

DATE IN	SUSPENSE	ENGINEER	LOGGED BY	TYPE
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVER SHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
[DD-Directional Drilling] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
☐ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☒ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☒ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

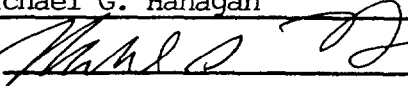
Michael G. Hanagan
Print or Type Name


Signature

President, Hanagan Pet. Corp. 7/14/98
Title Date

Case 12023

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ Yes ☐ No
- II. OPERATOR: Hanagan Petroleum Corporation
ADDRESS: P.O. Box 1737 - Roswell, New Mexico 88202-1737
CONTACT PARTY: Mike Hanagan PHONE: 623-5053
- III. WELL DATA: Complete the data required on the reverse side of this form for each well processed 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 R-8611
- 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 sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Michael G. Hanagan TITLE: President
SIGNATURE:  DATE: 7/14/98
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal. _____

**STATE OF NEW MEXICO
OIL CONSERVATION DIVISION**

**FORM C-108
APPLICATION FOR AUTHORIZATION TO INJECT**

**Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Wells:**

#3, #5, #10, #12, #14, #18, #20, #22, #26, #29,
#36, #39, #41, #42, #45, #47, #49, #51, #58, #60,
#69, #72, #77, #79, #87, #89, #94, #102, #106, #110,
#112, #117, #120 and #123 (34 wells)

- I. PURPOSE:** Secondary Recovery
Application does qualify for administrative approval.
- II. OPERATOR:** Hanagan Petroleum Corporation
Post Office Box 1737
Roswell, New Mexico 88202-1737
Contact Party: Mike Hanagan
Phone: (505) 623-5053
- III. WELL DATA:** See attached data sheets and schematics for each well.
- IV.** This is an expansion of an existing project as authorized by Division order number R-8611 and order number WFX-582.
- V. AREA OF REVIEW MAP:** See attached Map C-108 Item V.
- VI. AREA OF REVIEW WELL DATA:** With the exception of the wells listed below, which have been drilled, plugged or in which borehole conditions have changed subsequent to September 9, 1987; All required data on wells within the area of review was previously submitted and accepted on September 9, 1987 at the NMOCD hearing on Pelto Oil Company's application for waterflood project (OCD order # R-8611) and remains current.

A tabulation and schematic for the following wells which were drilled, plugged or in which borehole conditions have changed is attached hereto:

TLSAU #31 2310' FNL & 1650' FWL Section 31-T8S-R29E
TLSAU #33 2310' FNL & 990' FEL Section 31-T8S-R29E
TLSAU #62 330' FNL & 330' FWL Section 5-T9S-R29E
TLSAU #121 1500' FNL & 1405' FWL Section 5-T9S-R29E
TLSAU #122 1400' FNL & 250' FEL Section 36-T8S-R28E
TLSAU #200 2310' FSL & 990' FEL Section 12-T9S-R28E
TLSAU #201 330' FSL & 1650' FWL Section 1-T9S-R28E

TLSAU #202 1300' FSL & 1300' FWL Section 36-T8S-R29E

TLSAU #203 1650' FSL & 2310' FWL Section 6-T9S-R29E

In addition to those wells shown above, there are two wells within the area of review that, by letters dated 11/18/97, the NMOCD has requested the operator to show cause as to why the wells should not be plugged and abandoned. The certified letters sent by NMOCD to the operator were returned to NMOCD as undeliverable. There is no other indication of subsequent activity in the NMOCD files so it is our assumption that these wells remain in the conditions existing on September 9, 1987 and therefore have been previously submitted and accepted on September 9, 1987 at the NMOCD hearing on Pelto Oil Company's application for waterflood project (NMOCD order # R-8611). An inspection of the 2 wells on July 14, 1998 confirms that production equipment (i.e., tank battery and pumpjacks) are still in place and apparently operational. The 2 subject wells are:

Sandco Oil and Gas, Inc. #2 Sandco
2310' FNL & 1650' FEL
Section 25 - T8S - R28E

Sandco Oil & Gas, Inc. #3 Sandco
990' FNL & 330' FEL
Section 25 - T8S - R28E

VII. PROPOSED OPERATION:

1. Average injection rate of 300-500 barrels per day with maximum injection of 750 barrels per day.
2. The system is a closed injection system.
3. Maximum injection pressure will be limited to 0.2 psi/ft. Average injection pressure will not be known until commencement of injection.
4. The source water will be a mixture of Ogalla and produced water. Analysis and compatibility of injection water has been previously submitted.
5. Not applicable

VIII. GEOLOGIC DATA: All required geologic data on wells within the area of review was previously submitted and accepted on September 9, 1987 at the NMOCD hearing on Pelto Oil Company's application for waterflood project (OCD order # R-8611) and remains current.

IX. STIMULATION PROGRAM: No initial stimulations are planned on these wells; however, should injection rate be insufficient the wells will be acidized with 5,000 gallons to 10,000 gallons of 20% hydrochloric acid.

X. WELL LOGS: All well logs and test data have been filed with the Division.

- XI. WATER WELL ANALYSIS:** Analysis on any water wells within one mile of any well was previously submitted and accepted on September 9, 1987 at the NMOCD hearing on Peltó Oil Company's application for waterflood project (OCD order # R-8611) and remains current.

A search of State Engineer records in Roswell on July 2, 1998 revealed no new information on record.

- XII.** Not applicable.

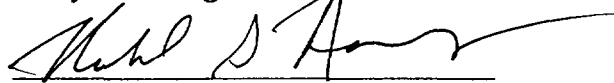
- XIII. PROOF OF NOTICE:** The surface owner is David Kent Gabel whose address is Route 3, Hereford, Texas 79045. There are two leasehold operator within the area of review; (1) Willow Pipeline Company whose address is P.O. Box 131, Weatherford, Oklahoma 73096 and (2) Sandco Oil and Gas, Inc. whose last known address was P.O. Box 881, Mesilla Park, New Mexico 88047.

Each of these parties have been provided notice of this application (See attached certified mail receipt).

For Proof of Publication see attached copy of the legal advertisement which will be published in the Roswell Daily Record on July 17, 1998.

- XIV. CERTIFICATION:**

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



Michael G. Hanagan, President

DATE: 7/14/98

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 3
A1	FOOTAGE:	1650 FSL & 1650 FEL
A1	SECTION:	25-T8S-R28E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

A2	HOLE SIZE:	11"	7.875
A2	CASING SIZE:	8.625"	5.5"
A2	CASING WEIGHT:	20 #	14 #
A2	CASING DEPTH:	121'	2830'
A2	CEMENT:	75sx	125sx
A2	TOP OF CEMENT:	surface	2010'
		circ. 10sx	bond log

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" EUE, J-55, 4.7#/ft, 8rt. internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2525' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2573'-2738'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	563'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

25-T8S-R28E 1650 FSL & 1650 FEL



OBRIEN 25 #4

TI.SAU #3

30-005-60601

C-108 III a & b

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 5
A1	FOOTAGE:	1650 FSL & 330 FWL
A1	SECTION:	30-T8S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

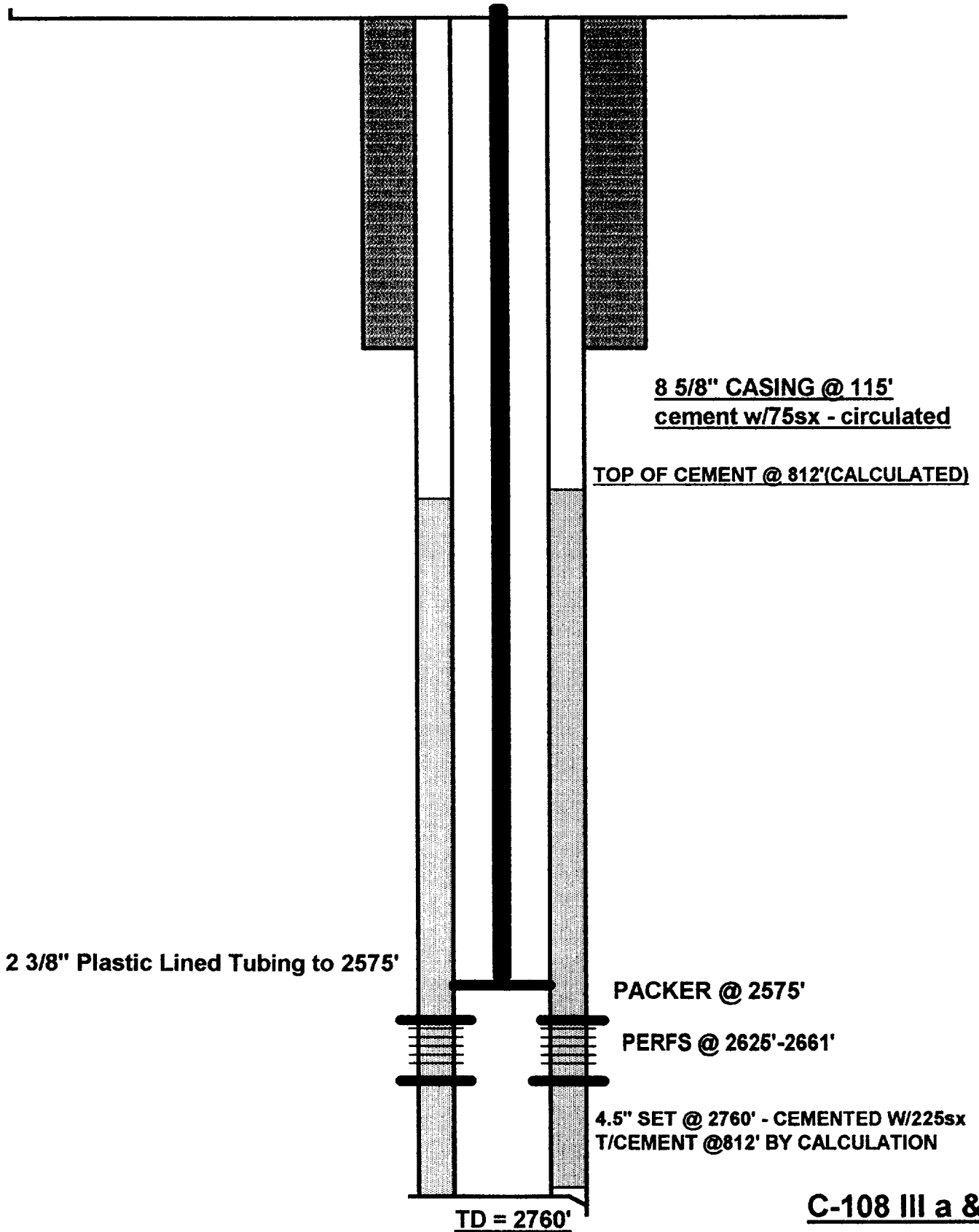
A2	HOLE SIZE:	12.5"	7.875"
A2	CASING SIZE:	8.625"	5.5"
A2	CASING WEIGHT:	28 #	14 #
A2	CASING DEPTH:	115'	2760'
A2	CEMENT:	75sx	225sx
A2	TOP OF CEMENT:	surface	812'
		circulated	calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" EUE, J-55, 4.7#/ft. 8rt. intrnally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2575' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2625' - 2661'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1813'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #5
Well Schematic (Proposed)
C-108-III a & b



30-T8S-R29E, 1650 FSL & 330 F.W.L

L

O'BRIEN K #2

TLSAU #5

30-005-60572

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 10
A1	FOOTAGE:	330' FSL & 2310 FWL
A1	SECTION:	25-T8S-R28E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

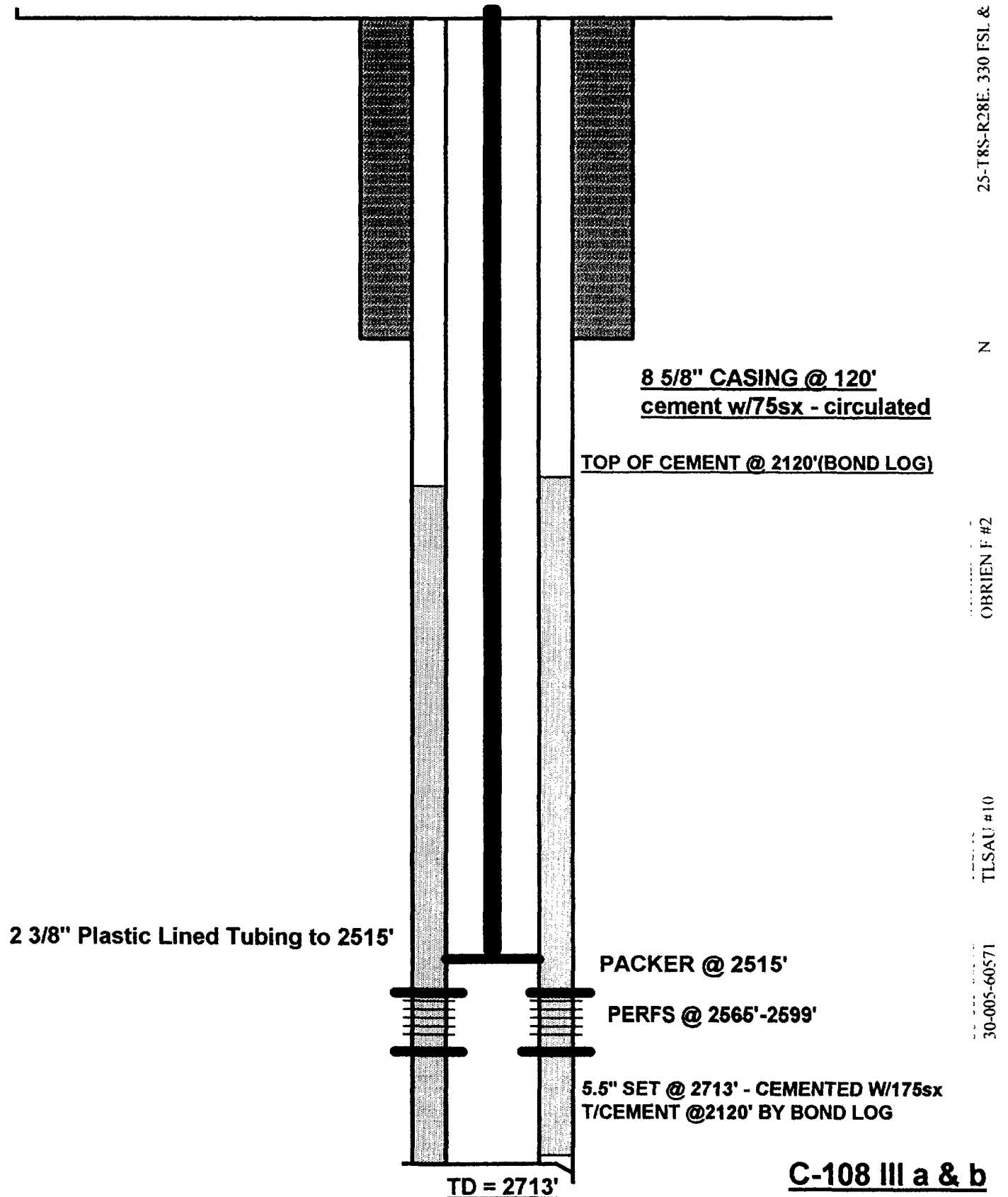
A2	HOLE SIZE:	12.5"	7.875
A2	CASING SIZE:	8.625	5.5"
A2	CASING WEIGHT:	20#/ft	14#/ft
A2	CASING DEPTH:	120'	2713'
A2	CEMENT:	75sx	175sx
A2	TOP OF CEMENT:	surface	2120'
		circulated	bond log

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" EUE, J-55, 4.7#/ft. 8rt. intrnally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2515' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2565'-2599'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	445'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #10
Well Schematic (Proposed)
C-108-III a & b



**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 12
A1	FOOTAGE:	330 FSL & 330 FEL
A1	SECTION:	25-T8S-R28E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

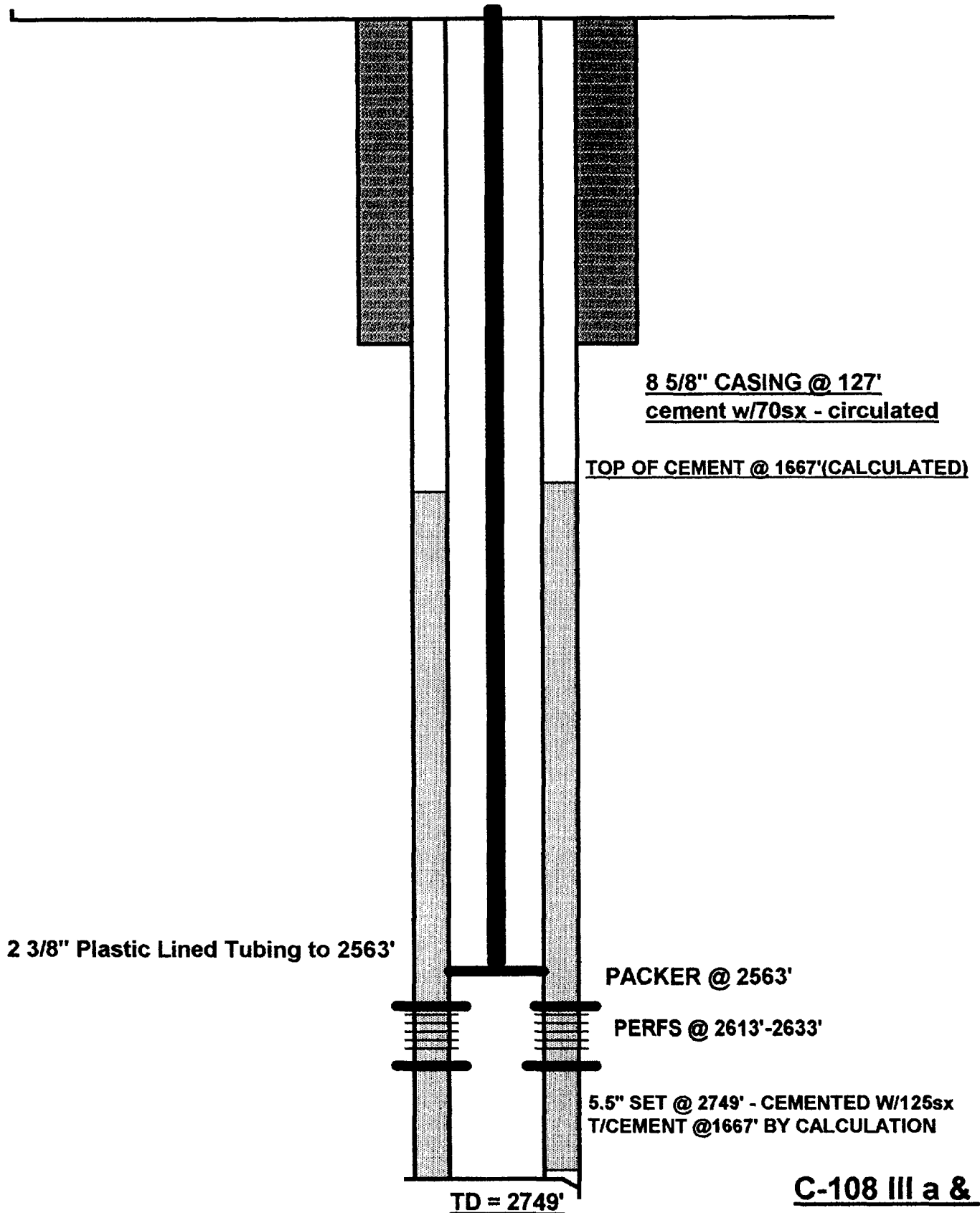
A2	HOLE SIZE:	11"	7.875"
A2	CASING SIZE:	8.625	5.5"
A2	CASING WEIGHT:	20#/ft	15.5#
A2	CASING DEPTH:	127'	2749'
A2	CEMENT:	70sx	125sx
A2	TOP OF CEMENT:	surface	1667'
		circulated	calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" EUE, J-55, 4.7#/ft. 8rt. internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2563' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2613'-2633'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	946'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #12
Well Schematic (Proposed)
C-108-III a & b



C-108 III a & b

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 14
A1	FOOTAGE:	330 FSL & 1650 FWL
A1	SECTION:	30-T8S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

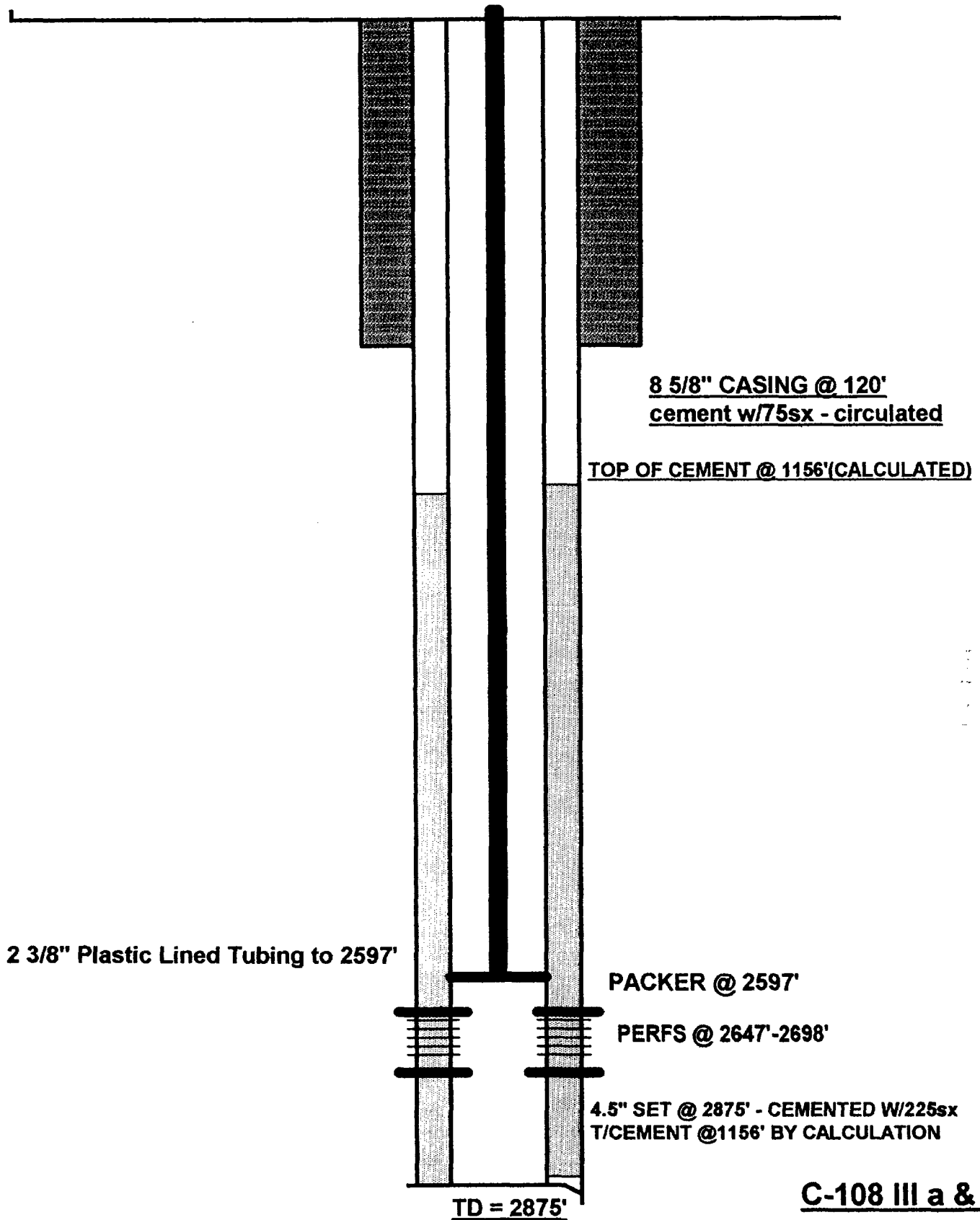
A2	HOLE SIZE:	12.5"	7.5"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20#/ft	9.5#/ft
A2	CASING DEPTH:	120'	2875'
A2	CEMENT:	75sx	225sx
A2	TOP OF CEMENT:	surface	1156'
		circulated	calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" EUE, J-55, 4.7#/ft. 8rt. internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2597' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2647'-2698'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1491'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #14
Well Schematic (Proposed)
C-108-III a & b



C-108 III a & b

30-T8S-R29E-330 FSI & 1650 FWI

N

OBRIEN J #1

TL5A1' #14

30-005-60597

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 18
A1	FOOTAGE:	990'FNL & 2310' FEL
A1	SECTION:	36-T8S-R28E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

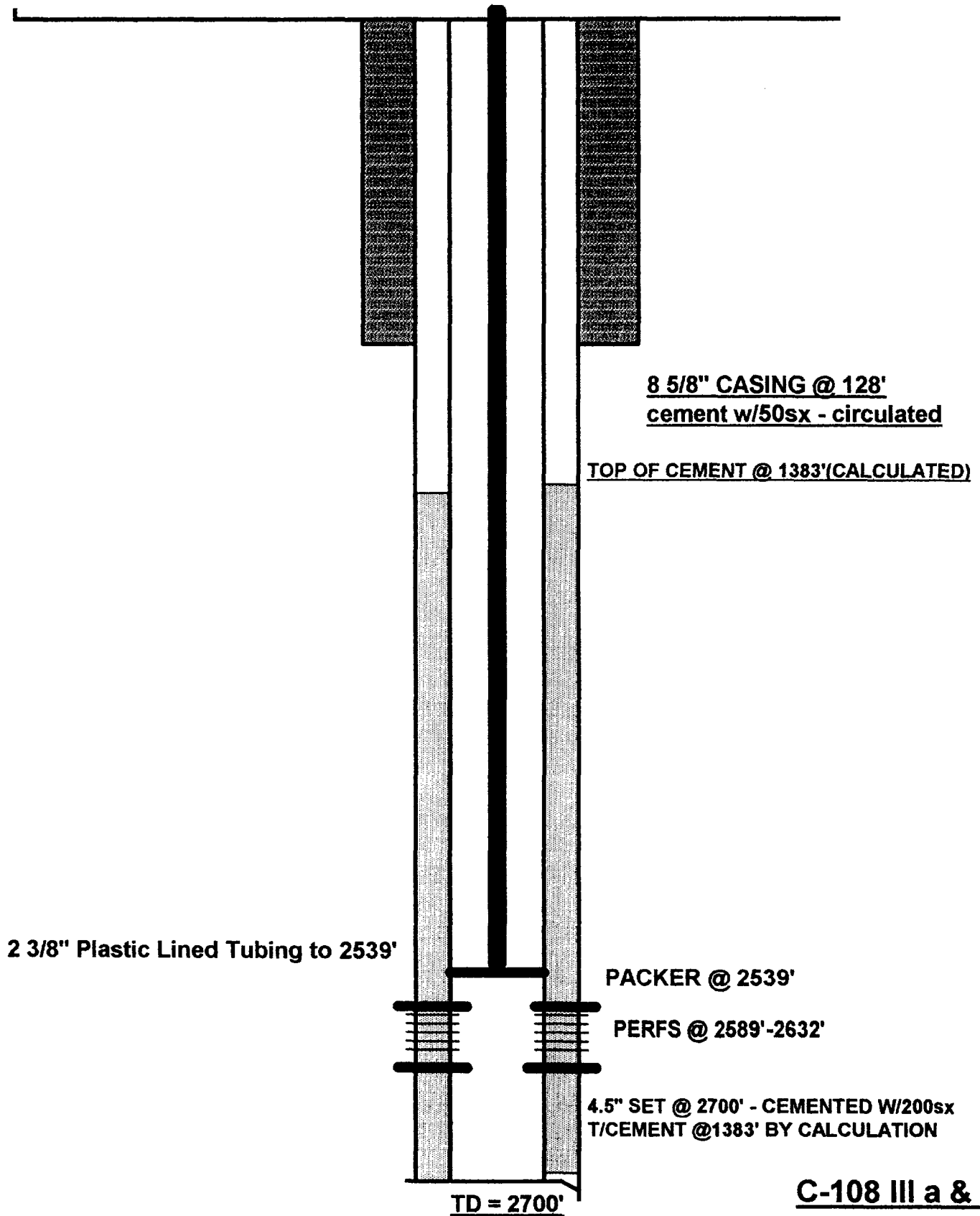
A2	HOLE SIZE:	12.5"	7.875"
A2	CASING SIZE:	8.625	4.5"
A2	CASING WEIGHT:	28#/ft	9.5#/ft
A2	CASING DEPTH:	128'	2700'
A2	CEMENT:	50sx	200sx
A2	TOP OF CEMENT:	surface circulated	1383' calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" EUE, J-55, 4.7#/ft. 8rt. internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2539' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2589'-2632'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1206'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #18
Well Schematic (Proposed)
C-108-III a & b



C-108 III a & b

36-T8S-R28E, 990 FNL & 2310 FEL

B

CITGO A #6

TLSAU #18

30-005-60536

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 20
A1	FOOTAGE:	990' FNL & 330' FWL
A1	SECTION:	31- T8S-29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

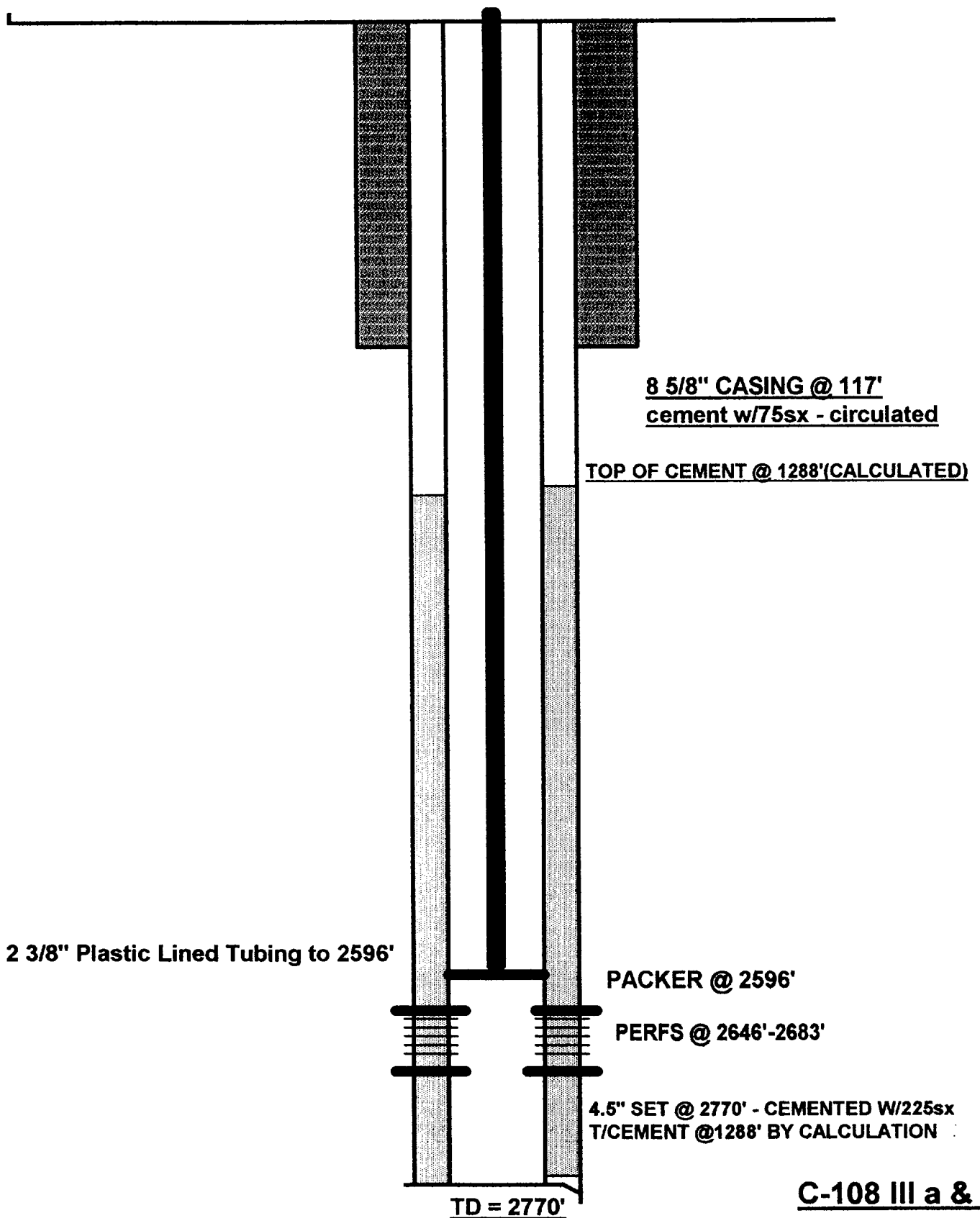
A2	HOLE SIZE:	12.5"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	28#/ft	9.5#/ft
A2	CASING DEPTH:	117'	2770"
A2	CEMENT:	75sx	225sx
A2	TOP OF CEMENT:	surface	1288'
		circulated	calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" EUE, J-55, 4.7#/ft. 8rt. internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2596' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2645.5-2683.5
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1358'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #20
Well Schematic (Proposed)
C-108-III a & b



31-T8S-R29E. 990 FNL. & 330 FWL

D

OBRRIEN I #1

TLSAU #20

30-005-60570

C-108 III a & b

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 22
A1	FOOTAGE:	990' FNL & 2310' FEL
A1	SECTION:	31-T8S- 29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

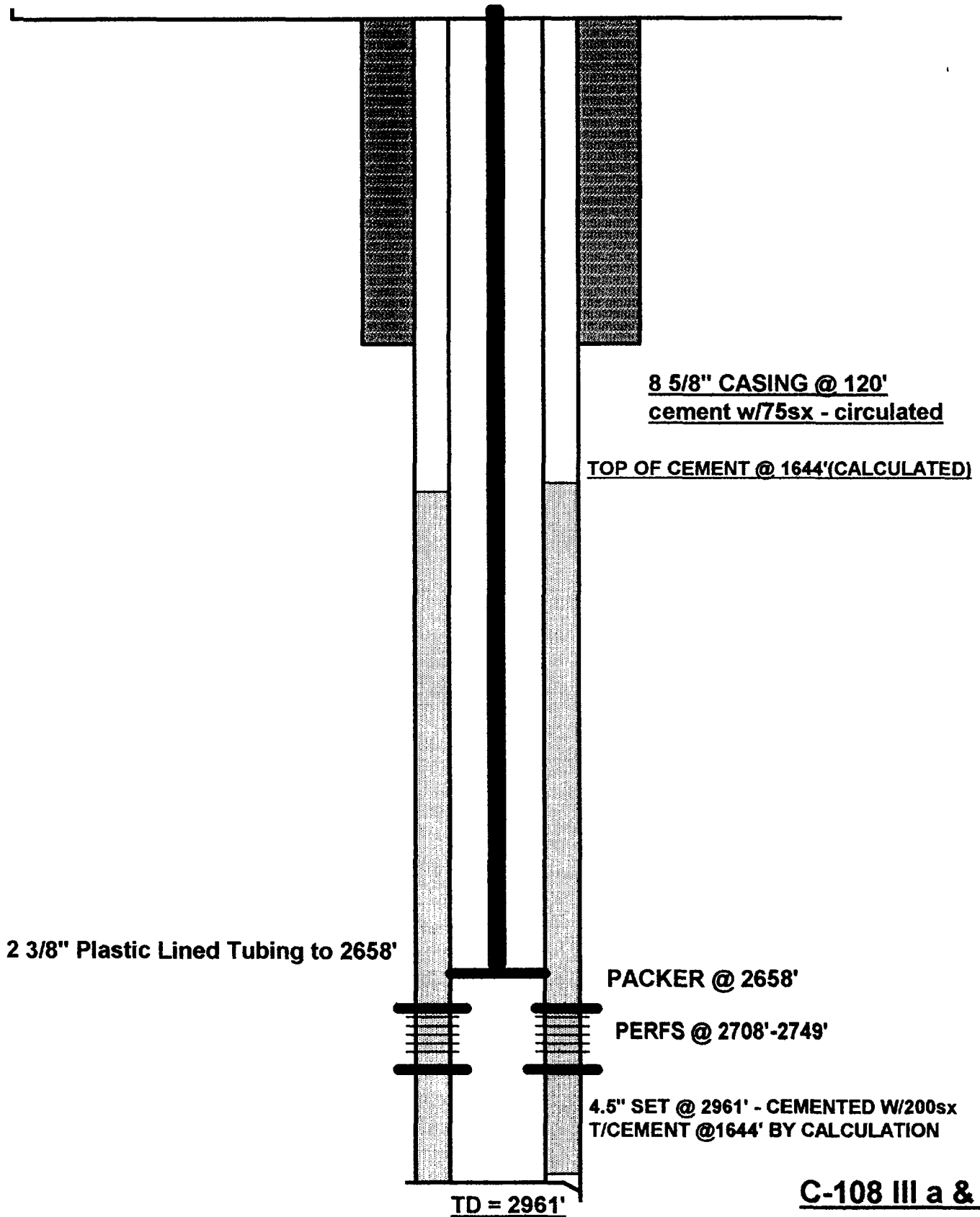
A2	HOLE SIZE:	12.5"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20#/ft	9.5#/ft
A2	CASING DEPTH:	120'	2961'
A2	CEMENT:	75sx	200sx
A2	TOP OF CEMENT:	surface	1644'
		circulated	calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" EUE, J-55, 4.7#/ft. 8rt. internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2658' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2708.5'-2749'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1391'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #22
Well Schematic (Proposed)
C-108-III a & b



31-T8S-R29FL 990 FNL & 2310 FEL

B

O'BRIEN J #8

TLSAU #22

30-005-60823

C-108 III a & b

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 26
A1	FOOTAGE:	1980' FNL & 1980' FWL
A1	SECTION:	36-8S-28E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

A2	HOLE SIZE:	11"	6.75
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20#/ft	9.5#/ft
A2	CASING DEPTH:	320'	2614'
A2	CEMENT:	125sx	100sx
A2	TOP OF CEMENT:	circulated	1528'

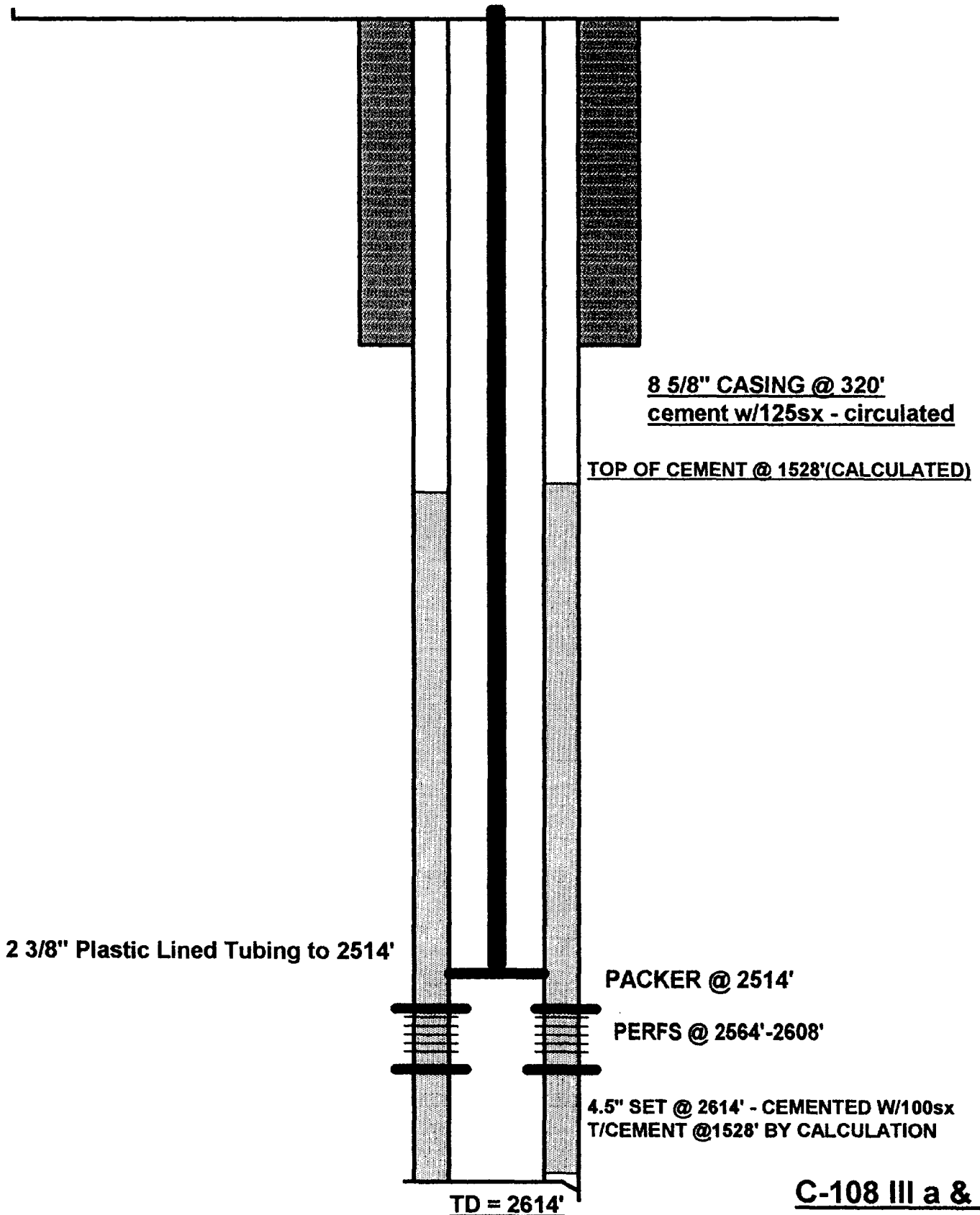
(CALCULATED)

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" EUE, J-55, 4.7#/ft. 8rt. internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2514' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2564'-2608'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1478'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #26
Well Schematic (Proposed)
C-108-III a & b



36-T8S-R28E, 1980 FNL & 1980 FWL

F

CITGO STATE #1

TLSAU #26

30-005-60031

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 29
A1	FOOTAGE:	2310' FNL & 990' FEL
A1	SECTION:	36-T8S-R28E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

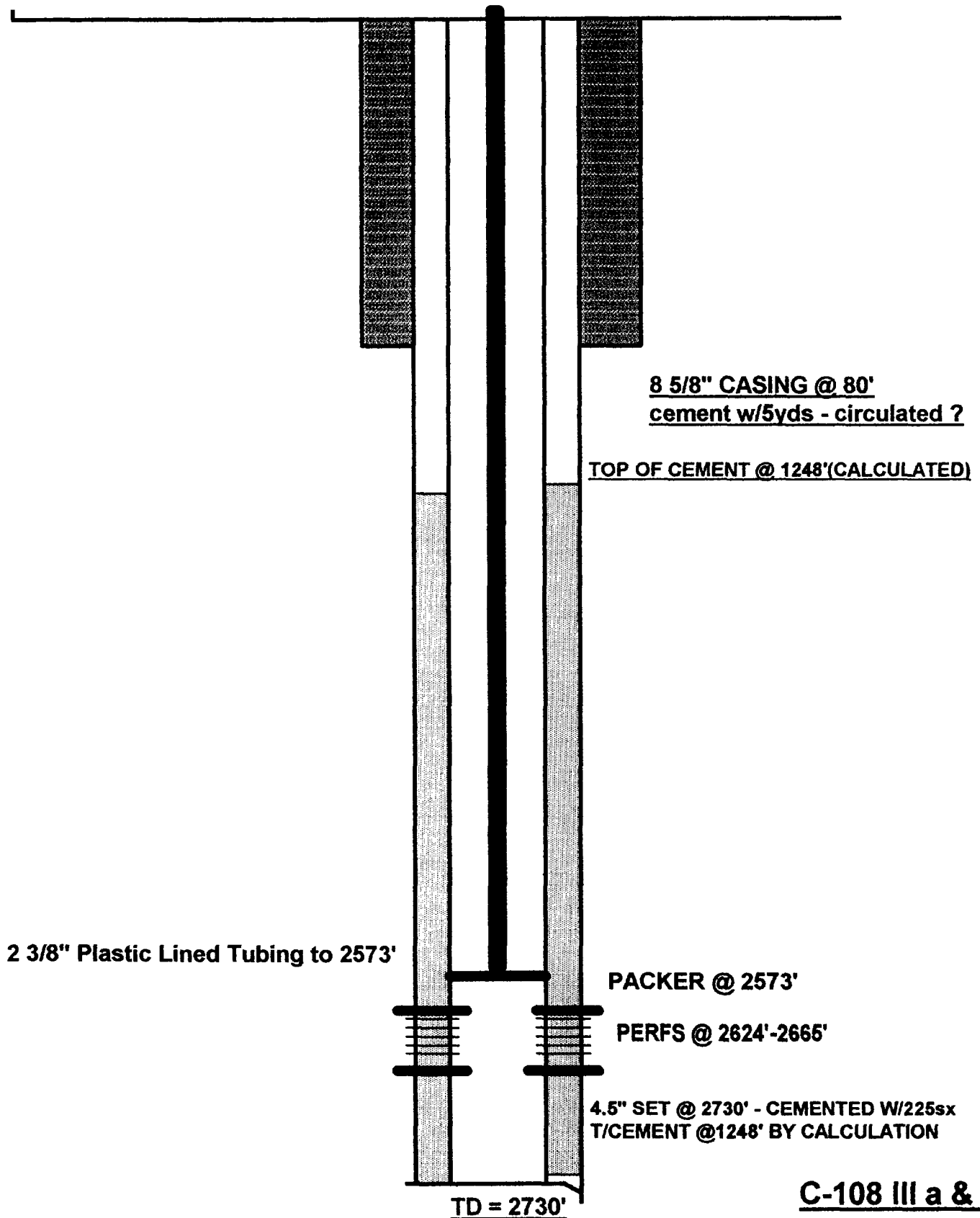
A2	HOLE SIZE:	12.5"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	28#/ft	9.5#/ft
A2	CASING DEPTH:	80'	2730'
A2	CEMENT:	5 yds.	225sx
A2	TOP OF CEMENT:	SURFACE ?	1248'
			calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" EUE, J-55, 4.7#/ft. 8rt. internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2573' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2623.5'-2664.5'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1141'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #29
Well Schematic (Proposed)
C-108-III a & b



36-T8S-R28E. 2310 FNL & 990 FEL.

H

CITGO STATE A #8

TLSAU #29

30-005-60569

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 36
A1	FOOTAGE:	1650 FSL & 2310 FEL
A1	SECTION:	36-T8S-28E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

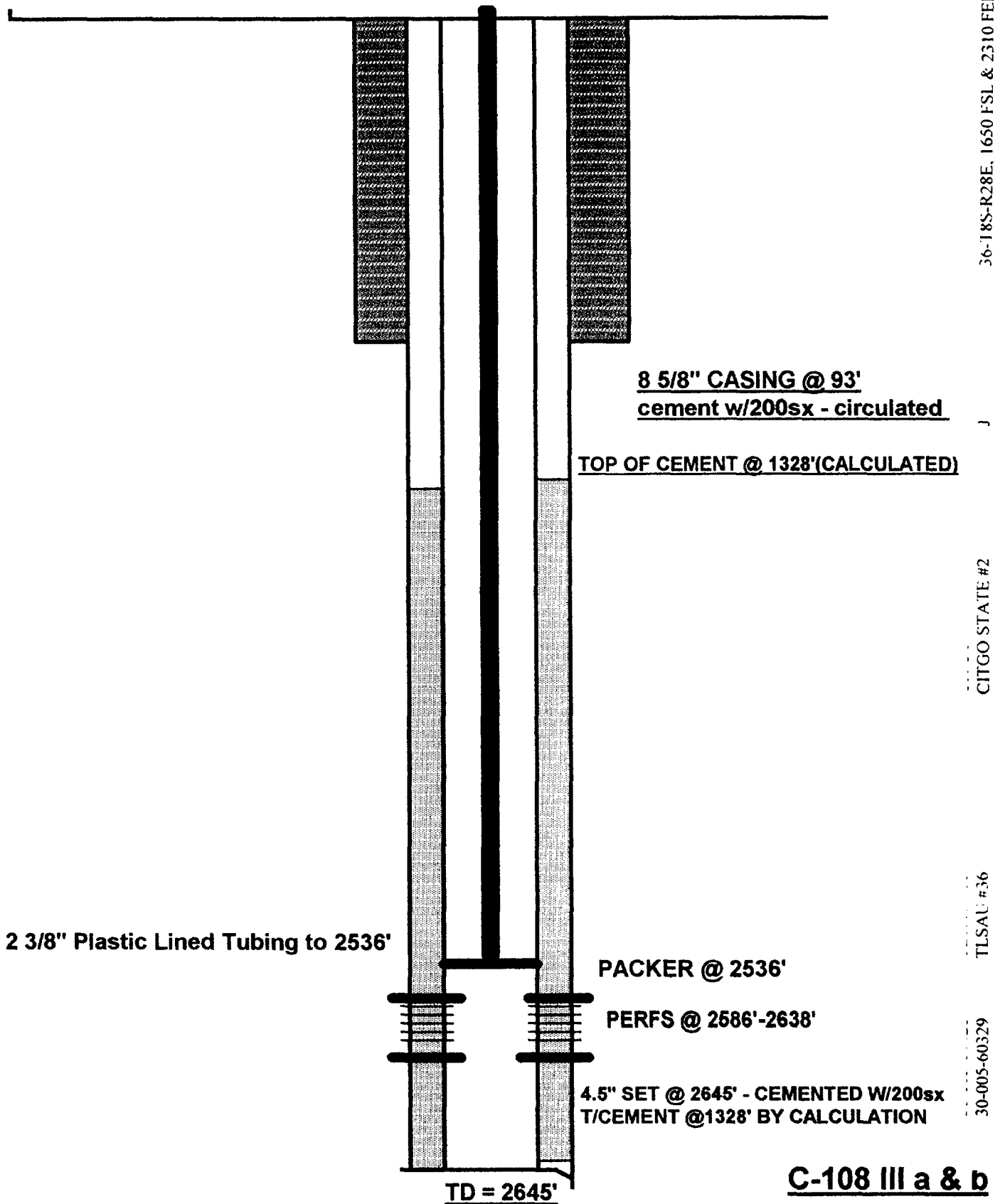
A2	HOLE SIZE:	11"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	24#/ft	11.6#/ft
A2	CASING DEPTH:	93'	2645'
A2	CEMENT:	200sx	200sx
A2	TOP OF CEMENT:	surface	1328'
		circulated	calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" EUE, J-55, 4.7#/ft. 8rt. internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2536' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2586'-2638'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1258'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #36
Well Schematic (Proposed)
C-108-III a & b



**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 39
A1	FOOTAGE:	1650 FSL & 330 FWL
A1	SECTION:	31-T8S-R29E
A1	COUNTY:	Chaves

06-7

EXISTING CASING PROGRAM

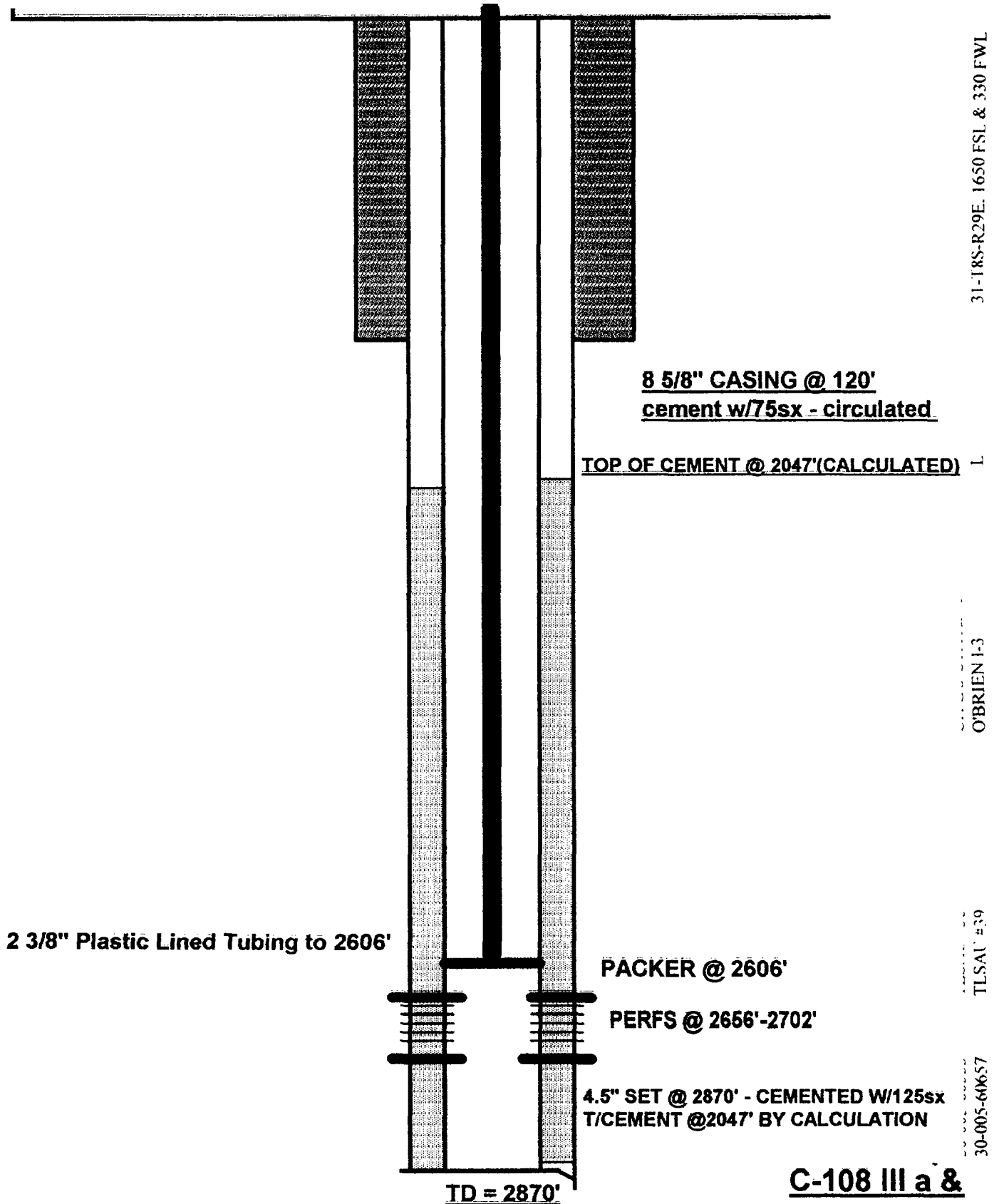
A2	HOLE SIZE:	12.5"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20#/ft	9.5#/ft
A2	CASING DEPTH:	120'	2870'
A2	CEMENT:	75sx	125sx
A2	TOP OF CEMENT:	surface	2047'
		circulated	calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" EUE, J-55, 4.7#/ft. 8rt. internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2606' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2656'-2702.5'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	609'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

**Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #39
Well Schematic (Proposed)
C-108-III a & b**



**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 41
A1	FOOTAGE:	1650' FSL & 2310' FEL
A1	SECTION:	31-T8S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

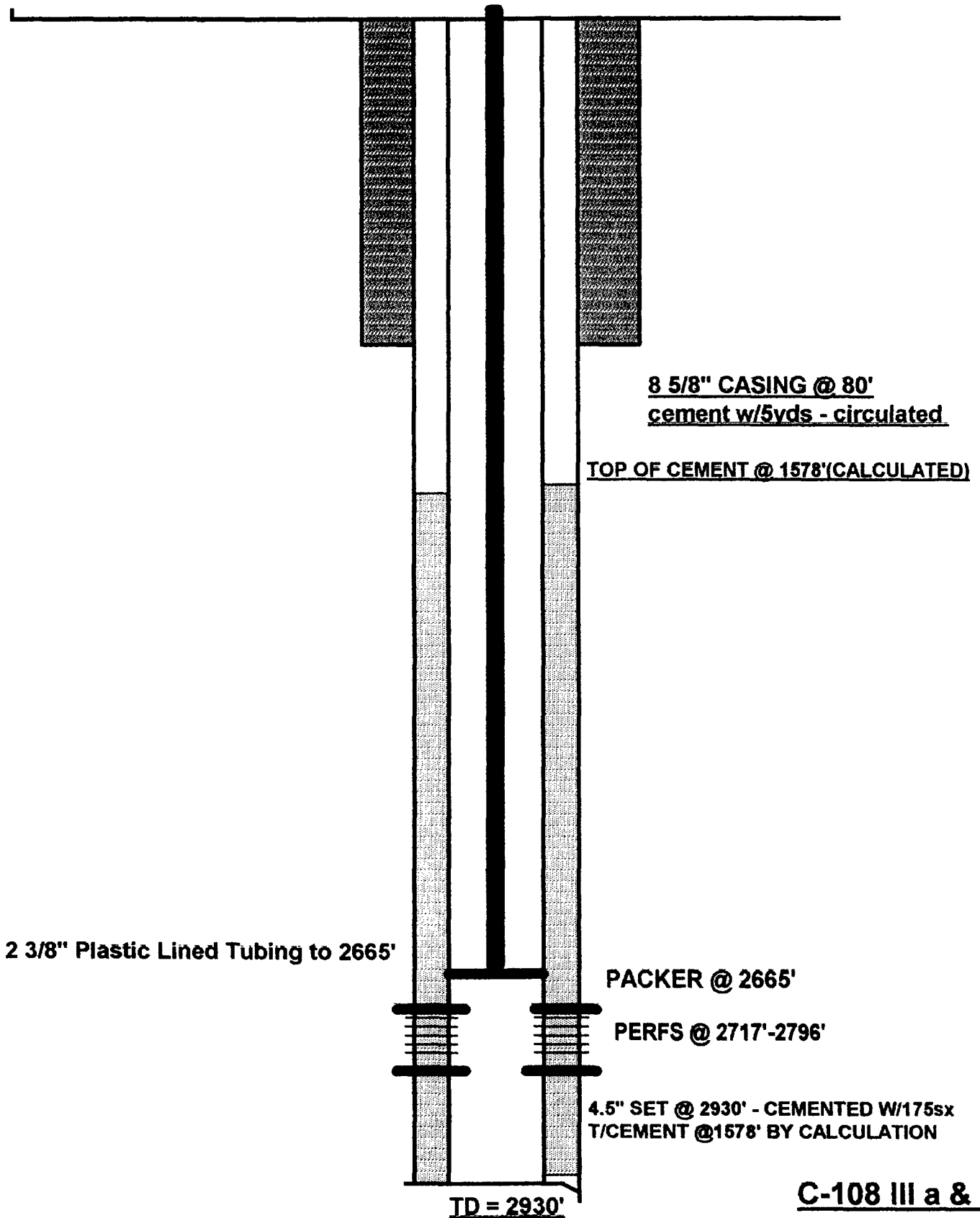
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20#/ft	9.5#/ft
A2	CASING DEPTH:	80'	2930'
A2	CEMENT:	5yds	175sx
A2	TOP OF CEMENT:	SURFACE?	1578'
			Calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2665' +/-25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2717'-2796'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1139'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #41
Well Schematic (Proposed)
C-108-III a & b



31-T8S-R29E, 1650 FSL & 2310 FEL

O'BRIEN J-2

TL.SAU #41

30-005-60768

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 42
A1	FOOTAGE:	1650' FSL & 990' FEL
A1	SECTION:	31-T8S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

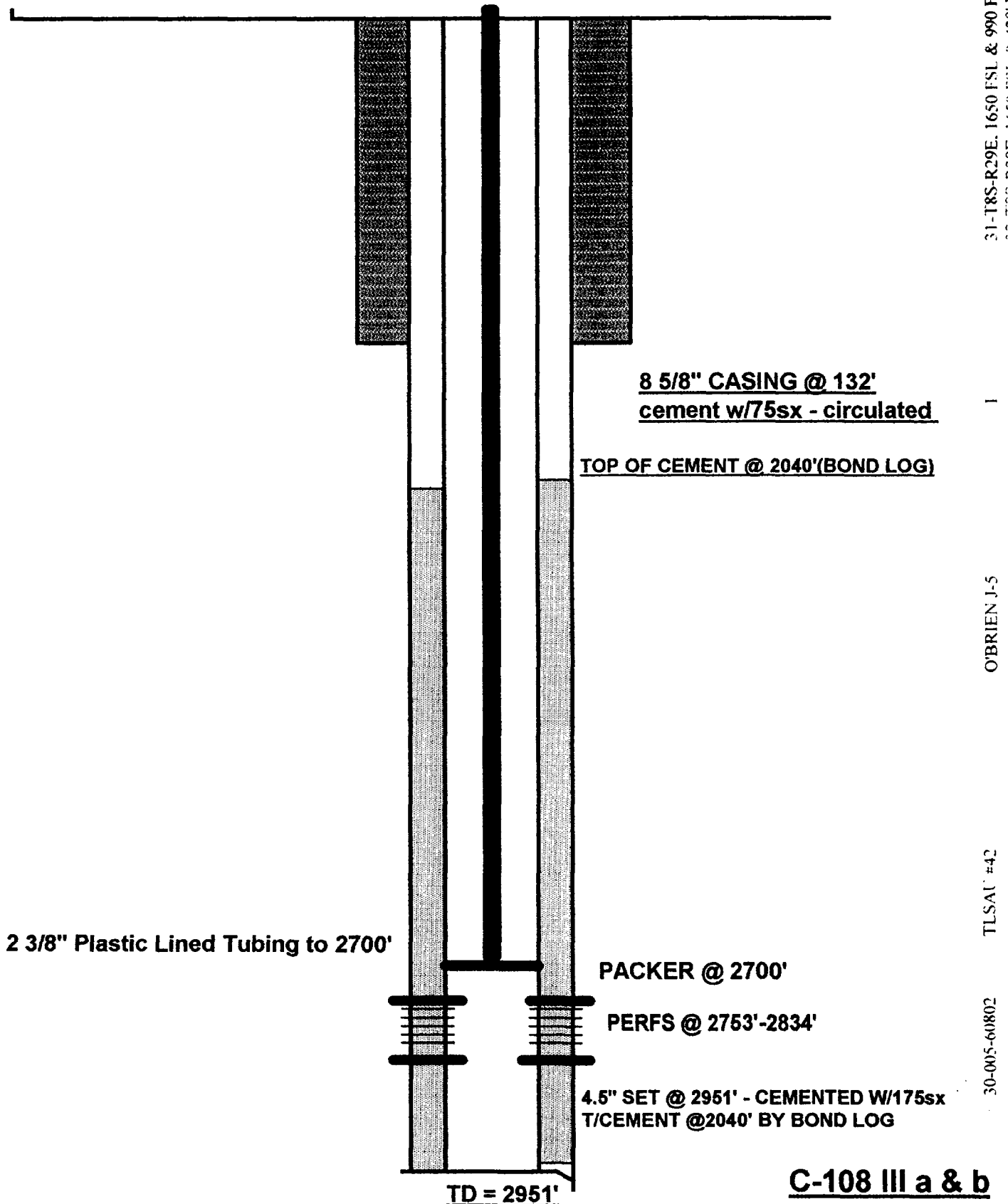
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20#/ft	9.5#/ft
A2	CASING DEPTH:	132'	2951'
A2	CEMENT:	75sx	175sx
A2	TOP OF CEMENT:	SURFACE	2040'
		Circ. 10sx	BOND LOG

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2700' +/-25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2753'-2834'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	713'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #42
Well Schematic (Proposed)
C-108-III a & b



**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 45
A1	FOOTAGE:	660' FSL & 1980' FWL
A1	SECTION:	36-T8S-R28E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

A2	HOLE SIZE:	17.5"	12.25"	9.625"
A2	CASING SIZE:	13.375"	9.625"	5.5"
A2	CASING WEIGHT:	48#/ft	36#/ft	15.5#/ft
A2	CASING DEPTH:	665'	3415'	1001'
A2	CEMENT:	800sx	2455'	100sx
A2	TOP OF CEMENT:	SURFACE	770'	815'

TEMP SURV

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2530' +/-25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2580'-2616'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1810'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

COMMENTS:	725' OF 9.625" CASING PULLED BY MAGNOLIA SWEENEY RAN 1001' OF 5.5" & CEMENTED W/100sx
------------------	--

**Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #45
Well Schematic (Proposed)
C-108-III a & b**

5.5" TO 1001' AFTER
725' OF 9.625" WAS
PULLED

$1\frac{3}{8}$ "

~~8-5/8~~" CASING @ 665'
cement w/800sx - circulated

TOP OF CEMENT @ 770'(TEMP SURVEY)

2 $\frac{3}{8}$ " Plastic Lined Tubing to 2530'

PACKER @ 2530'

PERFS @ 2580'-2616'

9.625" SET @ 3415' - CEMENTED W/2455sx
T/CEMENT @770' BY TEMP SURVEY

PB TD = 3415'

C-108 III a & b

36-T8S-R28E. 660 FSL & 1980 FWL

N

CITGO ST. A-2

TLSAU #45

30-005-00342

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit #47
A1	FOOTAGE:	660' FSL & 660' FE;
A1	SECTION:	36-T8S-R28E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

A2	HOLE SIZE:	11"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	28#/ft	9.5#/ft
A2	CASING DEPTH:	955'	2660'
A2	CEMENT:	200sx	200sx
A2	TOP OF CEMENT:	SURFACE?	1308'
			Calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2575' +/-25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2623'-2660'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1315'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #47
Well Schematic (Proposed)
C-108-III a & b

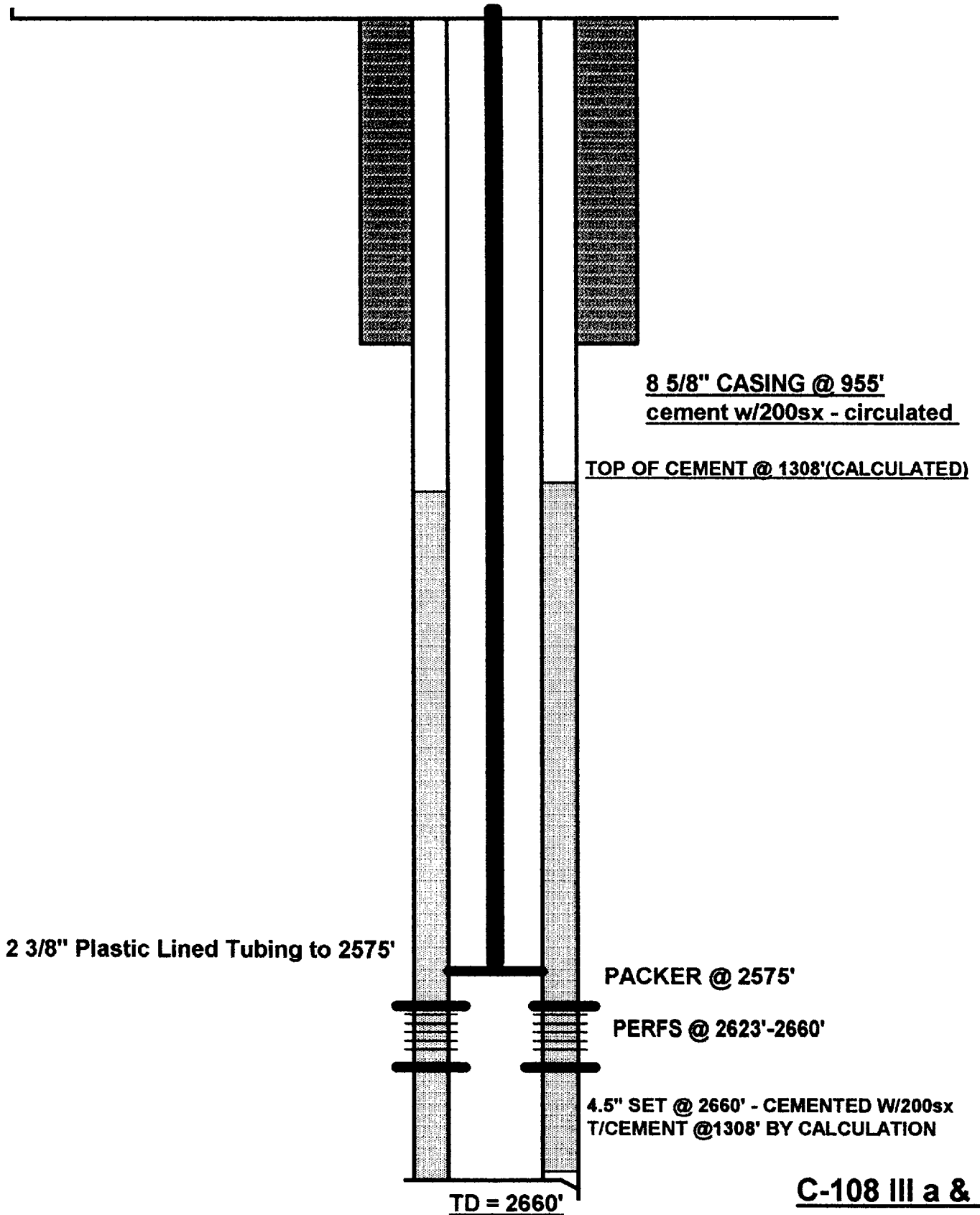
36-T85-R28E, 660 FSL & 660 FEL

P

CITGO ST. #3

TLSA# 47

30-005-60010



**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 49
A1	FOOTAGE:	560' FSL & 1650' FWL
A1	SECTION:	31-T8S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

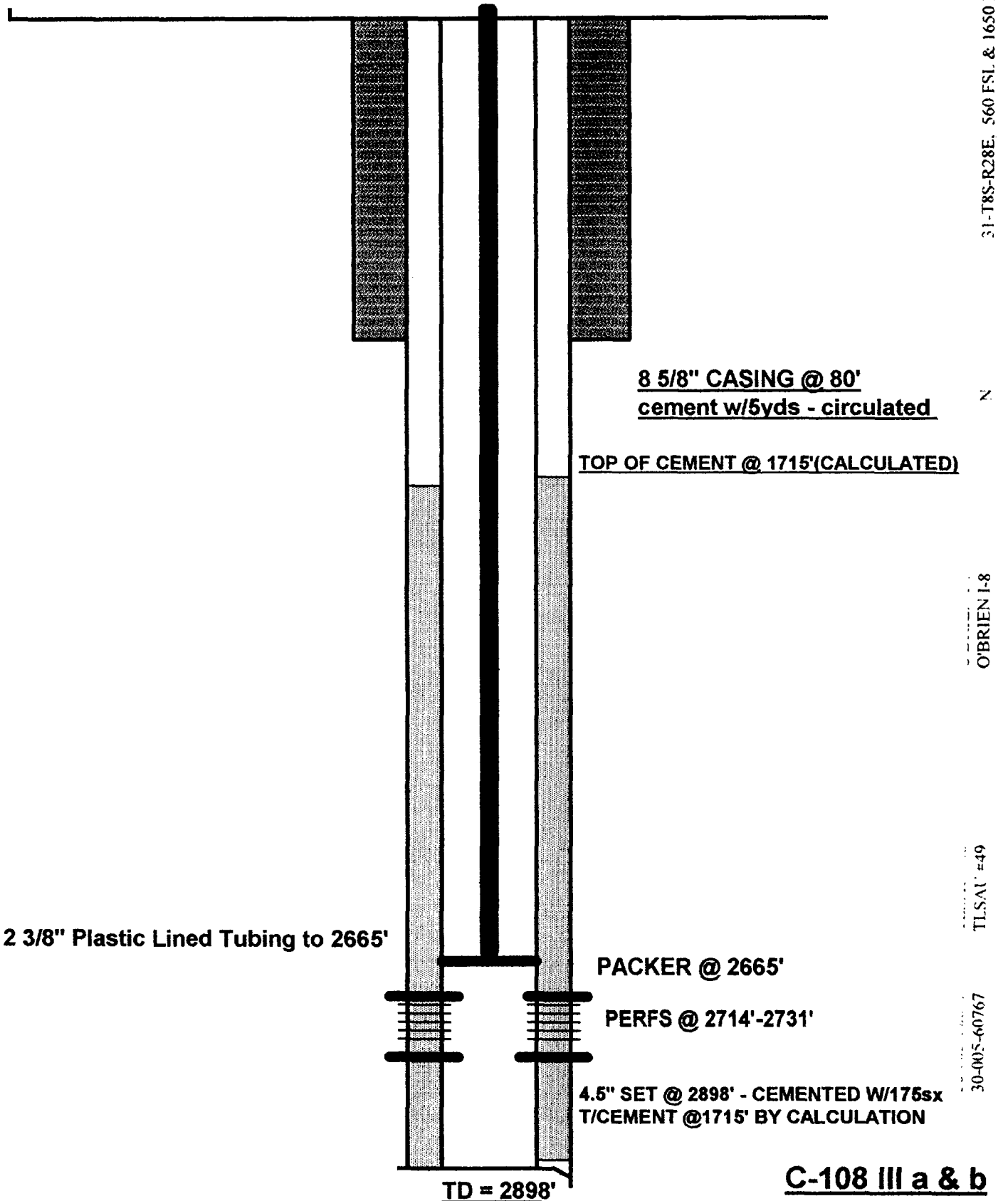
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20#/ft	9.5#/ft
A2	CASING DEPTH:	80'	2898'
A2	CEMENT:	5yds	175sx
A2	TOP OF CEMENT:	SURFACE	1715'
			Calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2665' +/-25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2714'-2731'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1000'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #49
Well Schematic (Proposed)
C-108-III a & b



HANAGAN PETROLEUM CORPORATION

TWIN LAKES SAN ANDRES WATERFLOOD UNIT

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit #51
A1	FOOTAGE:	560' FSL & 990' FEL
A1	SECTION:	31-T8S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

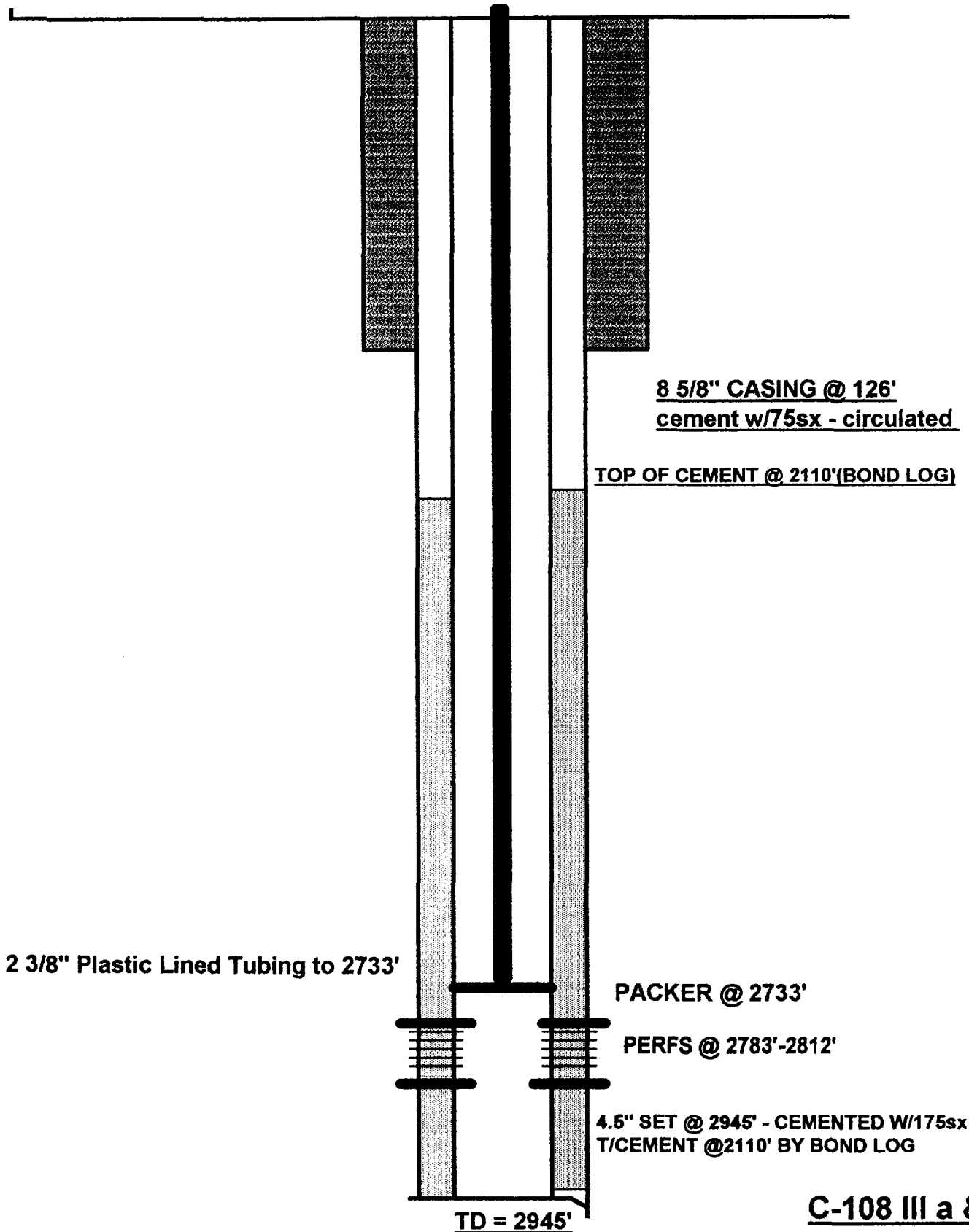
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20#/ft	9.5#/ft
A2	CASING DEPTH:	126'	2405' 2345'
A2	CEMENT:	75sx	175sx
A2	TOP OF CEMENT:	SURFACE	2110'
		Circ 20sx	BOND LOG

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2733' +/-25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2783'-2812'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	673'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #51
Well Schematic (Proposed)
C-108-III a & b



2 3/8" Plastic Lined Tubing to 2733'

PACKER @ 2733'

PERFS @ 2783'-2812'

4.5" SET @ 2945' - CEMENTED W/175sx
T/CEMENT @2110' BY BOND LOG

TD = 2945'

C-108 III a & b

31-T8S-R29E, 560 FSL & 990 FEL

P

O'BRIEN J-6

TLSAU' #51

30-005-60810

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 58
A1	FOOTAGE:	330 FNL & 330' FWL
A1	SECTION:	6-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20 #/ft	9.5 #/ft
A2	CASING DEPTH:	133'	2823'
A2	CEMENT:	75sx	200sx
A2	TOP OF CEMENT:	SURFACE	1471'
		Circ. 10sx	calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2615' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2665'-2743'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1194'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

6-T9S-R29E, 330 FNL & 330 FWL

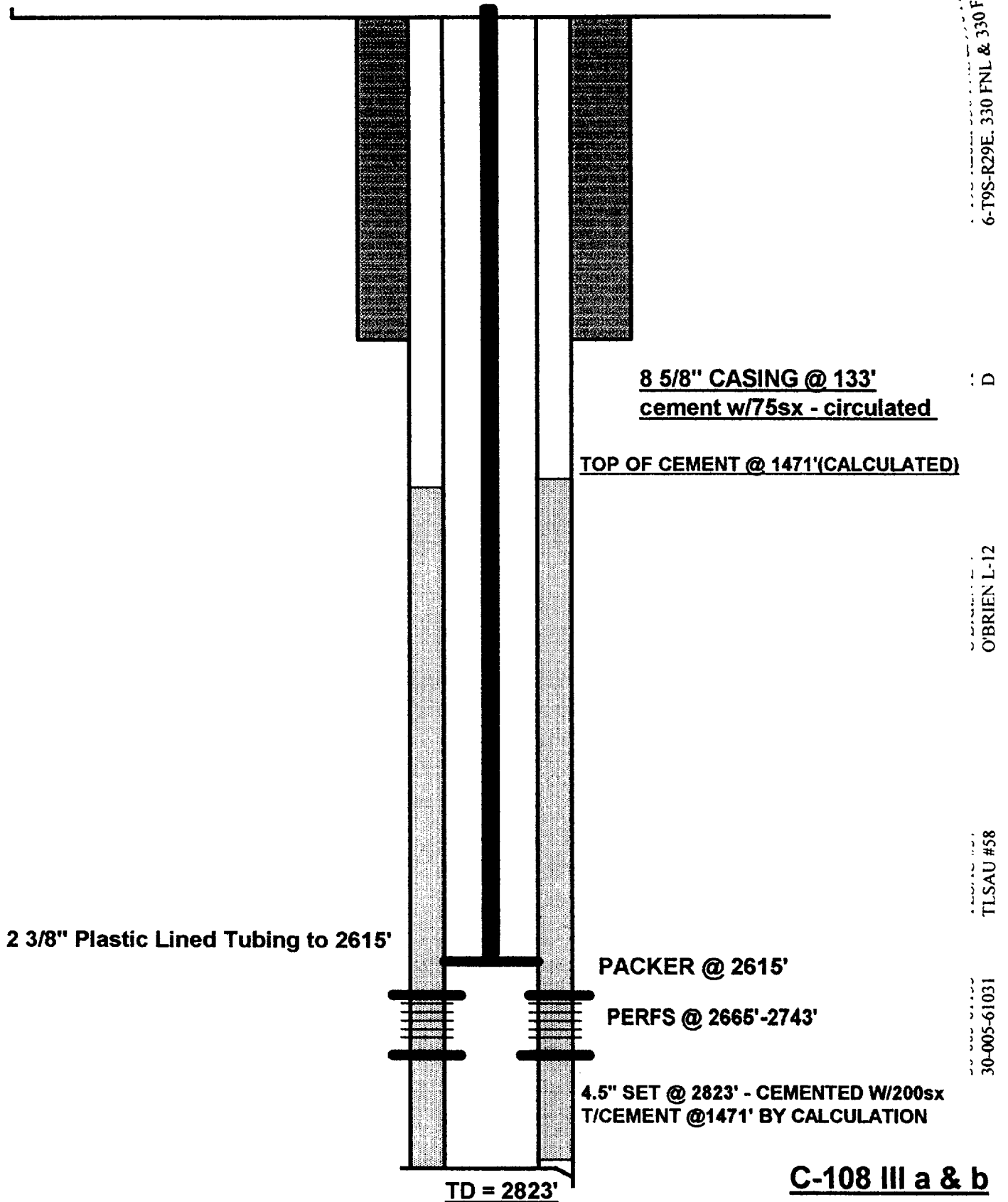
D

O'BRIEN L-12

TL5A1 #58

30-005-61031

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #58
Well Schematic (Proposed)
C-108-III a & b



**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit #60
A1	FOOTAGE:	330' FNL & 2310' FEL
A1	SECTION:	6-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20 #/ft	9.5#/ft
A2	CASING DEPTH:	135'	2950'
A2	CEMENT:	75sx	175sx
A2	TOP OF CEMENT:	SURFACE	2050'

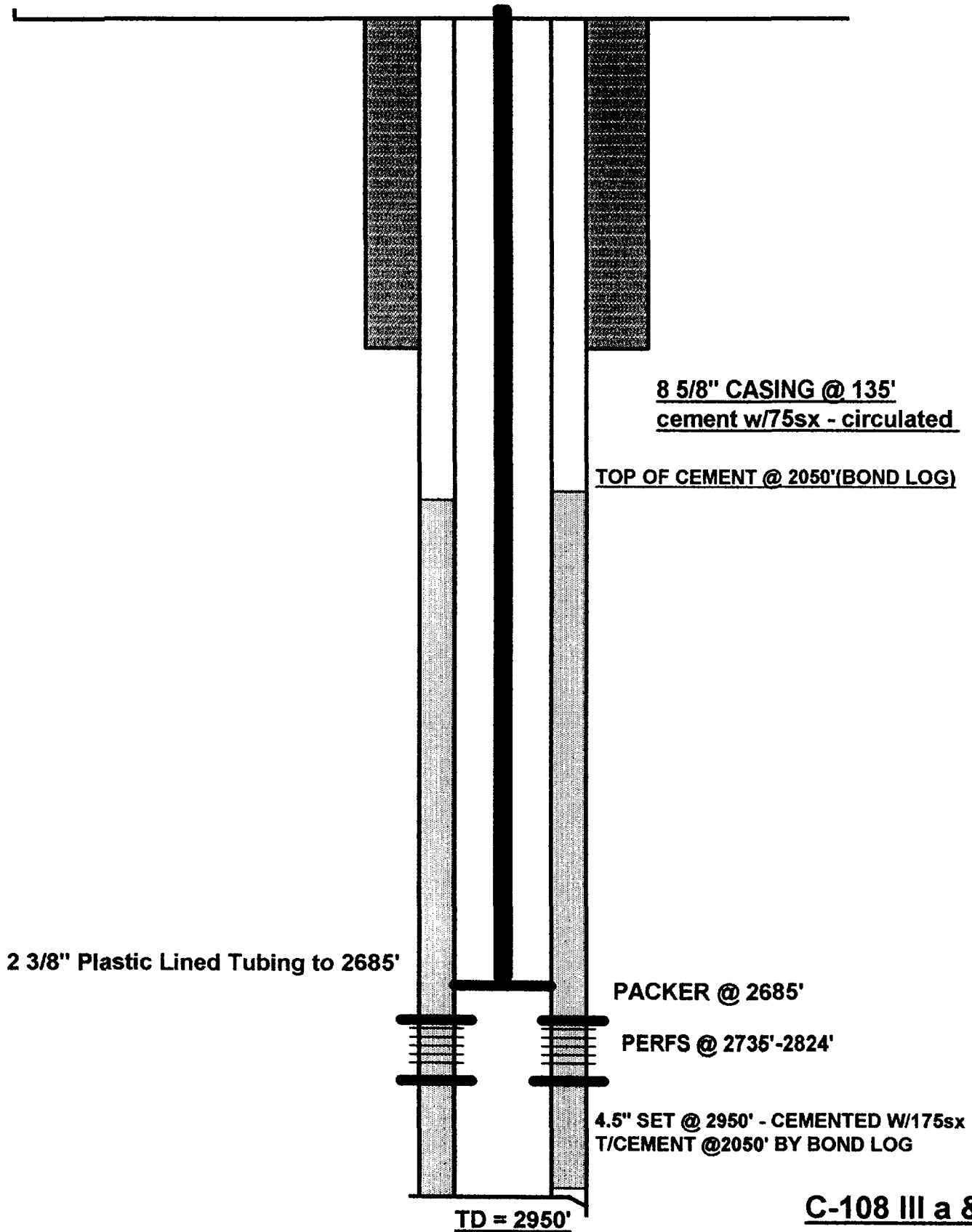
BOND LOG

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2685' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2735'-2824'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	685'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #60
Well Schematic (Proposed)
C-108-III a & b



C-108 III a & b

6-T9S-R29E, 330 FNL & 2310 FEL

B

O'BRIEN L-2

TLSAU #60

30-005-60824

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit #69
A1	FOOTAGE:	1650' FNL & 1650' FWL
A1	SECTION:	6-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

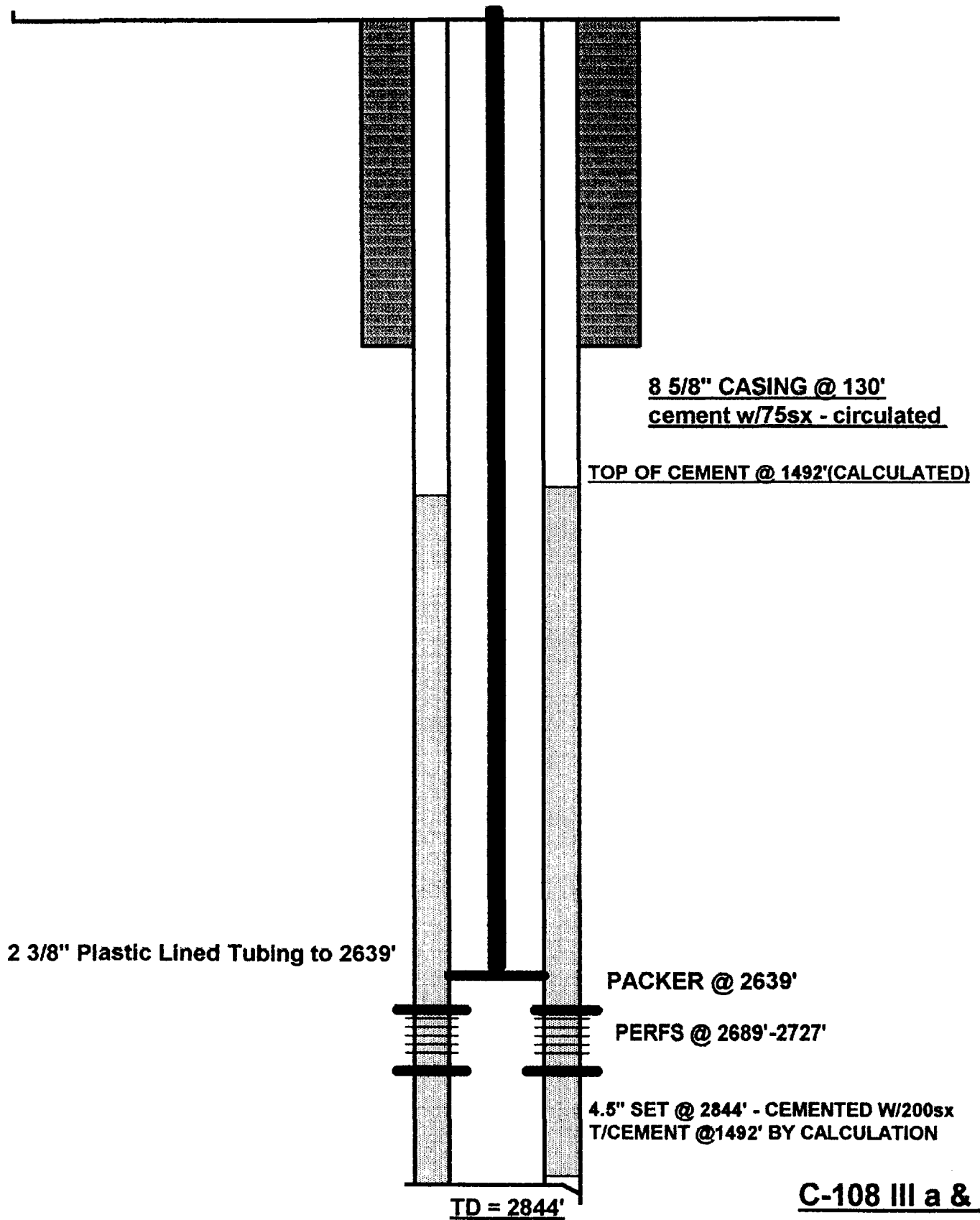
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20 #/ft	9.5 #/ft
A2	CASING DEPTH:	130'	2844'
A2	CEMENT:	75sx	200sx
A2	TOP OF CEMENT:	SURFACE	1492'
		Circ. 20sx	calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2639' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2689'-2727'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1197'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #69
Well Schematic (Proposed)
C-108-III a & b



C-108 III a & b

6-T9S-R29E, 1650 FNL & 1650 FWL

F

O'BRIEN L-8

TLSAU #69

30-005-60984

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 72
A1	FOOTAGE:	1650' FNL & 990' FEL
A1	SECTION:	6-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

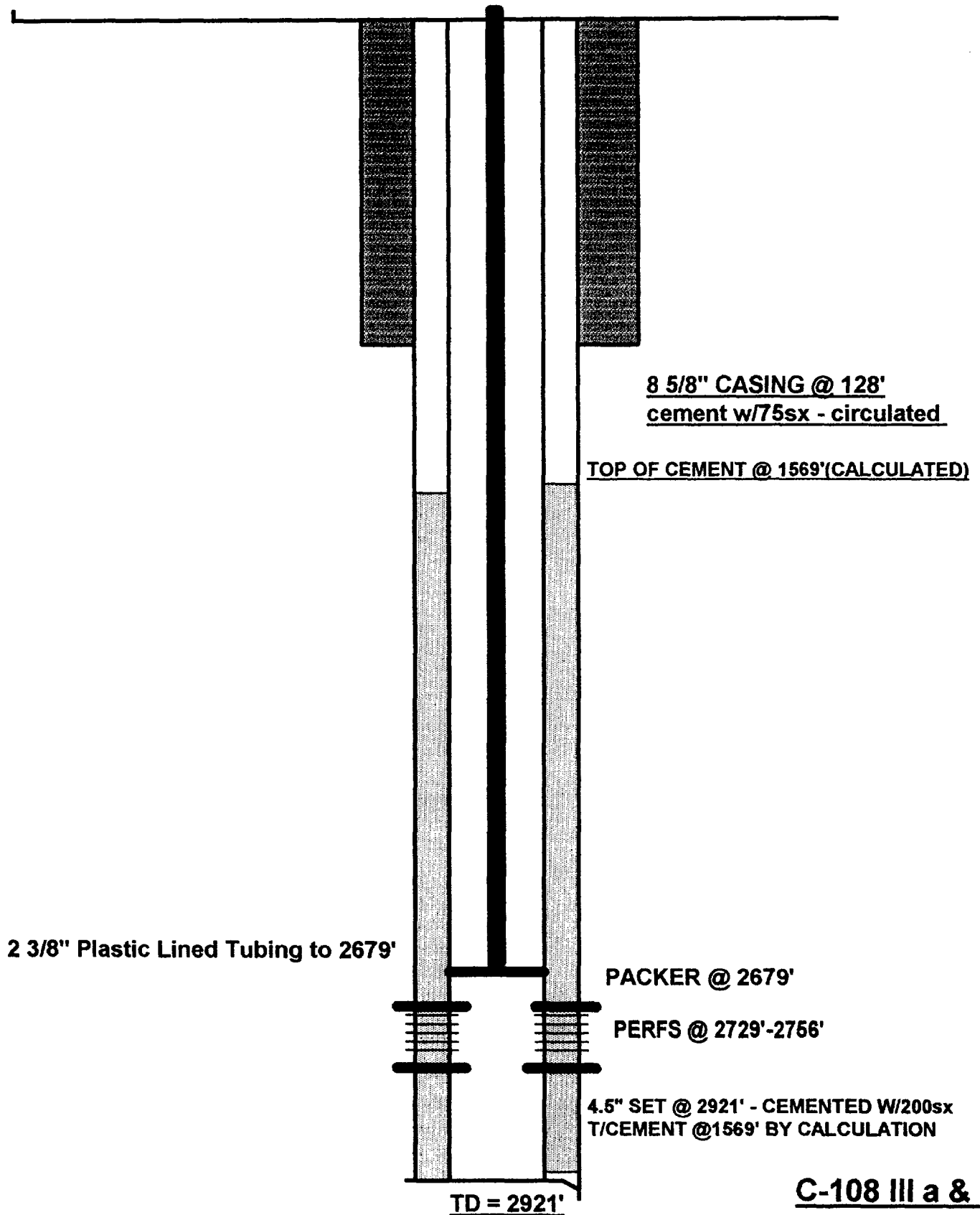
A2	HOLE SIZE:	11"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20 #/ft	9.5 #/ft
A2	CASING DEPTH:	128'	2921'
A2	CEMENT:	75sx	200sx
A2	TOP OF CEMENT:	SURFACE	1569'
			Calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2679' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2729'-2756'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1160'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #72
Well Schematic (Proposed)
C-108-III a & b



6-T9S-R291E 1650 FNL. & 990 FEL

H

O'BRIEN I.-5

TL.SAU #72

30-005-60886

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit #77
A1	FOOTAGE:	2310' FSL & 330' FWL
A1	SECTION:	6-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

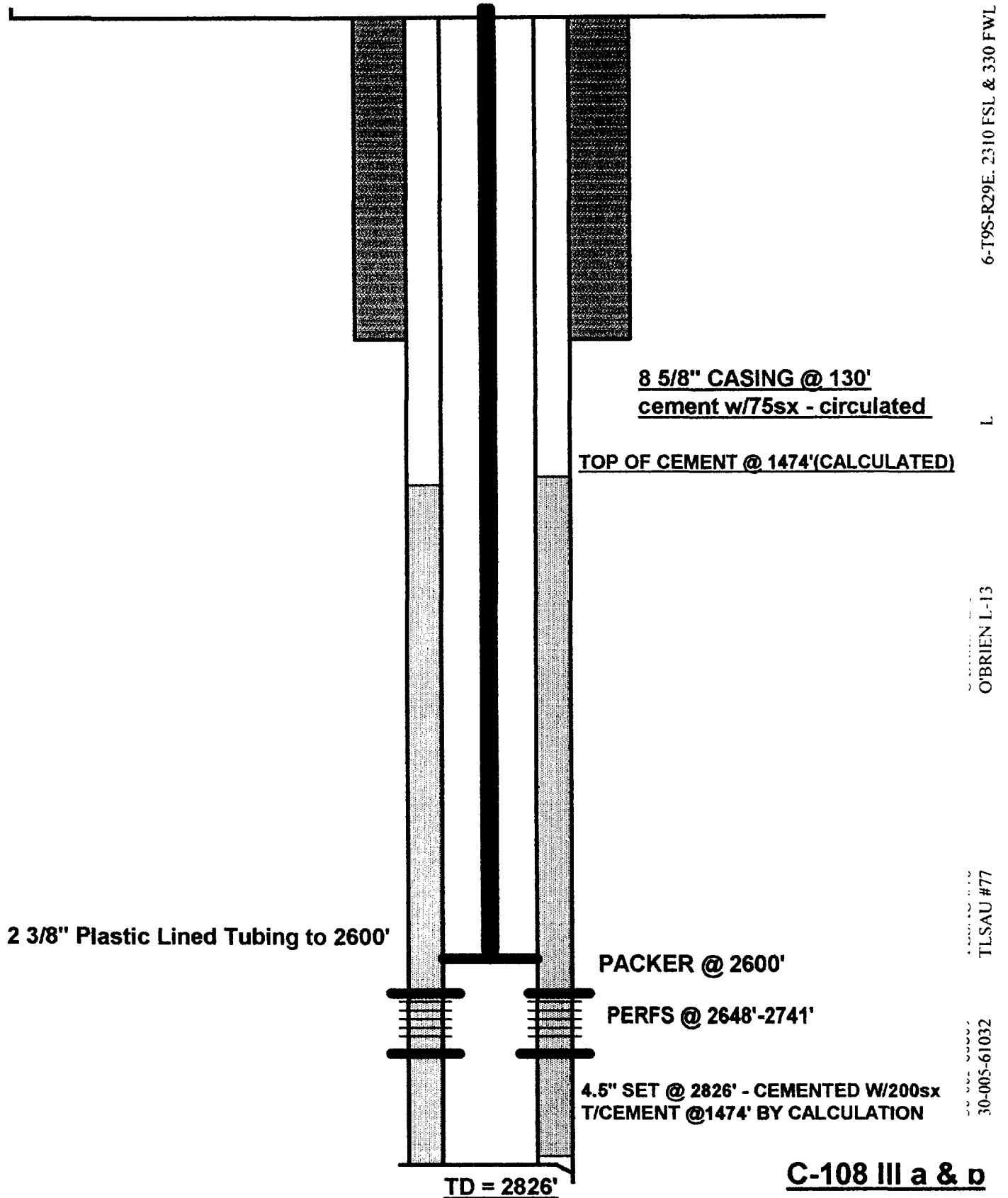
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20 #/ft	9.5 #/ft
A2	CASING DEPTH:	130'	2826'
A2	CEMENT:	75sx	200sx
A2	TOP OF CEMENT:	SURFACE	1474'
			Calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2600' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2648'-2741'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1174'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

**Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #77
Well Schematic (Proposed)
C-108-III a & b**



HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 79
A1	FOOTAGE:	2310 FSL & 2310 FEL
A1	SECTION:	6-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

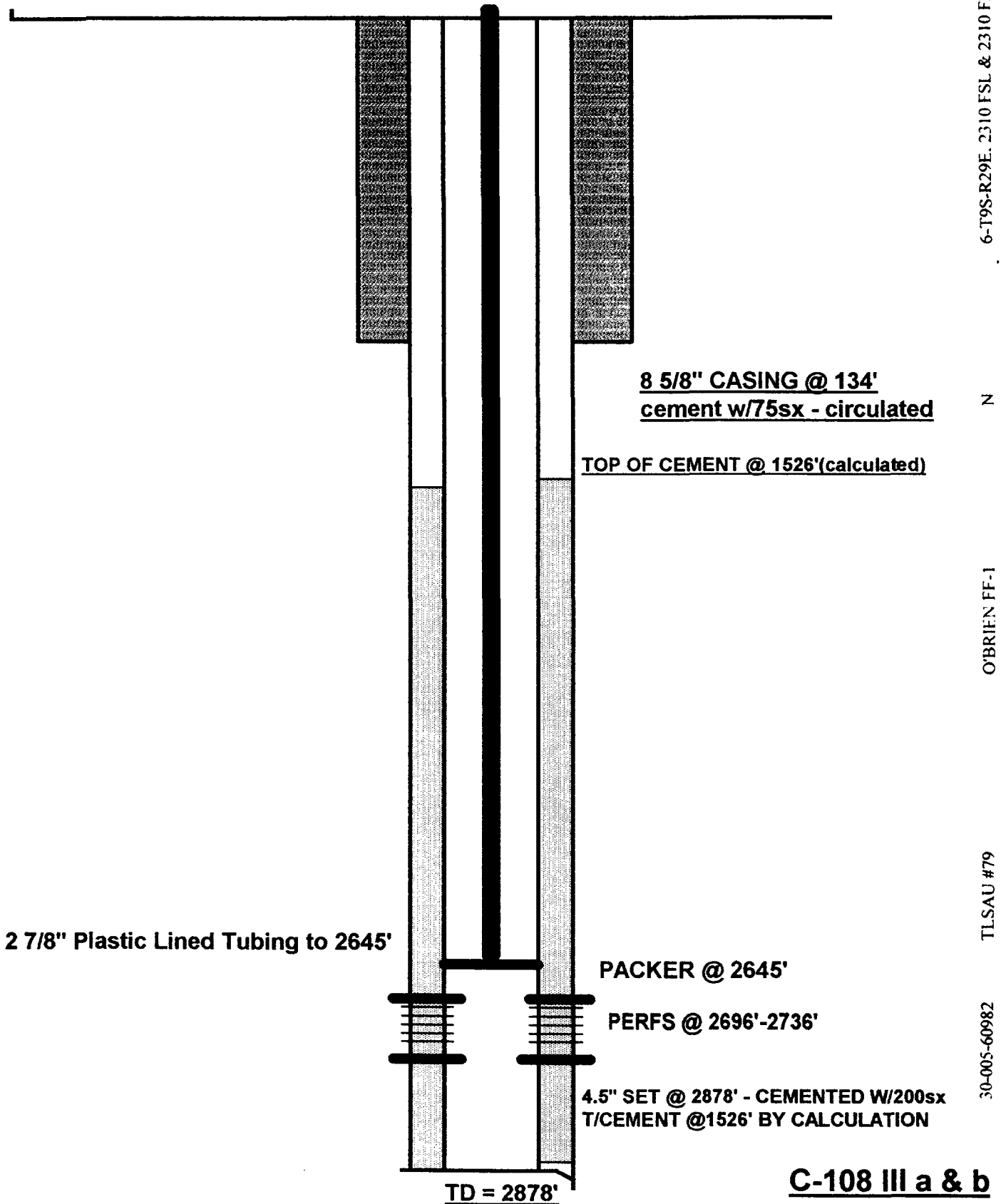
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20.5 #/ft	9.5 #/ft
A2	CASING DEPTH:	134'	2878'
A2	CEMENT:	75sx	200sx
A2	TOP OF CEMENT:	surface	1526'
		circ. 20sx	calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2645' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2696'-2736'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1170'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #79
Well Schematic (Proposed)
C-108-III a & b



**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit #87
A1	FOOTAGE:	1650' FWL & 990' FSL
A1	SECTION:	6-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

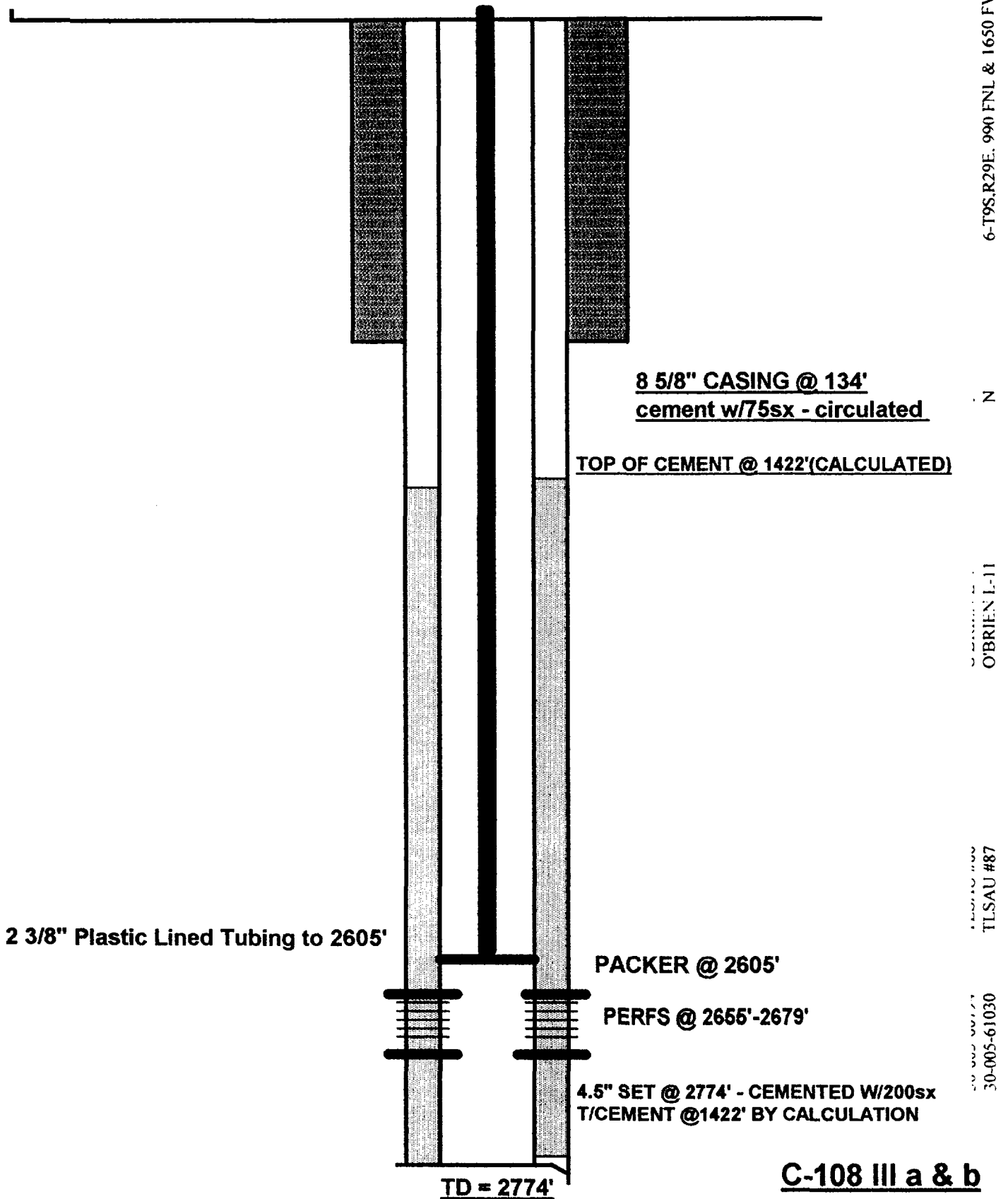
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20 #/ft	9.5 #/ft
A2	CASING DEPTH:	134'	2774'
A2	CEMENT:	75sx	200sx
A2	TOP OF CEMENT:	SURFACE	1422'
		Circ. 5sx	Calculated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2605' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2655'-2679'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1233'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #87
Well Schematic (Proposed)
C-108-III a & b



**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 89
A1	FOOTAGE:	990' FSL & 990' FEL
A1	SECTION:	6-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

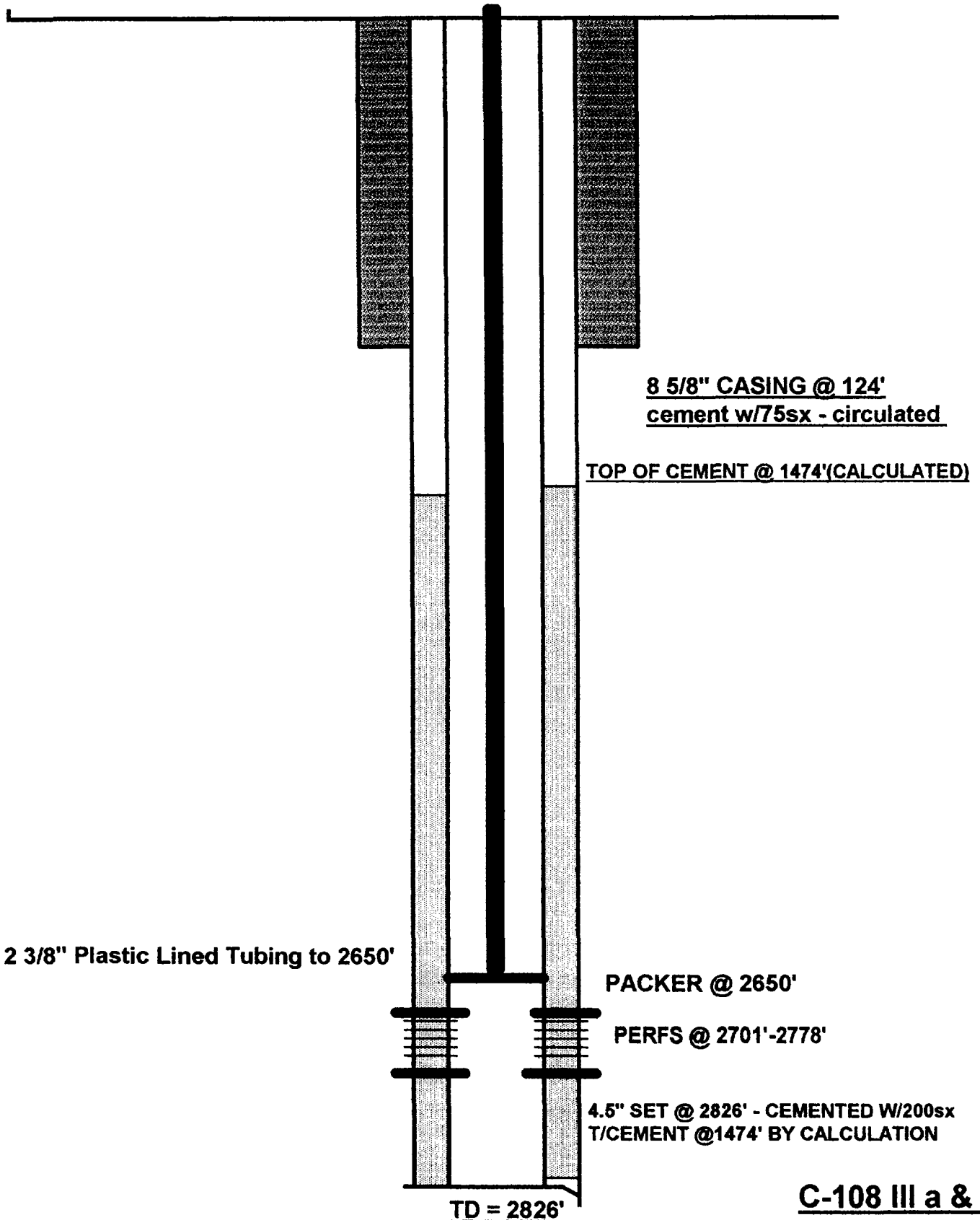
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20 #/FT	9.5 #/FT
A2	CASING DEPTH:	124'	2826'
A2	CEMENT:	75sx	200sx
A2	TOP OF CEMENT:	SURFACE	1474'
		Circulated	CALCULATED

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2650' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2701'-2778'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1227'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #89
Well Schematic (Proposed)
C-108-III a & b



C-108 III a & b

6-T9S-R29E. 990 FSL & 990 FEL

P

O'BRIEN FF-5

TLSAU #89

30-005-61022

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 94
A1	FOOTAGE:	330' FNL & 2310' FEL
A1	SECTION:	7-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

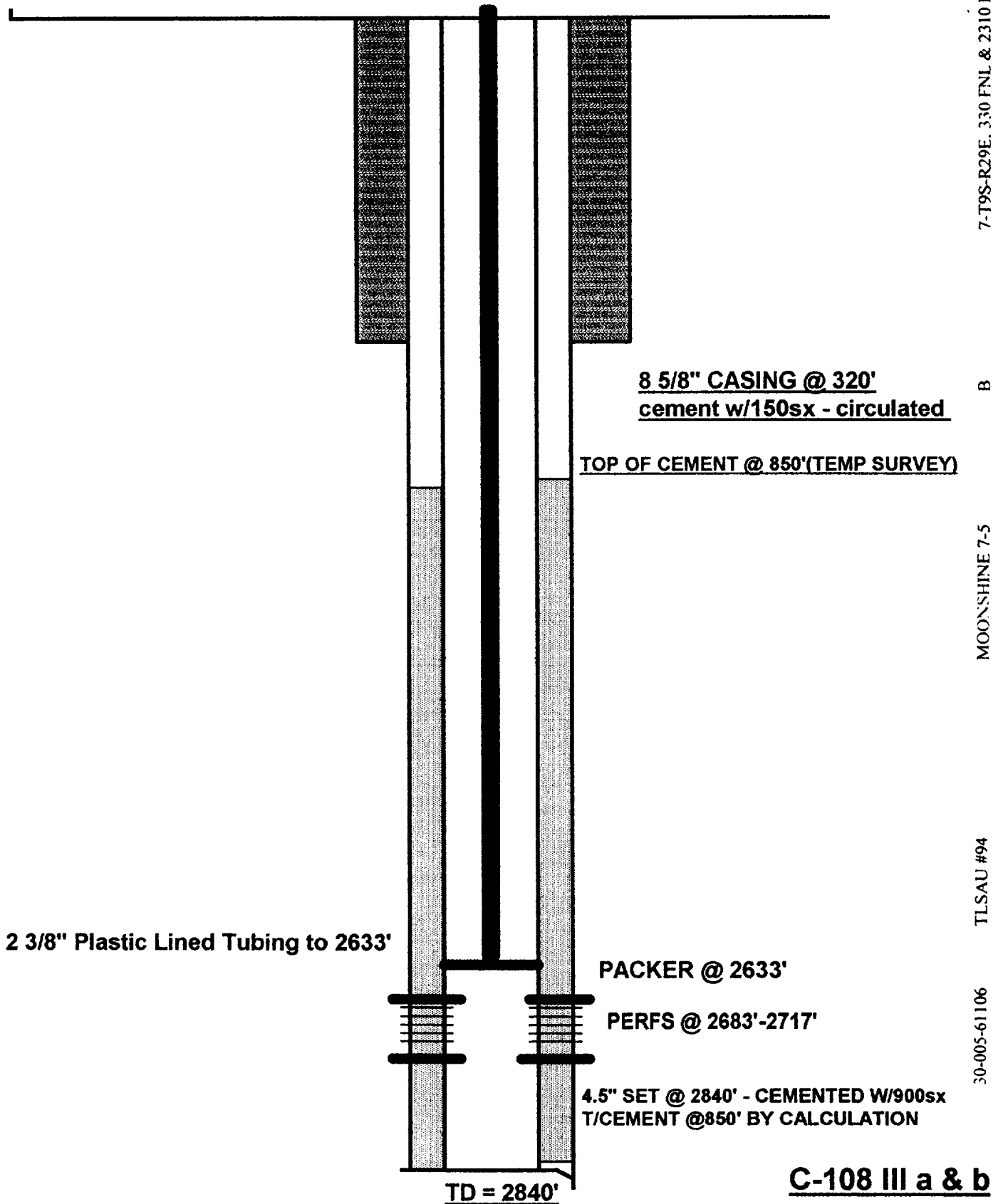
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	24 #/ft	10.5 #/FT
A2	CASING DEPTH:	320'	2840'
A2	CEMENT:	150sx	900sx
A2	TOP OF CEMENT:	SURFACE	850'
		Circ. 25sx	TEMP SURVEY

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2633' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2683'-2717'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1833'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #94
Well Schematic (Proposed)
C-108-III a & b



**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 102
A1	FOOTAGE:	1980' FNL & 1980' FWL
A1	SECTION:	7-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

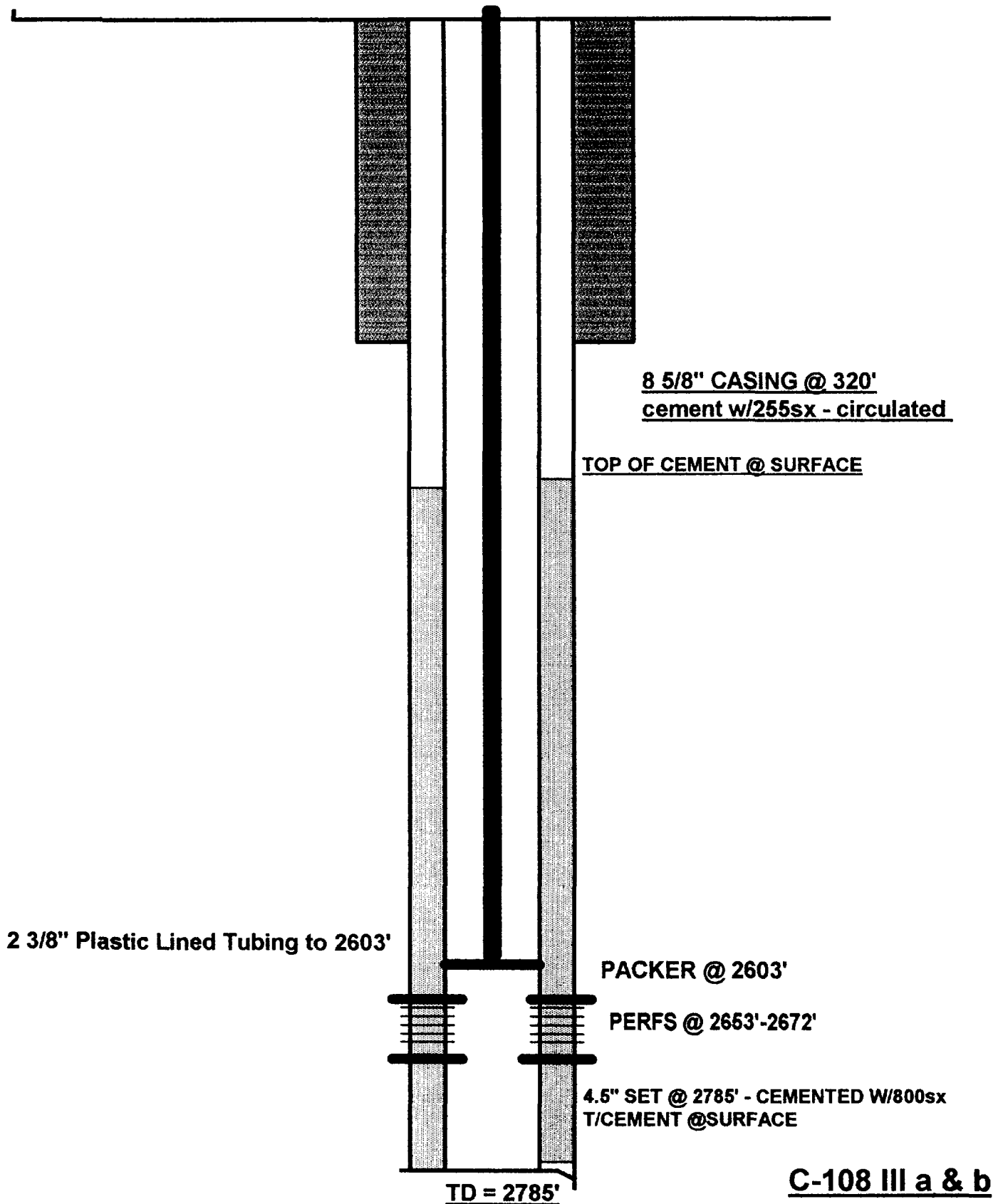
A2	HOLE SIZE:	10.75"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	24 #/ft	10.5 #/ft
A2	CASING DEPTH:	320'	2785"
A2	CEMENT:	255sx	800sx
A2	TOP OF CEMENT:	SURFACE	SURFACE
		Circ. 65sx	Circulated

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2603' +/- 25"
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2653'-2672"
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	2653'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #102
Well Schematic (Proposed)
C-108-III a & b



**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 106
A1	FOOTAGE:	2310' FSL & 330' FWL
A1	SECTION:	7-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	24 #/ft	10.5 #/FT
A2	CASING DEPTH:	166'	2700'
A2	CEMENT:	150sx	900sx
A2	TOP OF CEMENT:	SURFACE	560'
		Circ. 25sx	BOND LOG

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2550' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2599'-2640'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	2039'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #106
Well Schematic (Proposed)
C-108-III a & b

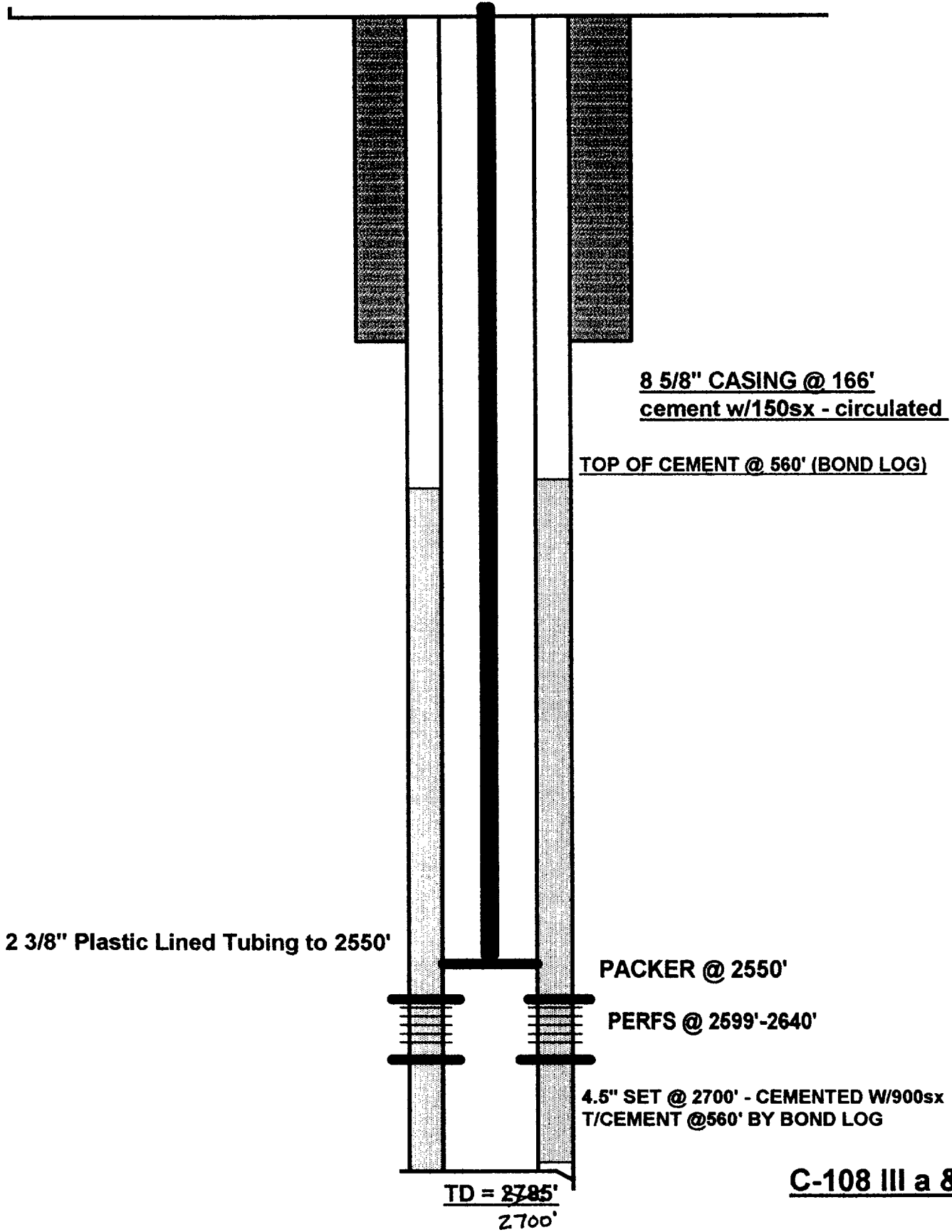
7-T9S-R29E, 2310 FSL & 330 FWL

L

MOONSHINE 7-7

TLSAU #106

30-005-61332



**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 110
A1	FOOTAGE:	1650' FSL & 330' FEL
A1	SECTION:	12-T9S-R28E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

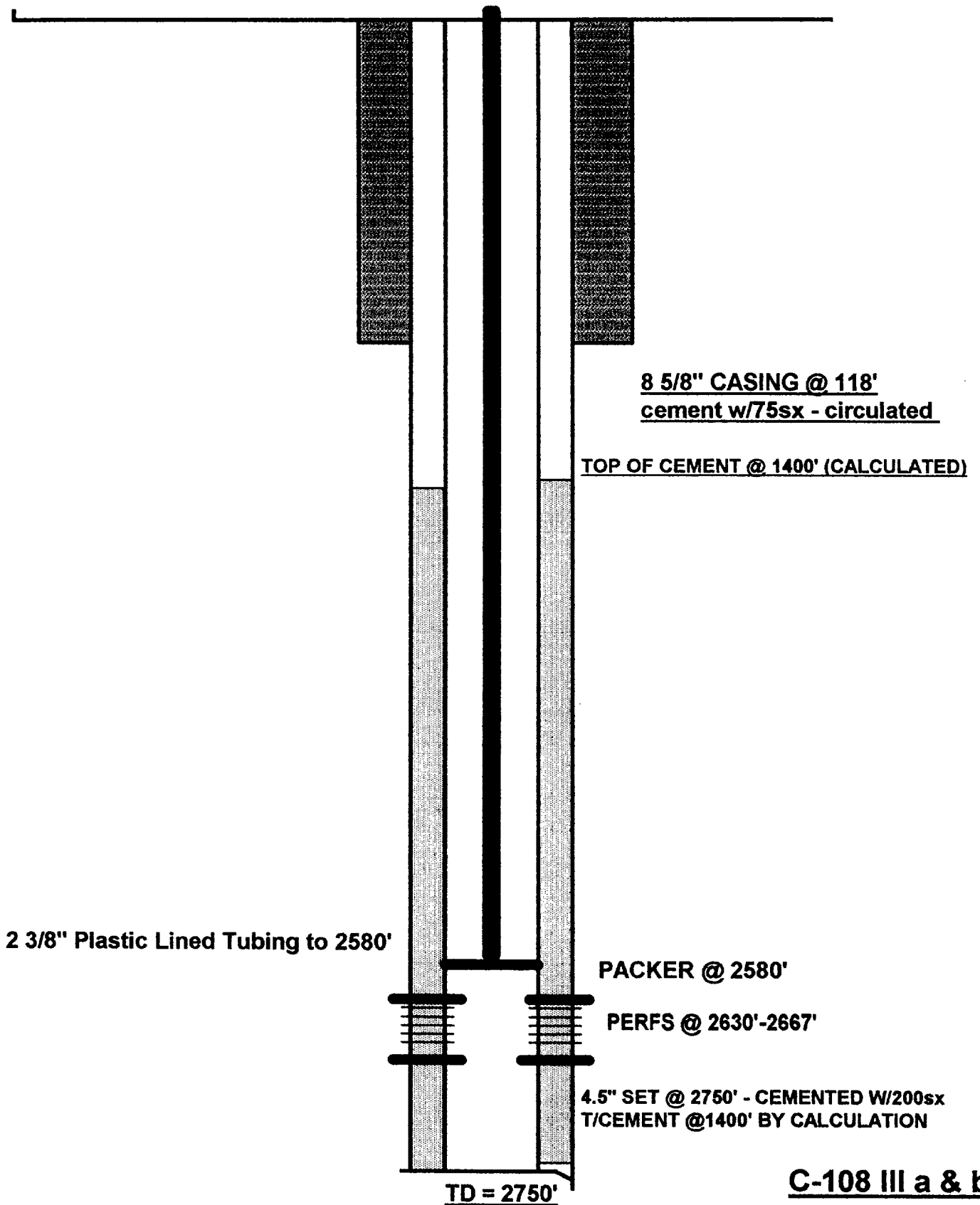
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	23 #/ft	10.5 #/ft
A2	CASING DEPTH:	118'	2750'
A2	CEMENT:	75sx	200sx
A2	TOP OF CEMENT:	SURFACE	1400'
		Circ. 15sx	CALCULATED

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2580' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2630'-2667'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1230'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #110
Well Schematic (Proposed)
C-108-III a & b



12-T9S-R28E. 1650 FSL & 330 FEL

I

O'BRIEN DB-1

TL SAU #110

30-005-61556

C-108 III a & b

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit #112
A1	FOOTAGE:	990' FSL & 1650' FWL
A1	SECTION:	7-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

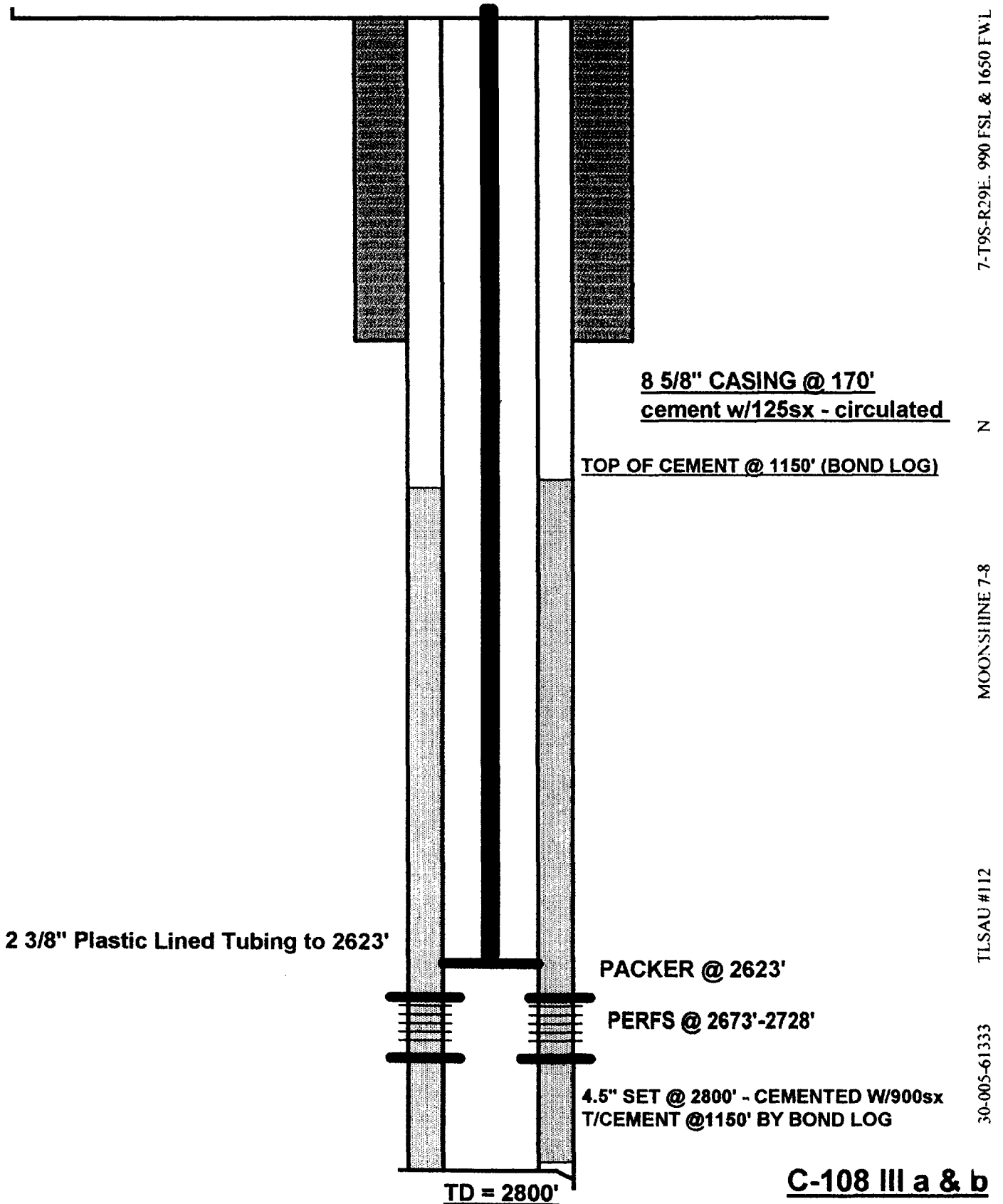
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	20 #/ft	11 #/ft
A2	CASING DEPTH:	170'	2800'
A2	CEMENT:	125sx	900sx
A2	TOP OF CEMENT:	SURFACE	1150'
		Circ. 35sx	BOND LOG

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2623' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2673'-2728'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1523'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #112
Well Schematic (Proposed)
C-108-III a & b



**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 117
A1	FOOTAGE:	330' FNL & 1650' FWL
A1	SECTION:	18-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	168'	4.5"
A2	CASING WEIGHT:	24 #/ft	10.5 #/ft
A2	CASING DEPTH:	168'	2780'
A2	CEMENT:	150sx	900sx
A2	TOP OF CEMENT:	SURFACE	430'
		Circ 20sx	BOND LOG

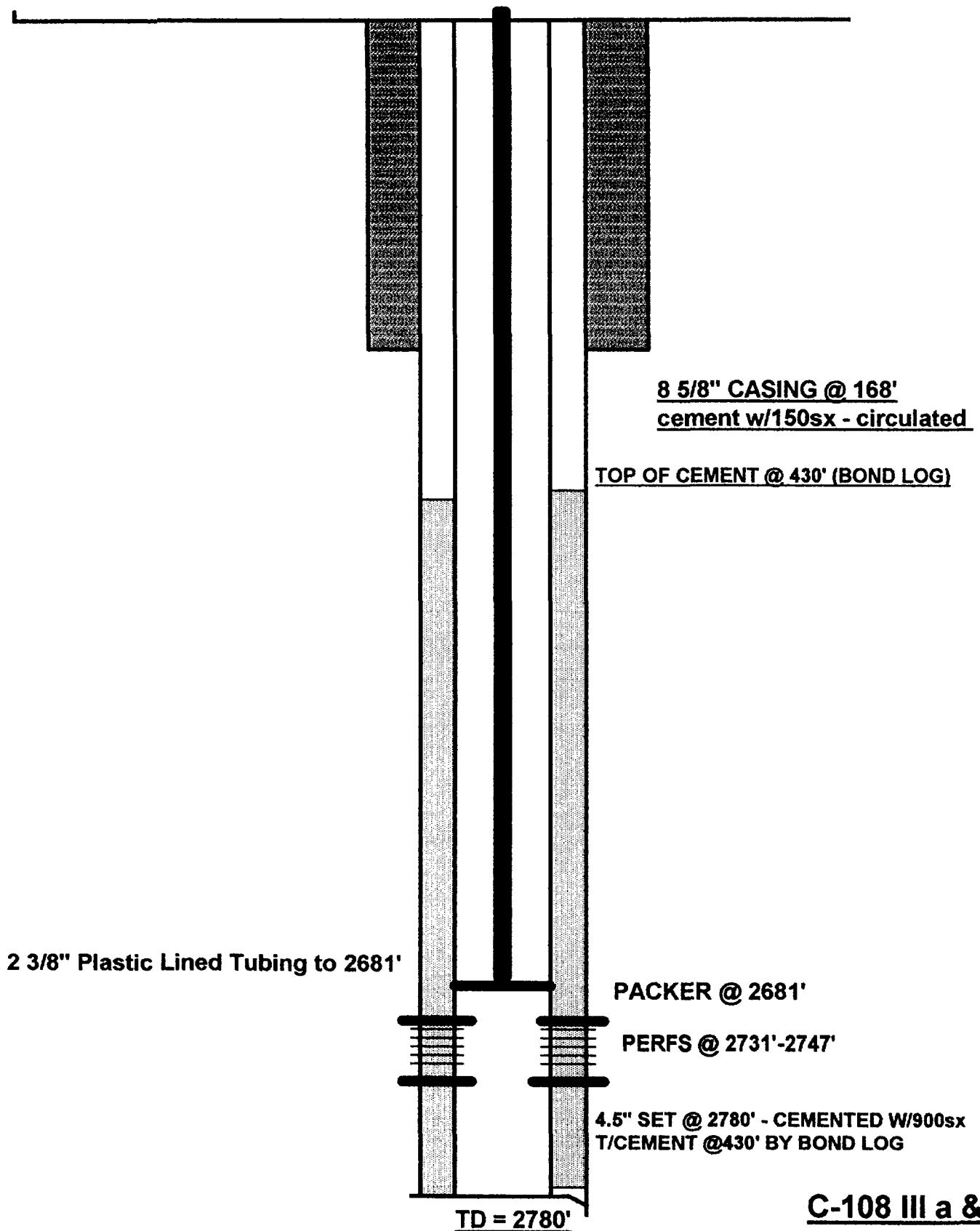
PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2681' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2731'-2747'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	2301'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

COMMENTS:	8/13/93 SET CIBP @ 2681' (50" above u/perf) W/35sx Class "H"
	Found hole in 4.5" casing between 405' & 375'
	Hole has apparently not been repaired

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #117
Well Schematic (Proposed)
C-108-III a & b



C-108 III a & b

18-T9S-R29E, 330 FNL & 1650 FWL

C

MOONSHINE 18-1

TLSAU #117

30-005-61454

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 120
A1	FOOTAGE:	1650' FNL & 2310' FEL
A1	SECTION:	18-T9S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

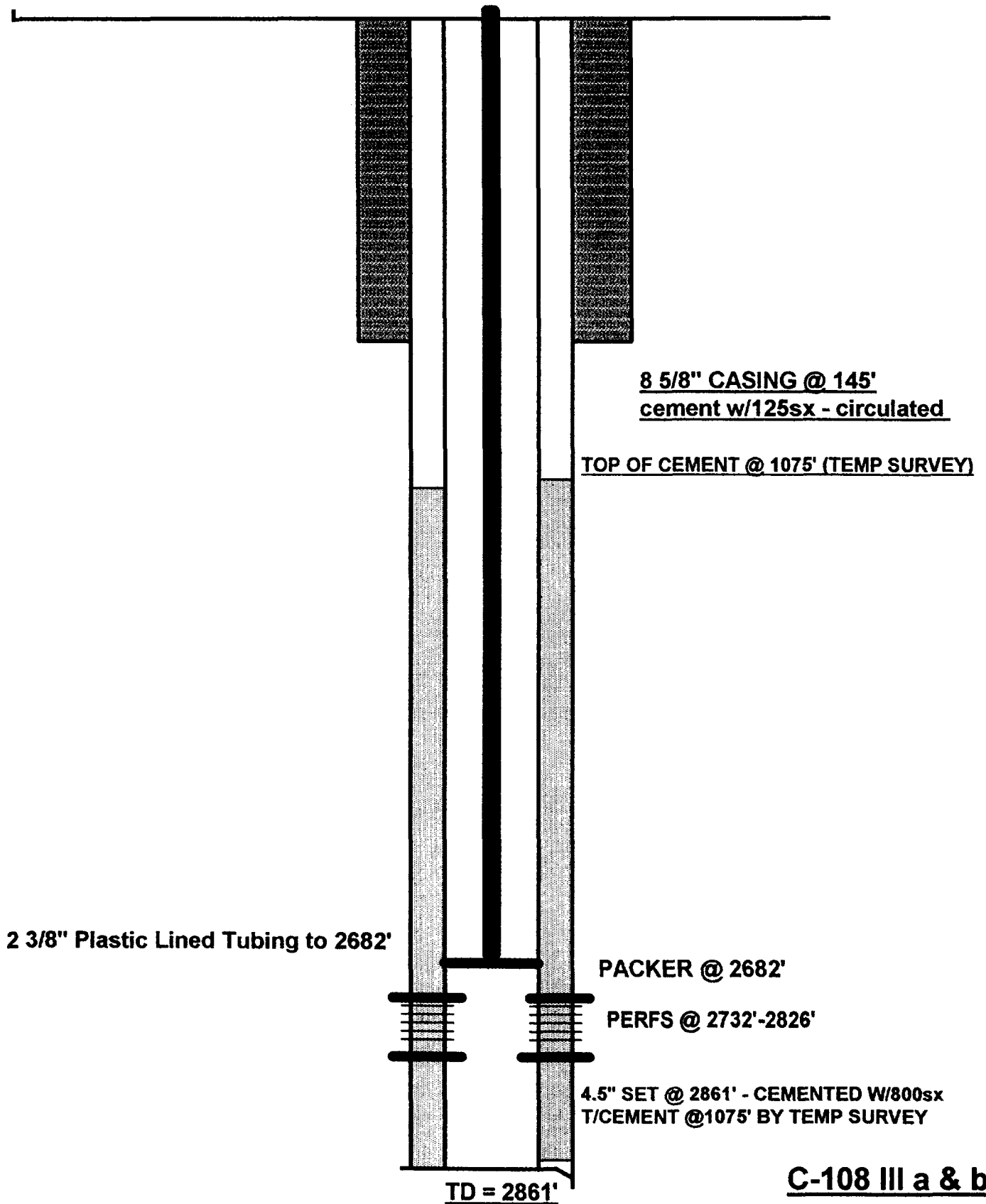
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	4.5"
A2	CASING WEIGHT:	24 #/ft	10.5 #/ft
A2	CASING DEPTH:	145'	2861'
A2	CEMENT:	125sx	800sx
A2	TOP OF CEMENT:	SURFACE	1075'
		Circulated 25sx	Temp Survey

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2682' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2732' - 2826'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	1657'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #120
Well Schematic (Proposed)
C-108-III a & b



18-T9S-R29E. 1650 FNL & 2310 FEL

G

MOONSHINE 18-3

TLSAU #120

30-005-61624

C-108 III a & b

**HANAGAN PETROLEUM CORPORATION
TWIN LAKES SAN ANDRES WATERFLOOD UNIT**

TABLE C-108 III-A & B

C-108-III

ITEM #

A1	WELL NAME:	Twin Lakes San Andres Unit # 123
A1	FOOTAGE:	2237' FNL & 1679' FWL
A1	SECTION:	31-T8S-R29E
A1	COUNTY:	Chaves

EXISTING CASING PROGRAM

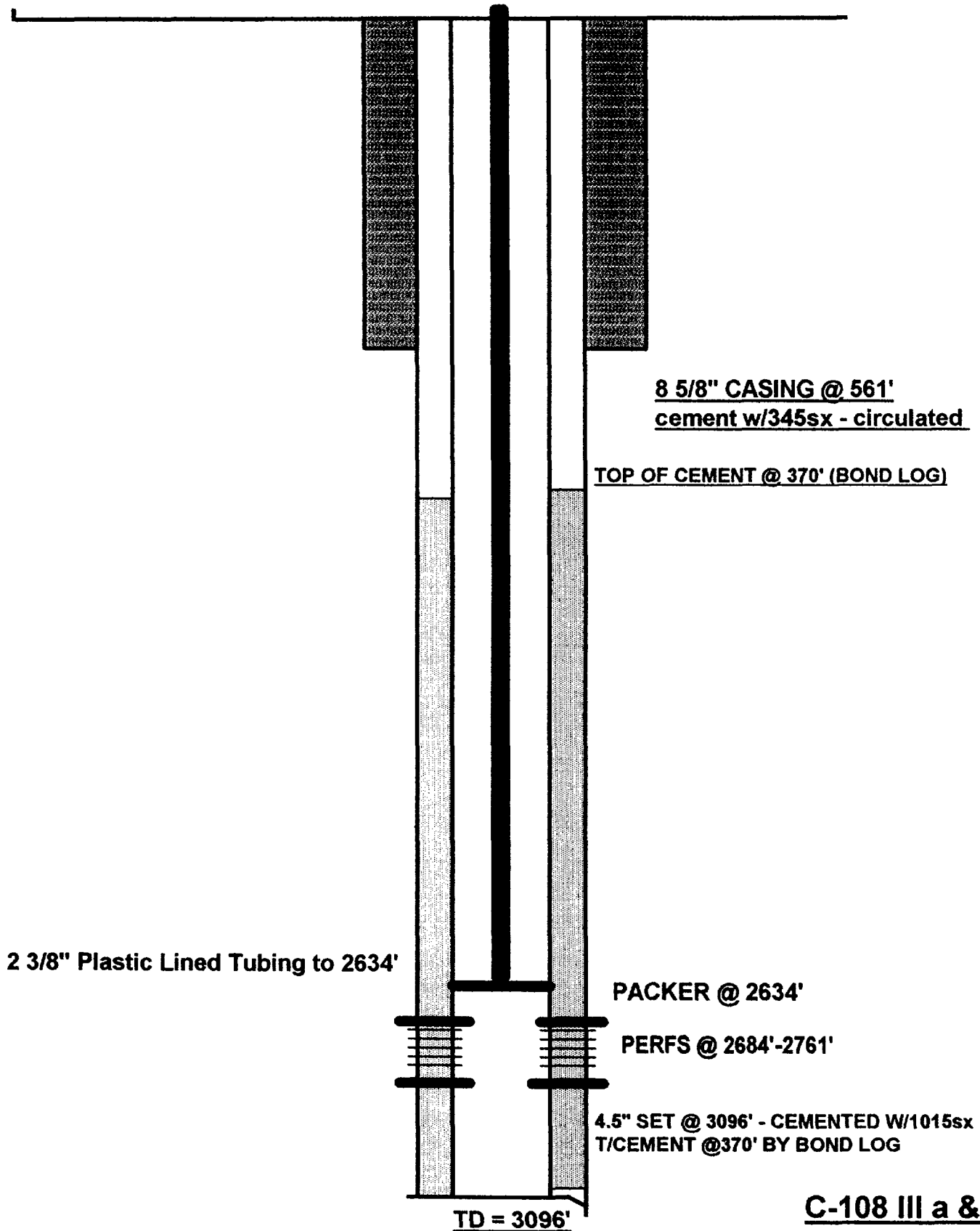
A2	HOLE SIZE:	12.25"	7.875"
A2	CASING SIZE:	8.625"	5.5"
A2	CASING WEIGHT:	24 #/FT	15.5 #/FT
A2	CASING DEPTH:	561'	3096'
A2	CEMENT:	345SX	1015SX
A2	TOP OF CEMENT:	SURFACE	370'
		CIRC-60sx	BOND LOG

PROPOSED TUBULAR & PACKER INFORMATION

A3	TUBING:	2.375" 4.7#/ft J55 internally plastic coated or fiberglass lined
A3	PACKER DEPTH:	2634' +/- 25'
A4	PACKER TYPE:	Halliburton R4 internally coated tension packer

B1	PROPOSED INJECTION FORMATION:	San Andres / Twin Lakes, San Andres
B2	PROPOSED INJECTION INTERVAL:	Perforations from: 2684' - 2761'
	EXISTING PERFORATIONS:	Same
	CEMENT ABOVE TOP PERFORATION:	2314'
B3	ORIGINAL WELL PURPOSE:	Oil Well
B4	OTHER PERFORATED INTERVALS:	None
B5	NEXT PAY ZONE - ABOVE:	None
B5	NEXT PAY ZONE - BELOW:	Devonian @ 7200' (+/- 100')

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #123
Well Schematic (Proposed)
C-108-III a & b



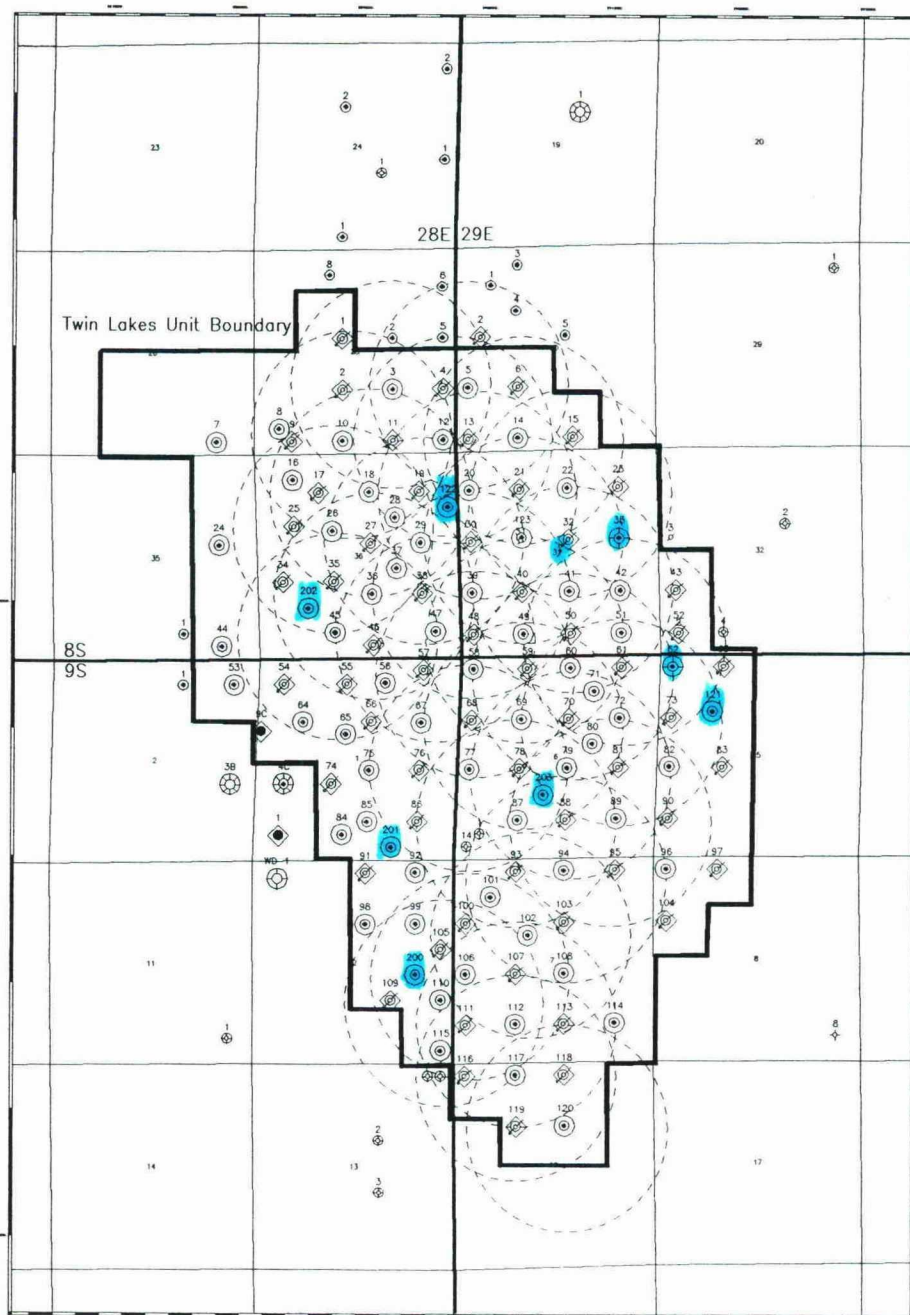
31-T8S-R29E, 2237 FNL & 1679 FWL

F

TLSAU #123

TLSAU #123

30-005-62845



LEGEND	
●	Unit Producer
⊗	Injector
•	Non-Unit Producer

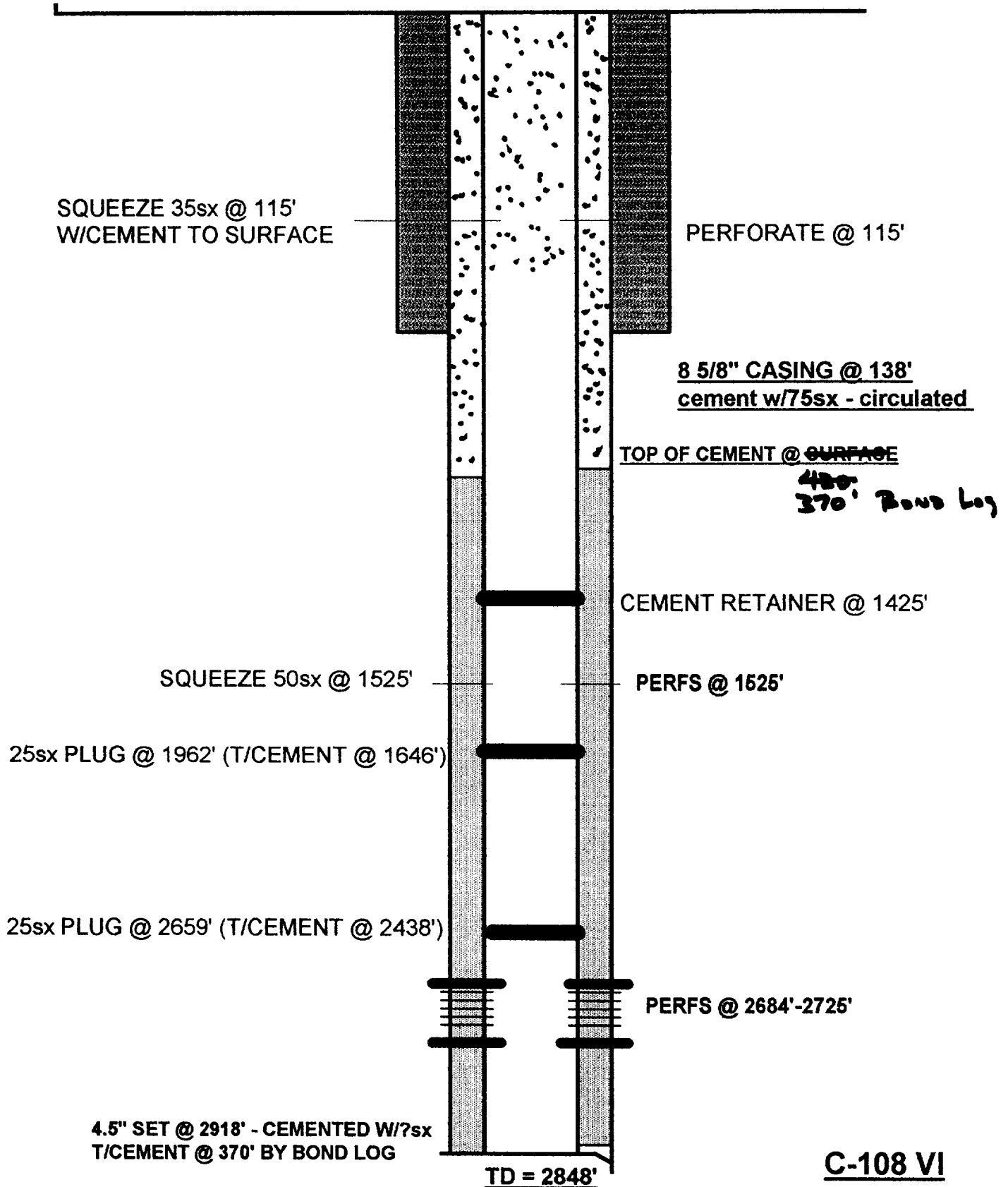
● ADDITIONAL SINCE 9-9-87

Hanagan Petroleum Corporation		
TWIN LAKES SAN ANDRES UNIT #79		
Application for Injection (C-108)		
Area of Review		
Chaves Co., NM		C-108 Item V
1"=5000'		Hanagan

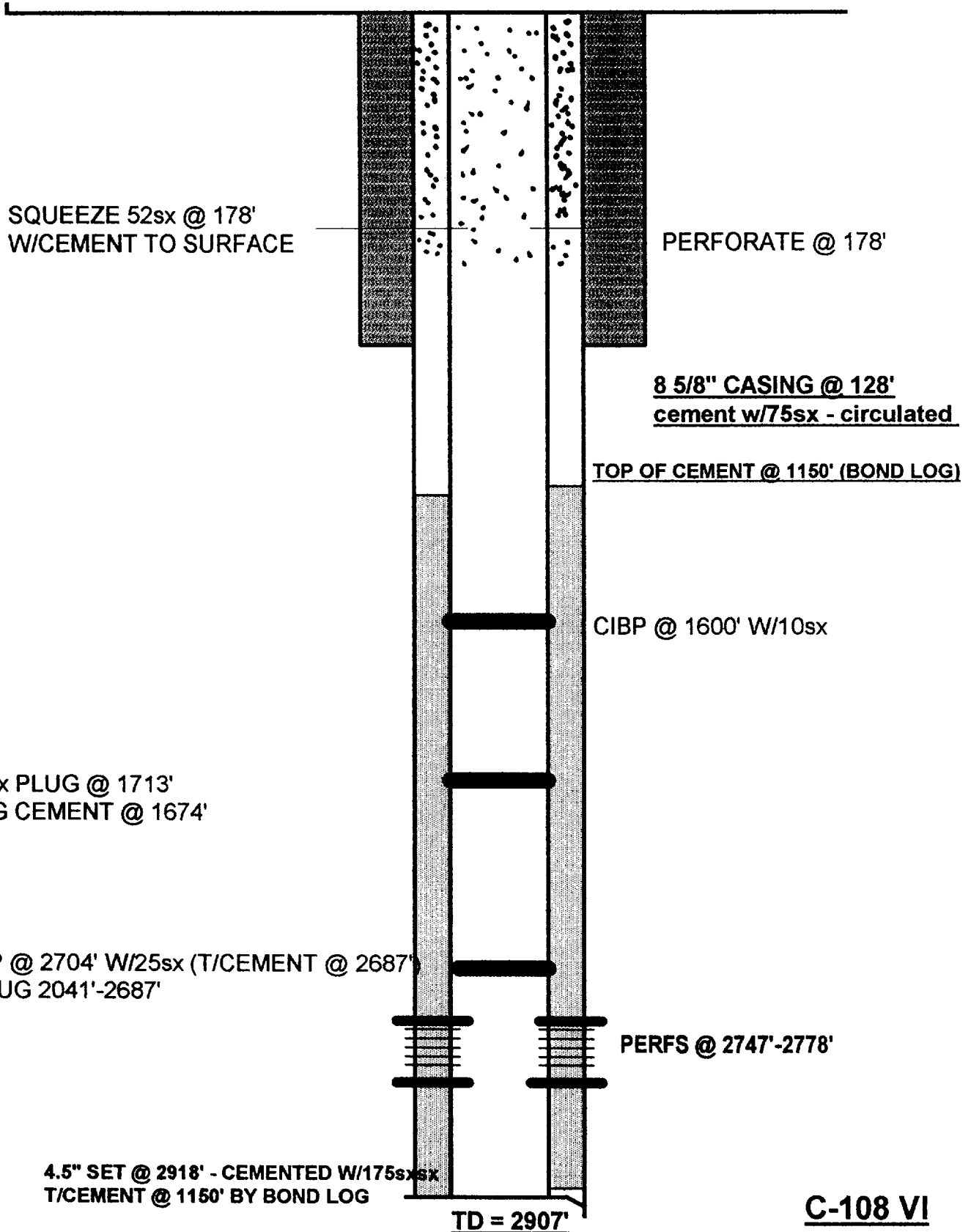
TABULATION OF WELL RECORDS WITHIN AREA OF REVIEW
(FOR ACTIVITY SUBSEQUENT TO SEPTEMBER 9, 1987)

WELL NAME & LOCATION	DATE COMPL.	CASING RECORD	T.O.C.	PROD. PERFS.	WELL TYPE	STATUS
TLSAU #31, UT. F-31-T8S-R29E	1980	8.625" @ 138', CEMENT W/75sx 4.5" @ 2918', CEMENT W/? sx	SURFACE 370' (BOND LOG)	2684'-2725'	OIL	P & A
TLSAU #33, UT. G-31-T8S-R29E	1981	8.625" @ 128', CEMENT W/75sx 4.5" @ 2918', CEMENT W/175sx	SURFACE 1150' (BOND LOG)	2747'-2778'	OIL	P & A
TLSAU #62, UT. D-5-T9S-R29E	1981	8.625" @ 130', CEMENT W/75sx 4.5" @ 2930', CEMENT W/200sx	SURFACE 2054' (BOND LOG)	2780'-2823'	OIL	P & A
TLSAU #121, UT. F-5-T9S-R29E	1991	8.625" @ 556', CEMENT W/345sx 5.5" @ 3100', CEMENT W/1105sx	SURFACE SURFACE	2839'-2892'	OIL	ACTIVE
TLSAU #122, UT. H-36-T8S-R28E	4/91	8.625" @ 566', CEMENT W/345sx 5.5" @ 3100', CEMENT W/825sx	SURFACE 550' (BOND LOG)	2642'-2706'	OIL	ACTIVE
TLSAU #200, UT. I-12-T9S-R28E	1997	8.625" @ 168', CEMENT W/110sx 5.5" @ 2781', CEMENT W/1050sx	SURFACE SURFACE	2616'-2681'	OIL	ACTIVE
TLSAU #201, UT. O-1-T9S-R28E	1997	8.625" @ 180', CEMENT W/110sx 5.5" @ 2821', CEMENT W/1100sx	SURFACE SURFACE	2626'-2649'	OIL	ACTIVE
TLSAU #202, UT. M-36-T8S-R28E	1997	8.625" @ 187', CEMENT W/110sx 5.5" @ 2750', CEMENT W/1050sx	SURFACE SURFACE	2615'-2626'	OIL	ACTIVE
TLSAU #203, UT. K-6-T9S-R29E	1997	8.625" @ 177', CEMENT W/110sx 5.5" @ 2848', CEMENT W/1100sx	SURFACE SURFACE	2642'-2706'	OIL	ACTIVE

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #31
Well Schematic
C-108-VI

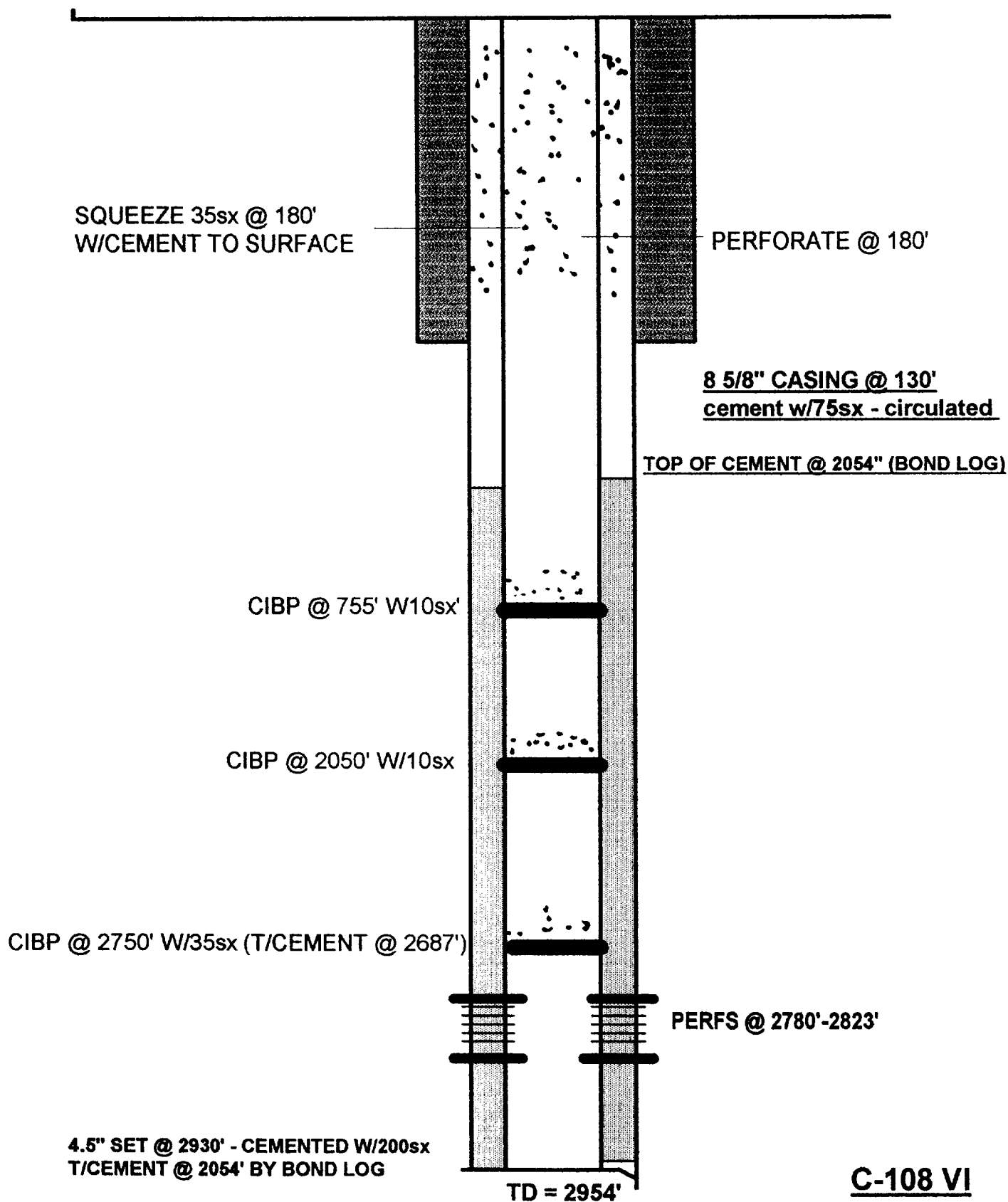


Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #33
Well Schematic
C-108-VI

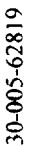


C-108 VI

**Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #62
Well Schematic
C-108-VI**

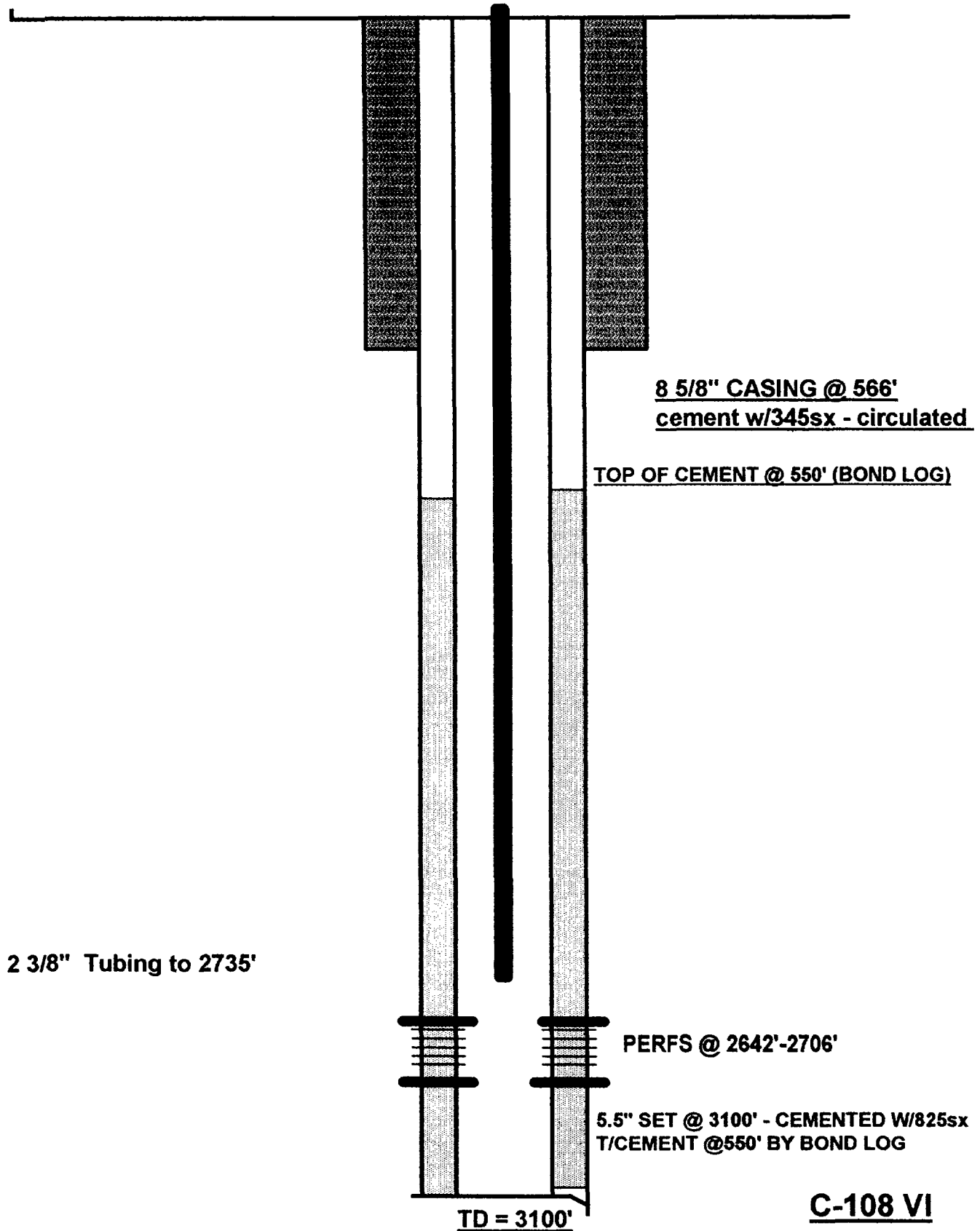


5-T9S-R29E, 1500 FNL. & 1405 F.W.L.



C-108 VI

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #122
Well Schematic
C-108-VI



36-T8S-R28E, 1400 FNL & 250 FEL

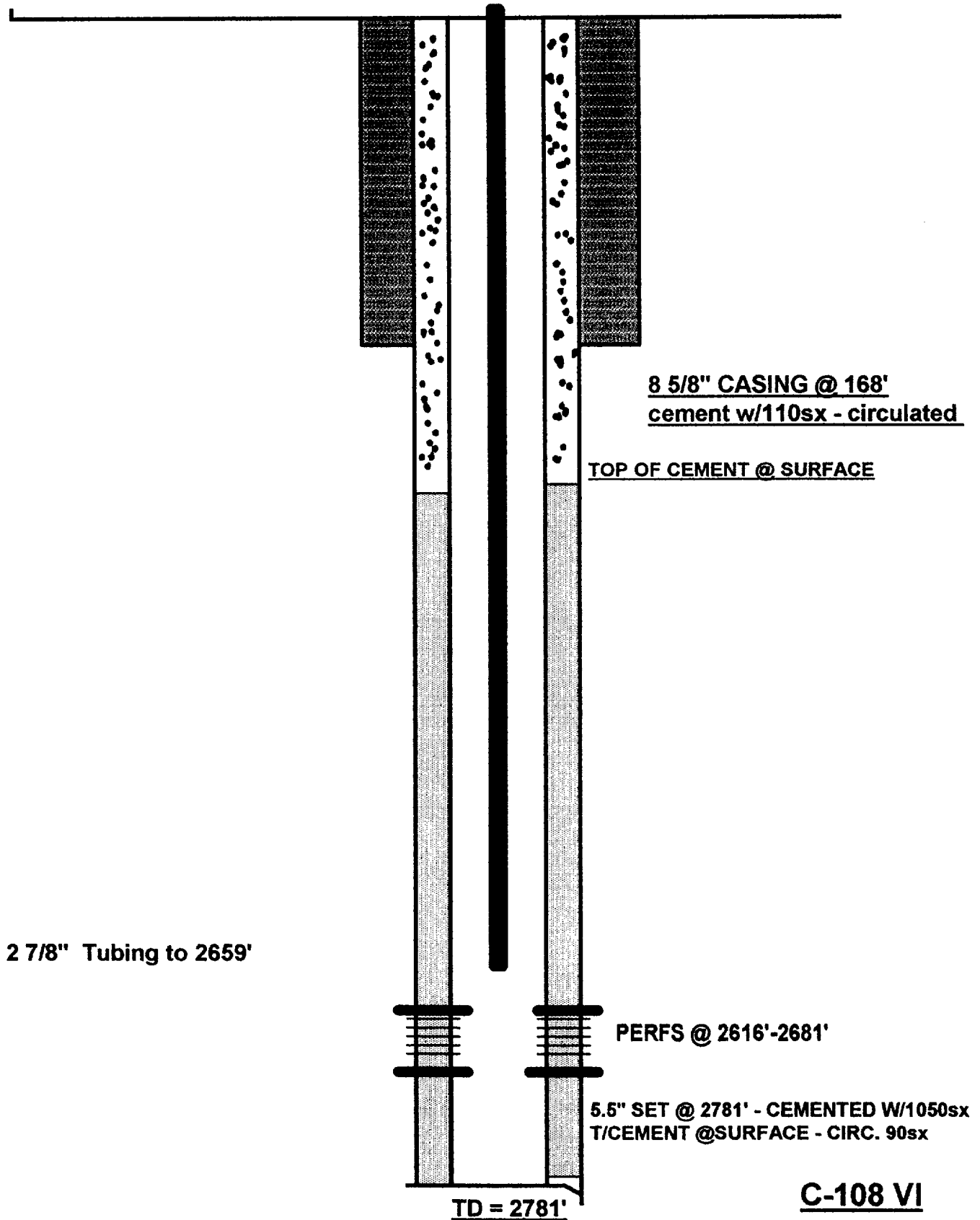
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TL.SAU #122

TL.SAU #122

30-005-62818

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #200
Well Schematic
C-108-VI



12-T9S-R28E. 2310 FSL & 990 FEL.

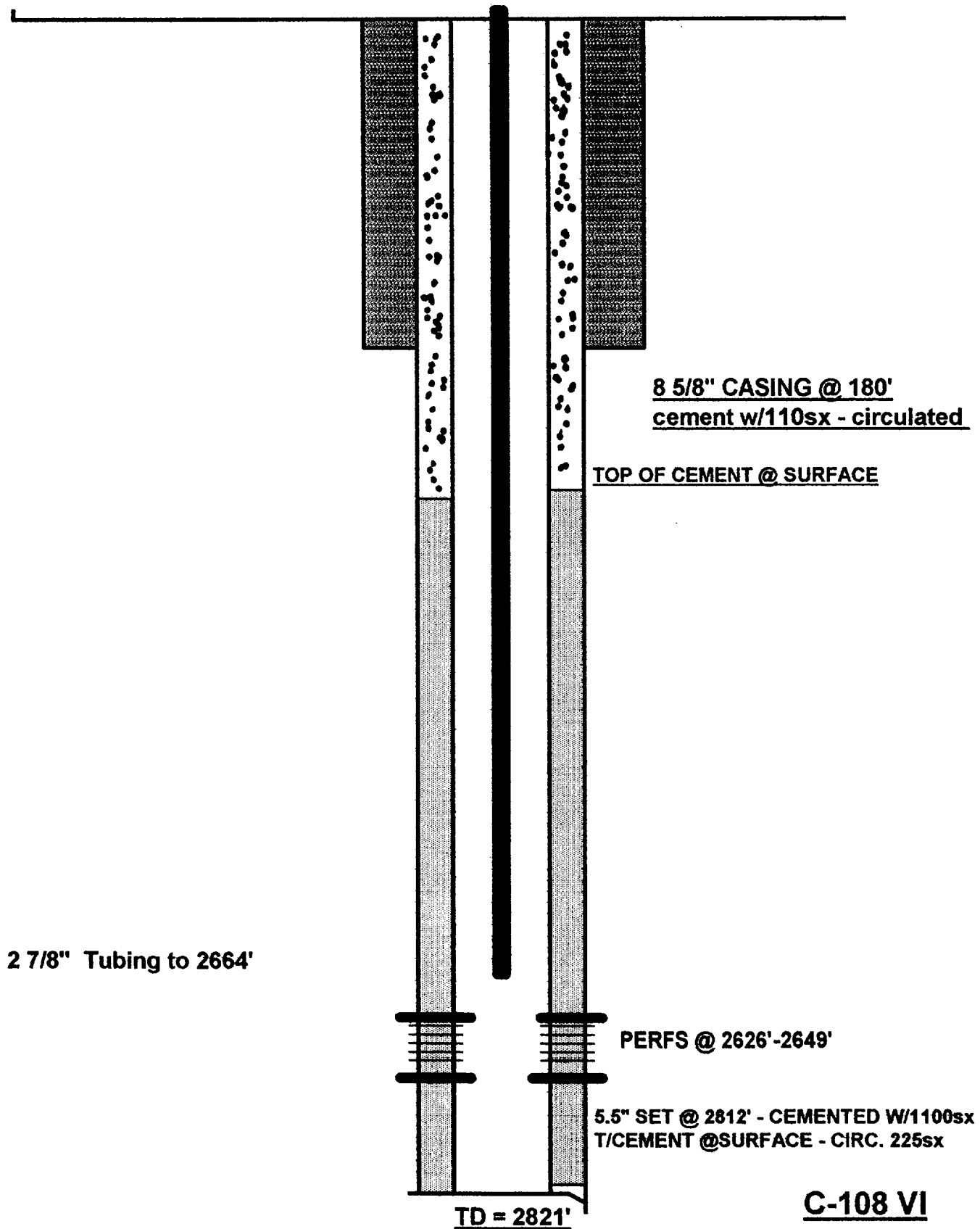
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TLSAU #200

TLSAU #200

30-005-63138

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #201
Well Schematic
C-108-VI



1-T9S-R28E, 330 FSL & 1650 FEL

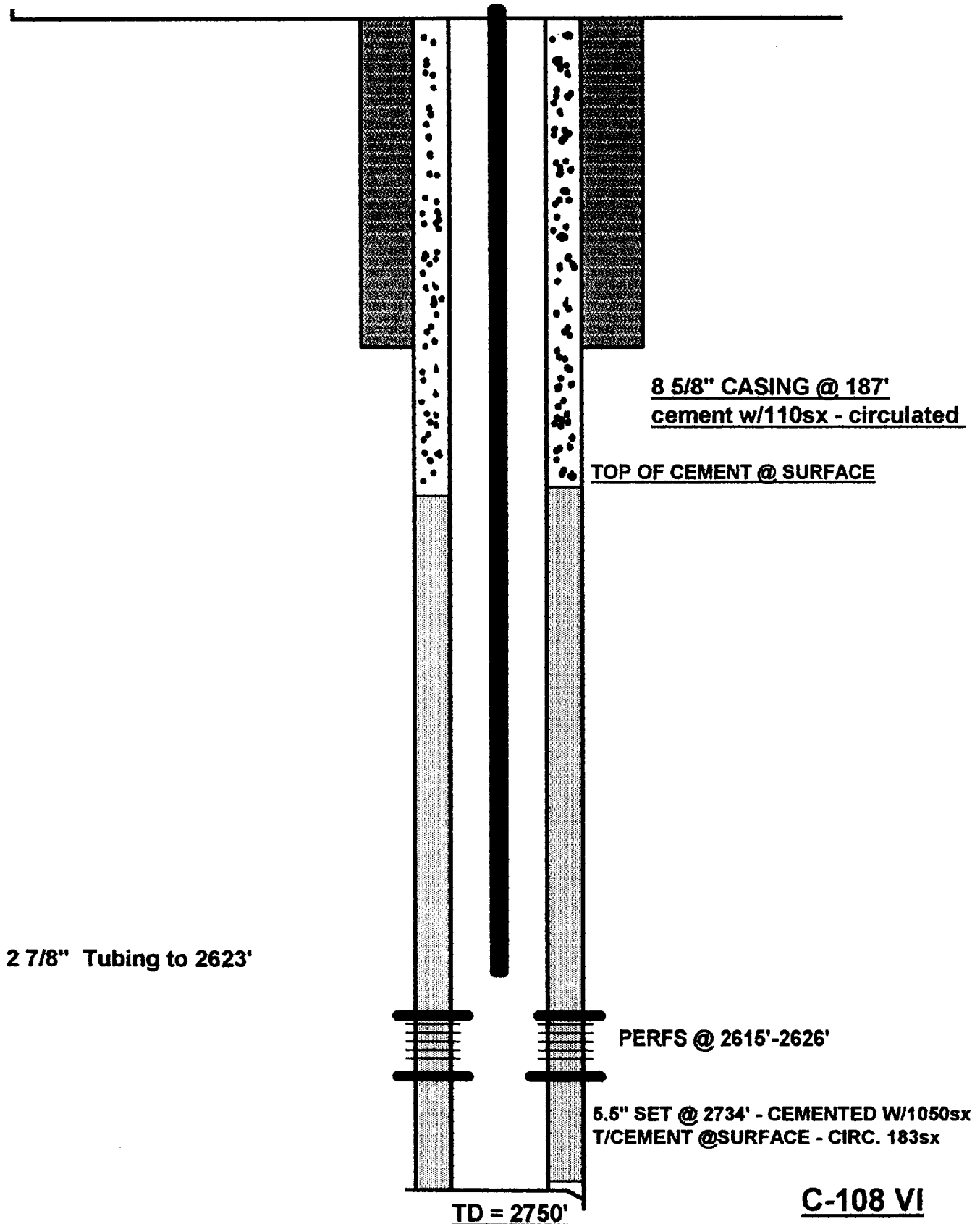
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TLSAU #201

TLSAU #201

30-005-63139

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #202
Well Schematic
C-108-VI



36-T8S-R28E. 1300 FSL & 1300 FWL

M

TL.SAU' #202

TL.SAU' #202

30-005-63147

Hanagan Petroleum Corporation
Twin Lakes San Andres Unit Well #203
Well Schematic
C-108-VI

6-T9S-R29E. 1650 FSL & 2310 FW'L

K

TLSAU #203

TLSAU #203

30-005-63140

