

LEGEND

■■■■ UNIT BOUNDARY

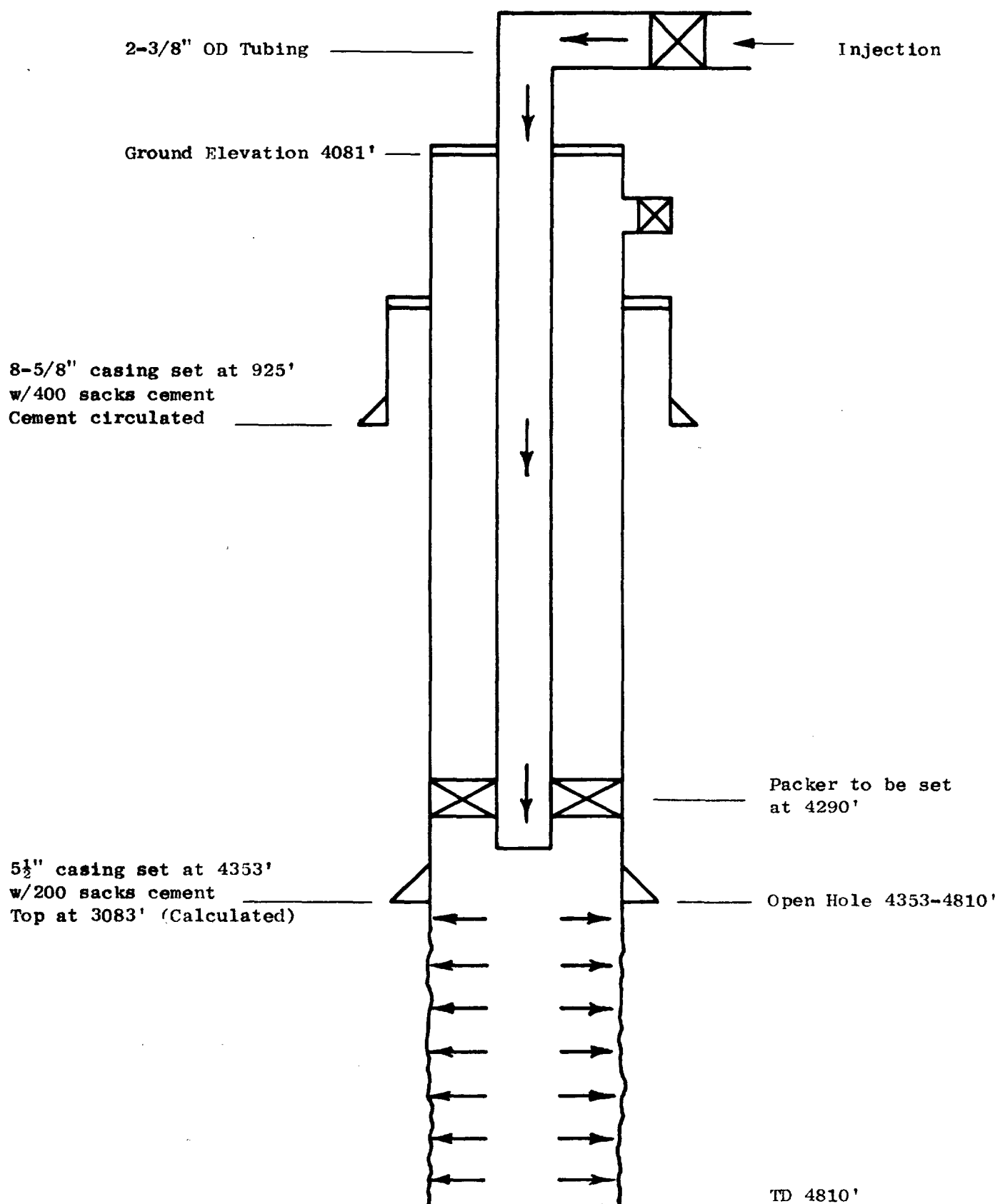
EXHIBIT 2

PROPOSED STATE VACUUM UNIT

TOWNSHIP 17 S, RANGE 34 E
LEA COUNTY, NEW MEXICO

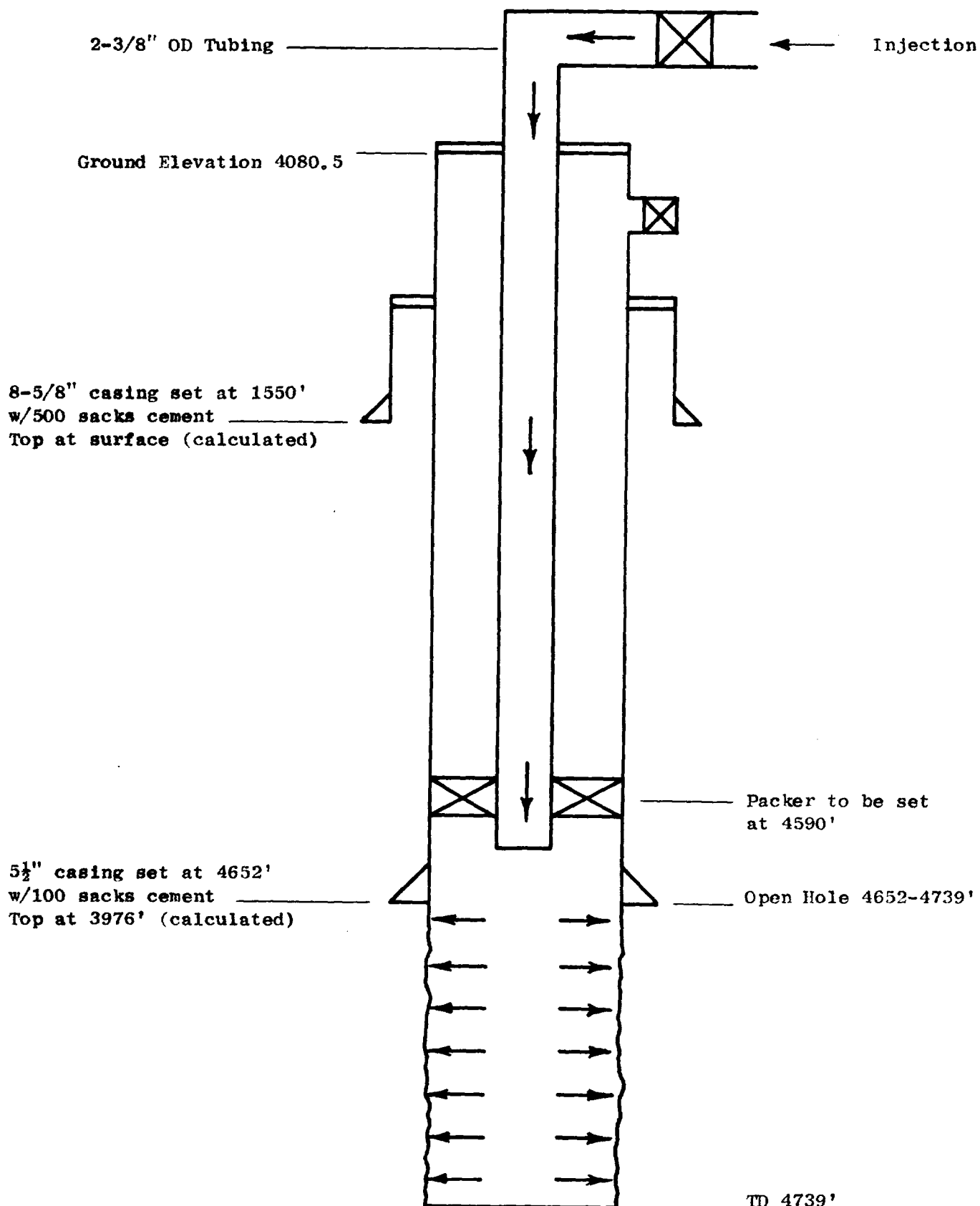
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 1 (Phillips Lea No. 21)
 660' FSL & 680' FWL Section 29, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 10' above GL



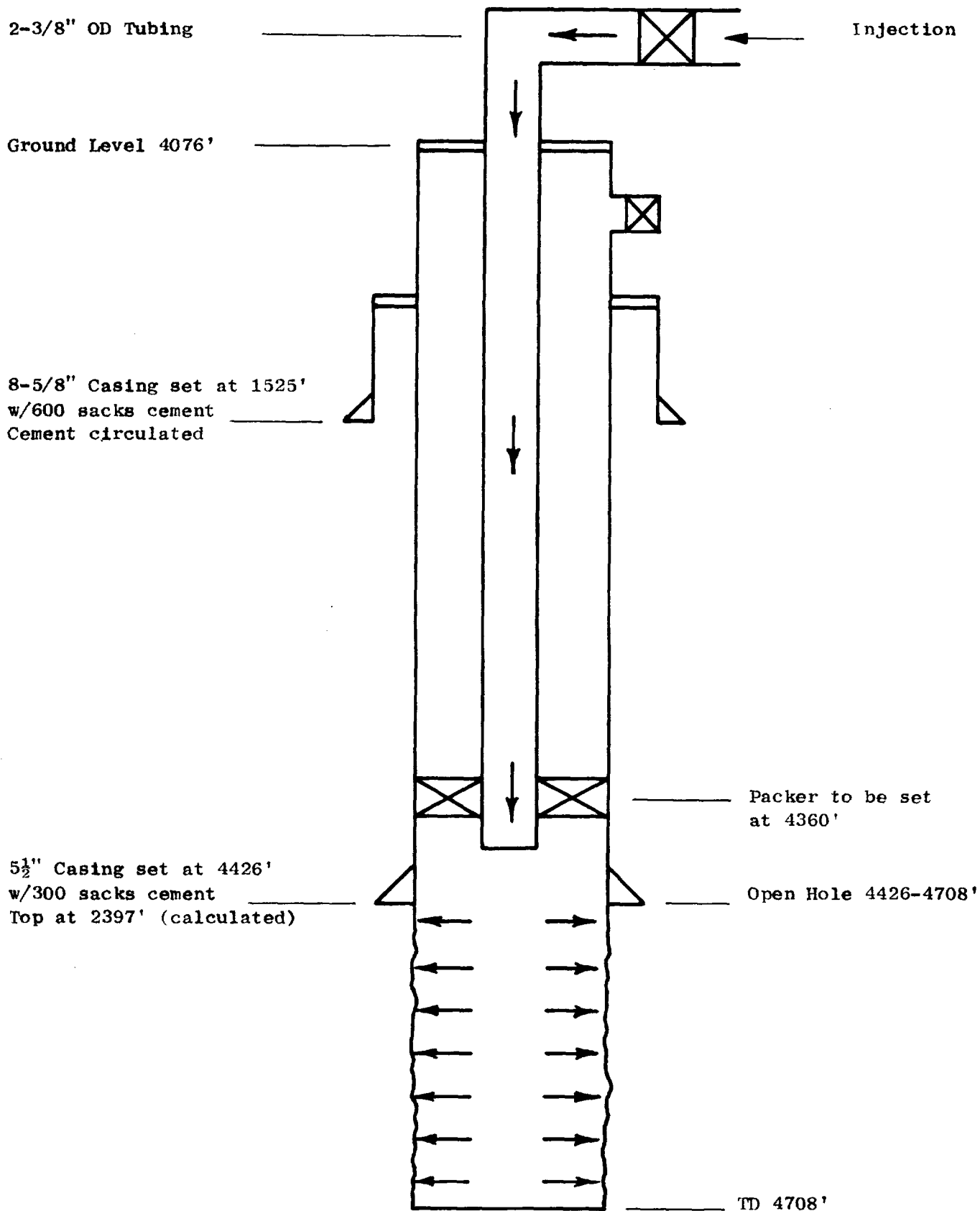
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 2 (Sohio Hale-State No. 2)
 990' FNL & 330' FEL Section 31, T-17S, R-34E
 Lea County, New Mexico

All Measurements are from KB 2.5' above GL



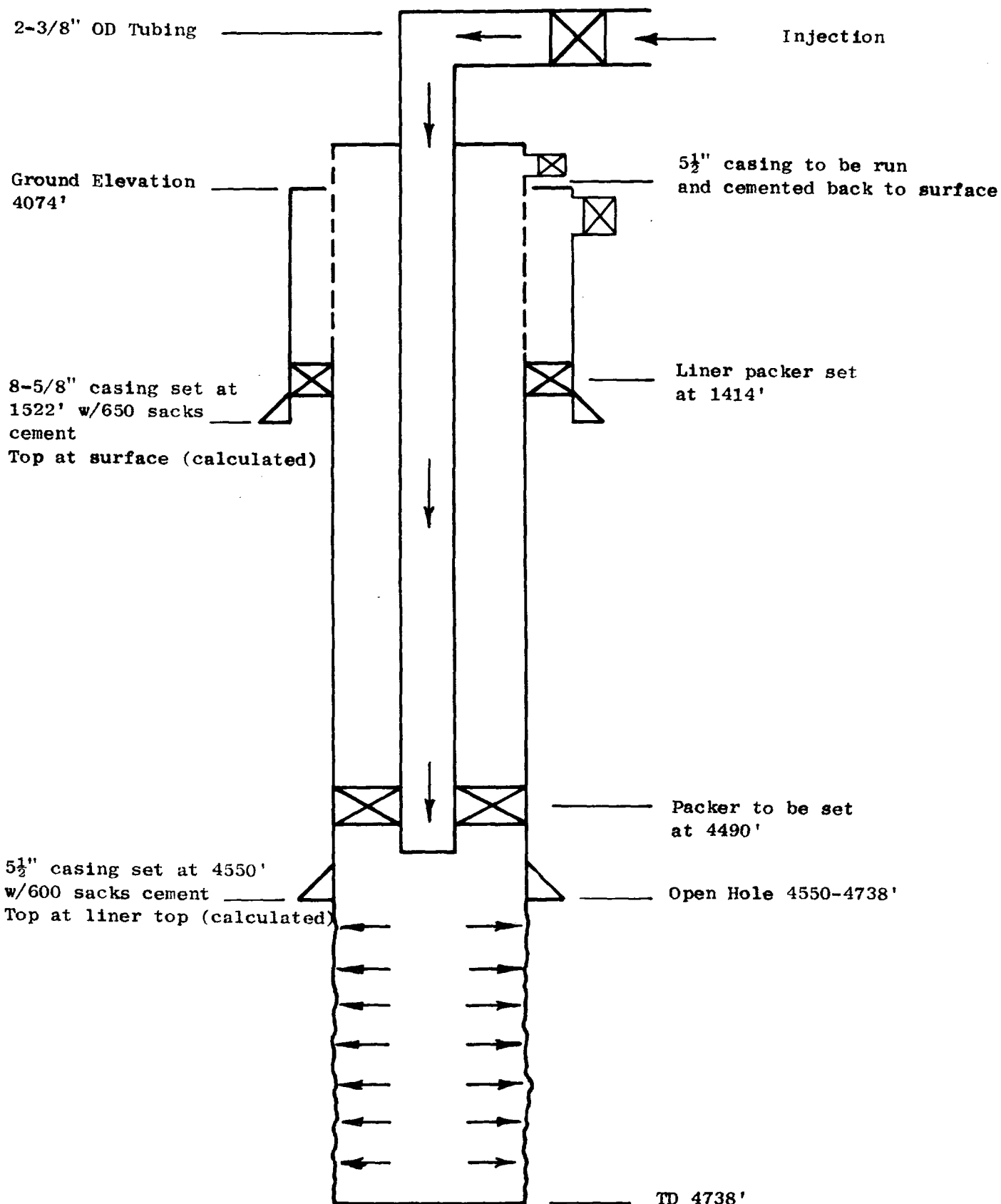
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 4 (A.R.Co. State "B" TG No. 4)
 990' FNL & 1650' FWL Section 32, T-17S R-34E
 Lea County, New Mexico

All Measurements are from KB 2' above GL



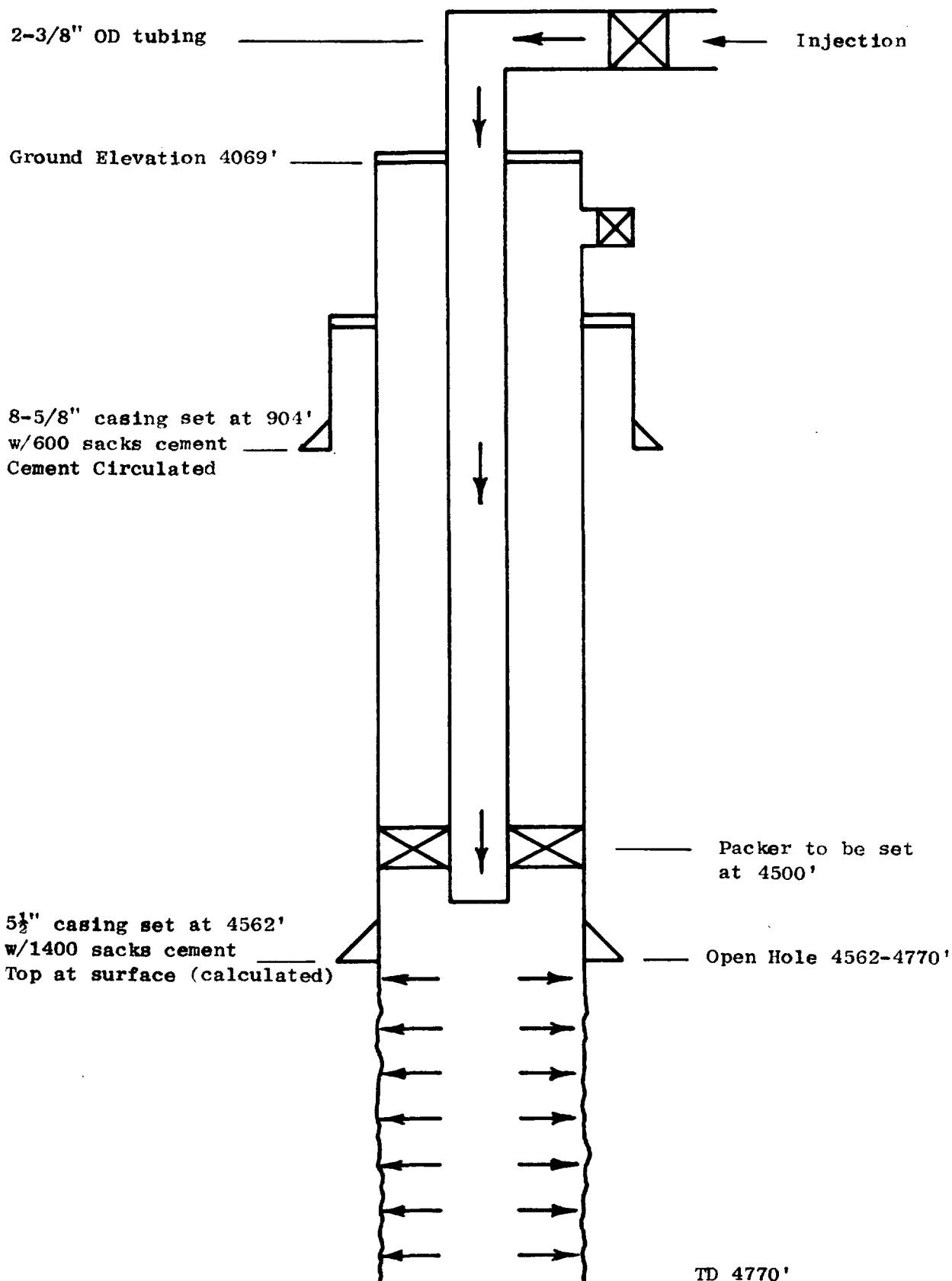
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 7 (A.R.Co. State "B" TG No. 3)
 1980' FNL & 660' FWL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 10' above GL



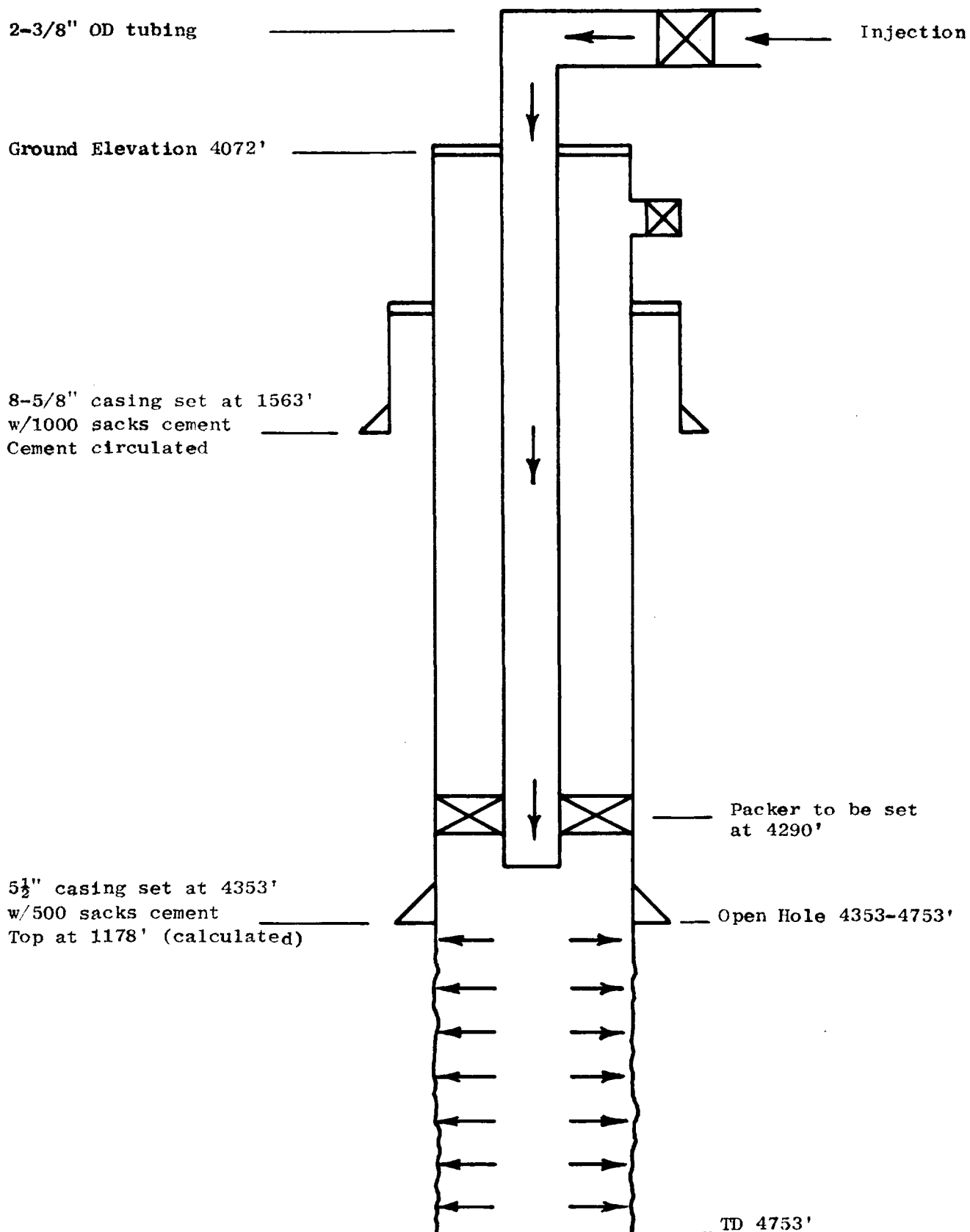
ATLANTIC RICHFIELD COMPANY
STATE VACUUM UNIT
Schematic Drawing of Injection Well
Unit Well No. 9 (Texaco New Mexico "D" State NCT-2 No. 3)
1980' FNL & 1980' FEL Section 32, T-17S, R-34E
Lea County, New Mexico

All measurements are from KB 9' above GL



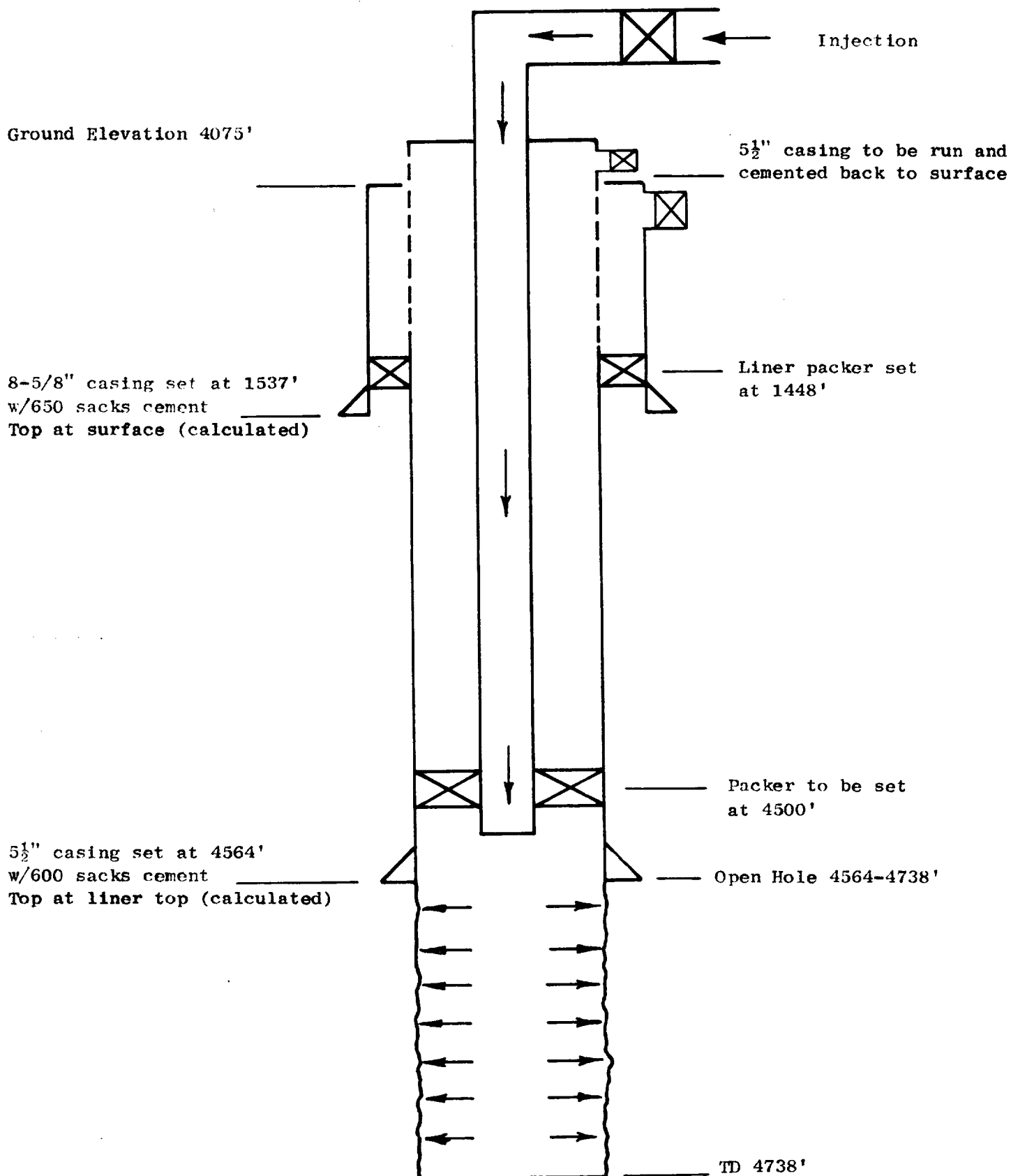
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 11 (Texaco New Mexico "AO" State No. 1)
 2310' FSL & 330' FEL Section 31, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 10' above GL



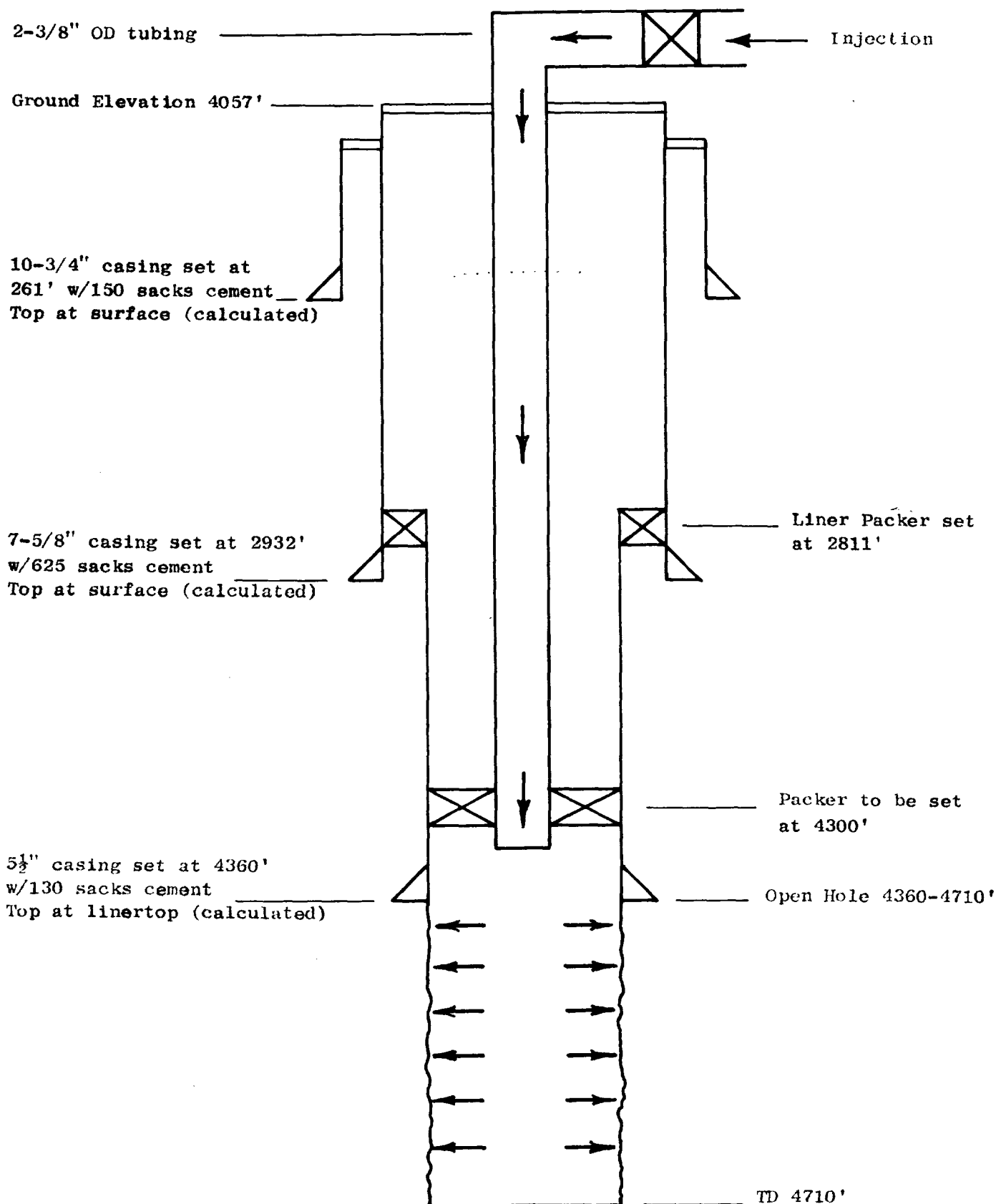
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 13 (A.R.Co. State "C" TG No. 3)
 1980' FSL & 1980' FWL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 10.5' above GL



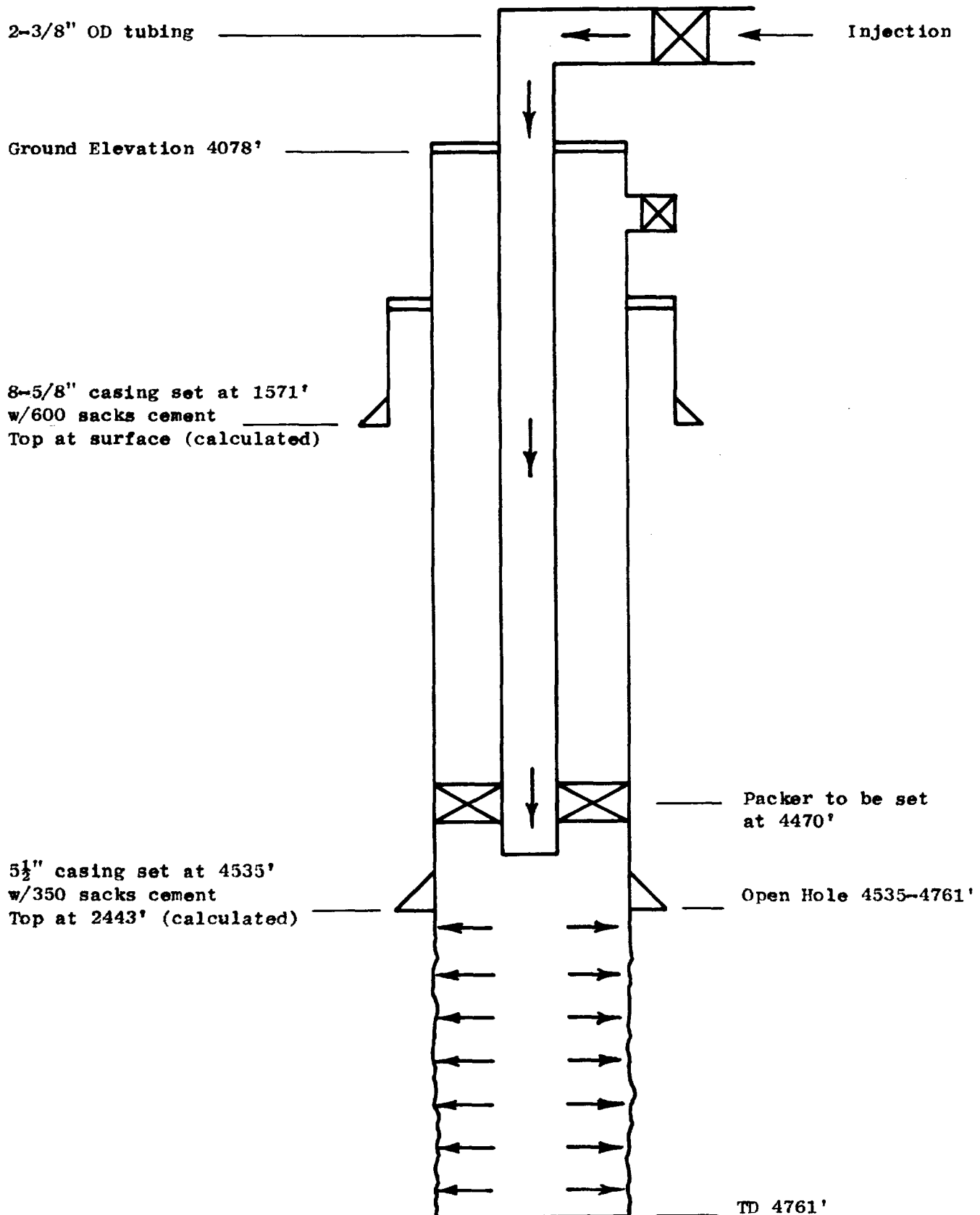
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 15 (A.R.Co. State "C" TG No. 1)
 1980' FSL & 660' FEL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 10' above GL



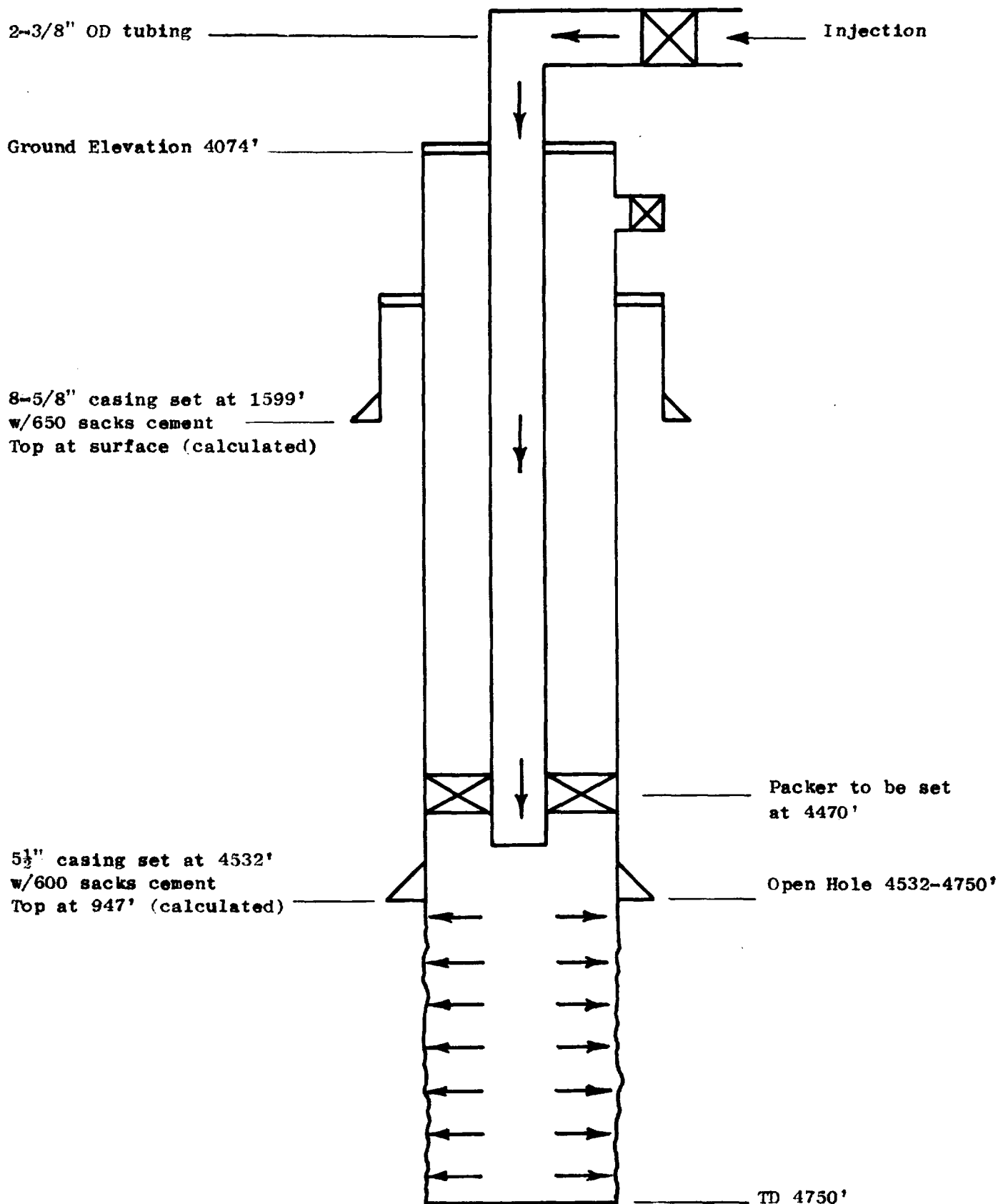
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 17 (A.R.Co. State "C" TG No. 8)
 990' FSL & 990' FWL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 4' above GL

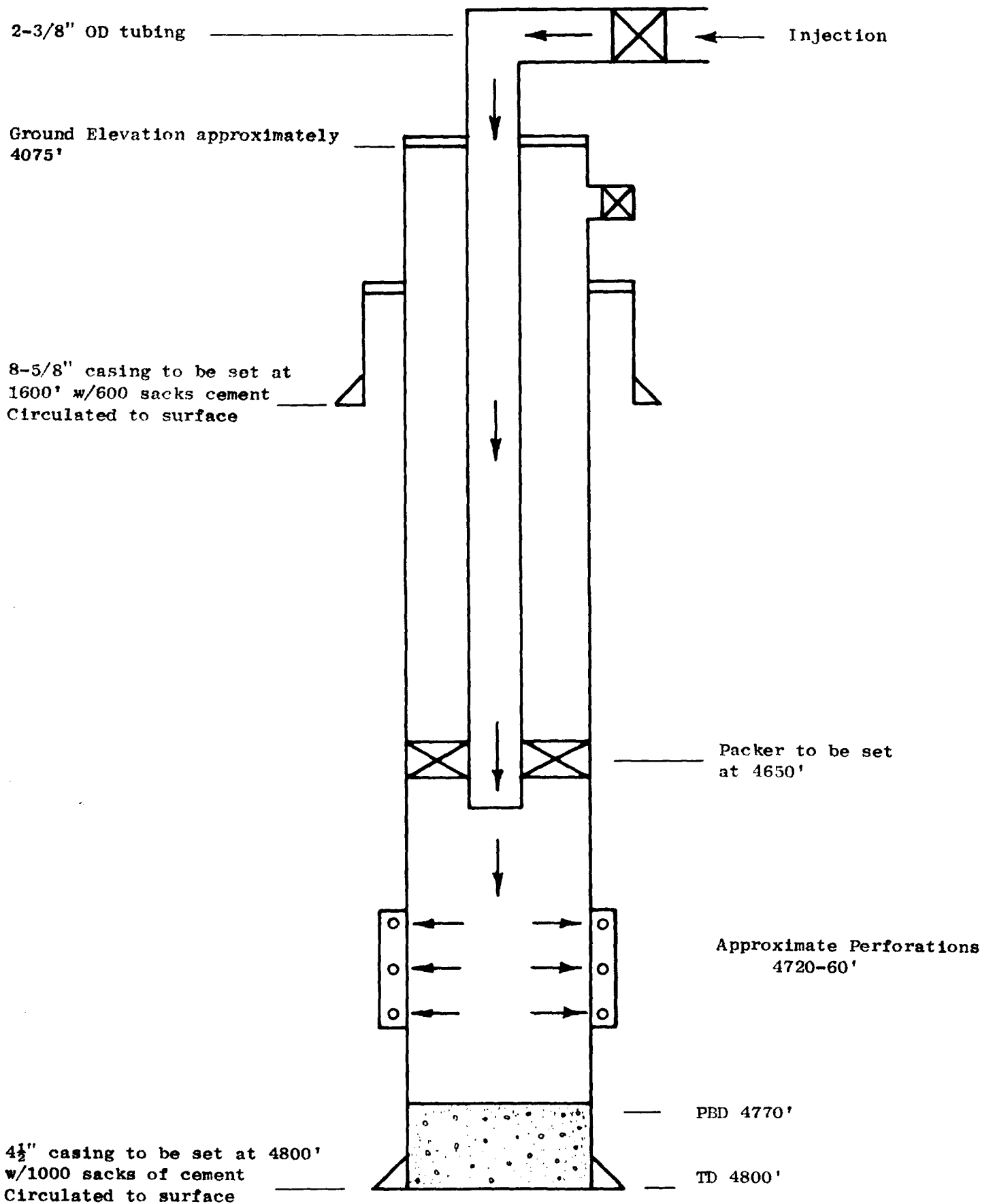


ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 19 (A.R.Co. State "C" TG No. 5)
 990' FSL & 1650' FEL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 2' above GL

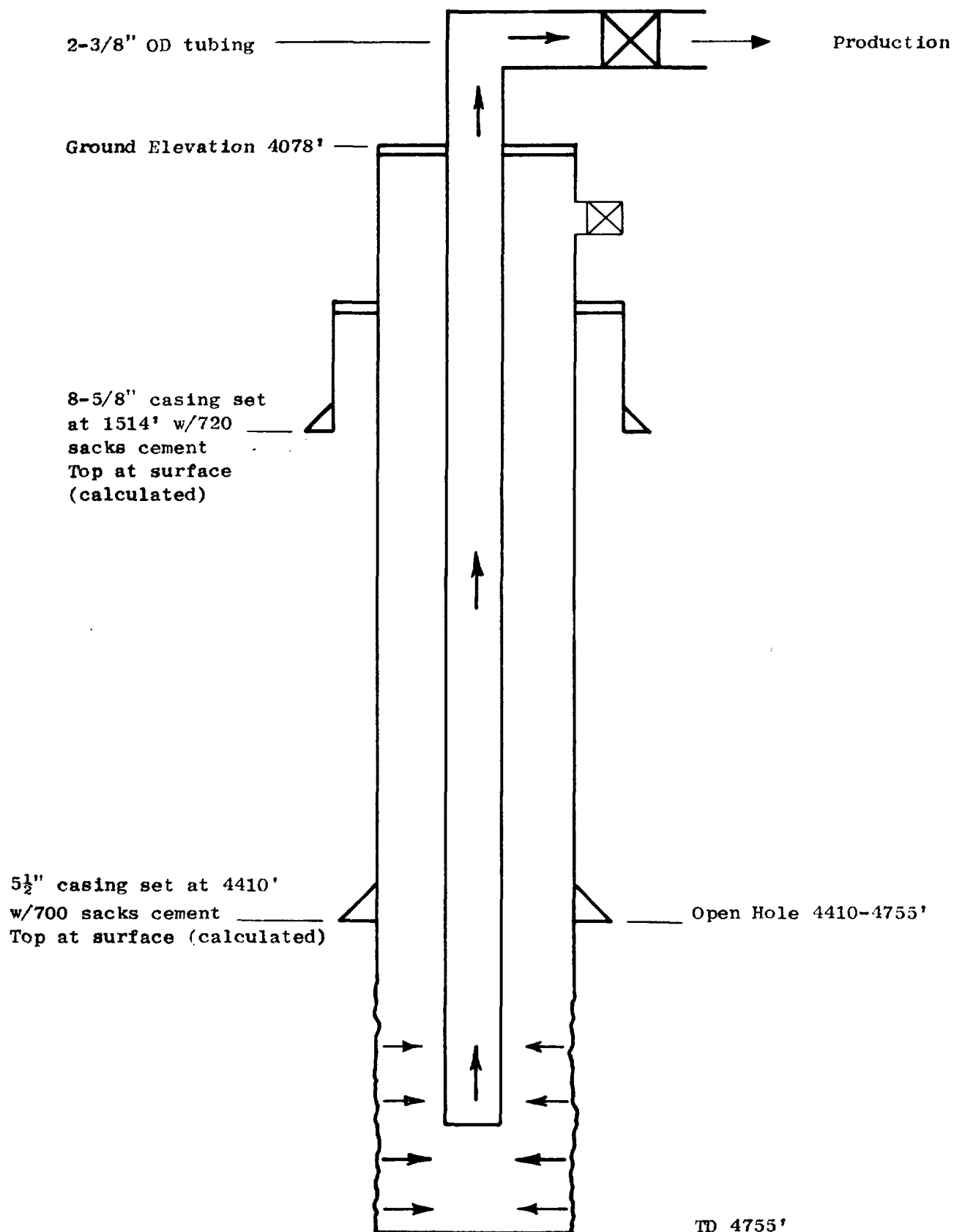


ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT NO. 21
 Schematic Drawing of Injection Well
 To be drilled approximately 330' FSL & 2310' FWL Section 32, T-17S, R-34E
 Lea County, New Mexico



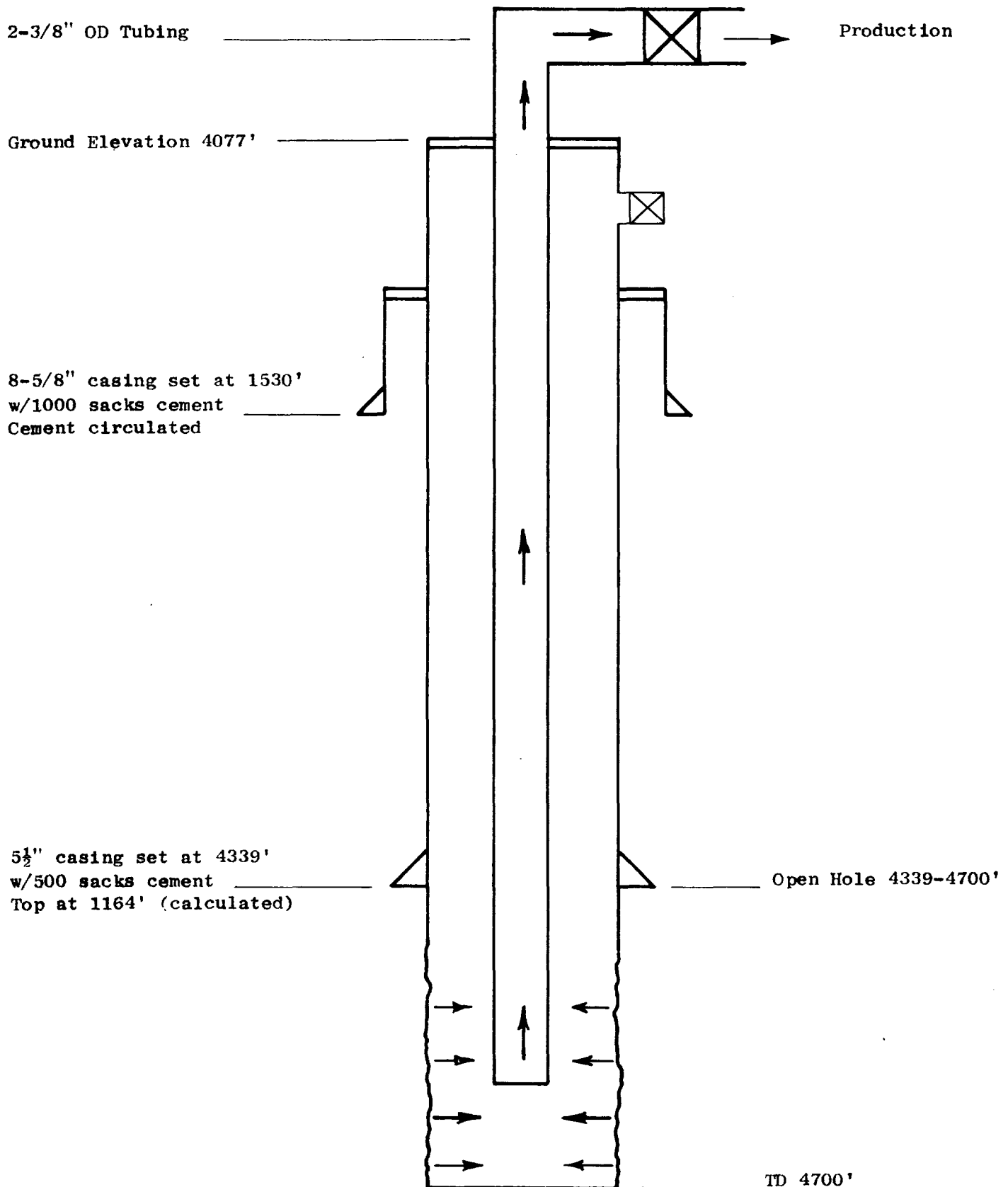
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Producing Well
 Unit Well No. 3 (A.R.Co. State "B" TG No. 1)
 660' FNL & 660' FWL Section 32, T-17S, R-34E
 Lea County, New Mexico

All Measurements are from KB 10' above GL



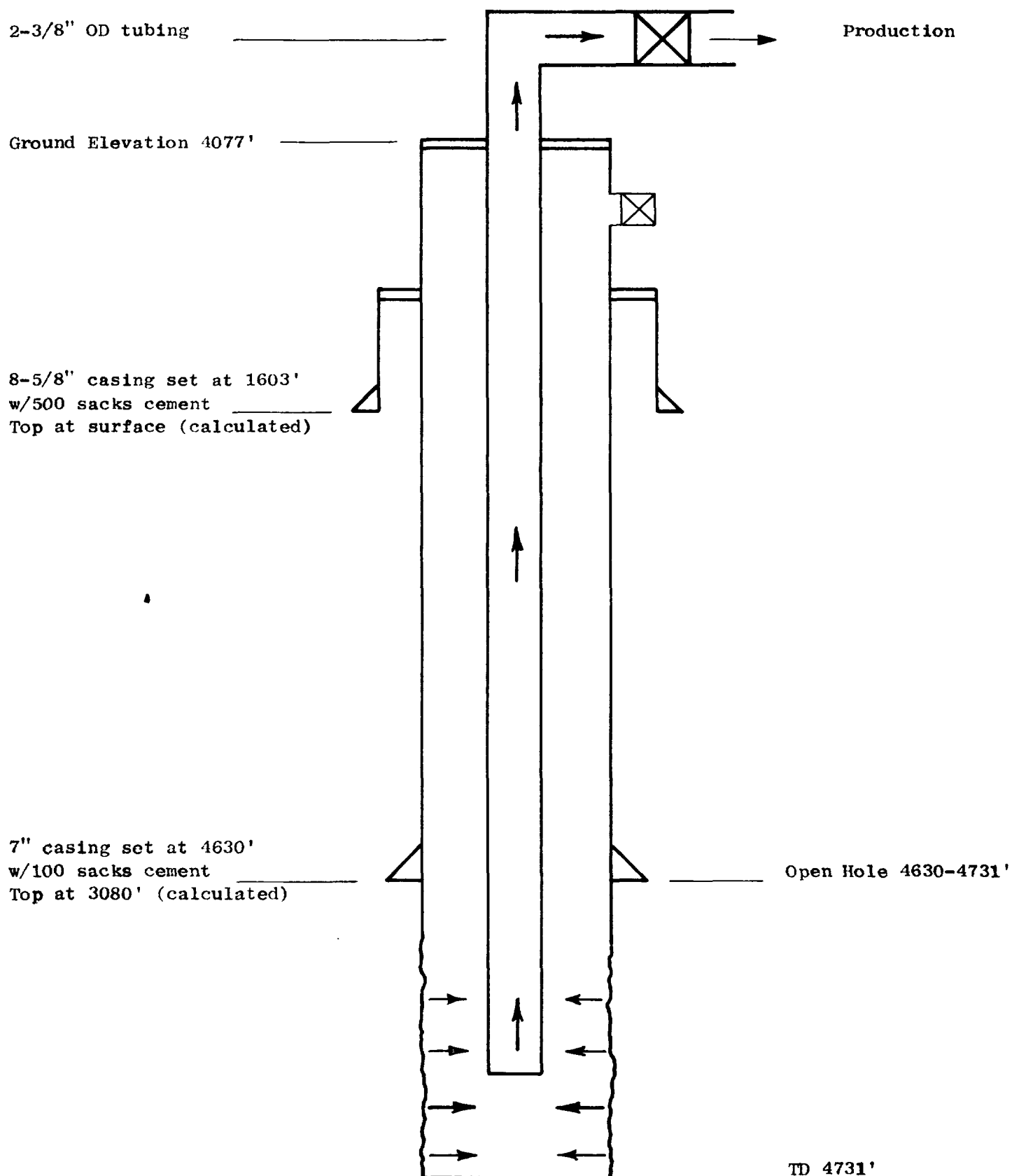
ATLANTIC RICHFIELD COMPANY
STATE VACUUM UNIT
Schematic Drawing of Producing Well
Unit Well No. 5 (Texaco New Mexico "D" State NCT-2 No. 4)
990' FNL & 2310' FEL Section 32, T-17S, R-34E
Lea County, New Mexico

All measurements are from KB 7.5' above GL



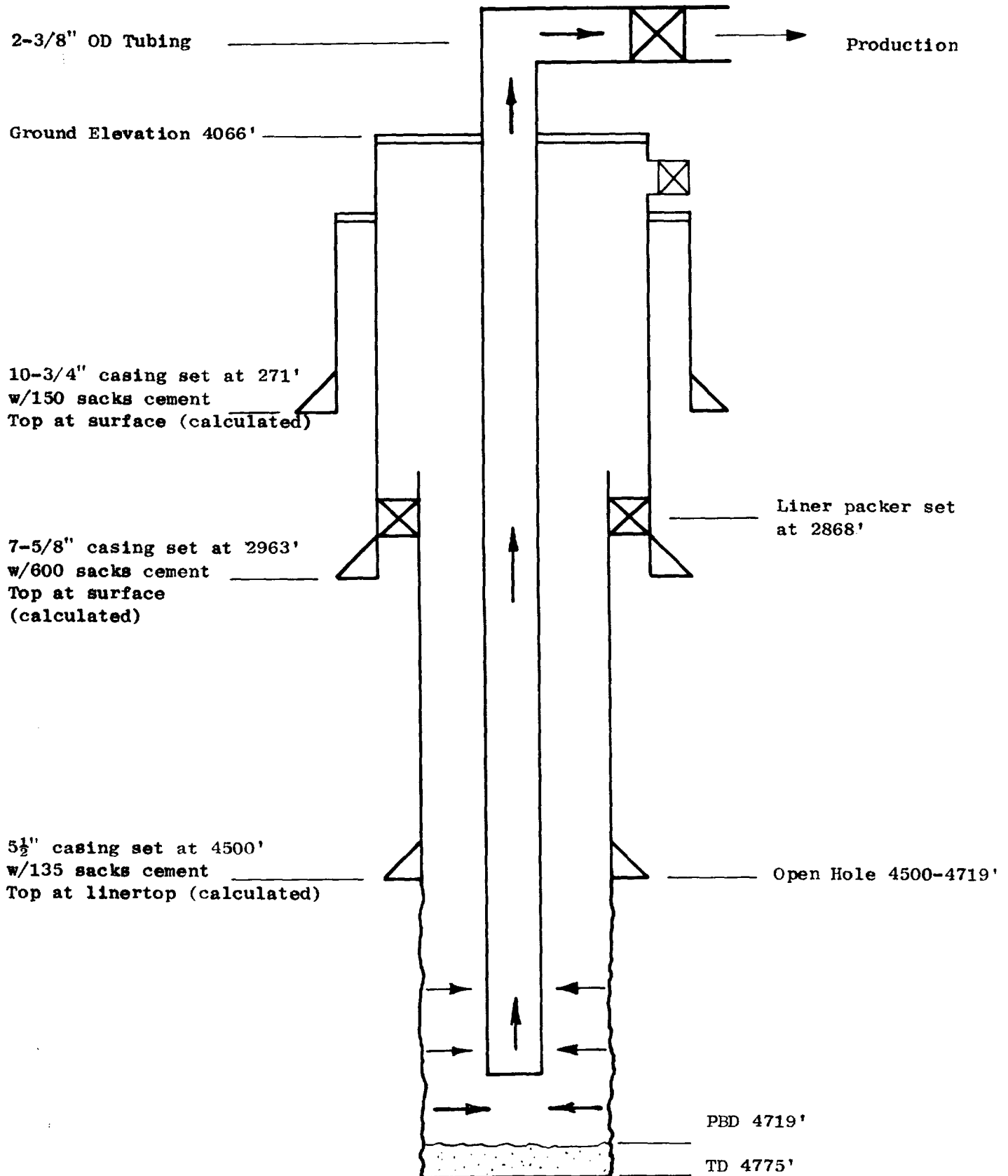
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Producing Well
 Unit Well No. 6 (Sohio Hale State No. 1)
 2310' FNL & 330' FEL Section 31, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 3' above GL



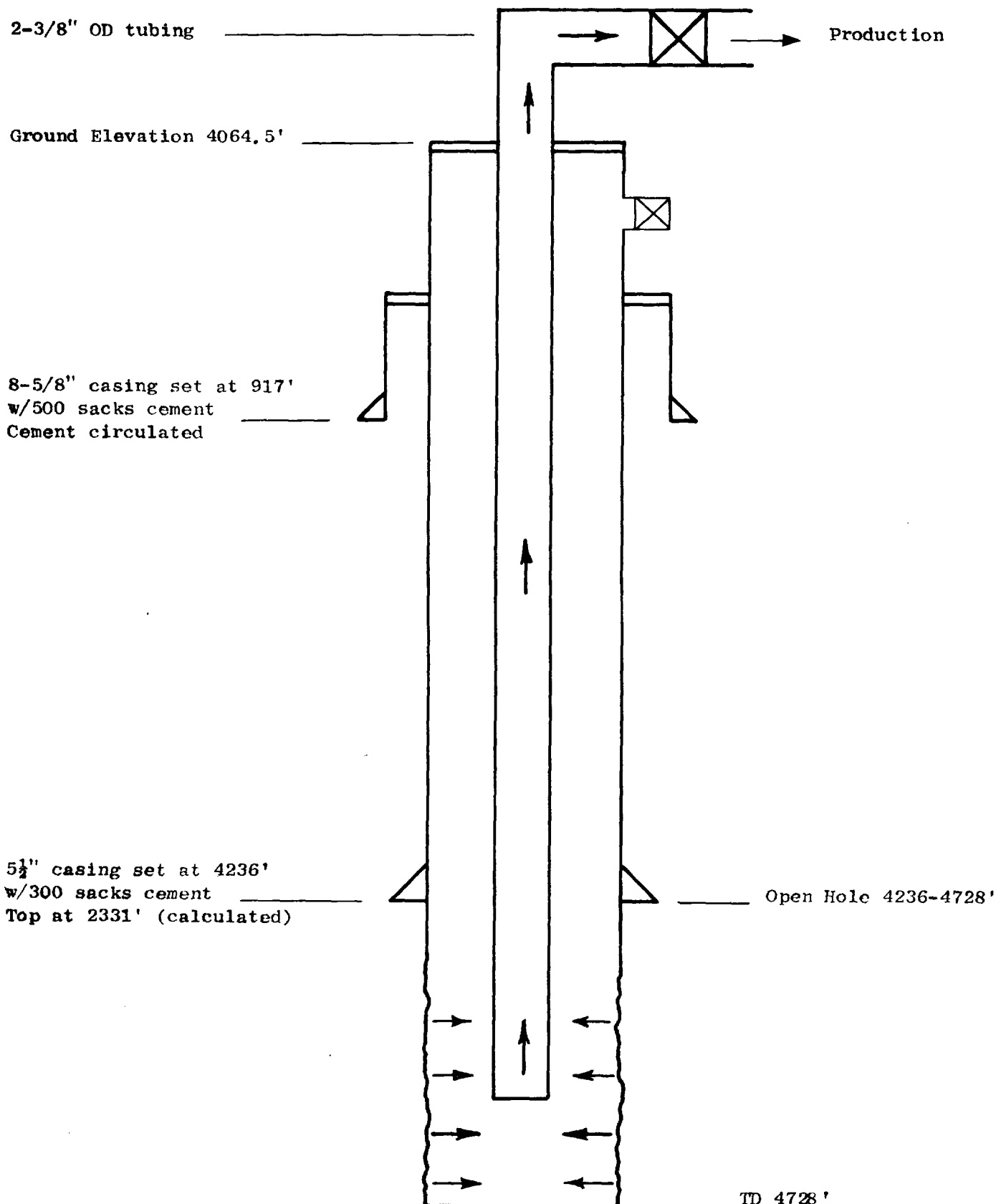
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Producing Well
 Unit Well No. 8 (A.R.Co. State "B" TG No. 2)
 1980' FNL & 1980' FWL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 10' above GL



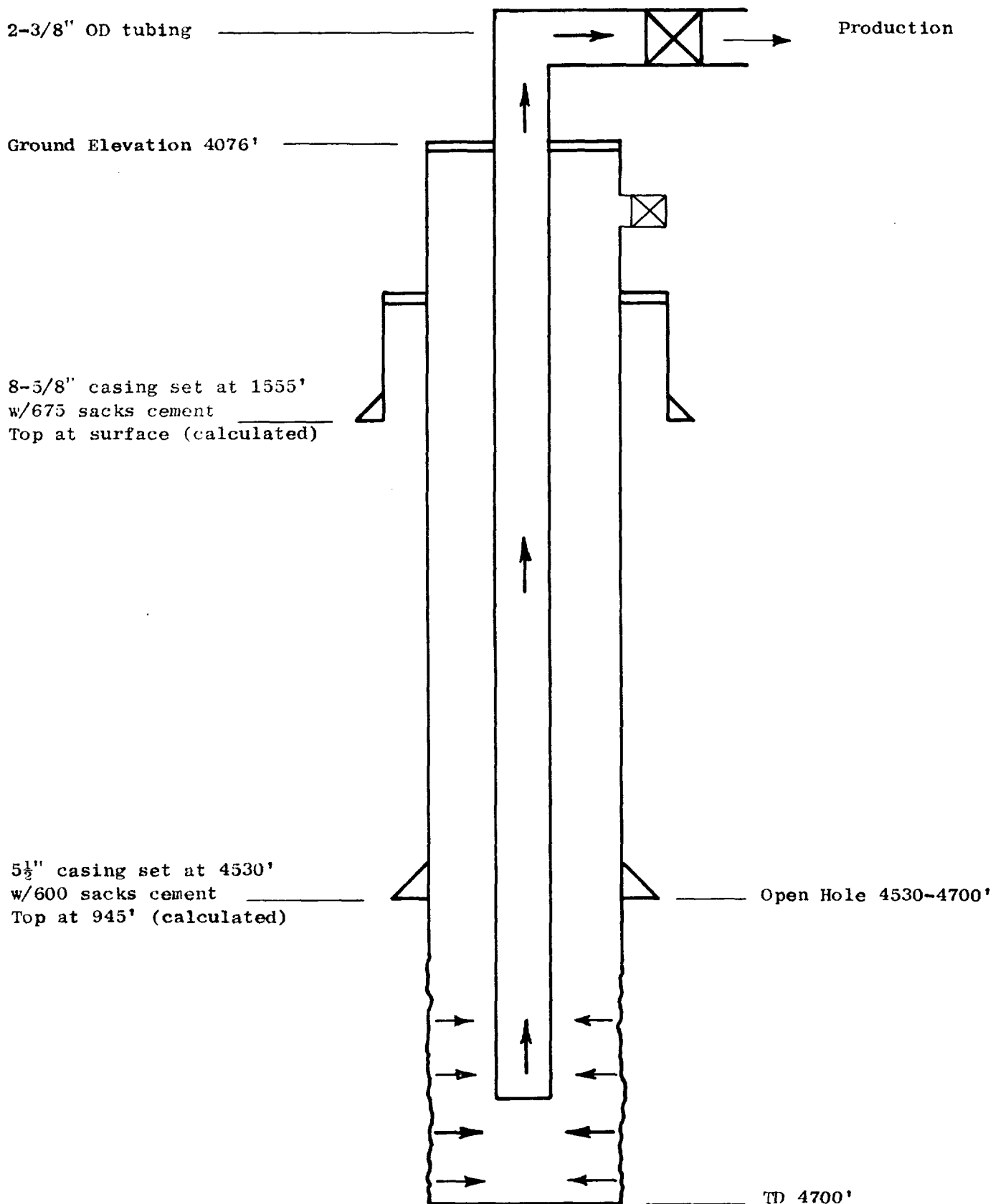
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Producing Well
 Unit Well No. 10 (Toxaco New Mexico "D" State NCT-2 No. 1)
 1980' FNL & 660' FEL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 11.5' above GL



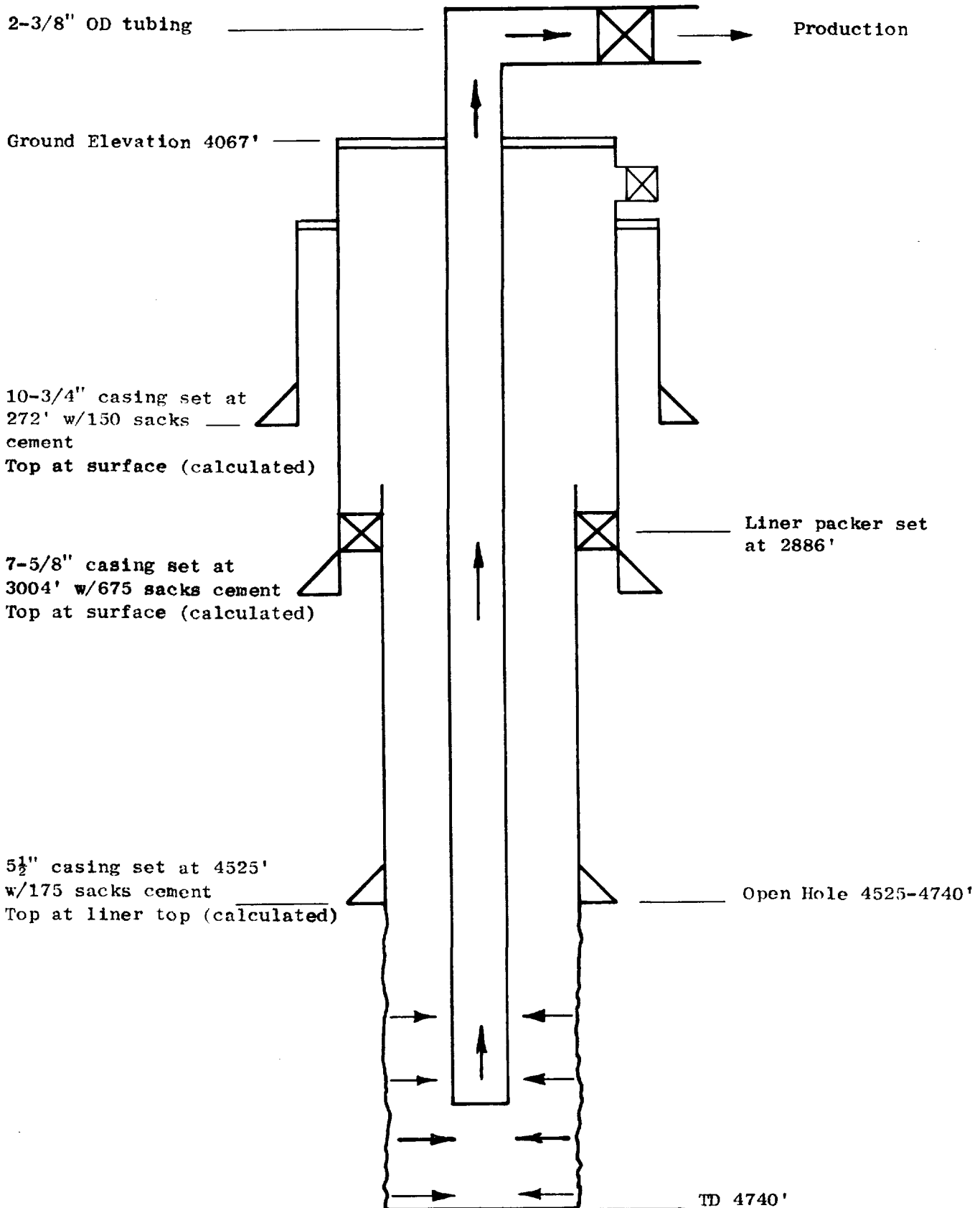
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Producing Well
 Unit Well No. 12 (A.R.Co. State "C" TG No. 6)
 990' FWL & 2310' FSL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 2' above GL



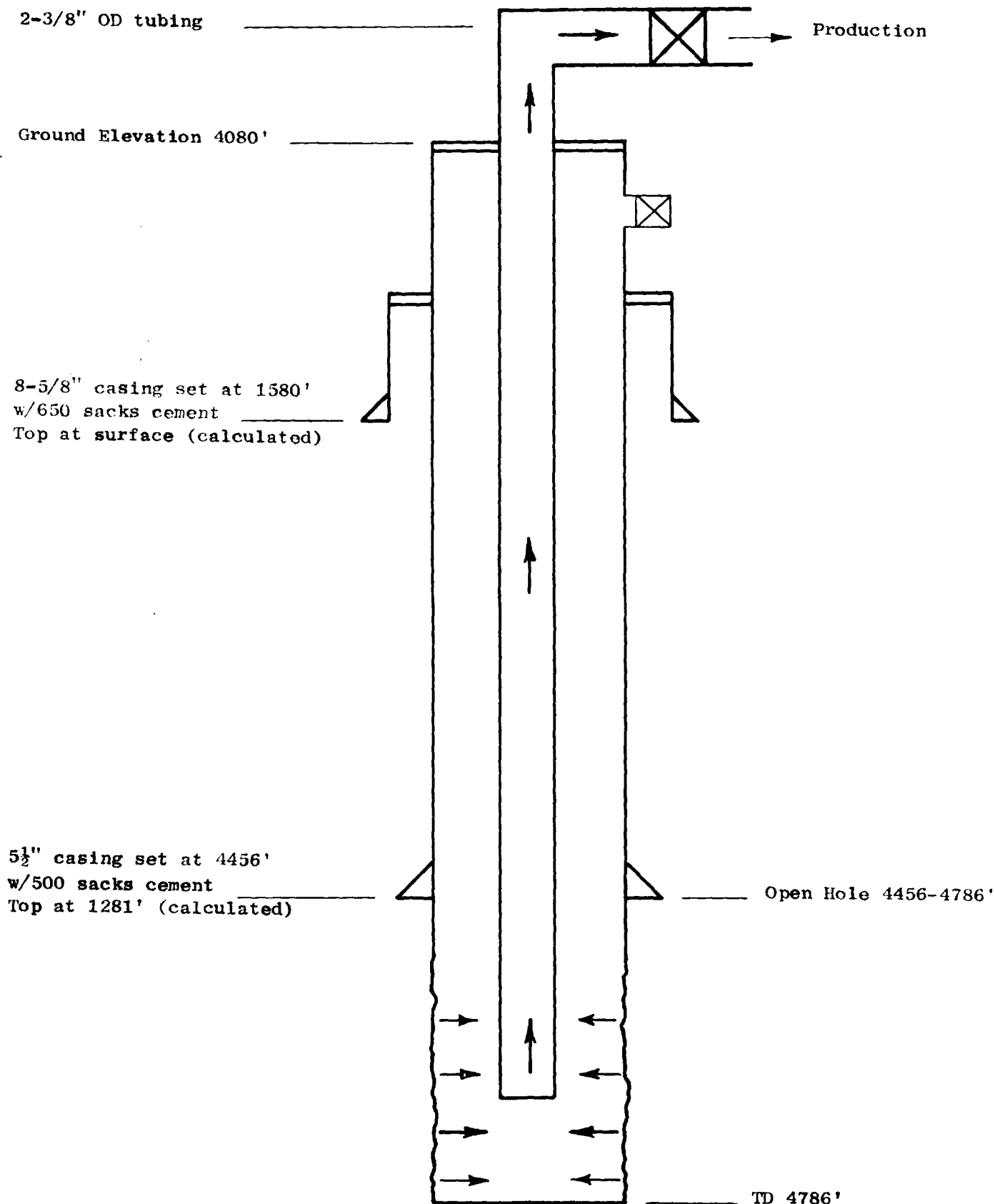
ATLANTIC RICHFIELD COMPANY
STATE VACUUM UNIT
Schematic Diagram of Producing Well
Unit Well No. 14 (A.R.Co. State "C" TG No. 2)
1980' FSL & 1980' FEL Section 32, T-17S, R-34E
Lea County, New Mexico

All measurements are from KB 10' above GL



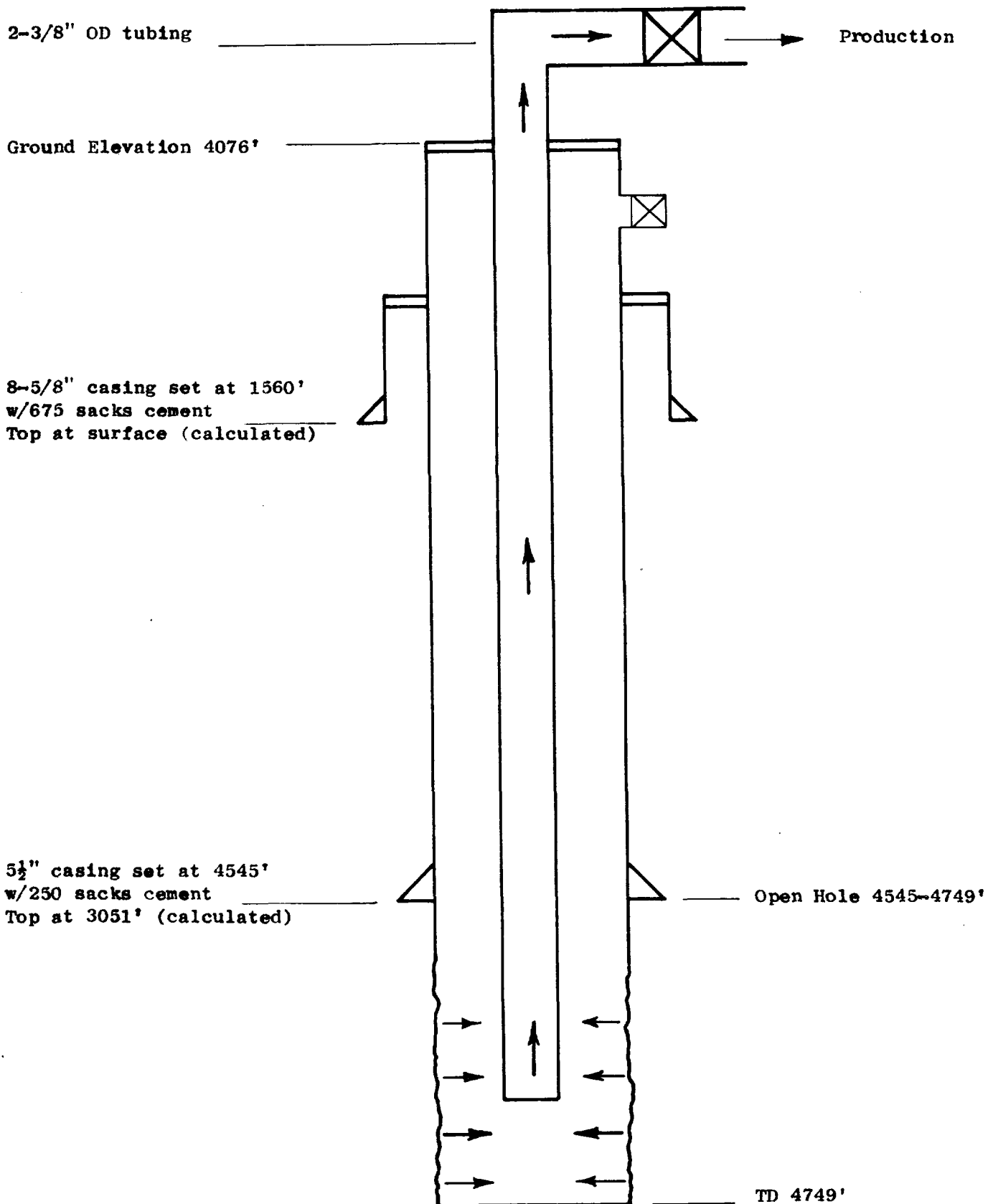
ATLANTIC RICHFIELD COMPANY
STATE VACUUM UNIT
Schematic Drawing of Producing Well
Unit Well No. 16 (Texaco New Mexico "AO" State No. 2)
990' FSL & 330' FEL Section 31, T-17S, R-34E
Lea County, New Mexico

All measurements are from KB 6' above GL



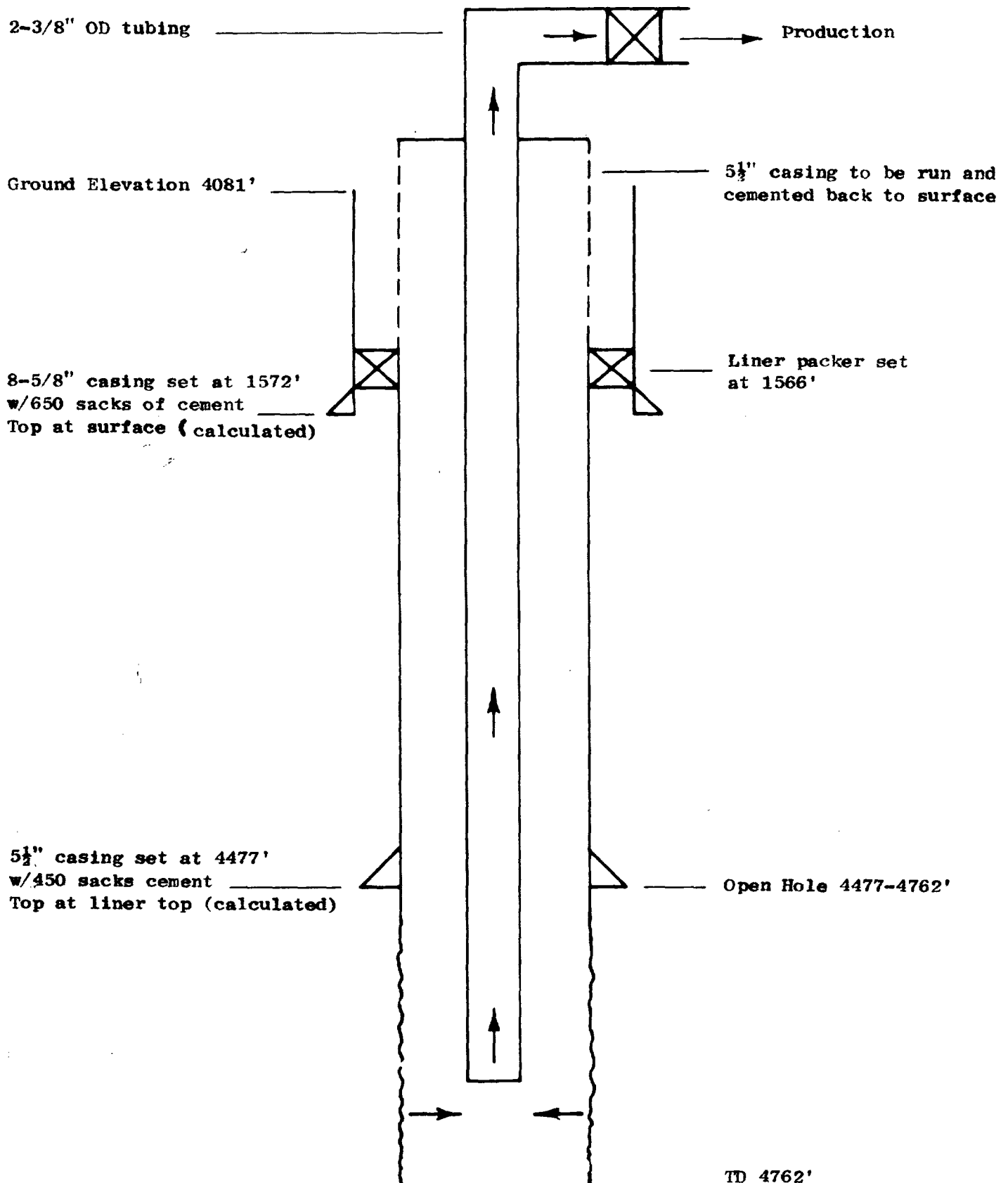
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Producing Well
 Unit Well No. 18 (A.R.Co. State "C" TG No. 7)
 990' FSL & 2310' FWL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 4' above GL



ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Producing Well
 Unit Well No. 20 (A.R.Co. State "C" TG No. 4)
 660' FSL & 660' FEL Section 32, T-17S, R-34E
 Lea County, New Mexico

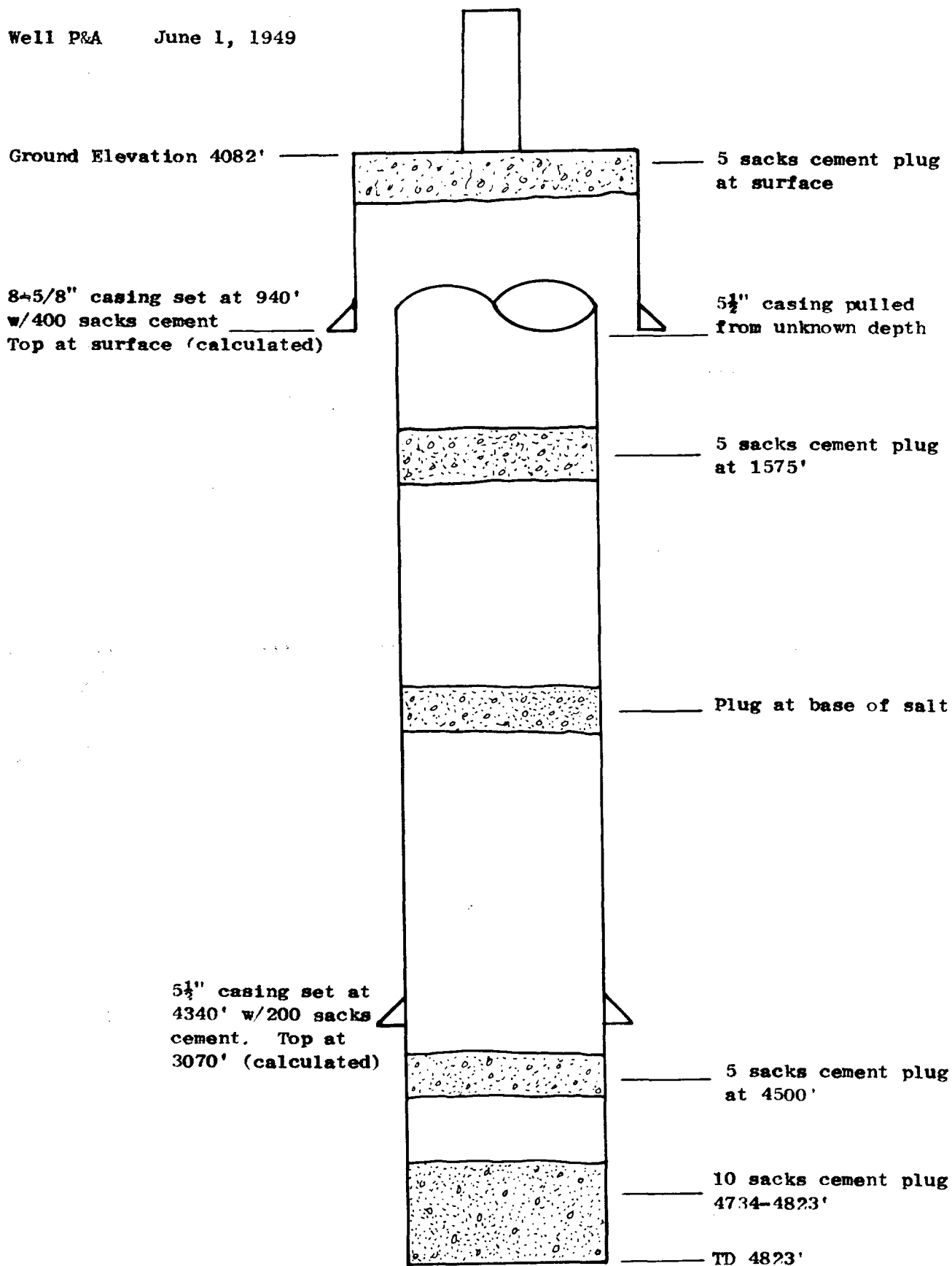
All measurements are from KB 10' above GL



COLE-DARDEN OIL COMPANY
 HALE STATE NO. 1
 Schematic Drawing of Plugged and Abandoned Well
 660' FNL & 660' FEL Section 31, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 8' above GL

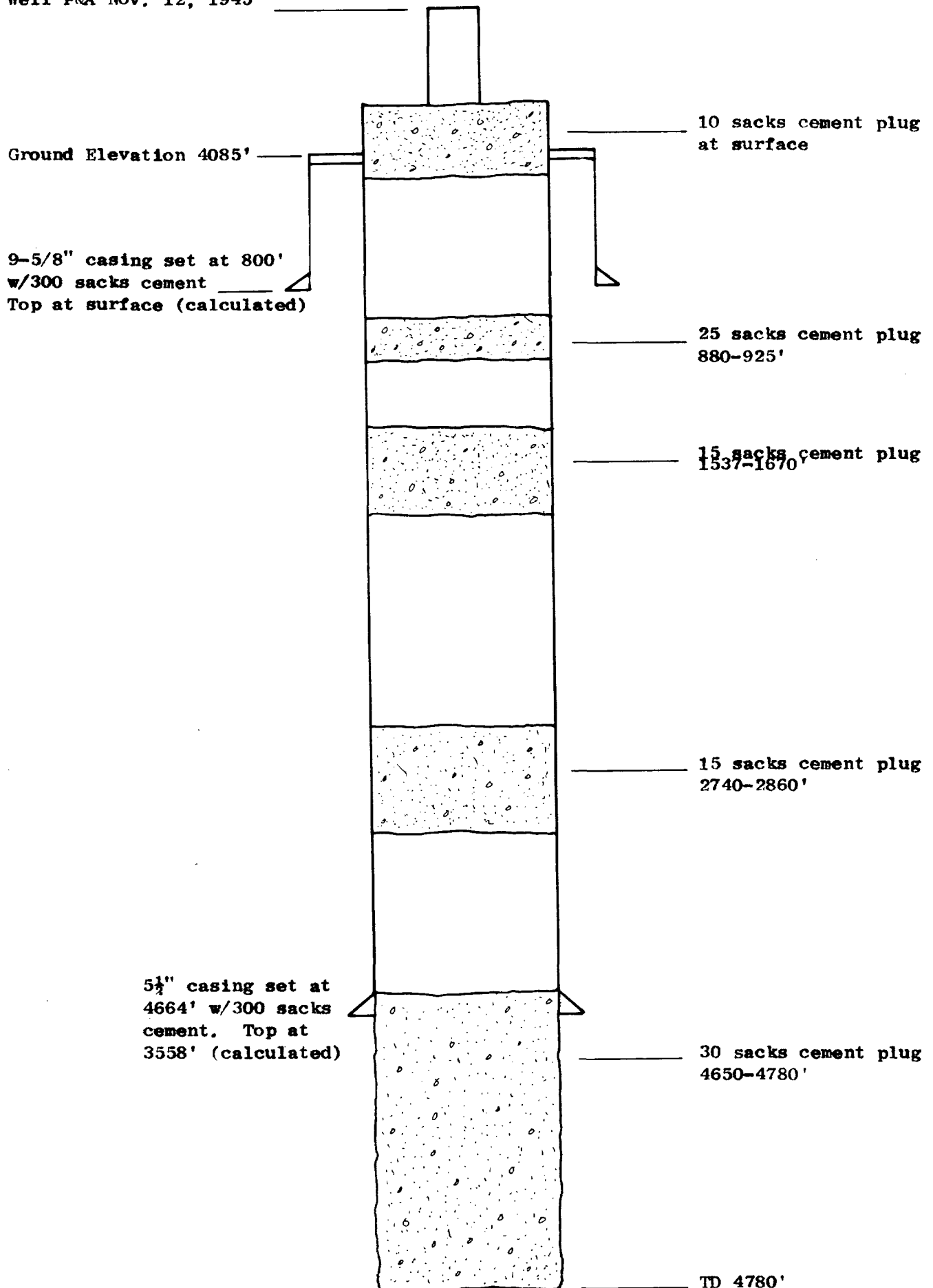
Well P&A June 1, 1949



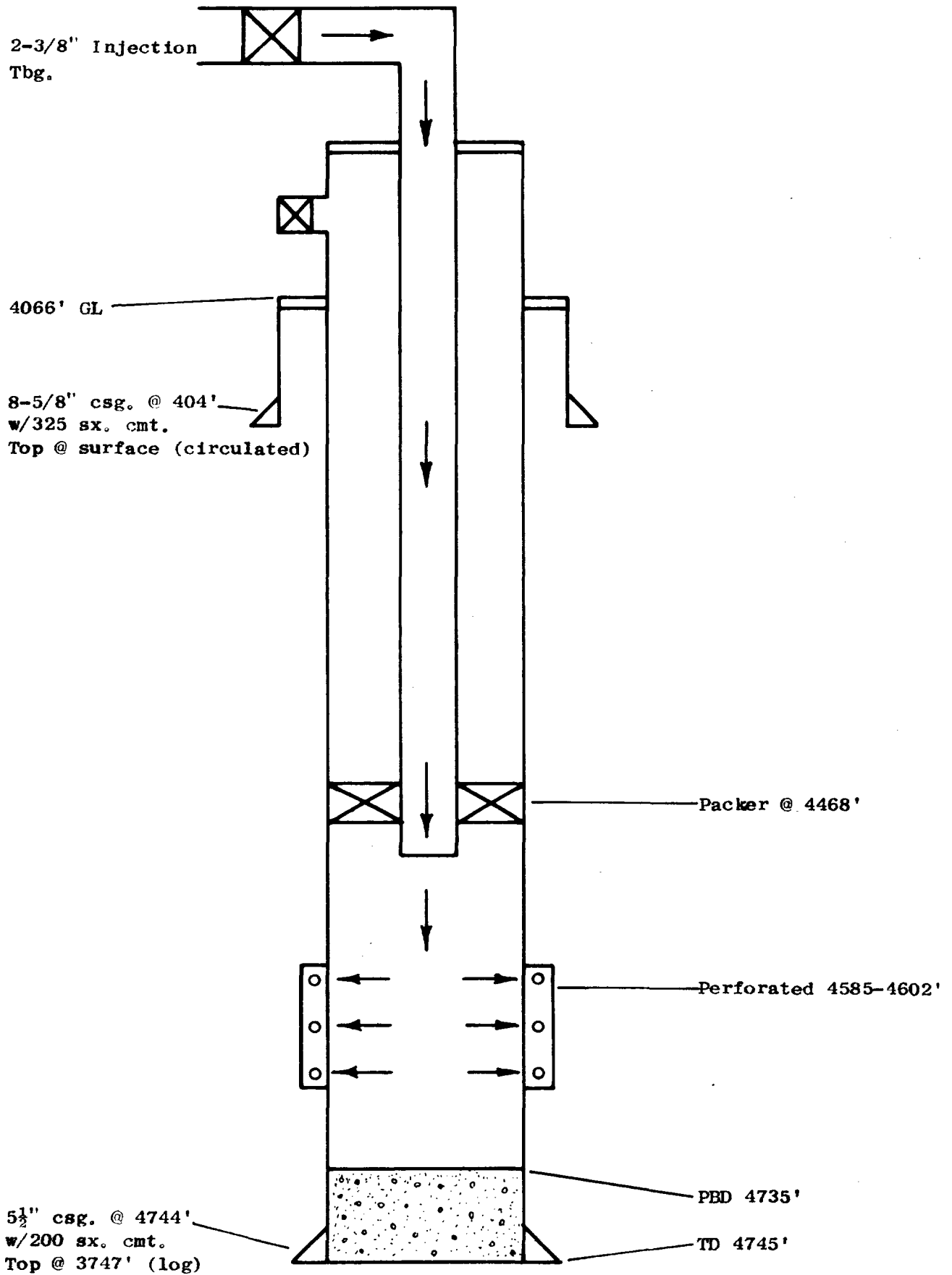
DEVONIAN OIL COMPANY
 STATE NO. 1
 Schematic Drawing of Plugged and Abandoned Well
 660' FSL & 1980' FWL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 8' (est) above GL

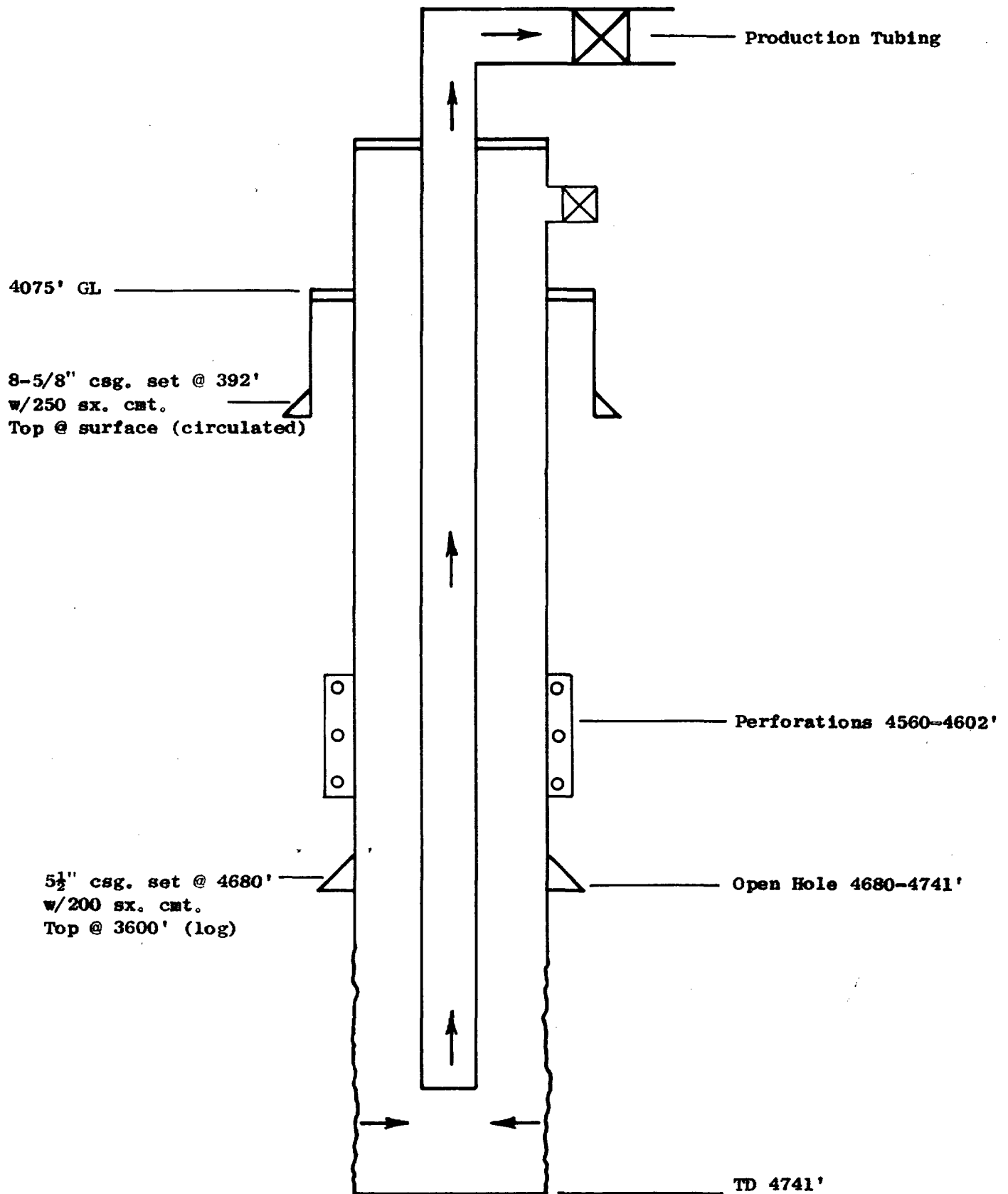
Well P&A Nov. 12, 1945



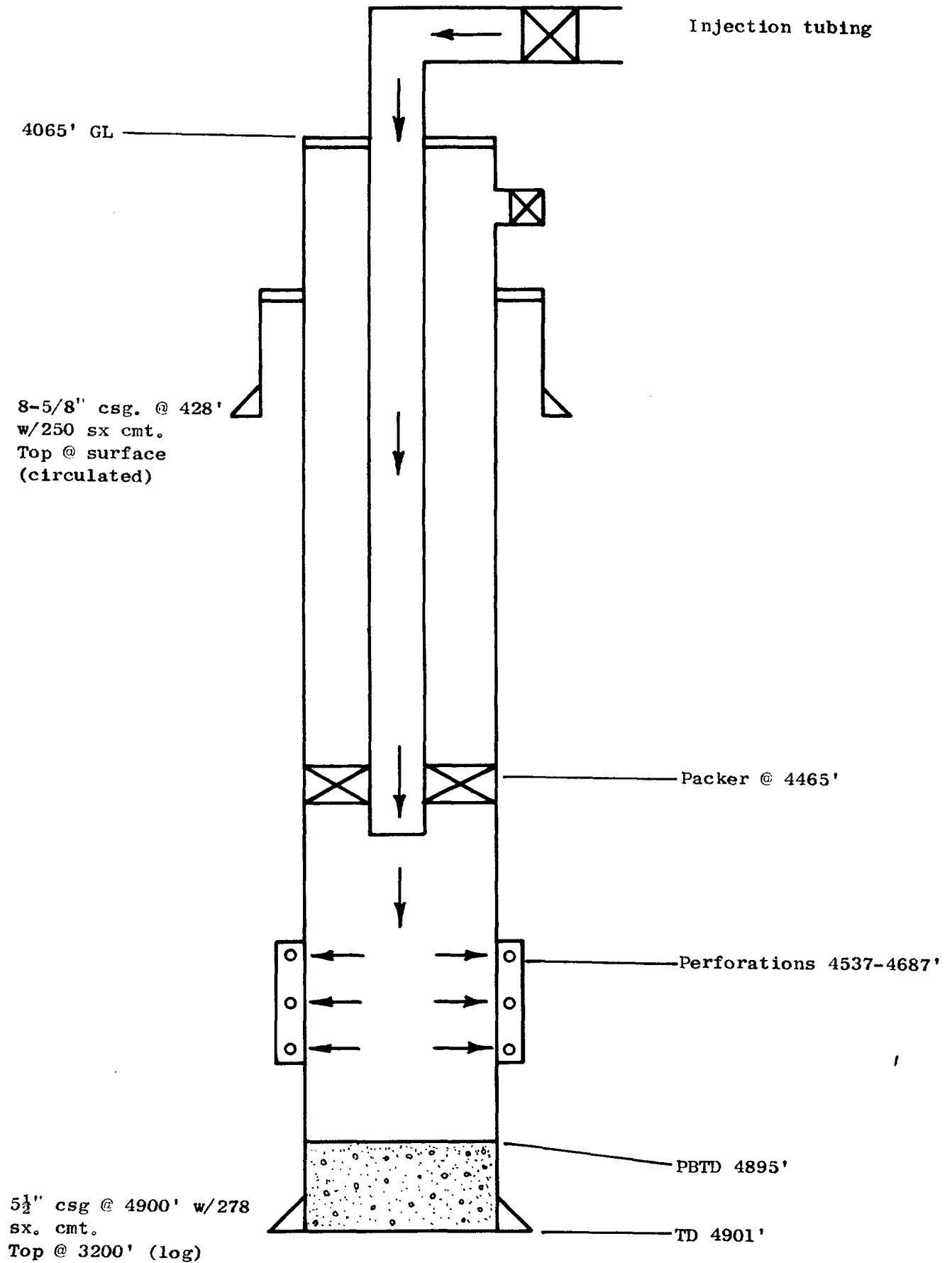
TEXACO - WEST VACUUM UNIT NO. 4
 (BTA - Am. State #3)
 Unit K 1980' FS & WL
 Section 28, T-17S, R-34E
 Lea County, New Mexico



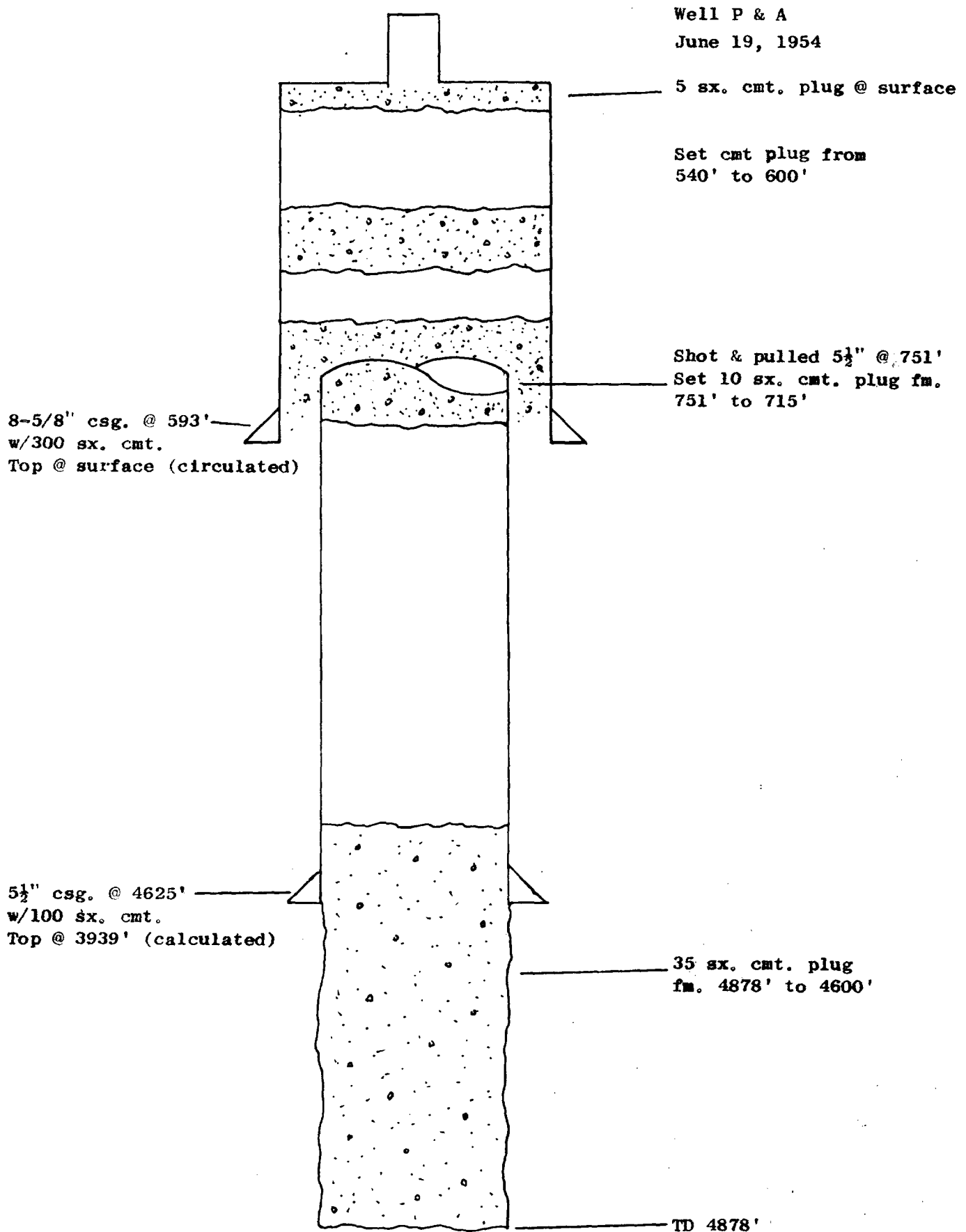
TEXACO - WEST VACUUM UNIT NO. 3
 (BTA Oil Producers - Amstate No. 2)
 Unit L 1980' FSL & 660' FWL
 Section 28, T-17S, R-34E
 Lea County, New Mexico



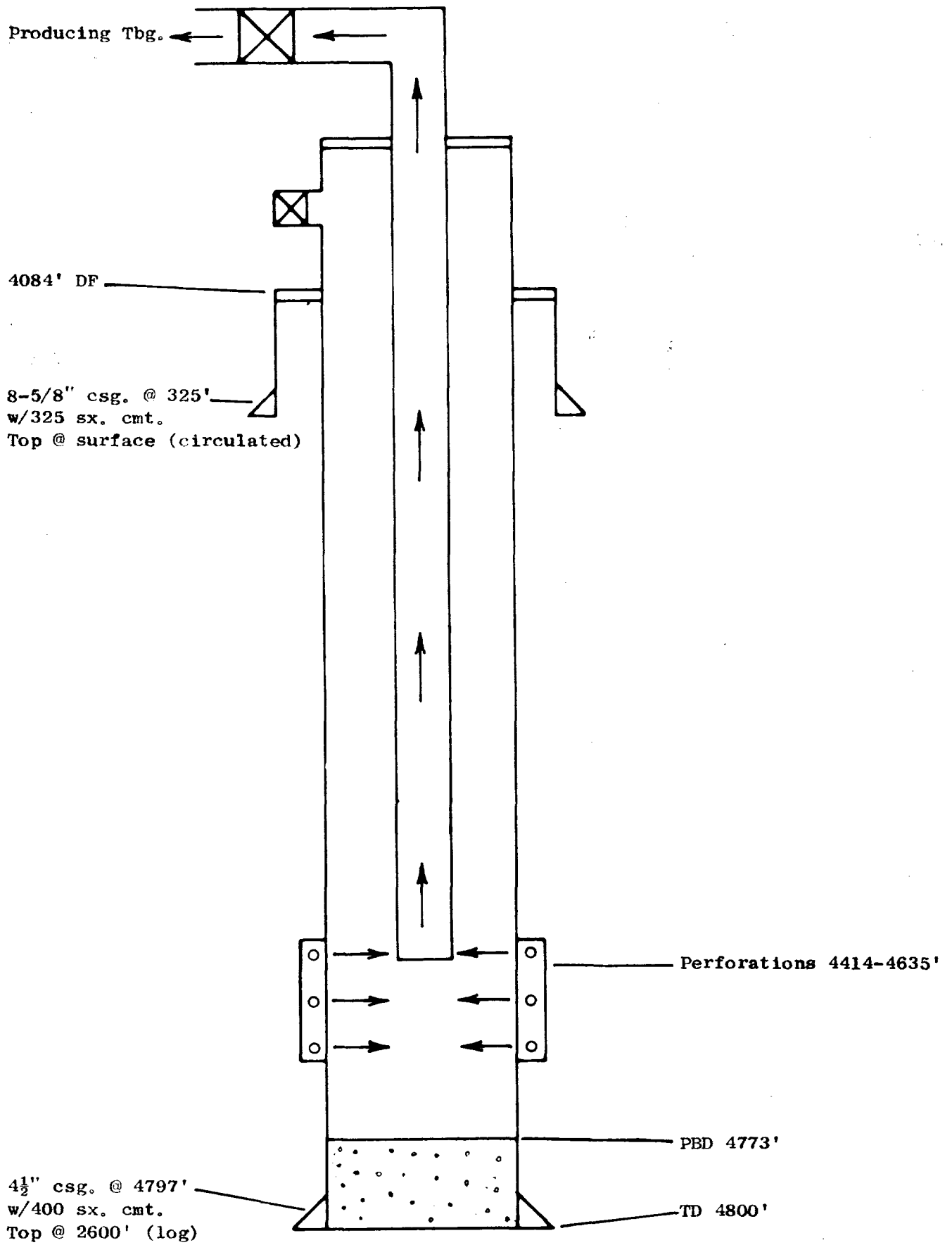
TEXACO - WEST VACUUM UNIT NO. 5
 WIW
 (BTA Oil Producers - Amstate #1)
 Unit M 660' FS & WL
 Section 28, T-17S, R-34E
 Lea County, New Mexico



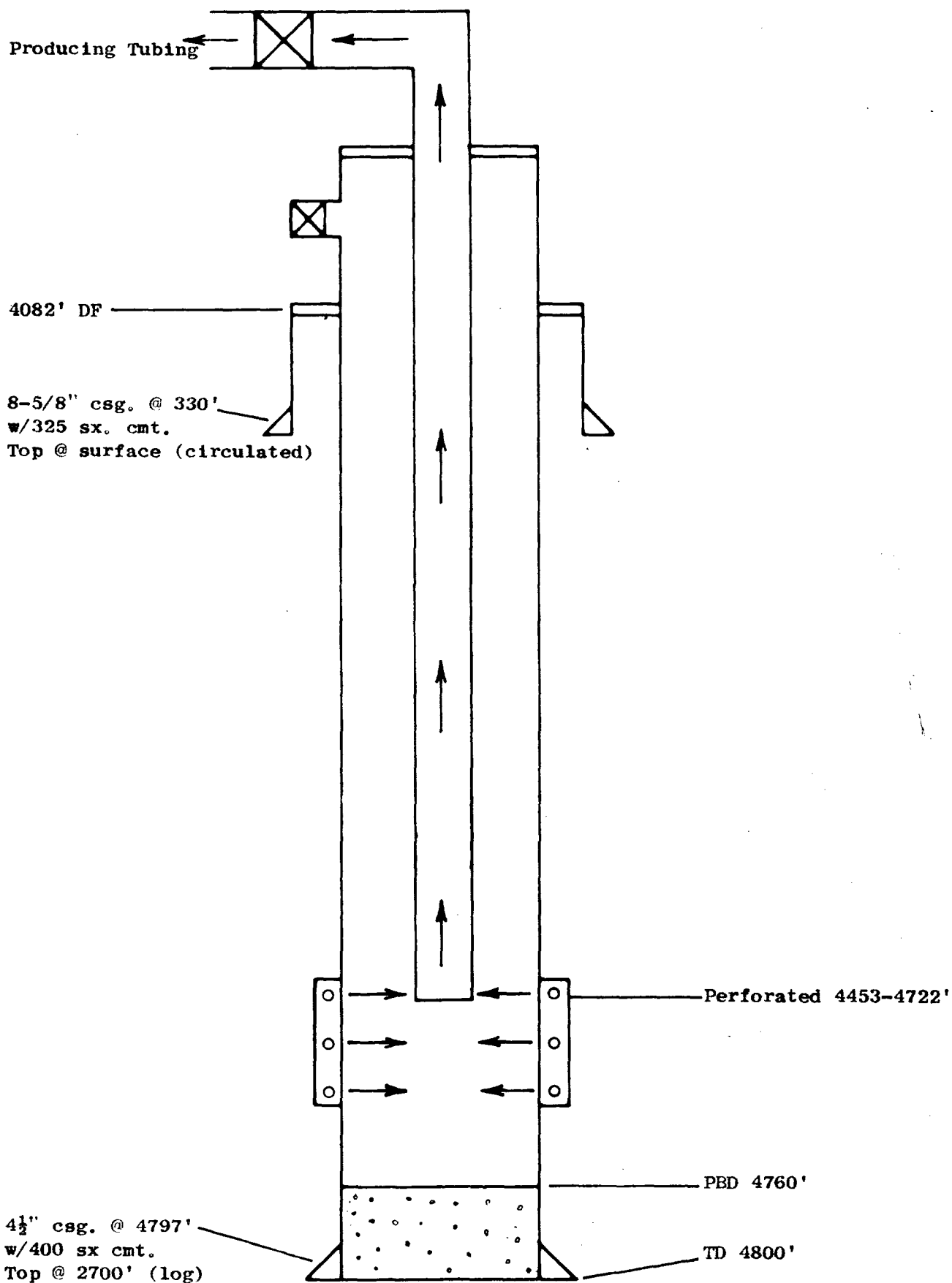
L. F. OIL COMPANY - AMERADA-STATE #1
 Unit N 330' FSL & 2308' FWL
 Section 28, T-17S, R-34E
 Lea County, New Mexico



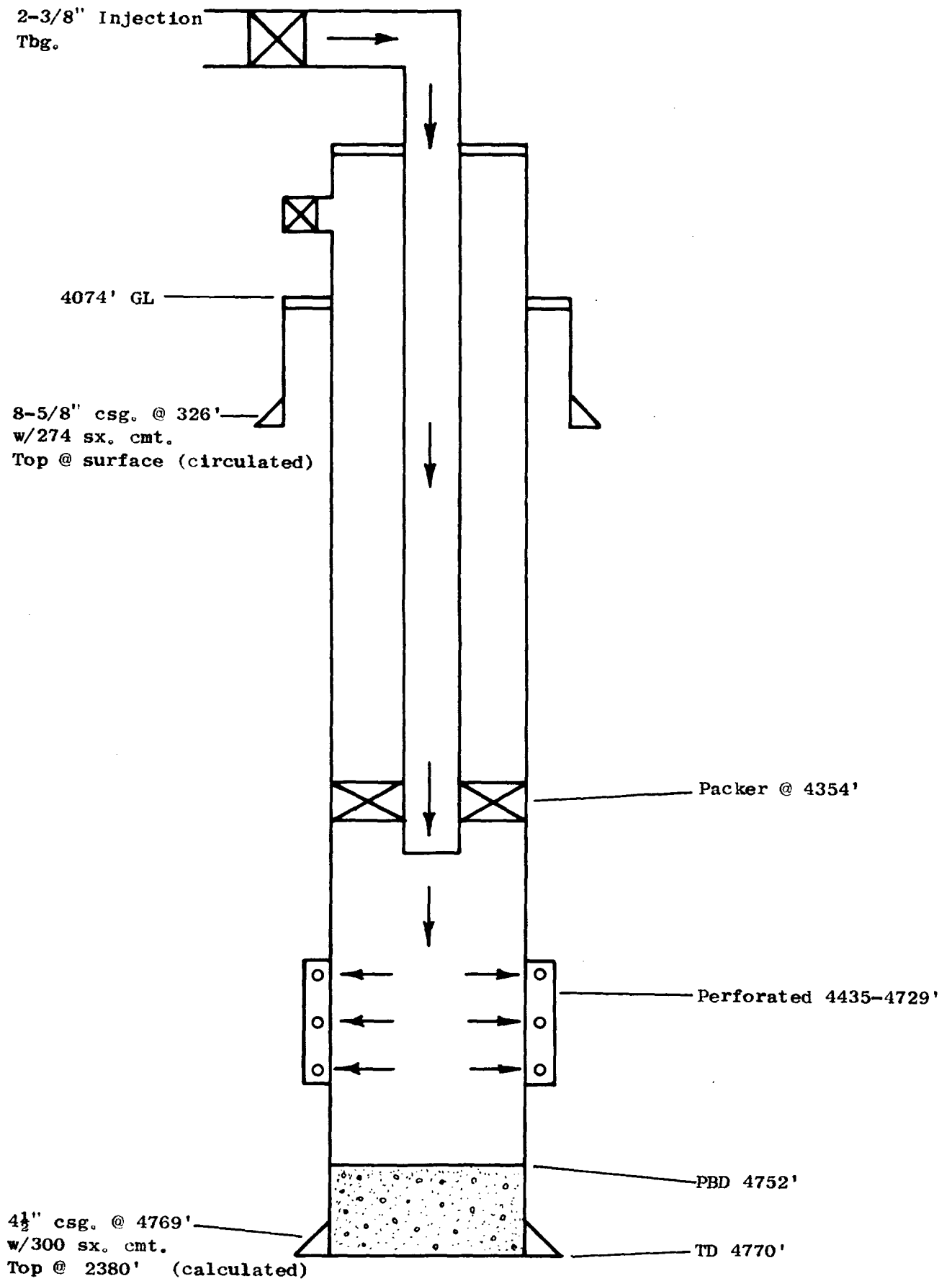
PHILLIPS - LEA NO. 14
 Unit F 1980' FWL & 1880' FNL
 Section 29, T-17S, R-34E
 Lea County, New Mexico



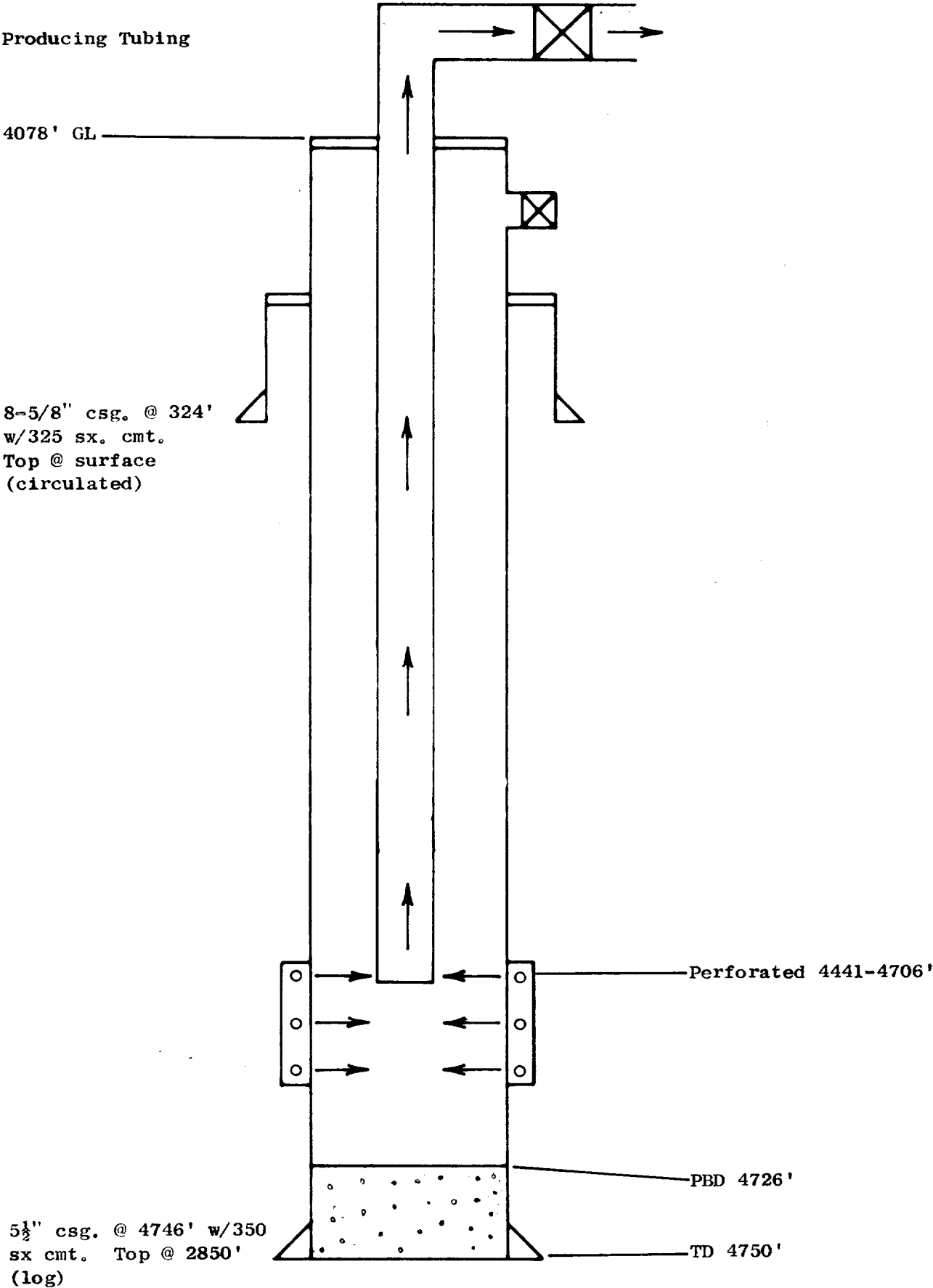
PHILLIPS - LEA NO. 13
 Unit G 1980' FNL & 1650' FEL
 Section 29, T-17S, R-34E
 Lea County, New Mexico



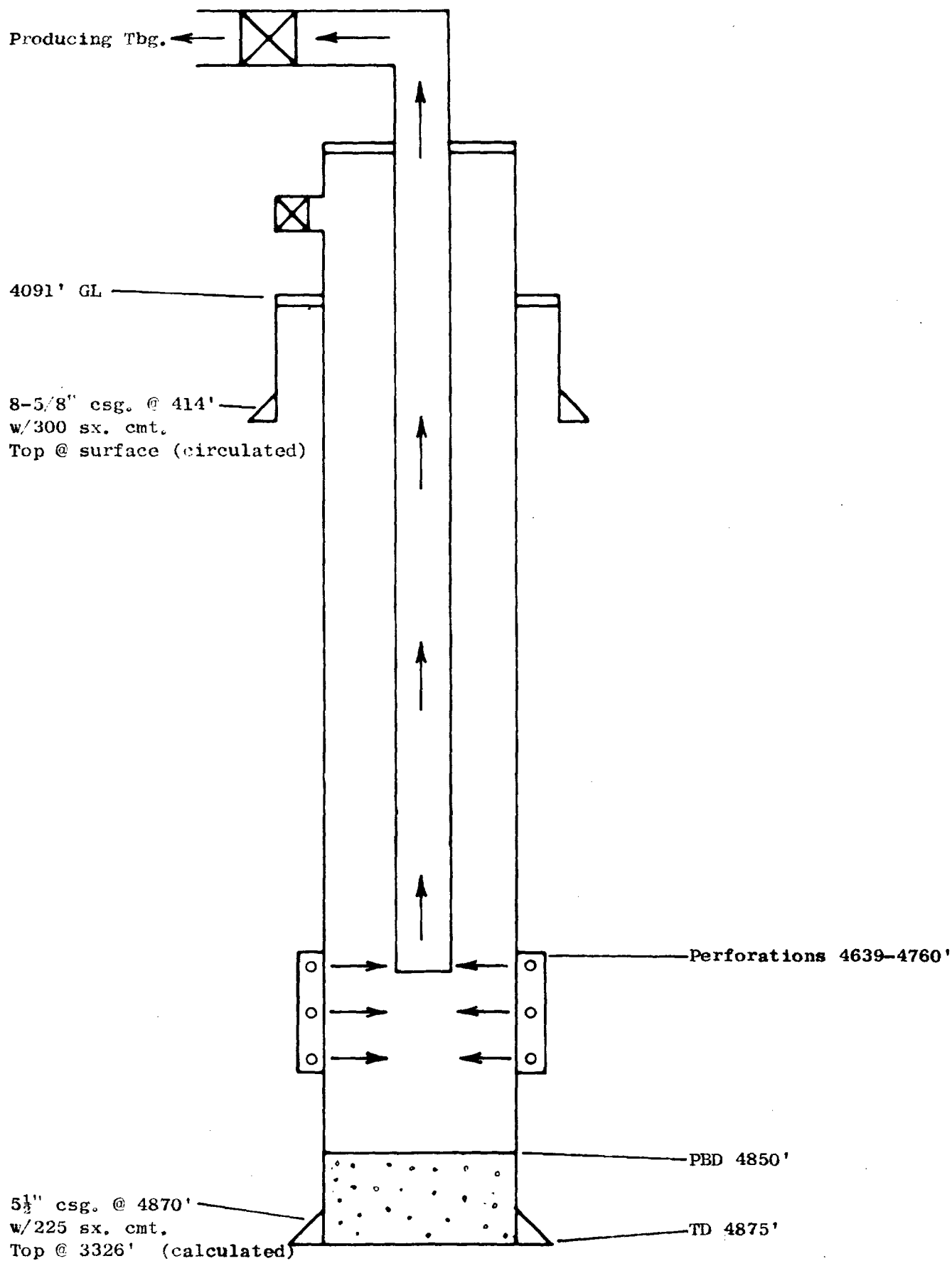
PHILLIPS - LEA NO. 4
 Unit I 660' FEL & 1980' FSL
 Section 29, T-17S, R-34E
 Lea County, New Mexico



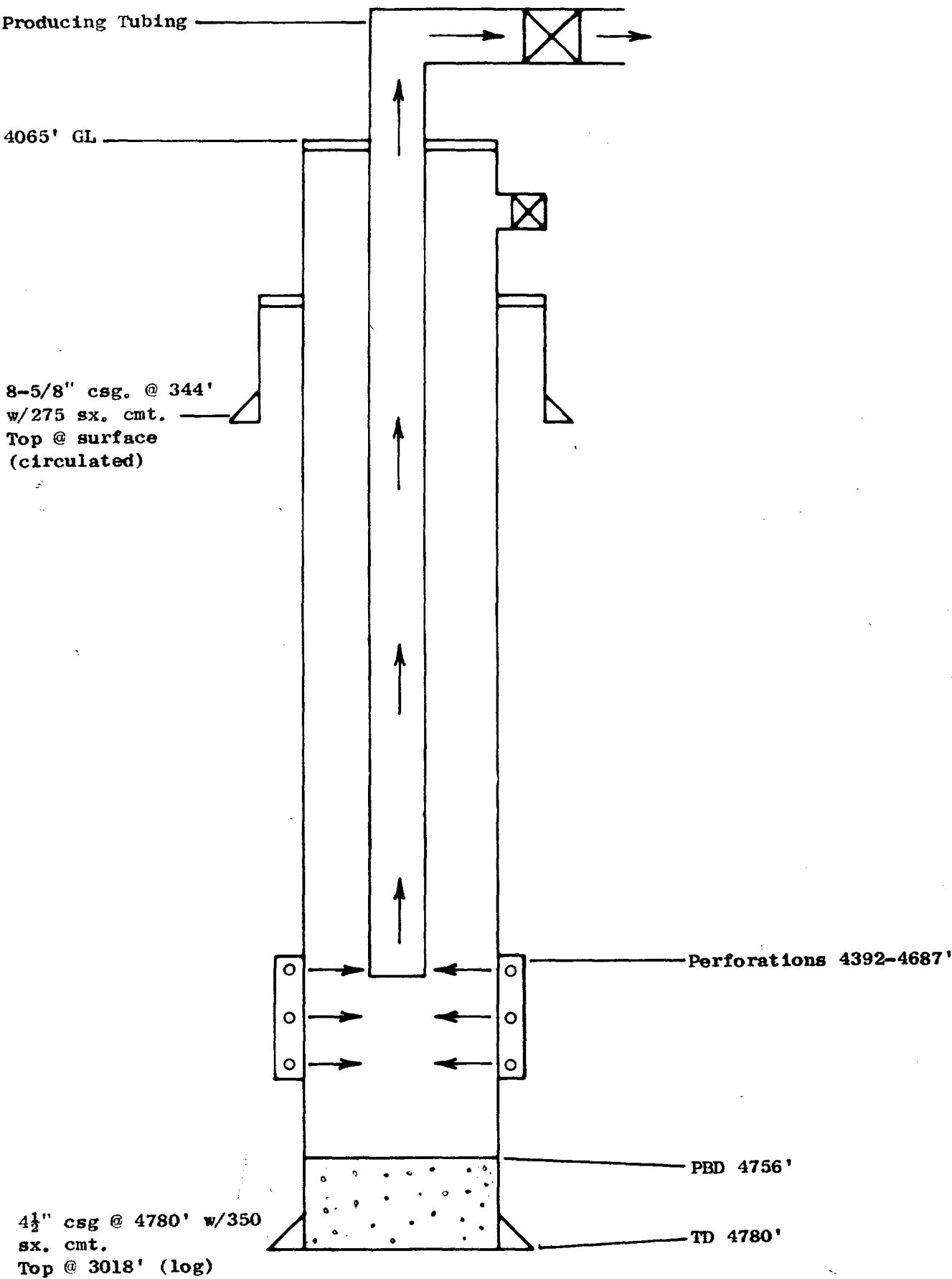
PHILLIPS PETROLEUM CO. - LEA NO. 11
Unit K 1980' FS & WL
Section 29, T-17S, R-34E
Lea County, New Mexico



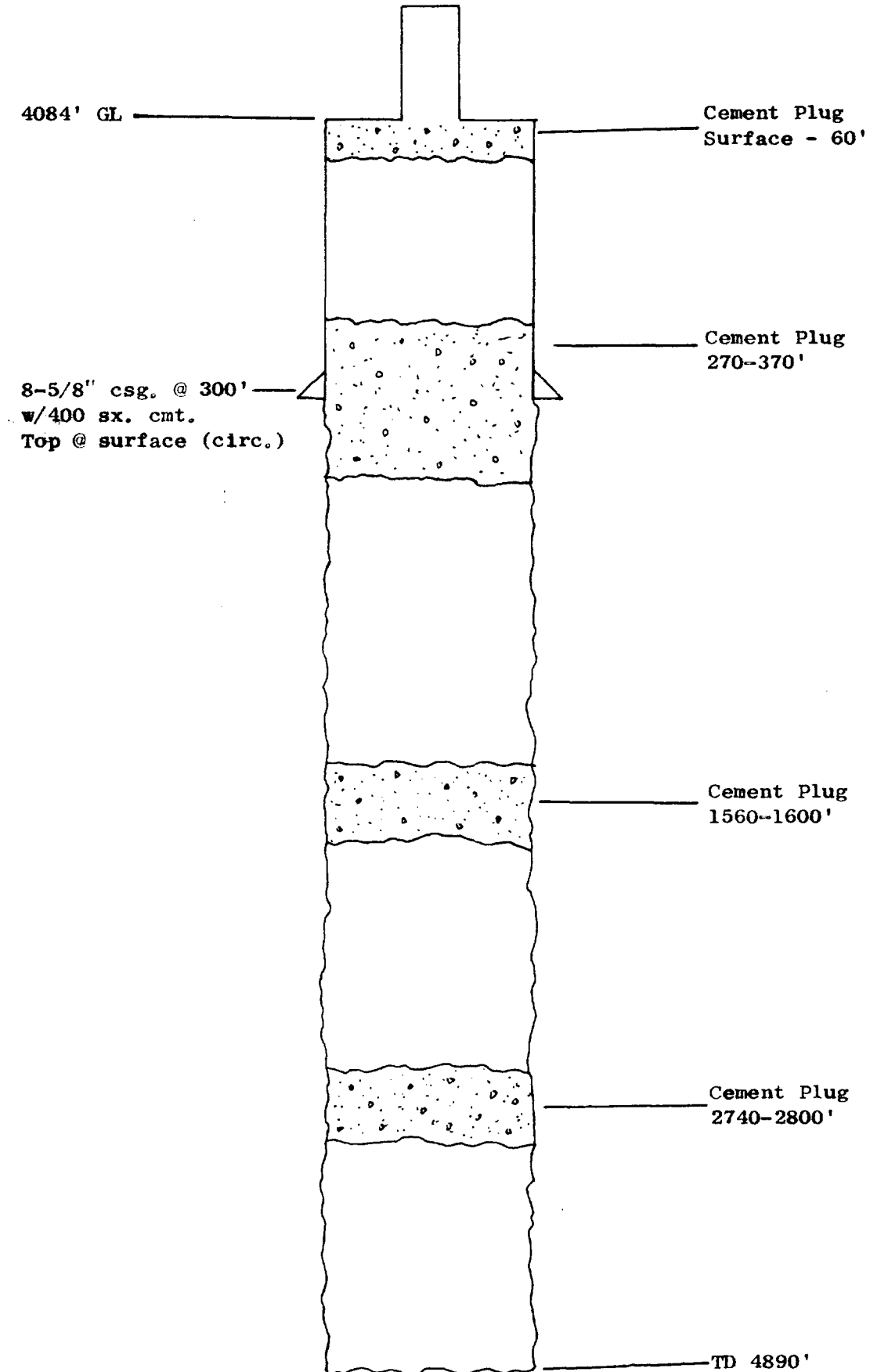
SOHIO - PHILLIPS LEA NO. 6
 Unit K 2310' FS & WL
 Section 31, T-17S, R-34E
 Lea County, New Mexico



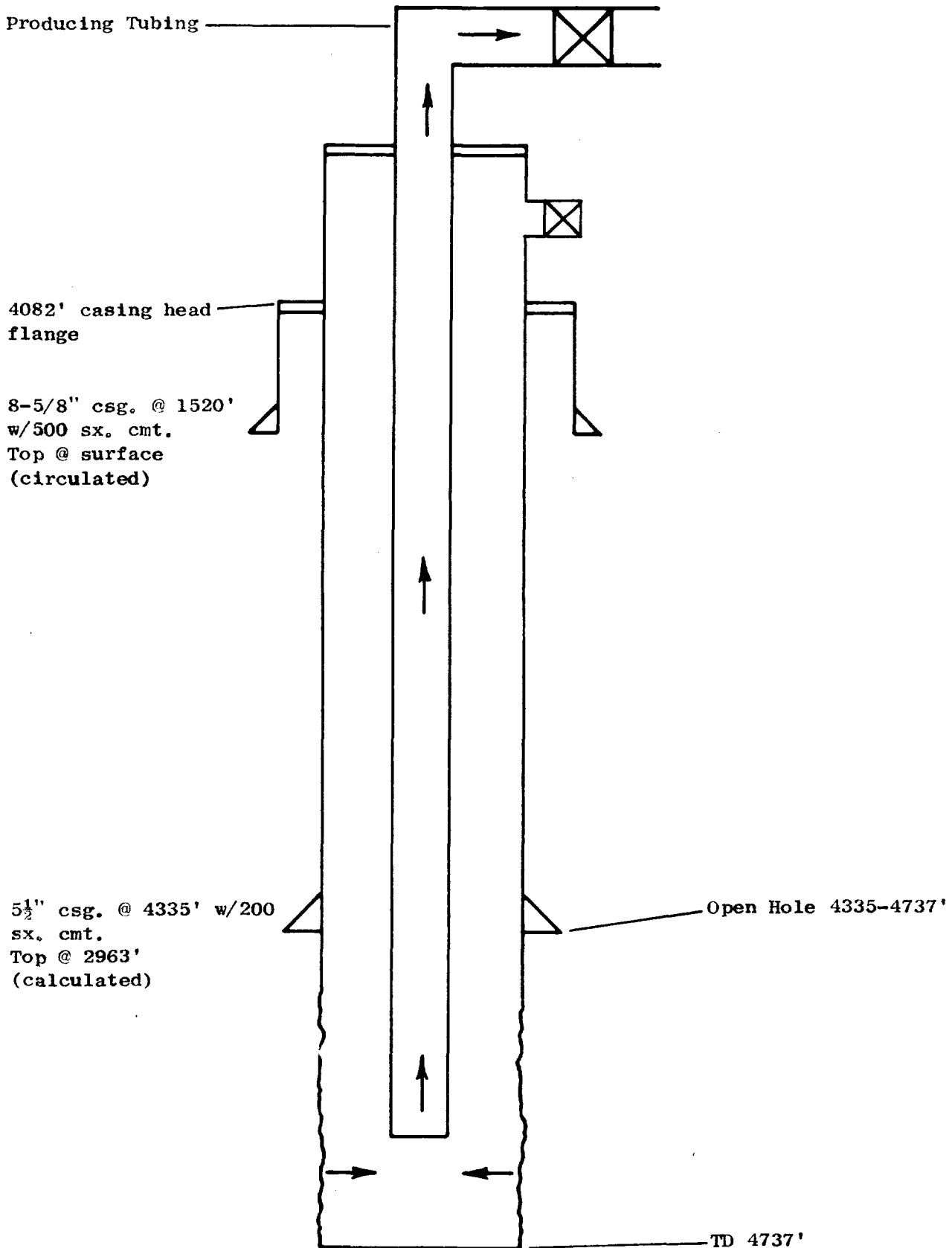
PHILLIPS PETROLEUM CO. - LEA NO. 5
Unit P 660' FS & EL
Section 29, T-17S, R-34E
Lea County, New Mexico



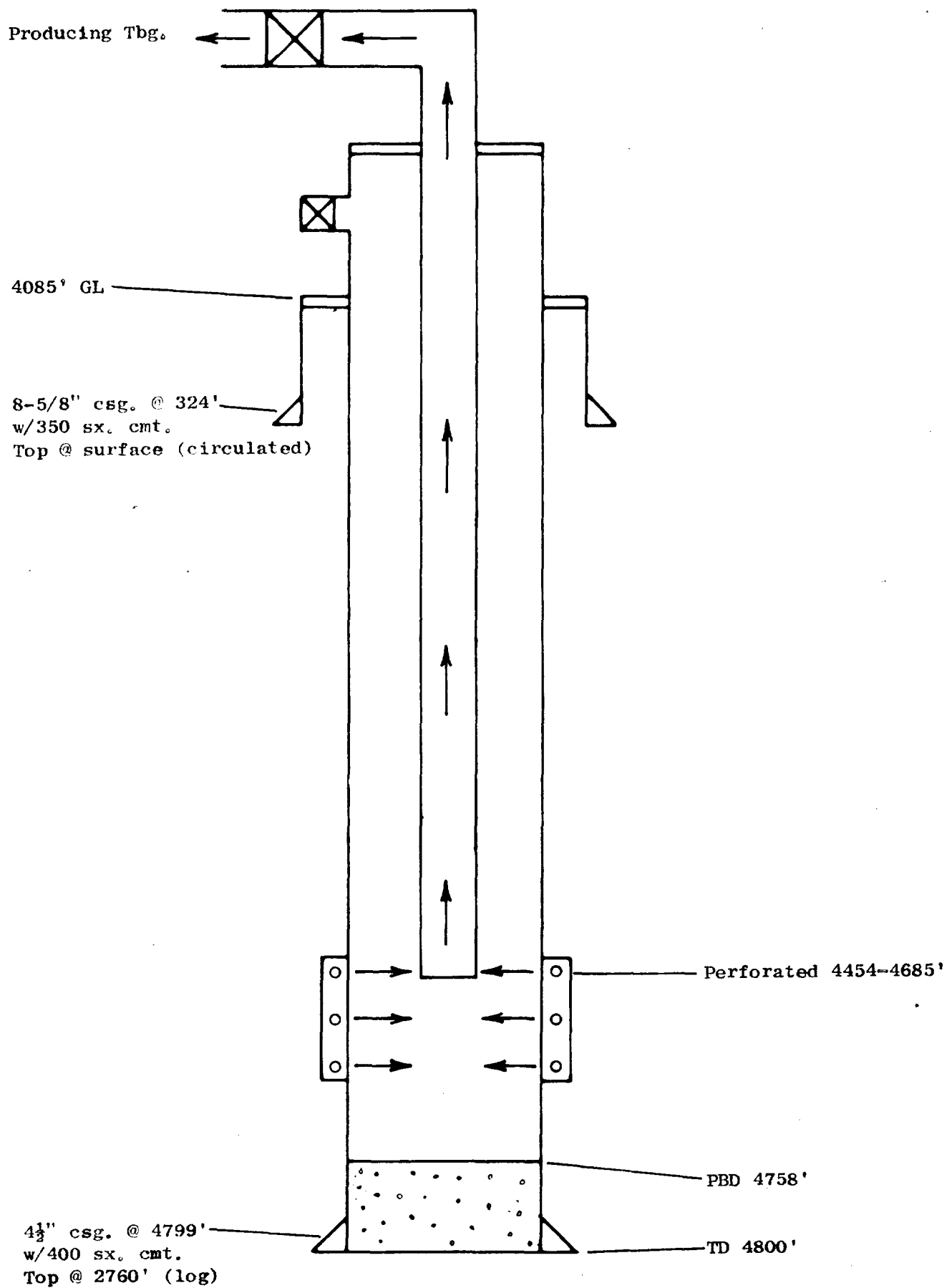
COLE-DARDEN OIL COMPANY - PHILLIPS STATE A NO. 5
Unit H 1980' FNL & 660' FEL
Section 30, T-17S, R-34E
Lea County, New Mexico



PHILLIPS PETROLEUM COMPANY - LEA NO. 19
 (Cole - Darden Phillips State #2)
 Unit I 660' FEL & 1980' FSL
 Section 30, T-17S, R-34E
 Lea County, New Mexico



PHILLIPS - LEA NO. 12
 Unit J 1980' FS & EL
 Section 29, T-17S, R-34E
 Lea County, New Mexico



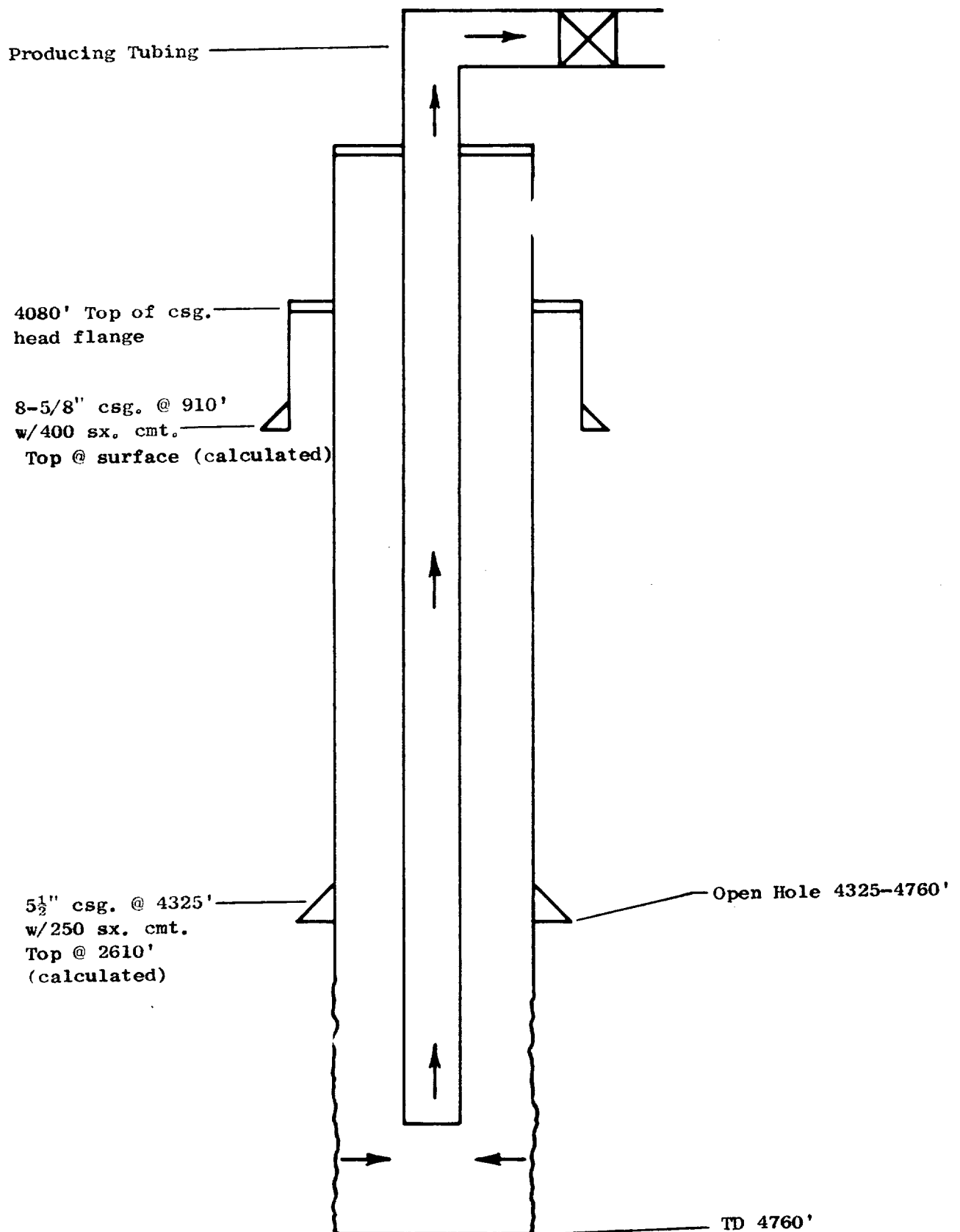
PHILLIPS PETROLEUM COMPANY - LEA NO. 18

(Cole - Darden Phillips State #1)

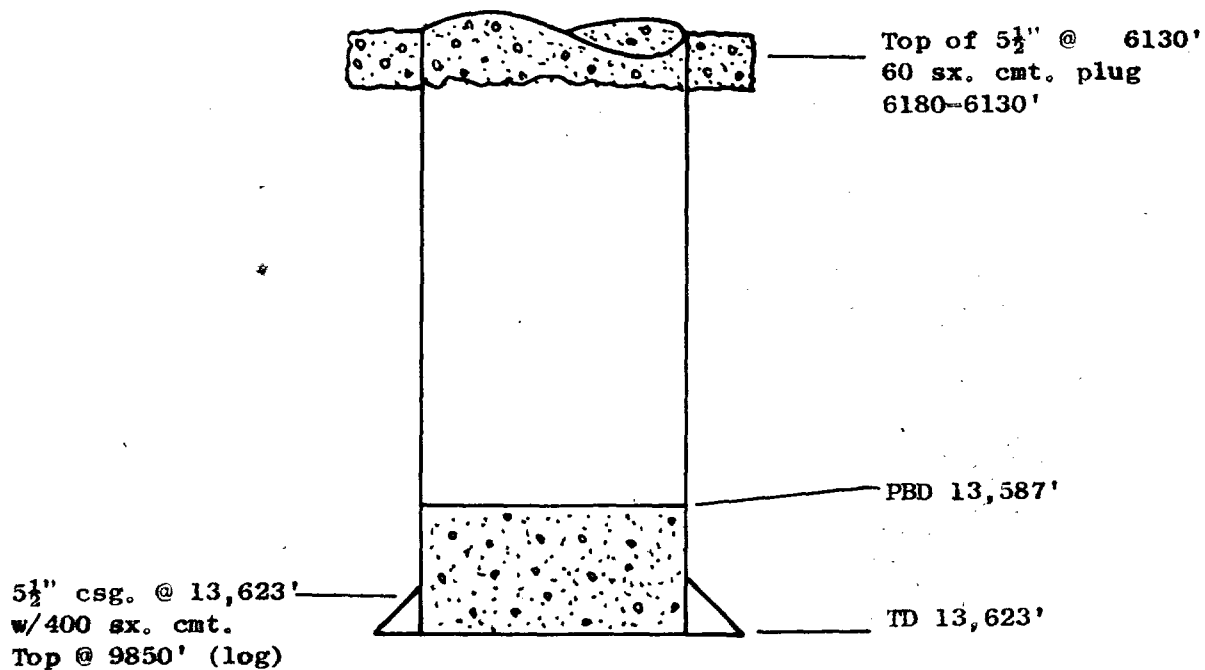
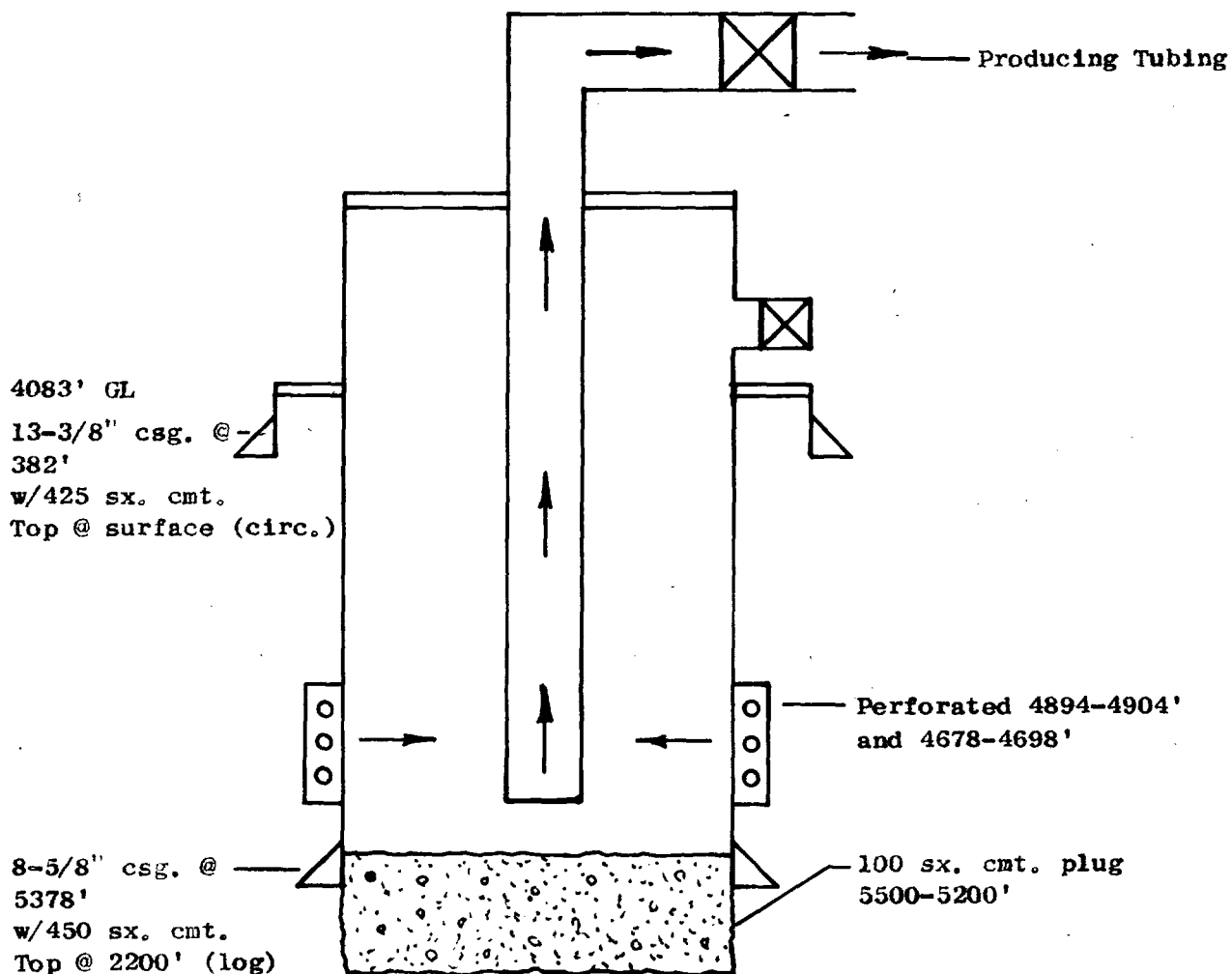
Unit P 660' FS & EL

Section 30, T-17S, R-34E

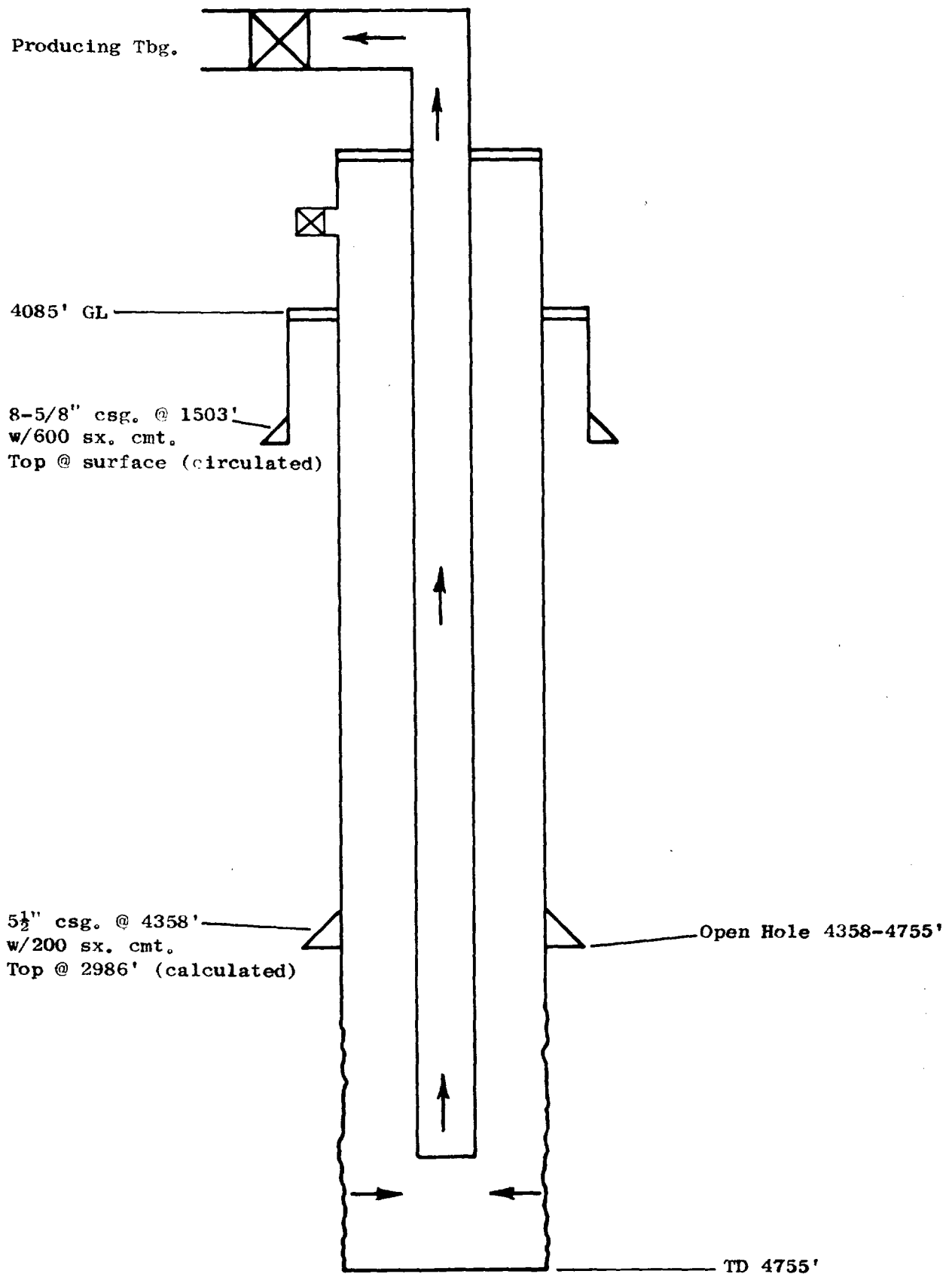
Lea County, New Mexico



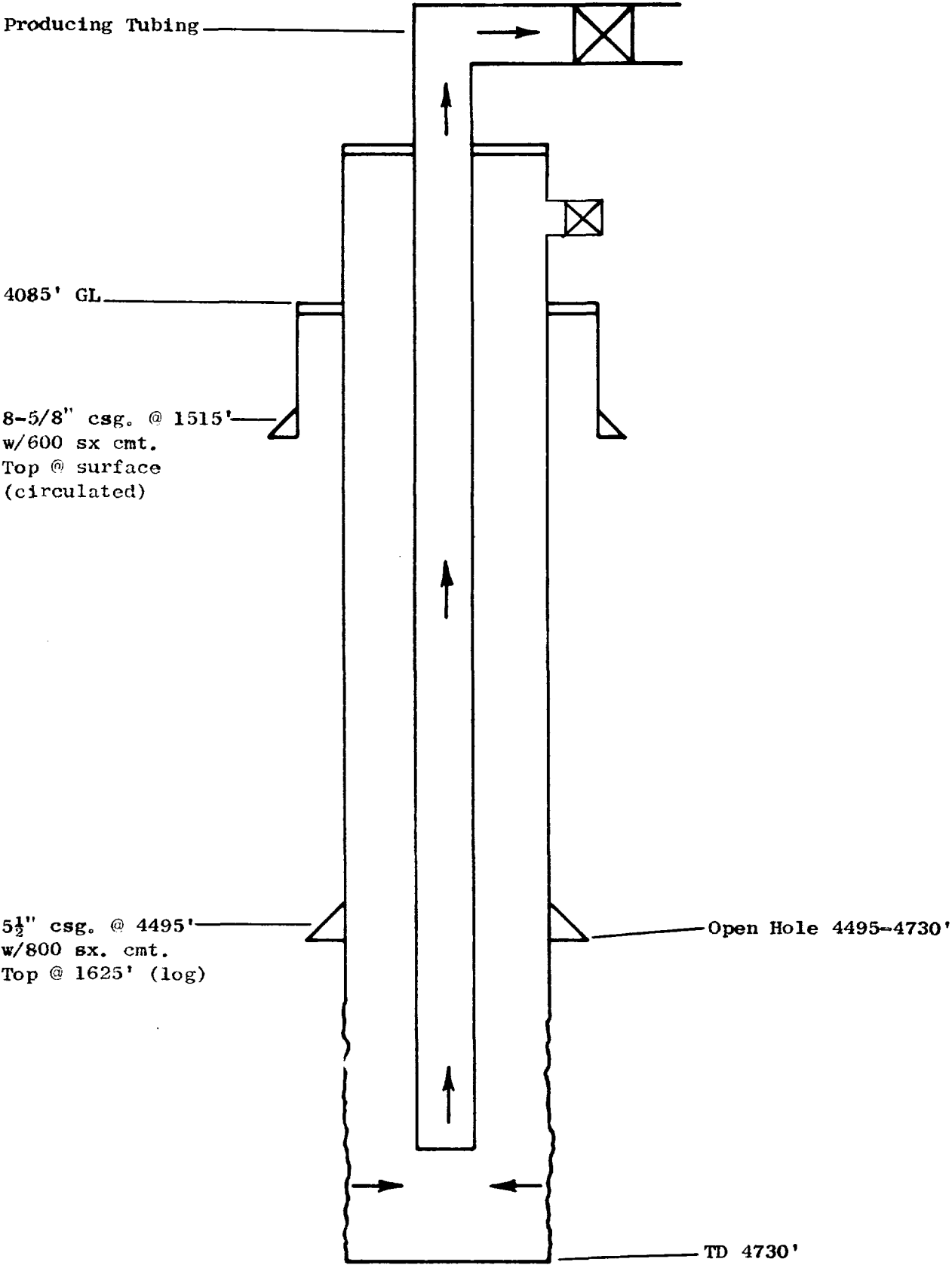
PHILLIPS NO. 23
 Unit P 810' FEL & 510' FSL
 Section 30, T-17S, R-34E
 Lea County, New Mexico



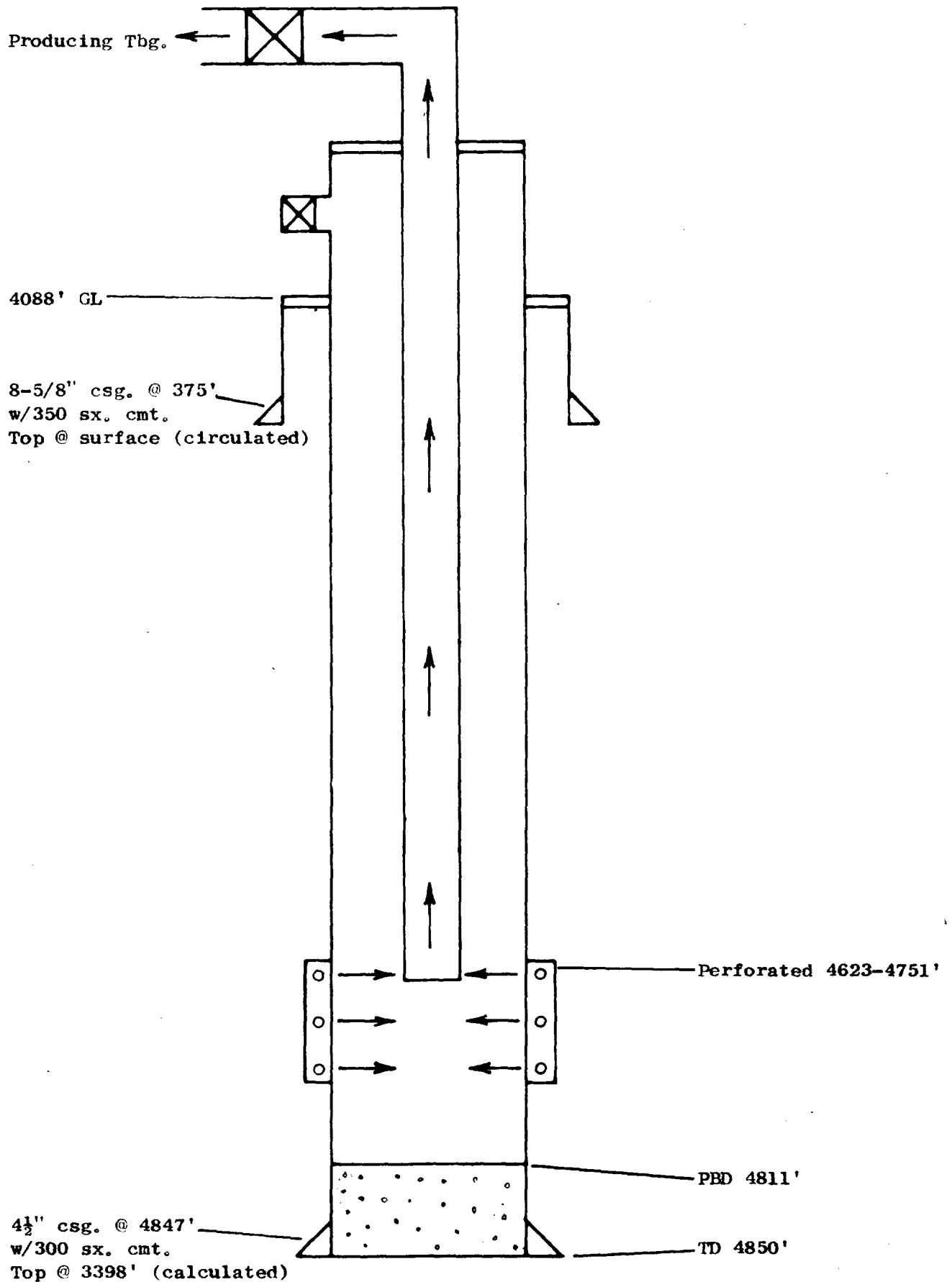
PHILLIPS - LEA NO. 20
 (Cole Darden Oil Company - Phillips State #3)
 Unit O 660' FSL & 1980' FEL
 Section 30, T-17S, R-34E
 Lea County, New Mexico



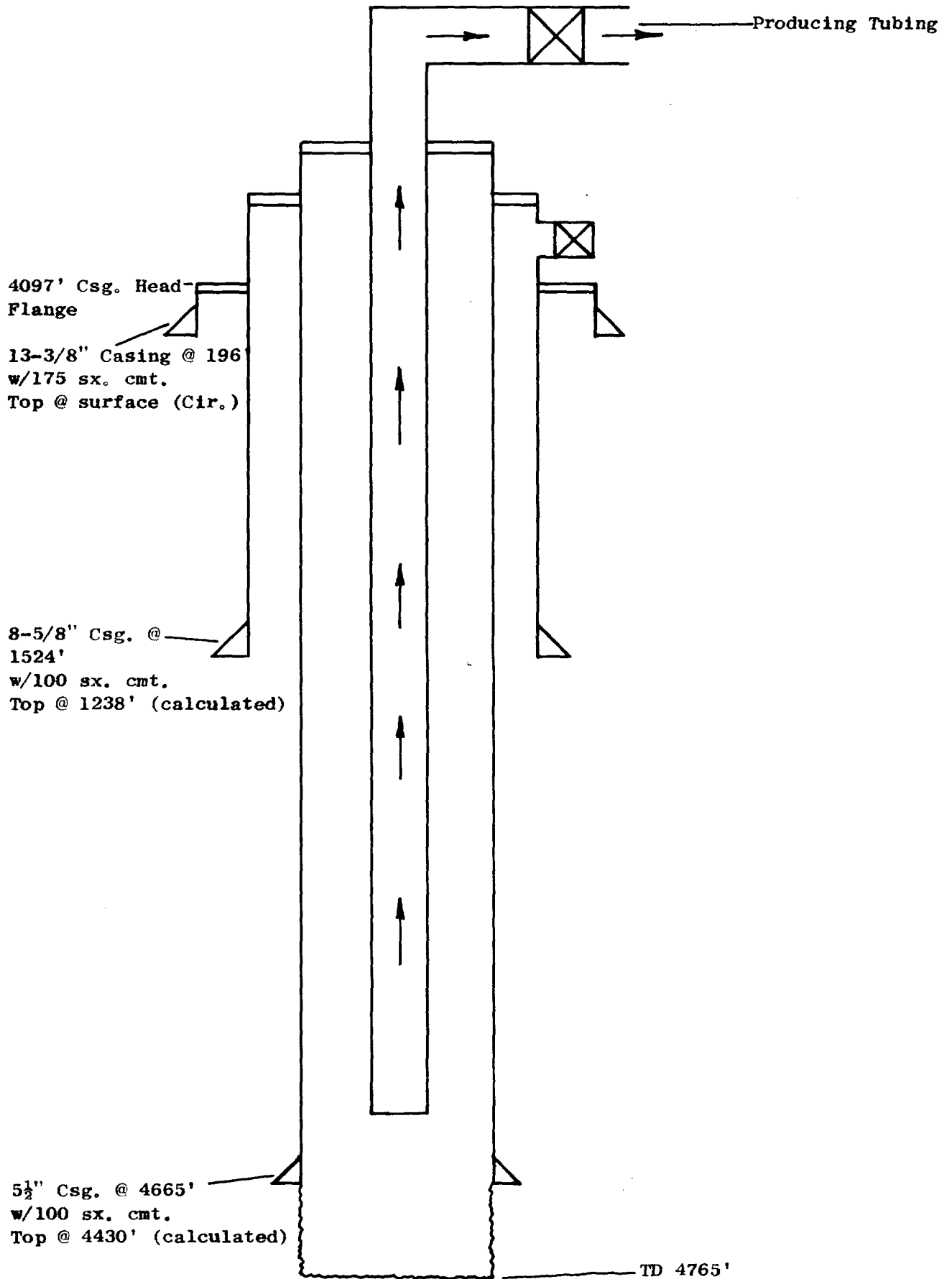
PHILLIPS PETROLEUM COMPANY - LEA NO. 3
Unit B 660' FNL & 1980' FEL
Section 31, T-17S, R-34E
Lea County, New Mexico



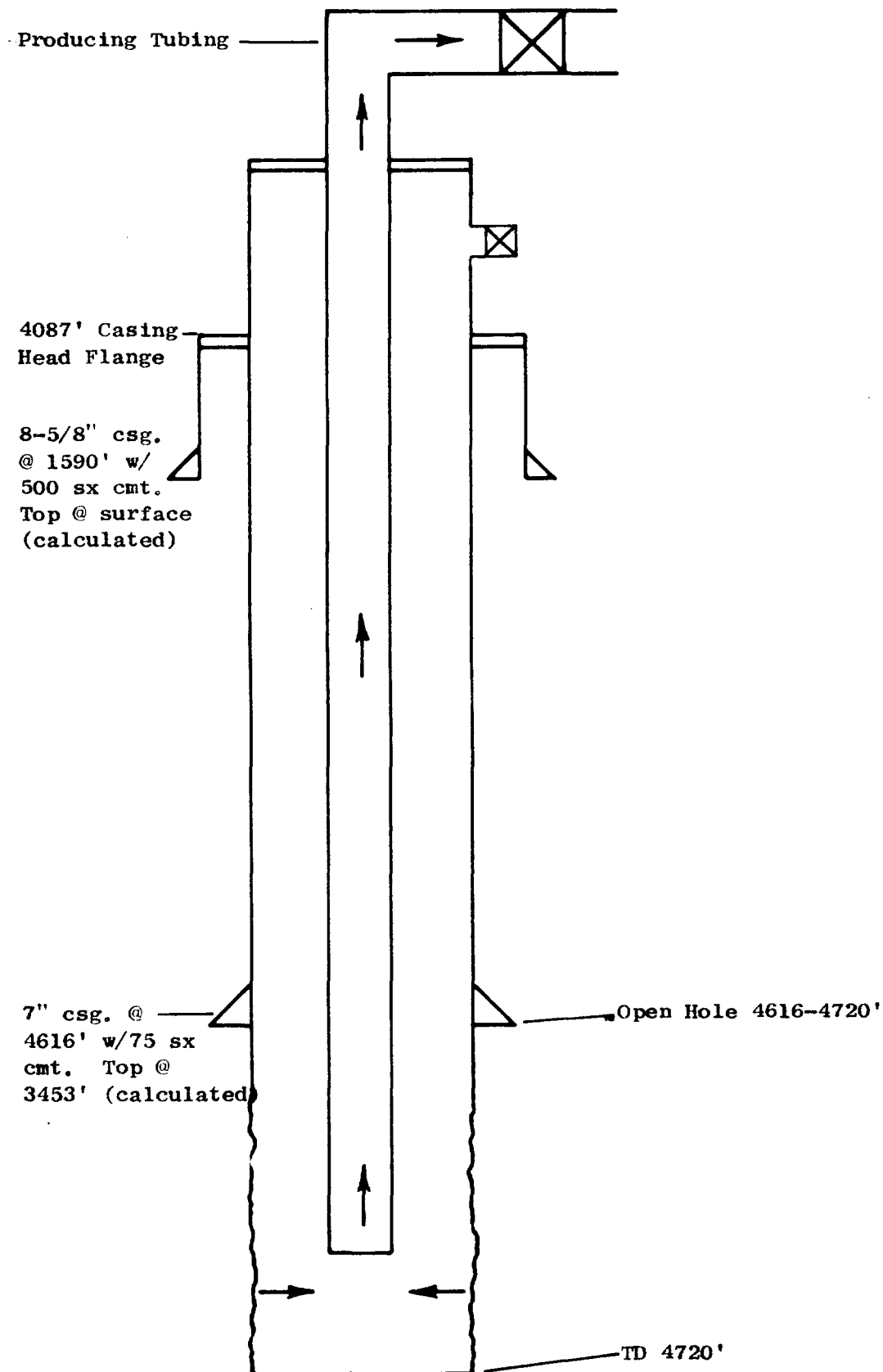
SOHIO - PHILLIPS LEA NO. 7
 Unit C 1980' FWL & 990' FNL
 Section 31, T-17S, R-34E
 Lea County, New Mexico



SOHIO - PHILLIPS LEA NO. 1
 (Penrose - Phillips Lea #1)
 Unit F 1780' FNL & 1980' FWL
 Section 31, T-17S, R-34E
 Lea County, New Mexico



SOHIO PETROLEUM CO. - PHILLIPS LEA NO. 2
 (N. G. Penrose)
 Unit G 2310' FNL & 1650' FEL
 Section 31, T-17S, R-34E
 Lea County, New Mexico



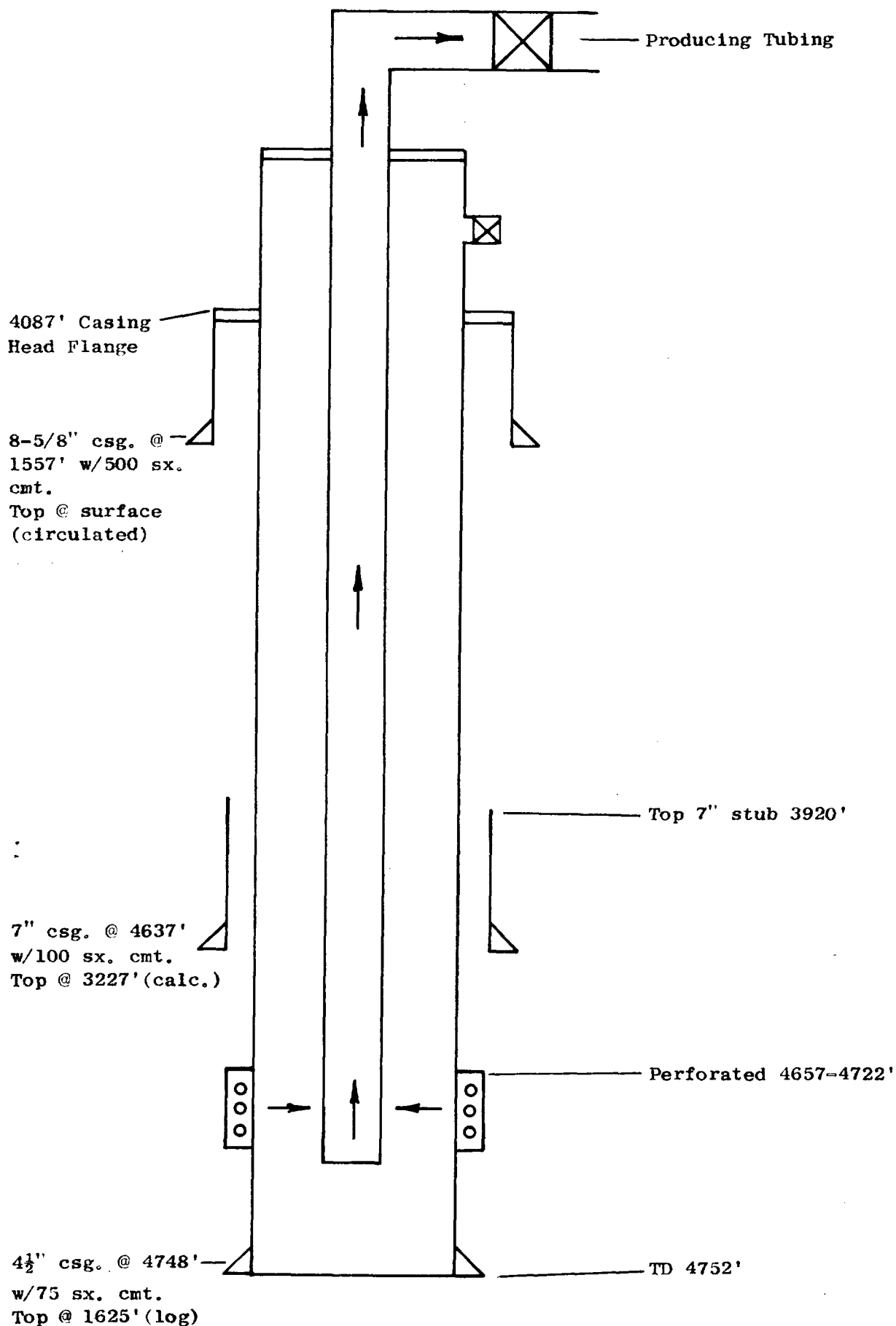
SOHIO PETROLEUM COMPANY - PHILLIPS LEA NO. 3

(N. G. Penrose)

Unit J 2310' FSL & 1650' FEL

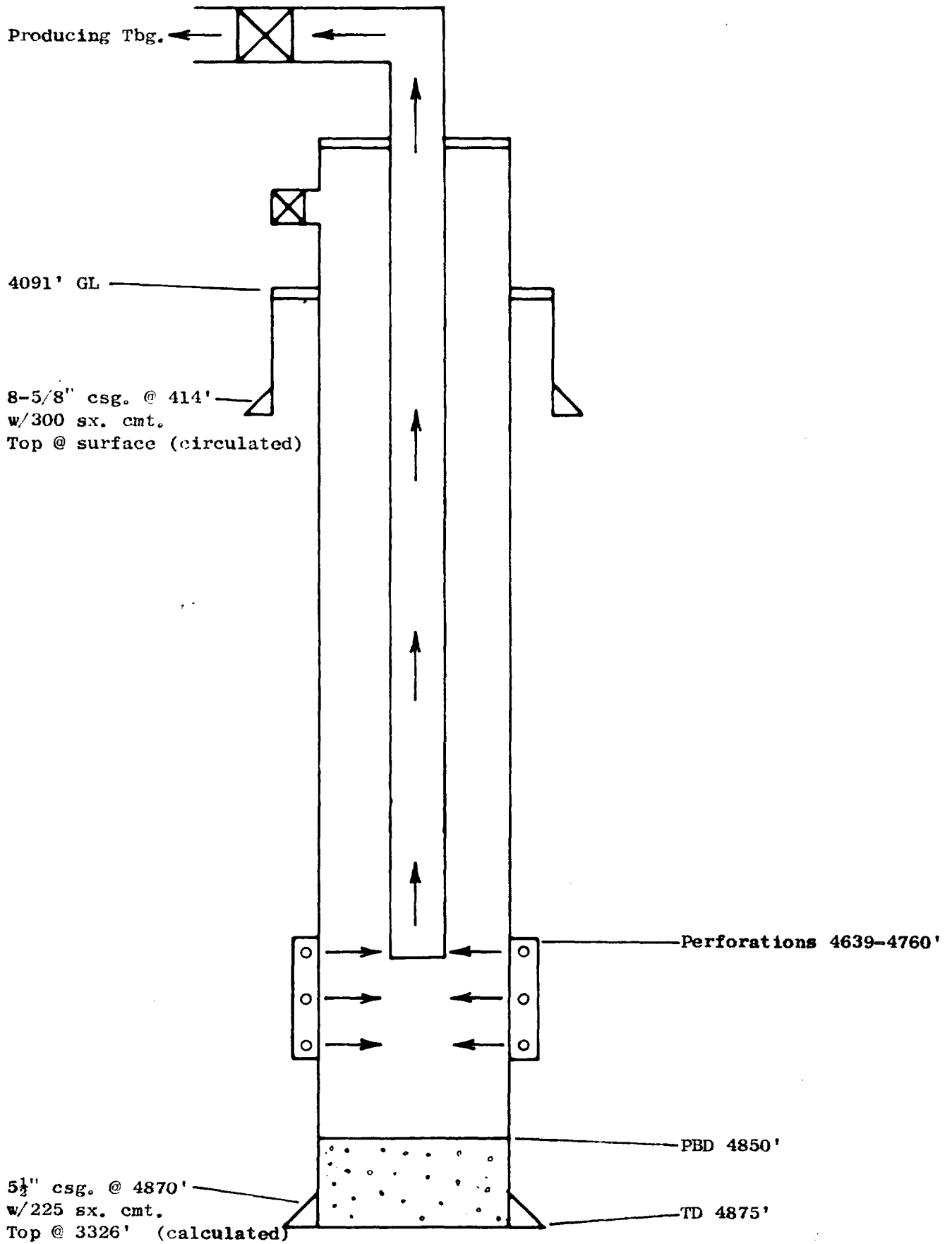
Section 31, T-17S, R-34E

Lea County, New Mexico

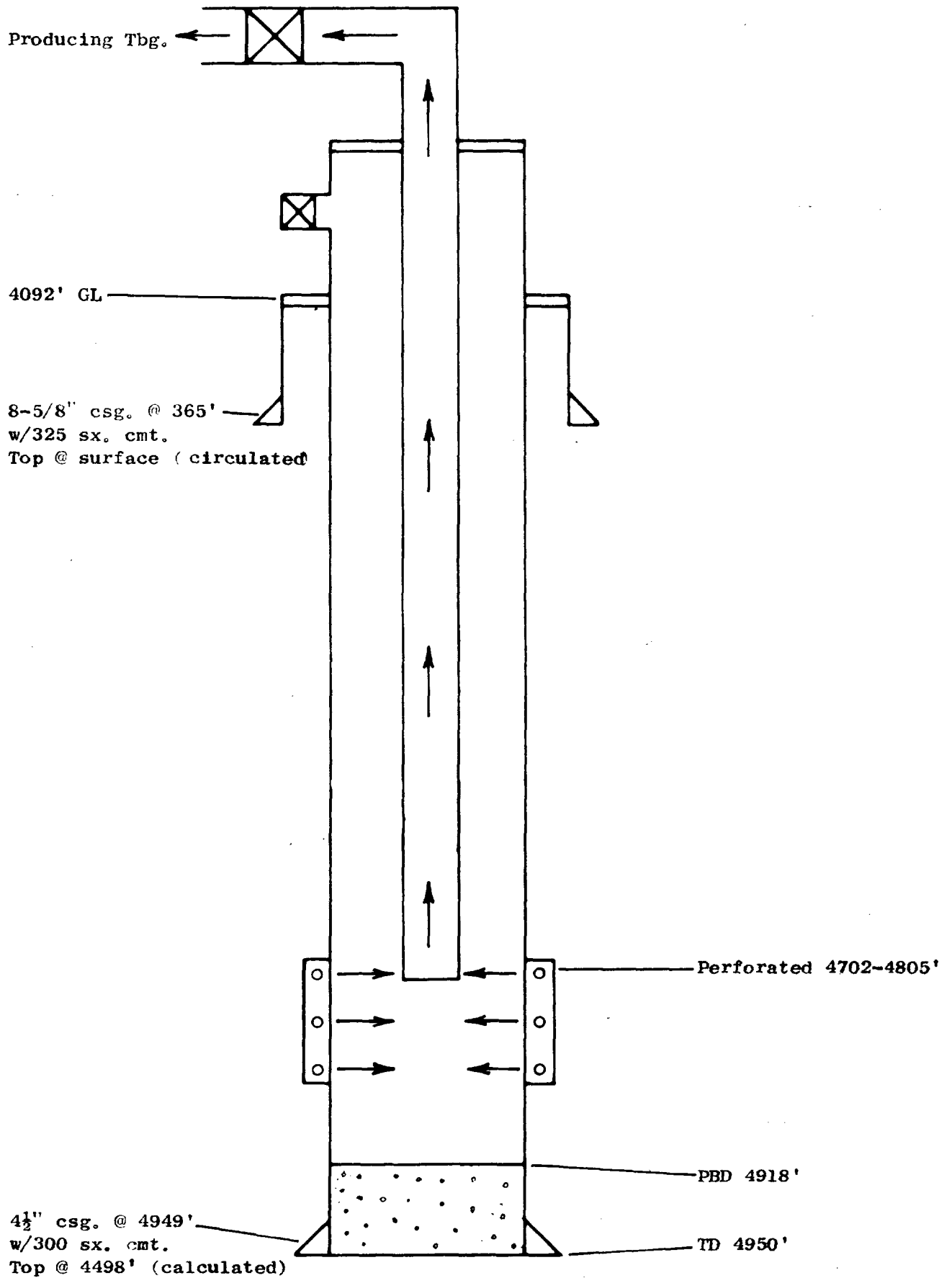


Well P & A May 10, 1957 and 3920' of 7" pulled. Well re-entered April 20, 1970 and full string of 4 1/2" run.

SOHIO - PHILLIPS LEA NO. 6
 Unit K 2310' FS & WL
 Section 31, T-17S, R-34E
 Lea County, New Mexico

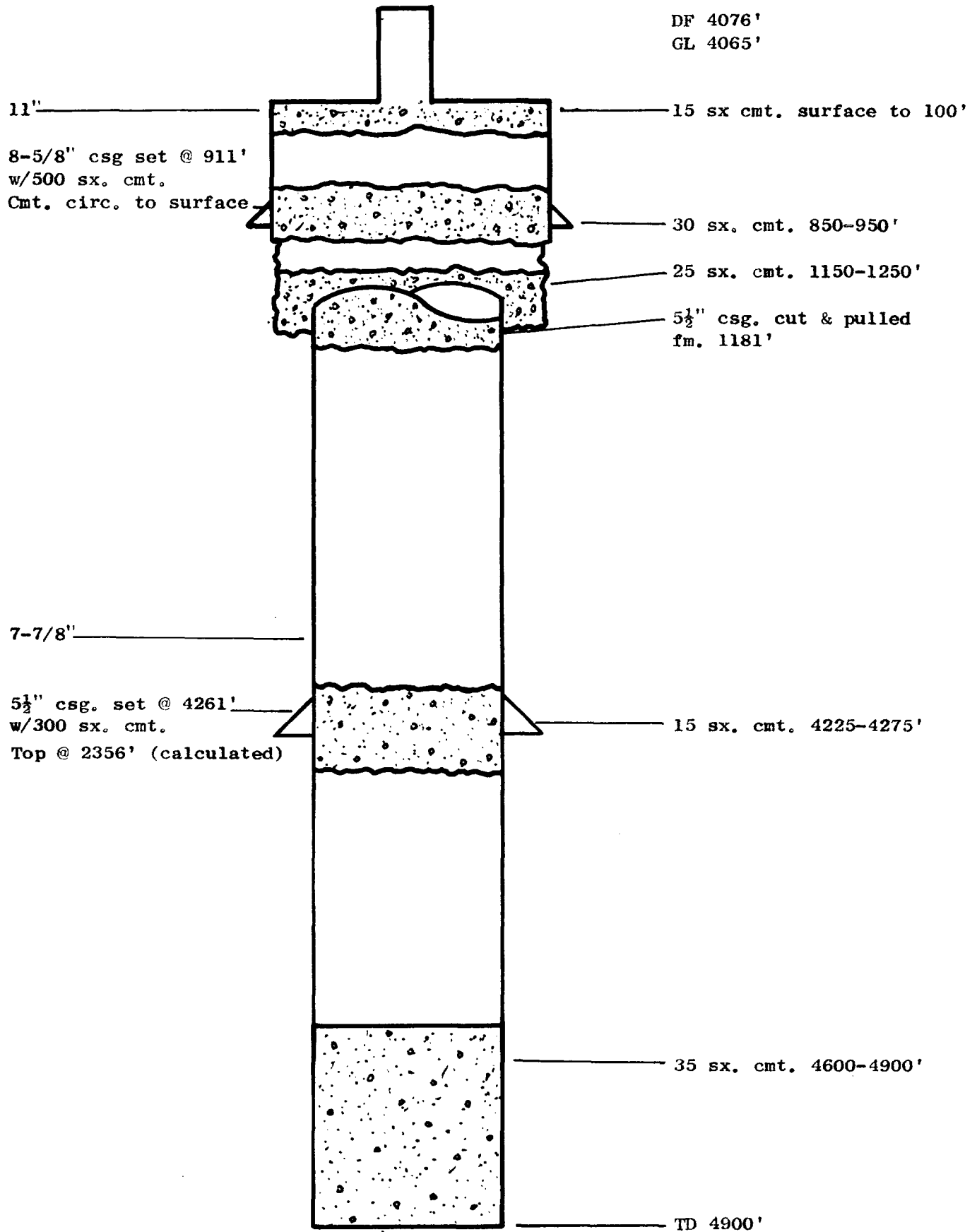


SOHIO - PHILLIPS LEA NO. 8
 Unit N 990' FSL & 1650' FWL
 Section 31, T-17S, R-34E
 Lea County, New Mexico

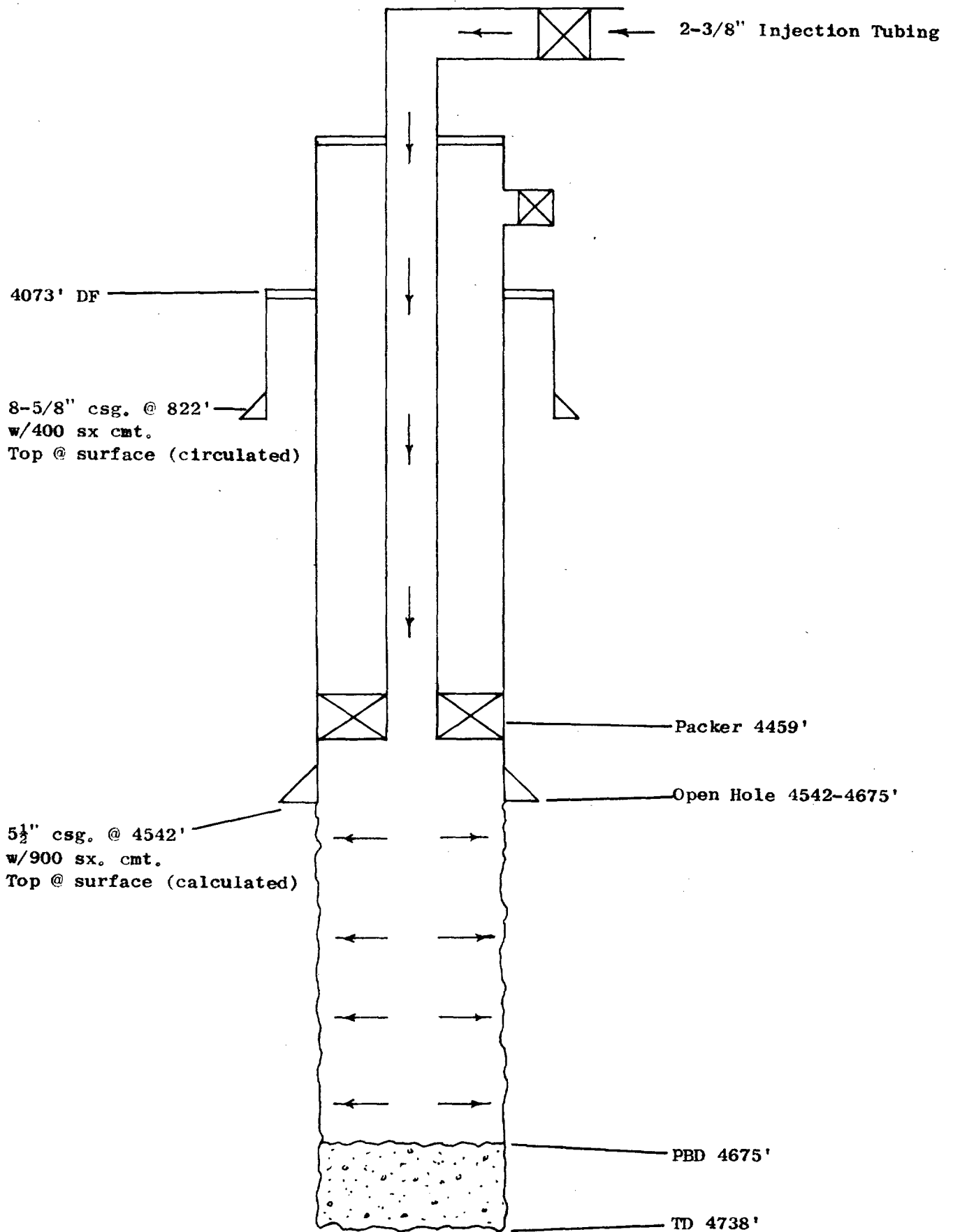


TEXACO - NEW MEXICO "D" STATE NCT-2 NO. 2
 660' FN & EL
 Section 32, T-17S, R-34E
 Lea County, New Mexico

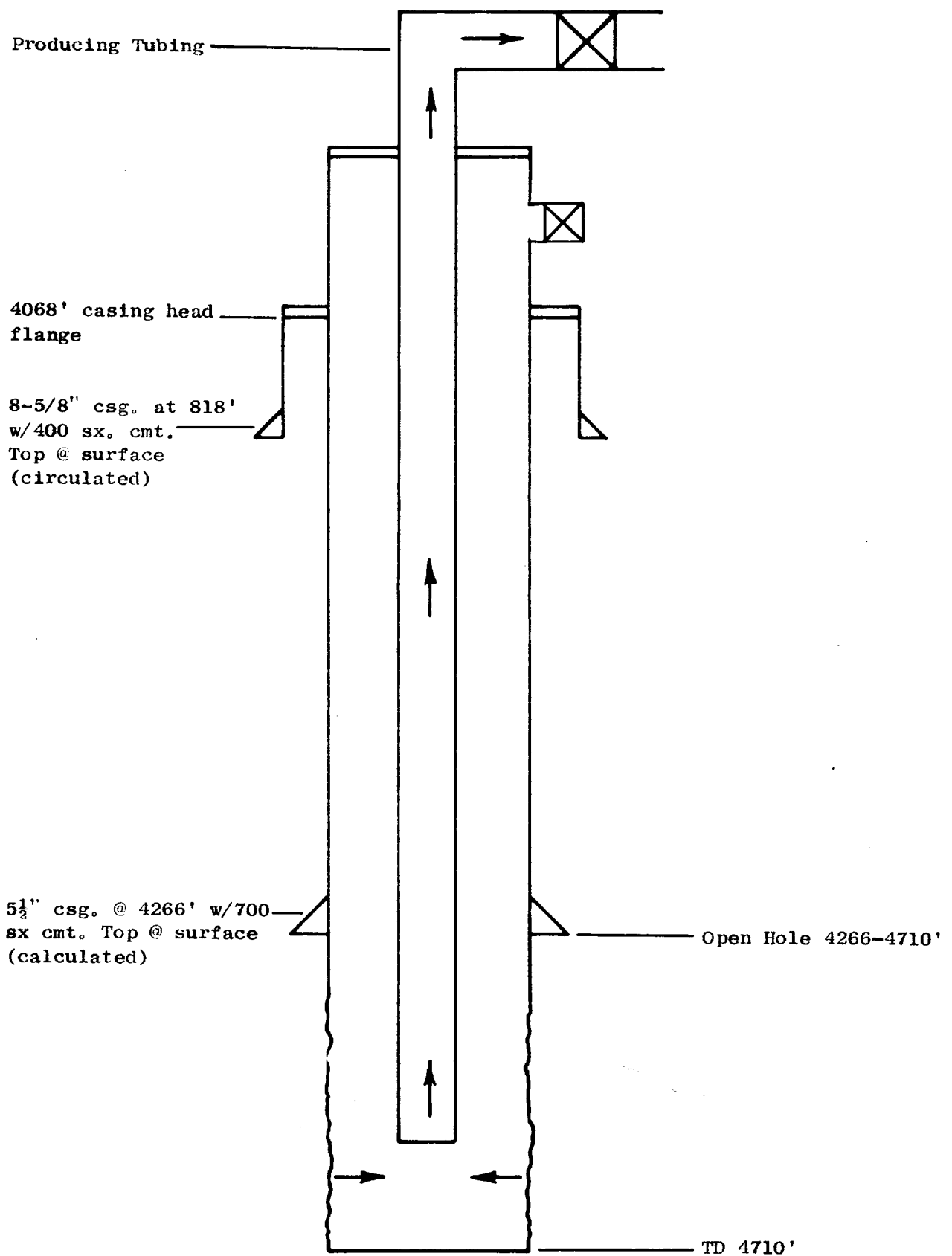
P & A 2/22/48



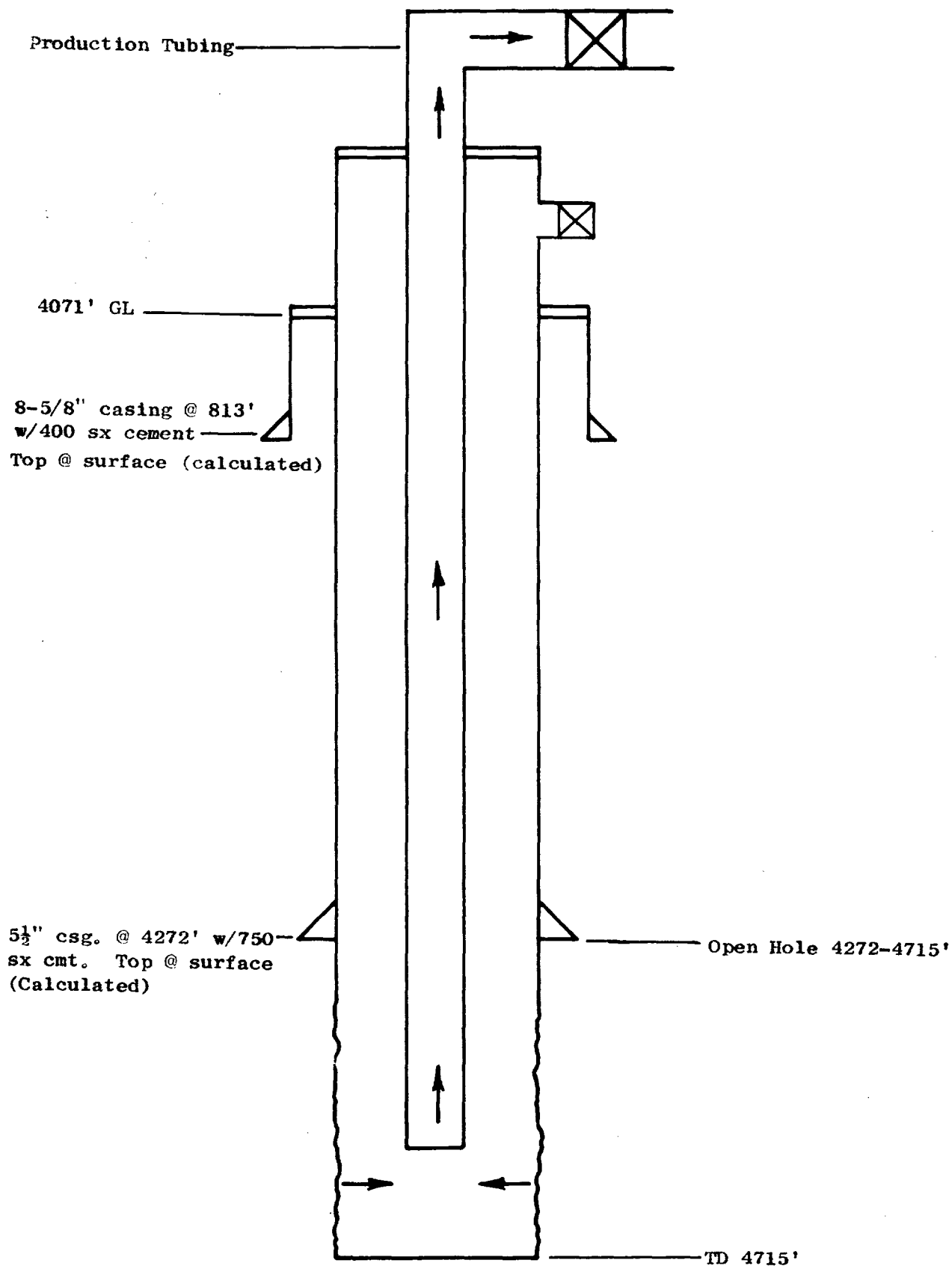
WEST VACUUM UNIT NO. 7
 (Ohio Oil Co. - State B-7998 #2)
 Unit C 990' FNL & 2310' FWL
 Section 33, T-17S, R-34E
 Lea County, New Mexico



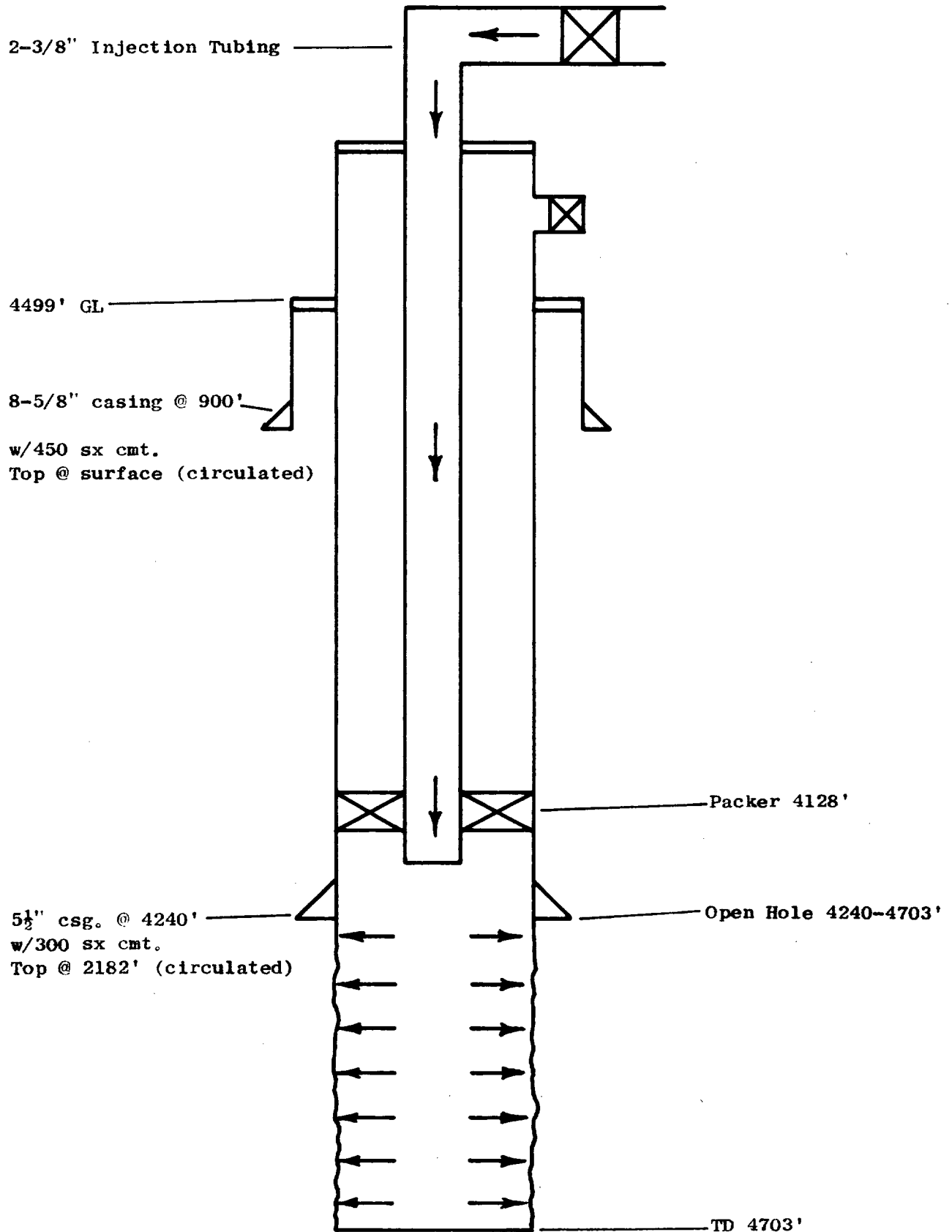
TEXACO - WEST VACUUM UNIT NO. 14
 (Ohio Oil Company - State B-8097 #1)
 Unit E 1980' FNL & 660' FWL
 Section 33, T-17S, R-34E
 Lea County, New Mexico



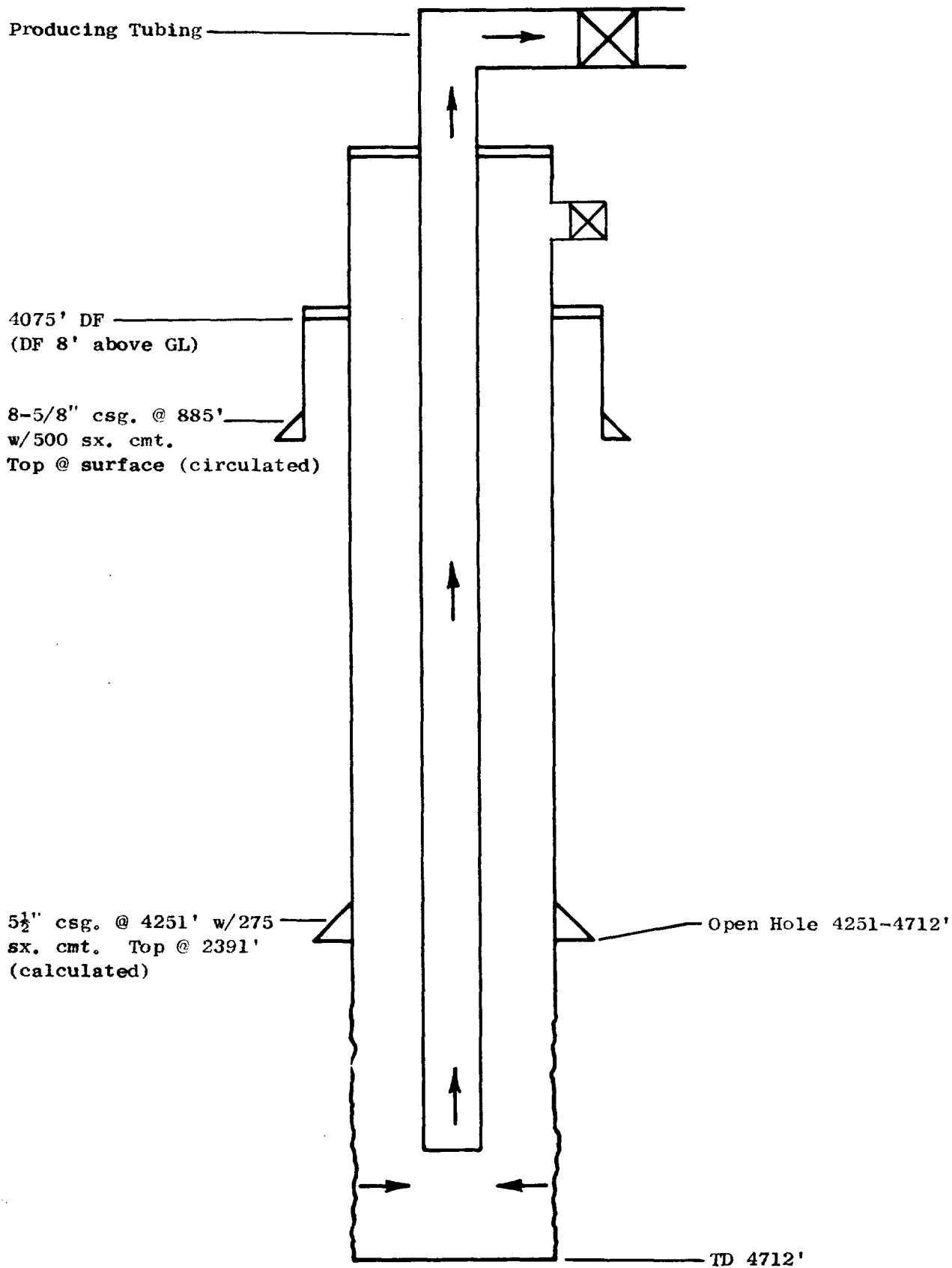
TEXACO - WEST VACUUM UNIT NO. 15
 (Ohio Oil Company - State B-7998 #1)
 Unit F 1980' FN & WL
 Section 33, T-17S, R-34E
 Lea County, New Mexico

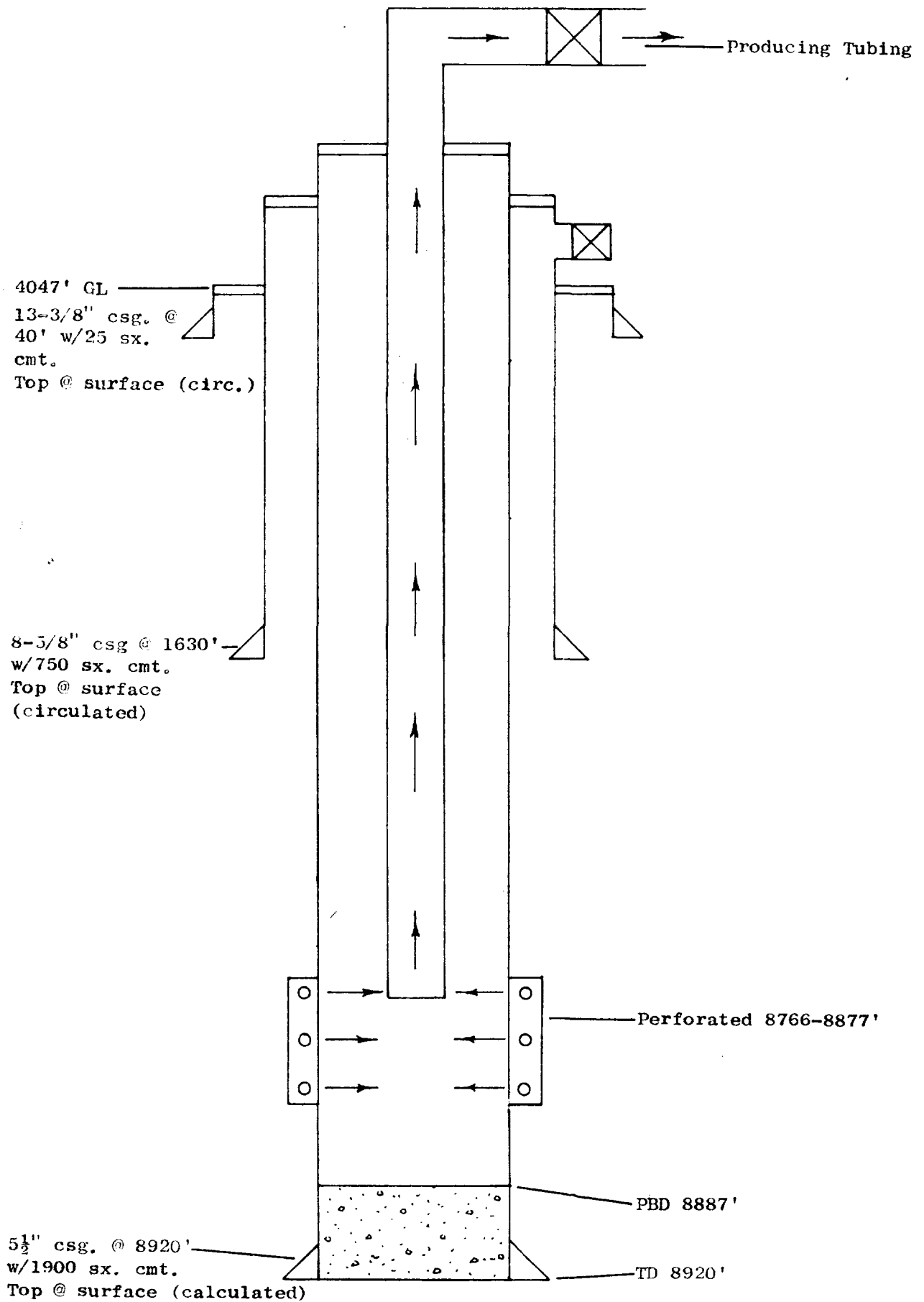


WEST VACUUM UNIT NO. 23
 (Texas Company - State of New Mexico "D" #15)
 Unit K 1980' FS & WL
 Section 33, T-17S, R-34E
 Lea County, New Mexico

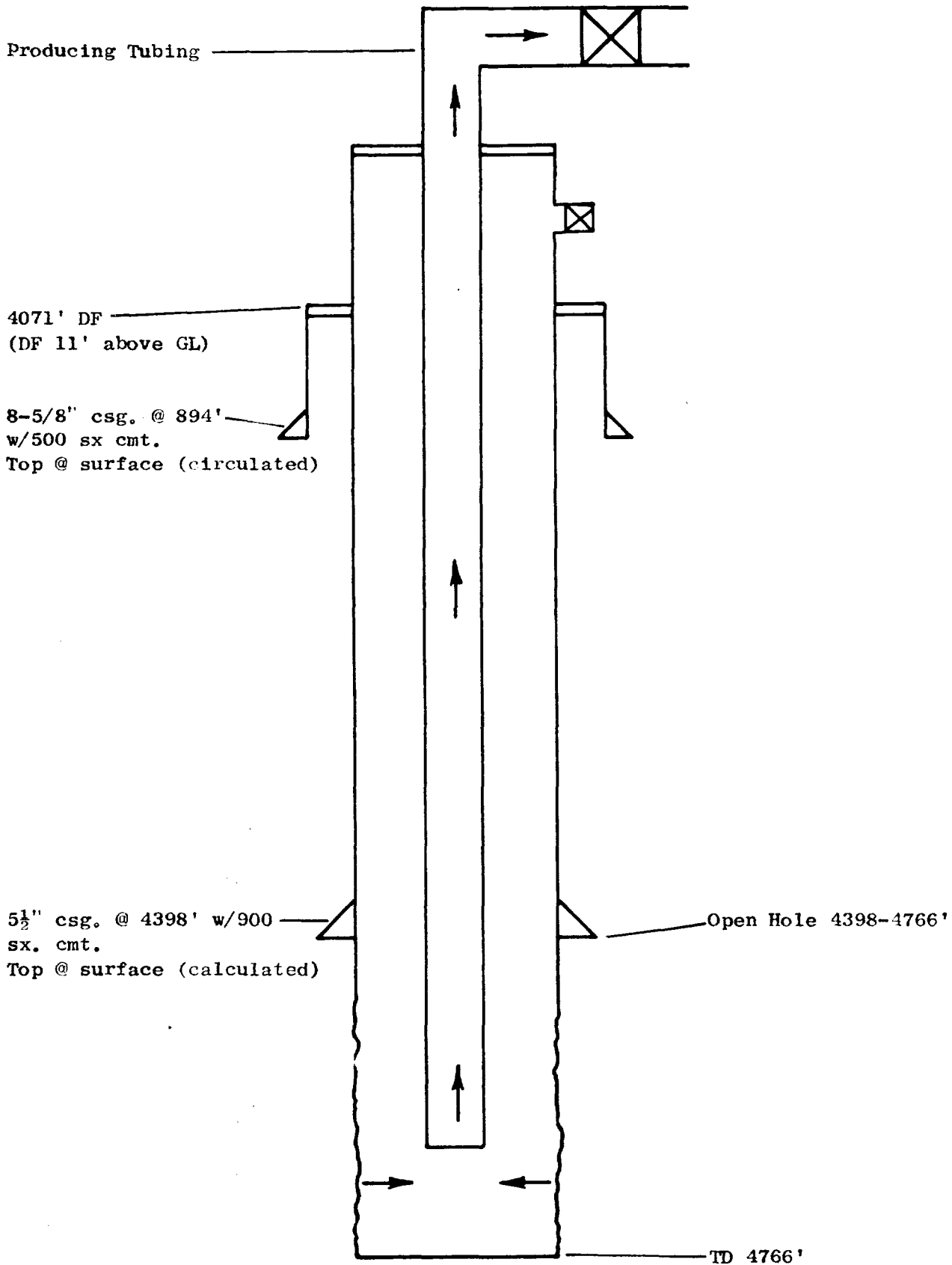


TEXACO - WEST VACUUM UNIT No. 22
 (Texaco - State of New Mexico "O" NCT-2 #16)
 Unit L 1980' FSL & 660' FWL
 Section 33, T-17S, R-34E
 Lea County, New Mexico

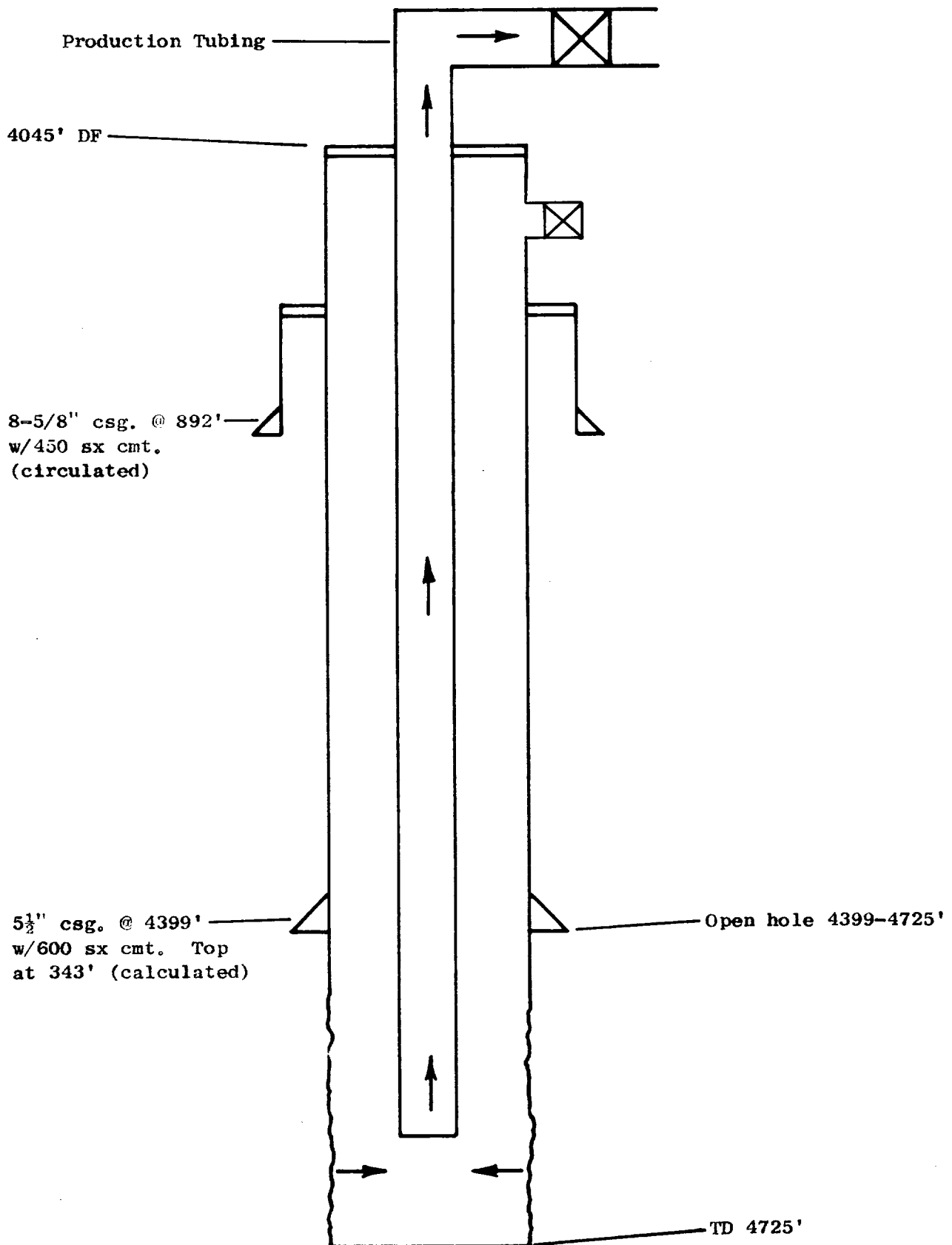




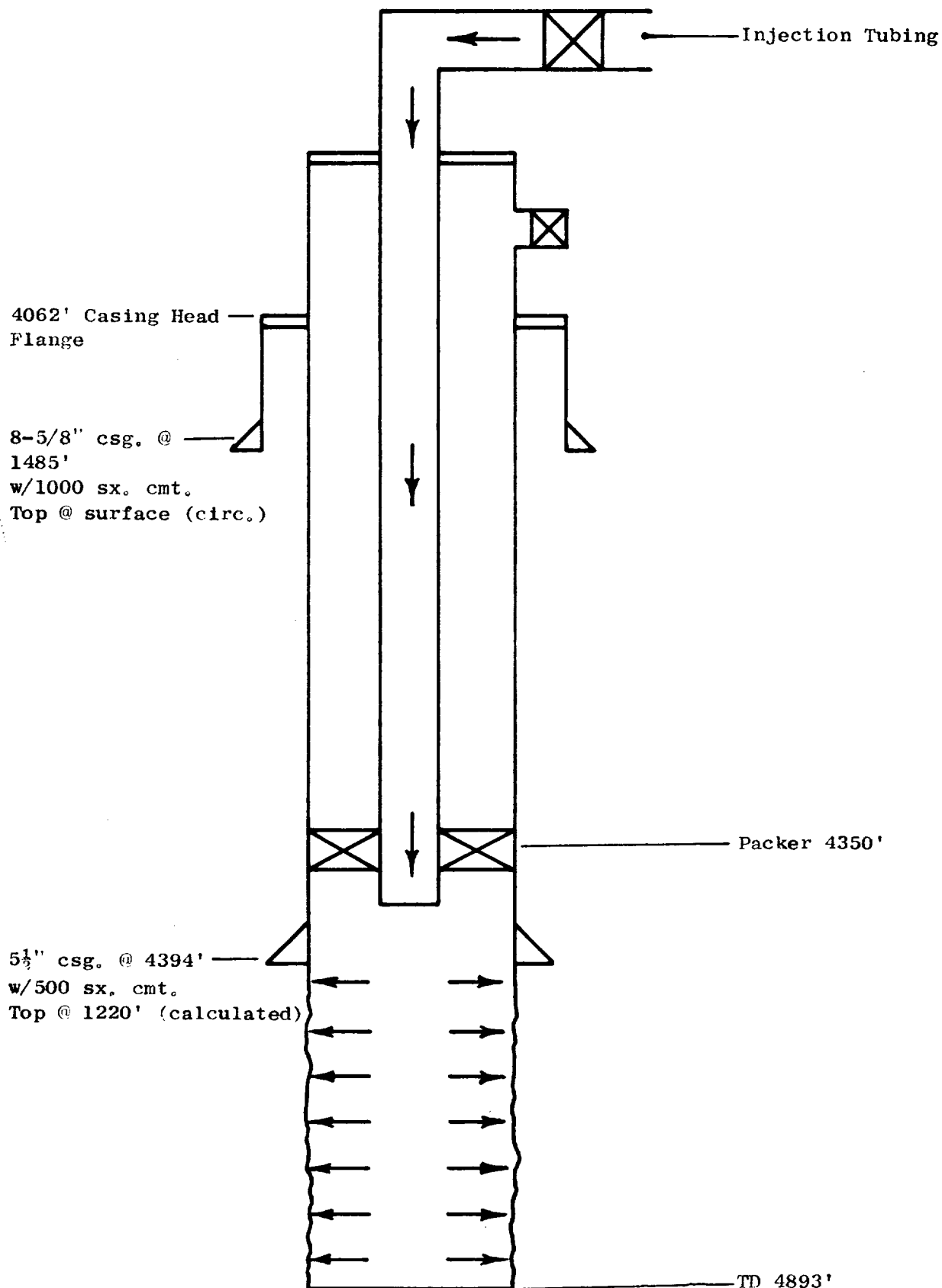
TEXACO - WEST VACUUM UNIT NO. 30
 (Texaco - State of New Mexico "O" NCT-2 #18)
 Unit M 660' FS & WL
 Section 33, T-17S, R-34E
 Lea County, New Mexico



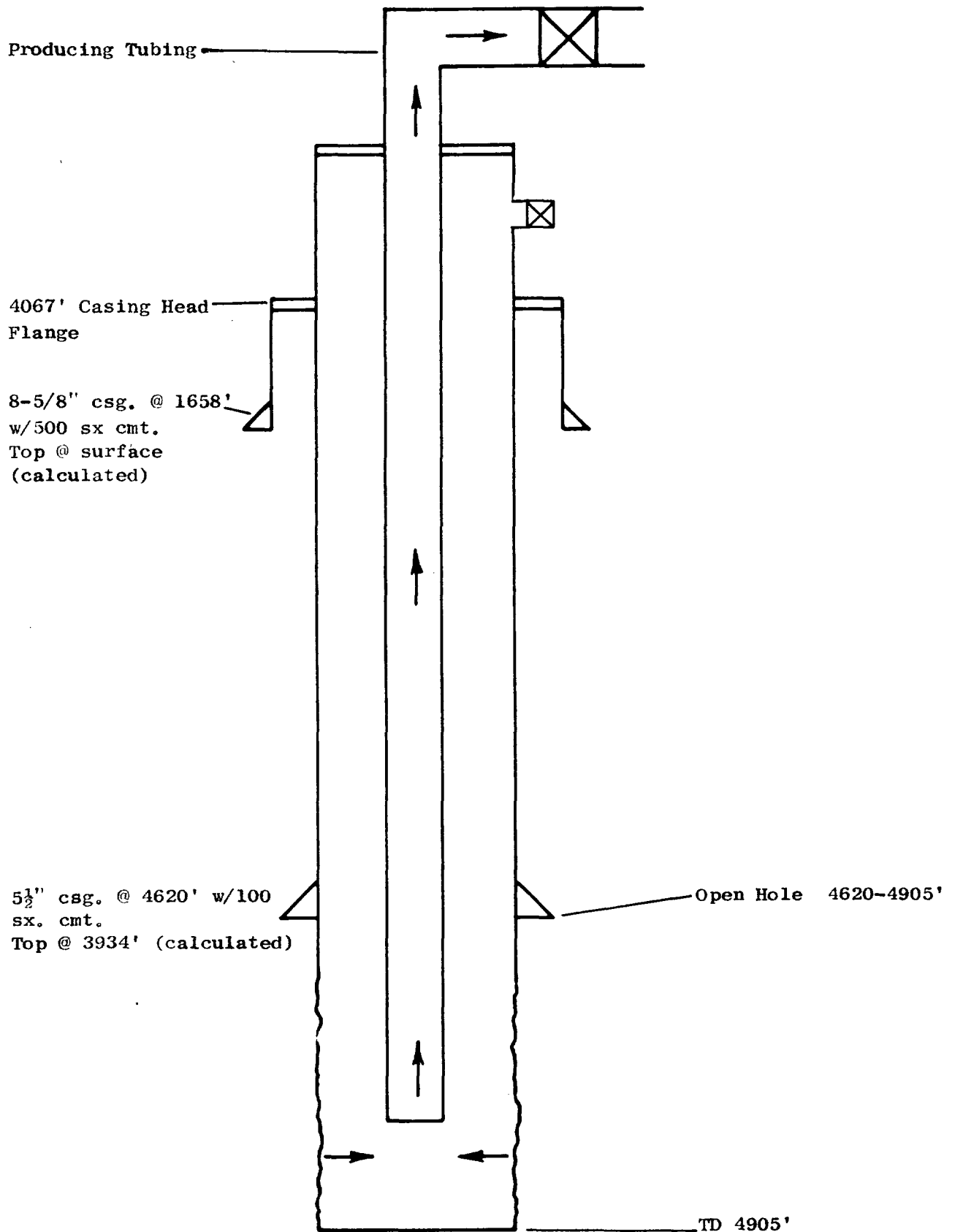
TEXACO - WEST VACUUM UNIT NO. 31)
 (Texaco - State of New Mexico "O" NCT-2 #17)
 Unit N 660' FSL & 1980' FWL
 Section 33, T-17S, R-34E
 Lea County, New Mexico



TEXACO - WEST VACUUM UNIT NO. 40
 (Texaco - State of New Mexico 'AA' NCT-2 No. 1)
 Unit C 600' FNL & 1980' FWL
 Section 4, T-18S, R-34E
 Lea County, New Mexico



TEXACO - WEST VACUUM UNIT NO. 39
(Mesa Retailers, Inc. - State #1)
Unit D 330' FN & WL
Section 4, T-18S, R-34E
Lea County, New Mexico

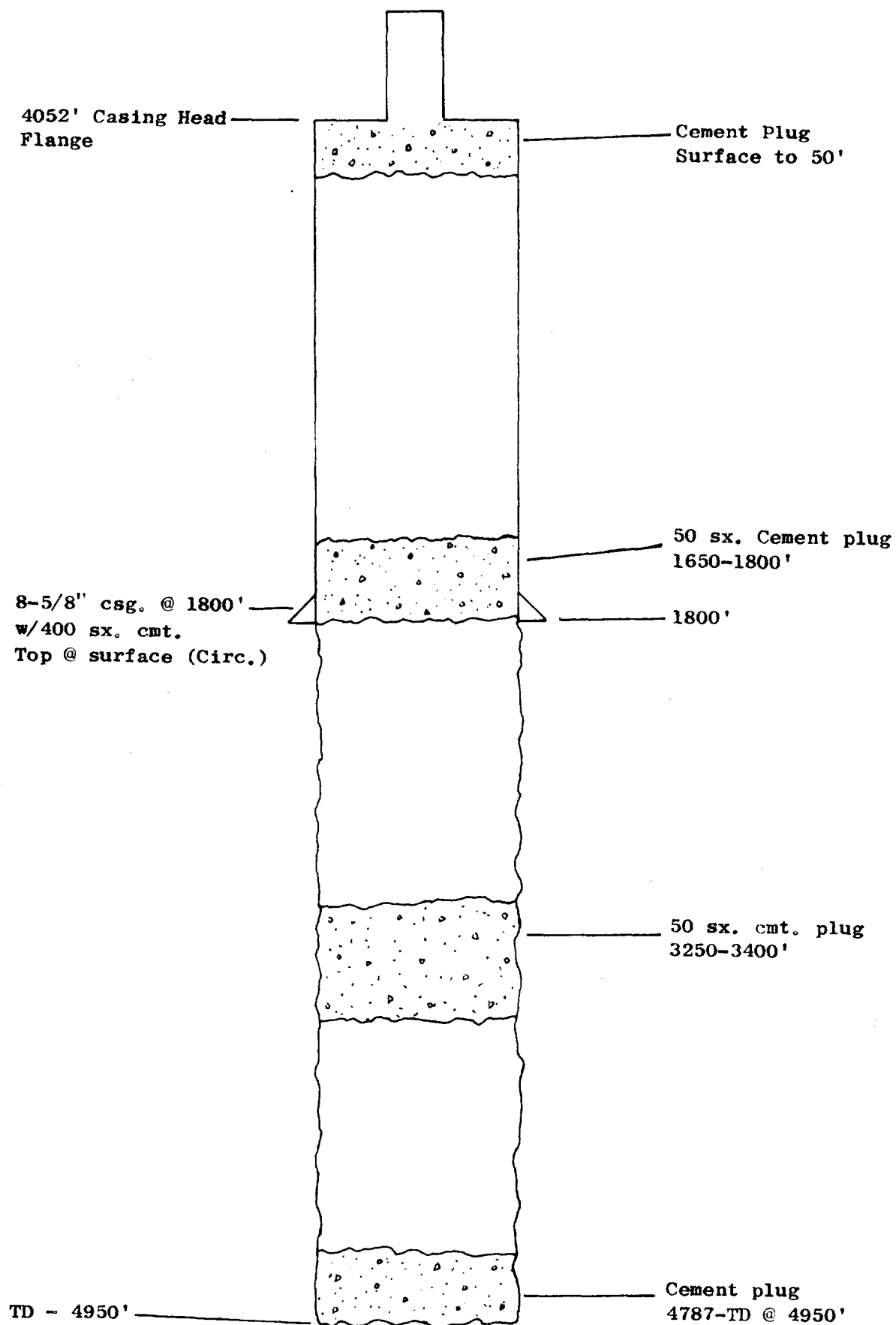


Dalport Oil Corporation - Stanolind-State "A" #3

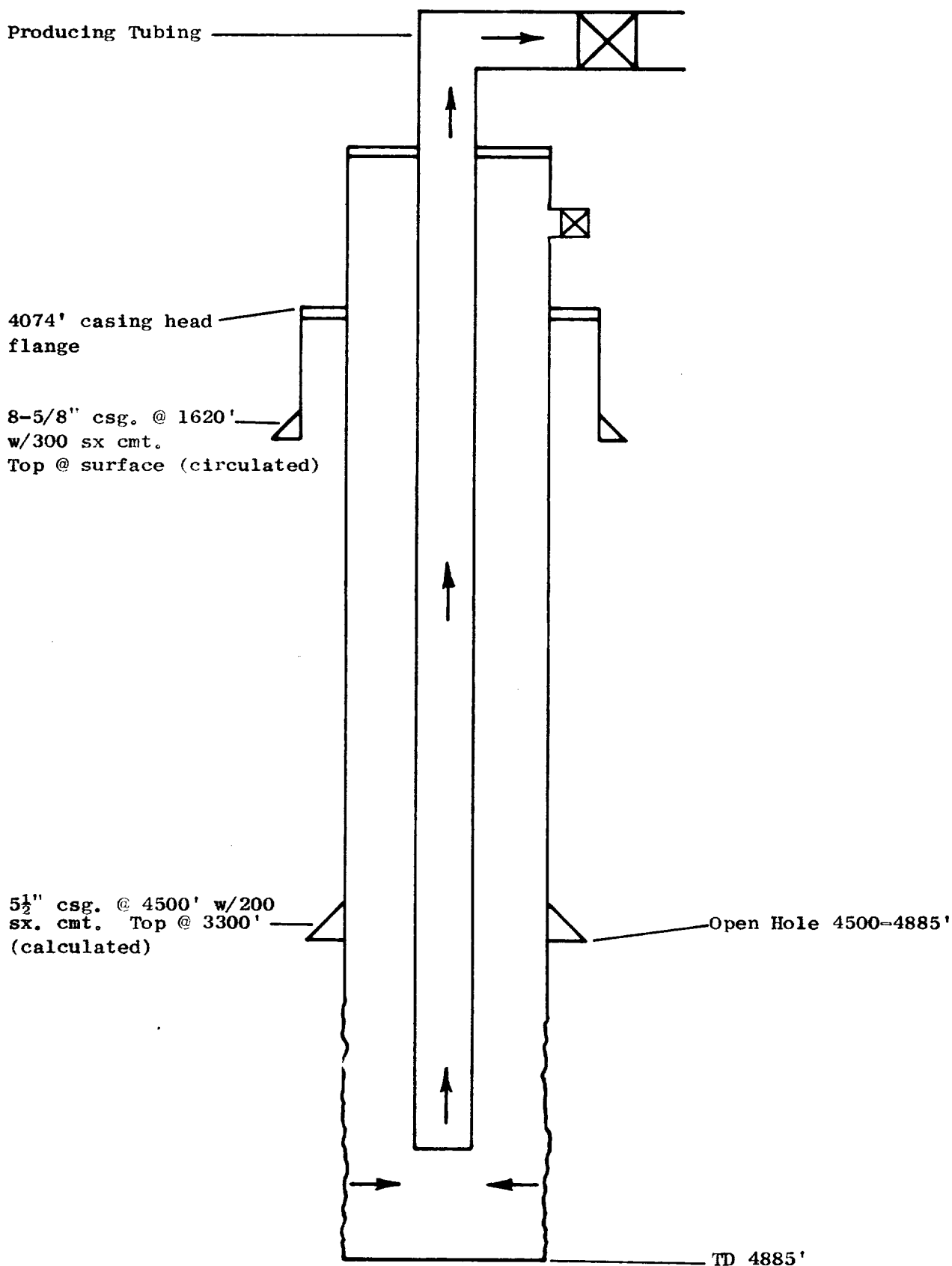
Unit F 1650' FNL & 2310' FWL

Section 4, T-18S, R-34E

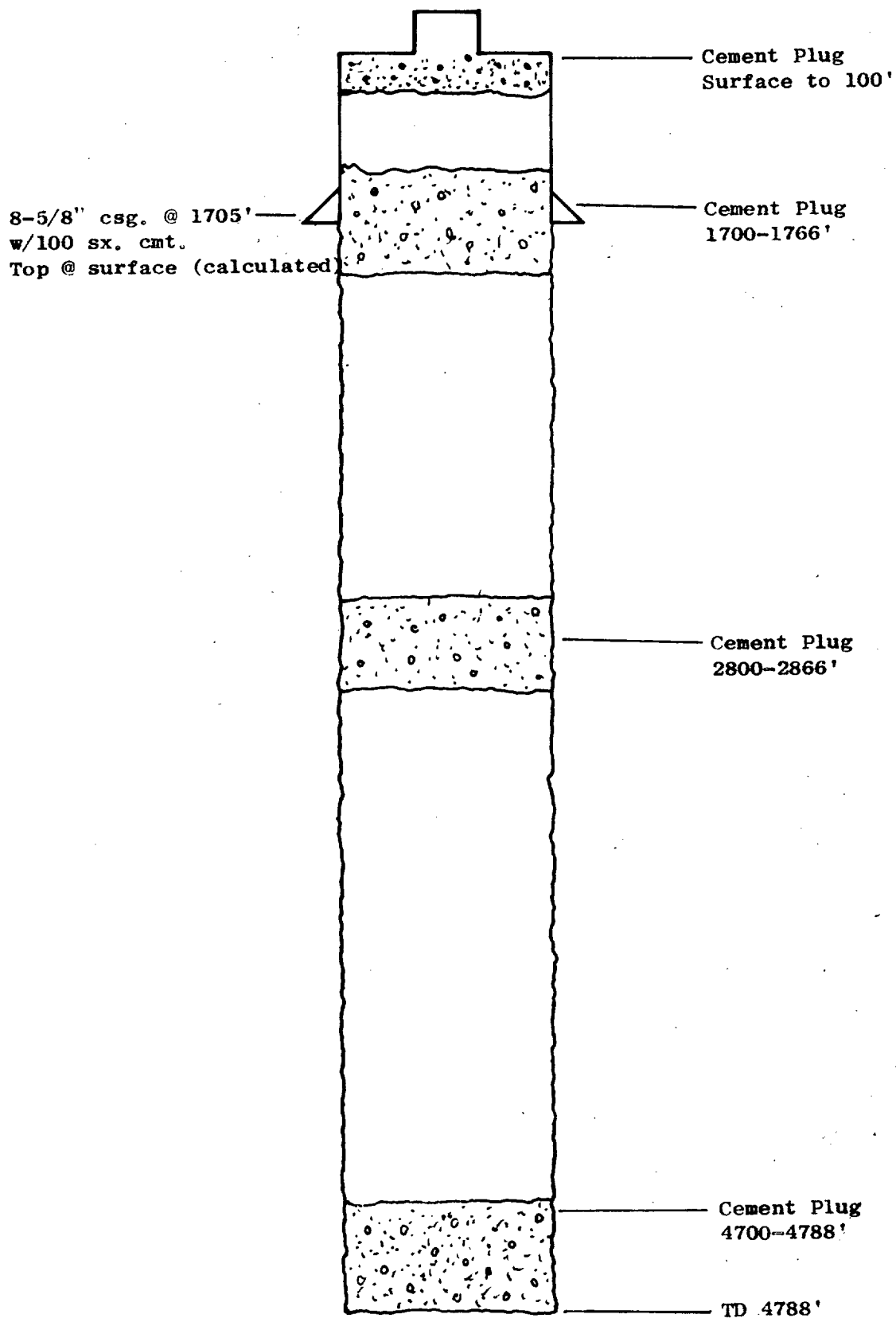
Lea County, New Mexico



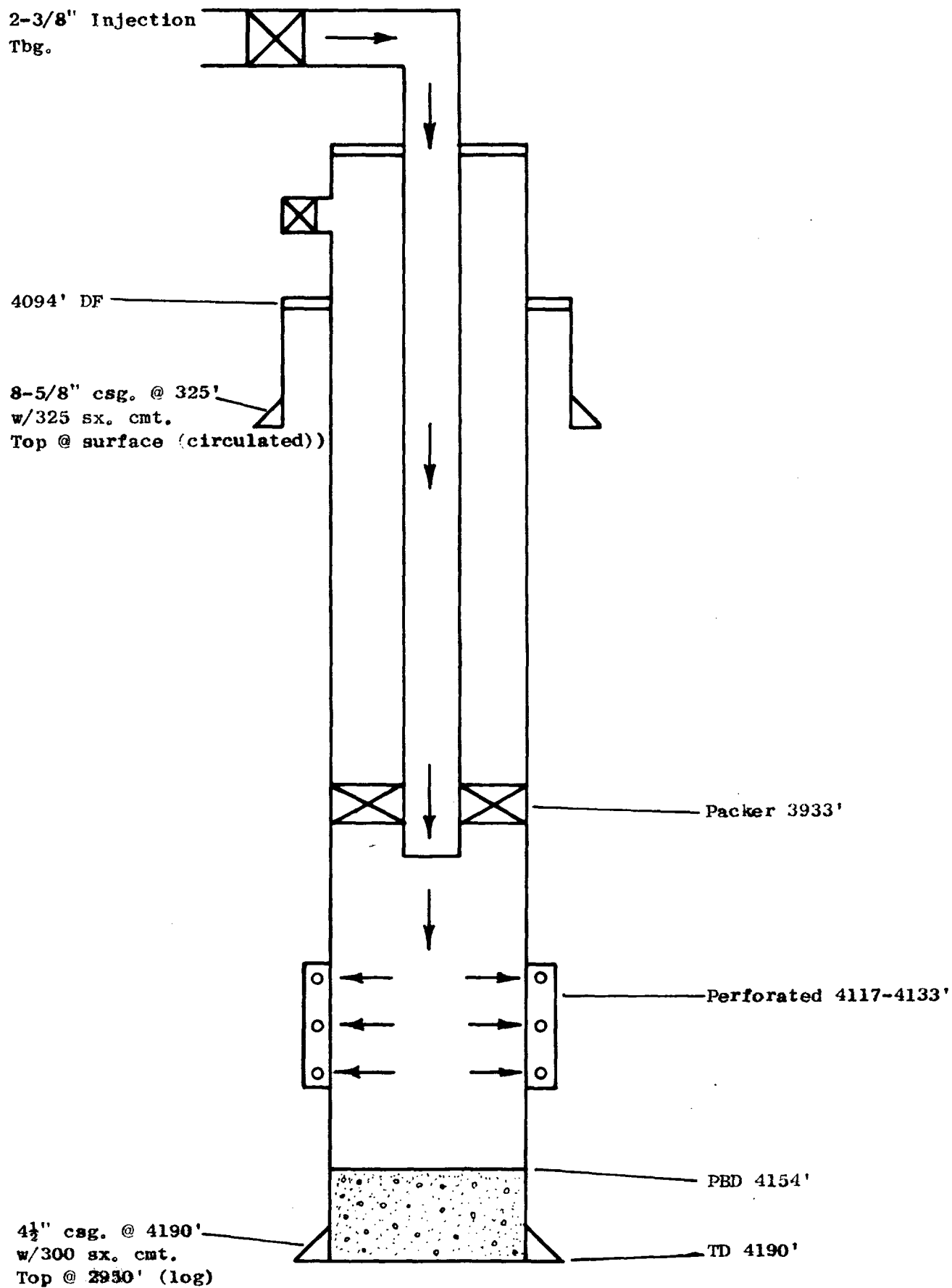
TEXACO - WEST VACUUM UNIT NO. 38
 (Dalport Oil Co. - Phillips State "B" #1)
 Unit A 330' FNL & 660' FEL
 Section 5, T-18S, R-34E
 Lea County, New Mexico

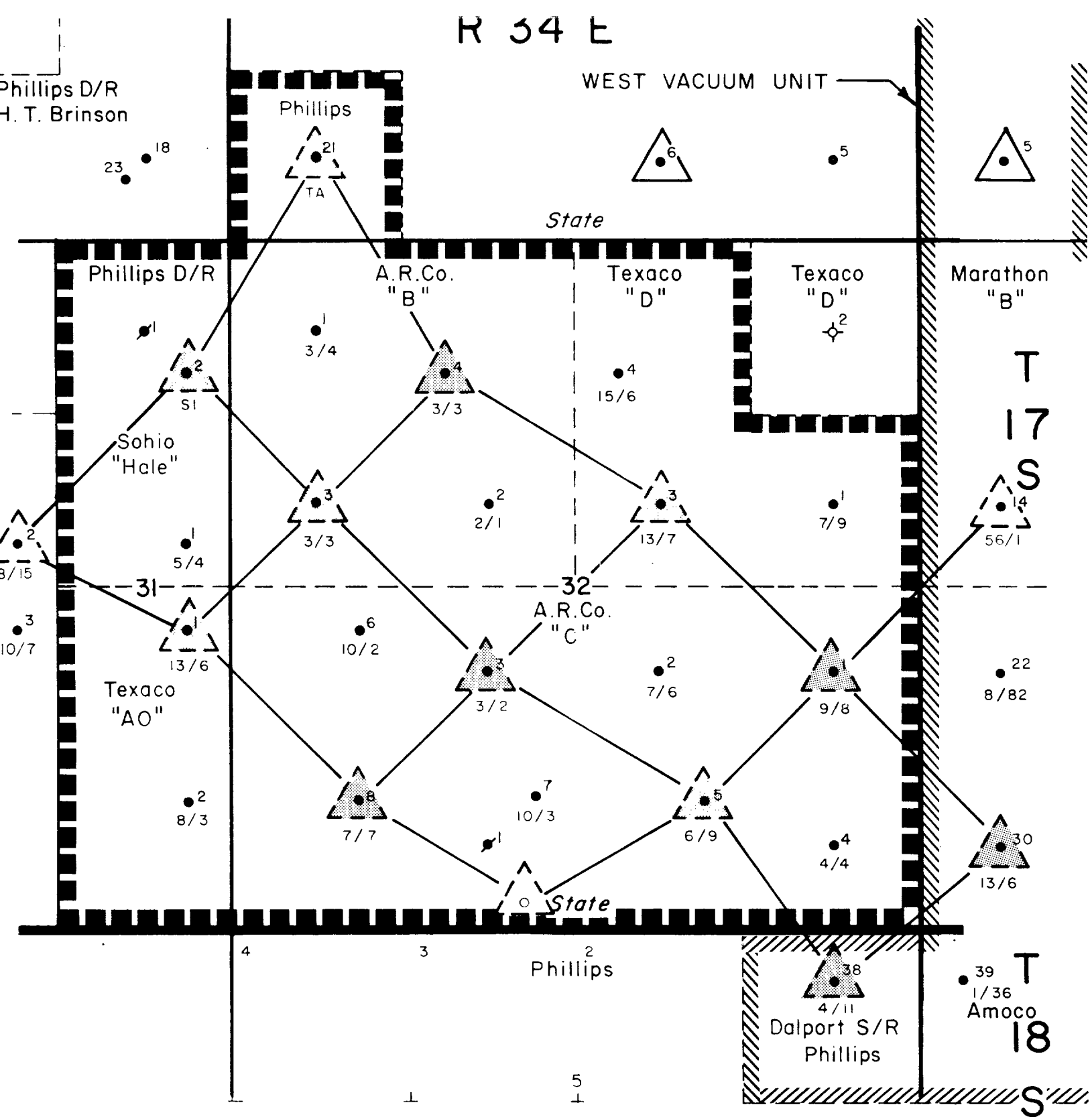


MALCO PHILLIPS - STATE NO. 1
Unit B 330' FNL & 1980' FEL
Section 6, T-18S, R-34E
Lea County, New Mexico



MURPHY BAXTER - NORTH E-K QUEEN UNIT TRACT 3 NO. 3
 (Phillips - Lea #15)
 Unit F 2310' FNL & 1650' FWL
 Section 6, T-18S, R-34E
 Lea County, New Mexico





L E G E N D

4/4 BOPD/BWPD — MAY PRODUCTION



PROPOSED INJECTION WELL



PROPOSED INJECTION WELL
TO BE DRILLED



PROPOSED WATERFLOOD
BOUNDARY

EXHIBIT NO. 67

Atlantic Richfield Company
New Mexico
State County, New Mexico
VACUUM FIELD
STATE VACUUM UNIT
PROPOSED
INJECTION PATTERN
R. M. MALAISE

REPRODUCED BY
WEST TEXAS ELECTRICAL LOG SERVICE

1305 Commerce Street
Dallas 1, Texas

REFERENCE No. A 400-A



LANE RADIOACTIVITY LOG WELLS COMPANY

Location of Well	COMPANY: TEXAS-GULF PROD. CO.	LOCATION: _____ COUNTY: T&A STATE: E.M.	WELL STATE NO. 3 FIELD: WEST VACUUM	COMPANY: TEXAS-GULF PROD. CO.
	WELL STATE NO. 3 FILE: _____			
	FIELD: WEST VACUUM			
	COUNTY: T&A STATE: E.M.			
	LOCATION: 1000' FUL 600' FUL SEC 38-178-34E			
LOG MEASURED FROM ROTARY TABLE ELEVATION 4004.5'				
DRILLING MEASURED FROM ROTARY T. ELEVATION 4004.5'				
PERMANENT DATUM 8 5/8" GRADES E. ELEVATION 4072.00'				

RUN NUMBER	1	2		
TYPE OF LOG	GAMMA RAY	NEUTRON		
DATE	APR. 28-48	APR. 28-48		
COMPANY DEPTH	4740'	4740'		
MAXIMUM DEPTH REACHED	4740.5'	4740.5'		
WELL FLUID	OIL	OIL		
FLUID LEVEL	FULL	FULL		
MAXIMUM TEMPERATURE				
O.D. OF INSTRUMENT - INCHES	2 5/8	2 5/8		
SENSITIVITY REFERENCE	RTA	RTA		
RECORDED BY	KELLY	KELLY		
WITNESSED BY	NICHOLSON	NICHOLSON		

CASING RECORD				OPEN HOLE RECORD			
RUN NO.	SIZE - IN.	WT. - LB.	INTERVAL	BIT SIZE - IN.		INTERVAL	
1	8 1/2	1100	1410' TO 4500'	4 3/4		4500' TO T.D.	
			TO			TO	
			TO			TO	
			TO			TO	
			TO			TO	

REMARKS OR OTHER DATA

GAMMA RAY  RADIATION INTENSITY INCREASES	CORRECT LOG 900' DEPTH	NEUTRON  RADIATION INTENSITY INCREASES
--	---------------------------	--

OIL CONSE

COMMISSION

P. O.

.088

SANTA FE, NE.

MEXICO 87501

*Case File
5762
Order R-5295*

May 23, 1978

Mr. J. L. Tweed
Atlantic Richfield Company
Box 1610
Midland, Texas 79701

Dear Mr. Tweed:

As requested in your letter of May 19, 1978, and as provided in Order No. R-5295, the injection pressure in your State Vacuum unit can be increased to 1130 pounds per square inch. The tests attached to the above mentioned letter, indicate the formation parting pressure in this area to be above the authorized pressure increase.

Very truly yours,

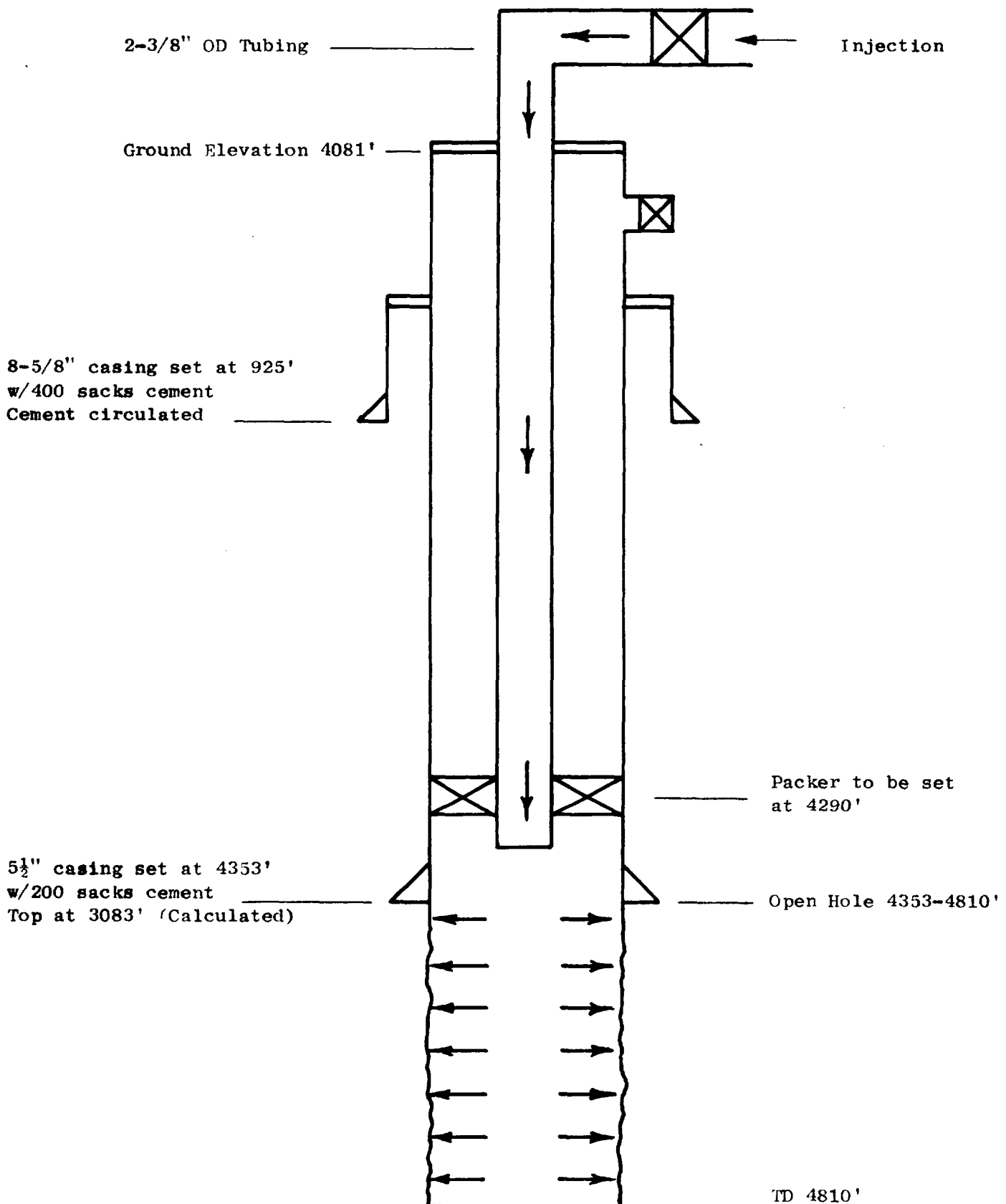
Joe D. Ramey
Division Director

JDR/og

C
O
P
Y

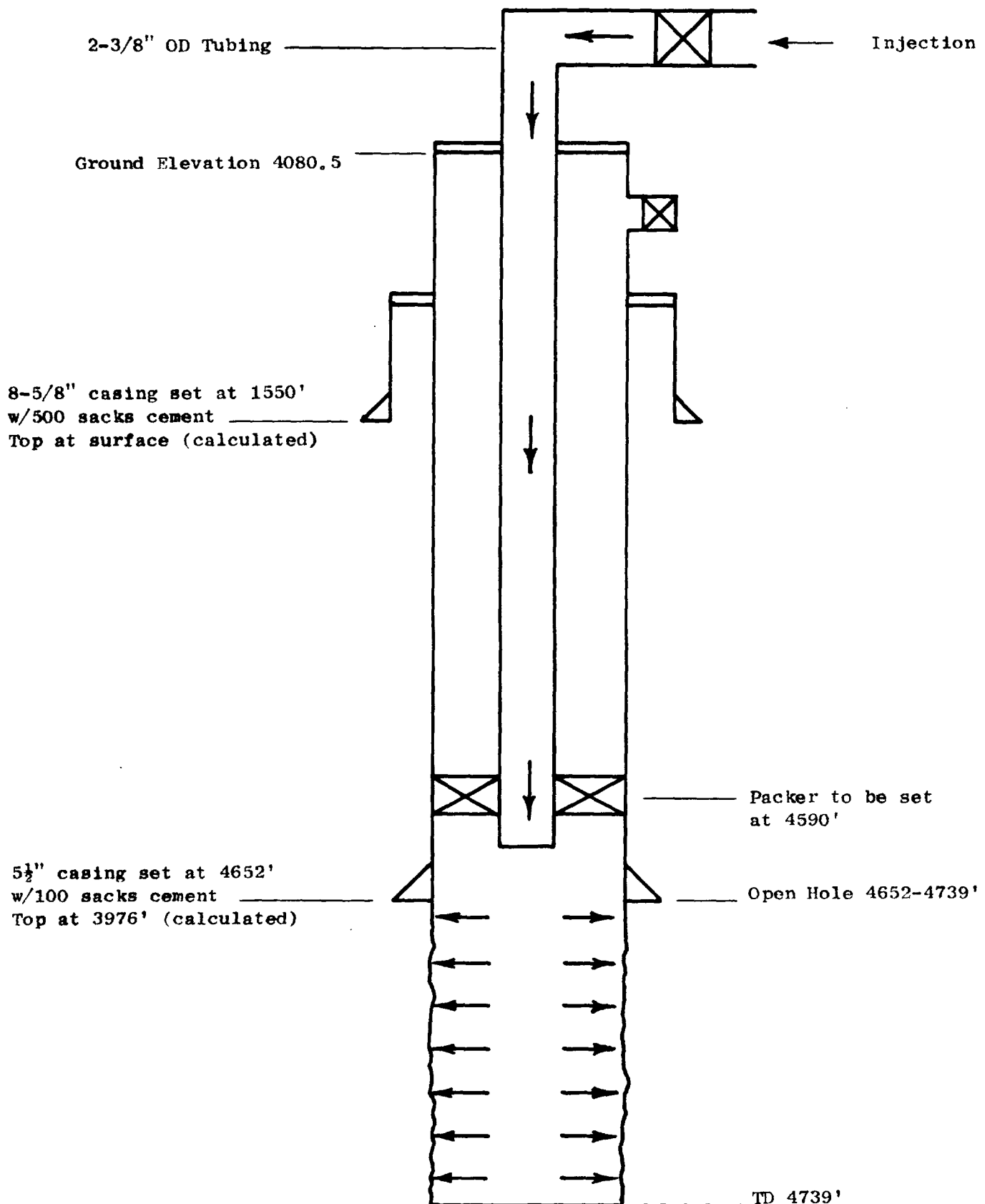
ATLANTIC RICHFIELD COMPANY
STATE VACUUM UNIT
Schematic Drawing of Injection Well
Unit Well No. 1 (Phillips Lea No. 21)
660' FSL & 680' FWL Section 29, T-17S, R-34E
Lea County, New Mexico

All measurements are from KB 10' above GL



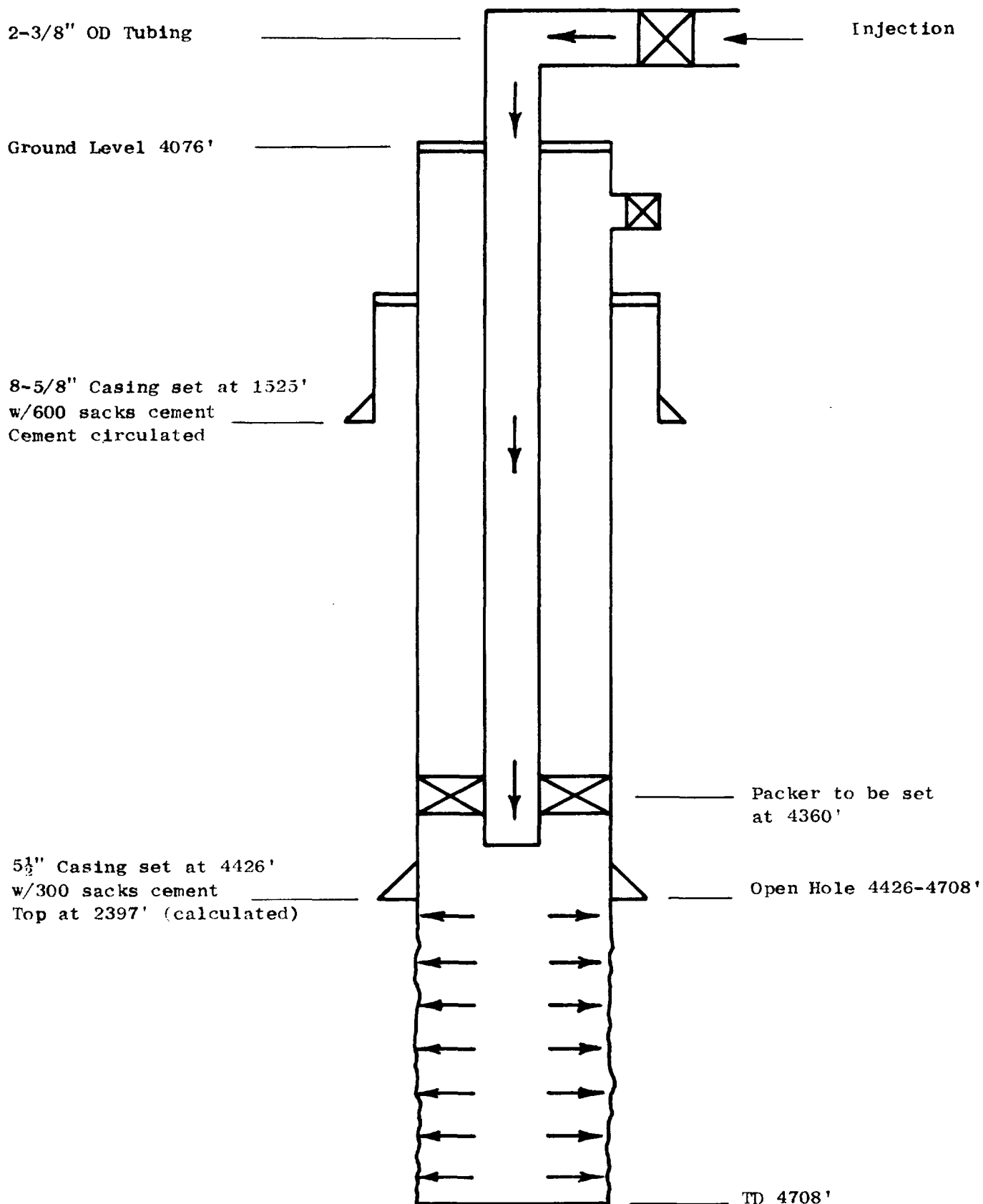
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 2 (Sohio Hale-State No. 2)
 990' FNL & 330' FEL Section 31, T-17S, R-34E
 Lea County, New Mexico

All Measurements are from KB 2.5' above GL



ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 4 (A.R.Co. State "B" TG No. 4)
 990' FNL & 1650' FWL Section 32, T-17S R-34E
 Lea County, New Mexico

All Measurements are from KB 2' above GL

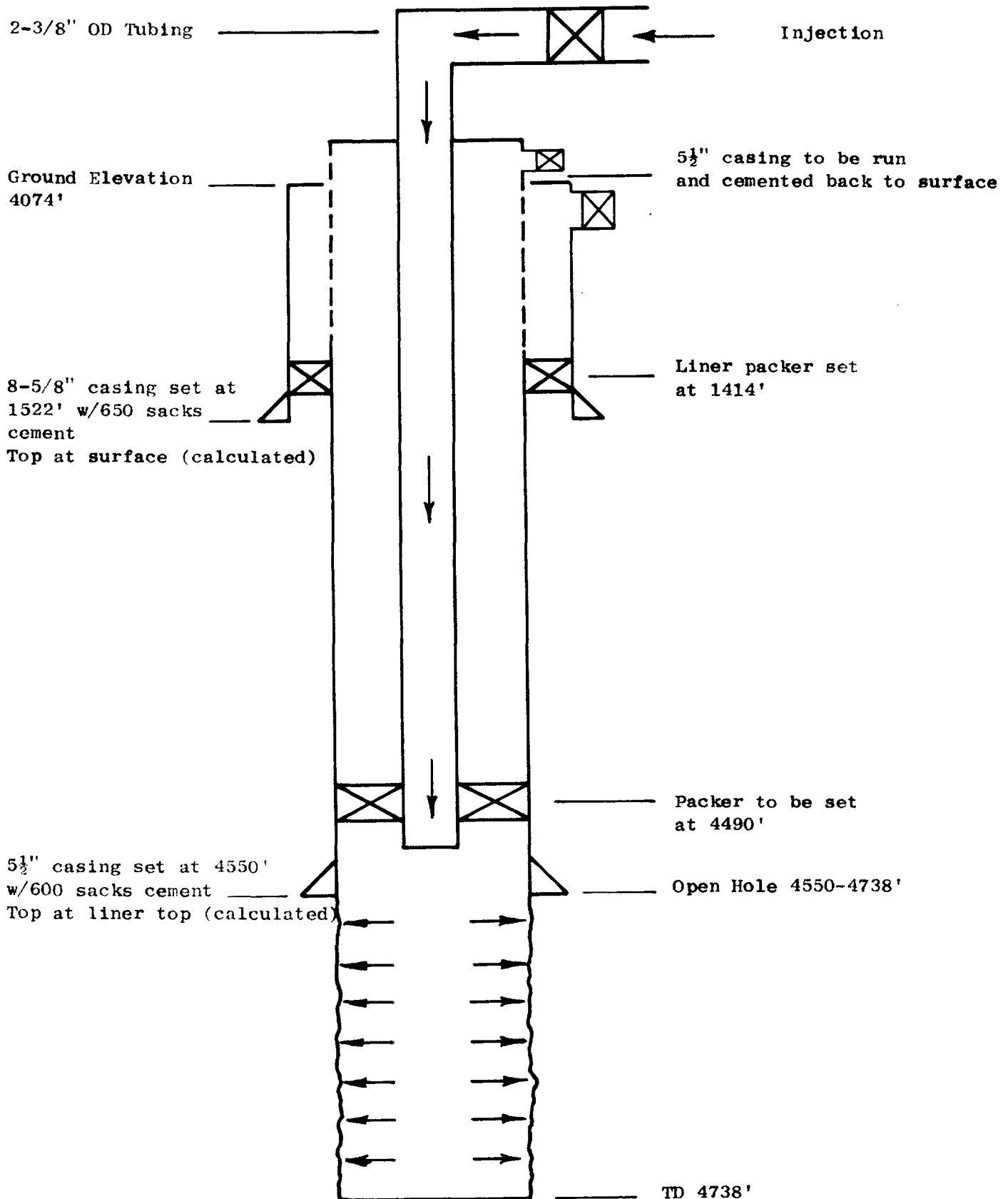


ATLANTIC RICHFIELD COMPANY
Unit Well No. 7 (A.R.Co. State "B" TG No. 3)
STATE VACUUM UNIT
Lea County, New Mexico

EXHIBIT NO. 8

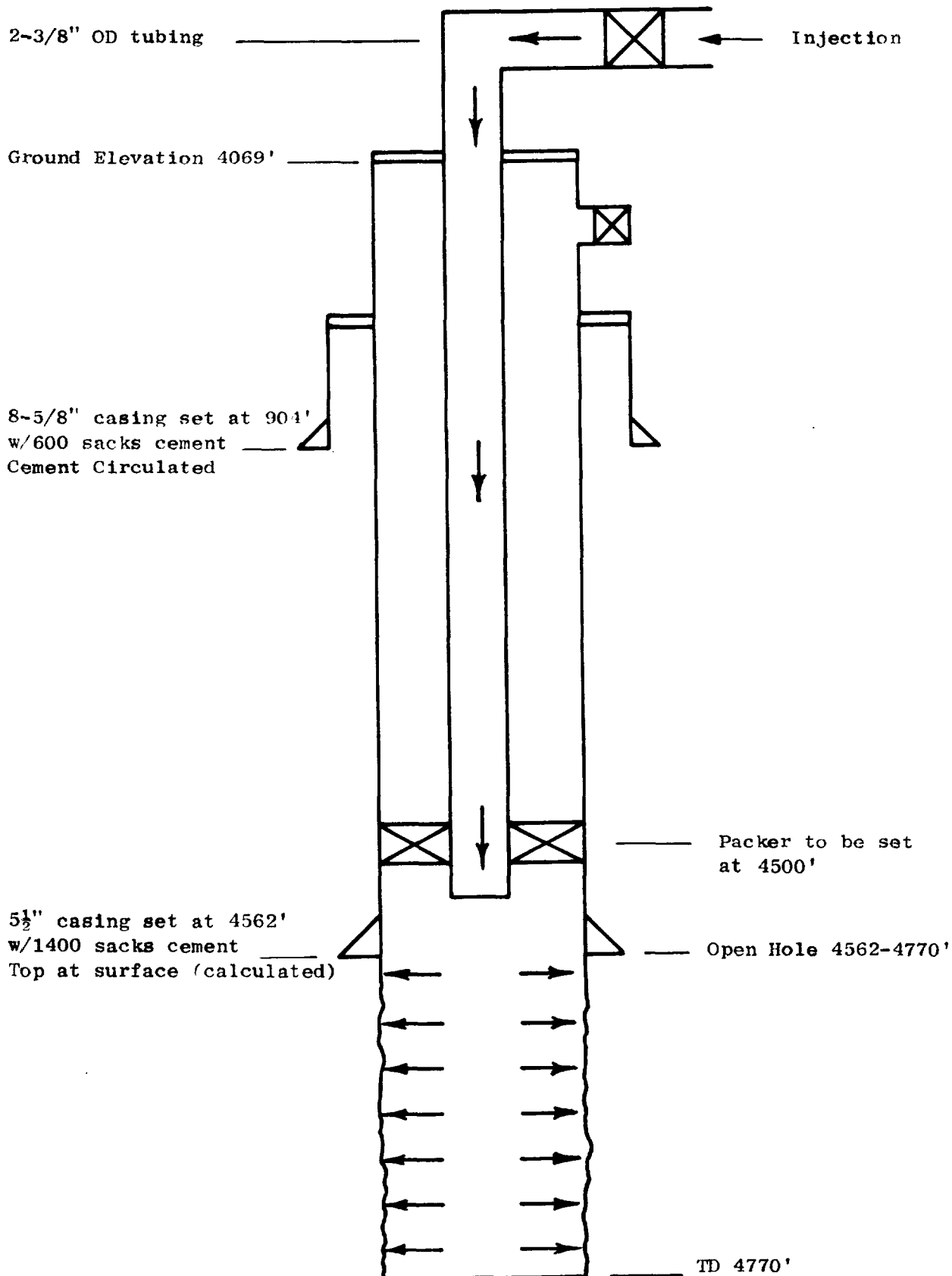
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 7 (A.R.Co. State "B" TG No. 3)
 1980' FNL & 660' FWL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 10' above GL



ATLANTIC RICHFIELD COMPANY
STATE VACUUM UNIT
Schematic Drawing of Injection Well
Unit Well No. 9 (Texaco New Mexico "D" State NCT-2 No. 3)
1980' FNL & 1980' FEL Section 32, T-17S, R-34E
Lea County, New Mexico

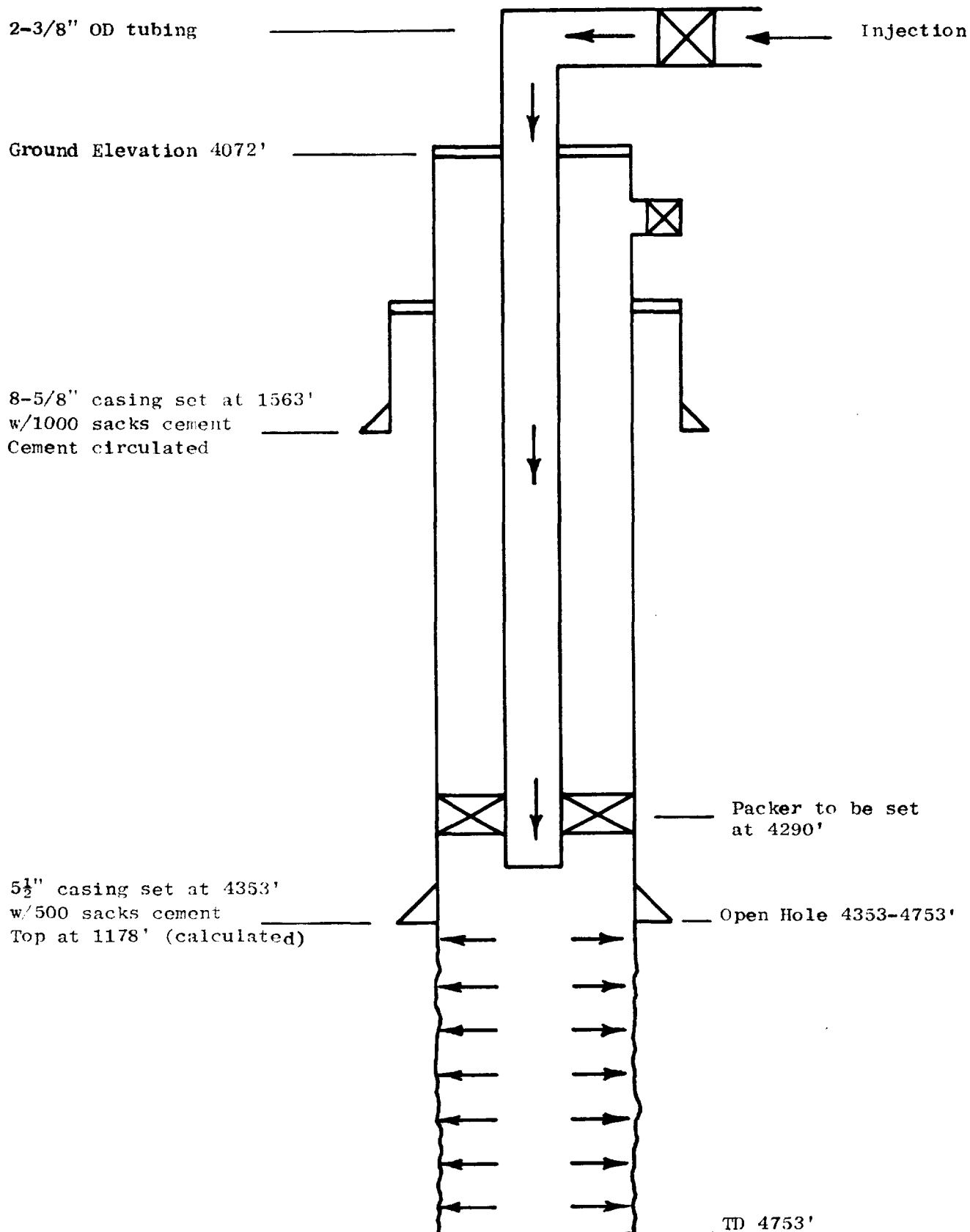
All measurements are from KB 9' above GL



Case
5762

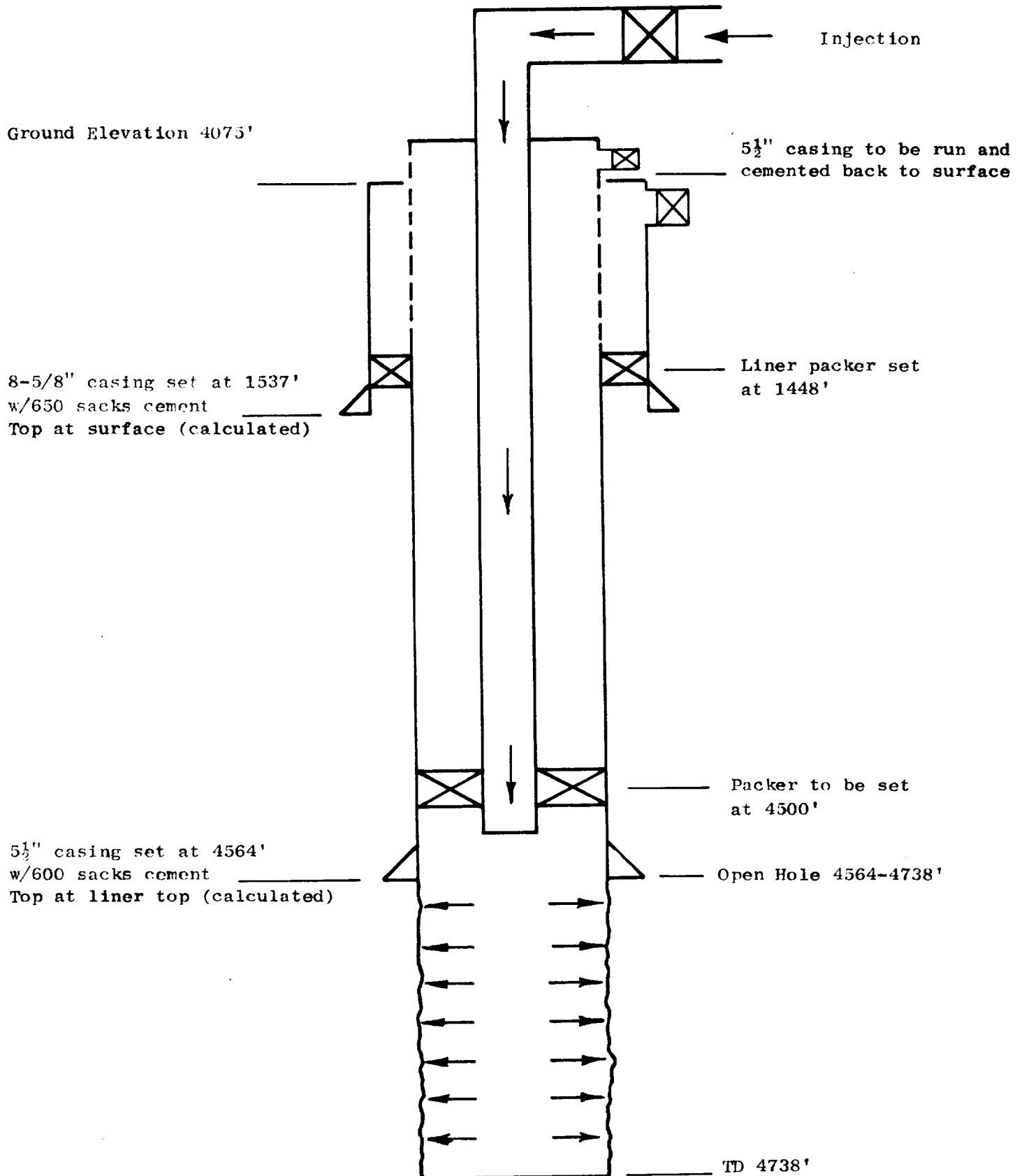
ATLANTIC RICHFIELD COMPANY
STATE VACUUM UNIT
Schematic Drawing of Injection Well
Unit Well No. 11 (Texaco New Mexico "AO" State No. 1)
2310' FSL & 330' FEL Section 31, T-17S, R-34E
Lea County, New Mexico

All measurements are from KB 10' above GL



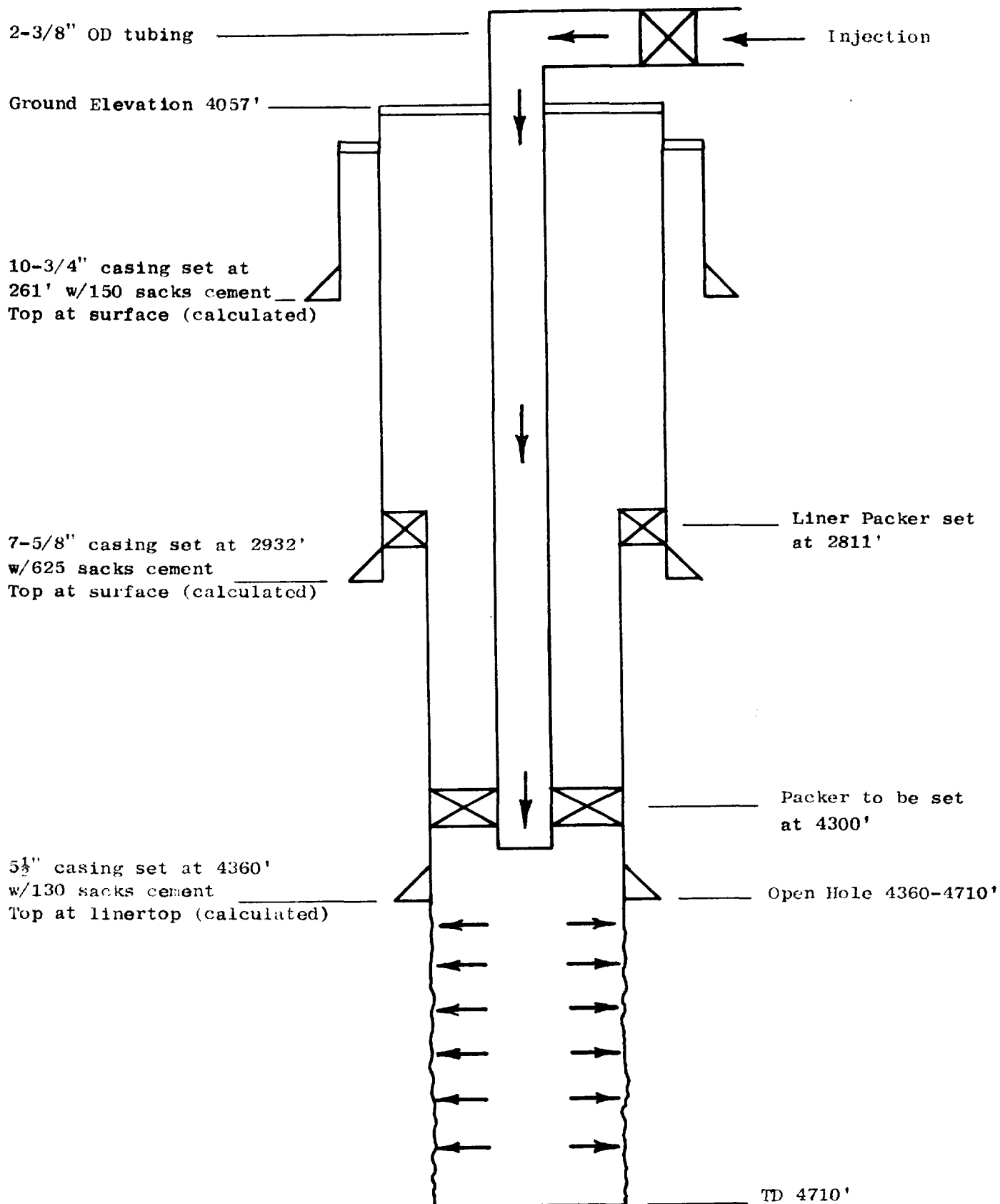
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 13 (A.R.Co. State "C" TG No. 3)
 1980' FSL & 1980' FWL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 10.5' above GL



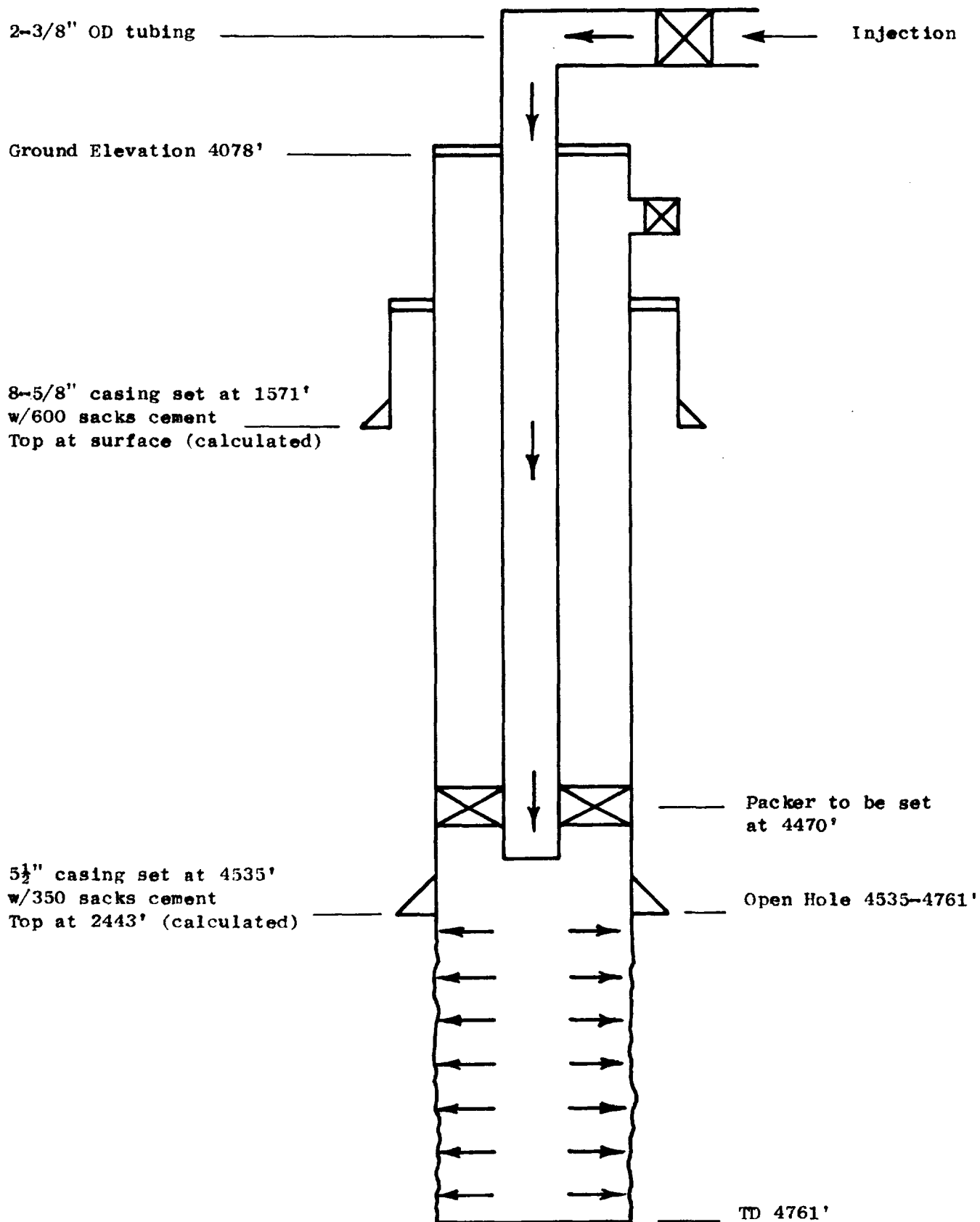
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 15 (A.R.Co. State "C" TG No. 1)
 1980' FSL & 660' FEL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 10' above GL



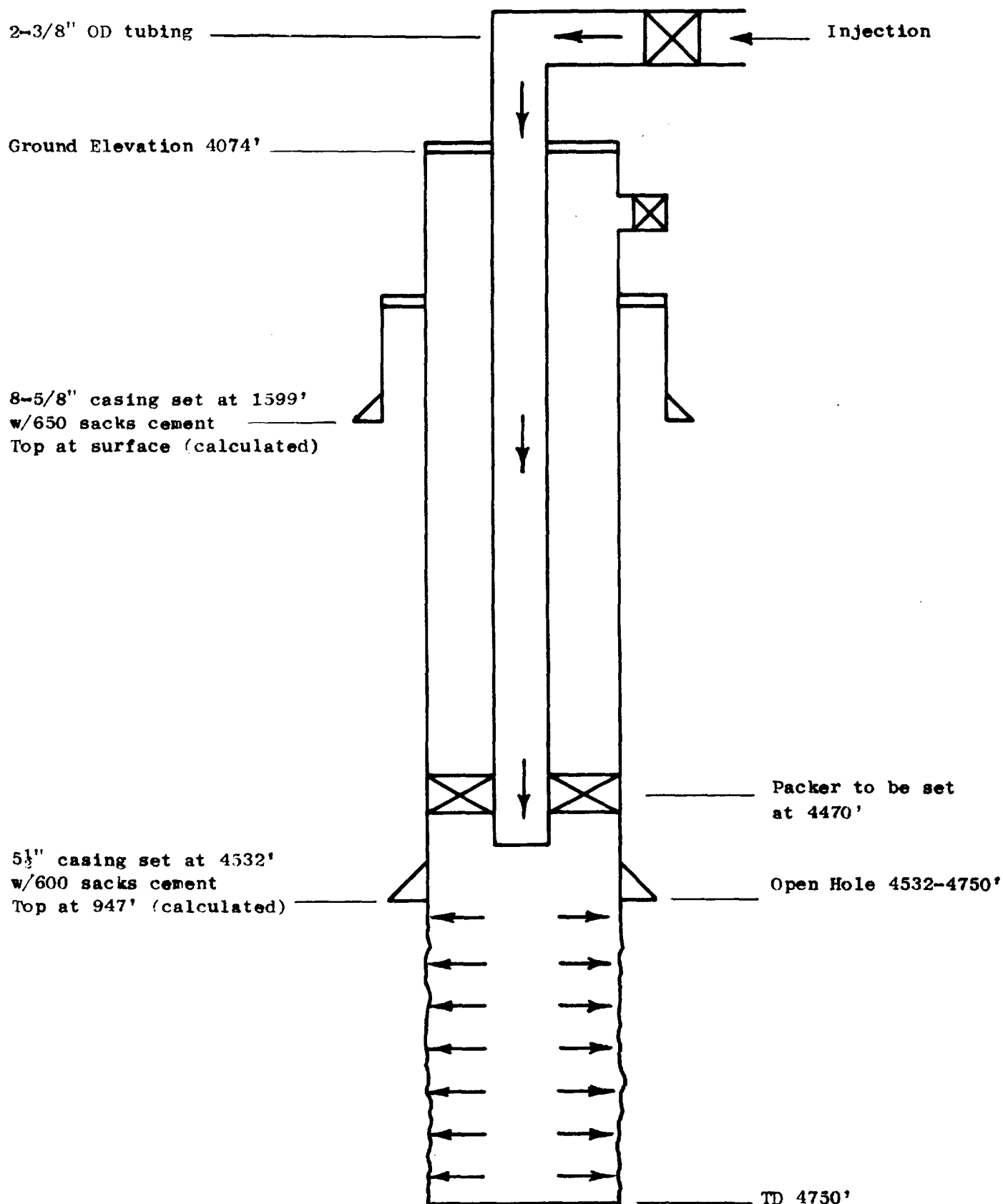
ATLANTIC RICHFIELD COMPANY
 STATE VACUUM UNIT
 Schematic Drawing of Injection Well
 Unit Well No. 17 (A.R.Co. State "C" TG No. 8)
 990' FSL & 990' FWL Section 32, T-17S, R-34E
 Lea County, New Mexico

All measurements are from KB 4' above GL

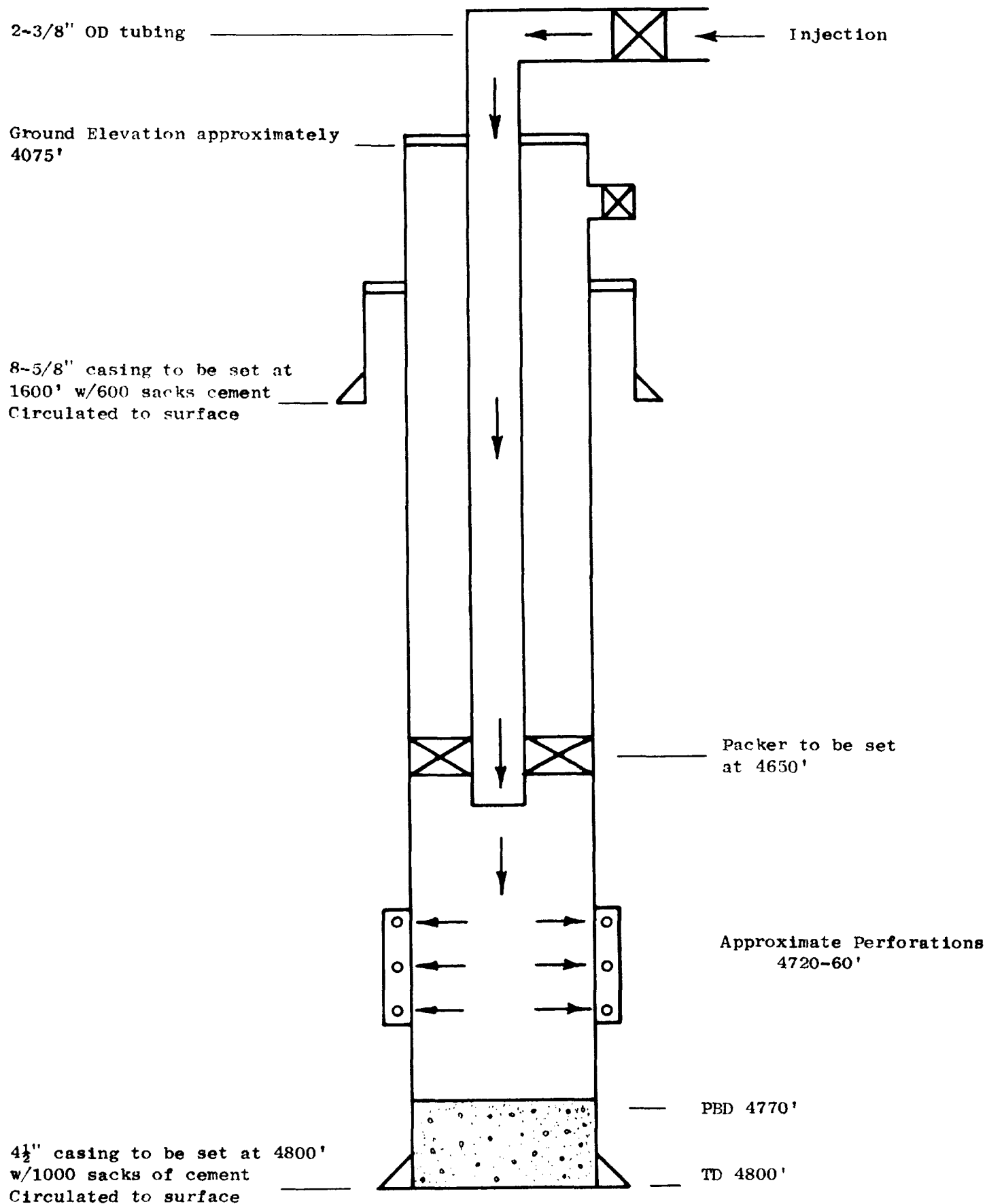


ATLANTIC RICHFIELD COMPANY
STATE VACUUM UNIT
Schematic Drawing of Injection Well
Unit Well No. 19 (A.R.Co. State "C" TG No. 5)
990' FSL & 1630' FEL Section 32, T-17S, R-34E
Lea County, New Mexico

All measurements are from KB 2' above GL



ATLANTIC RICHFIELD COMPANY
STATE VACUUM UNIT NO. 21
Schematic Drawing of Injection Well
To be drilled approximately 330' FSL & 2310' FWL Section 32, T-17S, R-34E
Lea County, New Mexico



REPRODUCED BY
WEST TEXAS ELECTRICAL LOG SERVICE

1305 Commerce Street
 Dallas 1, Texas

REFERENCE No. A 327-C

LANE RADIOACTIVITY LOG WELLS COMPANY

Location of Well 4066'DB 4067'RT	COMPANY, TEXAS-GULF PROD. CO. WELL, STATE G NO. 1 PILE: FIELD, WEST VACUUM COUNTY, LEA STATE, N.M. LOCATION, 1880' PBL 860' PBL SE/4 OF SEC 38-17E-34E	LOCATION: COUNTY, LEA STATE, N.M. FIELD, WEST VACUUM WELL, STATE G. NO. 1 PILE																																			
LOG MEASURED FROM ROTARY TABLE ELEVATION 4067' DRILLING MEASURED FROM ROTARY T. ELEVATION 4067' PERMANENT DATUM 7 5/8" GRADE N. ELEVATION 4065.2'																																					
RUN NUMBER TYPE OF LOG DATE COMPANY DEPTH MAXIMUM DEPTH REACHED WELL FLUID FLUID LEVEL MAXIMUM TEMPERATURE O.D. OF INSTRUMENT—INCHES SENSITIVITY REFERENCE RECORDED BY WITNESSED BY	1 GAMMA RAY JAN 21-48 4710' 4713.5' OIL FULL 3 5/8" 5" A MORRIS GREEN	1 NEUTRON JAN 21-48 4710' 4713.5' OIL FULL 3 5/8" 5" A MORRIS GREEN																																			
CASING RECORD <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>RUN NO.</th> <th>SIZE—IN.</th> <th>WT.—LB.</th> <th>INTERVAL</th> </tr> <tr> <td>1</td> <td>7 5/8</td> <td></td> <td>SEEP TO 2222.5'</td> </tr> <tr> <td>1</td> <td>8 1/2</td> <td></td> <td>2216.1 TO 4261.1</td> </tr> <tr> <td></td> <td></td> <td></td> <td>TO</td> </tr> <tr> <td></td> <td></td> <td></td> <td>TO</td> </tr> <tr> <td></td> <td></td> <td></td> <td>TO</td> </tr> </table>	RUN NO.	SIZE—IN.	WT.—LB.	INTERVAL	1	7 5/8		SEEP TO 2222.5'	1	8 1/2		2216.1 TO 4261.1				TO				TO				TO	OPEN HOLE RECORD <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>BY SIZE—IN.</th> <th>INTERVAL</th> </tr> <tr> <td>4 3/4</td> <td>4261' TO T.D.</td> </tr> <tr> <td></td> <td>TO</td> </tr> <tr> <td></td> <td>TO</td> </tr> <tr> <td></td> <td>TO</td> </tr> <tr> <td></td> <td>TO</td> </tr> </table>	BY SIZE—IN.	INTERVAL	4 3/4	4261' TO T.D.		TO		TO		TO		TO
RUN NO.	SIZE—IN.	WT.—LB.	INTERVAL																																		
1	7 5/8		SEEP TO 2222.5'																																		
1	8 1/2		2216.1 TO 4261.1																																		
			TO																																		
			TO																																		
			TO																																		
BY SIZE—IN.	INTERVAL																																				
4 3/4	4261' TO T.D.																																				
	TO																																				
	TO																																				
	TO																																				
	TO																																				
REMARKS OR OTHER DATA																																					
GAMMA RAY 	88E	NEUTRON																																			

Reproduced By
West Texas Electrical Log Service
 1305 Commerce Street
 Dallas 1, Texas

REFERENCE BY A 1014 -D

<div style="display: flex; justify-content: space-between; align-items: center;"> LANE <div style="text-align: center;"> RADIOACTIVITY LOG </div> WELLS </div> <div style="text-align: center; margin-top: 5px;"> COMPANY </div>			
Location of Well	COMPANY: <u>TEXAS OIL PROD. COMPANY</u> WELL: <u>STATE FOR NO. 5</u> FIELD: <u>WEST TACOMA</u> COUNTY: <u>LEA</u> STATE: <u>N.M.</u> LOCATION: <u>14501 FRL 9901 BBL. SEC.</u> <u>32, 17-S, 34-E</u>	FILE NO.	COMPANY: <u>TEXAS OIL PROD. COMPANY</u> WELL: <u>STATE FOR NO. 5</u> FIELD: <u>WEST TACOMA</u> COUNTY: <u>LEA</u> STATE: <u>N.M.</u> LOCATION:
LOG MEAS. FROM <u>CONTROL HEAD</u>	ELEV. <u>1076</u>		
DELS. MEAS. FROM <u>CONTROL HEAD</u>	ELEV. <u>1076</u>		
PERM. DATUM <u>5 1/2" B. HEAD</u>	ELEV. <u>1074</u>		
TYPE OF LOG	GAMMA RAY	NEUTRON	
RUN NO.	1	1	
DATE	8-7-60	8-7-60	
TOTAL DEPTH (DRILLER) STEEL L.	1750	1750	
EFFECTIVE DEPTH (DRILLER)	1750	1750	
TOP OF LOGGED INTERVAL	1100	1100	
BOTTOM OF LOGGED INTERVAL	1714	1714	
TYPE OF FLUID IN HOLE	OIL	OIL	
FLUID LEVEL	FULL	FULL	
MAXIMUM RECORDED TEMP.			
NEUTRON SOURCE STRENGTH & TYPE		4000	
SOURCE SPACING — IN.		8.25	
LENGTH OF MEASURING DEVICE — IN.	36	9	
O.D. OF INSTRUMENT — IN.	3 5/8	3 5/8	
TIME CONSTANT — SECONDS	8	8	
LOGGING SPEED FT./MIN.	20	20	
STATISTICAL VARIATION — IN.			
SENSITIVITY REFERENCE	274	275	
RECORDED BY	REILLY	REILLY	
WITNESSED BY	McNITT	McNITT	
CASING RECORD		OPEN (BORE) HOLE RECORD	
RUN NO.	SIZE—IN.	WT.—LB.	INTERVAL
1	8 5/8		TO 1450
2	5 1/2	HEAVY	TO 1532
			TO
			TO
			TO
			TO
			TO
REMARKS OR OTHER DATA			

Reproduced By
West Texas Electrical Log Service
 1305 Commerce Street
 Dallas 1, Texas

REFERENCE NO. A 1573 -A

LANE RADIOACTIVITY LOG WELLS COMPANY

Location of Well	COMPANY: TEXAS SELF PRODUCING CO.	FILE NO.	WELL: CENTER "C" NO. 2	FIELD: WEST TARRANT	COUNTY: TARRANT STATE: TEXAS	LOCATION: 200' N. OF N. 100' E. OF N. 100' E. 100' S. 100' W. 100' S. 100' W.
LOG MEAS. FROM: SURFACE HEAD	ELV. 4000'					
DRILL MEAS. FROM: SURFACE HEAD	ELV. 4000'					
PERM. DATUM: 2 1/2" BRASS HEAD	ELV. 4070'					

TYPE OF LOG	G/E	I ₀		
RUN NO.	1	1		
DATE	10-2-51	10-2-51		
TOTAL DEPTH (DRILLER'S LOG)	4000'	4000'		
EFFECTIVE DEPTH (DRILLER'S)	4000'	4000'		
TOP OF LOGGED INTERVAL	1000'	1000'		
BOTTOM OF LOGGED INTERVAL	4000'	4000'		
TYPE OF FLUID IN HOLE	OIL	OIL		
FLUID LEVEL	700'	700'		
MAXIMUM RECORDED TEMP.				
NEUTRON SOURCE STRENGTH & TYPE		2000		
SOURCE SPACING - IN.		2.00		
LENGTH OF MEASURING DEVICE - IN.	20	2		
O.D. OF INSTRUMENT - IN.	2 1/2	2 1/2		
TIME CONSTANT - SECONDS	2	2		
LOGGING SPEED FT./MIN.	40	40		
STATISTICAL VARIATION - IN.				
SENSITIVITY REFERENCE	STG	STG		
RECORDED BY	KELLY	KELLY		
WITNESSED BY	WALKER	WALKER		

CASING RECORD			INTERVAL	
RUN NO.	BT SIZE	CASING WT.-LB.	FROM WELL RECORD	FROM R/A LOG
1	2 1/2		SURF. TO 1000'	SURF. TO
2	2 1/2		SURF. TO 4000'	SURF. TO 4000'
3	2 1/2		TO	TO
			TO	TO
			TO	TO

REMARKS OR OTHER DATA

NEUTRON

REPRODUCED BY
WEST TEXAS ELECTRICAL LOG SERVICE

1305 Commerce Street
Dallas 1, Texas

REFERENCE No. A 410-D



LANE RADIOACTIVITY LOG WEI COMPANY

Location of Well H.L. 4024'DF	COMPANY: TEXAS-GULF PROD. CO.	LOCATION: COUNTY: LEA STATE: N.M.	WELL: STATE O NO.3 FILE: FIELD: VACUUM COUNTY: LEA STATE: N.M.	COMPAR: TEXAS-GULF PROD. CO.
	WELL: STATE O NO.3			
	FIELD: VACUUM			
	COUNTY: LEA			
	LOCATION: 1922' FROM L 400 22, T-172, R-342			
LOG MEASURED FROM TOP ROTARY ELEVATION 4022.5'				
DRILLING MEASURED FROM TOP ROTARY ELEVATION 4022.5'				
PERMANENT DATUM 2 5/8" BE ELEVATION 4072.15'				

RUN NUMBER	1	2		
TYPE OF LOG	GAMMA RAY	NEUTRON		
DATE	MAY 22-62	MAY 22-62		
COMPANY DEPTH	4722'	4722'		
MAXIMUM DEPTH REACHED	4742'	4742'		
WELL FLUID	OIL	OIL		
FLUID LEVEL	FULL	FULL		
MAXIMUM TEMPERATURE				
O.D. OF INSTRUMENT—INCHES	2 5/8	2 5/8		
SENSITIVITY REFERENCE	274	278		
RECORDED BY	RUBION	RUBION		
WITNESSED BY	MICHAELSON	MICHAELSON		

CASING RECORD				OPEN HOLE RECORD			
RUN NO.	SIZE—IN.	WT.—LB.	INTERVAL	BIT SIZE—IN.	INTERVAL		
1	2 5/8		274' TO 1024'	4 3/4	4522' TO T.D.		
2	2 1/2	2742'	1024' TO 4522'				
			TO				
			TO				
			TO				

REMARKS OR OTHER DATA

GAMMA RAY  RADIATION INTENSITY INCREASES	NEUTRON  RADIATION INTENSITY INCREASES
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Reproduced By
West Texas Electrical Log Service
 1305 Commerce Street
 Dallas 1, Texas

REFERENCE N° A 1481 - A

LANE RADIOACTIVITY LOG WELLS COMPANY

Location of Well	COMPANY: <u>SEARS ROEBUCK & CO.</u>	FILE NO. _____
	WELL: <u>STATE "P" NO. 4</u>	WELL: <u>STATE "P" NO. 4</u>
	FIELD: <u>WEST TARRANT</u>	FIELD: <u>WEST TARRANT</u>
	COUNTY: <u>EMA</u> STATE: <u>KANSAS</u>	COUNTY: <u>EMA</u> STATE: <u>KANS.</u>
	LOCATION: <u>930' IN</u> <u>1650' IN</u>	LOCATION: _____
LOG MEAS. FROM: <u>SEARS TOE FLOOR</u>	SLY. <u>1678'</u>	
DRILL. MEAS. FROM: <u>SEARS TOE FLOOR</u>	SLY. <u>1678'</u>	
PERM. DATUM: <u>5 1/2" BEATHS FLOOR</u>	SLY. <u>1674'</u>	

TYPE OF LOG	R/A	IN		
RUN NO.	1	1		
DATE	9-28-51	9-28-51		
TOTAL DEPTH (DRILLER) FEET	1608'	1608'		
EFFECTIVE DEPTH (DRILLER)	1608'	1608'		
TOP OF LOGGED INTERVAL	1608'	1608'		
BOTTOM OF LOGGED INTERVAL	1608'	1608'		
TYPE OF FLUID IN HOLE	OIL	OIL		
FLUID LEVEL	SP45'	SP45'		
MAXIMUM RECORDED TEMP.				
NEUTRON SOURCE STRENGTH & TYPE		40SK		
SOURCE SPACING - IN.		2.25"		
LENGTH OF MEASURING DEVICE - IN.	36"	36"		
O.D. OF INSTRUMENT - IN.	3 5/8"	3 5/8"		
TIME CONSTANT - SECONDS	2	2		
LOGGING SPEED FT./MIN.	16	16		
STATISTICAL VARIATION - IN.				
SENSITIVITY REFERENCE	80%	80%		
RECORDED BY	WELLS	WELLS		
WITNESSED BY	WELLS	WELLS		

REPRODUCED BY
WEST TEXAS ELECTRICAL LOG SERVICE

1305 Commerce Street
Dallas 1, Texas

REFERENCE No. A 407-C

LANE RADIOACTIVITY LOG WELLS COMPANY

Location of Well	COMPANY: THE TEXAS CO.	LOCATION:	WELL STATE D NO. 3 FILE	COUNTY: LEA STATE: N.M.	FIELD: VACUUM
	WELL STATE D NO. 3 FILE				
	FIELD: VACUUM				
	COUNTY: LEA STATE: N.M.				
	LOCATION: 1980' PEREL SEC 38, T-17S, R-54E				
4080' DP					
LOG MEASURED FROM TOP ROTARY ELEVATION 4091.5'					
DRILLING MEASURED FROM TOP ROTARY ELEVATION 4091.5'					
PERMANENT DATUM 5 1/2" BRADEN HEAD ELEVATION 4975.5'					

RUN NUMBER	1	1		
TYPE OF LOG	GAMMA RAY	NEUTRON		
DATE	MAY 16-48	MAY 16-48		
COMPANY DEPTH. H.L.	4770'	4770'		
MAXIMUM DEPTH REACHED	4780'	4780'		
WELL FLUID	OIL	OIL		
FLUID LEVEL	FULL	FULL		
MAXIMUM TEMPERATURE				
O.D. OF INSTRUMENT—INCHES	3 5/8	3 5/8		
SENSITIVITY REFERENCE	274	275		
RECORDED BY	RUMION	RUMION		
WITNESSED BY	WEBER	WEBER		

CASING RECORD				OPEN HOLE RECORD			
RUN NO.	SIZE—IN.	WT.—LB.	INTERVAL	BT SIZE—IN.	INTERVAL		
1	3 1/2		SURF. TO 4580'	4 3/4	4580'	TO T.D.	
			TO			TO	
			TO			TO	
			TO			TO	
			TO			TO	

REMARKS OR OTHER DATA

<p>GAMMA RAY</p> <p>→</p> <p>RADIATION INTENSITY INCREASES</p>	<p>CASING & COLLAR LOG DEPTH</p>	<p>NEUTRON</p> <p>→</p> <p>RADIATION INTENSITY INCREASES</p>
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Reproduced By
West Texas Electrical Log Service
 1308 Commerce Street
 Dallas 1, Texas

~~REFERENCE NO. A 1301 - D~~

RADIOACTIVITY
LOG **WELLS**
COMPANY

Location of Well <i>31-17-34</i>	COMPANY: THE TEXAS CO. WELL: STATE AO NO. 1 FIELD: WEST VACUUM COUNTY: LRA STATE: N.M. LOCATION: <i>• 31-17-34 1/2 Sec 15 E</i>	FILE NO. COMPANY: THE TEXAS CO. WELL: STATE AO NO. 1 FIELD: WEST VACUUM COUNTY: LRA LOCATION: STATE: N.M.
LOG MEAS. FROM DRIVE BUSHING ELEV. 4077' DRG. MEAS. FROM DRIVE BUSHING ELEV. 4077' PERM. DATUM 8 1/2" BRADEN HEAD ELEV. 4086.8'		

TYPE OF LOG	G/R	N/L			
RUN NO.					
DATE	1-9-81	1-10-81			
TOTAL DEPTH (DRILLER) RACE	4753'	4753'			
EFFECTIVE DEPTH (DRILLER)	4753'	4753'			
TOP OF LOGGED INTERVAL	0	0			
BOTTOM OF LOGGED INTERVAL	4753'	4753'			
TYPE OF FLUID IN HOLE	OIL	OIL			
FLUID LEVEL	FULL	FULL			
MAXIMUM RECORDED TEMP.					
NEUTRON SOURCE STRENGTH & TYPE		600M			
SOURCE SPACING - IN.		8.25			
LENGTH OF MEASURING DEVICE - IN.	36	9			
O.D. OF INSTRUMENT - IN.	3 5/8	3 5/8			
TIME CONSTANT - SECONDS	2	2			
LOGGING SPEED FT. MIN.	35	35			
STATISTICAL VARIATION - IN.					
SENSITIVITY REFERENCE	274	275			
RECORDED BY	KELLY	KELLY			
WITNESSED BY	WEBER	WEBER			

CASING RECORD				OPEN (BORE) HOLE RECORD			
RUN NO.	SIZE - IN.	WT. - LB.	INTERVAL	BT SIZE - IN.	INTERVAL		
1	8 5/8		SURFACE TO 1863'	7 7/8	4378' TO 4625'		
1	8 1/2		SURFACE TO 4378'	4 3/4	4625' TO T.D.		
			TO		TO		
			TO		TO		
			TO		TO		

REMARKS OR OTHER DATA • LOCATION UNAVAILABLE.
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Reproduced By
West Texas Electrical Log Service
 1205 Commercial Street
 Dallas 1, Texas

REFERENCE N° A 1640 -E

LANE RADIOACTIVITY LOG WELLS COMPANY

FILE NO.

Location of Well

COMPANY: H. E. FERRER, INC.

WELL: RAE-STATE NO. 2

FIELD: WEST TARRANT

COUNTY: SEA STATE: E.

LOCATION: 222' FTL. & 222' FTL.

222' 21' & 172' 54'

CORNER: L. & H. CORNER, INC.
 WELL: RAE-STATE NO. 2
 FIELD: WEST TARRANT
 COUNTY: SEA STATE: E.
 LOCATION: 222' FTL. & 222' FTL.

LOG MEAS. FROM NEUTRON FLOOR R.V. 4000'

DRLS. MEAS. FROM NEUTRON FLOOR R.V. 4000'

PERM. BATH. ADDED LINE R.V. 4000'

TYPE OF LOG	GAMMA RAY	NEUTRON
RUN NO.	1	1
DATE	1-17-54	1-18-54
TOTAL DEPTH (DRILL) DEPTH	4720'	4720'
EFFECTIVE DEPTH (DRILL)	4720'	4720'
TOP OF LOGGED INTERVAL	0	0
BOTTOM OF LOGGED INTERVAL	4727'	4727'
TYPE OF FLUID IN HOLE	WT.	WT.
FLUID LEVEL		4000'
MAXIMUM RECORDED TEMP.		80°F
NEUTRON SOURCE STRENGTH & TYPE		2.50
SOURCE SPACING - IN.		2.50
LENGTH OF MEASURING DEVICE - IN.	24	2
O.D. OF INSTRUMENT - IN.	2 5/8	2 5/8
TIME CONSTANT - SECONDS	5	5.2
LOGGING SPEED FT./MIN.	20	45
STATISTICAL VARIATION - IN.		
SENSITIVITY REFERENCE	274	275
RECORDED BY	SCHEIDTBAUGH	
WITNESSED BY	ANDERSON	ANDERSON

CASING RECORD			INTERVAL	
RUN NO.	BT SIZE	GAMMA	WT.-LB.	FROM WELL RECORD
1	2 1/2	2 5/8		NEUT. TO 1500'
1	2 1/2	2 5/8		NEUT. TO 4000'
1	2 1/2	2 5/8		4000' TO 4720'
				TO 4727'
				TO 4727'

REMARKS OR OTHER DATA

GAMMA RAY

NEUTRON

Case 5762

REPRODUCED BY
WEST TEXAS ELECTRICAL LOG SERVICE

1305 Commerce Street
Dallas 1, Texas

REFERENCE No. A 332-B

RADIOACTIVITY

LOG
COMPANY

VV 5555

Location of Well	COMPANY: <u>GOIR & DARDEN</u>	LOCATION: <u>IRA</u> STATE: <u>TEX</u> <u>MEXICO</u>
	WELL: <u>PHILLIPS STATE FILE</u>	
	FIELD: <u>VACUUM</u>	
	COUNTY: <u>IRA</u> STATE: <u>TEX</u> <u>MEXICO</u>	
	LOCATION: <u>660 FWASL SEC. 25</u>	
REL. 4090 DF.	<u>T-178 R. 114E</u>	
LOG MEASURED FROM <u>ROT. TABLE</u> ELEVATION <u>4091</u>		
DRILLING MEASURED FROM <u>ROT. TABLE</u> ELEVATION <u>4091</u>		
PERMANENT DATUM <u>5 1/2 BRADEN H.</u> ELEVATION <u>4080.9</u>		

RUN NUMBER	<u>1</u>	<u>1</u>		
TYPE OF LOG	<u>GAMMA RAY</u>	<u>NEUTRON</u>		
DATE	<u>2-30-48</u>	<u>2-30-48</u>		
COMPANY DEPTH	<u>4820</u>	<u>4820</u>		
MAXIMUM DEPTH REACHED	<u>4830</u>	<u>4830</u>		
WELL FLUID	<u>OIL</u>	<u>OIL</u>		
FLUID LEVEL	<u>FULL</u>	<u>FULL</u>		
MAXIMUM TEMPERATURE				
O.D. OF INSTRUMENT—INCHES	<u>3 5/8</u>	<u>3 5/8</u>		
SENSITIVITY REFERENCE	<u>274</u>	<u>275</u>		
RECORDED BY	<u>CROWELL</u>	<u>CROWELL</u>		
WITNESSED BY	<u>DARDEN</u>	<u>DARDEN</u>		

CASING RECORD				OPEN HOLE RECORD			
RUN NO.	SIZE—IN.	WT.—LB.	INTERVAL	BIT SIZE—IN.	INTERVAL		
<u>1</u>	<u>5 1/2</u>		<u>SURF. TO 4349</u>	<u>4 3/4</u>	<u>4349 TO 4830</u>		
			TO		TO		
			TO		TO		
			TO		TO		
			TO		TO		

REMARKS OR OTHER DATA

GAMMA RAY

NEUTRON

2 20

N.

CREASES