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

IN THE MATTER OF THE APPLICATION OF TEXACO EXPLORATION AND PRODUCTION INC. FOR APPROVAL OF A PRESSURE MAINTENANCE PROJECT FOR ITS NEW MEXICO "O" STATE NCT-1 LEASE AND ITS STATE "BA" LEASE, LEA COUNTY, NEW MEXICO. **CASE NO.** 12638

APPLICATION

TEXACO EXPLORATION AND PRODUCTION INC. ("Texaco") through its attorneys, Holland & Hart LLP and Campbell & Carr, P.A. hereby makes application for an order approving a pressure maintenance project for the injection of water into the Abo formation, North Vacuum-Abo Pool; the Wolfcamp formation, the Undesignated Vacuum-Wolfcamp Pool and the Upper Pennsylvanian formation, Vacuum-Upper Pennsylvanian Pool in its New Mexico "O" State NCT-1 Lease and its State "BA" Lease, and in support of its application states:

1. Texaco seeks approval to implement a pressure maintenance project in its New Mexico "O" State NCT-1 Lease and its State "BA" lease by the injection of water into the Abo,

Wolfcamp and Upper Pennsylvanian formations. A copy of Texaco's Application for Authorization to Inject (Division Form C-108) through three wells on these leases is attached hereto.

2. The boundaries of the proposed pressure maintenance project include the following acreage in Lea County, New Mexico:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM

Section 36: N/2, SE/4, S/2 SW/4

3. Notice of this application and the requested hearing date as well as a copy of Texaco's Application for Permit to Inject (Form C-108) will be provided by certified mail in accordance with the rules of the Oil Conservation Division to each leasehold operator within ½ mile of each proposed injection well and the owner of the surface of the land upon which each injection well is to be located. These owners are identified on Exhibit A to this application.

4. Approval of this application will afford Texaco the opportunity to produce its just and equitable share of the remaining reserves in the New Mexico "O" State NCT-1 Lease and its State "BA" Lease and will otherwise be in the best interest of the

conservation, the protection of correlative rights and the prevention of waste.

WHEREFORE, Texaco Exploration and Production Inc. requests that this matter be set for hearing before a duly appointed Examiner of the Oil Conservation Division on April 5, 2001, and after notice and hearing as required by law, the Division enter its Order granting this application.

Respectfully submitted,

HOLLAND & HART
AND
CAMPBELL & CARR

By:_____
William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87504
Telephone: (505) 988-4421

ATTORNEYS FOR TEXACO
EXPLORATION AND PRODUCTION
INC.

CASE 12638: Application of Texaco Exploration and Production Inc. for approval of a pressure maintenance project for its New Mexico "O" State NCT-1 Lease and its State "BA" Lease, Lea County, New Mexico. Applicant in the above-styled cause, seeks approval for injection of water into the Abo formation, North Vacuum-Abo Pool, Wolfcamp formation, Undesignated Vacuum-Wolfcamp Pool, and the Upper Pennsylvanian formation, Vacuum-Upper Pennsylvanian Pool through three injection wells located in the following described area:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
Section 36: N/2, SE/4, S/2 SW/4

Said leases are located approximately 1 mile east of Buckeye, New Mexico.

EXHIBIT A
NOTIFICATION LIST

APPLICATION OF TEXACO EXPLORATION AND PRODUCTION INC. FOR APPROVAL OF A PRESSURE MAINTENANCE PROJECT FOR ITS NEW MEXICO "O" STATE NCT-1 LEASE AND ITS STATE "BA" LEASE, LEA COUNTY, NEW MEXICO.

Apache Corporation
2000 Post Oak Blvd., Suite 100
Houston, Texas 77056-4400

Conoco Inc.
10 Desta Drive, Suite 100 W
Midland, Texas 79705

Marathon Oil Company
Post Office Box 552
Midland, Texas 79702

Mobil Producing Texas & New Mexico, Inc.
c/o Exxon Mobil Corporation
Post Office Box 4697
Houston, Texas 77210-4697

Phillips Petroleum Company
4001 Penbrook
Odessa, Texas 79762

Ricks Exploration II, L.P.
3000 Oklahoma Tower
210 Park Avenue
Oklahoma City, Oklahoma 73102

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: TEXACO EXPLORATION & PRODUCTION

Address: 500 N. LORAINE, MIDLAND, TEXAS 79701

Contact party: KEVIN HICKEY Phone: (915) 688-2950

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

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

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

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

VII. Attach data on the proposed operation, including:

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

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

IX. Describe the proposed stimulation program, if any.

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

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

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

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

XIV. Certification

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

Name: Kevin F. Hickey Title Project Engineer

Signature: Kevin F Hickey Date: 2/27/2001

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

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

VACUUM UPPER PENN FIELD
VACUUM WOLFCAMP FIELD
VACUUM ABO NORTH FIELD

PRESSURE MAINTENANCE PROJECT
APPLICATION FOR AUTHORIZATION TO INJECT WATER

ATTACHMENT III TO FORM C-108

Attached is a description of the three wells proposed for injection for this project.. For each well a 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. 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:	3000 BWPD	(1000 BWPD/well)
Maximum Daily Rate:	6000 BWPD	(2000 BWPD/well)

The injection system is closed.

The proposed average and maximum* surface injection pressures are:

Average injection pressure	1800 PSIG
Maximum injection pressure	2200 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 Paddock Formations. This will be supplied from the Vacuum Glorieta West Unit injection system. As shown on the attached water analysis of Wolfcamp produced water and the above mentioned sources, the waters are compatible.

ATTACHMENT VIII TO FORM C-108

FORMATION DESCRIPTION

The Abo formation is a microcrystalline dolomite deposited in a back reef environment. The structure is a southeasterly dipping stratagraphic trap with permeability pinchouts in all directions. The Abo is in the Paleozoic era, Permian System, Leonard Age. The top of the Abo is found at approximately 8300' and is approximately 1000 feet thick.

The Wolfcamp formation is a massive limestone interbedded with shale stringers. The structure is an anticline with permeability pinchouts in all directions. The Wolfcamp is in the Paleozoic era, Permian System, Wolfcamp Age. The top of the Wolfcamp is approximately 9300' and is approximately 800' thick.

The Upper Penn is Paleozoic era, Pennsylvanian System, Cisco Group. The structure is an anticline with an undefined oil-water contact in all directions. The top of the Upper Penn is approximately 10100' and is approximately 200' thick.

No known faults cut through these formations 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 Abo in the Paddock-Glorieta formations (Vacuum Glorieta West Unit) and the Grayburg-San Andres (Central Vacuum Unit). The productive formation below the Penn is the Devonian. 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	9300'
Penn Reef	10100'
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 programs were initially 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

Logs on New Mexico "O" State NCT-1 No. 38 and State BA Nos. 6 and 8 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 four fresh water wells in the vicinity of the proposed pressure maintenance project which have chemical analysis. Attached are the attendant water analyses. Water is from the Ogallala at a depth of 200 feet.

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.

See the attached list of Offset Operators. The surface owner is the State of New Mexico.

INJECTION WELL DATA SHEET

OPERATOR Texaco Exploration and Production Inc. LEASE State BA

WELL NO. 6 | 660' FNL and 860 FWL (FOOTAGE LOCATION) | 36 (SECTION) | 17S (TOWNSHIP) | 34E (RANGE)

Schematic

Well Construction Data

Surface Casing

Size 13 3/8 " Cemented with 400 sx.

TOC surface feet determined by cement circ.

Hole Size 17 1/2"

Intermediate Casing

Size 9 5/8 " Cemented with 2080 sx.

TOC 110 feet determined by Temp Survey

Hole Size 12 1/4"

Long String

Size 7 " Cemented with 850 sx.

TOC 5675 feet determined by Temp Survey

Hole Size 8 3/4"

Total Depth 12,110'

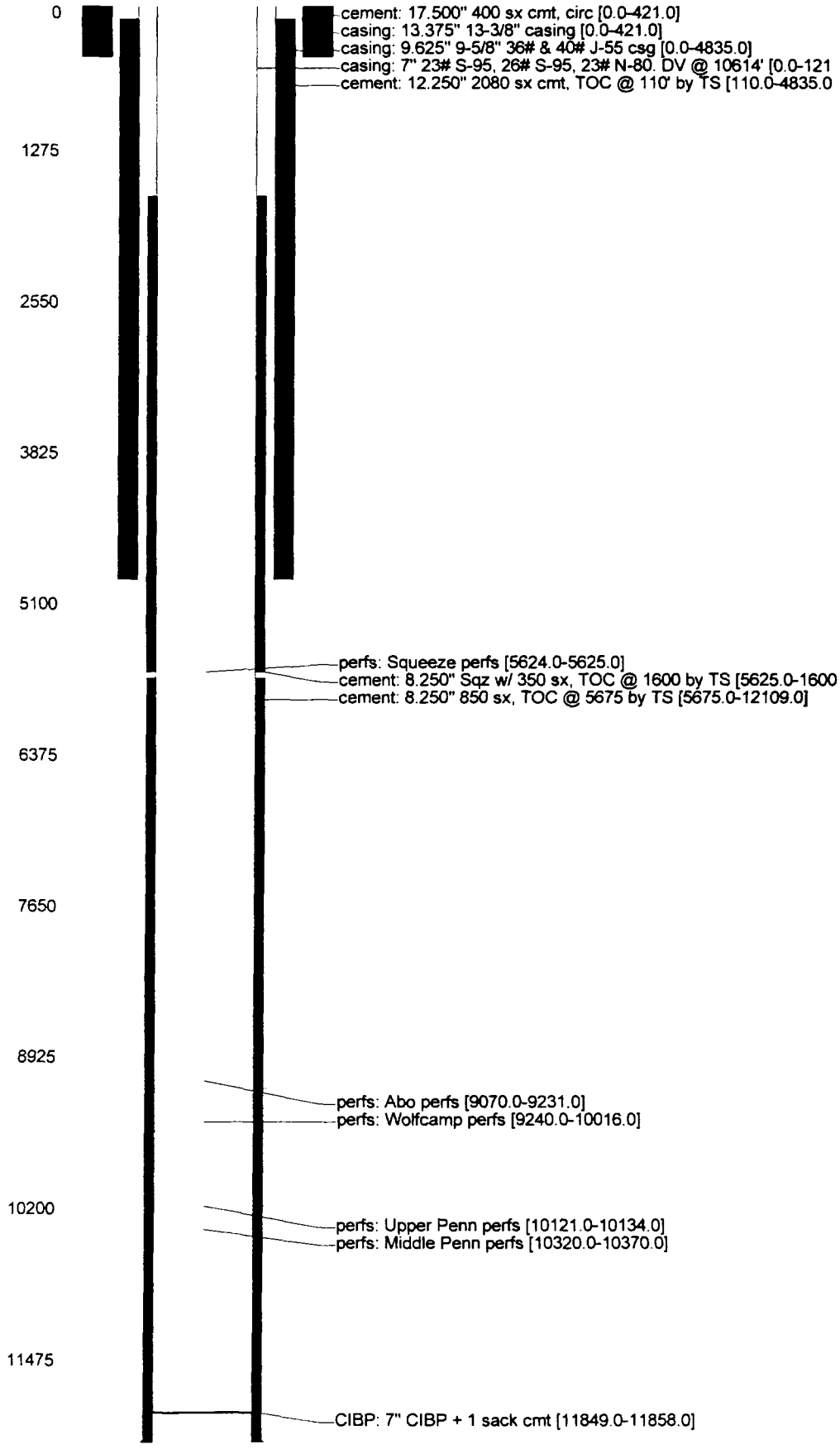
Injection Interval

9070 feet to 10,134 feet

(perforated or open-hole; indicate which)

ATTACHMENT III
TO
FORM C-108

Name: 6 ID: 3002520057:406PSLVU Type: TEXACO Date: 2/23/00



INJECTION WELL DATA SHEET

OPERATOR Texaco Exploration and Production Inc. LEASE State BA

WELL NO. 8 766' FNL and 2086' FEL (FOOTAGE LOCATION) 36 (SECTION) 17-S (TOWNSHIP) 34-E (RANGE)

Schematic

Well Construction Data

Surface Casing

Size 13 3/8 " Cemented with 350 sx.

TOC Surface feet determined by cmt circ

Hole Size 17 1/2"

Intermediate Casing

Size 9 5/8 " Cemented with 3550 sx.

TOC Surface feet determined by cmt circ

Hole Size 12 1/4"

Long String

Size 7 " Cemented with 1480 sx.

TOC 2000 feet determined by Temp Survey

Hole Size 8 3/4"

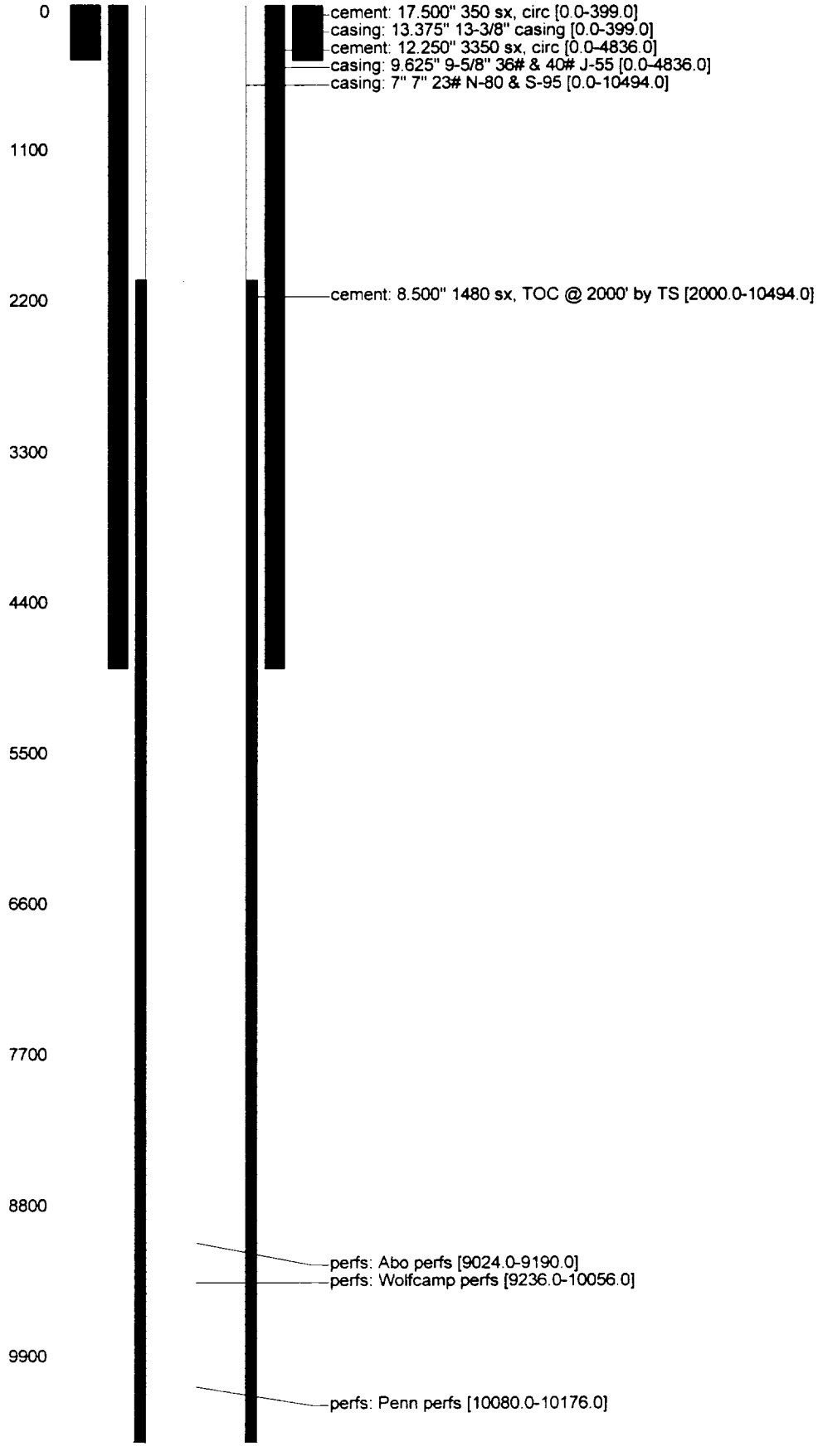
Total Depth 10,494'

Injection Interval

9024 feet to 10,176' feet perforated

(perforated or open-hole; indicate which)

Name: 8 ID: 3002520986:406PSLVU Type: TEXACO Date: 2/23/00



INJECTION WELL DATA SHEET

OPERATOR Texaco Exploration and Production Inc. LEASE New Mexico O State NCT-1

WELL NO. 38 2085' FSL and 710' FEL (FOOTAGE LOCATION) 36 (SECTION) 17-S (TOWNSHIP) 34-E (RANGE)

Schematic

Well Construction Data

Surface Casing

Size 11-3/4" Cemented with 800 sx.

TOC surface feet determined by cmt circ

Hole Size 14-3/4"

Intermediate Casing

Size 8-5/8" Cemented with 1700 sx.

TOC surface feet determined by cmt circ

Hole Size 11 3/4"

Long String

Size 5 1/2" Cemented with 1900 sx.

TOC surface feet determined by cmt circ, 2 stgs

Hole Size 7 7/8"

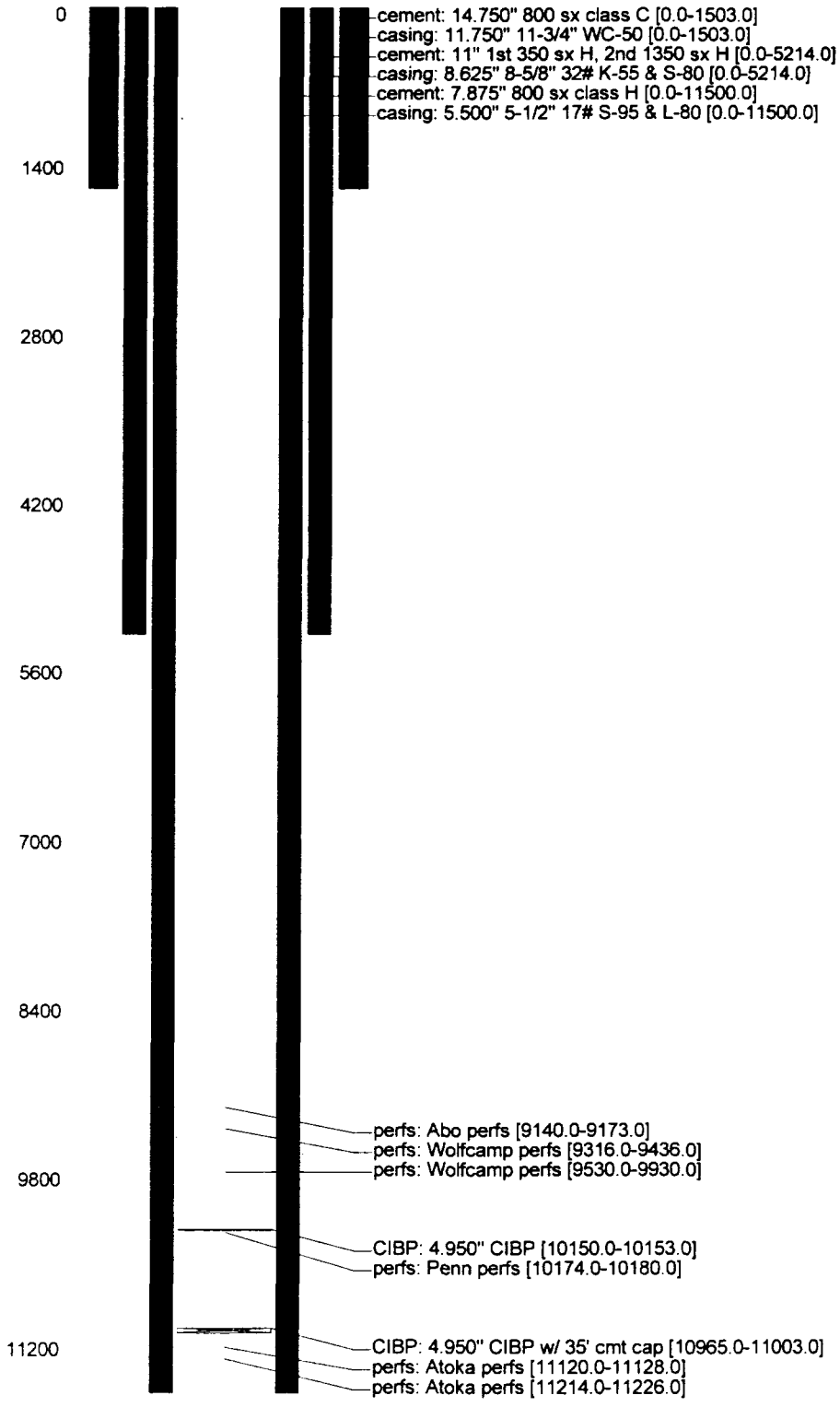
Total Depth 11,500'

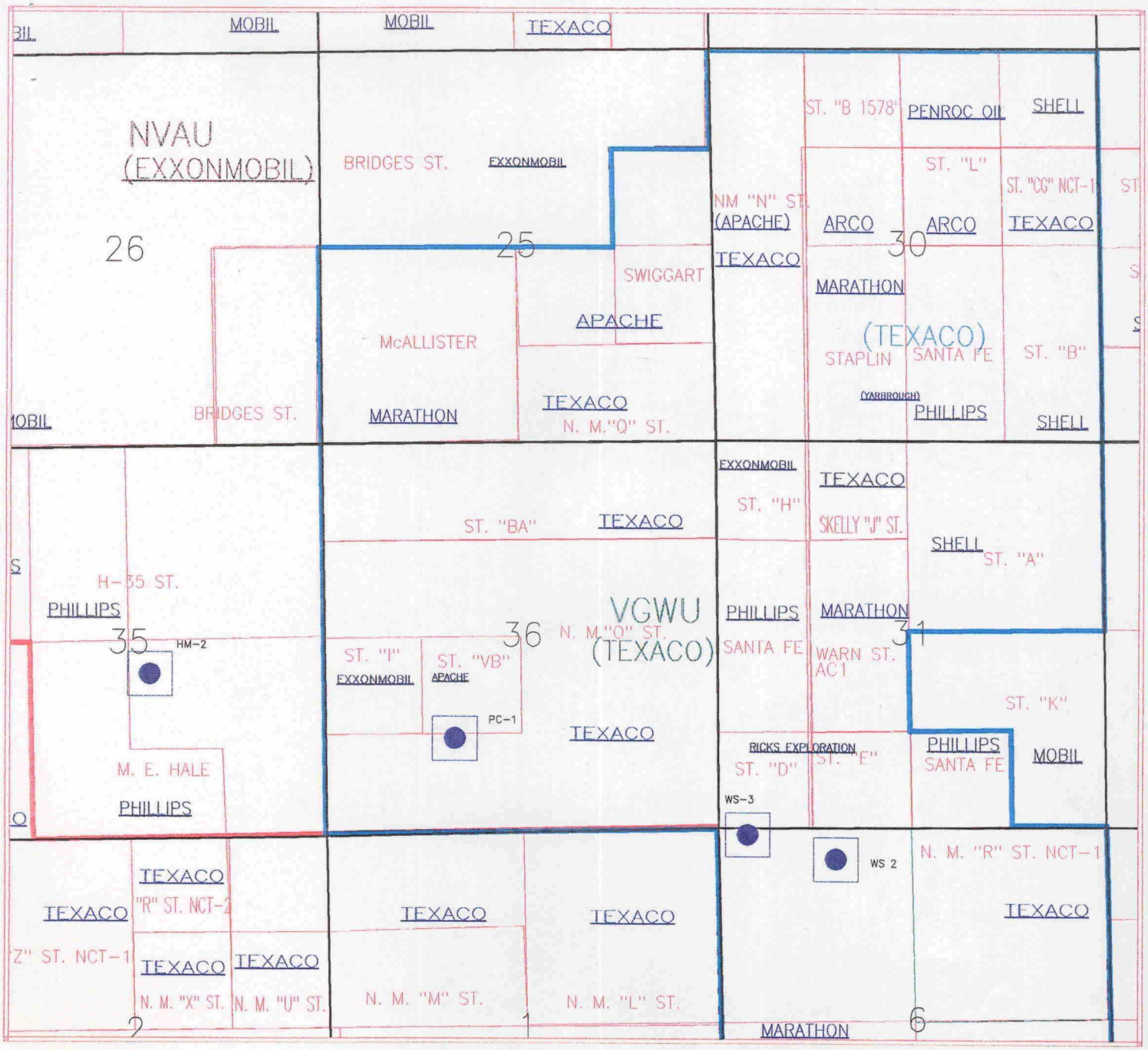
Injection Interval

9140 feet to 10,182 feet perforated

(perforated or open-hole; indicate which)

Name: 38 ID: 3002533148:406PSLVU Type: TEXACO Date: 2/23/00





Scale 1:24000.

1000. 0. 1000. 2000. 3000. 4000. 5000. feet

0.1 0. 0.1 0.2 0.3 0.4 0.5 miles

Texaco Inc.		
VACUUM FIELD FRESH WATER WELLS		
Hickey, Kevin		2/13/01
	Scale 1:24000.	

N

LEGEND

- PRODUCER
- DUAL
- TRIPLE
- DRY HOLE

ATTACHMENT XI
TO
FORM C-108

UNICHEM

A Division of BJ Services Company

Lab Test No : 9461

Phillips

Sample Date : 3/26/96
Lab Date In : 3/28/96
Lab Date Out : 3/28/96

Water Analysis

Listed below please find water analysis report from : Potash #1

Specific Gravity :	1.000
Total Dissolved Solids :	265
pH :	
Conductivity (uohms):	
Ionic Strength :	0.008

Cations:		mg/l
Calcium	(Ca++):	59
Magnesium	(Mg++):	23
Sodium	(Na+):	0
Iron	(Fe++):	0.07
Dissolved Iron	(Fe++):	
Barium	(Ba++):	0.40
Strontium	(Sr):	
Manganese	(Mn++):	0.39
Resistivity :		
Anions:		
Bicarbonate	(HCO3-):	
Carbonate	(CO3--):	
Hydroxide	(OH-):	0
Sulfate	(SO4--):	43
Chloride	(Cl-):	140

Gases:		ppm
Carbon Dioxide	(CO2):	
Oxygen	(O2):	
Hydrogen Sulfide	(H2S):	

Scale Index (positive value indicates scale tendency) a blank indicates some tests were not run

Temperature		CaCO3 SI	CaSO4 SI
86F	30.0C		
104F	40.0C		
122F	50.0C		
140F	60.0C		
168F	70.0C		
176F	80.0C		

Comments :

If you have any questions or require further information, please contact us.

Sincerely,

John Paul Gonzales

Laboratory Technician

cc: Jay Brown
Joe Hay

P.O. Box 61427, Midland, TX 79711 • 4312 S. County Rd. 1298, Midland, TX 79765
Office: (915) 563-0241 • Fax: (915) 563-0243

UNICHEM

A Division of BJ Services Company

Lab Test No : 9464

Phillips

Sample Date : 3/26/96
Lab Date In : 3/28/96
Lab Date Out : 3/28/96

Water Analysis

Listed below please find water analysis report from : Halo Mable S.O. #2

Specific Gravity :	1.000
Total Dissolved Solids :	198
pH :	
Conductivity (uohms):	
Ionic Strength :	0.006

Cations:		mg/l
Calcium	(Ca++):	50
Magnesium	(Mg++):	19
Sodium	(Na+):	10
Iron	(Fe++):	0.40
Dissolved Iron	(Fe++):	
Barium	(Ba++):	0.20
Strontium	(Sr):	
Manganese	(Mn++):	0.07
Resistivity :		
Anions:		
Bicarbonate	(HCO3-):	
Carbonate	(CO3--):	
Hydroxide	(OH-):	0
Sulfate	(SO4--):	50
Chloride	(Cl-):	90

Gases:		ppm
Carbon Dioxide	(CO2):	
Oxygen	(O2):	
Hydrogen Sulfide	(H2S):	

Scale Index (positive value indicates scale tendency) a blank indicates some tests were not run

Temperature		CaCO3 SI	CaSO4 SI
86F	30.0C		
104F	40.0C		
122F	50.0C		
140F	60.0C		
168F	70.0C		
176F	80.0C		

Comments :

If you have any questions or require further information, please contact us.

Sincerely,

John Paul Gonzales

Laboratory Technician

cc: Jay Brown
Joe Hay

P.O. Box 61427, Midland, TX 79711 • 4312 S. County Rd. 1298, Midland, TX 79765
Office: (915) 563-0241 • Fax: (915) 563-0243

I

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)

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

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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)

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

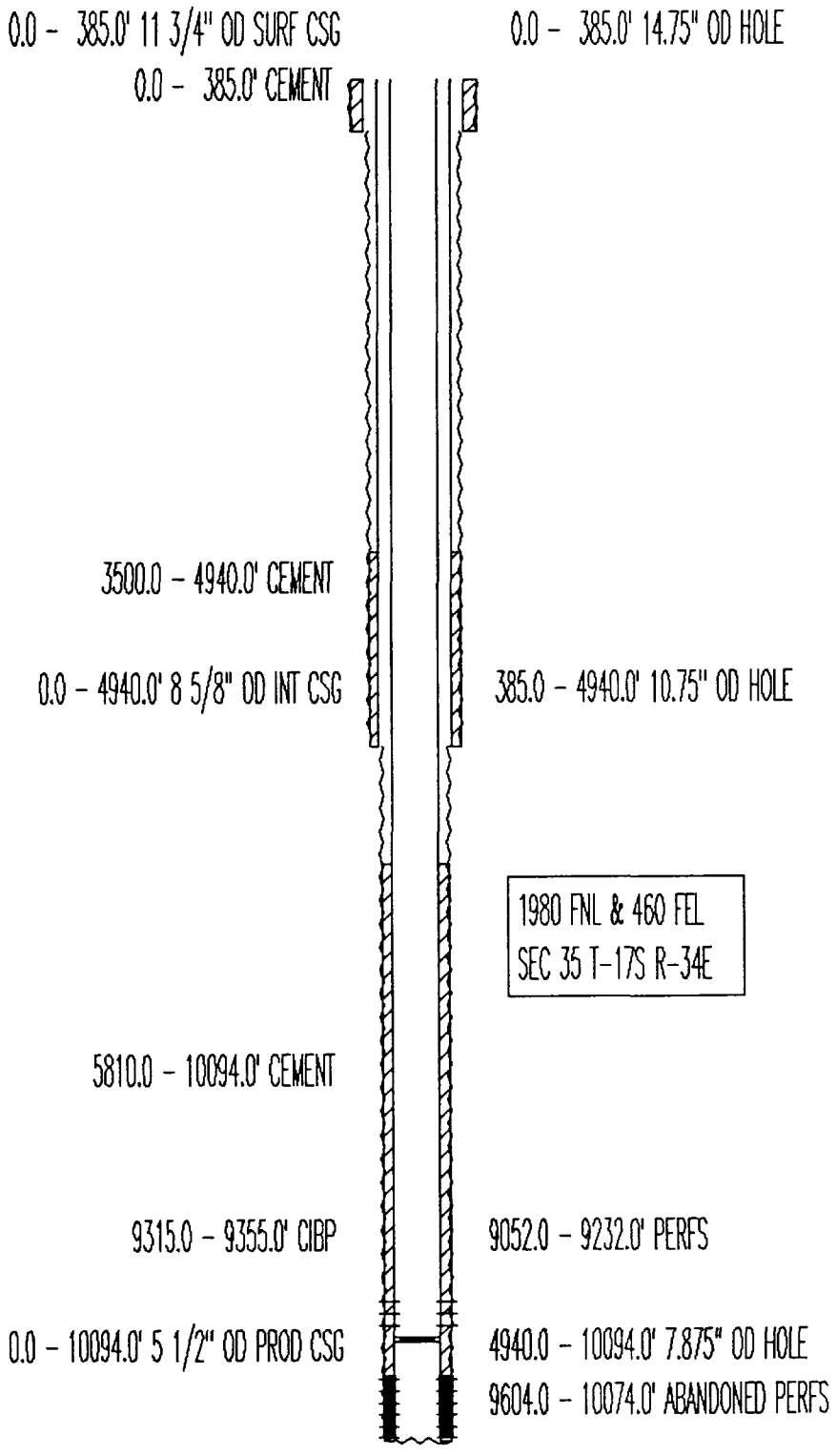
CATIONS:		me/liter	mg/liter
Calcium	(Ca+2)	9.00	180
Magnesium	(Mg+2)	6.60	80.2
Sodium	(Na+1)	17.7	406
Iron (total)	(Fe+2)	0.014	0.400
ANIONS:			
Bicarbonate	(HCO3-1)	2.20	134
Carbonate	(CO3-2)	0	0
Hydroxide	(OH-1)	0	0
Sulfate	(SO4-2)	3.31	159
Chloride	(Cl-1)	27.8	984

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
I

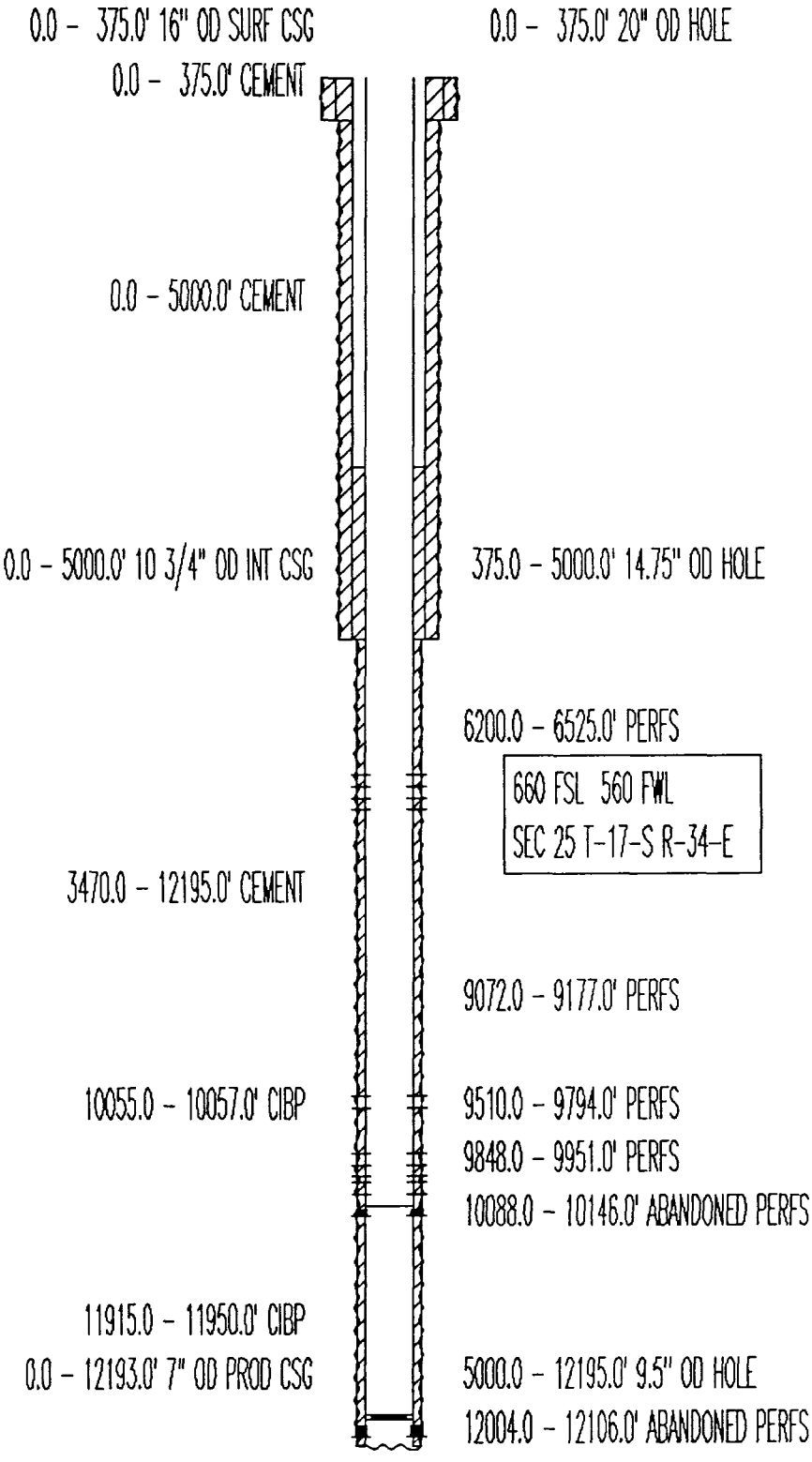
STATE H-35 NO. 9
PHILLIPS PET
API# 3002520228



KB ELEV: 4022'
PBTD: 9315'
TD: 10094'

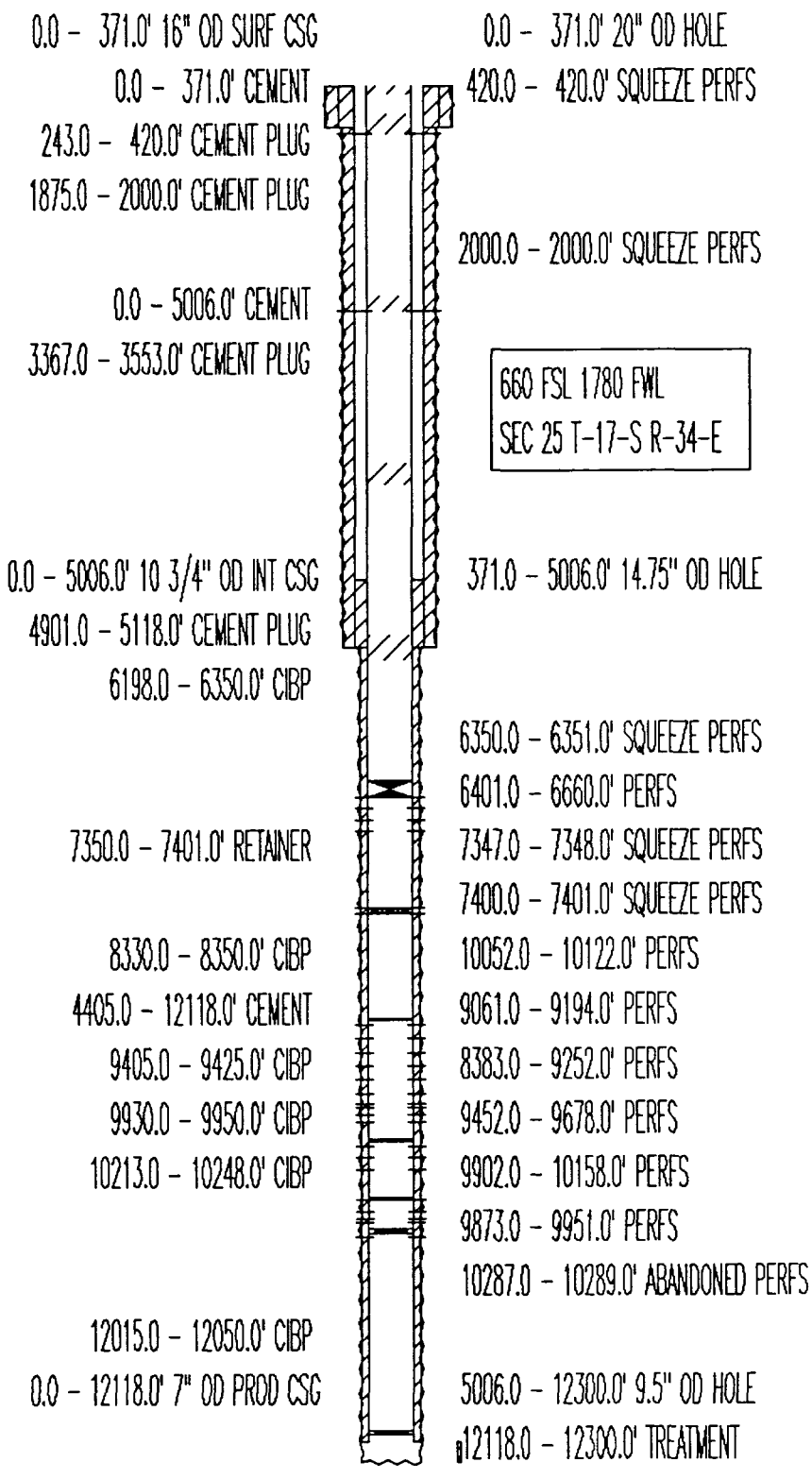
ATTACHMENT VI
TO
FORM C-108

MARATHON OIL CO.
MCCALLISTER ST. NO. 5
API 3002520116



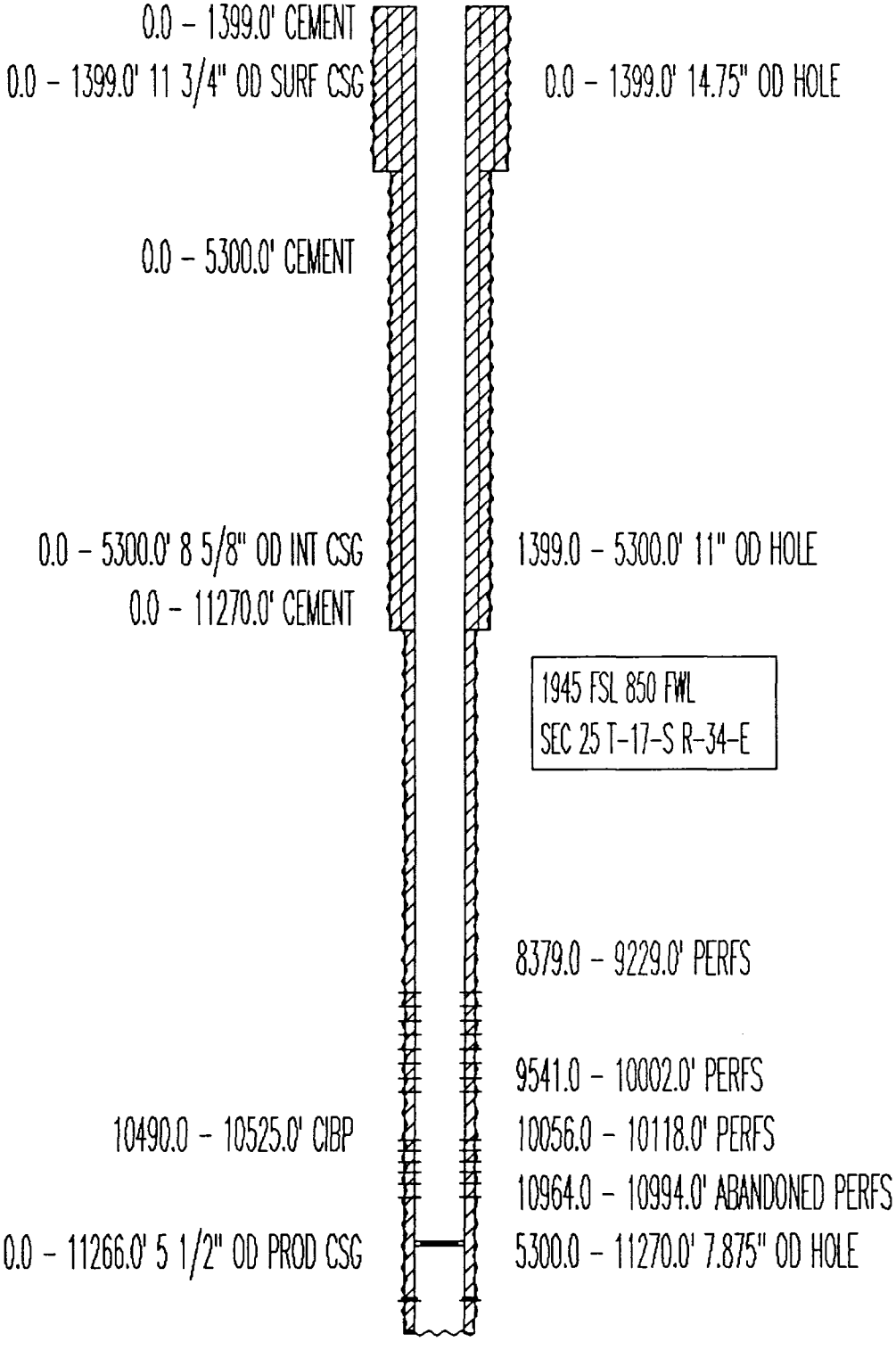
KB ELEV: 4017'
PBTD: 12195'
TD: 12195'

MARATHON OIL CO.
MCCALLISTER ST. NO. 7
API 3002520115



KB ELEV: 4017'
PBTD: 12125'
TD: 12125'

MARATHON OIL CO.
MCCALLISTER ST. NO. 12
API 3002533954

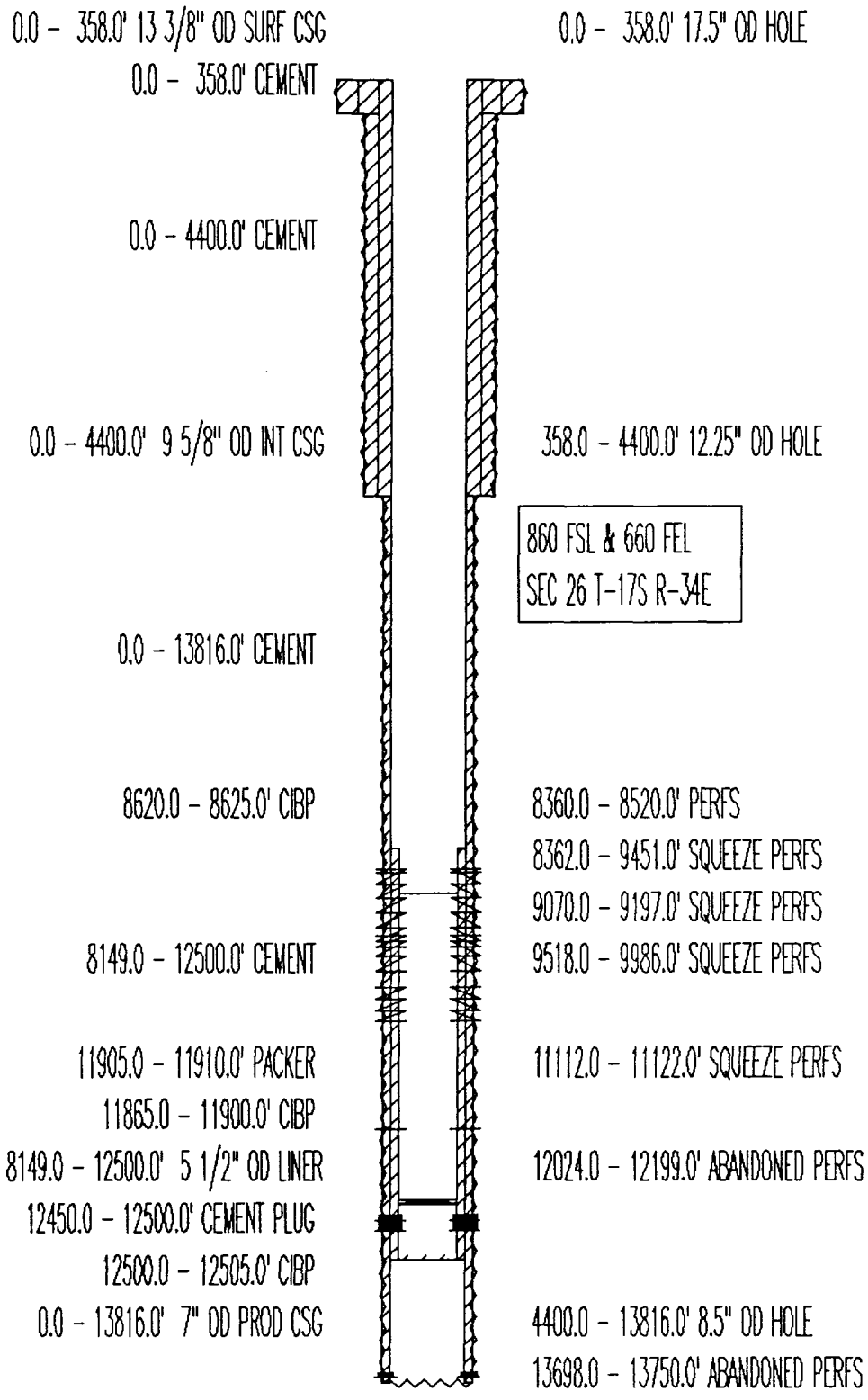


KB ELEV: 4026'

PBTD: 10490'

TD: 11500'

NORTH VACUUM ABO UNIT NO. 95
EXXONMOBIL
API# 3002502128



KB ELEV: 4003'
PBTD: 8620'
TD: 13816'

EXXON MOBIL
STATE CC COM NO. 1
API# 30 025 20872

0.0 - 715.0' CEMENT PLUG
0.0 - 715.0' CEMENT PLUG
0.0 - 360.0' 20" OD HOLE

0.0 - 360.0' 16" OD SURF CSG
0.0 - 360.0' CEMENT

1980 FSL & 860 FWL
SEC 36, TWN 17 S, RANGE 34 E
ELEVATION: 4001 ES
COMPLETION DATE: 8-12-64
COMPLETION INTERVALS: 11972-12028 (DVNN)
9115 - 9185 (ABO)
9962 - 10032 (WFMP)

0.0 - 4967.0' CEMENT

0.0 - 4967.0' 10 3/4" OD INT CSG

0.0 - 10222.0' 4.500" OD 11.60#/ft TBG

0.0 - 12080.0' CEMENT

0.0 - 12080.0' 2.875" OD 6.40#/ft TBG
0.0 - 12080.0' 2.875" OD 6.40#/ft TBG

9115.0 - 9185.0' PERFS
9442.0 - 10032.0' PERFS

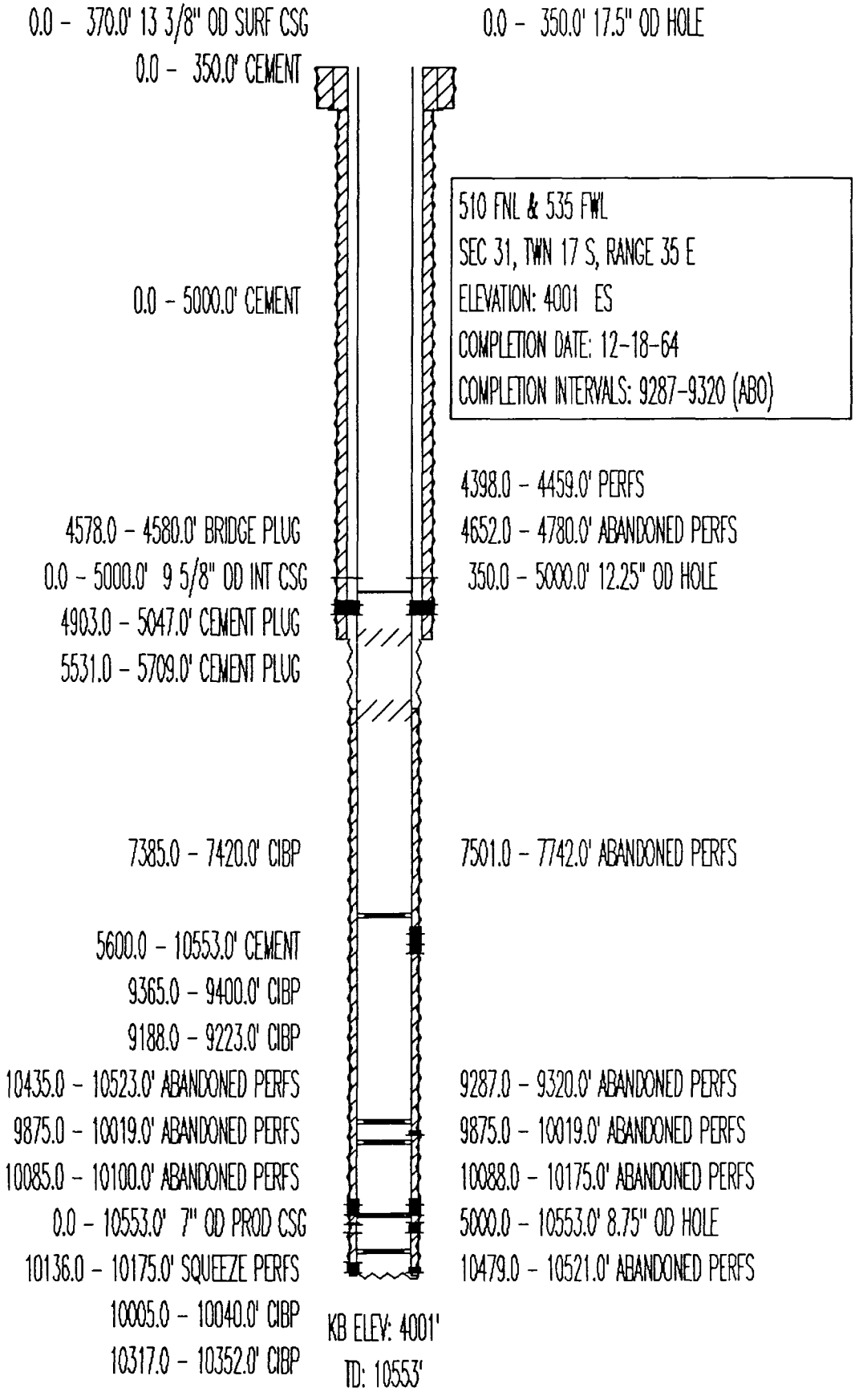
9115.0 - 9185.0' ABANDONED PERFS

4967.0 - 12080.0' 9.55" OD HOLE
11972.0 - 12028.0' ABANDONED PERFS

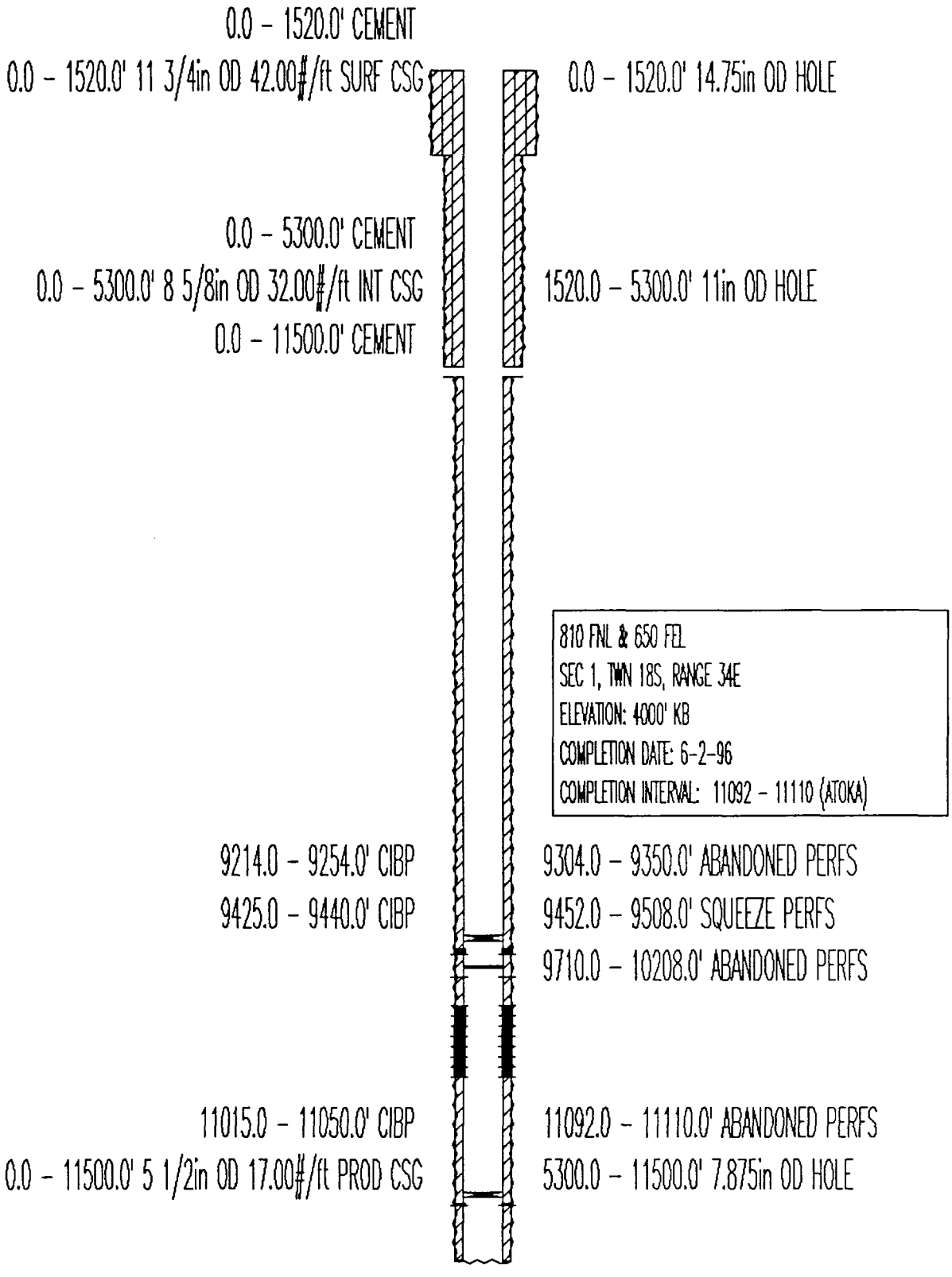
KB ELEV: 4001'
TD: 12080'

FORMERLY ST. DD COM. NO. 1

TEXACO
CENTRAL VACUUM UNIT NO. 250
API# 30 025 20862



TEXACO E&P INC.
NEW MEXICO L ST. NO. 18
API# 30-025-33301



KB ELEV: 4000'

PBTD: 11327'

TD: 11500'

TEXACO E&P INC.
NM "O" STATE NCT-1 No. 11
API# 30 025 20382

0.0 - 350.0' 13 3/8" OD 48.00#/ft SURF CSG
0.0 - 350.0' CEMENT

0.0 - 350.0' 17.5" OD HOLE

BL ABO WC

1980 FNL & 1780 FWL
SEC 36, TWN 17 S, RANGE 34 E
ELEVATION: 4004 GR
COMPLETION DATE: 3-30-63
COMPLETION INTERVALS: 12091- 12211 (DVNN)
10331- 10386 (U PENN)
9938 - 9974 (WFMP)

1500.0 - 4800.0' CEMENT

0.0 - 10317.0' 2.875" OD 6.40#/ft TBG
0.0 - 10317.0' 4.500" OD 11.60#/ft TBG
0.0 - 11200.0' 2.875" OD 6.40#/ft TBG

0.0 - 4800.0' 9 5/8" OD 36.00#/ft INT CSG

350.0 - 4800.0' 12.25" OD HOLE

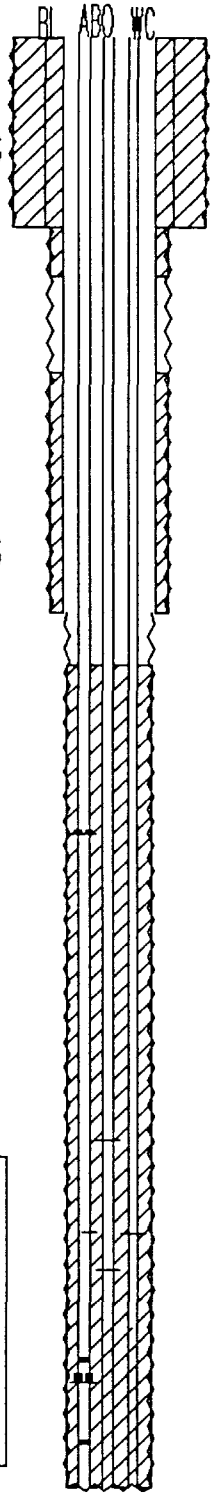
8408.0 - 8564.0' PERFS
8660.0 - 9002.0' PERFS
9265.0 - 9574.0' PERFS
6550.0 - 12155.0' CEMENT

11162.0 - 11272.0' ABANDONED PERFS

12091.0 - 12111.0' SQUEEZE PERFS

10260.0 - 10270.0' CIBP
10180.0 - 10210.0' CIBP
9139.0 - 9243.0' PERFS
9140.0 - 9241.0' PERFS
9601.0 - 9896.0' PERFS
9938.0 - 9974.0' PERFS
10003.0 - 10170.0' PERFS
10331.0 - 10386.0' ABANDONED PERFS
4800.0 - 12152.0' 8.75" OD HOLE
10818.0 - 12152.0' CEMENT PLUG
11500.0 - 11510.0' CIBP
12135.0 - 12145.0' RETAINER

TEXACO E&P INC.
NM "O" STATE NCT-1 No. 14
API# 30 025 20008



0.0 – 1593.0' CEMENT

0.0 – 2000.0' CEMENT

0.0 – 1593.0' 13 3/8" OD 48.00#/ft SURF CSG

0.0 – 1593.0' 20" OD HOLE

2800.0 – 4825.0' CEMENT

1593.0 – 4825.0' 12.25" OD HOLE

0.0 – 4825.0' 9 5/8" OD 36.00#/ft INT CSG

0.0 – 10818.0' 2.875" OD 6.40#/ft TBG

0.0 – 10818.0' 2.875" OD 6.40#/ft TBG

0.0 – 12152.0' 3.500" OD 9.20#/ft TBG

6649.0 – 6682.0' ABANDONED PERFS

5270.0 – 12152.0' CEMENT

9170.0 – 9254.0' PERFS

9954.0 – 10036.0' PERFS

10026.0 – 10031.0' PERFS

10331.0 – 10336.0' PERFS

11202.0 – 11270.0' ABANDONED PERFS

10818.0 – 12152.0' CEMENT PLUG

4825.0 – 12152.0' 8.75" OD HOLE

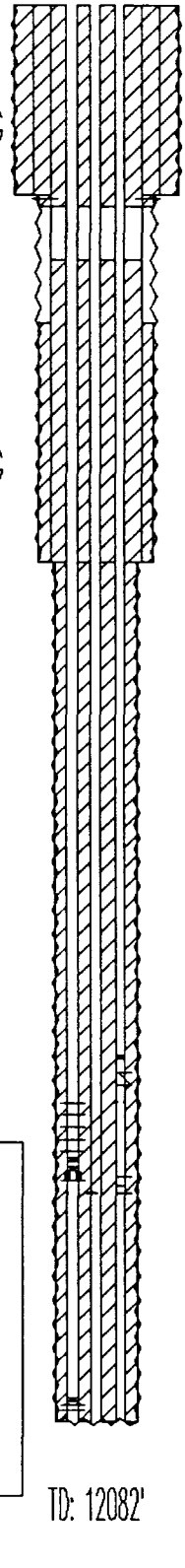
10818.0 – 12152.0' CEMENT PLUG

11070.0 – 11100.0' CIBP

11760.0 – 11790.0' CIBP

1874 FSL & 2086 FEL
SEC 36, TWN 17 S, RANGE 34 E
ELEVATION: 4008 DF
COMPLETION DATE: 7-20-63
COMPLETION INTERVALS: 9170 – 9254 (Abo)
9954 – 10036 (Wolfcamp)

TEXACO E&P INC.
NM "O" STATE NCT-1 No. 17
API# 30 025 20125

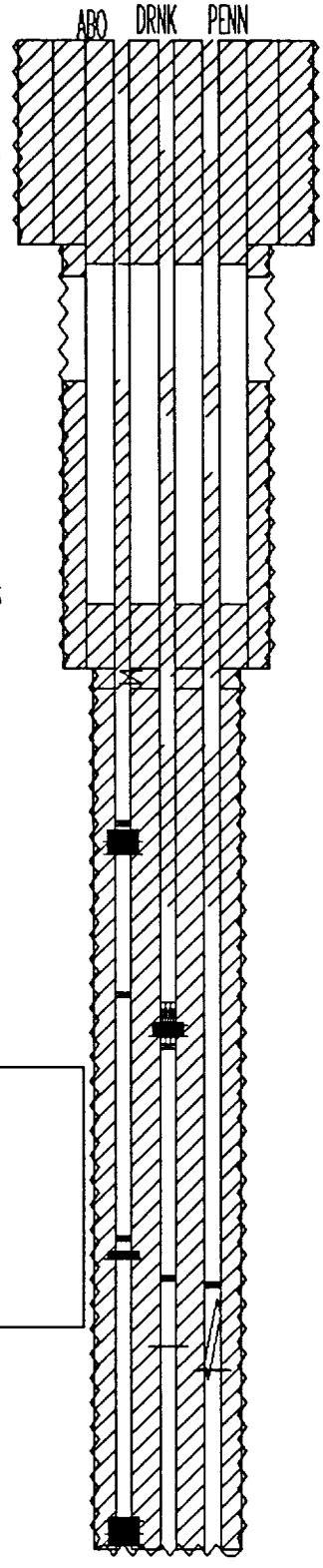


0.0 - 1612.0' CEMENT
0.0 - 1700.0' CEMENT
0.0 - 1700.0' CEMENT
0.0 - 1612.0' 13 3/8" OD 48.00#/ft SURF CSG
0.0 - 1612.0' 17.5" OD HOLE
1640.0 - 1640.0' SQUEEZE PERFS
2700.0 - 4750.0' CEMENT
0.0 - 4750.0' 9 5/8" OD 36.00#/ft INT CSG
1612.0 - 4750.0' 12.25" OD HOLE
0.0 - 10964.0' 2.875" OD 6.40#/ft TBG
0.0 - 10975.0' 2.875" OD 6.40#/ft TBG
0.0 - 12082.0' 3.500" OD 9.20#/ft TBG
2160.0 - 12082.0' CEMENT
9915.0 - 9950.0' CIBP
9380.0 - 10140.0' CEMENT PLUG
9358.0 - 9360.0' RESTR ID
8965.0 - 9000.0' CIBP
9097.0 - 9224.0' SQUEEZE PERFS
9341.0 - 9787.0' PERFS
10130.0 - 10140.0' ABANDONED PERFS
9962.0 - 10029.0' ABANDONED PERFS
9992.0 - 10004.0' SQUEEZE PERFS
10130.0 - 10140.0' SQUEEZE PERFS
11980.0 - 11990.0' ABANDONED PERFS
4750.0 - 12082.0' 8.75" OD HOLE
11932.0 - 11942.0' ABANDONED PERFS
9840.0 - 9875.0' CIBP
10070.0 - 10080.0' RETAINER
11875.0 - 11910.0' CIBP
TD: 12082'

760 FSL & 2080 FWL
SEC 36, TWN 17 S, RANGE 34 E
ELEVATION: 3997 GR
COMPLETION DATE: 6-22-63
COMPLETION INTERVALS: 11980 - 11990 (DVNN)
10130 - 10140 (PSLV)
9992 - 10004 (Wolfcamp)

P&A: 6-23-95

TEXACO E&P INC.
NM "O" STATE NCT-1 No. 18
API# 30 025 20274



0.0 - 1555.0' CEMENT
0.0 - 1700.0' CEMENT
0.0 - 1555.0' 13 3/8" OD 65.00#/ft SURF CSG
0.0 - 1800.0' CEMENT
2600.0 - 4796.0' CEMENT
0.0 - 4796.0' 9 5/8" OD 36.00#/ft INT CSG
4300.0 - 4950.0' CEMENT
4300.0 - 11510.0' CEMENT

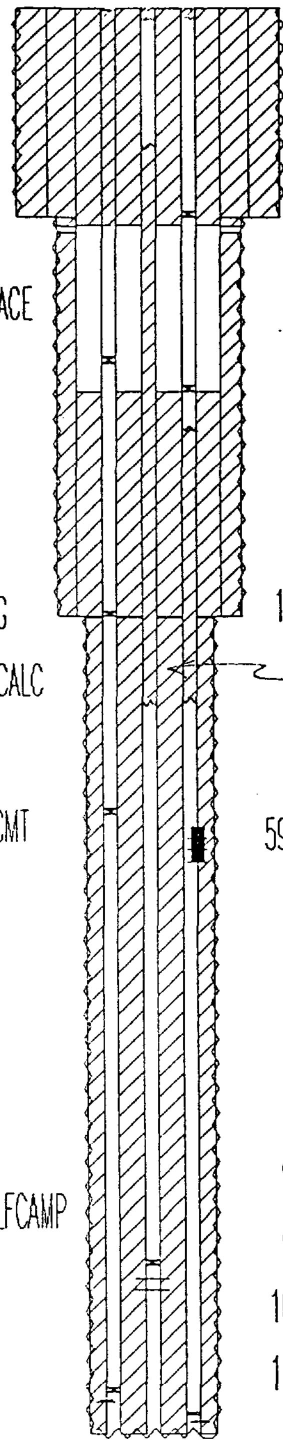
1880 FNL & 560 FEL
SEC 36, TWN 17 S, RANGE 34 E
ELEVATION: 4005 DF
COMPLETION DATE: 10-09-63
COMPLETION INTERVALS: 7492 - 7606 (DRNK)

0.0 - 400.0' CEMENT PLUG
0.0 - 400.0' CEMENT PLUG
0.0 - 400.0' CEMENT PLUG
838.0 - 1650.0' CEMENT PLUG
838.0 - 1650.0' CEMENT PLUG
0.0 - 1555.0' 17.5" OD HOLE
1700.0 - 1702.0' SQUEEZE PERFS
1185.0 - 1700.0' CEMENT PLUG
2434.0 - 2860.0' CEMENT PLUG
2454.0 - 2850.0' CEMENT PLUG
2588.0 - 4950.0' CEMENT PLUG
3700.0 - 4860.0' CEMENT PLUG
3294.0 - 3700.0' CEMENT PLUG
5382.0 - 6600.0' CEMENT PLUG
1555.0 - 4796.0' 12.255" OD HOLE
4805.0 - 4908.0' SQUEEZE PERFS
0.0 - 10801.0' 2.875" OD 6.50#/ft TBG
0.0 - 11508.0' 2.875" OD 6.50#/ft TBG
0.0 - 11510.0' 2.875" OD 6.50#/ft TBG
6028.0 - 6206.0' ABANDONED PERFS
3294.0 - 3700.0' CEMENT PLUG
7492.0 - 7606.0' ABANDONED PERFS
3700.0 - 4850.0' CEMENT PLUG
5382.0 - 6600.0' CEMENT PLUG
5955.0 - 5995.0' CIBP
7265.0 - 7305.0' CIBP
9236.0 - 9290.0' ABANDONED PERFS
7339.0 - 7665.0' RETAINER
9951.0 - 9959.0' ABANDONED PERFS
10130.0 - 10140.0' ABANDONED PERFS
7665.0 - 7705.0' CIBP
9420.0 - 9460.0' CIBP
4796.0 - 11510.0' 8.75" OD HOLE
11262.0 - 11481.0' ABANDONED PERFS
9115.0 - 9155.0' CIBP
9465.0 - 9505.0' CIBP
9591.0 - 10210.0' BAR FISH
11400.0 - 11430.0' CIBP

GLOR/ ABO/ WC

NEW MEXICO "O" STATE NO. 24

API# 3002520946



860 FSL & 660 FEL

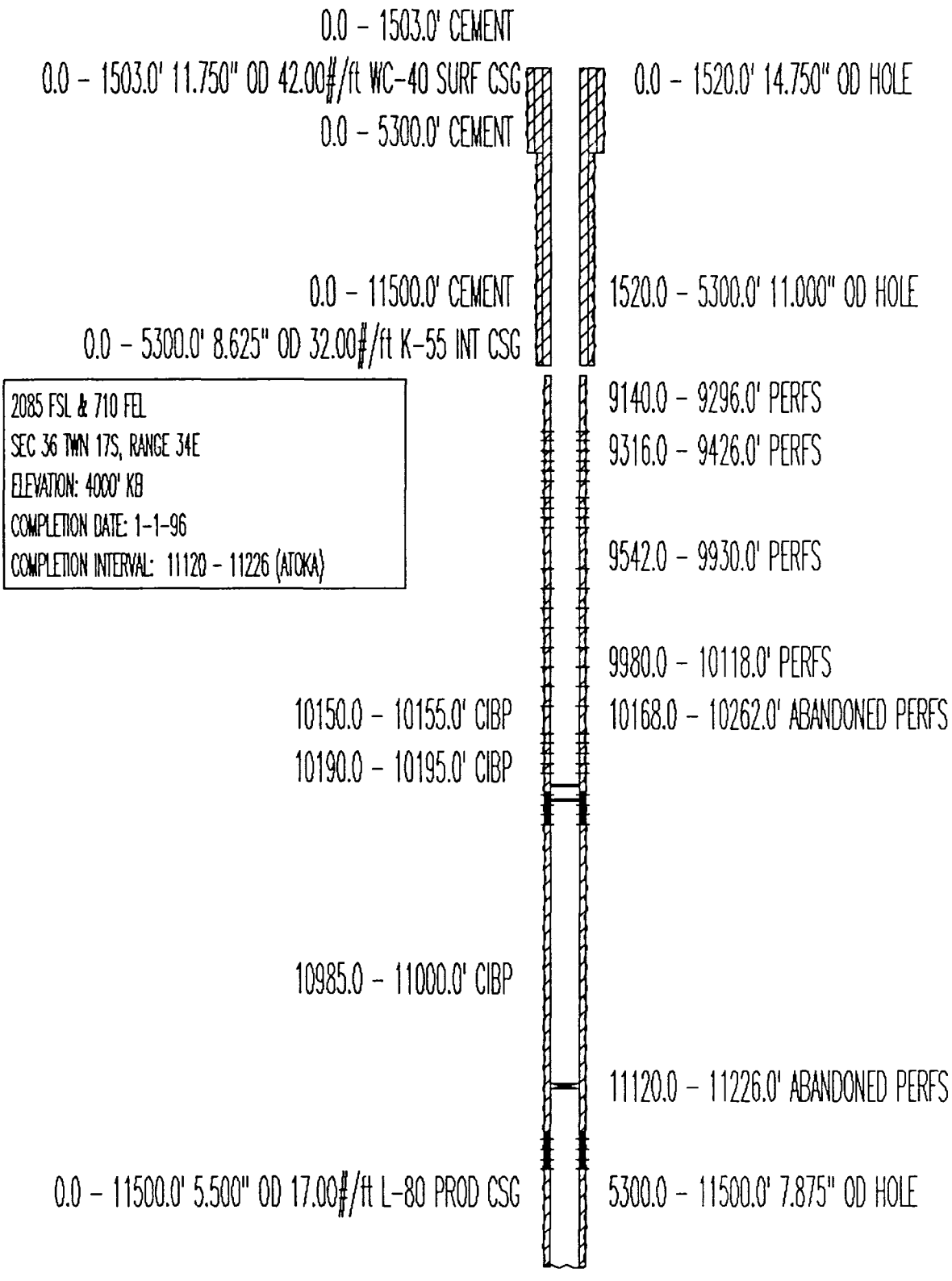
SEC 36 , TWN 17 S, RANGE 34 E

ELEVATION: 3995 KB

COMPLETION DATE: 07-04-64

RTM 1/95

TEXACO E&P INC.
NEW MEXICO O ST. NO. 38
API# 30-025-33148

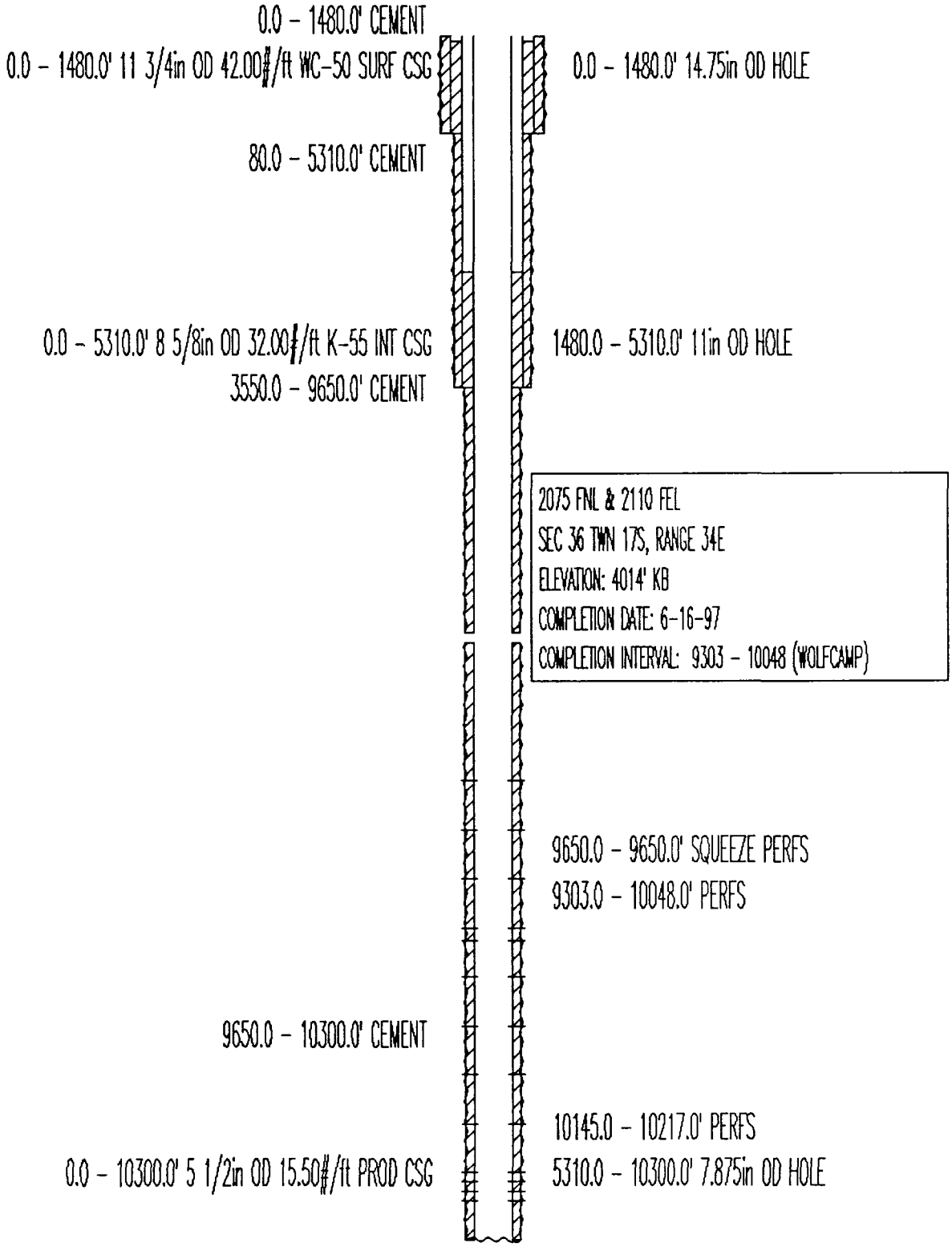


KB ELEV: 4000'

PBTD: 11480'

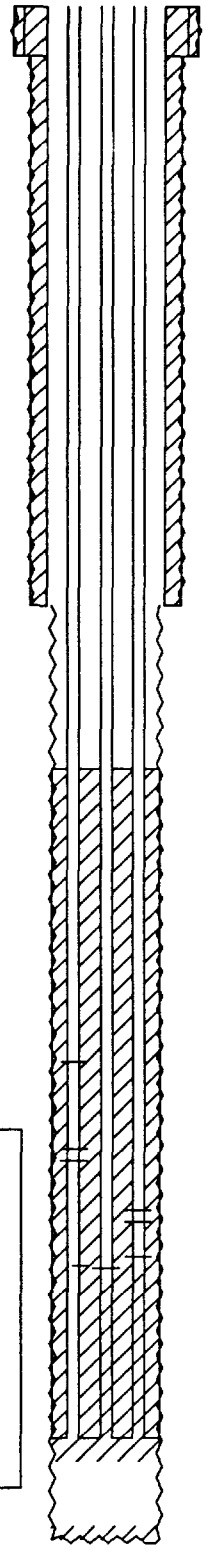
TD: 11500'

TEXACO E&P INC.
NEW MEXICO O ST. NCT-1 NO. 39
API# 30-025-33569



KB ELEV: 4014'
PBTD: 10300'
TD: 10300'

TEXACO E&P INC.
NM "Q" STATE No. 4
API# 30 025 20294



0.0 - 385.0' 13 3/8" OD 65.00#/ft SURF CSG

0.0 - 385.0' CEMENT

0.0 - 385.0' 15" OD HOLE

0 - 385' 15" OD HOLE

0.0 - 4799.0' CEMENT

385.0 - 4799.0' 12.25" OD HOLE

0.0 - 4799.0' 9 5/8" OD 36.00#/ft INT CSG

0.0 - 10150.0' 2.875" OD 6.40#/ft TBG

0.0 - 10176.0' 2.875" OD 6.40#/ft TBG

0.0 - 11468.0' 2.875" OD 6.40#/ft TBG

6100.0 - 11468.0' CEMENT

8420.0 - 8460.0' PERFS

9148.0 - 9251.0' PERFS

10069.0 - 10107.0' PERFS

9627.0 - 9734.0' PERFS

9951.0 - 10005.0' PERFS

10070.0 - 10080.0' PERFS

10150.0 - 11468.0' CEMENT PLUG

10176.0 - 11468.0' CEMENT PLUG

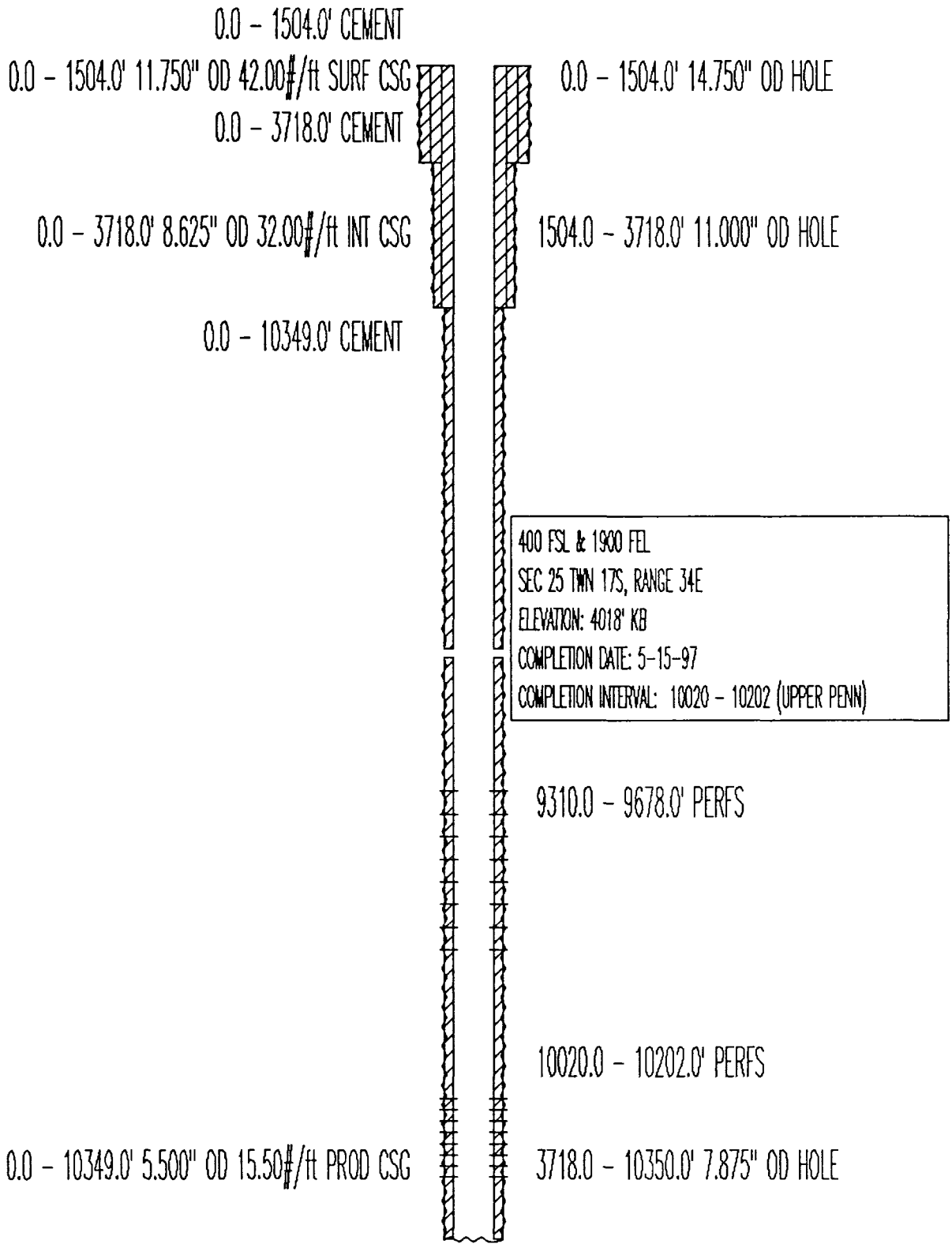
4799.0 - 12285.0' 8.75" OD HOLE

11468.0 - 11650.0' CEMENT PLUG

12181.0 - 12285.0' CEMENT PLUG

500 FSL & 760 FEL
SEC 25, TWN 17 S, RANGE 34 E
ELEVATION: 4003 DF
COMPLETION DATE: 11-02-63
COMPLETION INTERVALS: 8420 - 9251 (ABO)
9627 - 10005 (WCMP)
10069 - 10107 (U PEN)

TEXACO E&P INC.
NEW MEXICO Q ST. NO. 12
API# 30-025-33850



KB ELEV: 4018'
PBTD: 10310'
TD: 10350'

API# 30 025 20057

TEXACO E&P INC.

State "BA" No. 6

0.0 - 421.0' 13 3/8" OD 35.60#/ft SURF CSG

0.0 - 421.0' 17-1/2" OD HOLE

0.0 - 421.0' CEMENT

1110.0 - 4835.0' CEMENT

1600.0 - 5625.0' CEMENT

0.0 - 4835.0' 9 5/8" OD 24.00#/ft INT CSG

421.0 - 4835.0' 12-1/4" OD HOLE

5624.0 - 5625.0' SQUEEZE PERFS

660 FNL & 860 FWL
SEC 36, TWN 17S, RANGE 34E
ELEVATION: 4002' GR
COMPLETION DATE: 10-11-63
COMPLETION INTERVALS: 9,070' - 9,231' (ABO)
9,902' - 10,016' (WCMP)
10,121' - 10,134' (PENN)

5675.0 - 12109.0' CEMENT

9070.0 - 9231.0' PERFS

9240.0 - 9870.0' PERFS

9902.0 - 10016.0' PERFS

10121.0 - 10134.0' PERFS

11835.0 - 11860.0' CIBP

10320.0 - 10370.0' PERFS

0.0 - 12109.0' 7" OD 23.00#/ft PROD CSG

4835.0 - 12110.0' 8-3/4" OD HOLE

API# 30 025 20986

TEXACO E&P INC.

State "BA" No. 8

0.0 - 399.0' 13 3/8" OD 35.60#/ft SURF CSG

0.0 - 399.0' 17-1/2" OD HOLE

0.0 - 399.0' CEMENT

0.0 - 4836.0' CEMENT

0.0 - 4836.0' 9 5/8" OD 36.00#/ft INT CSG

399.0 - 4836.0' 12-1/4" OD HOLE

766 FNL & 2086 FEL
SEC 36, TWN 17S, RANGE 34E
ELEVATION: 3995' DF
COMPLETION DATE: 7-16-64
COMPLETION INTERVALS: 9,024' - 9,190' (ABO)
9,948' - 9,980' (WCMP)
10,080' - 10,176' (PENN)

2000.0 - 10487.0' CEMENT

9024.0 - 9190.0' PERFS

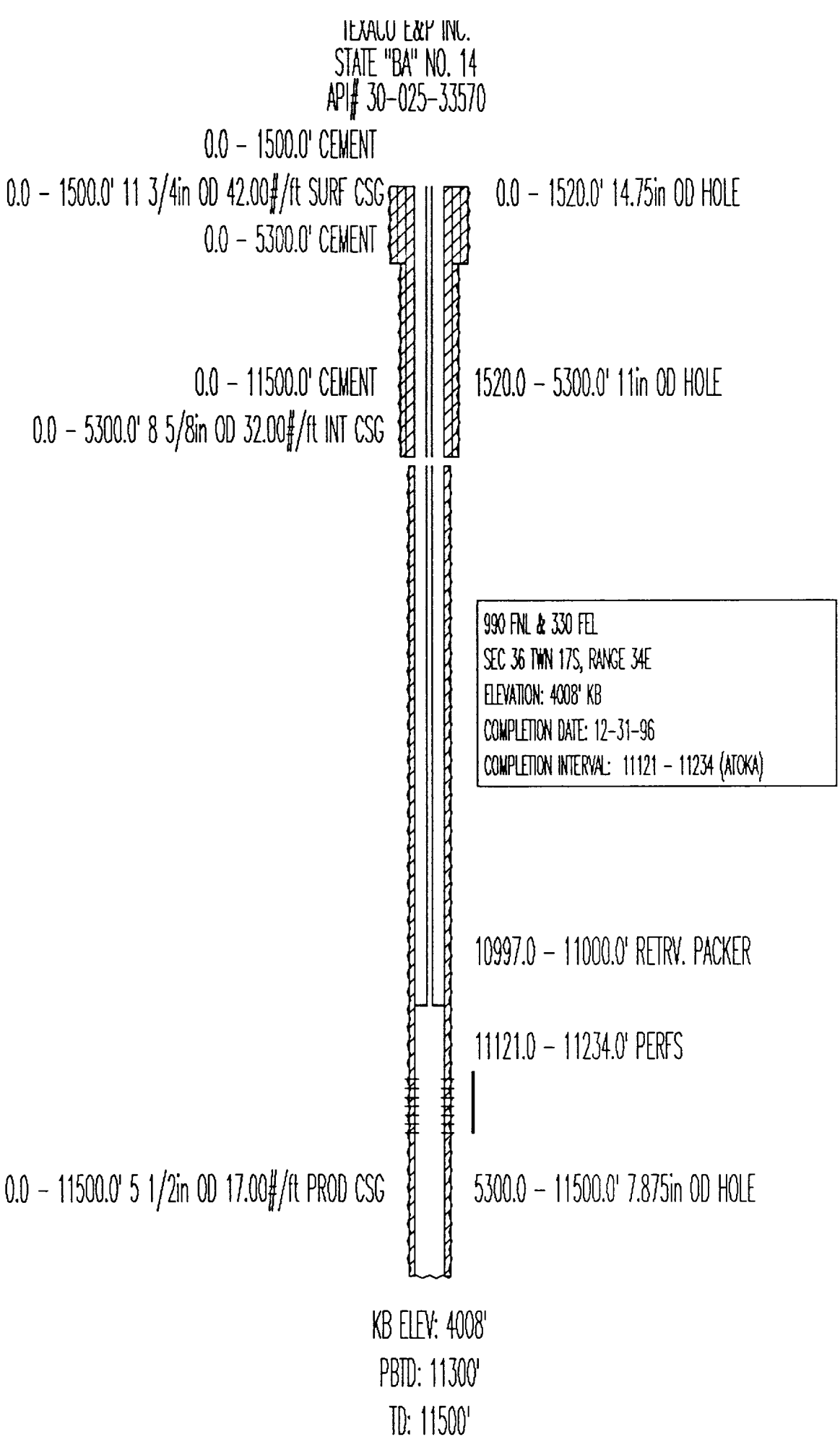
9236.0 - 9856.0' PERFS

9948.0 - 10056.0' PERFS

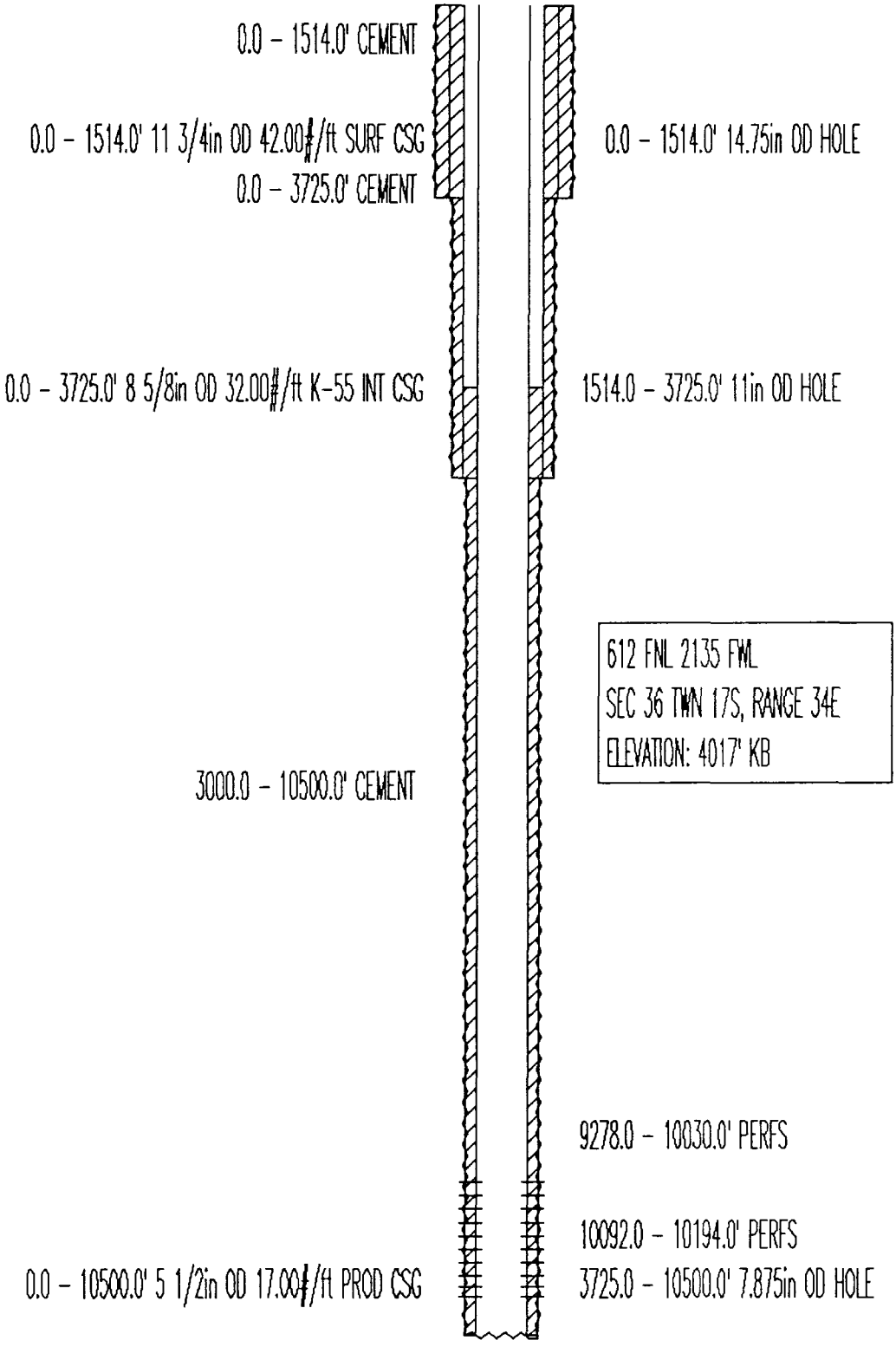
0.0 - 10487.0' 7" OD 23.00#/ft PROD CSG

4836.0 - 10494.0' 8-1/2" OD HOLE

10080.0 - 10176.0' PERFS

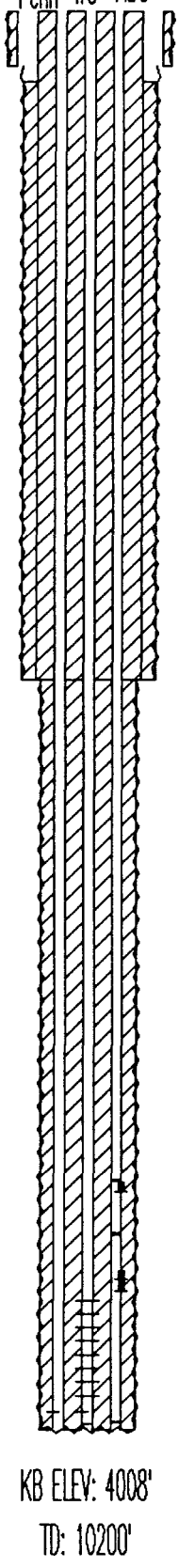

TEXACO E&P INC.
STATE "BA" NO. 14
API# 30-025-33570
0.0 - 1500.0' CEMENT
0.0 - 1500.0' 11 3/4in OD 42.00#/ft SURF CSG
0.0 - 1520.0' 14.75in OD HOLE
0.0 - 5300.0' CEMENT
0.0 - 11500.0' CEMENT
1520.0 - 5300.0' 11in OD HOLE
0.0 - 5300.0' 8 5/8in OD 32.00#/ft INT CSG
990 FNL & 330 FEL
SEC 36 TWN 17S, RANGE 34E
ELEVATION: 4008' KB
COMPLETION DATE: 12-31-96
COMPLETION INTERVAL: 11121 - 11234 (ATOKA)
10997.0 - 11000.0' RETRV. PACKER
11121.0 - 11234.0' PERFS
0.0 - 11500.0' 5 1/2in OD 17.00#/ft PROD CSG
5300.0 - 11500.0' 7.875in OD HOLE
KB ELEV: 4008'
PBTD: 11300'
TD: 11500'

TEXACO E&P INC.
STATE "BA" NO. 15
API# 30-025-34945



KB ELEV: 4017'
PBTD: 10500'
TD: 10500'

APACHE
TEXACO-SHELL ST. COM NO. 1
API# 30 025 20948



0.0 - 390.0' 13 3/8" OD 65.00#/ft SURF CSG

0.0 - 390.0' CEMENT

0.0 - 390.0' 15" OD HOLE

0 - 385' 15" OD HOLE

500.0 - 4800.0' CEMENT

390.0 - 4800.0' 12.25" OD HOLE

0.0 - 4800.0' 9 5/8" OD 36.00#/ft INT CSG

0.0 - 10200.0' CEMENT

0.0 - 10199.0' 2.875" OD 6.40#/ft TBG

0.0 - 10198.0' 2.875" OD 6.40#/ft TBG

0.0 - 10196.0' 2.875" OD 6.40#/ft TBG

1833 FSL & 1845 FEL
SEC 25, TWN 17 S, RANGE 34 E
ELEVATION: 4008 DF
COMPLETION DATE: 05-29-64
COMPLETION INTERVALS: 9056 - 9199 (ABO)
9872 - 9953 (WCMP)
10032 - 10070 (U PEN)

8778.0 - 8788.0' CIBP

8418.0 - 8485.0' ABANDONED PERFS

8400.0 - 8405.0' CIBP

9056.0 - 9199.0' ABANDONED PERFS

9266.0 - 9953.0' PERFS

10032.0 - 10070.0' PERFS

8793.0 - 8795.0' FISH

10065.0 - 10068.0' PERFS

4800.0 - 10200.0' 8.75" OD HOLE

10140.0 - 10145.0' FISH

KB ELEV: 4008'

10152.0 - 10155.0' FISH

TD: 10200'

FORMERLY STATE H-35 NO. 7

TEXACO E&P INC
VGWU NO. 56
API# 3002520329

0.0 - 375.0' CEMENT

0.0 - 375.0' 13 3/8" OD 48.00#/ft SURF CSG

0.0 - 375.0' 17.5" OD HOLE

0.0 - 1200.0' CEMENT

1200.0 - 1202.0' SQUEEZE PERFS

660 FNL & 1780 FEL
SEC 35 , TWN 17 S, RANGE 34 E
ELEVATION: 4029 DF
COMPLETION DATE: 10-21-65
###
COMPLETION INTERVAL: 5982 - 5996 (GLRT)
TRT: 1500 GALS ACID (5982 - 5996)
IP: 96 BOPD, 0 MCFD, 40 BWPD (PUMPING)
###

3800.0 - 4950.0' CEMENT

0.0 - 4950.0' 9 5/8" OD 36.00#/ft INT CSG

375.0 - 4950.0' 12.25" OD HOLE

4900.0 - 5000.0' CEMENT

5780.0 - 6100.0' CEMENT

5882.0 - 6030.0' PERFS

6310.0 - 6315.0' CIBP

6100.0 - 6100.0' SQUEEZE PERFS

8557.0 - 8557.0' RESTR ID

8312.0 - 9167.0' ABANDONED PERFS

9156.0 - 9314.0' SQUEEZE PERFS

9620.0 - 10066.0' ABANDONED PERFS

9281.0 - 10030.0' ABANDONED PERFS

7000.0 - 12143.0' CEMENT

10146.0 - 10150.0' CIBP

10535.0 - 10545.0' CIBP

11026.0 - 11086.0' ABANDONED PERFS

11120.0 - 11130.0' CIBP

11331.0 - 11345.0' ABANDONED PERFS

12173.0 - 12180.0' RETAINER

12226.0 - 12250.0' ABANDONED PERFS

4900.0 - 12413.0' 7" OD 26.00#/ft LINER

4950.0 - 12413.0' 8.5" OD HOLE

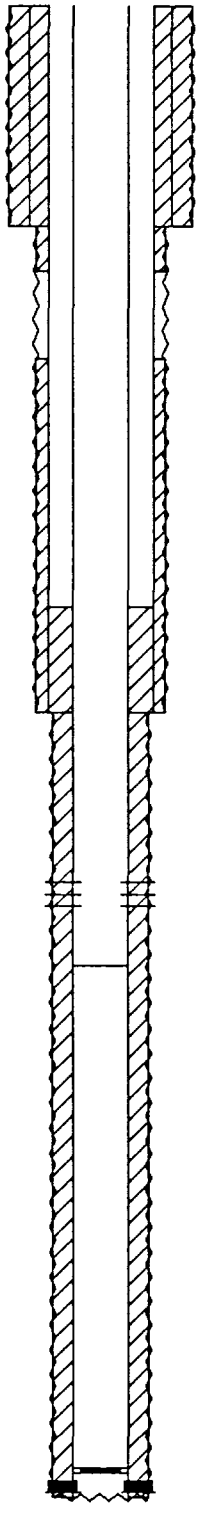
12252.0 - 12260.0' CIBP

12255.0 - 12275.0' ABANDONED PERFS

TD: 12413'

FORMERLY NM O ST NCT-1 NO. 25

TEXACO INC
VGWU 87
API# 3002521637



0.0 - 1499.0' CEMENT
0.0 - 1800.0' CEMENT
0.0 - 1499.0' 11 3/4" OD SURF CSG

0.0 - 1499.0' 15." OD HOLE

2400.0 - 4825.0' CEMENT

0.0 - 4825.0' 8 5/8" OD INT CSG

1499.0 - 4825.0' 10.625" OD HOLE

5930.0 - 6160.0' PERFS

6566.0 - 6568.0' CIBP

2080 FSL & 2086 FEL
SEC 36 , TWN 17 S, RANGE 34 E
ELEVATION: 4001 DF
COMPLETION DATE: 10-17-72
***
COMPLETION INTERVAL: 5930 - 6100 (GLRT)
TRT: 4000 GALS ACID (5930 - 6100)
IP: 67 BOPD, 0 MCFD, 7 BWPD (PUMPING)
***

4100.0 - 10200.0' CEMENT

0.0 - 10200.0' 4 1/2" OD 11.50#/ft PROD CSG

4825.0 - 10200.0' 7.875" OD HOLE

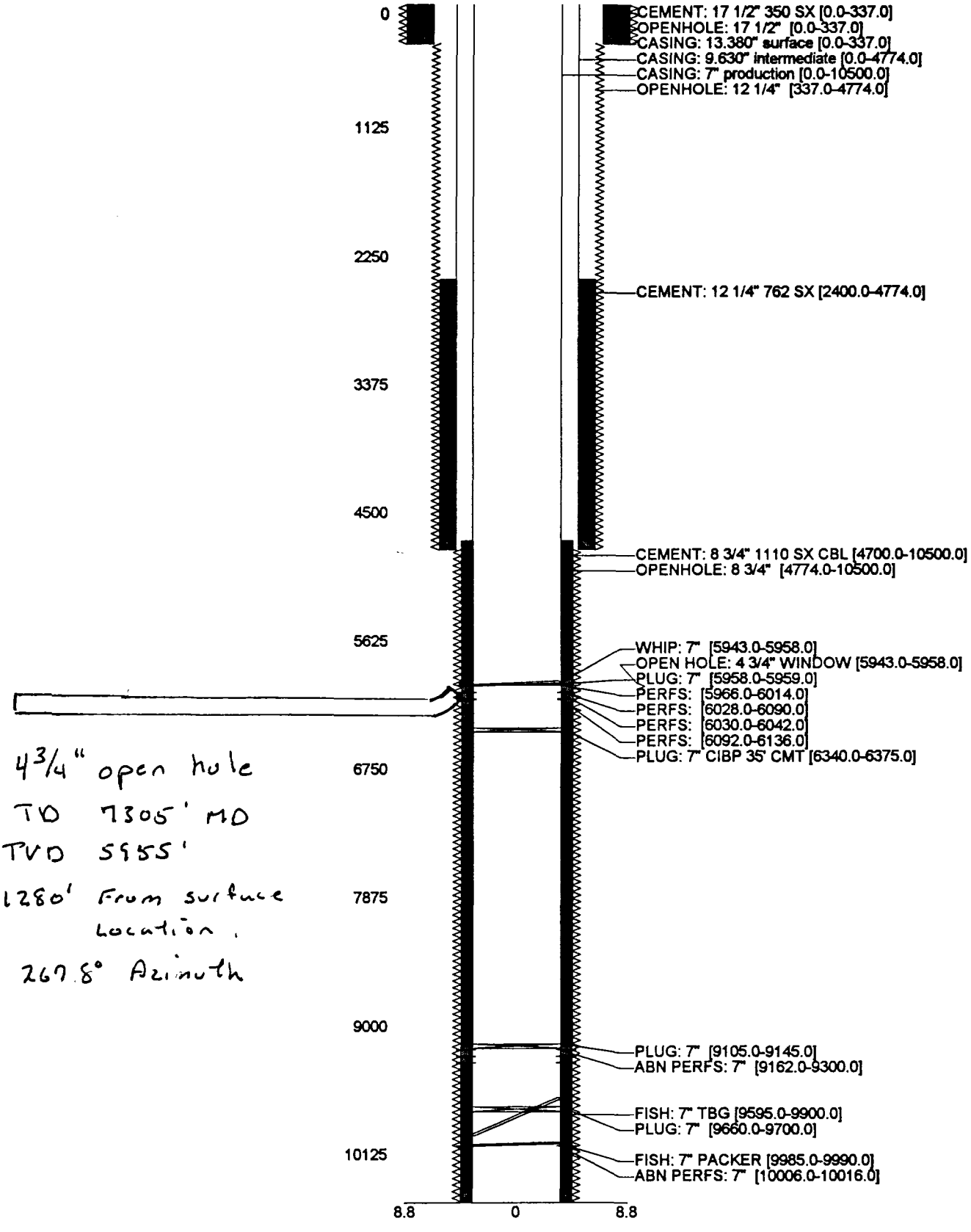
10003.0 - 10038.0' CIBP

10088.0 - 10164.0' ABANDONED PERFS

KB ELEV: 4002'
PBTD: 10165'
TD: 10200'

VGWU 90

Name: 90 ID: 3002520270 Type: Oil Date: 2/20/01



4 3/4" open hole

TD 7305' MD

TVD 5955'

1280' From surface location.

267.8° Azimuth

Analytical Laboratory Report for:

Texaco

UNICHEM
A Division of BJ Services Company

UNICHEM Representative: John Offutt

Production Water Analysis

Listed below please find water analysis report from: NQOBA, Heater Dump sampled on 09/29/2000

Lab Test No:	2000128834
Specific Gravity:	1.061
TDS:	91735
pH:	6.00

Cations:	mg/L	as:
Calcium	3276	(Ca^{++})
Magnesium	787	(Mg^{++})
Sodium	27252	(Na^{+})
Iron	473.00	(Fe^{++})
Barium	0.28	(Ba^{++})
Strontium	97.00	(Sr^{++})
Manganese	5.55	(Mn^{++})
Anions:	**mg/L**	**as:**
Bicarbonate	1244	(HCO_3^{-})
Silica	49.71	(SiO_2)
Sulfate	1550	($SO_4^{=}$)
Chloride	57000	(Cl^{-})
Gases:		
Carbon Dioxide		(CO_2)
Hydrogen Sulfide	34	(H_2S)

Comments:

ATTACHMENT VII
TO
FORM C-108

DownHole SAT(tm)
DEPOSITION POTENTIAL INDICATORS

Texaco — Heater Dump
NQOBA

Report Date: 10-11-2000 Sampled: 09-29-2000
Sample #: 8834 at 0000

SATURATION LEVEL		MOMENTARY EXCESS (Lbs/1000 Barrels)	
Calcite (CaCO3)	2.88	Calcite (CaCO3)	0.0738
Aragonite (CaCO3)	2.44	Aragonite (CaCO3)	0.0667
Witherite (BaCO3)	< 0.001	Witherite (BaCO3)	-24.10
Strontianite (SrCO3)	0.118	Strontianite (SrCO3)	-1.22
Magnesite (MgCO3)	0.831	Magnesite (MgCO3)	-0.0193
Anhydrite (CaSO4)	0.954	Anhydrite (CaSO4)	-14.95
Gypsum (CaSO4*2H2O)	1.05	Gypsum (CaSO4*2H2O)	53.00
Barite (BaSO4)	0.957	Barite (BaSO4)	-0.00744
Celestite (SrSO4)	0.322	Celestite (SrSO4)	-107.66
Calcium phosphate	0.00	Calcium phosphate	>-0.001
Hydroxyapatite	0.00	Hydroxyapatite	-398.11
Fluorite (CaF2)	0.00	Fluorite (CaF2)	-5.56
Silica (SiO2)	0.363	Silica (SiO2)	-31.26
Brucite (Mg(OH)2)	< 0.001	Brucite (Mg(OH)2)	-0.471
Magnesium silicate	< 0.001	Magnesium silicate	-119.34
Iron hydroxide (Fe(OH)3)	< 0.001	Iron hydroxide (Fe(OH)3)	< 0.001
Strengite (FePO4*2H2O)	0.00	Strengite (FePO4*2H2O)	>-0.001
Siderite (FeCO3)	588.11	Siderite (FeCO3)	0.131
Halite (NaCl)	0.0248	Halite (NaCl)	-160458
Thenardite (Na2SO4)	< 0.001	Thenardite (Na2SO4)	-77544
Iron sulfide (FeS)	141.68	Iron sulfide (FeS)	7.08

SIMPLE INDICES

Langelier	0.847
Ryznar	4.31
Puckorius	0.689
Larson-Skold Index	58.26
Stiff Davis Index	0.260
Oddo-Tomson	-0.125

UNICHEM - Midland Analytical Laboratory
P.O. Box 61427, Midland, Texas 79711

Analytical Laboratory Report for:

Texaco

UNICHEM
A Division of BJ Services Company

UNICHEM Representative: John Offutt

Production Water Analysis

Listed below please find water analysis report from: VGWU, Charge Pump sampled on 09/29/2000

Lab Test No:	2000128835
Specific Gravity:	1.069
TDS:	104211
pH:	6.64

Cations:	mg/L	as:
Calcium	2287	(Ca^{++})
Magnesium	452	(Mg^{++})
Sodium	35885	(Na^{+})
Iron	9.66	(Fe^{++})
Barium	0.09	(Ba^{++})
Strontium	40.00	(Sr^{++})
Manganese	0.32	(Mn^{++})
Anions:	**mg/L**	**as:**
Bicarbonate	708	(HCO_3^{-})
Silica	29.23	(SiO_2)
Sulfate	4000	(SO_4^{--})
Chloride	61000	(Cl^{-})
Gases:		
Carbon Dioxide	20	(CO_2)
Hydrogen Sulfide	306	(H_2S)

Comments:

DownHole SAT(tm)
DEPOSITION POTENTIAL INDICATORS

Texaco — Charge Pump
VGWU

Report Date: 10-11-2000 Sampled: 09-29-2000
Sample #: 8835 at 0000

SATURATION LEVEL		MOMENTARY EXCESS (Lbs/1000 Barrels)	
Calcite (CaCO3)	2.35	Calcite (CaCO3)	0.0769
Aragonite (CaCO3)	1.99	Aragonite (CaCO3)	0.0667
Witherite (BaCO3)	< 0.001	Witherite (BaCO3)	-24.57
Strontianite (SrCO3)	0.0556	Strontianite (SrCO3)	-2.96
Magnesite (MgCO3)	0.542	Magnesite (MgCO3)	-0.0951
Anhydrite (CaSO4)	1.89	Anhydrite (CaSO4)	371.17
Gypsum (CaSO4*2H2O)	2.05	Gypsum (CaSO4*2H2O)	525.05
Barite (BaSO4)	0.854	Barite (BaSO4)	-0.00911
Celestite (SrSO4)	0.369	Celestite (SrSO4)	-47.27
Calcium phosphate	0.00	Calcium phosphate	>-0.001
Hydroxyapatite	0.00	Hydroxyapatite	-396.24
Fluorite (CaF2)	0.00	Fluorite (CaF2)	-6.69
Silica (SiO2)	0.216	Silica (SiO2)	-38.03
Brucite (Mg(OH)2)	< 0.001	Brucite (Mg(OH)2)	-0.633
Magnesium silicate	0.00106	Magnesium silicate	-119.18
Iron hydroxide (Fe(OH)3)	< 0.001	Iron hydroxide (Fe(OH)3)	< 0.001
Strengite (FePO4*2H2O)	0.00	Strengite (FePO4*2H2O)	>-0.001
Siderite (FeCO3)	13.21	Siderite (FeCO3)	0.143
Halite (NaCl)	0.0315	Halite (NaCl)	-155868
Thenardite (Na2SO4)	< 0.001	Thenardite (Na2SO4)	-78656
Iron sulfide (FeS)	256.13	Iron sulfide (FeS)	4.95

SIMPLE INDICES

Langelier	0.737
Ryznar	5.17
Puckorius	3.07
Larson-Skold Index	256.51
Stiff Davis Index	0.151
Oddo-Tomson	-0.255

UNICHEM - Midland Analytical Laboratory
P.O. Box 61427, Midland, Texas 79711

DownHole SAT(tm)
MIXED WATER DEPOSITION POTENTIAL INDICATORS

1) CVU IPD 25% 2) VGWU Chrg Pump 75%

Report Date: 10-11-2000

SATURATION LEVEL		MOMENTARY EXCESS (Lbs/1000 Barrels)	
Calcite (CaCO3)	0.00426	Calcite (CaCO3)	-0.0455
Aragonite (CaCO3)	0.00361	Aragonite (CaCO3)	-0.0538
Witherite (BaCO3)	< 0.001	Witherite (BaCO3)	-23.51
Strontianite (SrCO3)	< 0.001	Strontianite (SrCO3)	-2.80
Magnesite (MgCO3)	0.00105	Magnesite (MgCO3)	-0.156
Anhydrite (CaSO4)	2.21	Anhydrite (CaSO4)	434.27
Gypsum (CaSO4*2H2O)	2.37	Gypsum (CaSO4*2H2O)	583.33
Barite (BaSO4)	1.06	Barite (BaSO4)	0.00355
Celestite (SrSO4)	0.395	Celestite (SrSO4)	-43.64
Calcium phosphate	0.00	Calcium phosphate	>-0.001
Hydroxyapatite	0.00	Hydroxyapatite	-364.21
Fluorite (CaF2)	0.00	Fluorite (CaF2)	-5.76
Silica (SiO2)	0.00	Silica (SiO2)	-44.38
Brucite (Mg(OH)2)	< 0.001	Brucite (Mg(OH)2)	-0.528
Magnesium silicate	0.00	Magnesium silicate	-109.93
Iron hydroxide (Fe(OH)3)	< 0.001	Iron hydroxide (Fe(OH)3)	< 0.001
Strengite (FePO4*2H2O)	0.00	Strengite (FePO4*2H2O)	>-0.001
Siderite (FeCO3)	0.0176	Siderite (FeCO3)	-0.0126
Halite (NaCl)	0.0386	Halite (NaCl)	-139899
Thenardite (Na2SO4)	< 0.001	Thenardite (Na2SO4)	-74299
Iron sulfide (FeS)	66.35	Iron sulfide (FeS)	4.08

SIMPLE INDICES	
Langelier	-14.00
Ryznar	14.00
Puckorius	-4.54
Larson-Skold Index	84174
Stiff Davis Index	-14.00
Oddo-Tomson	-14.00

OPERATING CONDITIONS	
Temperature (°F)	100.00
Time(mins)	3.00

UNICHEM - Midland Analytical Laboratory
P.O. Box 61427, Midland, Texas 79711

DownHole SAT(tm)
MIXED WATER DEPOSITION POTENTIAL INDICATORS

1) NQOBA 25%. 2) VGWU Chrg Pump 75%,

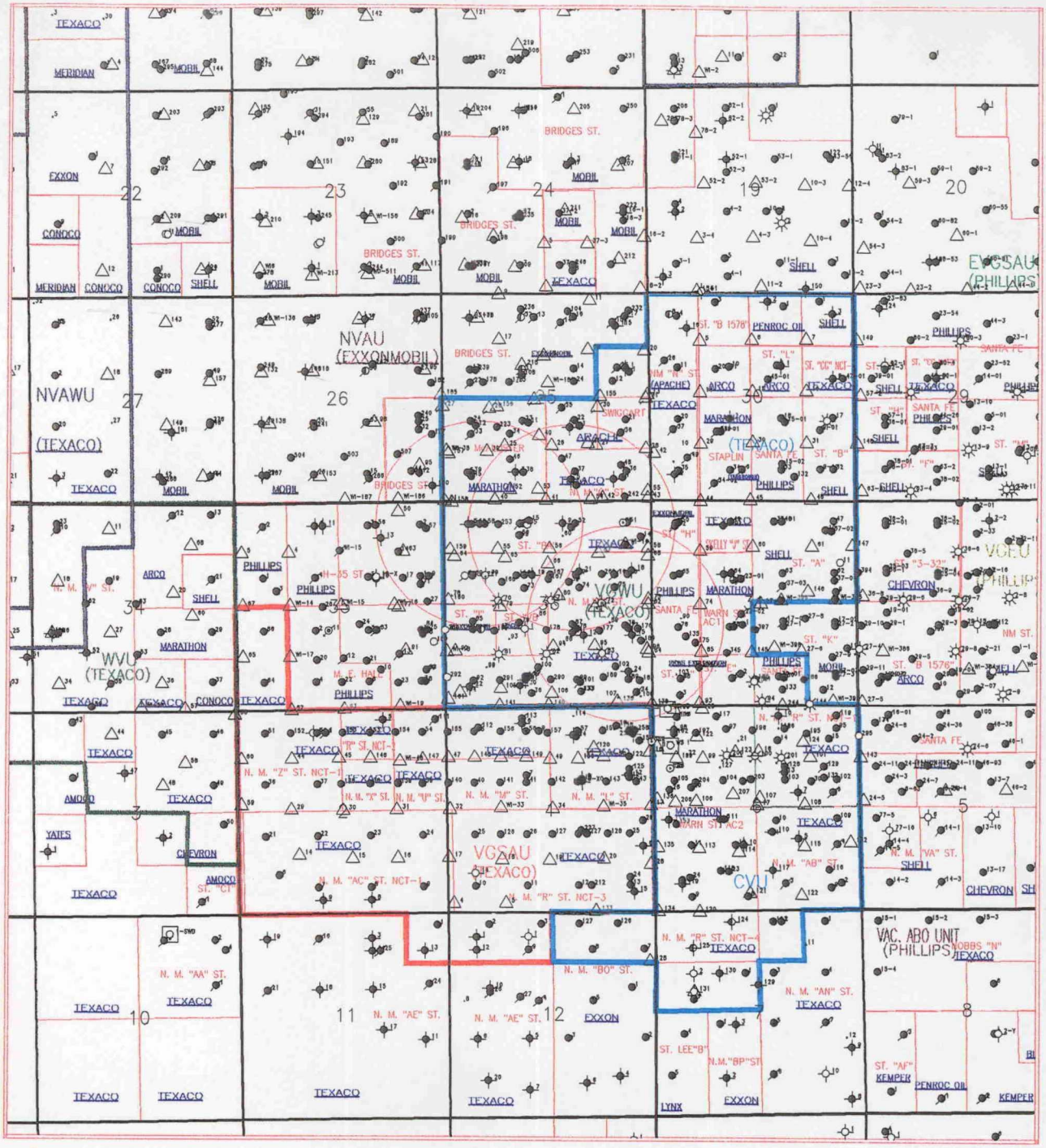
Report Date: 10-11-2000

SATURATION LEVEL		MOMENTARY EXCESS (Lbs/1000 Barrels)	
Calcite (CaCO3)	0.0863	Calcite (CaCO3)	-0.0387
Aragonite (CaCO3)	0.0731	Aragonite (CaCO3)	-0.0463
Witherite (BaCO3)	< 0.001	Witherite (BaCO3)	-23.35
Strontianite (SrCO3)	0.00230	Strontianite (SrCO3)	-2.19
Magnesite (MgCO3)	0.0216	Magnesite (MgCO3)	-0.139
Anhydrite (CaSO4)	1.98	Anhydrite (CaSO4)	333.49
Gypsum (CaSO4*2H2O)	2.13	Gypsum (CaSO4*2H2O)	460.64
Barite (BaSO4)	1.13	Barite (BaSO4)	0.00961
Celestite (SrSO4)	0.435	Celestite (SrSO4)	-47.57
Calcium phosphate	0.00	Calcium phosphate	>-0.001
Hydroxyapatite	0.00	Hydroxyapatite	-367.49
Fluorite (CaF2)	0.00	Fluorite (CaF2)	-5.56
Silica (SiO2)	0.00	Silica (SiO2)	-44.89
Brucite (Mg(OH)2)	< 0.001	Brucite (Mg(OH)2)	-0.506
Magnesium silicate	0.00	Magnesium silicate	-110.68
Iron hydroxide (Fe(OH)3)	< 0.001	Iron hydroxide (Fe(OH)3)	< 0.001
Strengite (FePO4*2H2O)	0.00	Strengite (FePO4*2H2O)	>-0.001
Siderite (FeCO3)	5.32	Siderite (FeCO3)	0.00343
Halite (NaCl)	0.0346	Halite (NaCl)	-142978
Thenardite (Na2SO4)	< 0.001	Thenardite (Na2SO4)	-74076
Iron sulfide (FeS)	1286	Iron sulfide (FeS)	65.15

SIMPLE INDICES	
Langelier	-14.00
Ryznar	14.00
Puckorius	-4.54
Larson-Skold Index	5003
Stiff Davis Index	-14.00
Oddo-Tomson	-14.00

OPERATING CONDITIONS	
Temperature (°F)	100.00
Time(mins)	3.00

UNICHEM - Midland Analytical Laboratory
P.O. Box 61427, Midland, Texas 79711



TEXACO EXPLORATION & PRODUCTION		
VACUUM FIELD T 17 & 18 S, R 34 & 35 E LEA COUNTY, NEW MEXICO		

LEGEND

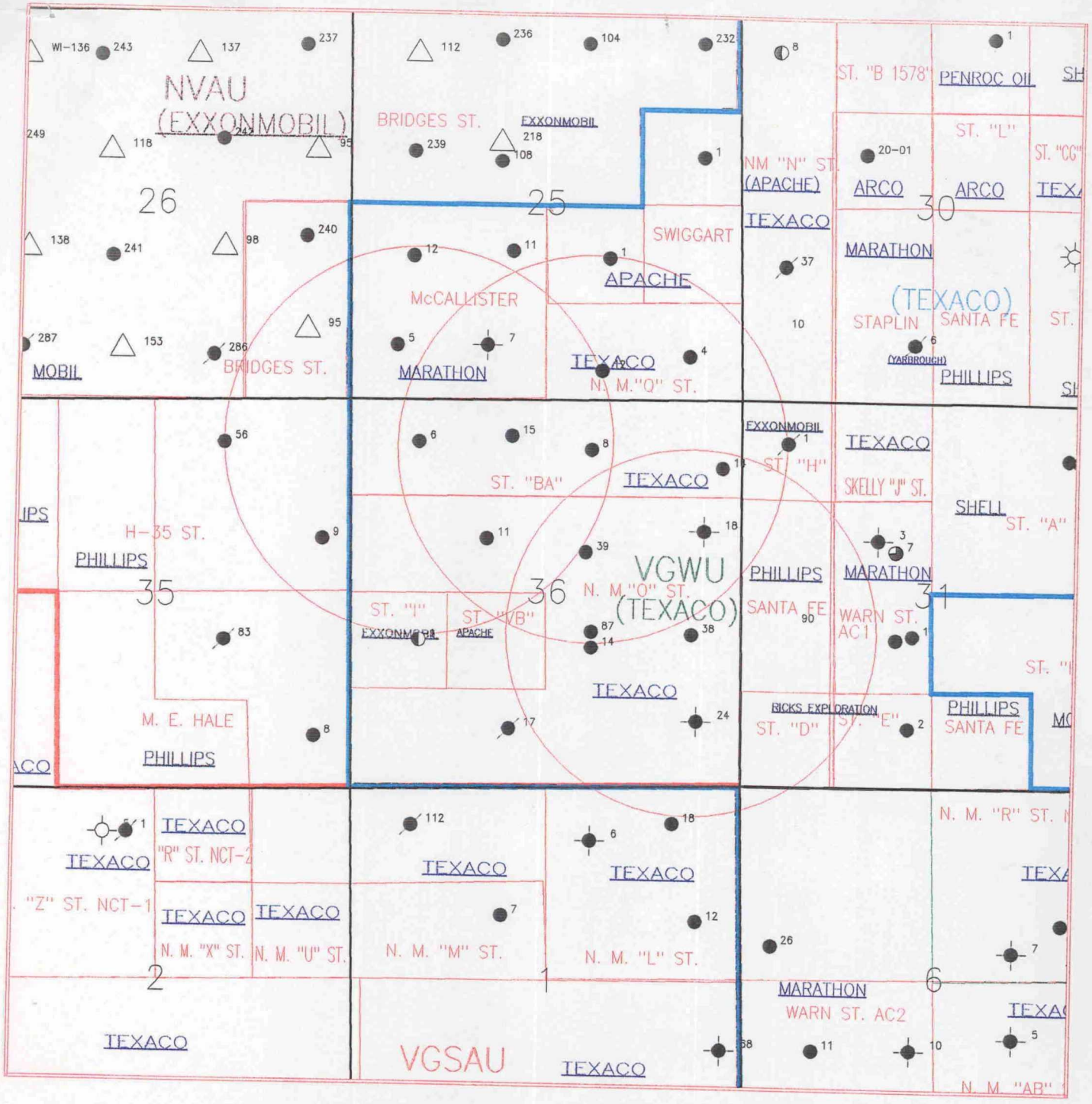
- GAS
- OIL
- INJECTOR
- P & A
- DRY HOLE

N

Scale 1:48000.

1000. 0. 1000. 2000. 3000. 4000. 5000. feet

ATTACHMENT V
TO
FORM C-108



TEXACO EXPLORATION & PRODUCTION
VACUUM FIELD T 17 & 18 S, R 34 & 35 E LEA COUNTY, NEW MEXICO

LEGEND

- GAS
- OIL
- INJECTOR
- P & A
- DRY HOLE

N

Scale 1:24000.

1000. 0. 1000. 2000. 3000. 4000. 5000. feet

WELLS IN AREA OF REVIEW

API NUMBER	LEASE	WELL NO.	TD	STATUS	OPERATOR	COMP DATE	TWN	RANGE	SEC	FOOTAGE LOCATION
3002520228	H-35 STATE	9	10094	OIL	PHILLIPS PET.	12/8/63	17S	34E	35	1980 FN / 450 FE
3002520115	MCCALLISTER STATE	7	12125	P&A	MARATHON OIL	6/13/83	17S	34E	25	660 FS / 1780 FW
3002520116	MCCALLISTER STATE	5	12195	OIL	MARATHON OIL	5/1/63	17S	34E	25	660 FS / 560 FW
3002533954	MCCALLISTER STATE	12	11500	OIL	MARATHON OIL	7/22/97	17S	34E	25	1945 FSL / 850 FWL
3002502128	NORTH VACUUM ABO UNIT	95	13816	INJ	EXXONMOBIL	9/3/63	17S	34E	26	860 FS / 660 FE
3002520872	STATE CC UNIT	1	12080	OIL	EXXONMOBIL	8/12/64	17S	34E	36	1980 FS / 860 FW
3002520862	CENTRAL VACUUM UNIT	250	10553	OIL	TEXACO EXPL & PROD	12/18/64	17S	35E	31	510 FN / 535 FW
3002533301	NEW MEXICO L STATE	18	11500	OIL	TEXACO EXPL & PROD	6/2/96	18S	34E	1	810 FNL / 650 FEL
3002520382	NEW MEXICO O STATE NCT-1	11	12155	OIL	TEXACO EXPL & PROD	2/2/72	17S	34E	36	1980 FN / 1780 FW
3002520008	NEW MEXICO O STATE NCT-1	14	12154	OIL	TEXACO EXPL & PROD	7/26/63	17S	34E	36	1874 FS / 2086 FE
3002520125	NEW MEXICO O STATE NCT-1	17	12082	OIL	TEXACO EXPL & PROD	6/5/69	17S	34E	36	760 FS / 2080 FW
3002520274	NEW MEXICO O STATE NCT-1	18	11510	P&A	TEXACO EXPL & PROD	10/9/63	17S	34E	36	1880 FN / 560 FE
3002520946	NEW MEXICO O STATE NCT-1	24	10300	P&A	TEXACO EXPL & PROD	8/1/72	17S	34E	36	860 FS / 660 FE
3002533148	NEW MEXICO O STATE NCT-1	38	11500	OIL	TEXACO EXPL & PROD	1/1/96	17S	34E	36	710 FEL 2085 FSL
3002533569	NEW MEXICO O STATE NCT-1	39	10300	OIL	TEXACO EXPL & PROD	6/16/97	17S	34E	36	2075 FNL / 2110 FEL
3002520294	NEW MEXICO Q STATE	4	12285	OIL	TEXACO EXPL & PROD	12/4/63	17S	34E	25	500 FS / 760 FE
3002533850	NEW MEXICO Q STATE	12	10350	OIL	TEXACO EXPL & PROD	5/15/97	17S	34E	25	400 FSL 1900 FEL
3002520057	STATE BA	6	12110	OIL	TEXACO EXPL & PROD	10/15/72	17S	34E	36	660 FN / 860 FW
3002520986	STATE BA	8	10494	OIL	TEXACO EXPL & PROD	8/14/64	17S	34E	36	766 FN / 2086 FE
3002533570	STATE BA	14	11500	OIL	TEXACO EXPL & PROD	12/31/96	17S	34E	36	990 FNL / 330 FEL
3002520948	TEXACO SHELL STATE COM	1	10200	OIL	APACHE	9/2/71	17S	34E	25	1833 FS / 1845 FE
3002520329	VGWU	56	12413	OIL	TEXACO EXPL & PROD	10/21/65	17S	34E	35	660 FN / 1780 FE
3002521637	VGWU	87	10200	OIL	TEXACO EXPL & PROD	10/17/72	17S	34E	36	2090 FS / 2086 FE
3002520270	VGWU	90	10500	OIL	TEXACO EXPL & PROD	1/30/64	18S	34E	31	2130 FS / 660 FW
3002534945	STATE BA	15	10500	OIL	TEXACO EXPL & PROD	7/17/00	17S	34E	36	612 FN / 2135 FW

Offset Operator Report
State "BA" Well
Lea County, New Mexico
February 16, 2001

T-17-S, R-34-E, NMPM

Section 25: NW/4 SE/4, as to depths from 8,300' to 10,300'

Apache Corporation
2000 Post Oak Blvd., Suite 100
Houston, TX 77056-4400

Section 25: NE/4 SE/4, as to depths from 8,300' to 10,300'

Ricks Exploration II, L.P.
3000 Oklahoma Tower
210 Park Avenue
Oklahoma City, OK 73102

Section 25: SW/4, as to depths from 8,300' to 10,300'

Marathon Oil Company
P. O. Box 552
Midland, TX 79702

Section 26: SE/4, as to depths from 8,300' to 10,300'

Mobil Producing Texas & New Mexico, Inc.
% Exxon Mobil Corporation
P. O. Box 4697
Houston, TX 77210-4697

Section 35: SE/4, as to depths from 8,300' to 10,300'

Phillips Petroleum Company
4001 Penbrook
Odessa, TX 79762

Section 35: NE/4, as to depths from 8,300' to 10,300'

Conoco Inc.
10 Desta Dr., Suite 100W
Midland, TX 79705

ATTACHMENT XIII
TO
FORM C-108

T-17-S, R-34-E, NMPM

Section 36: NE/4 SW/4, as to depths from 8,300' to 10,300'

Apache Corporation
2000 Post Oak Blvd., Suite 100
Houston, TX 77056-4400

Section 36: NW/4 SW/4, as to depths from 8,300' to 10,300'

Mobil Producing Texas & New Mexico, Inc.
% Exxon Mobil Corporation
P. O. Box 4697
Houston, TX 77210-4697

T-17-S, R-35-E, NMPM

Section 31: Lot 1 (NW/4 NW/4), as to depths from 8,300' to 10,300'

Mobil Producing Texas & New Mexico, Inc.
% Exxon Mobil Corporation
P. O. Box 4697
Houston, TX 77210-4697

Section 31: Lot 2 (SW/4 NW/4), as to depths from 8,300' to 10,300'

Phillips Petroleum Company
4001 Penbrook
Odessa, TX 79762

Section 31: Lot 3 (NW/4 SW/4), as to depths from 8,300' to 10,300'

Phillips Petroleum Company
4001 Penbrook
Odessa, TX 79762

Section 31: Lot 4 (SW/4 SW/4), as to depths from 8,300' to 10,300'

Ricks Exploration II, L.P.
3000 Oklahoma Tower
210 Park Avenue
Oklahoma City, OK 73102

T-18-S, R-35-E, NMPM

Section 6: NW/4, as to depths from 8,300' to 10,300'

Marathon Oil Company
P. O. Box 552
Midland, TX 79702

COMMENTS

The above ownership is based on Takeoffs prepared by J. David Williams dated 3/24/00.

The records of Caprock Title Company are posted through January 22, 2001.