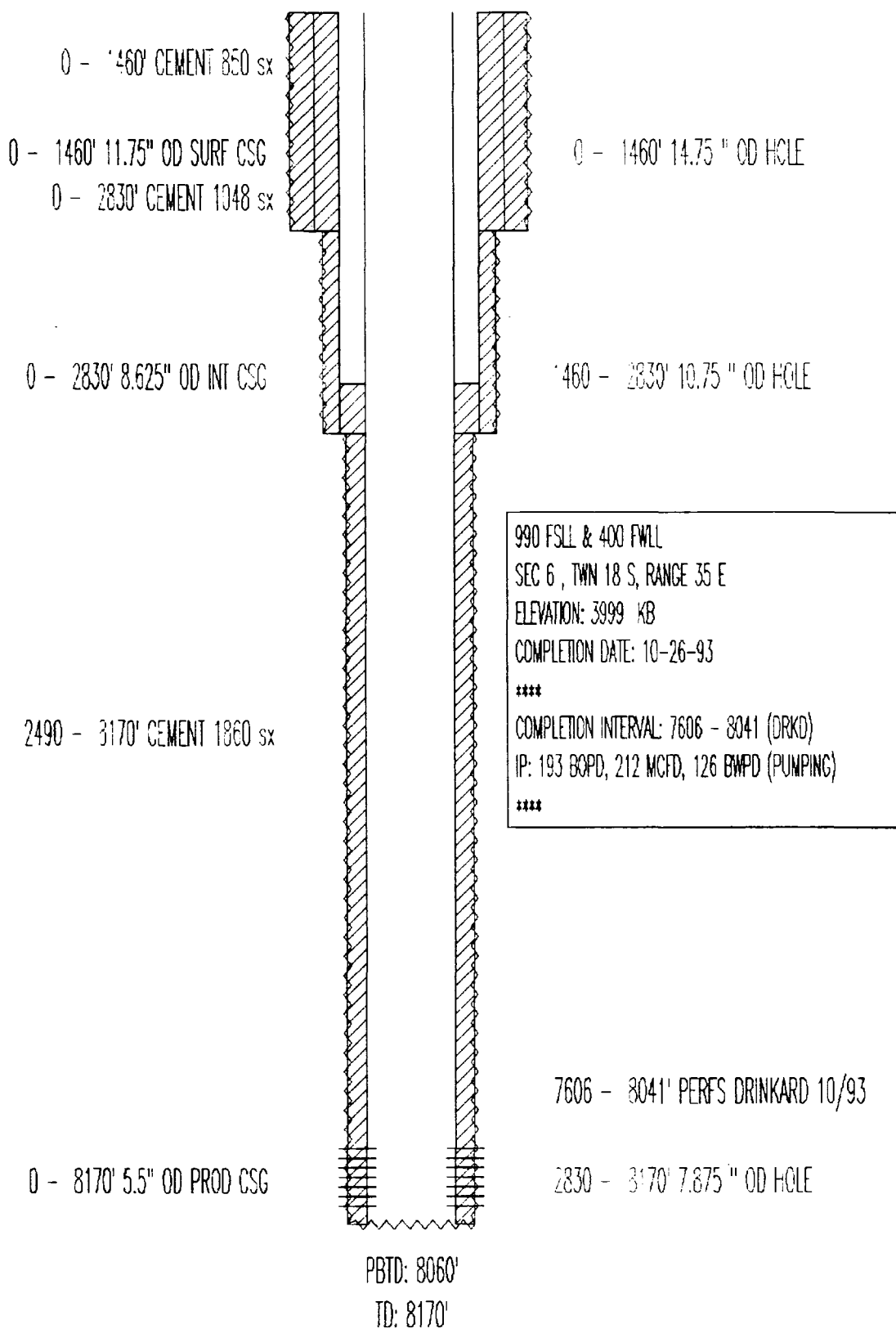
7747 - 8030' PERFS DRINKARD 12/93

2836 - 8300' 7.875" OD HOLE

KB ELEV: 3993'
PBTD: 8205'
TD: 8300'

PRODUCING
DRINKARD

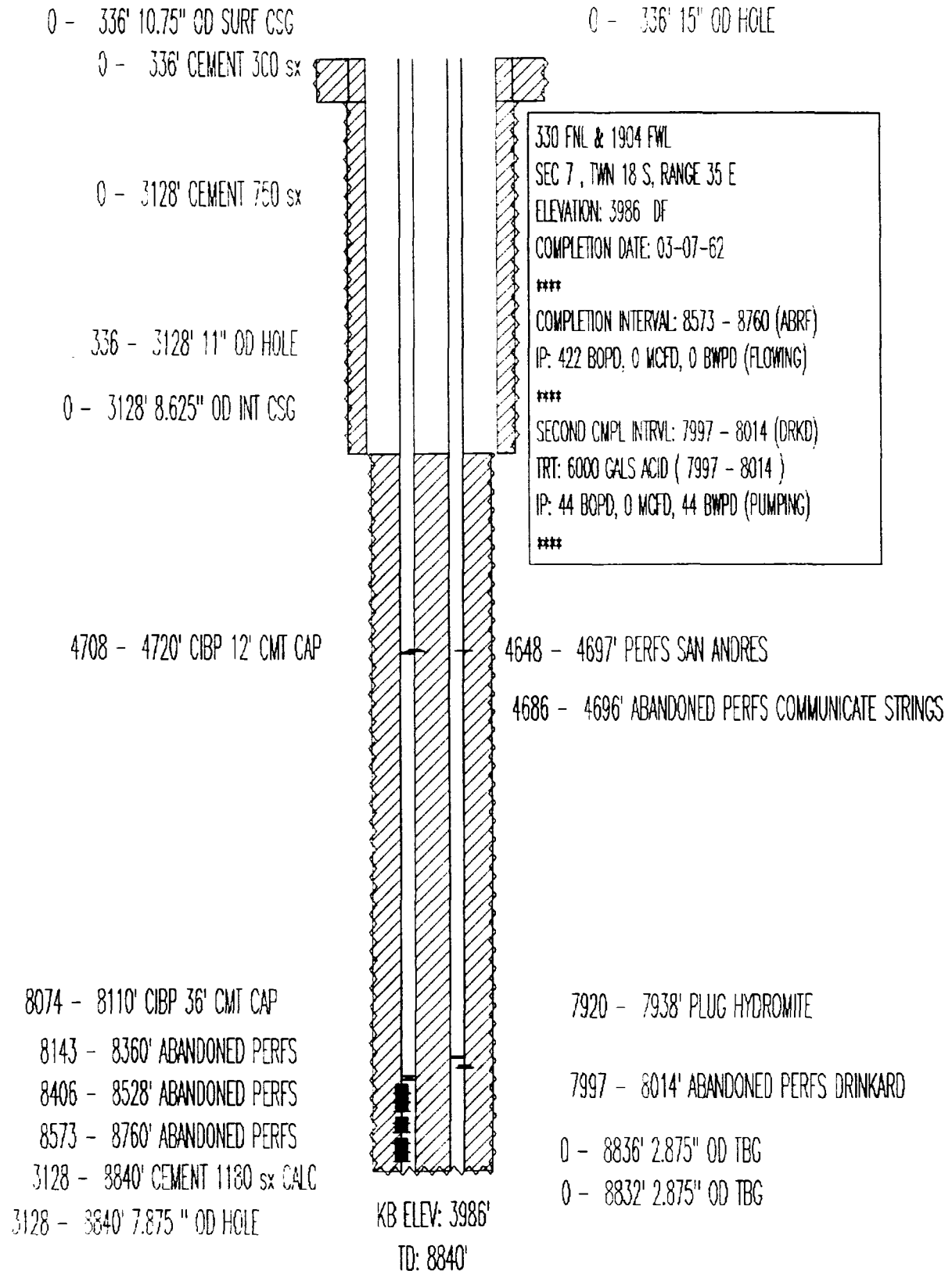
MARATHON OIL
WARN STATE A/C-2 NO. 24
API# 3002532189



SHUT IN
SAN ANDRES

TEXACO INC
CENTRAL VACUUM UNIT NO. 124
API# 3002503099

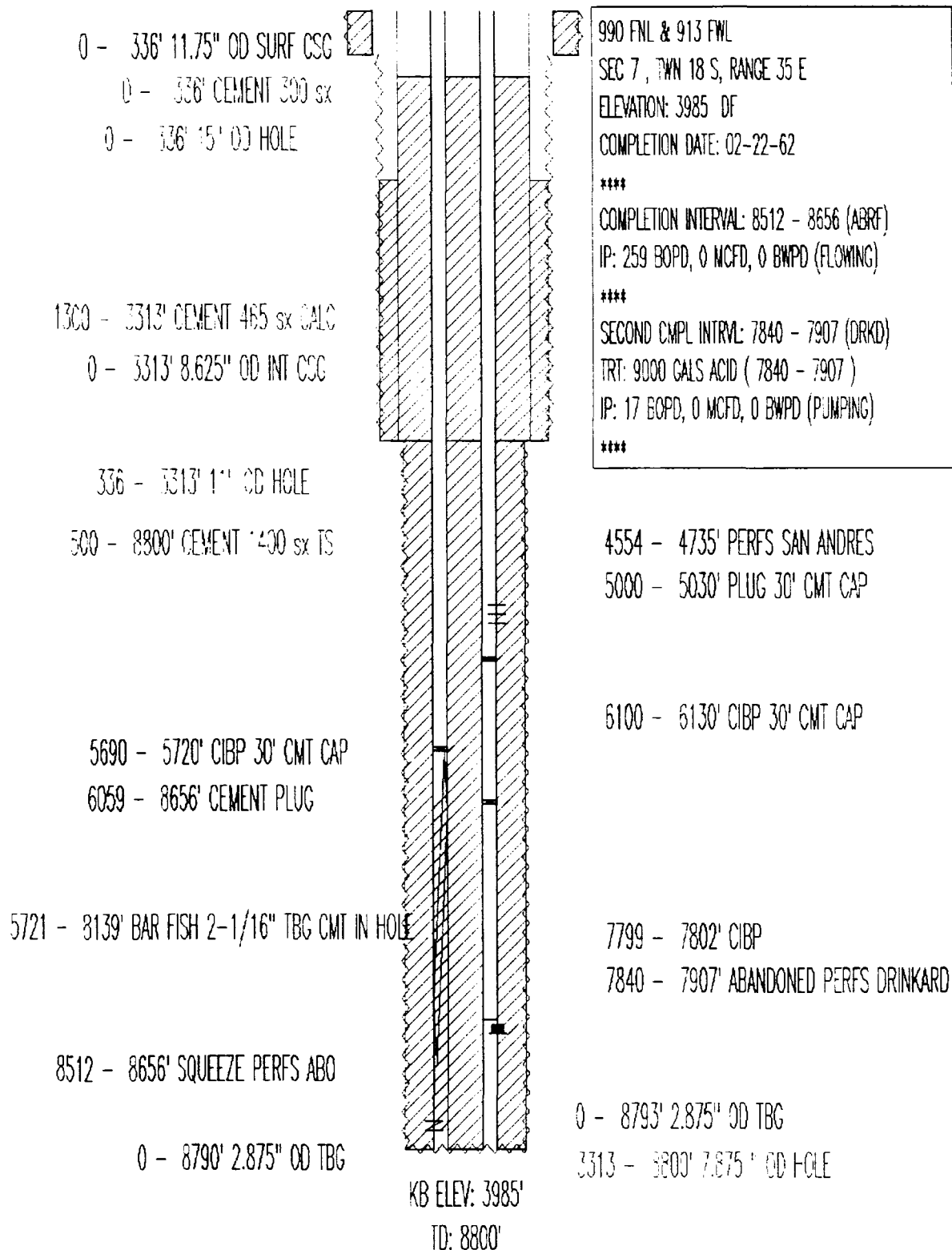
FORMERLY
N. M. "R" ST. NCT-4 NO. 1



SHUT IN
SAN ANDRES

TEXACO INC
CENTRAL VACUUM UNIT NO. 125
API# 3002503100

FORMERLY
N. M. "R" NCT-4 NO. 2



FORMERLY N. M. "O" ST. NO. 25

TEXACO INC
VGWJ NO. 87
API# 3002521637

PRODUCING
GLORIETA

0 - 1499' CEMENT 1300 sx
0 - 1800' CEMENT BROHD SQZ W/600 SX -TS
0 - 1499' 11.75" OD SURF CSG

0 - 1499' 15" CD HOLE

2090 FSL & 2086 FELL
SEC 36 , TWN 17 S, RANGE 34 E
ELEVATION: 4001 DF
COMPLETION DATE: 01-23-66

COMPLETION INTERVAL: 10088 - 10164 (PSLV)
TRT: 12000 GALS ACID (10088 - 10164)
IP: 75 BOPD, 0 MCFD, 75 BWPD (S)

2400 - 4825' CEMENT 1100 sx CALC

1499 - 4825' 10.625" CD HOLE

0 - 4825' 8.625" OD INT CSG

6185 - 6205' CIBP 15' CMT CAP

5930 - 6160' PERFS GLORIETA 3/71, 10/72, 7/87

4100 - 10200' CEMENT 1050 sx CALC

0 - 10200' 4.5" OD PROD CSG

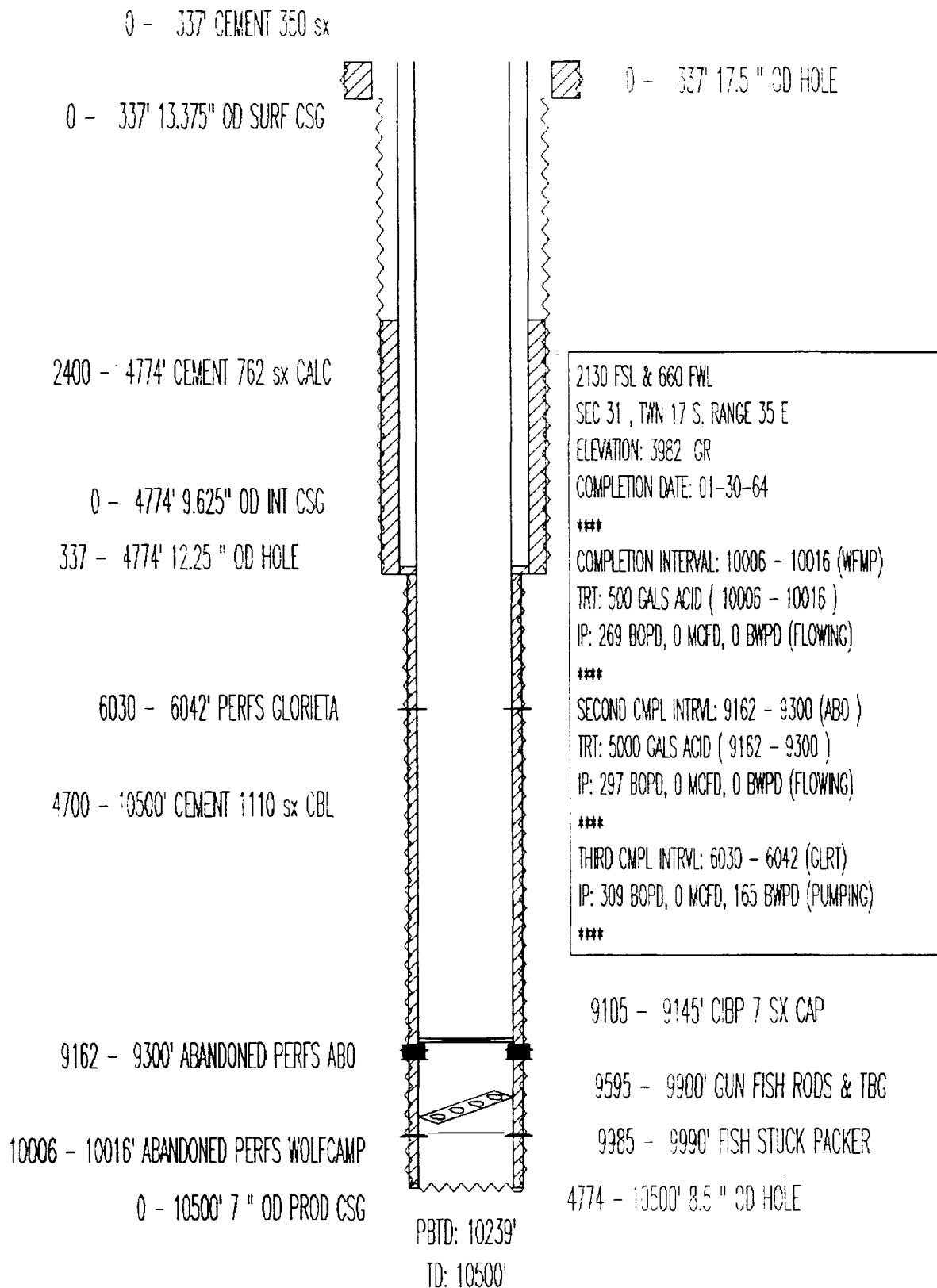
4825 - 10200' 7.875 " CD HOLE
10088 - 10164' ABANDONED PERFS

TD: 10200'

PRODUCING
GLORIETA

TEXACO
VACUUM GLORIETA WEST UNIT #90
API# 3002520270

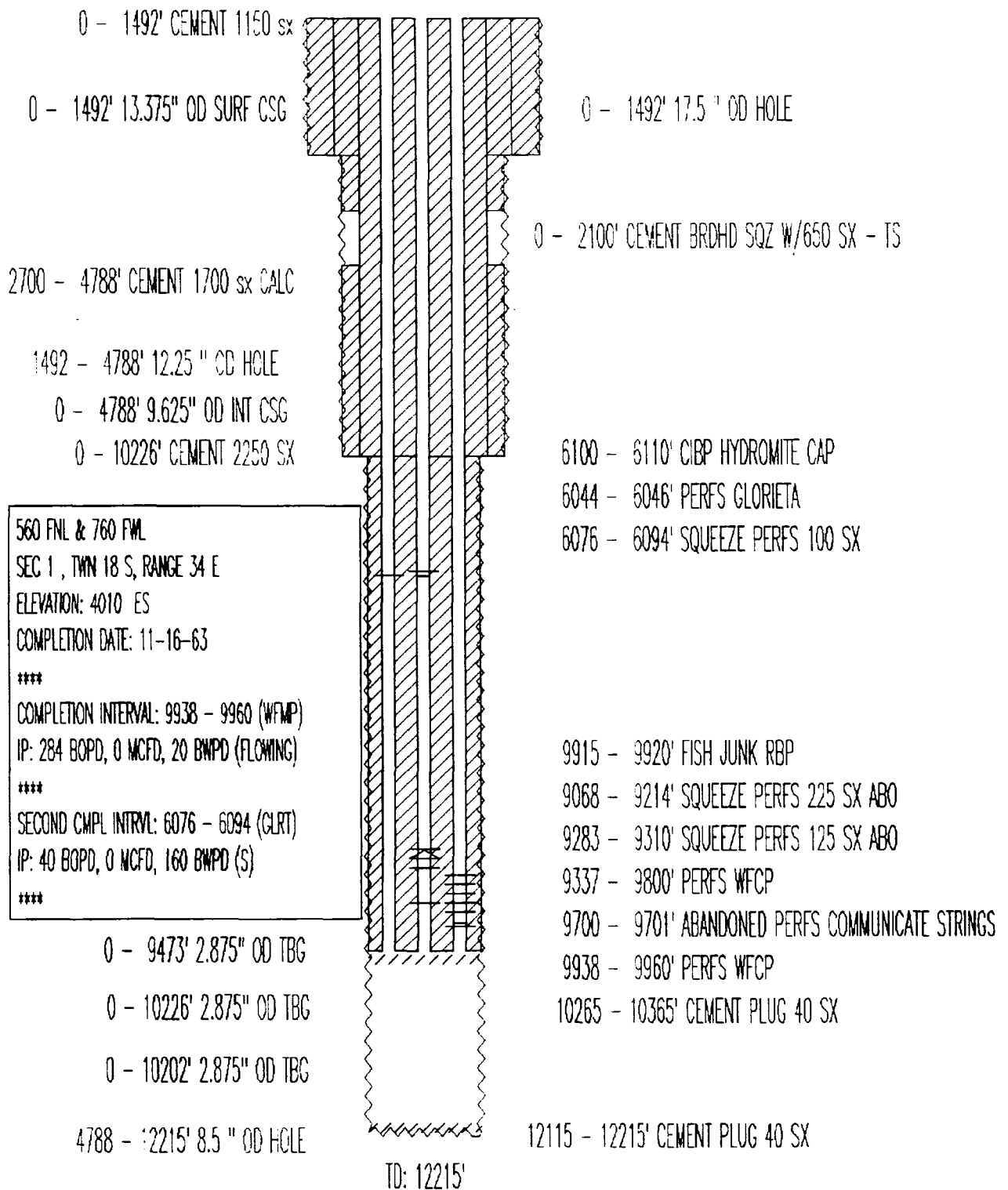
FORMERLY
SANTA FE BATTERY 2 NO. 87
PHILLIPS PETROLEUM



FORMERLY N. M. "M" ST. NO. 5

TEXACO INC
VGWU NO. 112
API# 3002520515

PRODUCING
GLORIETA



P & A

TEXACO INC
VGS AU NO. 68
API# 3002521110

FORMERLY
N. M. "R" NCT-3 NO. 16

0 - 402' 11.75" OD SURF CSG
0 - 402' CEMENT 350 SX
0 - 400' CEMENT
0 - 3250' CEMENT 1650 SX
400 - 3260' CEMENT SQZ 900 SX

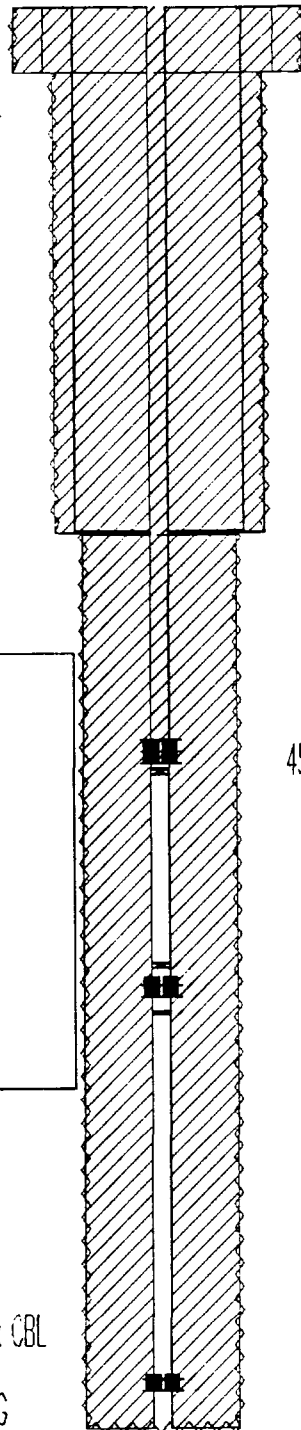
0 - 3250' 8.625" OD INT CSG

1655 FSL & 330 FEL
SEC 1, TWN 18 S, RANGE 34 E
ELEVATION: 3996 ES
COMPLETION DATE: 10-09-64

COMPLETION INTERVAL: 8472 - 8572 (ABO)
TRT: FRAC 15000 GALS @ LBS (8472 - 8572)
IP: 29 BOPD, 0 MCFD, 0 BWPD (S)

3235 - 8800' CEMENT 1600 SX CBL

0 - 8800' 2.875" OD TBG
3250 - 8800' 7.875" OD HOLE



TD: 8800'

0 - 402' 14.75" OD HOLE
400 - 400' SQUEEZE PERFS CIRC W/120 SX
0 - 4686' CEMENT PLUG

402 - 3250' 10.75" OD HOLE
3260 - 3260' SQUEEZE PERFS

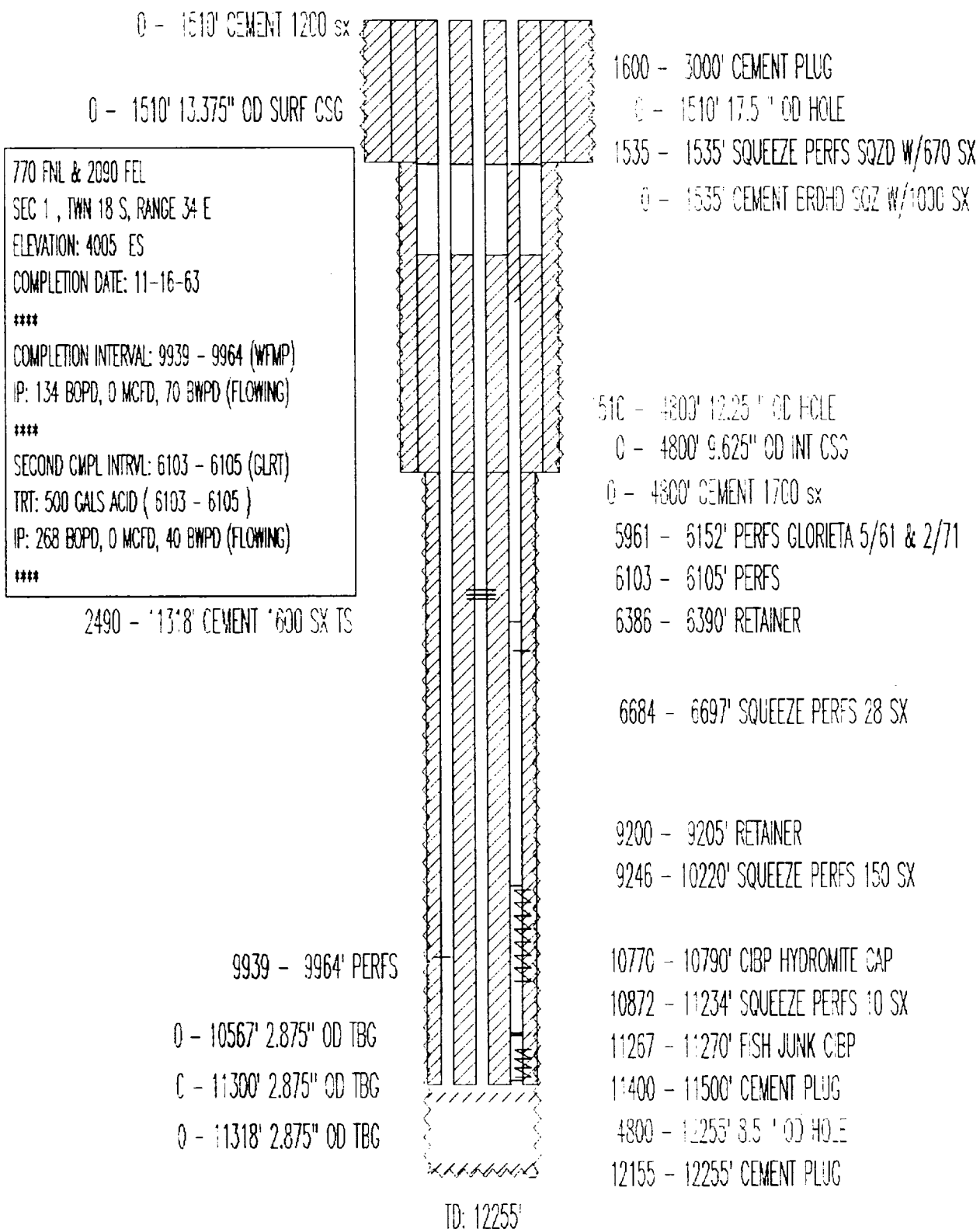
4720 - 4755' CIBP 35' CMT CAP
4536 - 4686' ABANDONED PERFS SQZD W/ 170 SX

5999 - 6125' ABANDONED PERFS
5915 - 5950' CIBP 35' CMT CAP
6215 - 6235' CIBP 35' CMT CAP

8472 - 8572' ABANDONED PERFS

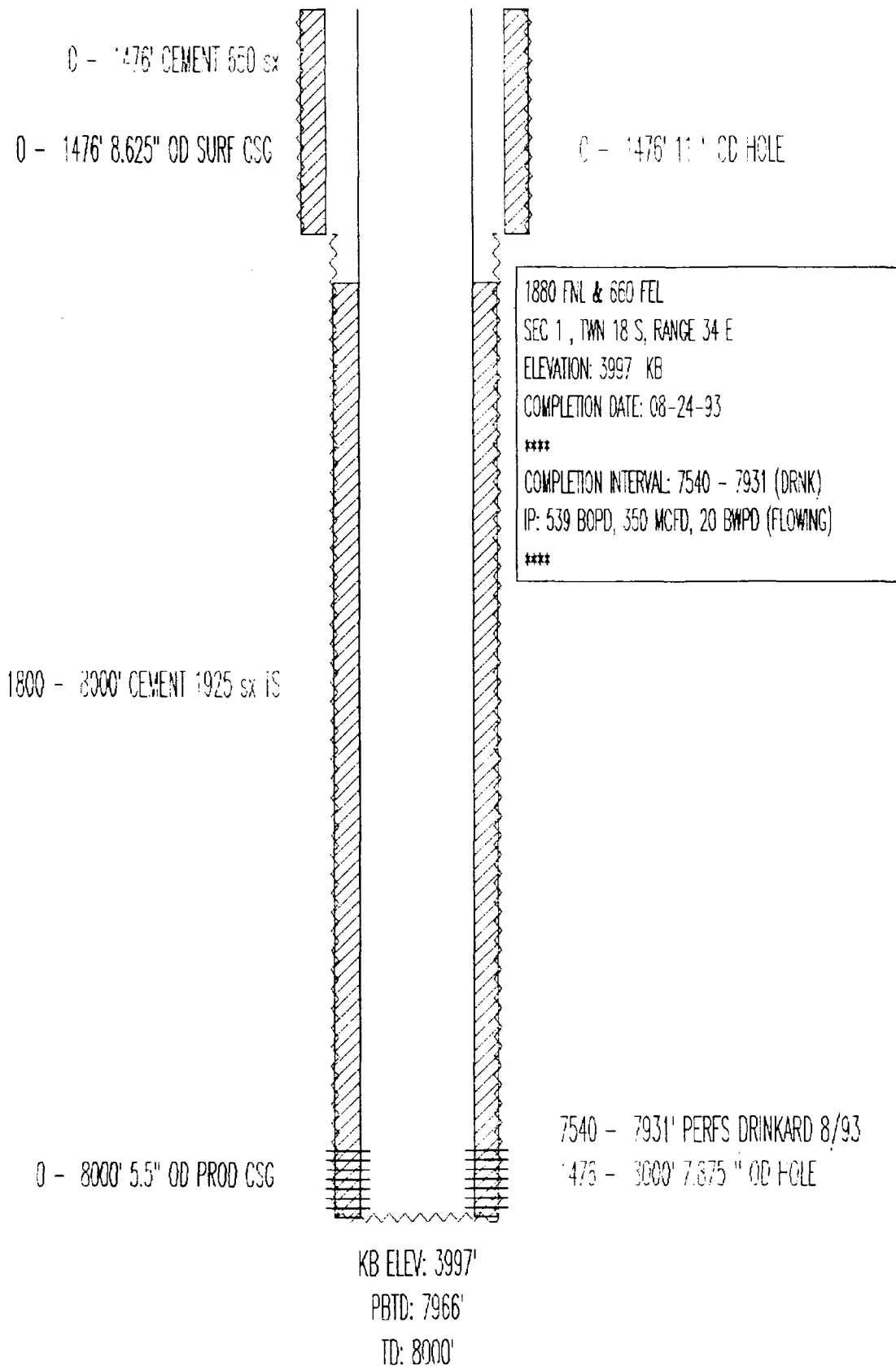
SHUT IN
WOLFCAMP & GLORIETA

TEXACO INC
NEW MEXICO "L" STATE NO. 6
API# 3002520514



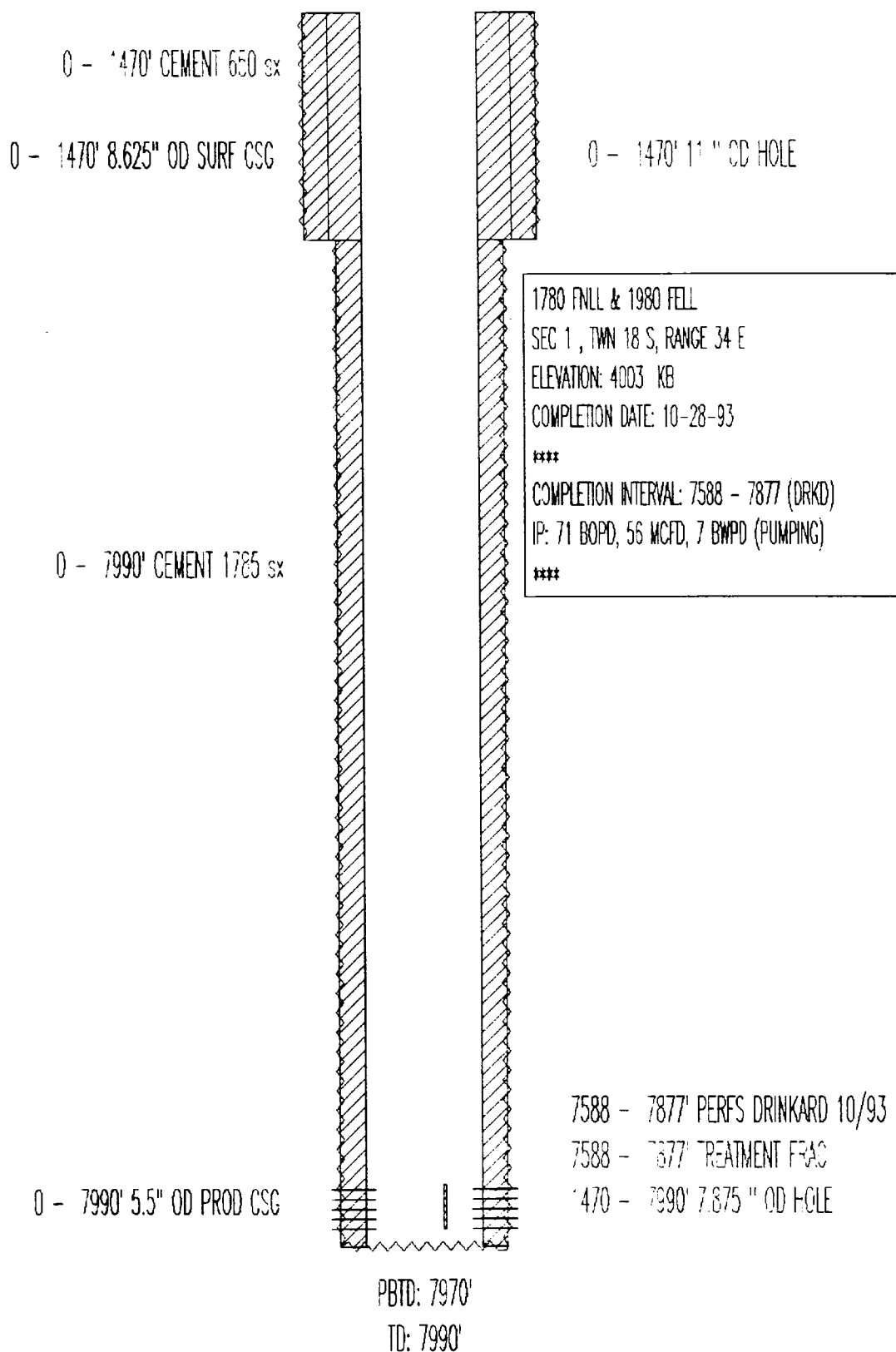
PRODUCING
DRINKARD

TEXACO EXPL & PROD
NEW MEXICO "L" STATE NO. 12
API# 3002531992



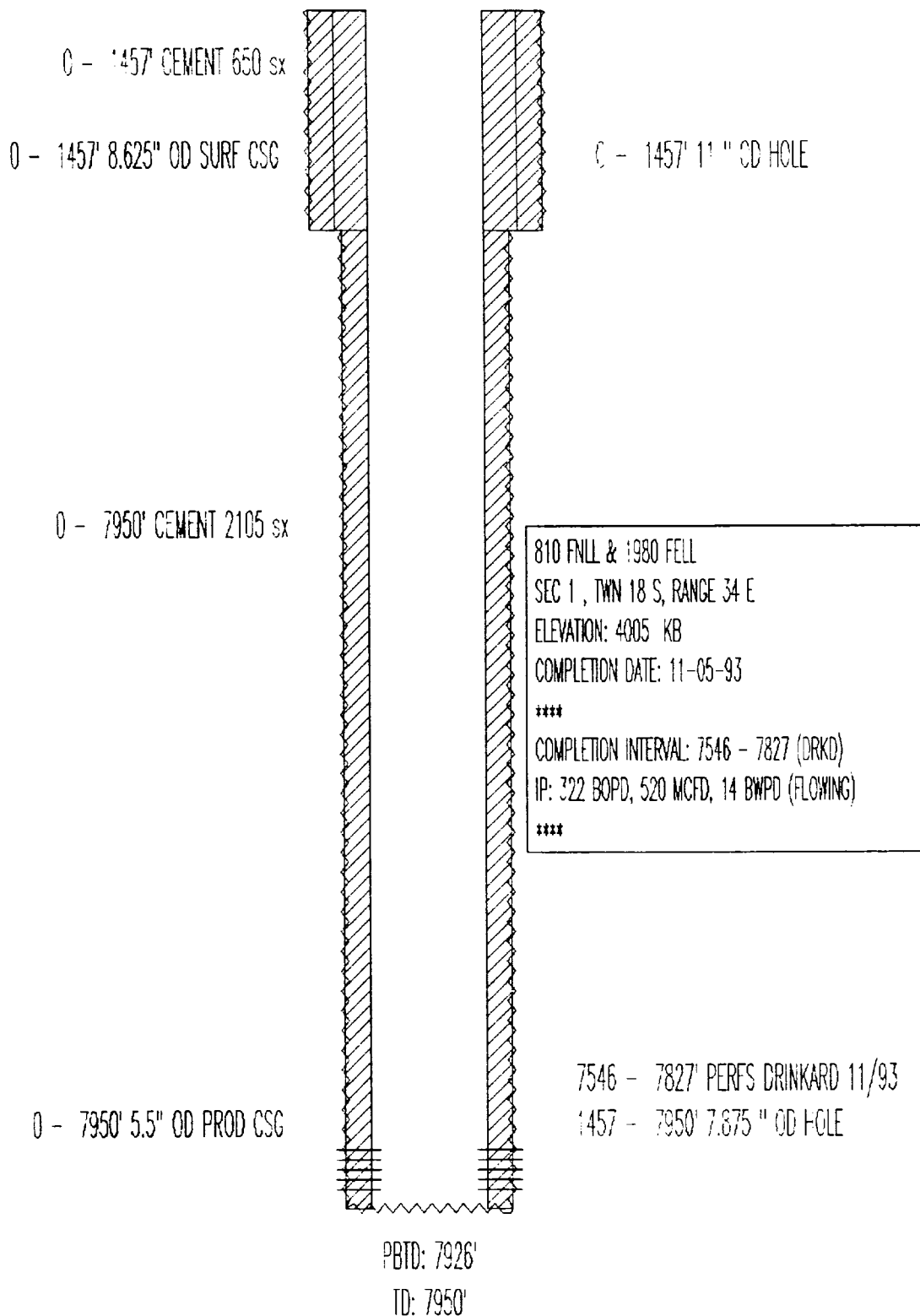
PRODUCING
DRINKARD

TEXACO EXPL & PROD
NEW MEXICO "L" STATE NO. 13
API# 3002532007



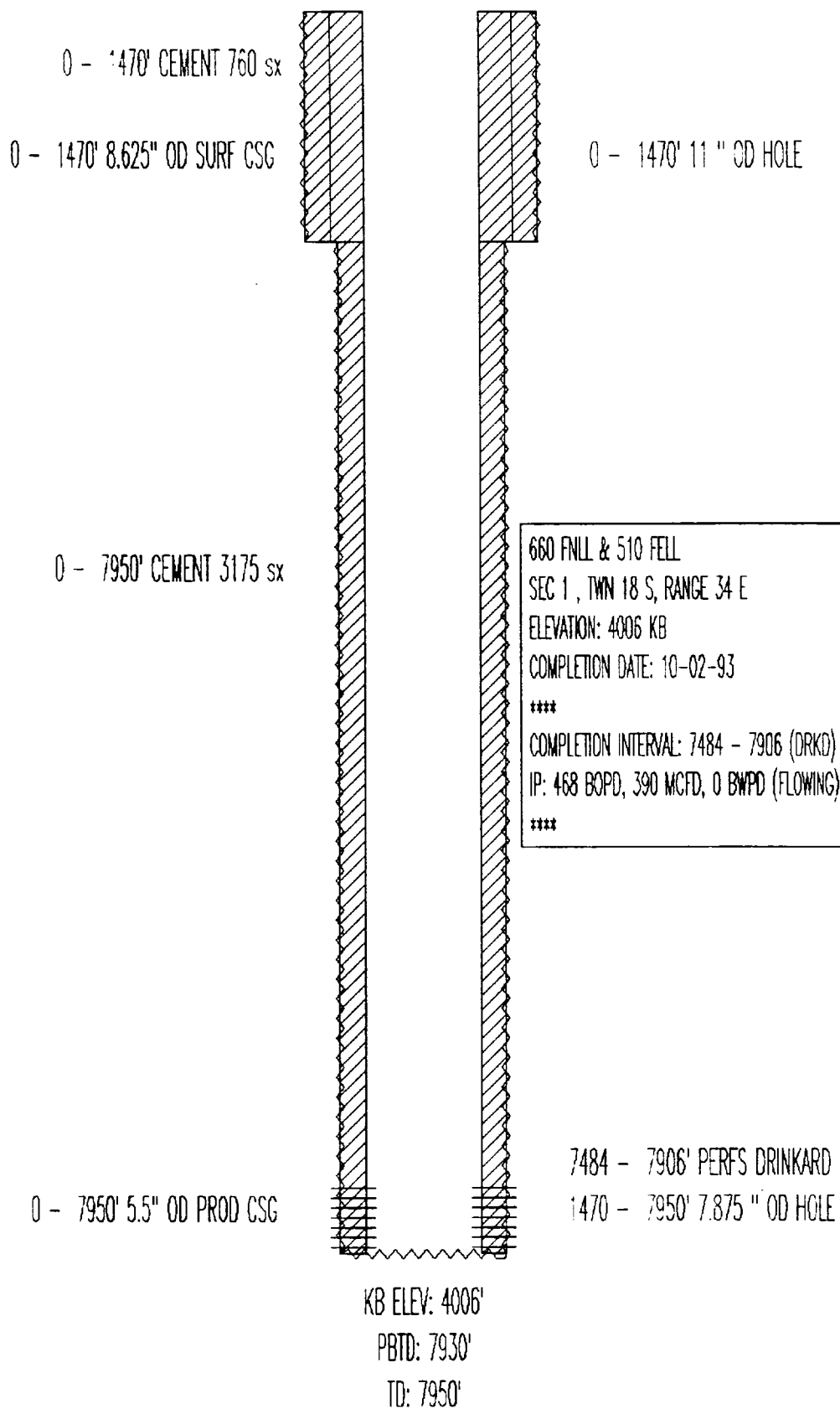
PRODUCING
DRINKARD

TEXACO EXPL & PROD
NEW MEXICO "L" STATE NO. 14
API# 3002532008



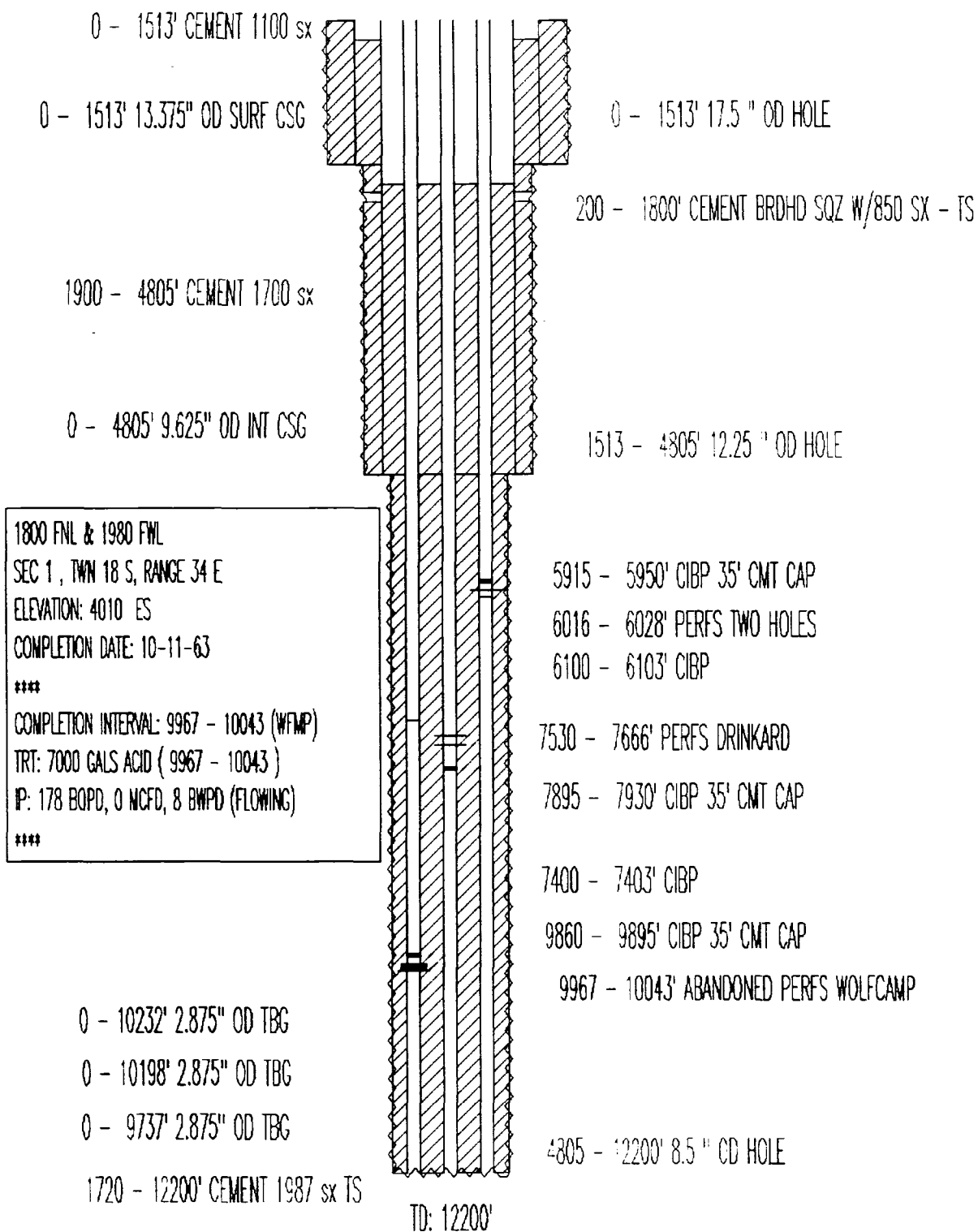
PRODUCING
DRINKARD

TEXACO EXPL & PROD
NEW MEXICO "L" STATE NO. 15
API# 3002532009

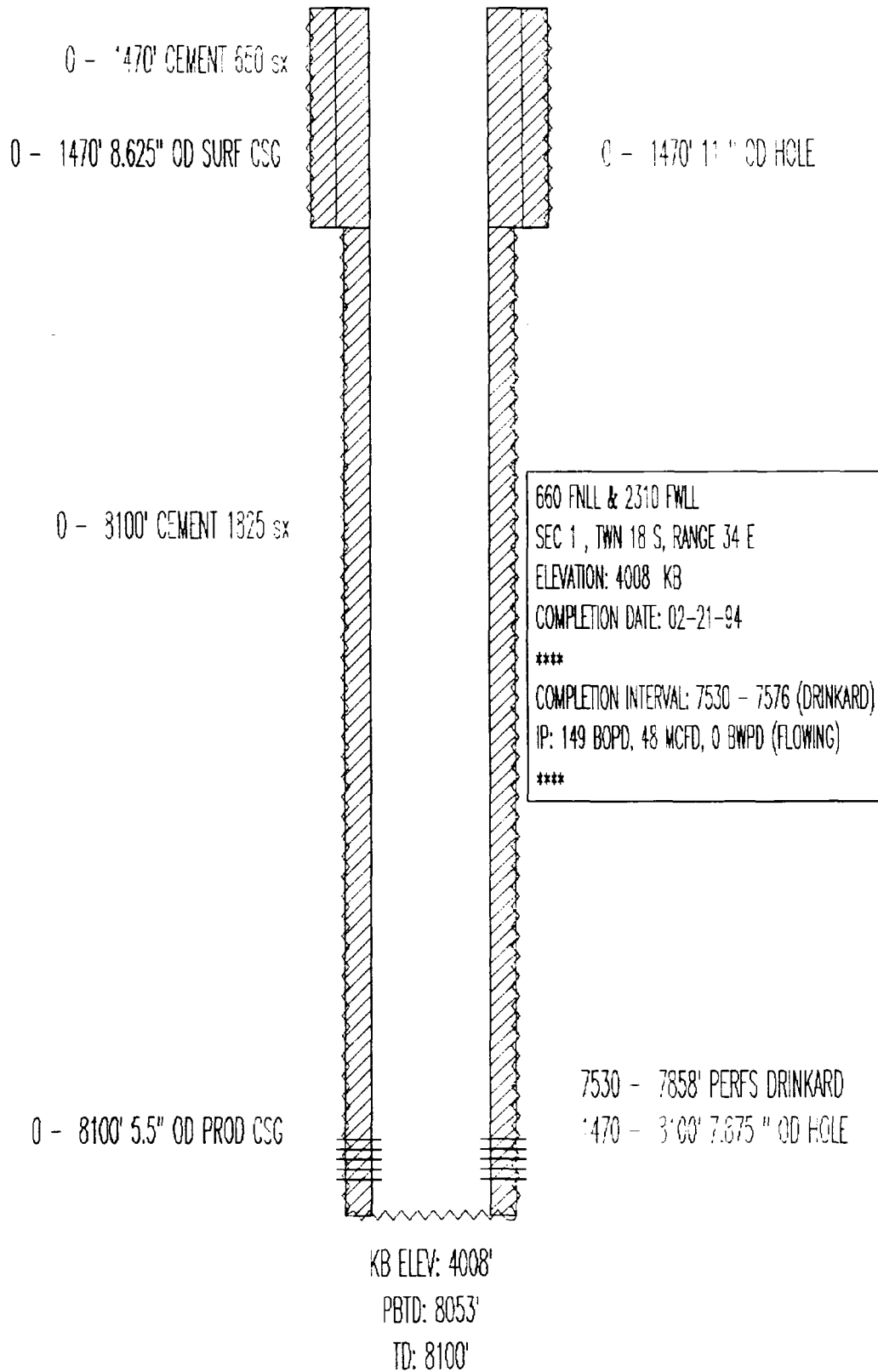


PRODUCING
DRINKARD

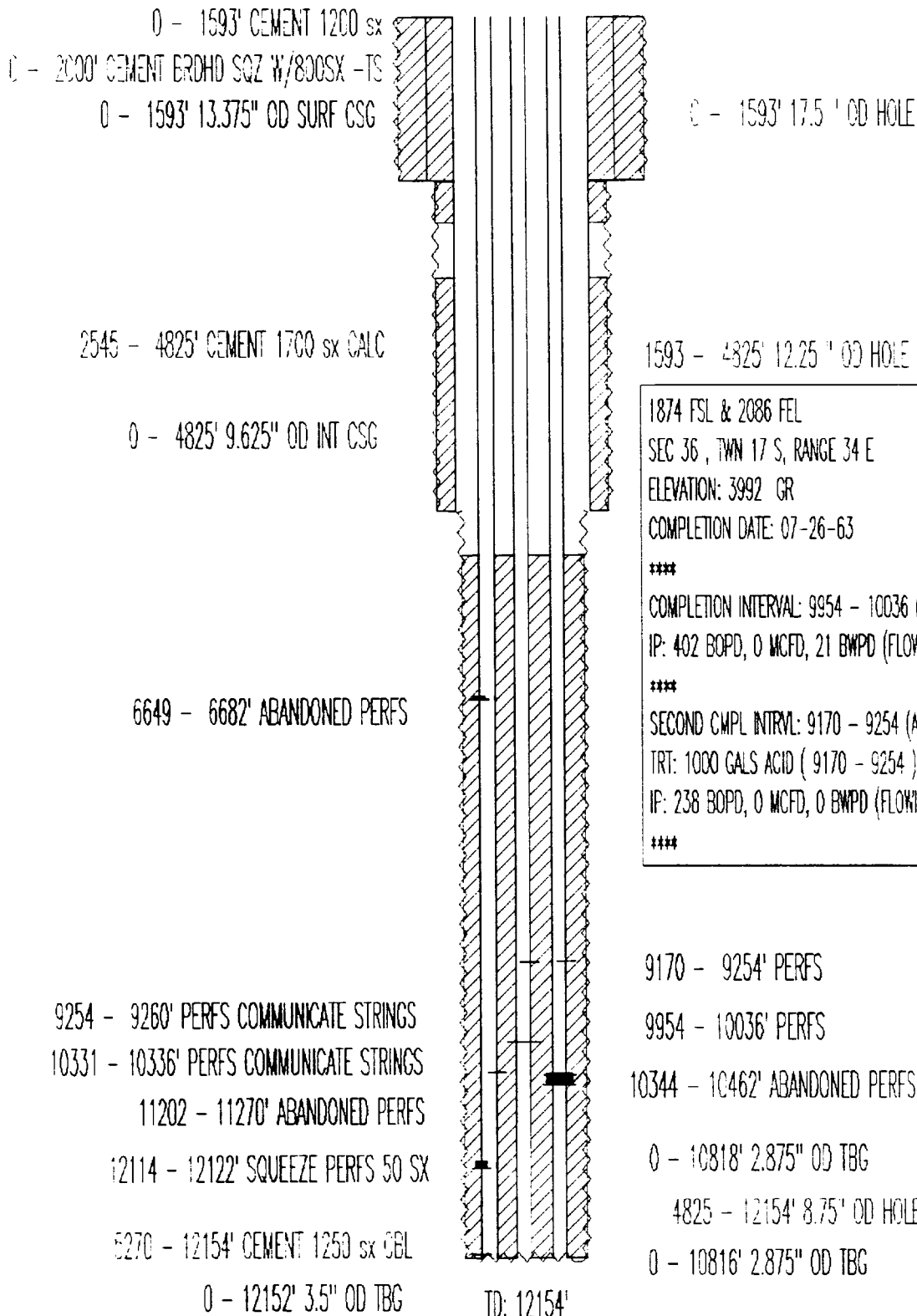
TEXACO INC
NEW MEXICO "M" ST. NO. 7
API# 3002520494



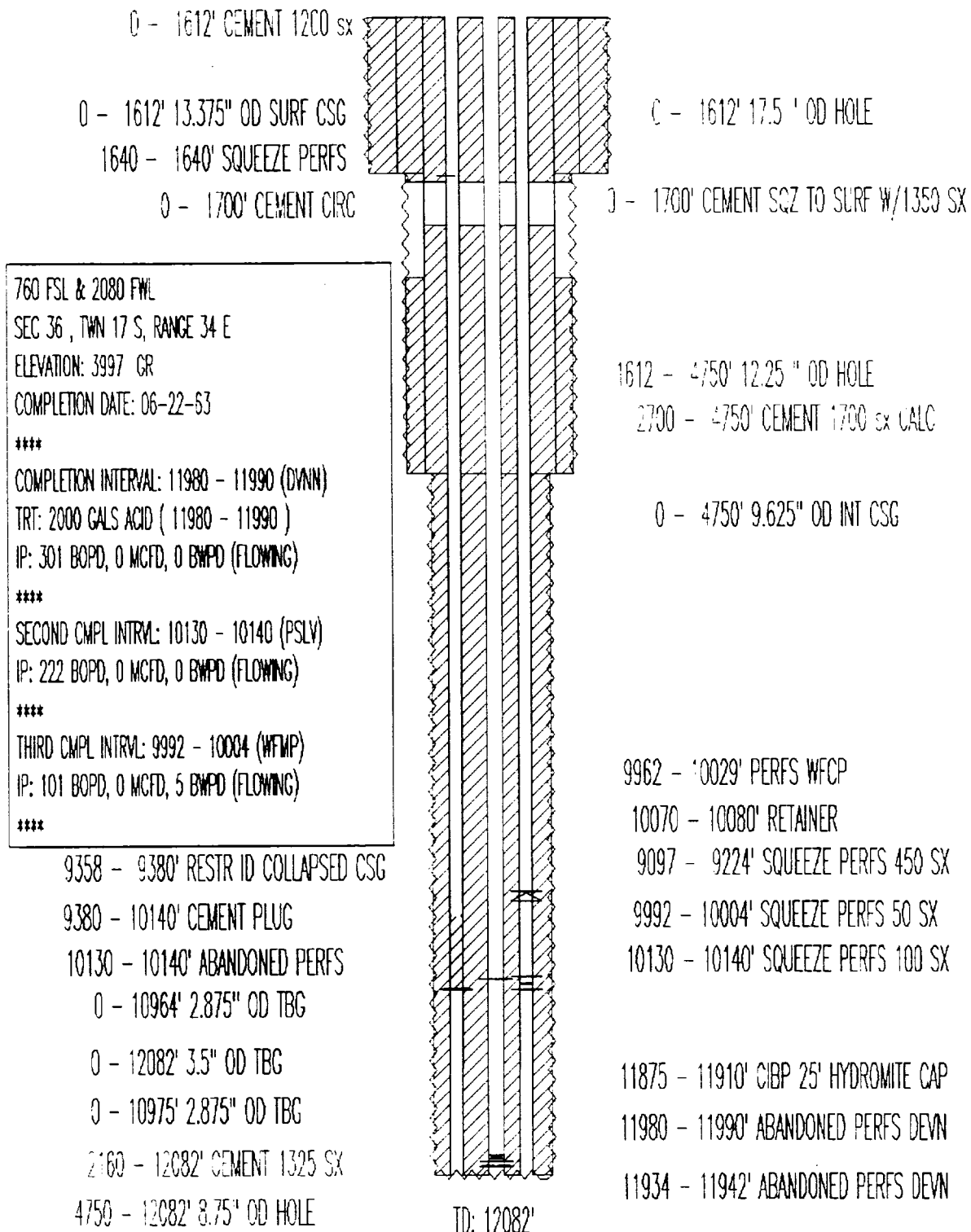
TEXACO EXPL & PROD
NEW MEXICO "M" STATE NO. 9
API# 3002532016



TEXACO INC
NEW MEXICO "O" ST. NCT-1 NO. 14
API# 3002520008



TEXACO E & P INC.
N.M. "O" ST. NCT-1 NO. 17
API# 3002520125



SHUT IN
GLORIETA

TEXACO INC
NEW MEXICO "O" STATE NO. 24
API# 3002520946

0 - 1534' CEMENT 1200 sx
0 - 1500' CEMENT BRDNHD SQZ W/900 SX
0 - 1534' 13.375" OD SURF CSG

1650 - 4418' CEMENT 1700 sx CALC

0 - 4418' 9.625" OD INT CSG

1534 - 4418' 12.25 " OD HOLE

5120 - 5155' CIBP 30' CMT CAP

5942 - 6200' ABANDONED PERFS GLORIETA

2800 - 10300' CEMENT 2400 sx

10042 - 10062' ABANDONED PERFS WOLF CAMP

0 - 10294' 2.875" OD TBG

0 - 10289' 2.875" OD TBG

0 - 10300' 2.875" OD TBG

0 - 1534' 17.5 " OD HOLE

860 FSL & 660 FEL
SEC 36 , TWN 17 S, RANGE 34 E
ELEVATION: 3995 KB
COMPLETION DATE: 07-04-64

COMPLETION INTERVAL: 10042 - 10062 (WFMP)
TRT: 2000 GALS ACID (10042 - 10062)
IP: 89 BOPD, 0 MCFD, 22 BWPD (S)

SECOND CMPL INTRVL: 9133 - 9263 (ABO)
TRT: 4500 GALS ACID (9133 - 9263)
IP: 94 BOPD, 0 MCFD, 0 BWPD (S)

THIRD CMPL INTRVL: 5942 - 5954 (GLRT)
TRT: 500 GALS ACID (5942 - 5954)
IP: 658 BOPD, 0 MCFD, 0 BWPD (FLOWING)

8560 - 8595' CIBP 30' CMT CAP

9133 - 9263' ABANDONED PERFS ABO

10134 - 10155' CIBP 16' HYDROMITE CAP

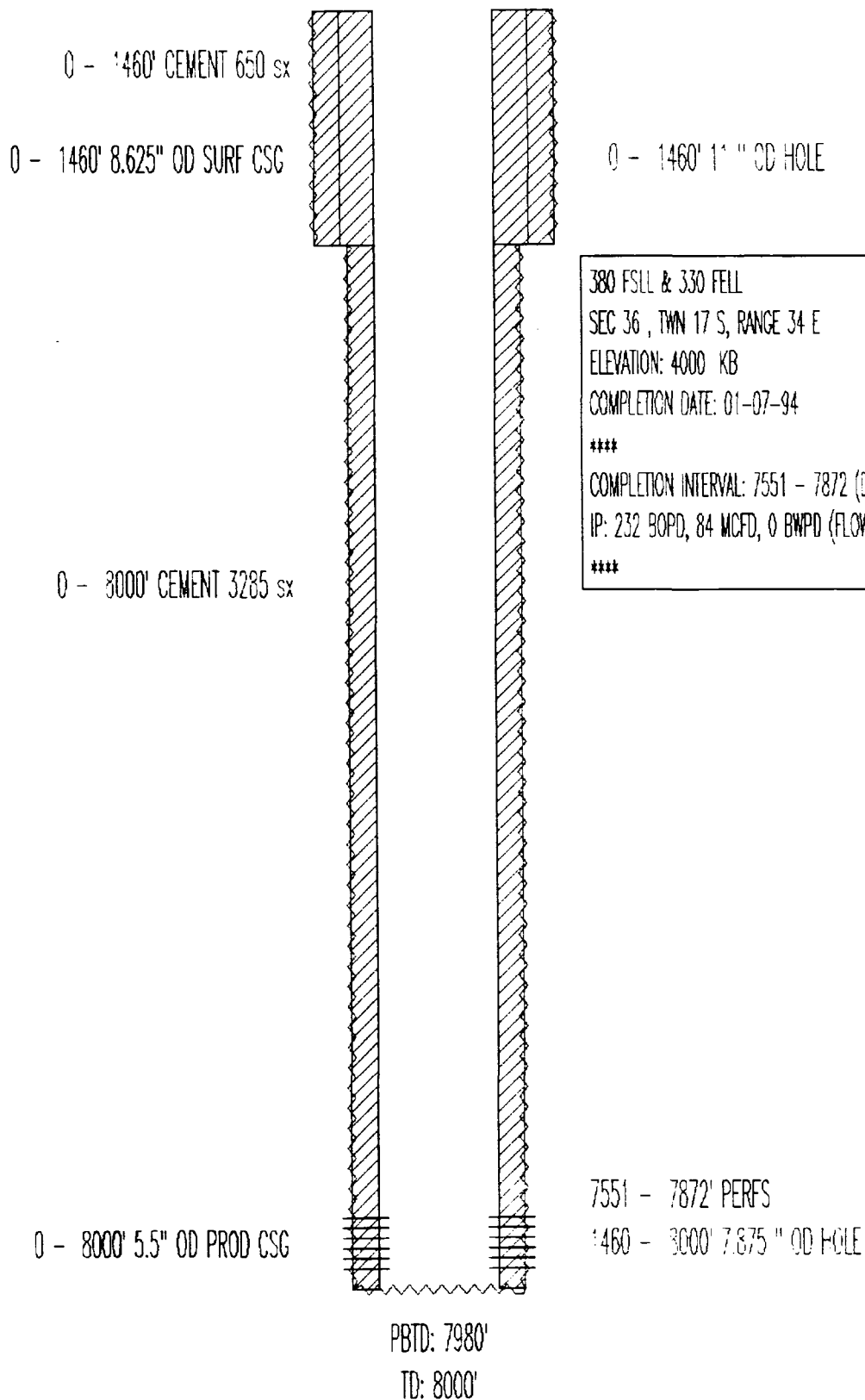
4418 - 10300' 8.5 " OD HOLE

10206 - 10212' SQUEEZE PERFS PENN REEF 40 SX

TD: 10300'

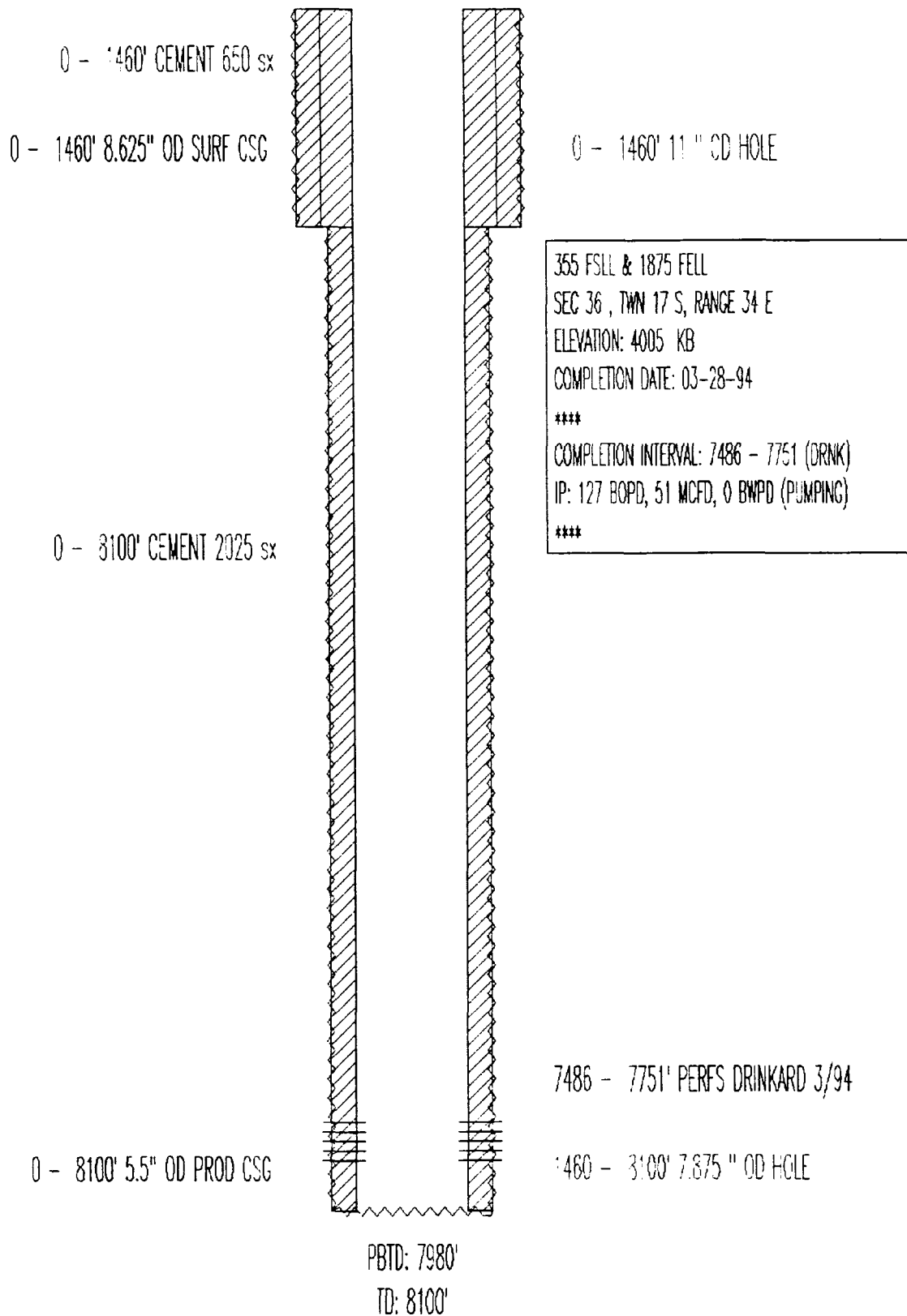
PRODUCING
DRINKARD

TEXACO EXPL & PROD
NEW MEXICO "O" STATE NO. 34
API# 3002532271

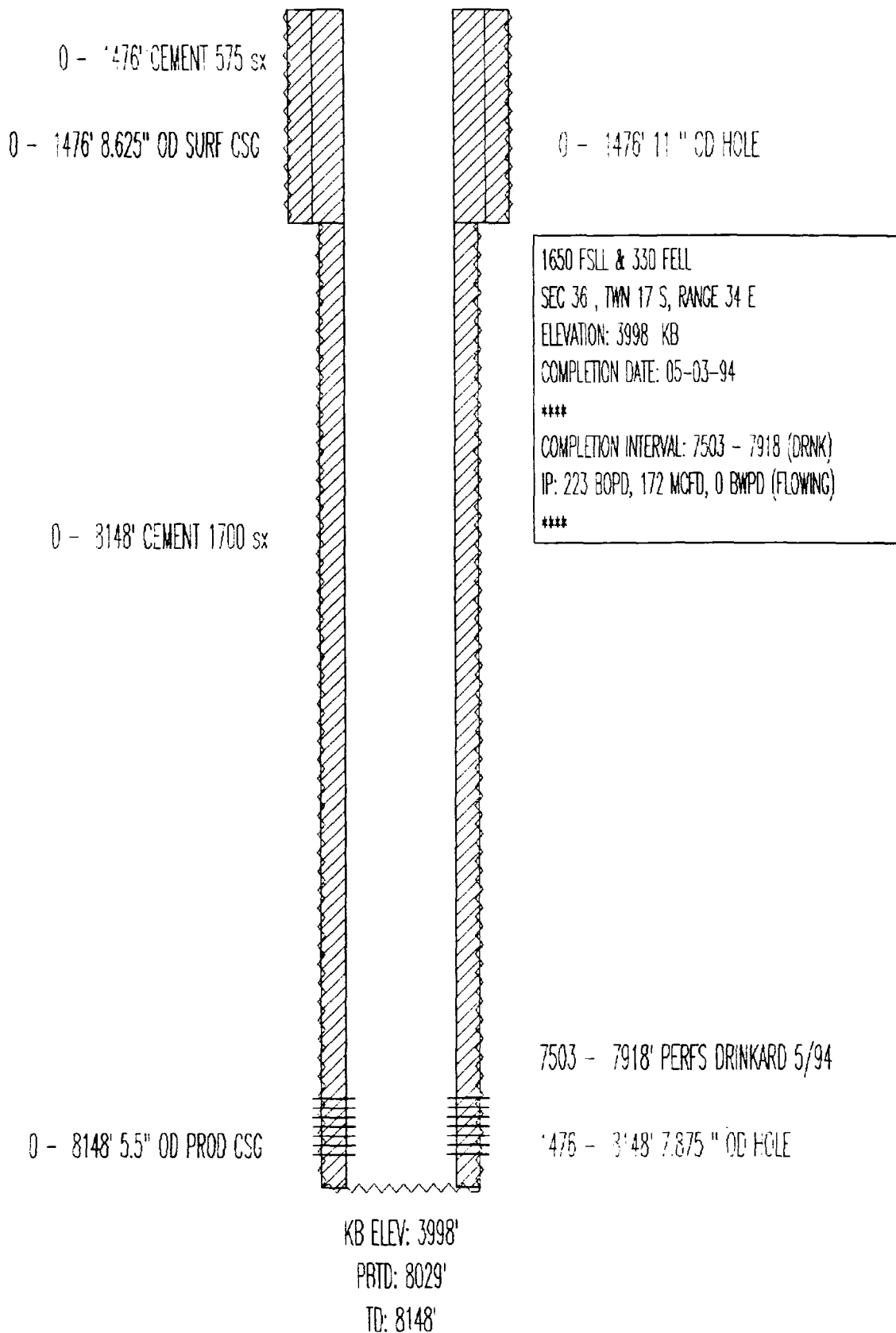


PRODUCING
DRINKARD

TEXACO EXPL & PROD
NEW MEXICO "O" STATE NO. 35
API# 3002532338

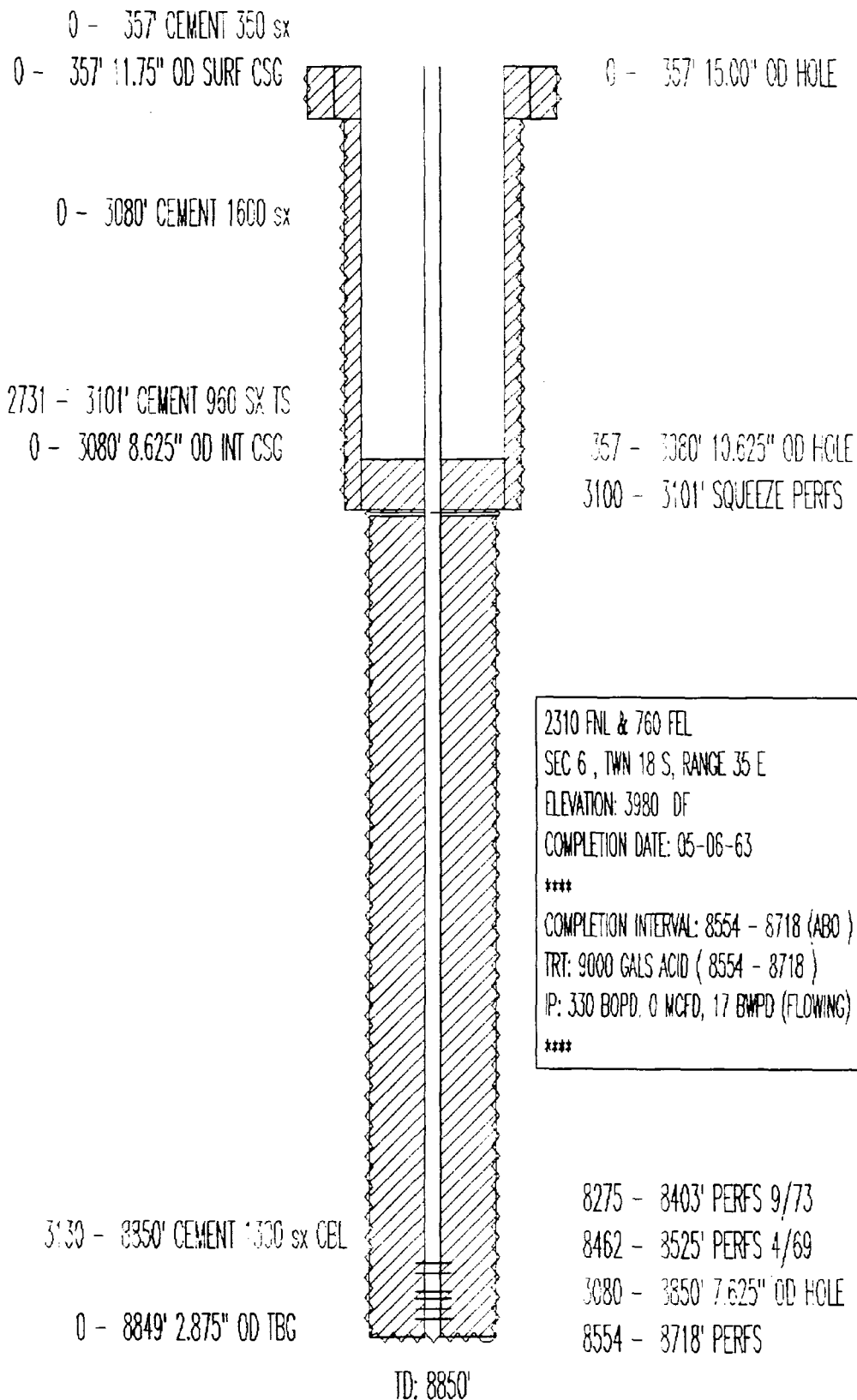


TEXACO EXPL & PROD
NEW MEXICO "O" STATE NO. 37
API# 3002532450



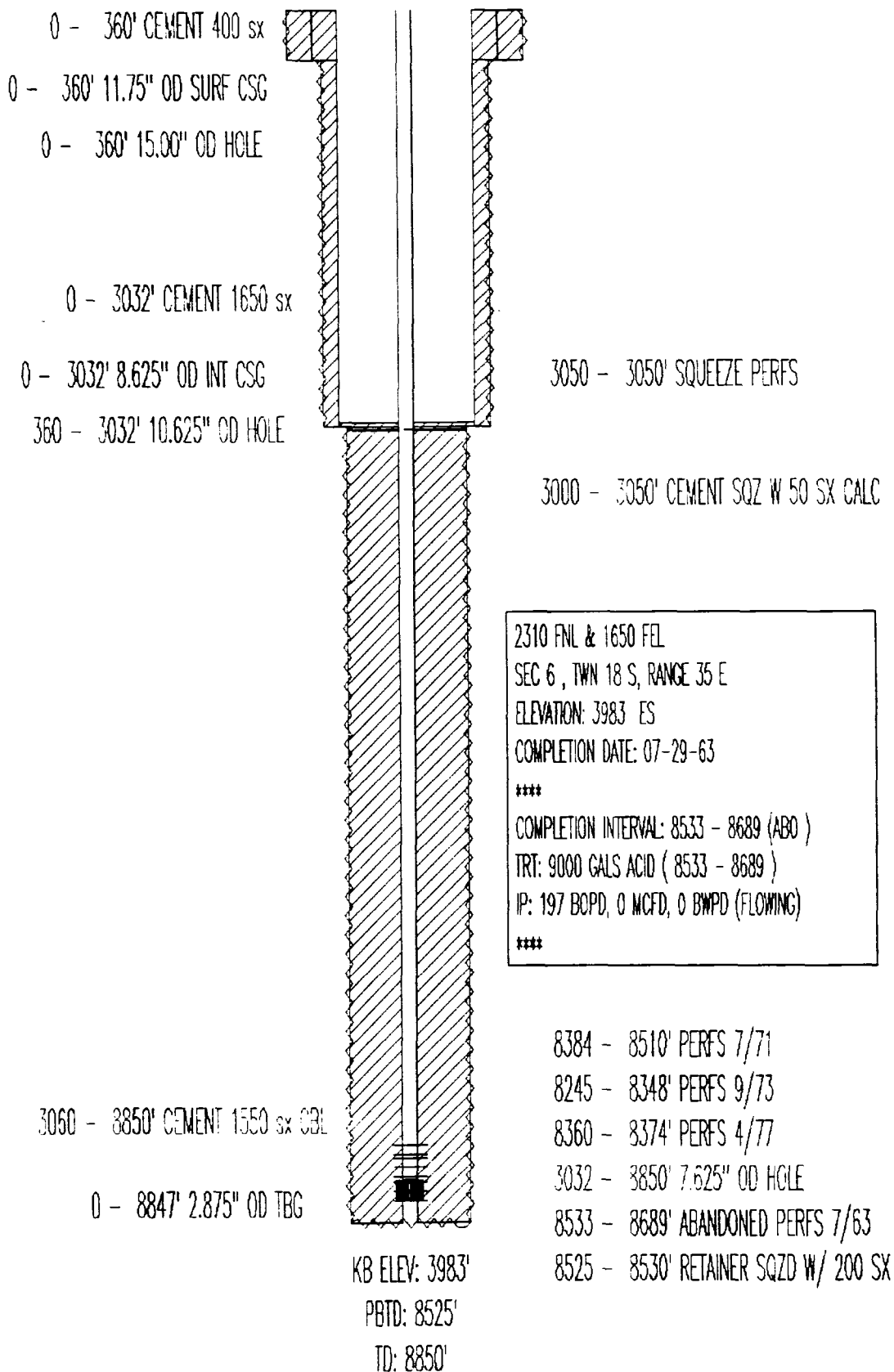
SHUT IN
ABO REEF

TEXACO INC
NEW MEXICO "R" ST. NCT-1 NO. 6
API# 3002520053



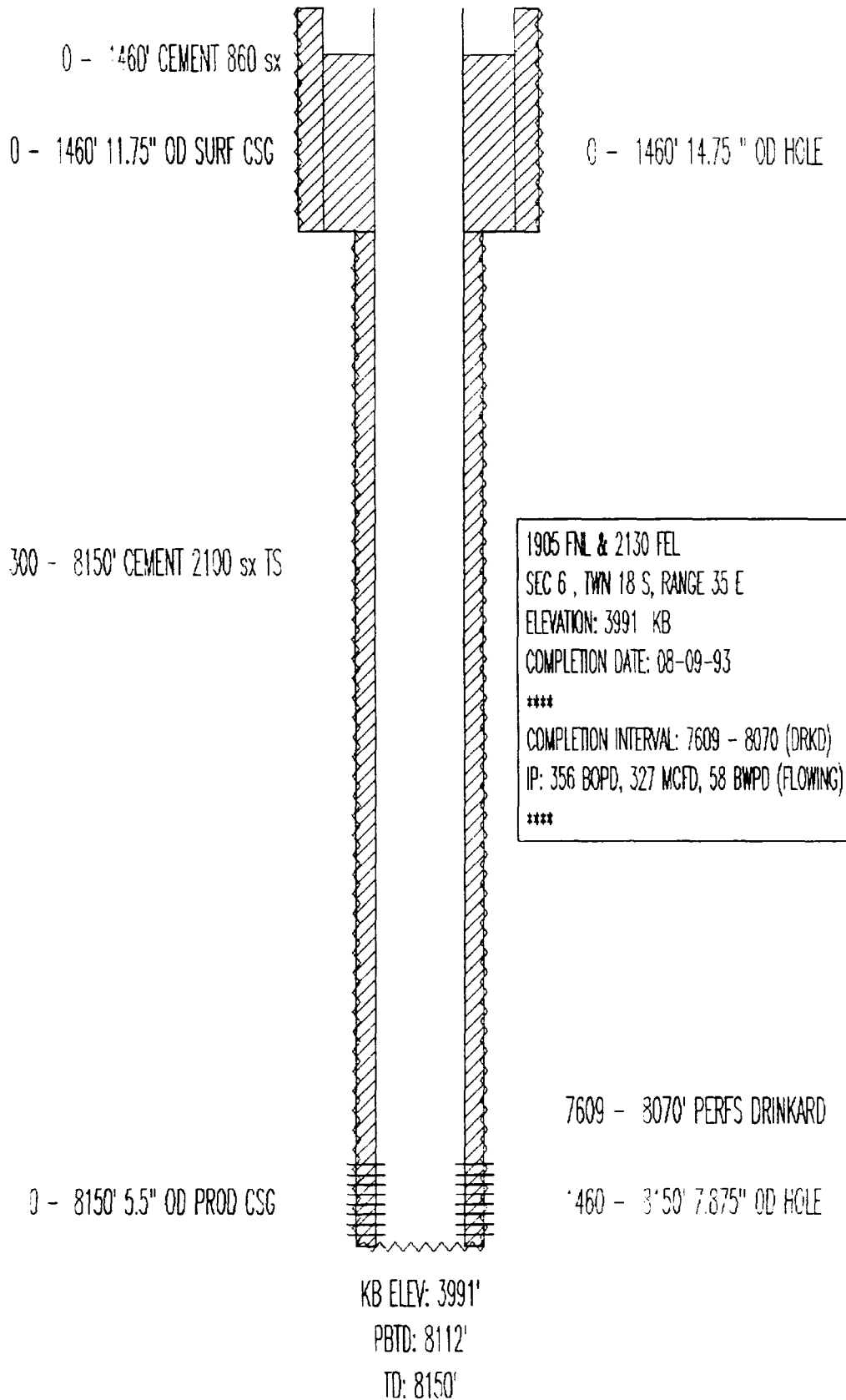
SHUT IN
ABO REEF

TEXACO INC
NEW MEXICO "R" ST. NCT-1 NO. 7
API# 3002520503

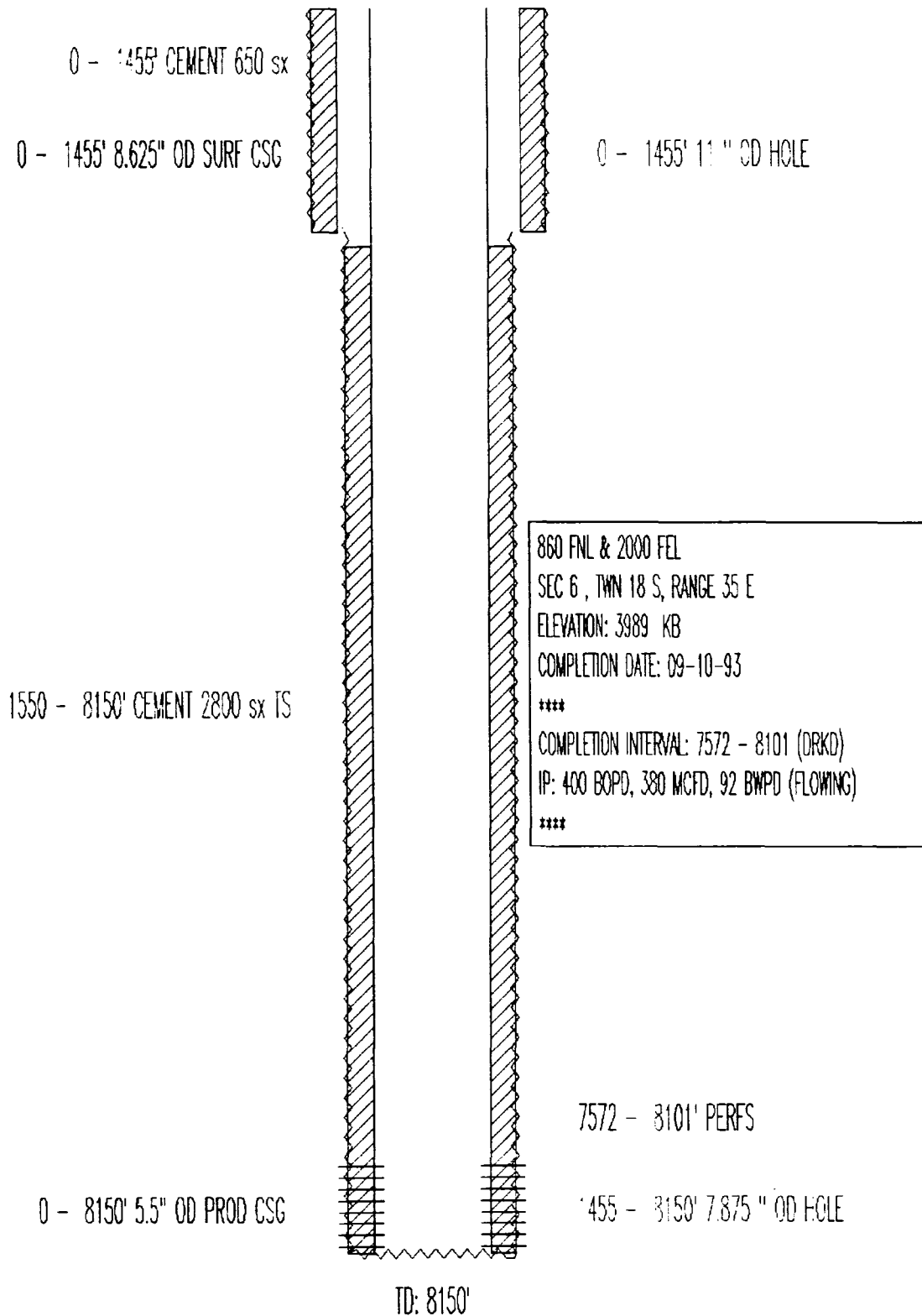


PRODUCER
DRINKARD

TEXACO EXPL & PROD
NEW MEXICO "R" ST. NCT-1 NO. 13
API# 3002531990

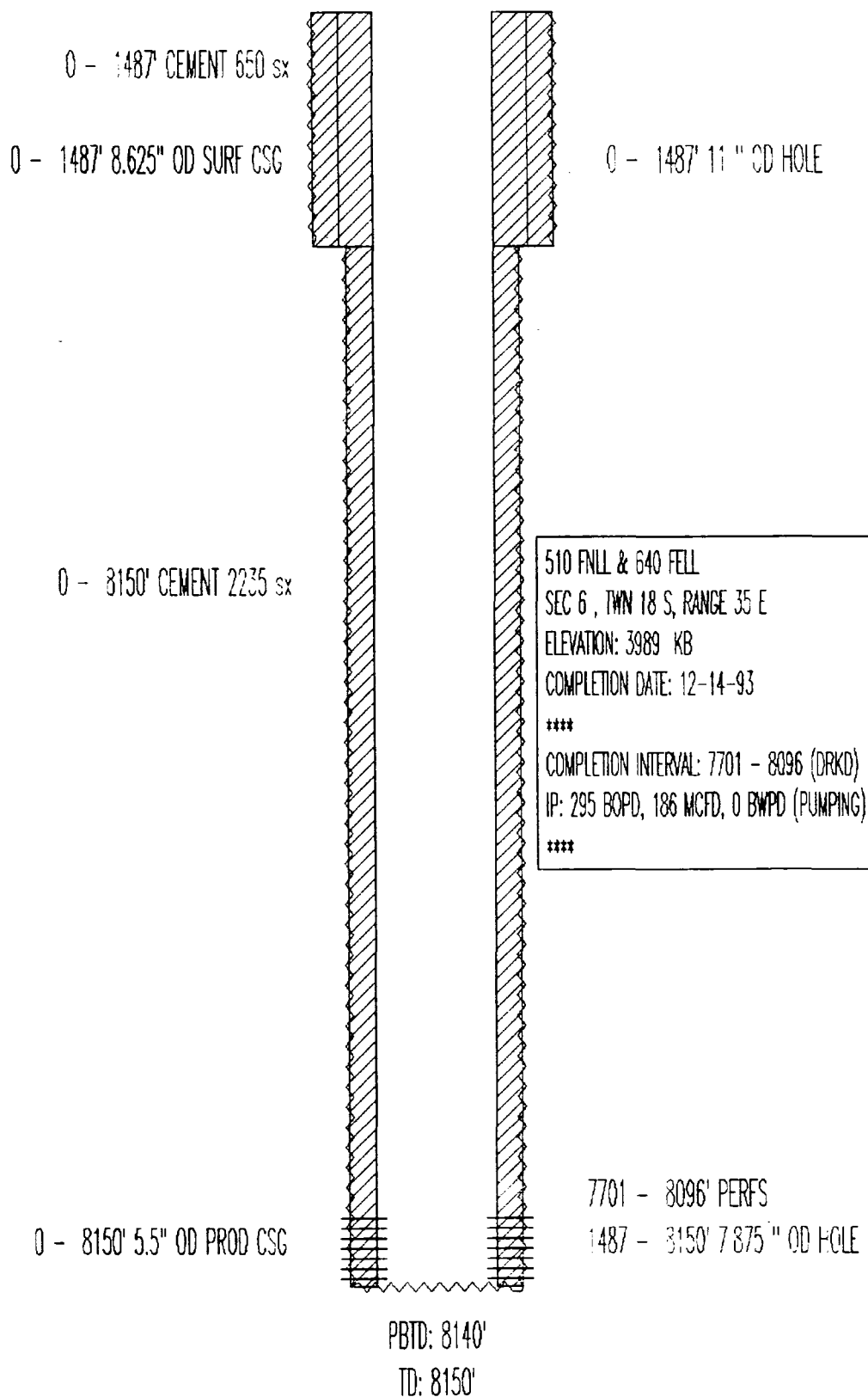


TEXACO EXPL & PROD
 NEW MEXICO "R"ST. NCT-1 NO.14
 API# 3002532018



PRODUCING
DRINKARD

TEXACO EXPL & PROD
NEW MEXICO "R" ST. NCT-1 NO. 15
API# 3002532019



P & A

TEXACO INC
NEW MEXICO "R" ST. NCT-3 NO. 15
API# 3002520950

0 - 355' 13.375" OD SURF CSG

0 - 355' CEMENT PLUG

435 - 435' SQUEEZE PERFS

1560 - 1660' CEMENT PLUG

500 - 4800' CEMENT 1700 sx

2720 - 2820' CEMENT PLUG

0 - 4800' 9.625" OD INT CSG

4700 - 4820' CEMENT PLUG

355 - 4800' 12.25 " OD HOLE

5965 - 6000' CIBP 35' CMT CAP

4820 - 10200' CEMENT 2400 sx

8405 - 8440' CIBP 35' CMT CAP

8495 - 8706' ABANDONED PERFS ABO

9765 - 9800' CIBP 35' CMT CAP

4820 - 10200' 2.875" OD TBG

4820 - 10200' 2.875" OD TBG

4800 - 10200' 8.5 " OD HOLE

0 - 455' CEMENT PLUG

0 - 355' 17.5 " OD HOLE

487 FSL & 560 FEL

SEC 1, TWN 18 S, RANGE 34 E

ELEVATION: 3996 ES

COMPLETION DATE: 06-05-64

COMPLETION INTERVAL: 8495 - 8706 (ABO)

TRT: 11500 GALS ACID (8495 - 8706)

IP: 142 BOPD, 0 MCFD, 120 BWPD (S)

5965 - 6000' CIBP 35' CMT CAP

8405 - 8440' CIBP 35' CMT CAP

9765 - 9800' CIBP 35' CMT CAP

9852 - 9862' ABANDONED PERFS WOLFCAMP

9923 - 9925' CIBP

9958 - 9959' ABANDONED PERFS WOLFCAMP

9968 - 9978' SQUEEZE PERFS WOLFCAMP

TD: 10200'

PRODUCING
DRINKARD

TEXACO PROD
NEW MEXICO "R" ST. NCT-3 NO. 24
API# 3002529925

0 - 40' CEMENT REDIMIX

0 - 407' CEMENT 1000 SX

0 - 40' 40" OD SURF CSG

0 - 407' 26" OD SURF CSG

0 - 1565' 20" OD INT CSG

0 - 1565' CEMENT 2150 SX

0 - 5000' 9 5/8" OD INT CSG

0 - 5000' CEMENT 3700 SX

1565 - 5000' 12.25" OD HOLE

7982 - 8000' CIBP 18' CMT CAP

5000 - 11100' 8.75" OD HOLE

0 - 11100' CEMENT 2050 SX

0 - 11100' 7" OD PROD CSG

10115 - 10150' CIBP 35' CMT CAP

11060 - 11100' CIBP 40' CMT CAP

10710 - 10750' CIBP 40' CMT CAP

10799 - 11676' 5" OD LINER

10799 - 11676' CEMENT 175 SX

11100 - 11994' 6.25" OD HOLE

0 - 40' 48" OD HOLE

40 - 407' 30" OD HOLE

407 - 1565' 24" OD HOLE

860 FSL & 660 FEL

SEC 1, TWN 18 S. RANGE 34 E

ELEVATION: 4011 KB

COMPLETION DATE: 11-18-87

TESTED DEVONIAN, LOWER MISS, AND UPPER PENN

NOT PRODUCED

PLUGGED BACK TO VACUUM DRINKARD 12-4-92

7638 - 7900' PERFS DRINKARD

10192 - 10263' ABANDONED PERFS UPPER PENN

11612 - 11652' CIBP 40' CMT CAP

11192 - 11238' ABANDONED PERFS LOWER MISS

11812 - 11912' CEMENT PLUG

11915 - 11994' TREATMENT DEVONIAN-ACID 100% H2O

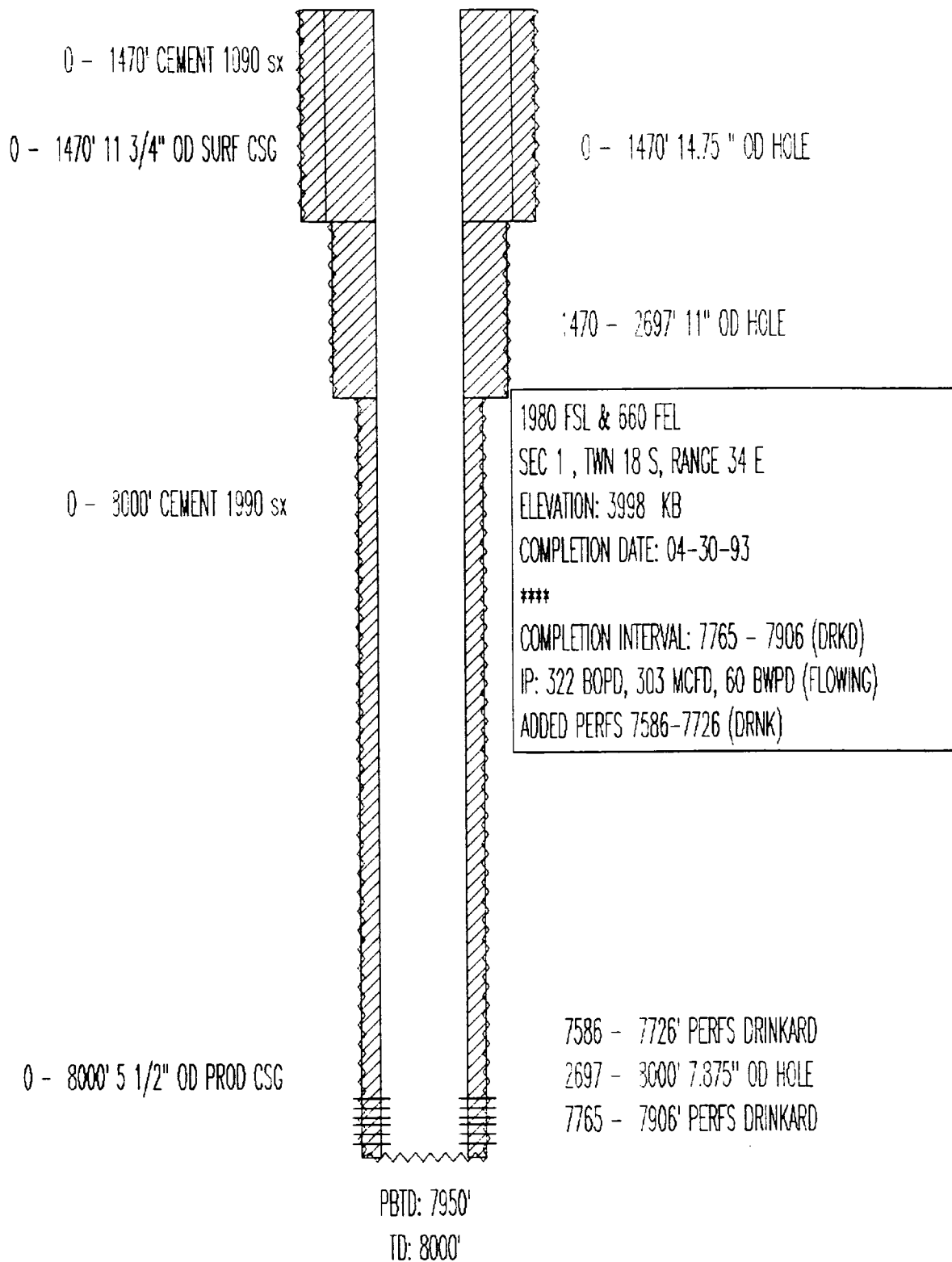
KB ELEV: 4011'

PBTD: 7982'

TD: 11994'

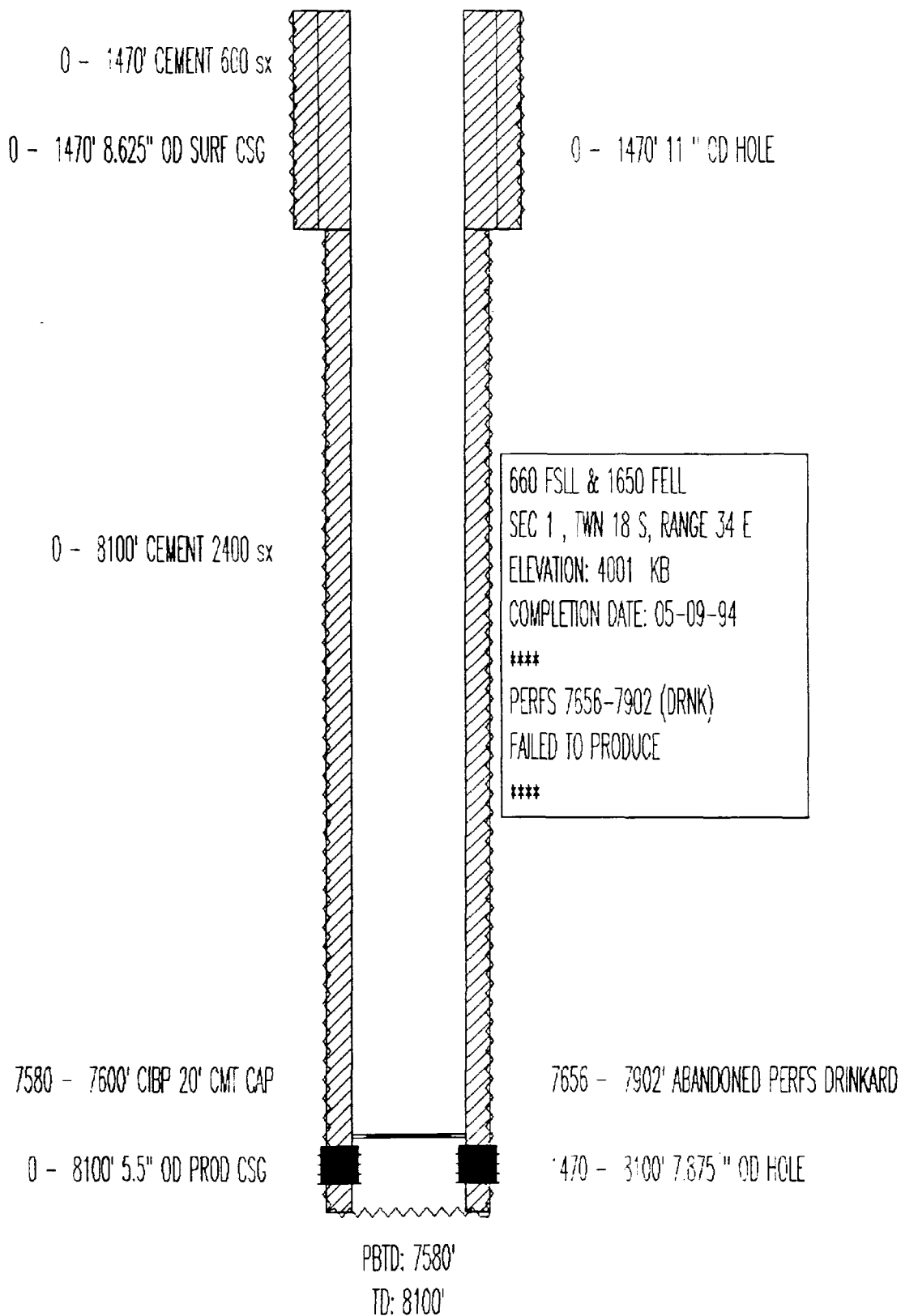
PRODUCING
DRINKARD

TEXACO EXPL & PROD
NEW MEXICO "R" ST. NCT-3 NO. 25
API# 3002531930



SHUT IN
DRINKARD

TEXACO EXPL & PROD
NEW MEXICO "R" ST. NCT-3 NO. 27
API# 3002532004



PRODUCING
DRINKARD

TEXACO INC
NEW MEXICO "AB" ST. NO. 3
API# 3002503086

0 - 343' 10.75" OD SURF CSG

0 - 343' CEMENT 250 sx

0 - 1600' CEMENT

0 - 343' 13.5" OD HOLE

1600 - 1600' SQUEEZE PERFS 450 SX

2500 - 5404' CEMENT 900 sx

660 FSLL & 1980 FELL

SEC 6, TWN 18 S, RANGE 35 E

ELEVATION: 3966 GR

COMPLETION DATE: 12-28-61

COMPLETION INTERVAL: 8672 - 8846 (ABRF)

IP: 353 BOPD, 0 MCFD, 0 BWPD (FLOWING)

0 - 5404' 7.625" OD INT CSG

343 - 5404' 9.75" OD HOLE

5324 - 8856' CEMENT 550 sx

8115 - 8150' CIBP 35' CMT CAP

8400 - 8856' BAR FISH TUBING, ANCHOR, WL TOOLS

5324 - 8856' 4 1/2" OD LINER

7600 - 7981' PERFS DRINKARD 4/93

8253 - 8458' ABANDONED PERFS ABO 5/73

8492 - 8648' ABANDONED PERFS ABO 2/68

5404 - 3856' 6.75" OD HOLE

8672 - 3846' ABANDONED PERFS ABO 12/61

TD: 8856'

SHUT IN
ABO REEF

TEXACO INC
NEW MEXICO "AB" STATE NO. 4
API# 3002503087

0 - 327' 10 3/4" OD SURF CSG

0 - 327' 15.0" OD HOLE

0 - 327' CEMENT 350 sx

650 - 5228' CEMENT 900 sx

0 - 5228' 7 5/8" OD INT CSG

5108 - 9097' CEMENT 550 sx

1650 FSL & 660 FEL

SEC 6, TWN 18 S, RANGE 35 E

ELEVATION: 3984 DF

COMPLETION DATE: 12-22-61

COMPLETION INTERVAL: 8674 - 8826 (ABRF)

IP: 341 BOPD, 0 MCFD, 0 BWPD (FLOWING)

327 - 5228' 9.875" OD HOLE

8208 - 8439' PERFS ABO 7/73

8483 - 8640' PERFS ABO 1/68

8674 - 8826' PERFS ABO 12/61

5228 - 9080' 6.75" OD HOLE

PBTD: 9066'

TD: 9080'

P & A

TEXACO INC
NEW MEXICO "AB" STATE NO. 5
API# 3002520163

0 - 1454' CEMENT PLUG 100 SX

0 - 340' 11.75" OD SURF CSG

0 - 340' CEMENT 300 SX

0 - 340' 15.00" OD HOLE

0 - 3070' CEMENT 1400 SX

1454 - 1750' CEMENT PLUG 100 SX

1750 - 1900' CEMENT PLUG 400 SX

0 - 3070' 8.625" OD INT CSG

1800 FSLL & 1650 FELL

SEC 6, TWN 18 S, RANGE 35 E

ELEVATION: 3982 GR

COMPLETION DATE: 03-14-63

COMPLETION INTERVAL: 8694 - 8794 (ABO)

TRT: 6000 GALS ACID (8694 - 8794)

IP: 208 BOPD, 0 MCFD, 0 BWPD (FLOWING)

6200 - 8851' CEMENT 1500 SX TS

8172 - 8794' ABANDONED PERFS

2765 - 2805' CIBP 35' CMT CAP

2765 - 2805' CIBP 35' CMT CAP

340 - 3070' 11.00" OD HOLE

3965 - 4005' CIBP 35' CMT CAP

3965 - 4005' CIBP 35' CMT CAP

1860 - 3850' 2.875" OD TBC

1860 - 3849' 2.875" OD TBC

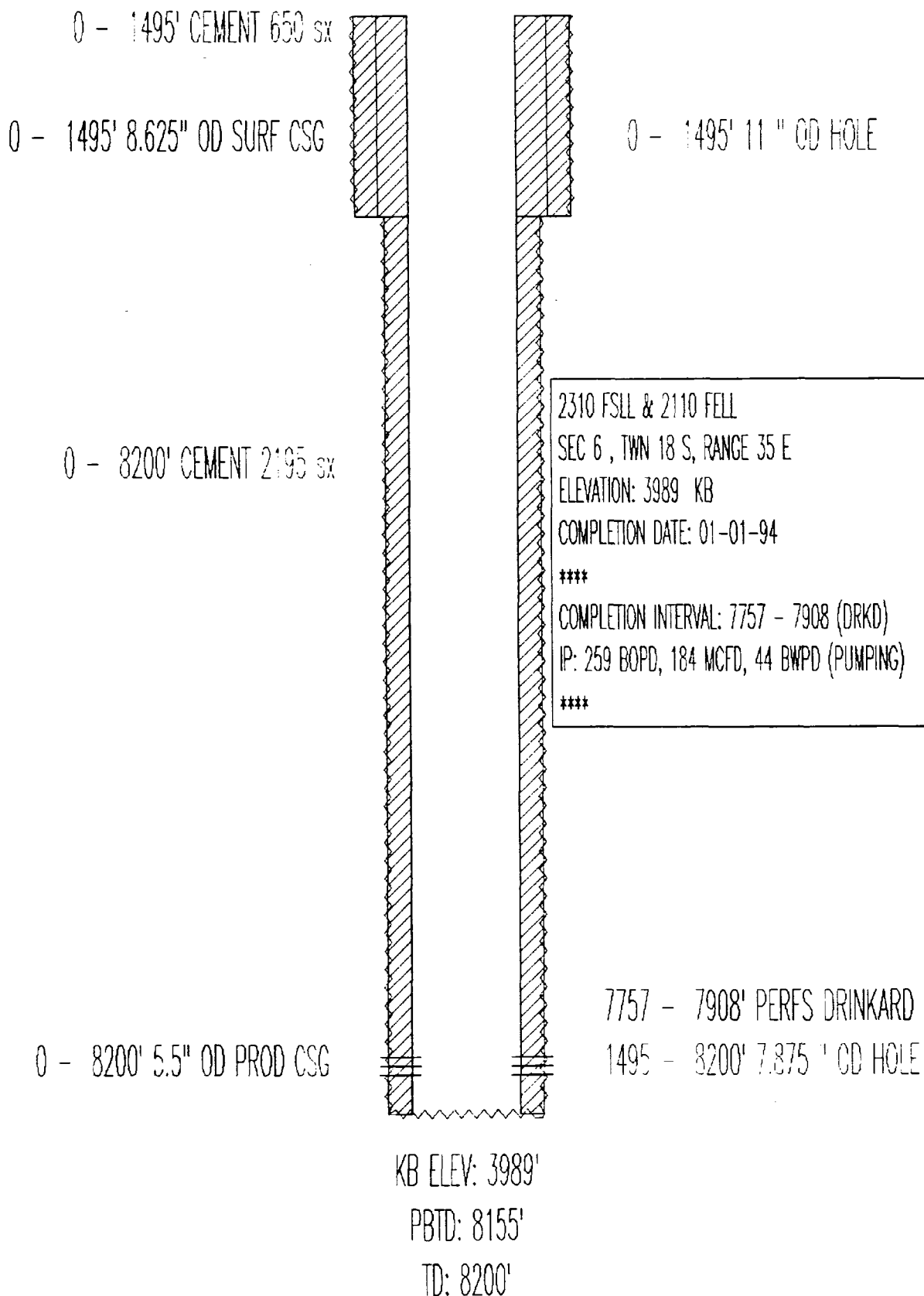
6300 - 6588' ABANDONED PERFS SQZD W/190 SX

3070 - 3851' 7.875" OD HOLE

TD: 8851'

PRODUCING
DRINKARD

TEXACO EXPL & PROD
NEW MEXICO "AB" STATE NO. 10
API# 3002531991



PRODUCING
ABO REEF

EXXON
NEW MEXICO "BO" ST. NO. 7
API# 3002520176

0 - 302' 13.375" OD SURF CSG

0 - 302' CEMENT 325 sx

0 - 1900' CEMENT

0 - 1900' CEMENT 1050 sx

0 - 302' 17.5" OD HOLE

1900 - 1900' SQUEEZE PERFS

2200 - 3403' CEMENT 650 sx TS

0 - 3403' 8.625" OD INT CSG

302 - 3403' 12.25" OD HOLE

2100 - 8996' CEMENT 1200 sx TS

995 FNL & 330 FEL

SEC 12, TWN 18 S, RANGE 34 E

ELEVATION: 3982 DF

COMPLETION DATE: 04-21-63

COMPLETION INTERVAL: 8343 - 8544 (ABO)

TRT: 12000 GALS ACID (8343 - 8544)

IP: 144 BOPD, 0 MCFD, 8 BWPD (FLOWING)

8595 - 8600' CIBP 1 SK CMT

0 - 8996' 4.5" OD PROD CSG

8870 - 8875' CIBP 1 SK CMT

8914 - 8953' ABANDONED PERFS

8343 - 8544' PERFS

8544 - 8578' PERFS

3403 - 9000' 7.375" OD HOLE

8620 - 8749' ABANDONED PERFS

TD: 9000'

PRODUCING
ABO-WFMP

MOBIL OIL
STATE CC COM NO. 1
API# 3002520872

0 - 360' 16" OD SURF CSG

0 - 360' CEMENT 350 SX

0 - 715' CEMENT PLUG 15 SX

0 - 715' CEMENT PLUG 15 SX

0 - 4967' CEMENT 2175 SX

0 - 4967' 10.75" OD INT CSG

360 - 4967' 14.75" OD HOLE

9115 - 9185' ABANDONED PERFS

0 - 12080' CEMENT 4460 SX

0 - 12080' 2.875" OD TBG

0 - 12080' 2.875" OD TBG

4967 - 12080' 9.5" OD HOLE

KB ELEV: 4001'

PBTD: 11895'

TD: 12080'

0 - 360' 20" OD HOLE

1980 FSL & 860 FWL

SEC 36, TWN 17 S, RANGE 34 E

ELEVATION: 4001 ES

COMPLETION DATE: 08-12-64

COMPLETION INTERVAL: 9115 - 9185 (ABO)

IP: 179 BOPD, 0 MCFD, 0 BWPD (FLOWING)

SECOND CMPL INTRVL: 11972 - 12028 (DANN)

IP: 104 BOPD, 0 MCFD, 21 BWPD (FLOWING)

THIRD CMPL INTRVL: 9962 - 10032 (WFMP)

IP: 211 BOPD, 0 MCFD, 4 BWPD (FLOWING)

9115 - 9185' PERFS ABO

8962 - 9350' BAR FISH TBG & PMP

9442 - 10032' PERFS WFMP

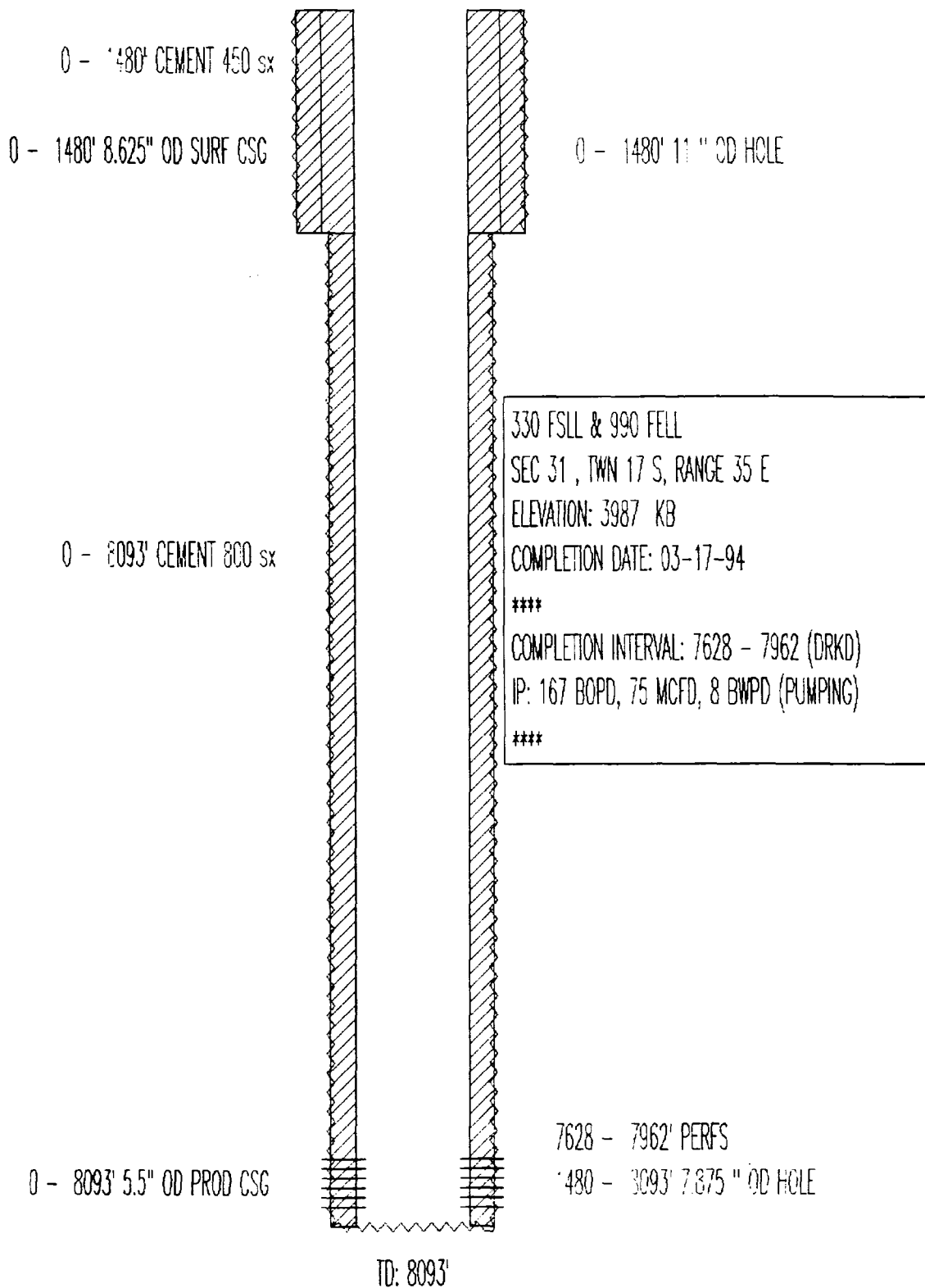
11895 - 11896' CIBP CMT CAP

11972 - 12028' ABANDONED PERFS

0 - 10222' 4.5" OD TBG

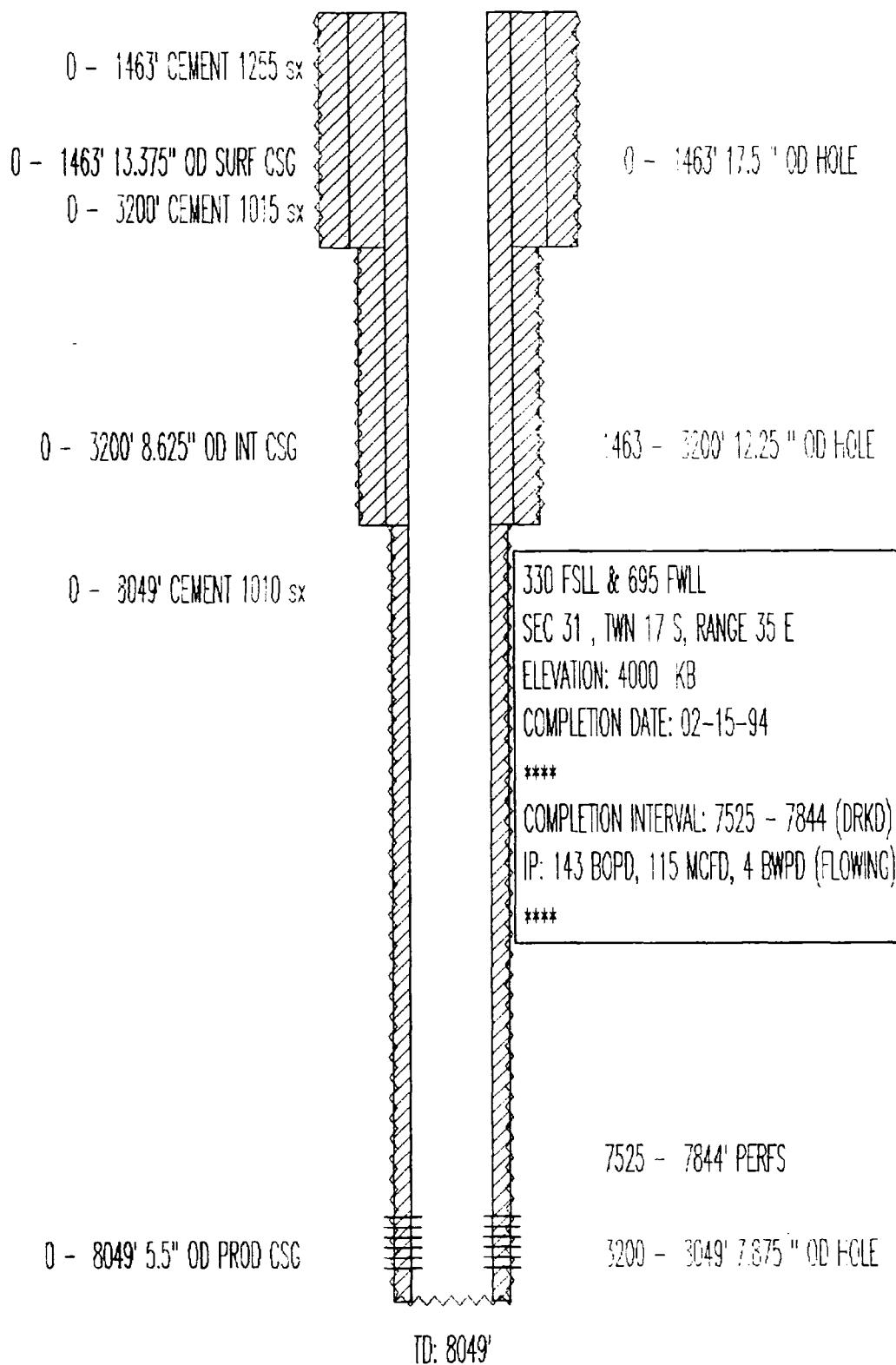
PRODUCING
DRINKARD

MOBIL PRODUCING TX & NM
STATE "K" NO. 12
API# 3002532413



PRODUCING
DRINKARD

SHELL WESTERN EXPL & PROD
STATE "D" NO. 3
API# 3002532298



PRODUCING
DRINKARD

SHELL OIL
STATE "E" NO. 2
API# 3002520823

0 - 332' 13.375" OD SURF CSC

0 - 332' CEMENT 300 sx

0 - 332' 17.5 " OD HOLE

332 - 3284' 12.25 " OD HOLE

0 - 3284' 9.625" OD INT CSC

0 - 3284' CEMENT 574 sx

660 FSL & 1700 FWL

SEC 31 , T1N 17 S, RANGE 35 E

ELEVATION: 3984 GR

COMPLETION DATE: 05-11-64

COMPLETION INTERVAL: 5999 - 6101 (PDC)

TRT: 1500 GALS ACID (5999 - 6101)

IP: 120 BOPD, 0 MCFD, 7 BWPD (FLOWING)

3320 - 3320' SQUEEZE PERFS

0 - 3320' CEMENT SQZ TO SURF W/ 1260 SX

5999 - 6223' SQUEEZE PERFS SQZD W/150 SX (PDK)

7618 - 7904' PERFS DRINKARD

8095 - 8098' CIBP

9218 - 9418' ABANDONED PERFS WOLF CAMP

9096 - 9100' CIBP 1 SK CMT CAP

0 - 9505' 7 " OD PROD CSC

3400 - 9505' CEMENT 1800 sx

3284 - 10406' 8.5 " OD HOLE

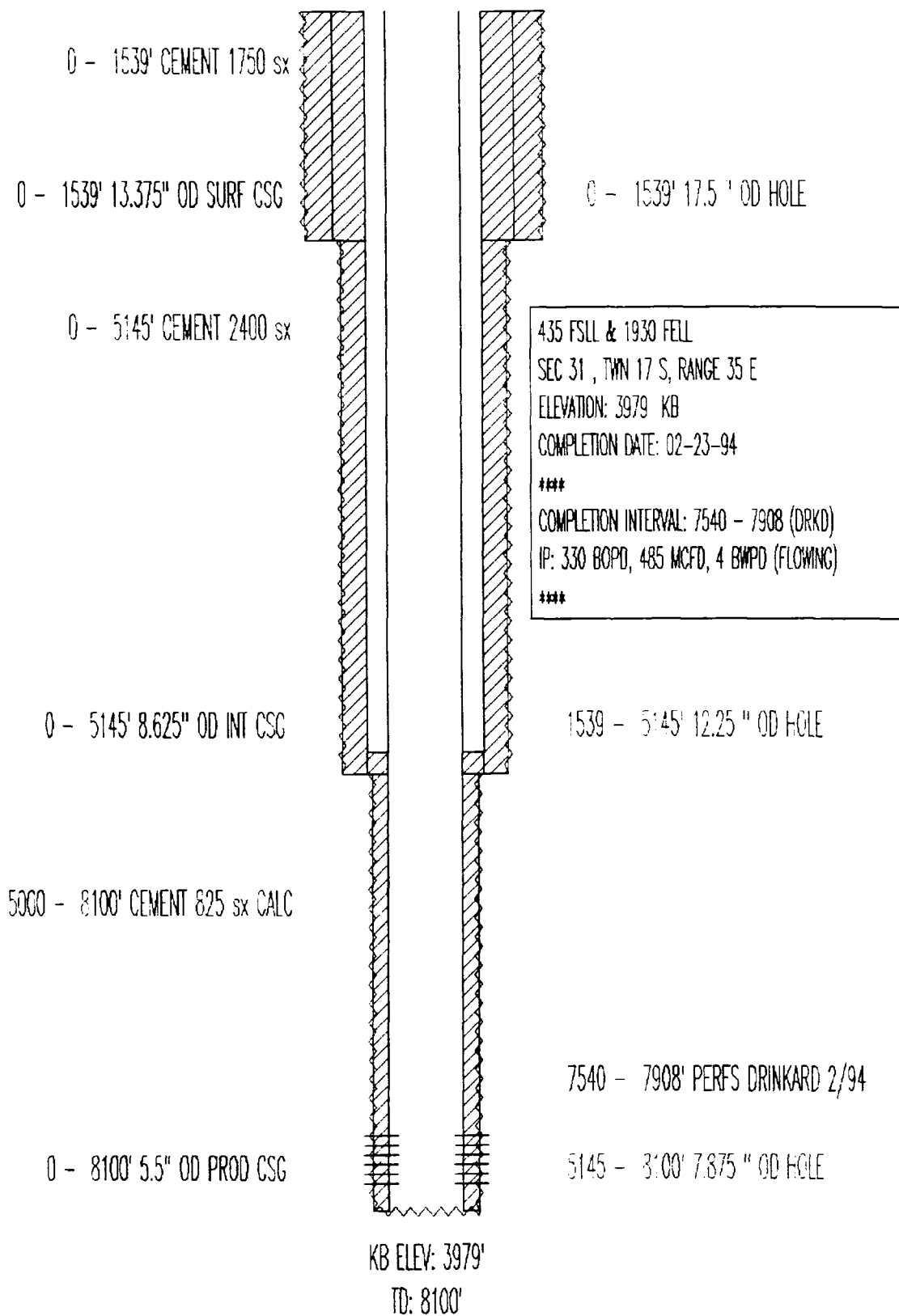
KB ELEV: 3996'

PBTD: 8095'

TD: 10406'

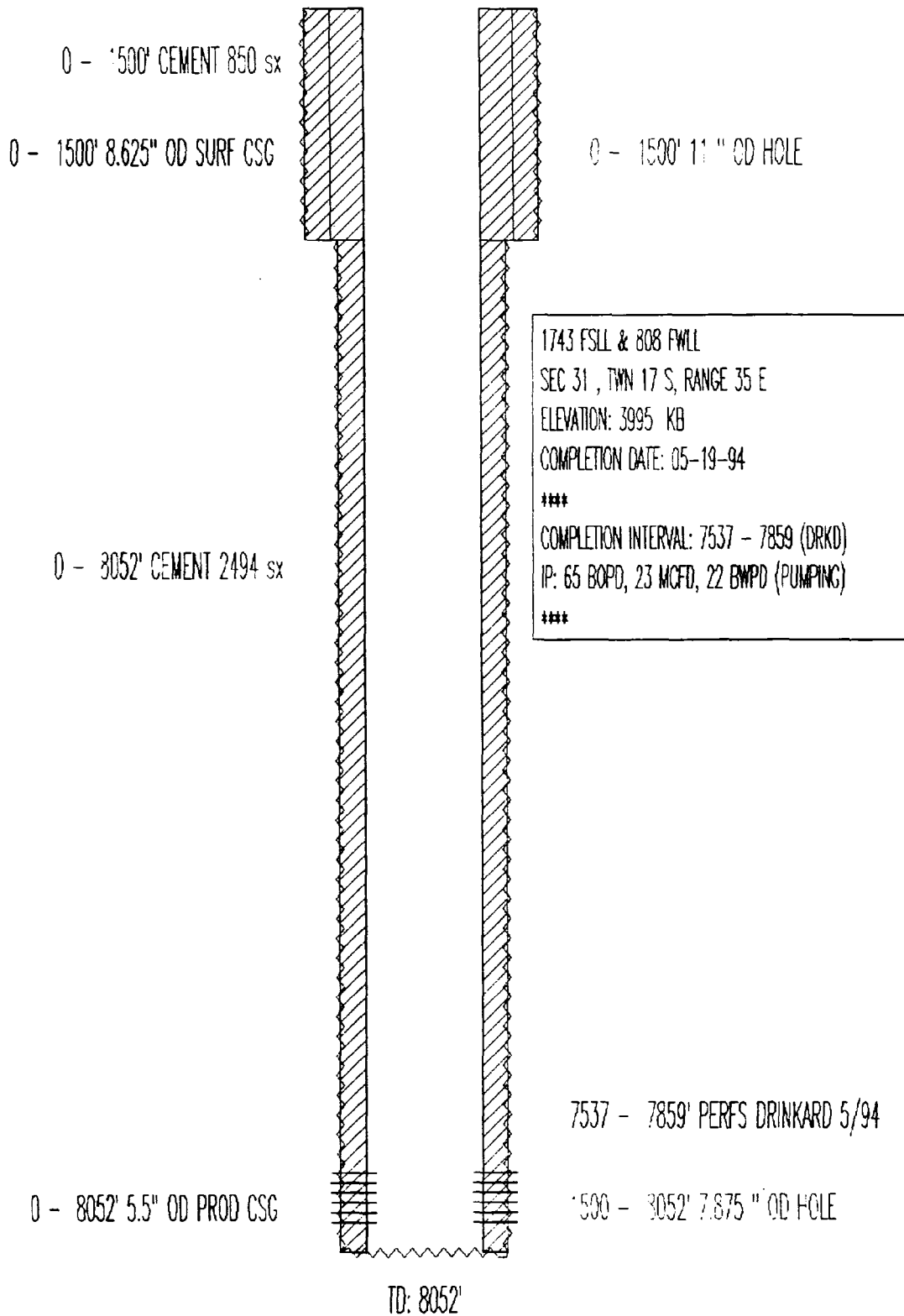
PRODUCING
DRINKARD

PHILLIPS PET
SANTA FE NO. 133
API# 3002532333



PRODUCING
DRINKARD

PHILLIPS PET
SANTA FE NO. 135
API# 3002532438





Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Marathon Oil
Date : 8-2-1994
Location: ~~Wash State~~ Drinkard (on 8-1-1994)

	Sample 1
Specific Gravity:	1.082
Total Dissolved Solids:	114514
pH:	5.60
IONIC STRENGTH:	2.306

~~~~~

| CATIONS:       |        | me/liter | mg/liter |
|----------------|--------|----------|----------|
| Calcium        | (Ca+2) | 80.0     | 1600     |
| Magnesium      | (Mg+2) | 400      | 4860     |
| Sodium         | (Na+1) | 1540     | 35300    |
| Dissolved Iron | (Fe+2) | 0.004    | 0.100    |

| ANIONS:     |          |      |       |
|-------------|----------|------|-------|
| Bicarbonate | (HCO3-1) | 1.40 | 85.4  |
| Carbonate   | (CO3-2)  | 0    | 0     |
| Hydroxide   | (OH-1)   | 0    | 0     |
| Sulfate     | (SO4-2)  | 96.8 | 4650  |
| Chloride    | (Cl-1)   | 1920 | 68000 |

DISSOLVED GASES

|                  |       |      |
|------------------|-------|------|
| Carbon Dioxide   | (CO2) | 30.0 |
| Hydrogen Sulfide | (H2S) | 0    |

~~~~~

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86[F	30[C	-1.9	-20
110[F	43[C	-1.1	-20
130[F	54[C	-0.78	-20
140[F	60[C	-0.59	-20
160[F	71[C	-0.19	-17

Comments:
cc: Jay Brown
Joe Hay

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Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Texaco Inc.
Date : 8-2-1994
Location: ~~Consolidated~~ (on 8-1-1994)

	Sample 1
Specific Gravity:	1.081
Total Dissolved Solids:	112779
pH:	5.50
IONIC STRENGTH:	2.207

=====

CATIONS:		me/liter	mg/liter
Calcium	(Ca+2)	132	2640
Magnesium	(Mg+2)	264	3210
Sodium	(Na+1)	1570	36100
Dissolved Iron	(Fe+2)	0.007	0.200

ANIONS:			
Bicarbonate	(HCO3-1)	1.40	85.4
Carbonate	(CO3-2)	0	0
Hydroxide	(OH-1)	0	0
Sulfate	(SO4-2)	77.0	3700
Chloride	(Cl-1)	1890	67000

DISSOLVED GASES		
Carbon Dioxide	(CO2)	550
Hydrogen Sulfide	(H2S)	0

=====

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86[F	30[C	-1.8	-6.6
110[F	43[C	-1.0	-6.6
130[F	54[C	-0.69	-6.6
140[F	60[C	-0.50	-6.6
160[F	71[C	-0.10	-2.9

Comments:
cc: Jay Brown
Joe Hay

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707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Texaco Inc.

Date : 8-2-1994

Location: ~~Vacuum Distillation~~ West, (on 8-1-1994)

Specific Gravity:	Sample 1
Total Dissolved Solids:	1.149
pH:	208467
IONIC STRENGTH:	6.90
	3.827

~~~~~

| CATIONS:       |        | me/liter | mg/liter |
|----------------|--------|----------|----------|
| Calcium        | (Ca+2) | 284      | 5680     |
| Magnesium      | (Mg+2) | 128      | 1560     |
| Sodium         | (Na+1) | 3180     | 73200    |
| Dissolved Iron | (Fe+2) | 0.286    | 8.00     |

| ANIONS:     |          |      |        |
|-------------|----------|------|--------|
| Bicarbonate | (HCO3-1) | 1.80 | 110    |
| Carbonate   | (CO3-2)  | 0    | 0      |
| Hydroxide   | (OH-1)   | 0    | 0      |
| Sulfate     | (SO4-2)  | 40.1 | 1930   |
| Chloride    | (Cl-1)   | 3550 | 126000 |

~~~~~

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86[F	30[C	0.70	-1.2
110[F	43[C	1.4	-1.1
130[F	54[C	1.8	-1.1
140[F	60[C	2.0	-1.1
160[F	71[C	2.4	-1.9

Comments:

cc: Jay Brown

Joe Hay

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Hobbs, New Mexico 88240

Specific Gravity:	1.083
Total Dissolved Solids:	116583
pH:	6.70
IONIC STRENGTH:	2.120

[illegible]

ANIONS:			
Bicarbonate	(HCO ₃ -1)	10.4	634
Carbonate	(CO ₃ -2)	0	0
Hydroxide	(OH-1)	0	0
Sulfate	(SO ₄ -2)	40.1	1930
Chloride	(Cl-1)	1950	69000

DISSOLVED GASES		
Carbon Dioxide	(CO2)	70.0
Hydrogen Sulfide	(H2S)	119

[illegible]

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86[F	30[C	0.38	-22
110[F	43[C	1.1	-22
130[F	54[C	1.5	-22
140[F	60[C	1.6	-22
160[F	71[C	2.0	-18

Comments:
cc: Jay Brown
Joe Hay



Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Texaco Inc.
Date : 8-3-1994
Location: Compatability (on 7-28-1994)

	Sample 1
Specific Gravity:	1.082
Total Dissolved Solids:	114681
pH:	6.10
IONIC STRENGTH:	2.163

=====

CATIONS:		me/liter	mg/liter
Calcium	(Ca+2)	148	2960
Magnesium	(Mg+2)	150	1820
Sodium	(Na+1)	1680	38700
Dissolved Iron	(Fe+2)	0.004	0.100

ANIONS:			
Bicarbonate	(HCO3-1)	5.90	360
Carbonate	(CO3-2)	0	0
Hydroxide	(OH-1)	0	0
Sulfate	(SO4-2)	58.6	2810
Chloride	(Cl-1)	1920	68000

DISSOLVED GASES		
Carbon Dioxide	(CO2)	310
Hydrogen Sulfide	(H2S)	59.5
Oxygen	(O2)	0

=====

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86[F	30[C	-0.50	-13
110[F	43[C	0.23	-13
130[F	54[C	0.57	-13
140[F	60[C	0.76	-13
160[F	71[C	1.2	-9.4

Comments:

Ratio: ~~Consolidated~~ ~~Drinkard~~ = 50% and ~~VGSAU~~ = 50%.

cc: Jay Brown
Joe Hay

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707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Texaco Inc.
Date : 8-3-1994
Location: Compatability (on 7-28-1994)

Specific Gravity: 1.081
Total Dissolved Solids: 113647
pH: 5.55
IONIC STRENGTH: 2.256

=====

CATIONS:		me/liter	mg/liter
Calcium	(Ca+2)	106	2120
Magnesium	(Mg+2)	332	4030
Sodium	(Na+1)	1550	35700
Dissolved Iron	(Fe+2)	0.005	0.150

ANIONS:			
Bicarbonate	(HCO3-1)	1.40	85.4
Carbonate	(CO3-2)	0	0
Hydroxide	(OH-1)	0	0
Sulfate	(SO4-2)	86.9	4180
Chloride	(Cl-1)	1900	67500

DISSOLVED GASES

Carbon Dioxide	(CO2)	290
Hydrogen Sulfide	(H2S)	0
Oxygen	(O2)	0

=====

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86[F	30[C	-1.8	-12
110[F	43[C	-1.1	-12
130[F	54[C	-0.72	-12
140[F	60[C	-0.53	-12
160[F	71[C	-0.13	-8.4

Comments:

Ratio: Warn-St. Drinkard = 50% and Consol. Drinkard = 50%

cc: Jay Brown

Joe Hay

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707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Texaco Inc.
Date : 8-3-1994
Sample 1: Compatability (on 7-28-1994)
Sample 2: (on)

	Sample 1	Sample 2
Specific Gravity:	1.081	1.081
Total Dissolved Solids:	113213	114080
pH:	5.53	5.57
IONIC STRENGTH:	2.231	2.281

=====

CATIONS:		me/liter	mg/liter	me/liter	mg/liter
Calcium	(Ca+2)	119	2380	93.0	1860
Magnesium	(Mg+2)	298	3620	366	4450
Sodium	(Na+1)	1560	35900	1550	35500
Dissolved Iron	(Fe+2)	0.006	0.175	0.004	0.125

ANIONS:					
Bicarbonate	(HCO3-1)	1.40	85.4	1.40	85.4
Carbonate	(CO3-2)	0	0	0	0
Hydroxide	(OH-1)	0	0	0	0
Sulfate	(SO4-2)	82.0	3940	91.9	4410
Chloride	(Cl-1)	1900	67300	1910	67800

DISSOLVED GASES			
Carbon Dioxide	(CO2)	420	160
Hydrogen Sulfide	(H2S)	0	0
Oxygen	(O2)	0	0

=====

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate	Calcium Carbonate	Calcium Sulfate
86[F	30[C	-1.8	-8.9	-1.8	-16
110[F	43[C	-1.0	-8.9	-1.1	-16
130[F	54[C	-0.70	-8.9	-0.75	-16
140[F	60[C	-0.51	-8.9	-0.56	-16
160[F	71[C	-0.11	-5.3	-0.16	-12

Comments:

Ratio: Consol. Drinkard = 75% and Warn St. Drinkard = 25%
Consol. Drinkard = 25% and Warn St. Drinkard = 75%

cc: Jay Brown and Joe Hay

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Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Texaco Inc.
Date : 8-3-1994
Location: Compatability (on 7-28-1994)

Specific Gravity: Sample 1
Total Dissolved Solids: 1.082
pH: 114681
TITRIMETRIC STRENGTH: 6.10
2.163

~~~~~

| CATIONS:       |        | me/liter | mg/liter |
|----------------|--------|----------|----------|
| Calcium        | (Ca+2) | 148      | 2960     |
| Magnesium      | (Mg+2) | 150      | 1820     |
| Sodium         | (Na+1) | 1680     | 38700    |
| Dissolved Iron | (Fe+2) | 0.004    | 0.100    |

| ANIONS:     |          |      |       |
|-------------|----------|------|-------|
| Bicarbonate | (HCO3-1) | 5.90 | 360   |
| Carbonate   | (CO3-2)  | 0    | 0     |
| Hydroxide   | (OH-1)   | 0    | 0     |
| Sulfate     | (SO4-2)  | 58.6 | 2810  |
| Chloride    | (Cl-1)   | 1920 | 68000 |

DISSOLVED GASES

|                  |       |      |
|------------------|-------|------|
| Carbon Dioxide   | (CO2) | 310  |
| Hydrogen Sulfide | (H2S) | 59.5 |
| Oxygen           | (O2)  | 0    |

~~~~~

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86[F	30[C	-0.50	-13
110[F	43[C	0.23	-13
130[F	54[C	0.57	-13
140[F	60[C	0.76	-13
160[F	71[C	1.2	-9.4

Comments:

Ratio: Consol: Drinkard = 75% and VGSAU = 25%
Consol: Drinkard = 25% and VGSAU = 75%

cc: Jay Brown and Joe Hay

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Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Texaco Inc.

Date : 8-3-1994

Location: Compatability (on 7-28-1994)

	Sample 1
Specific Gravity:	1.115
Total Dissolved Solids:	160623
pH:	6.20
IONIC STRENGTH:	3.017

~~~~~

| CATIONS:       |        | me/liter | mg/liter |
|----------------|--------|----------|----------|
| Calcium        | (Ca+2) | 208      | 4160     |
| Magnesium      | (Mg+2) | 196      | 2380     |
| Sodium         | (Na+1) | 2380     | 54700    |
| Dissolved Iron | (Fe+2) | 0.147    | 4.10     |

| ANIONS:     |          |      |       |
|-------------|----------|------|-------|
| Bicarbonate | (HCO3-1) | 1.60 | 97.6  |
| Carbonate   | (CO3-2)  | 0    | 0     |
| Hydroxide   | (OH-1)   | 0    | 0     |
| Sulfate     | (SO4-2)  | 58.6 | 2810  |
| Chloride    | (Cl-1)   | 2720 | 96500 |

| DISSOLVED GASES  |       |     |
|------------------|-------|-----|
| Carbon Dioxide   | (CO2) | 275 |
| Hydrogen Sulfide | (H2S) | 0   |
| Oxygen           | (O2)  | 0   |

~~~~~

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86[F	30[C	-0.52	-0.55
110[F	43[C	0.21	0.19
130[F	54[C	0.55	0.19
140[F	60[C	0.74	0.19
160[F	71[C	1.1	-0.25

Comments:

Ratio: ~~consolid~~ Brinkarde = 50% and Vac: Glorieta West = 50%

cc: Jay Brown

Joe Hay

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Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Texaco Inc.
 Date : 8-3-1994
 Sample 1: Compatability (on 7-28-1994)
 Sample 2: (on)

	Sample 1	Sample 2
Specific Gravity:	1.098	1.132
Total Dissolved Solids:	136701	184545
pH:	5.85	6.55
IONIC STRENGTH:	2.612	3.422

=====

CATIONS:		me/liter	mg/liter	me/liter	mg/liter
Calcium	(Ca+2)	170	3400	246	4920
Magnesium	(Mg+2)	230	2790	162	1970
Sodium	(Na+1)	1980	45400	2780	63900
Dissolved Iron	(Fe+2)	0.077	2.15	0.217	6.05

ANIONS:		me/liter	mg/liter	me/liter	mg/liter
Bicarbonate	(HCO3-1)	1.50	91.5	1.70	104
Carbonate	(CO3-2)	0	0	0	0
Hydroxide	(OH-1)	0	0	0	0
Sulfate	(SO4-2)	67.8	3260	49.3	2370
Chloride	(Cl-1)	2310	81800	3140	111000

DISSOLVED GASES		me/liter	mg/liter
Carbon Dioxide	(CO2)		413
Hydrogen Sulfide	(H2S)		0
Oxygen	(O2)		0

=====

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate	Calcium Carbonate	Calcium Sulfate
86[F]	30[C]	-1.1	-1.3	0.09	-0.30
110[F]	43[C]	-0.41	-1.2	0.82	0.23
130[F]	54[C]	-0.07	-1.2	1.2	0.23
140[F]	60[C]	0.12	-1.2	1.4	0.23
160[F]	71[C]	0.52	-3.1	1.8	-0.22

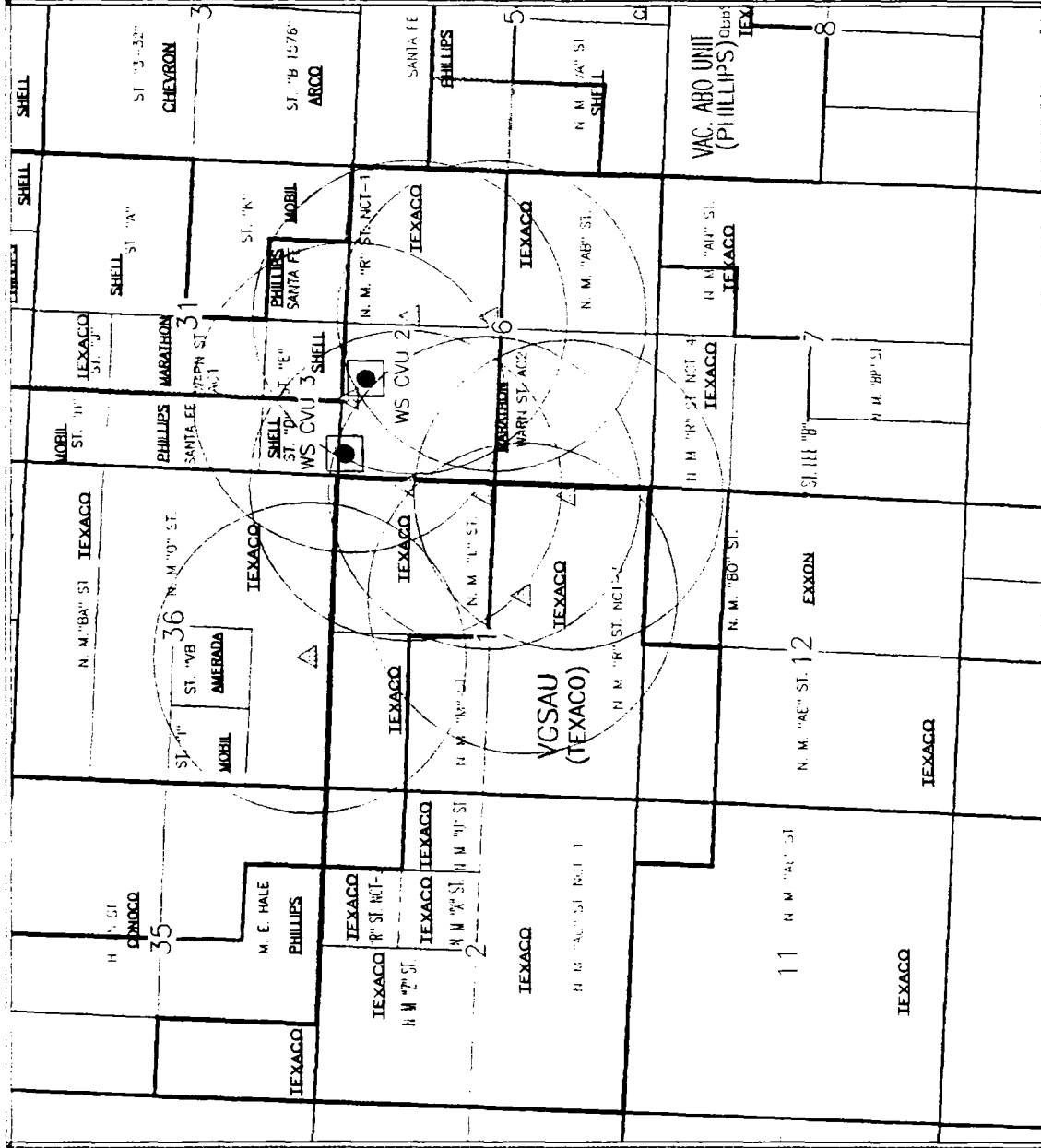
Comments:

Ratio: Consol: Drinkard = 75% and Vac: Glorieta West = 25%
 Consol: Drinkard = 25% and Vac: Glorieta West = 75%

cc: Jay Brown and Joe Hay

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ATTACHMENT XI



LEASEHOLD INJECTION WELLS

Scale 1:36000.

Texaco Exploration & Prod. Inc.	
LEASELINE INJECTION WELLS VACUUM DRINKARD FIELD LEA COUNTY NEW MEXICO	
History, Name	10/20/94
Scale	1:36000

**Western Unichem**

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Texaco Inc.
 Date : 10-31-1994
 Location: CVU - WSW #2 (on 10-26-1994)

Specific Gravity:	Sample 1
Total Dissolved Solids:	1.000
pH:	597
IONIC STRENGTH:	6.50
	0.014

=====

CATIONS:		me/liter	mg/liter
Calcium	(Ca+2)	4.70	94.0
Magnesium	(Mg+2)	3.30	40.1
Sodium	(Na+1)	1.93	44.5
Iron (total)	(Fe+2)	0.007	0.200

ANIONS:			
Bicarbonate	(HCO3-1)	2.60	159
Carbonate	(CO3-2)	0	0
Hydroxide	(OH-1)	0	0
Sulfate	(SO4-2)	0	0
Chloride	(Cl-1)	7.33	260

=====

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86[F	30[C	-0.84	-18
110[F	43[C	-0.11	-18
130[F	54[C	0.24	-18
140[F	60[C	0.42	-18
160[F	71[C	0.82	-18

Comments:
 cc: Jay Brown
 Joe Hay

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Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Texaco Inc.
 Date : 10-31-1994
 Location: CVU - WSW #3 (on 10-26-1994)

Specific Gravity:	Sample 1
Total Dissolved Solids:	1.001
pH:	1944
IONIC STRENGTH:	6.70
	0.043

=====

CATIONS:		me/liter	mg/liter
Calcium	(Ca+2)	9.00	180
Magnesium	(Mg+2)	6.60	80.2
Sodium	(Na+1)	17.7	406
Iron (total)	(Fe+2)	0.014	0.400

ANIONS:			
Bicarbonate	(HCO3-1)	2.20	134
Carbonate	(CO3-2)	0	0
Hydroxide	(OH-1)	0	0
Sulfate	(SO4-2)	3.31	159
Chloride	(Cl-1)	27.8	984

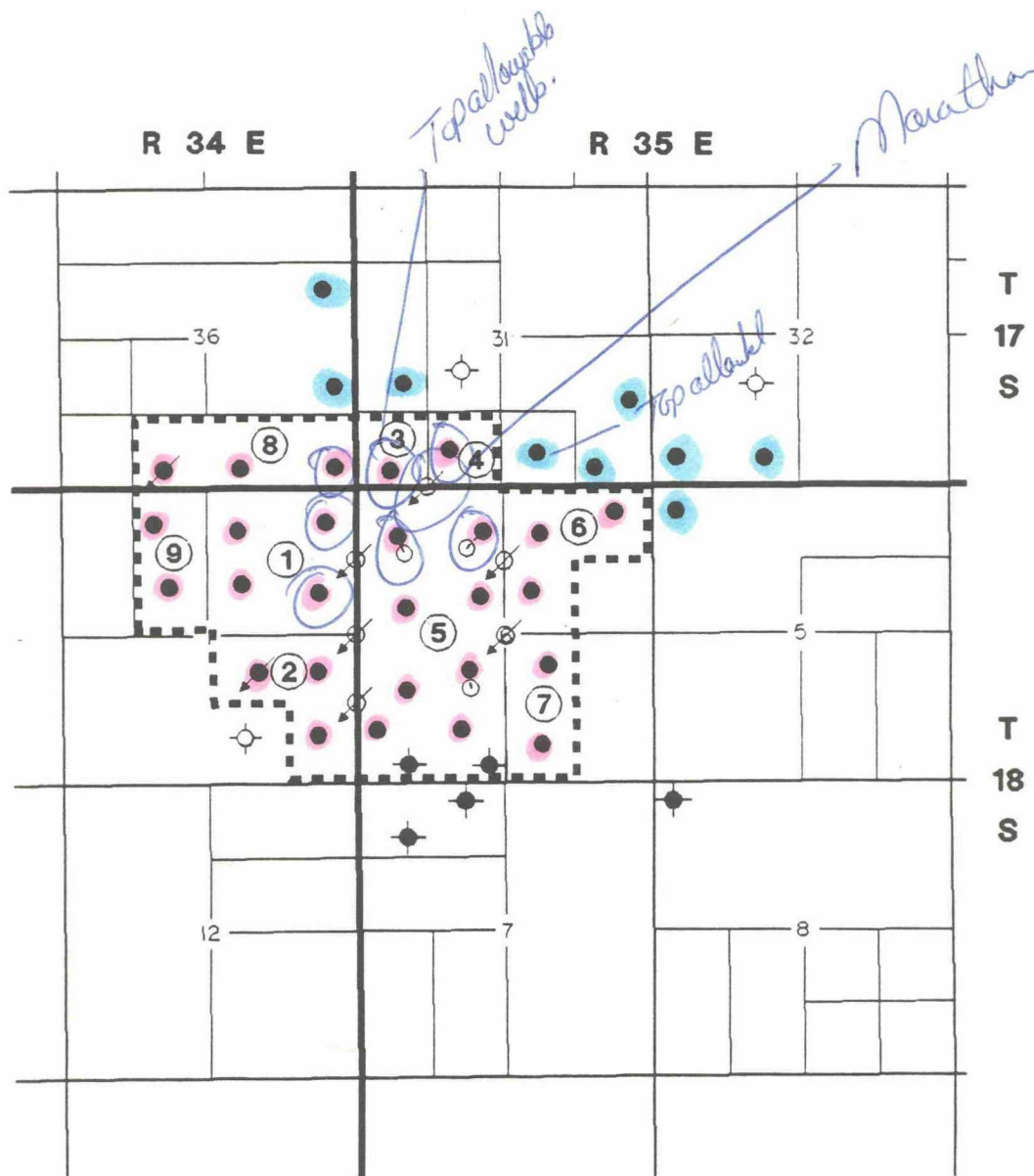
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SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86[F	30[C	-0.55	-14
110[F	43[C	0.18	-14
130[F	54[C	0.52	-14
140[F	60[C	0.71	-14
160[F	71[C	1.1	-14

Comments:
 cc: Jay Brown
 Joe Hay

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- 27
- DRINKARD PRODUCER
 - DIRECTIONALLY DRILLED DRINKARD PRODUCER
 - / PROPOSED DRINKARD INJECTOR
 - / PROPOSED CONVERSION TO INJECTION
 - SHUT-IN/ABANDONED DRINKARD PRODUCER
 - DRINKARD DRY HOLE
 - PROJECT AREA
 - ⑤ LEASE NUMBER

0 1/2 1
MILE

MARATHON OIL COMPANY
MID-CONTINENT REGION

VACUUM (DRINKARD) FIELD

LEA COUNTY, NEW MEXICO

**VACUUM DRINKARD COOPERATIVE
PRESSURE MAINTENANCE PROJECT**

PROJECT AREA PLAT

OCTOBER 1994

**BEFORE THE
OIL CONSERVATION DIVISION**
Santa Fe, New Mexico

Case No. 11152 Exhibit No. 2

Submitted by: Texaco Exploration and Production Inc.

Hearing Date: December 1, 1994



October 31, 1994

RECEIVED
NOV 16 1994
CAMPBELL, CARB. & L.

OFFSET OPERATORS

REQUEST FOR WATER INJECTION WELLS

VACUUM DRINKARD FIELD
LEA COUNTY, NEW MEXICO

Gentlemen:

It is our intent with Marathon Oil Co. and Shell Oil Co. to drill on nonstandard locations the wells listed below for water injection to implement a pressure maintenance project in the subject field:

New Mexico "R" State NCT-1 Nos. 16 & 17
New Mexico "R" State NCT-3 No. 28
New Mexico "L" State Nos. 16 & 17
Warn State A/C 2 No. 25

In addition, Texaco plans to convert to injection in the same field two wells for pressure maintenance:

New Mexico "R" State NCT-3 No. 26
New Mexico "O" State NCT-1 No. 36

Please find attached Form C-108, Application for Authorization to Inject, and attachments that were submitted to the State of New Mexico.

This information is being supplied to you, as an offset operator, as required by the New Mexico Oil Conservation Division for any operator within one-half mile of any proposed injector.

Your very truly,

J. A. Head
North Hobbs Asset Manager

BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico

Case No. 11152 Exhibit No. 3

KFH-CC

Submitted by: Texaco Exploration and Production Inc.

Attachments

Hearing Date: December 1, 1994



Texaco Exploration and Production Inc.
Midland Producing Division

500 N. Loraine
Midland, TX 79701

P. O. Box 3105
Midland, TX 79701

October 31, 1994

State of New Mexico
P. O. Box 1148
Santa Fe, NM 87504-1148

REQUEST FOR WATER INJECTION WELLS
VACUUM DRINKARD FIELD
LEA COUNTY, NEW MEXICO

Gentlemen:

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New Mexico "O" State NCT-1 No. 36

Please find attached Form C-108, Application for Authorization to Inject, and attachments that were submitted to the State of New Mexico.

This information is being supplied to you, as a surface owner, as required by the New Mexico Oil Conservation Division.

Yours very truly,

J. A. Head
North Hobbs Asset Manager

KFH-CC

Attachments

Offset Operators Within Area Of Review

**Texaco E & P Inc.
P. O. Box 3109
Midland TX 79702**

**Marathon Oil Co.
P.O. Box 552
Midland TX 79702**

**Exxon Company USA
P.O. Box 1600
Midland TX 79702**

**Amerada Hess
P.O. Box 2040
Tulsa OK 74102**

**Phillips Petroleum Co.
4001 Penbrook
Odessa TX 79762**

**Mobil Oil Corp.
P. O. Box 633
Midland TX 79702**

**Shell Western E&P Inc.
P.O. Box 576
Houston TX 77001-0576**

**ARCO O&G Co.
P.O. Box 1346
Houston TX 77079**

**Conoco Inc.
10 Desta Drive Ste. 100W
Midland TX 79705-4500**

Surface Owner

**State of New Mexico
P.O. Box 1148
Santa Fe NM 87504-1148**

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

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 _____

one _____ weeks.

Beginning with the issue dated

November 3, 19 94

and ending with the issue dated

November 3, 19 94

Kathi Bearden
General Manager

Sworn and subscribed to before

me this 7 day of

November 19 94
Charles Herrin

Notary Public.

My Commission expires

March 15, 1997

(Seal)

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

LEGAL NOTICE

November 3, 1994

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 to convert two producing wells to water injection and drill six injection wells for the purpose of pressure maintenance. This will be a cooperative project between Texaco E&P Inc., Marathon Oil Co. and Shell Western E&P Inc.

Pool Name: Vacuum Drinkard, Lea County, New Mexico

Texaco E&P Inc.-Conversion Well Numbers and Locations:

NM 'O' State NCT-1 No. 36 - Unit N. 330 FSL & 2210 FWL, Sec. 36, T-17S, R-34E

NM 'R' State NCT-3 No. 26 - Unit J. 1980 FSL & 1755 FEL, Sec. 1, T-18S, R-34E

Texaco E&P Inc.-New Injection Well Numbers and Locations:

NM 'R' State NCT-3 No. 28 - Unit P. 1310 FSL & 110 FEL, Sec. 1, T-18S, R-34E

NM 'R' State NCT-1 No. 17 - Unit G. 2530 FNL & 2530 FEL, Sec. 6, T-18S, R-35E

NM 'R' State NCT-1 No. 16 - Unit G. 1410 FNL & 2630 FEL, Sec. 6, T-18S, R-35E

NM 'L' State No. 17 - Unit H. 2560 FNL & 10 FEL, Sec. 1, T-18S, R-34E

NM 'L' State No. 16 - Unit A. 1310 FNL & 10 FEL, Sec. 1, T-18S, R-34E

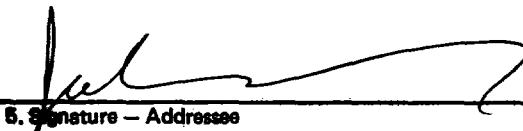
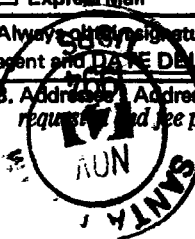
Marathon Oil Co. - New Injection Well Number and Location:

WARN STATE A/C-2 No. 25 - Unit C. 113 FNL & 1429 FWL, Sec. 6, T-18S, R-35E

The injection formation is Vacuum Drinkard at a depth of 7450 feet below the surface of the ground. Expected maximum injection rate is 550 barrels per day, and expected maximum initial injection pressure is 1500 pounds per square inch. 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.

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 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 additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to: STATE OF NEW MEXICO P O BOX 1148 SANTA FE NM 87504-1148	4. Article Number P 652 054 117
5. Signature — Addressee X 	Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail
	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent X	Always obtain signature of addressee or agent and DATE DELIVERED . 
7. Date of Delivery	

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
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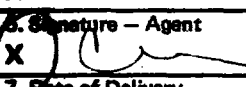
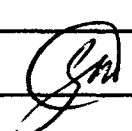
3. Article Addressed to: ARCO O&G COMPANY P O BOX 1346 HOUSTON TX 77079	4. Article Number P 652 054 115
5. Signature — Addressee X	Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail
	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent X 	Always obtain signature of addressee or agent and DATE DELIVERED .
7. Date of Delivery NOV 04 1986	

PS Form 3811, Feb. 1986

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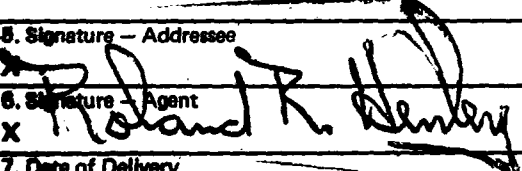
3. Article Addressed to: PHILLIPS PETROLEUM COMPANY 4001 PENBROOK ODESSA TX 79762	4. Article Number P 652 054 112
5. Signature — Addressee X	Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail
	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent X 	Always obtain signature of addressee or agent and DATE DELIVERED .
7. Date of Delivery 11-3-94 	

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 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 additional service(s) requested.

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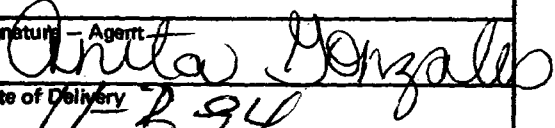
3. Article Addressed to: SHELL WESTERN E&P INC P O BOX 576 HOUSTON TX 77001-0576	4. Article Number P 652 054 114 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail Always obtain signature of addressee or agent and DATE DELIVERED .
5. Signature — Addressee 	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent X	
7. Date of Delivery NOV - 4 1993	

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

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1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

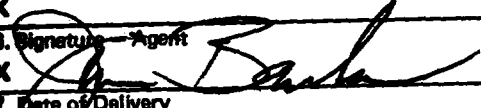
3. Article Addressed to: CONOCO INC SUITE 100W 10 DESTA DRIVE MIDLAND TX 79705-4500	4. Article Number P 652 054 116 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail Always obtain signature of addressee or agent and DATE DELIVERED .
5. Signature — Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent X 	
7. Date of Delivery 11-3-94	

PS Form 3811, Feb. 1986

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1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to: MARATHON OIL COMPANY P O BOX 552 MIDLAND TX 79702	4. Article Number P 652 054 109 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail Always obtain signature of addressee or agent and DATE DELIVERED .
5. Signature — Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent X 	
7. Date of Delivery NOV - 3 1994	

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

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3. Article Addressed to: MOBIL OIL CORP P O BOX 633 MIDLAND TX 79702	4. Article Number P 652 054 113 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail Always obtain signature of addressee or agent and DATE DELIVERED .
5. Signature — Addressee X	8. Addressee's Address (<i>ONLY if requested and fee paid</i>)
6. Signature — Agent X <i>Lesse H. Leys</i>	
7. Date of Delivery NOV 5 1994	

PS Form 3811, Feb. 1986 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 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 additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to: EXXON COMPANY USA P O BOX 1600 MIDLAND TX 79702	4. Article Number P 652 054 110 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail Always obtain signature of addressee or agent and DATE DELIVERED .
5. Signature — Addressee X	8. Addressee's Address (<i>ONLY if requested and fee paid</i>)
6. Signature — Agent X <i>T. Brown</i>	
7. Date of Delivery NOV - 3 1994	

PS Form 3811, Feb. 1986 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 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 additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to: AMERADA HESS P O BOX 2040 TULSA OK 74102	4. Article Number P 652 054 111 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail Always obtain signature of addressee or agent and DATE DELIVERED .
5. Signature — Addressee X	8. Addressee's Address (<i>ONLY if requested and fee paid</i>)
6. Signature — Agent X <i>Mike Hest</i>	
7. Date of Delivery NOV 04 1994	

PS Form 3811, Feb. 1986 DOMESTIC RETURN RECEIPT

P O BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 1191105 (Page 5)
TO: Mr. Todd Lackey SAMPLE RECEIVED 11-12-91
P. O. Box 728, Hobbs, NM 88240 RESULTS REPORTED 11-20-91

COMPANY Texaco Exploration & Production Inc. LEASE Vacuum Area
FIELD OR POOL Vacuum
SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken from Western Ag. Mineral water well #6. 11-12-91
NO. 2 Raw water - taken from Western Ag. Mineral water well #7. 11-12-91
NO. 3 Raw water - taken from Buckeye Gas Plant water supply well. 11-12-91
NO. 4 Raw water - taken from Forklift Enterprises fresh water station. 11-12-91

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0012	1.0011	1.0016	1.0037
pH When Sampled				
pH When Received	7.21	7.33	7.16	7.30
Bicarbonate as HCO ₃	195	200	195	195
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	196	180	248	950
Calcium as Ca	59	58	82	284
Magnesium as Mg	12	9	11	58
Sodium and/or Potassium	25	24	31	615
Sulfate as SO ₄	32	26	25	140
Chloride as Cl	41	30	92	1,406
Iron as Fe	0.11	0.11	0.07	0.11
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	365	346	436	2,699
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	23.50	25.70	17.15	2.18
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	4.0	3.9	5.0	3.4

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

RESULT OF WATER ANALYSES

LABORATORY NO. 1191105 (Page 4)
TO: Mr. Todd Lackey SAMPLE RECEIVED 11-12-91
P. O. Box 728, Hobbs, NM 88240 RESULTS REPORTED 11-20-91

COMPANY Texaco Exploration & Production Inc. LEASE Vacuum Area
FIELD OR POOL Vacuum
SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

- NO. 1 Raw water - taken from New Mexico Potash water well #8. 11-12-91
NO. 2 Raw water - taken from Western Ag. Mineral water well #1. 11-12-91
NO. 3 Raw water - taken from Western Ag. Mineral water well #4. 11-12-91
NO. 4 Raw water - taken from Western Ag. Mineral water well #5. 11-12-91

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0020	1.0013	1.0013	1.0017
pH When Sampled				
pH When Received	7.14	7.43	7.29	7.15
Bicarbonate as HCO ₃	195	190	200	185
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	430	220	164	232
Calcium as Ca	128	72	53	74
Magnesium as Mg	27	10	8	12
Sodium and/or Potassium	78	27	31	29
Sulfate as SO ₄	28	25	24	35
Chloride as Cl	291	68	30	75
Iron as Fe	0.07	7.2	0.11	0.11
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	747	393	345	410
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen.				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	8.31	20.30	25.70	18.75
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	3.8	4.0	3.2	5.7

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

RESULT OF WATER ANALYSES

LABORATORY NO. 1191105 (Page 3)
To: Mr. Todd Lackey SAMPLE RECEIVED 11-12-91
P. O. Box 728, Hobbs, NM 88240 RESULTS REPORTED 11-20-91

COMPANY Texaco Exploration & Production Inc. LEASE Vacuum Area
FIELD OR POOL Vacuum

SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

- NO. 1 Raw water - taken from Central Vacuum Unit water well #1. 11-12-91
NO. 2 Raw water - taken from Central Vacuum Unit water well #2. 11-12-91
NO. 3 Raw water - taken from New Mexico Potash water well #1. 11-12-91
NO. 4 Raw water - taken from New Mexico Potash water well #5. 11-12-91

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0026	1.0016	1.0018	1.0015
pH When Sampled				
pH When Received	7.23	7.46	6.82	7.32
Bicarbonate as HCO ₃	220	185	200	185
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	410	268	312	224
Calcium as Ca	136	85	98	72
Magnesium as Mg	17	14	17	11
Sodium and/or Potassium	263	34	65	36
Sulfate as SO ₄	58	29	32	22
Chloride as Cl	526	114	182	91
Iron as Fe	0.11	0.14	0.22	0.07
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	1,219	461	593	417
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	5.02	15.70	11.67	17.60
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	4.2	3.6	2.7	4.5

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

RESULT OF WATER ANALYSES

LABORATORY NO. 1191105 (Page 2)
TO: Mr. Todd Lackey SAMPLE RECEIVED 11-12-91
P. O. box 728, Hobbs, NM 88240 RESULTS REPORTED 11-20-91

COMPANY Texaco Exploration & Production Inc. LEASE Vacuum Area
FIELD OR POOL Vacuum

SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

- NO. 1 Raw water - taken from Vacuum Grayburg-San Andres Unit water well #1. 11-12-91
NO. 2 Raw water - taken from Vacuum Grayburg-San Andres Unit water well #4. 11-12-91
NO. 3 Raw water - taken from Vacuum Grayburg-San Andres recovery well #1. 11-12-91
NO. 4 Raw water - taken from Vacuum Grayburg-San Andres recovery well #2. 11-12-91

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0020	1.0010	1.0077	1.0091
pH When Sampled				
pH When Received	7.14	7.17	7.21	7.33
Bicarbonate as HCO ₃	190	185	181	200
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	372	172	1,950	2,650
Calcium as Ca	120	54	288	328
Magnesium as Mg	17	9	299	445
Sodium and/or Potassium	100	24	1,975	2,310
Sulfate as SO ₄	31	24	1,239	960
Chloride as Cl	284	34	3,409	4,616
Iron as Fe	0.58	0.14	0.14	0.22
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	743	331	7,390	8,859
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen.				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	8.40	26.00	0.800	0.660
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	4.1	3.7	0.0	0.6

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

RESULT OF WATER ANALYSES

LABORATORY NO. 1191105
SAMPLE RECEIVED 11-12-91
RESULTS REPORTED 11-20-91

TO: Mr. Todd Lackey
P. O. Box 728, Hobbs, NM 88240

COMPANY Texaco Exploration & Production Inc. LEASE Vacuum Area
FIELD OR POOL Vacuum
SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken @ Texaco Buckeye Office. 11-12-91
NO. 2 Raw water - taken @ Buckeye Store water supply well. 11-12-91
NO. 3 Raw water - taken from windmill (section 6). 11-12-91
NO. 4 Raw water - taken from windmill (section 12). 11-12-91

REMARKS: Samples taken by Tom Elrod, Martin Water Laboratories, Inc.

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0020	1.0017	1.0013	1.0010
pH When Sampled				
pH When Received	7.00	7.00	7.17	7.44
Bicarbonate as HCO ₃	278	278	210	190
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	360	284	208	176
Calcium as Ca	120	96	70	56
Magnesium as Mg	15	11	8	9
Sodium and/or Potassium	33	20	22	22
Sulfate as SO ₄	65	54	36	24
Chloride as Cl	97	31	33	30
Iron as Fe	0.18	0.11	0.25	0.11
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	608	490	378	330
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen.				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	13.00	19.20	23.80	26.75
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	6.0	7.8	3.0	4.8

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION

TEXAS EXHIBIT NO. 4

CASE NO. 11152