



J.O. EASLEY, INC.
ESTABLISHED 1979

P.O. Box 1796 88202-1796

400 N. Pennsylvania, Suite 990-D
Roswell, NM 88201

WFX

11/18/96

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Telephone (505) 623-3758

Fax (505) 623-3797

October 30, 1996

NOV - 1996

Mr. David Catanach
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

20-17-33

Re: C-108
Caprock Maljamar Waterflood Unit
Lea County, New Mexico

Dear Mr. Catanach:

Enclosed is an original and one copy of the C-108 for 10 new injection wells within The Wiser Oil Company's Caprock Maljamar Waterflood Unit.

If you have any questions, please feel free to give me a call at 505-623-3758.

Sincerely,

J. O. EASLEY, INC.

Bonita L. Limpus Jones
Consulting Landman

4194
4393

/bj

Enclosures

cc/enclosure Mr. Jerry Sexton
New Mexico Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88241

Mr. Steve Gilbert
The Wiser Oil Company
8115 Preston Road, Suite 400
Dallas, Texas 75225

Mr. Tom Cook
The Wiser Oil Company
P. O. Box 2568
Hobbs, New Mexico 88241

NOV - 1 1996

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ Yes ☐ No
- II. OPERATOR: The Wiser Oil Company
ADDRESS: P. O. Box 2568, Hobbs, NM 88241
CONTACT PARTY: Tom Cook (505) PHONE: 392-9797
- 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-10094 Caprock Maljamar Unit
- 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 R. Burch, CPL TITLE: Agent
SIGNATURE: Michael R. Burch DATE: October 30, 1996
- * 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. _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, PO Box 2088, Santa Fe, NM 87504-2088 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

C-108
APPLICATION FOR AUTHORIZATION TO INJECT
CAPROCK MALJAMAR UNIT

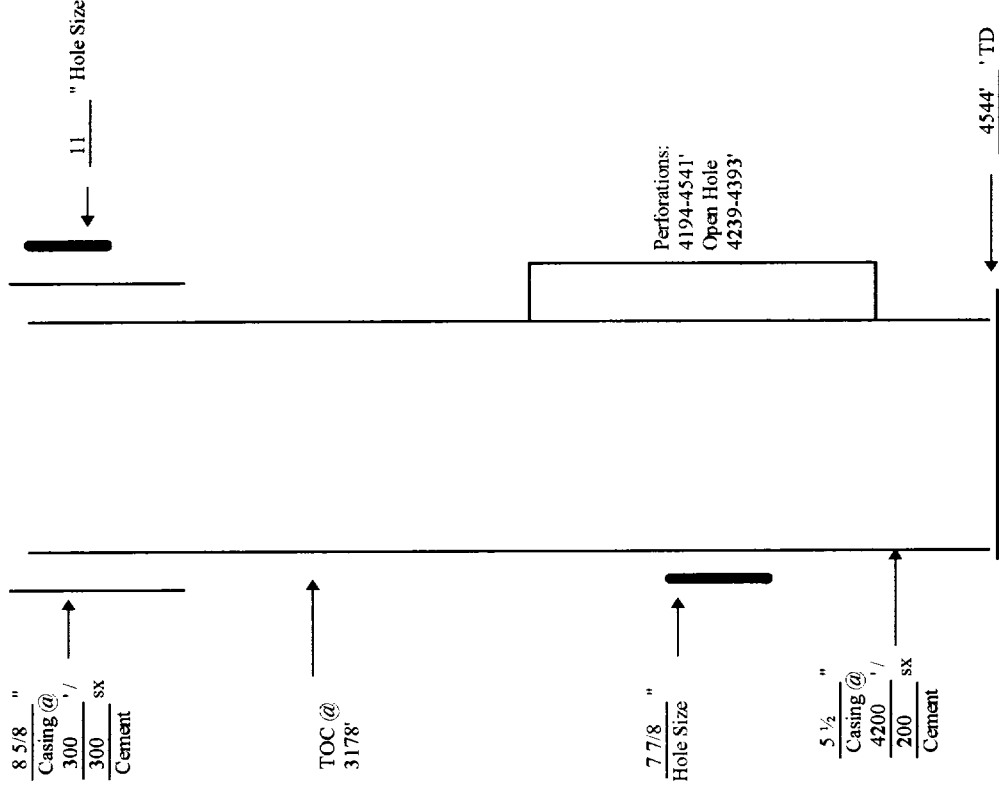
III. WELL DATA

The following data sheets describe the 10 Water Injection Wells for which this application is submitted by The Wiser Oil Company.

INJECTION WELL DATA SHEET

OPERATOR	The Wisser Oil Company			LEASE	Skelly Unit			
WELL NO.	#83	660' FSL, 1980' FEL, Unit O	SECTION	20	TOWNSHIP	17S	RANGE	33E
		FOOTAGE LOCATION						

Schematic



Well Construction Data

Surface Casing	Set @	300	
Size	8 5/8	" Cemented with	300
TOC	Surface	feet determined by	Calculation
Hole Size	11	"	
Intermediate Casing			
Size	"	Cemented with	200
TOC		feet determined by	Calculation
Hole Size	"		
Long String	Set @	4200	
Size	5 1/2	" Cemented with	200
TOC	3178	feet determined by	Calculation
Hole Size	7 7/8	"	
Total Depth	4544		
Injection Interval			

(perforated or open-hole; Indicate which)

Tubing Size _____ " lined with _____ (type of internal coating) _____ feet set in a _____ feet

Other type of tubing / casing seal if applicable _____ feet

Other Data

1. Is this a new well drilled for injection? Yes ☒ No ☐
 If no, for what purpose was the well originally drilled? _____

Oil Production

- The Wisser Oil Company plans to convert this well to WIW
- Name of the Injection formation Grayburg-San Andres Vacuum
- Name of Field or Pool (if applicable) Malimar Grayburg San Andres
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used 4194-4541'
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.

INJECTION WELL DATA SHEET

OPERATOR	The Wiser Oil Company				LEASE	Caprock Maljamar Unit			
WELL NO.	#96	1650' FSL, 990' FEL, Unit I		28	17S	33E			
		FOOTAGE LOCATION		SECTION	TOWNSHIP	RANGE			

Schematic

8 5/8" Casing @ 351' / 175' sx Cement →

TOC @ 3810' →

7 7/8" Hole Size →

5 1/2" Casing @ 4499' / 500' sx Cement →

Perforations:
 4222-32'
 4266-74'
 4278-84'
 4346-54'
 4360-72'
 4386-92'

12 1/4" Hole Size

4500' TD

Well Construction Data

Surface Casing Set @ 351'
 Size 8 5/8" Cemented with 175' sx.
 TOC Surface feet determined by
 Hole Size 12 1/4"

Intermediate Casing
 Size " Cemented with " sx.
 TOC " feet determined by "
 Hole Size "

Long String Set @ 4499'
 Size 5 1/2" Cemented with 500' sx.
 TOC 3810' feet determined by Calculation
 Hole Size 7 7/8"
 Total Depth 4500'

Injection Interval feet to "
 (perforated or open-hole; Indicate which)
 Tubing Size 2" " lined with " (type of internal coating) set in a " feet

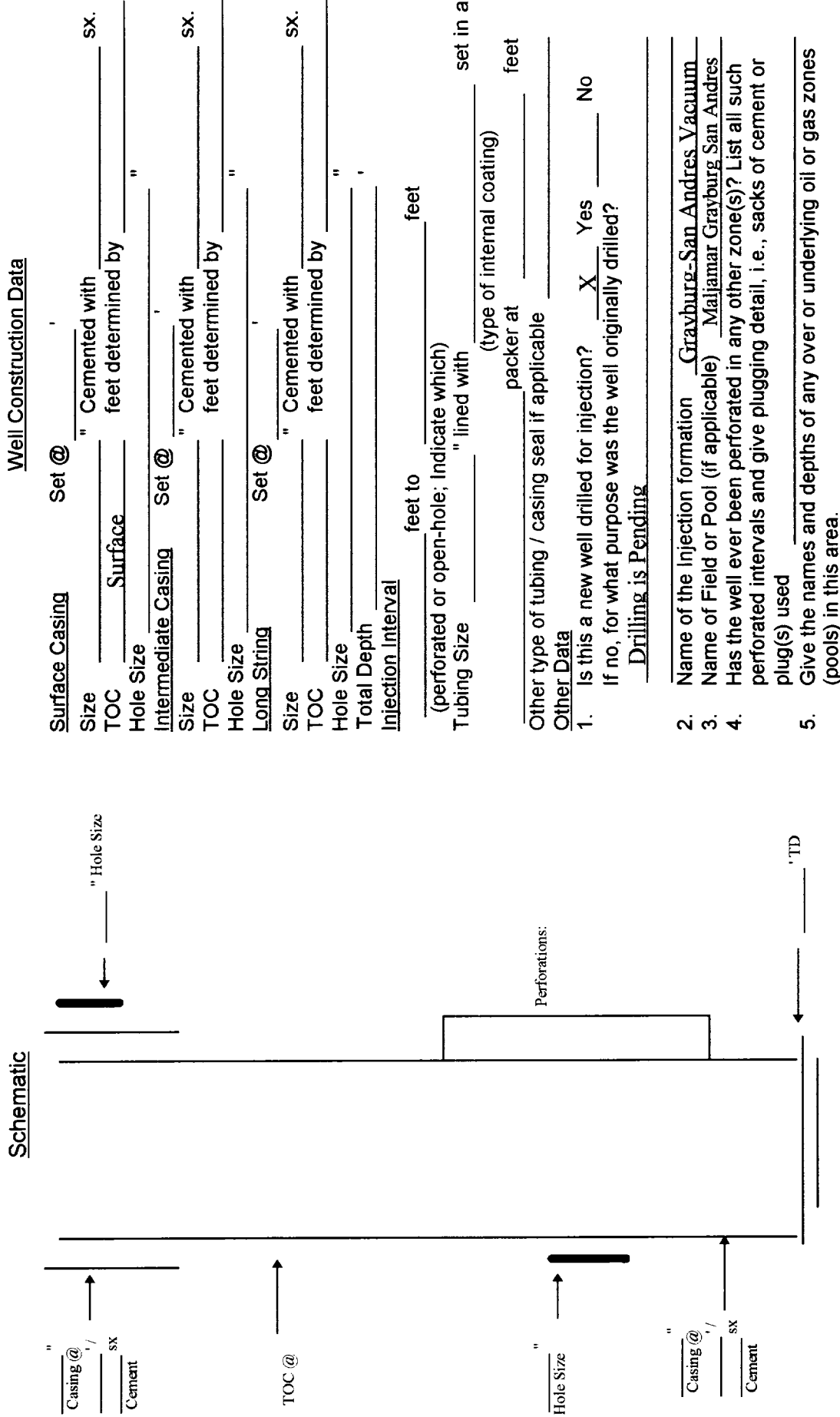
Other type of tubing / casing seal if applicable _____
 Other Data _____

1. Is this a new well drilled for injection? Yes X No _____
 If no, for what purpose was the well originally drilled? _____

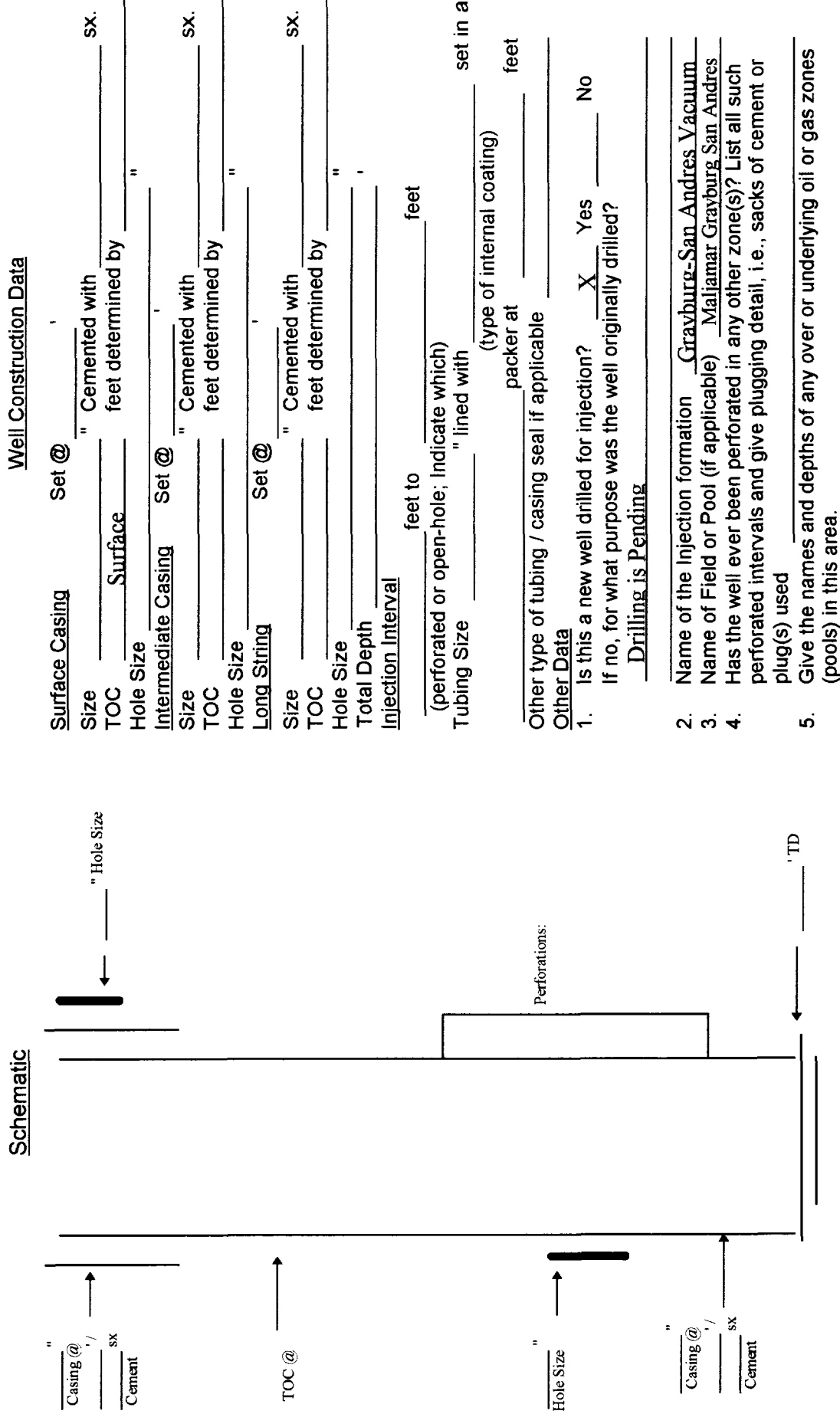
Oil Production

- The Wiser Oil Company plans to convert this well to WIW
- Name of the Injection formation Grayburg-San Andres Vacuum
- Name of Field or Pool (if applicable) Maljamar Grayburg San Andres
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used 4222-32'; 4266-74'; 4278-84'; 4346-54'; 4360-72'; 4386-92'
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area. _____

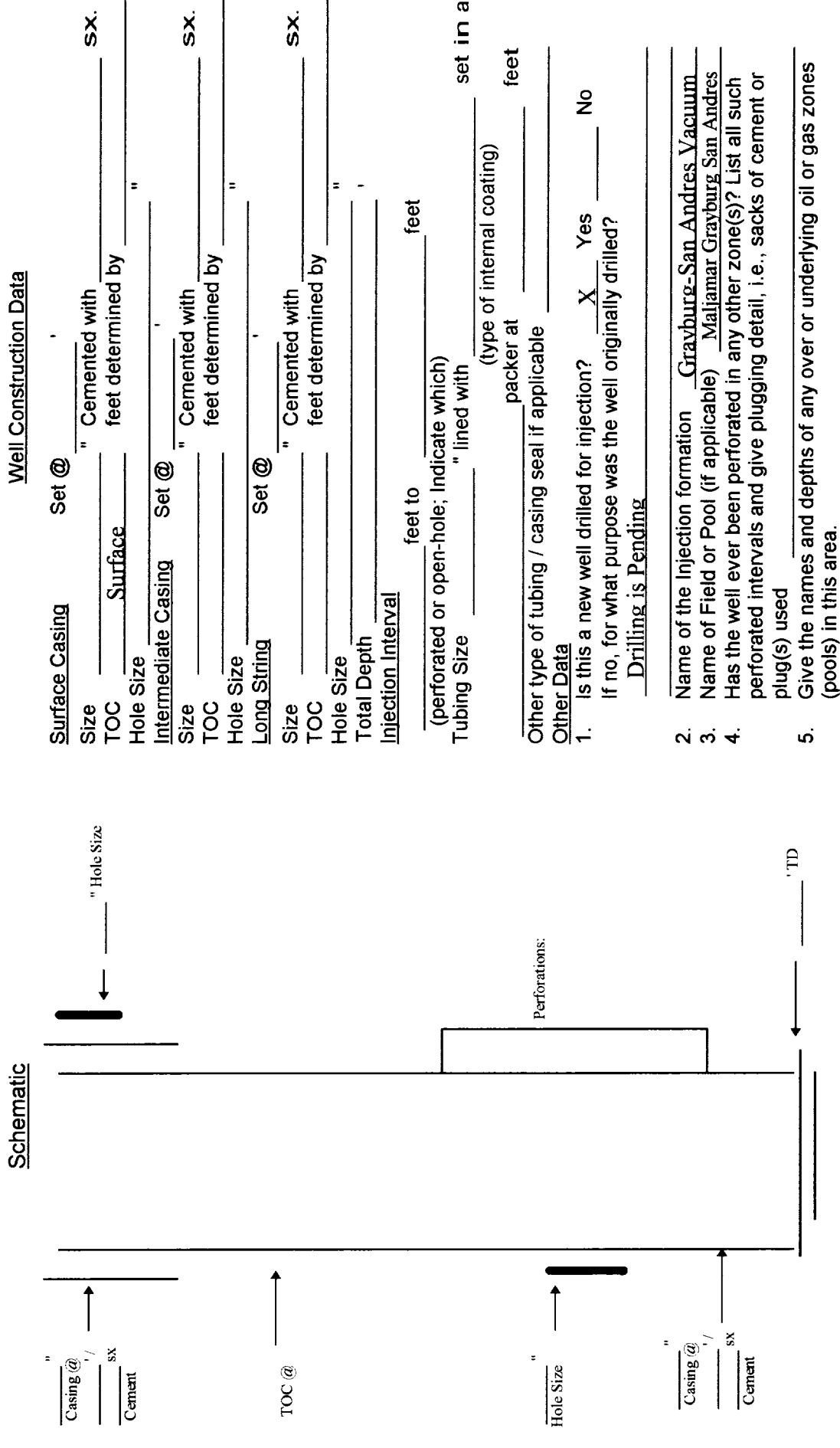
OPERATOR	The Wiser Oil Company	LEASE	Caprock Maljamar Unit
WELL NO.	#262 (Replaces CMU #15) Drilling is Pending	1880' FSL, 694' FWL, Unit L	
		SECTION	TOWNSHIP
		FOOTAGE LOCATION	RANGE
		18	17S 33E



OPERATOR	The Wiser Oil Company	LEASE	Caprock Maljamar Unit
WELL NO.	#263 (Replaces CMU #81) Drilling is Pending	430' FSL, 930' FWL, Unit M	20
		FOOTAGE LOCATION	SECTION
			TOWNSHIP
			RANGE



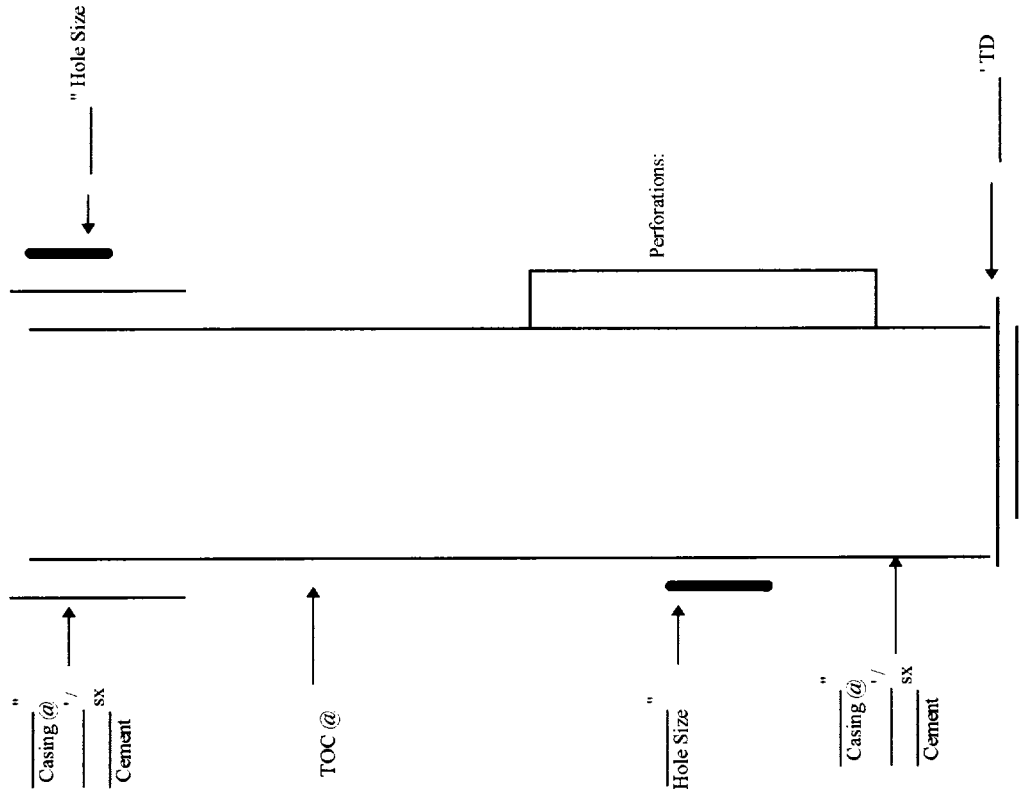
ERATOR	The Wiser Oil Company	LEASE	Caprock Majamar Unit
WELL NO.	#264 (Replaces CMU #33) Drilling is Pending	660' FNL, 762' FWL, Unit D	24 17S 32E
		FOOTAGE LOCATION	SECTION TOWNSHIP RANGE



INJECTION WELL DATA SHEET

OPERATOR	The Wiser Oil Company	LEASE	Caprock Maljamar Unit
WELL NO.	#265 (Replaces CMU #34) Drilling is Pending	FOOTAGE LOCATION	660' FNL, 2080' FWL, Unit C
		SECTION	24
		TOWNSHIP	17S
		RANGE	33E

Schematic



Well Construction Data

Surface Casing	Set @	'	" Cemented with	sx.
Size			feet determined by	
TOC	Surface			
Hole Size			"	
Intermediate Casing	Set @	'	" Cemented with	sx.
Size			feet determined by	
TOC				
Hole Size			"	
Long String	Set @	'	" Cemented with	sx.
Size			feet determined by	
TOC				
Hole Size			"	
Total Depth				
Injection Interval				
		feet to		feet
		(perforated or open-hole; Indicate which)		set in a
Tubing Size		" lined with	(type of internal coating)	
		packer at		feet
Other type of tubing / casing seal if applicable				
Other Data				
1. Is this a new well drilled for injection?	X	Yes	No	
If no, for what purpose was the well originally drilled?				
Drilling is Pending				

- Name of the Injection formation Grayburg-San Andres Vacuum
- Name of Field or Pool (if applicable) Maljamar Grayburg San Andres
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.

INJECTION WELL DATA SHEET

OR	The Wiser Oil Company	LEASE	Caprock Maljamar Unit		
D.	#266 (Replaces CMU #46) Drilling is Pending	1928' FNL, 769' FWL, Unit E	24	17S	32E
FOOTAGE LOCATION		SECTION	TOWNSHIP	RANGE	

Schematic

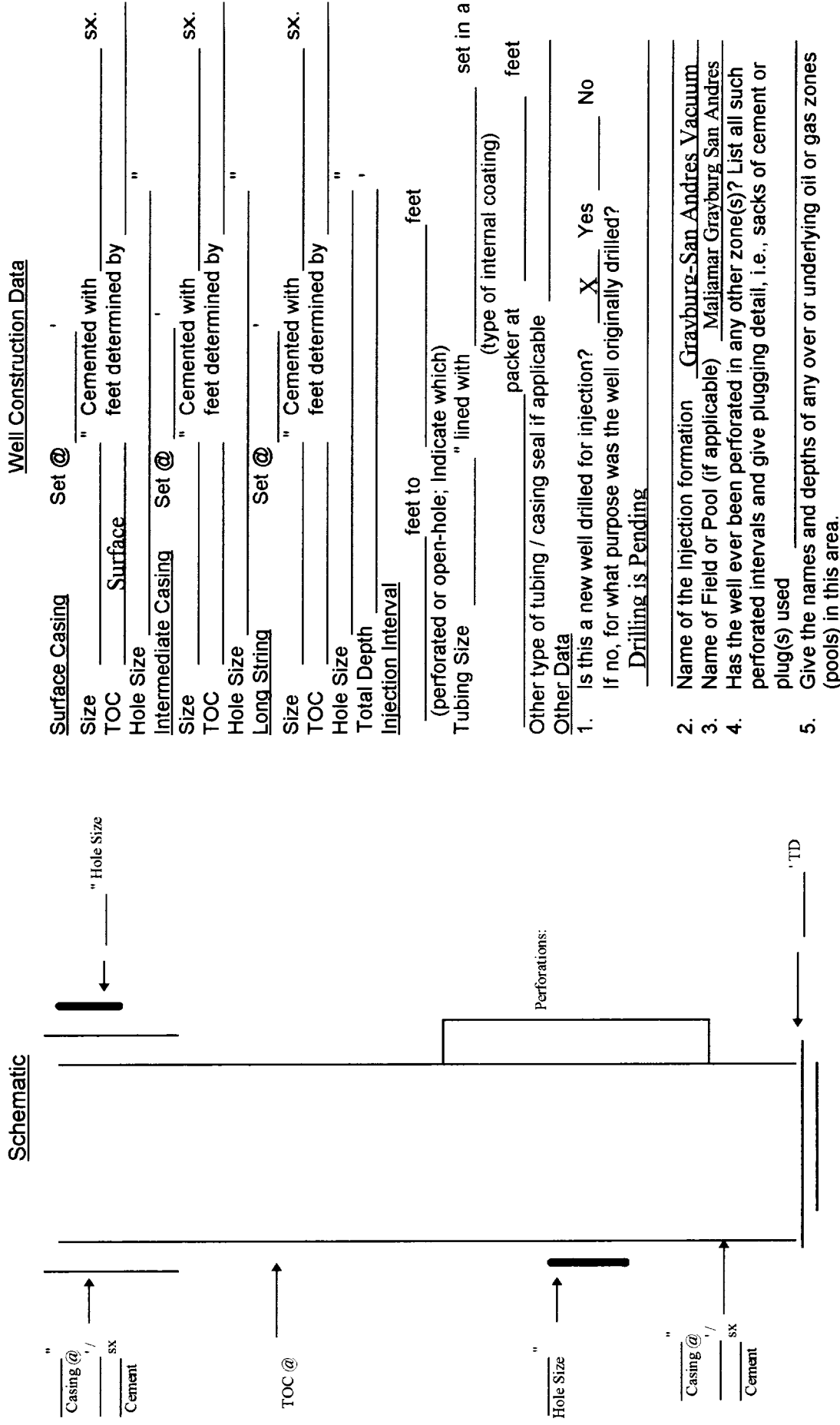


Well Construction Data

Surface Casing	Set @	'	" Cemented with	sx.
Size	Surface		feet determined by	
TOC				
Hole Size				
Intermediate Casing	Set @	'	" Cemented with	sx.
Size			feet determined by	
TOC				
Hole Size				
Long String	Set @	'	" Cemented with	sx.
Size			feet determined by	
TOC				
Hole Size				
Total Depth				
Injection Interval				
	feet to		feet	
	(perforated or open-hole; Indicate which)			
Tubing Size	" lined with		(type of internal coating)	set in a
	packer at			feet
Other type of tubing / casing seal if applicable				
Other Data				
1. Is this a new well drilled for injection?	X	Yes	No	
If no, for what purpose was the well originally drilled?				
Drilling is Pending				

- Name of the Injection formation Grayburg-San Andres Vacuum
- Name of Field or Pool (if applicable) Maljamar Grayburg San Andres
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.

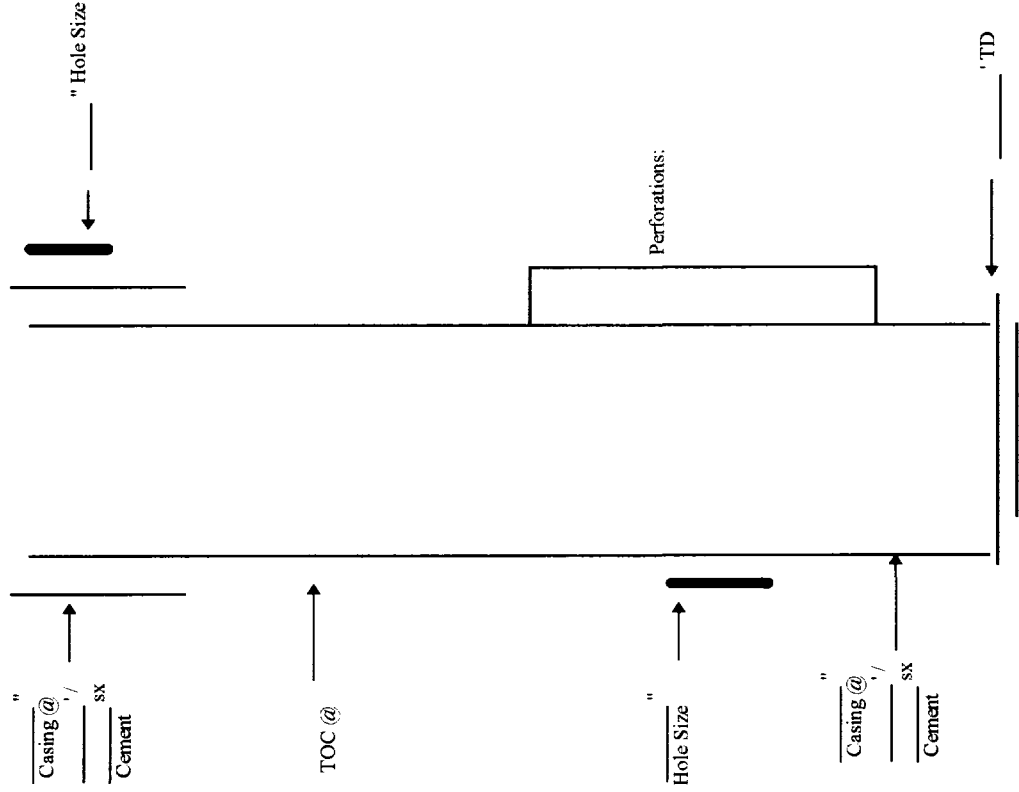
WELL NO.	The Wiser Oil Company	LEASE		SECTION	TOWNSHIP	RANGE
		Caprock	Maljamar Unit			
#267	(Replaces CMU #47) Drilling is Pending	1956' FNL, 2003' FWL, Unit F	24	17S	32E	



INJECTION WELL DATA SHEET

OPERATOR	The Wiser Oil Company	LEASE	Caprock Majamar Unit
WELL NO.	#268 (Replaces CMU #61) Drilling is Pending	1993' FSL, 1875' FWL, Unit K	24
FOOTAGE LOCATION		SECTION	TOWNSHIP
		RANGE	32E

Schematic



Well Construction Data

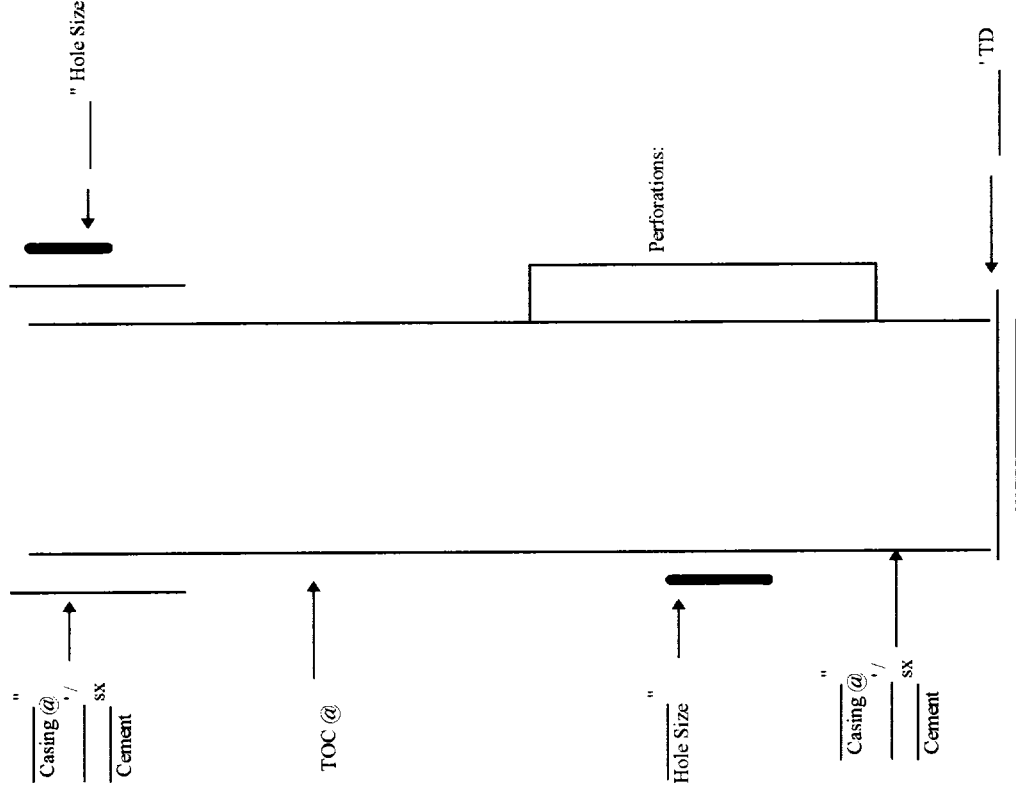
Surface Casing	Set @	"	Cemented with	sx.
Size			feet determined by	
TOC	Surface			
Hole Size				"
Intermediate Casing	Set @	"	Cemented with	sx.
Size			feet determined by	
TOC				
Hole Size				"
Long String	Set @	"	Cemented with	sx.
Size			feet determined by	
TOC				
Hole Size				"
Total Depth				
Injection Interval				
	feet to		feet	
	(perforated or open-hole; Indicate which)			set in a
Tubing Size	"	lined with	(type of internal coating)	feet
Other type of tubing / casing seal if applicable				
Other Data				
1. Is this a new well drilled for injection?	X	Yes	No	
If no, for what purpose was the well originally drilled?				
Drilling is Pending				

- Name of the Injection formation Grayburg-San Andres Vacuum
- Name of Field or Pool (if applicable) Majamar Grayburg San Andres
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.

INJECTION WELL DATA SHEET

OPERATOR	The Wiser Oil Company			LEASE	Caprock Maljamar Unit					
WELL NO.	#269 (Replaces CMU #75)	Drilling is Pending	730' FSL, 2045' FEL, Unit O	FOOTAGE LOCATION	SECTION	24	TOWNSHIP	17S	RANGE	32E

Schematic



Well Construction Data

Surface Casing	Set @	"	Cemented with	feet determined by	"	SX.
Size						
TOC	Surface					
Hole Size						
Intermediate Casing	Set @	"	Cemented with	feet determined by	"	SX.
Size						
TOC						
Hole Size						
Long String	Set @	"	Cemented with	feet determined by	"	SX.
Size						
TOC						
Hole Size						
Total Depth						
Injection Interval						
		feet to				
		(perforated or open-hole; Indicate which)				
Tubing Size		" lined with				set in a
		(type of internal coating)				feet
Other type of tubing / casing seal if applicable						
Other Data						
1. Is this a new well drilled for injection?		X	Yes		No	
If no, for what purpose was the well originally drilled?						
Drilling is Pending						

- Name of the Injection formation Grayburg-San Andres Vacuum
- Name of Field or Pool (if applicable) Maljamar Grayburg San Andres
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.

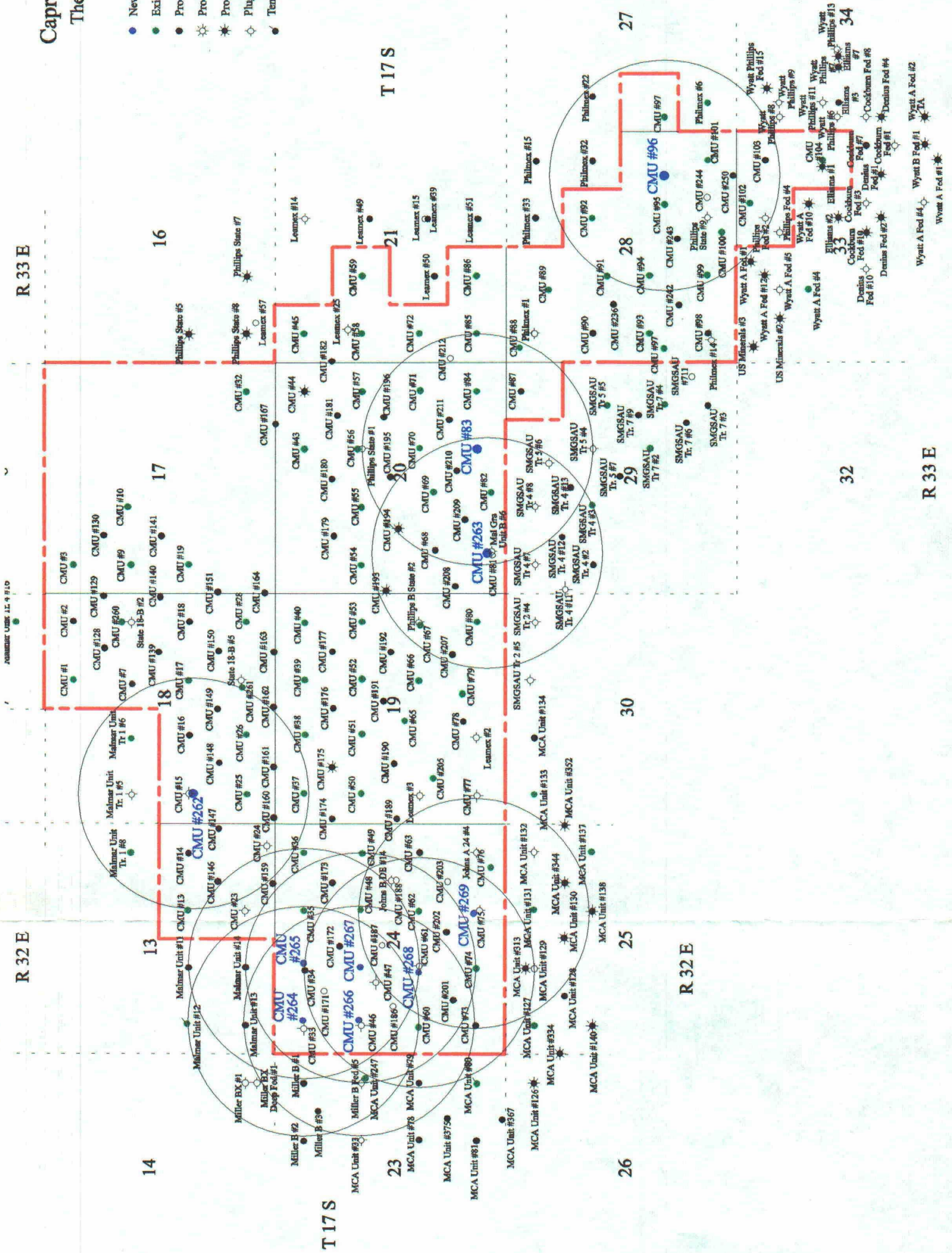
C-108
APPLICATION FOR AUTHORIZATION TO INJECT
CAPROCK MALJAMAR UNIT

V. AREA OF REVIEW

The attached maps show all wells and leases within two miles of the proposed injection wells with a one-half mile radius circle drawn around each proposed injection well.

Caprock Majamar Unit The Wiser Oil Company

- New CMU Water Injection Well
- Existing Water Injection Well
- Producing Oil Well
- ☼ Producing Gas Well
- ☼ Producing Oil & Gas Well
- ◇ Plugged and Abandoned Well
- Temporarily Abandoned Well



[illegible]

C-108
APPLICATION FOR AUTHORIZATION TO INJECT
CAPROCK MALJAMAR UNIT

VI. HALF MILE WELLS

The following is a table showing data for all wells which penetrate the proposed injection zone
and which lie within the area of review.

Immediately following the table are schematics for the 26 wells within the area of review which
have been plugged and abandoned as noted on the table.

CMU C-108 Half Mile Well Data

NAME	OPERATOR	LOCATION	SEC	TSHF	RG	COMPL DATE	TYPE	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CMT	PERFS	TUBG/ PAR	COMMENTS	LEASE
Township 17 South, Range 32 East																
Section 13																
Malmar Unit Tr. 1 #8	Penroc Oil Corp. POB 5970 Hobbs, NM 88241	1980' FNL, 660' FEL, Unit H	13	17S	32E	9-20-59	Ø WIW	4460'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	311' 4440'	250 300	4133-38' 4147-60' 4166-72'	2" @ 4067'	Estimated TOC 2908' Converted to WIW 7-25-63	State B-2148
CMU #14	The Wiser Oil Co.	1980' FSL, 660' FEL, Unit I	13	17S	32E	4-27-59	O	4418'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	171' 4415'	150 150	4068-78' 4152-58' 4163-69' 4173-79' 4192-98' 4208-14' 4219-29'	2 3/8" @ 4030'	Estimated TOC 3649' Converted to WIW WO SRT	State B-2148
CMU #13 aka Baxter State 18-13 #4	The Wiser Oil Co.	1980' FSL, 1980' FFL, Unit J	13	17S	32E	3-3-59	Ø WIW	4432'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	207' 4430'	125 150	4029-38' 4087-98' 4113-42' 4157-69' 4186-93' 4347-62'	2 3/8" @ 3961'	Estimated TOC 3664' Converted to WIW 11-12-64 P&A 9-15-84 Re-entered for WIW WO SRT	State B-2229
Malmar Unit #11	Penroc Oil Corp.	1980' FSL, 1980' FWL, Unit K	13	17S	32E	8-22-59	O	4410'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	308' 4389'	250 350	4018-21' 4049-51' 4075-80' 4085-87' 4090-94' 4104-4126' 4140-48' 4169-78' 4282-4318' 4348-60'		Estimated TOC 2601'	State B-2229
Malmar Unit #12	Penroc Oil Corp.	1980' FSL, 660' FWL, Unit L	13	17S	32E	12-8-59	Ø WIW	4370'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	304' 4364'	250 300	4016-23' 4084-92' 4101-30' 4144-58' 4162-67' 4174-77' 4182-4286'	2" @ 3977'	Estimated TOC 2832' Converted to WIW 1-28-70 Injecting into 4016-86' TA 11-22-82	State B-2229
Malmar Unit #13	Penroc Oil Corp.	660' FSL, 660' FWL, Unit M	13	17S	32E	12-4-59	O	4371'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	301' 4361'	250 300	4063-65' 4095-4102' 4007-13' 4124-27' 4130-33' 4162-65' 4167-70' 4176-81'		Estimated TOC 2829'	State B-2229

CMU C-108 Half Mile Well Data

NAME	OPERATOR	LOCATION	SEC	TSHP	RG	COMPL DATE	TYPE	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CMT	PERFS	TUBG/ PKR	COMMENTS	LEASE
Section 13 Continued																
Malmar Unit #14	Penrox Oil Corp.	660' FSL, 1980' FWL, Unit N	13	17S	32E	8-17-59	O	5025'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	343' 5023'	250 400	3989-96' 4051-55' 4088-90' 4094-4105' 4112-15' 4129-40' 4161-65' 4318-30'	2 3/8" @ 4012'	Estimated TOC 2980' Converted to WIW 1-23-67 Converted to Producer 9-22-82	State B-2229
CMU #23	The Wiser Oil Co.	660' FSL, 1980' FEL, Unit O	13	17S	32E	5-13-59	P&A WIW	4352'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	203' 4349'	150 150	4045-53' 4074-4111' 4132-58' 4323-34'	Pkr @ 4045'	P&A 9-21-79 Converted to WIW 1996 WO SRT	State B-2148
CMU #159	The Wiser Oil Co.	47' FSL, 1358' FEL, Unit O	13	17S	32E	1-27-96	O	4850'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	514' 4850'	300 1750	3960-4185' 4248-4345' 4509-61'	2 7/8" @ 4412'		State B-2148
CMU #24	The Wiser Oil Co.	660' FSL, 660' FEL, Unit P	13	17S	32E	2-13-59	Wiw P&A WIW	4470'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	200' 4469'	125 150	4017-27' 4070-82' 4100-24'	2 3/8" @ 3863'	TOC 3220' Temp Surv Converted to WIW 7-15-65 P&A 9-12-84 Converted to WIW 1996 WO SRT	State B-2229
CMU #146	The Wiser Oil Co.	1310' FSL, 1310' FEL, Unit P	13	17S	32E	7-5-96	O	4850' PBTD 4805'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	503' 4850'	300 1650	4352' 4257-4316' 4031-4193'	2 7/8" @ 3961'	TOC 510' CBL	State B-2148
CMU #147	The Wiser Oil Co.	1297' FSL, 103' FEL, Unit P	13	17S	32E	8-22-96	O	4850' PBTD 4800'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	497' 4850'	300 300 +12 00 Lite	4298-4304' 4062-4220'	2 7/8" @ 4255'	TOC 290' CBL	State B-2148
Section 14																
Miller BX Deep Fed #1	Kewanee Oil Co.	410' FSL, 660' FEL, Unit P	14	17S	32E	7-4-62	P&A	14,015'	13 3/8" 9 5/8"	301' 4960'	425 3623				P&A 7-4-62 (See Attached)	BLM LC-061842
Miller BX #1	Mack Energy Corp.	660' FSL, 660' FEL, Unit P	14	17S	32E	6-30-60	P&A	4416'	11" 7 7/8"	8 5/8" 5 1/2"	211' 4416'	140 1200	4012-4364'	2 3/8" @ 3960'	P&A 5-3-95 (See Attached)	BLM LC-061842
Section 23																
Miller "B" #1	Mack Energy Corp.	660' FNL, 660' FEL, Unit A	23	17S	32E	6-10-60	O	4400'	12 1/2" 7 7/8"	8 5/8" 5 1/2"	219' 4422'	100 1250	4083-91' 4110-29' 4145-65' 4181-4231'	2 3/8" @ 4100'		BLM LC-058698-B
Miller "B" #3	Mack Energy Corp.	990' FNL, 1295' FEL, Unit A	23	17S	32E	11-15-91	O	4405'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	1148' 4390'	750 1700	3960-87' 4000-82' 4165-85' 4261-89'	2 7/8" @ 4213'		BLM LC-058698-B
Miller "B" #2	Mack Energy Corp.	660' FNL, 1980' FEL, Unit B	23	17S	32E	8-5-69	O	4340'	11" 6 3/4"	7 5/8" 4 1/2"	982' 4340'	450 300	4053-92' 4100-97' 4232-42'	2 3/8" @ 3854'	Estimated TOC 2800'	BLM LC-058698-B

CMU C-108 Half Mile Well Data

NAME	OPERATOR	LOCATION	SEC	TSHP	RG	COMPL DATE	TYPE	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CNT	PERFS	TUBG/ PKR	COMMENTS	LEASE
Section 23 Continued																
Miller "B" #5 Fed	Barney Cockburn	1980' FNL, 660' FEL, Unit H	23	17S	32E	4-26-43	Ø P&A	4235'	11 3/4" 8 1/4"	7" 5 1/2"	560' 1025'	S&P 100		2" @ 4000'	P&A 5-21-56 (See Attached)	BLM LC- 058698-B
MCA Unit #247	Conoco Inc.	1980' FNL, 560' FEL, Unit H	23	17S	32E	8-19-68	Ø WTW	4316'	12 1/4" 6 1/4"	7 5/8" 4 1/2"	1035' 4310'	775 275	4055-74' 4135-62' 4212-30'	2 3/8" @ 4095'	Estimated TOC 2547' Converted to WTW 4-22-69	BLM LC- 058698-B
MCA Unit #79	Conoco Inc.	1980' FSL, 660' FEL, Unit I	23	17S	32E	12-31-41	Ø	4085'		9" 5 1/2"	30' 3712'	25 800	3790' 3887-91'	2" @ 3100'		BLM LC- 058698-B
Section 24																
CMU #36	The Wiser Oil Co.	660' FNL, 660' FEL, Unit A	24	17S	32E	3-1-94	Ø WTW	4377'	15" 7 7/8"	10 3/4" 5 1/2"	175' 4378'	175 400	4015-4327'	2 3/8" @ 3945'	Estimated TOC 2335' Converted to WTW	BLM LC- 059152-B
CMU #173 FKA Johns B DE #15	The Wiser Oil Co.	1305' FNL, 1336' FEL, Unit B	24	17S	32E	10-30-93	Ø	5938'	12 1/2" 7 7/8"	8 5/8" 5 1/2"	1142' 5938'	575 2225	5727-5797' 5522-5565' 5833-5855' 5156-5378' 4473-4568' 4330-4345' 4114-4134'	2 7/8" @ 4344'		LC- 059152-B
CMU #35	The Wiser Oil Co.	660' FNL, 1980' FEL, Unit B	24	17S	32E	12-2-58	Ø WTW	4360'	15" 7 7/8"	10 3/4" 5 1/2"	176' 4359'	175 400	3979-4320'	2 3/8" @ 3907'	Estimated TOC 2316' Converted to WTW 3-27-66 in Grayburg P&A 12-13-78 Re-entered as WTW 3-9-94	BLM LC- 059152-B
CMU #34 fka Johns B DE #11	The Wiser Oil Co.	660' FNL, 1980' FWL, Unit C	24	17S	32E	9-25-59	Ø	4396'	12 1/4" 7 7/8"	8 5/8" 4 1/2"	171' 4395'	150 400	4120-30' 4140-50' 4226-4316'	2 3/8" @ 4166'	TOC 2460' Temp Surv SI	BLM LC- 059152-B
CMU #171	The Wiser Oil Co.	1116' FNL, 1444' FWL, Unit C	24	17S	32E	Pending APD	Ø	4650'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	448' 4650'	325 1150				BLM LC- 059152-B
CMU #33 fka Johns "B" DE #12	The Wiser Oil Co.	660' FNL, 660' FWL, Unit D	24	17S	32E	10-22-59	Ø WTW P&A	4403'	12 1/4" 7 7/8"	8 5/8" 4 1/2"	186' 4402'	150 400	4103-13' 4121-31' 4136-40' 4164-69' 4112-80'	2 3/8" @ 4063'	TOC 2920' Temp Surv Converted to WTW 3-27-66 P&A 12-20-78 (See Attached)	BLM LC- 059152-B
CMU #46 fka Johns B DE #1	The Wiser Oil Co.	1980' FNL, 660' FWL, Unit E	24	17S	32E	1-38	Ø P&A	4395'		10 3/4" 7"	1010' 3620'	50 250	3620-4395'		P&A 7-26-79 (See Attached)	BLM LC- 059152-B
CMU #47 fka Johns B DE #4	The Wiser Oil Co.	2310' FNL, 1650' FWL, Unit F	24	17S	32E	12-23-57	Ø WTW P&A	4324'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	168' 4323'	150 400	4109-4208' 4285-4311'	2 3/8" @ 4060'	TOC 2310' Temp Surv Converted to WTW 3-6-66 P&A 12-26-78 (See Attached)	BLM LC- 059152-B

CMU C-108 Half Mile Well Data

Section 24 Continued

NAME	OPERATOR	LOCATION	SEC	TSHP	RG	COMPL DATE	TYPE	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CMT	PERFS	TUBG/ PKR	COMMENTS	LEASE
CMU #172	The Wiser Oil Co.	1484' FNL, 2475' FWL, Unit F	24	17S	32E	8-14-96	O	4700'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	456' 4700'	300 1150	3949-4151' 4199-4217' 4280-97' 4418-63'	2 7/8" @ 4461'		BLM LC- 059152-B
CMU #187	The Wiser Oil Co.	2467' FNL, 2501' FWL, Unit F	24	17S	32E	Pending	O	4700'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	450' 4700'	325 250			Estimated TOC 3423'	BLM LC- 059152-B
CMU #48	The Wiser Oil Co.	1980' FNL, 1980' FEL, Unit G	24	17S	32E	1-1-59	Ø WTW	4393'	13 3/4" 7 7/8"	10 3/4" 5 1/2"	174' 4392'	175 400	3438-50' 3980-86' 4176-86' 4192-4200' 4018' 4048-52' 4108-10' 4131-34' 4255-76' 4261-71'	2 3/8" @ 3936'	Estimated TOC 2349' Converted to WTW 12-20-94	BLM LC- 059152-B
CMU #49 fka Johns B DE #5	The Wiser Oil Co.	1980' FNL, 660' FEL, Unit H	24	17S	32E	9-14-58	Ø WTW	4362'	12 1/2" 7 7/8"	9 5/8" 5 1/2"	170' 4361'	150 350	4190-4209'		Estimated TOC 2573' Converted into WTW 3-25-66	BLM LC- 059152-B
Johns B DE #14	Arco Oil & Gas Co.	2630' FSL, 1310' FEL, Unit I	24	17S	32E	9-13-82	Ø P&A	4380'	23" 12 1/4" 7 7/8"	16" 8 5/8" 4 1/2"	30' 448" 4375'	49yd 300 1100	4163-85' 3898-3900' 3442-60'	2 3/8" @ 4204'	P&A 12-28-83 (See attached) Drilling Pending	BLM LC- 059152-B
CMU #188	The Wiser Oil Co.	2610' FSL, 1290' FEL, Unit I	24	17S	32E		O									BLM LC- 059152-B
CMU #203	The Wiser Oil Co.	1332' FSL, 1310' FEL, Unit I	24	17S	32E		O									BLM LC- 059152-B
CMU #63	The Wiser Oil Co.	1980' FSL, 660' FEL, Unit I	24	17S	32E	10-58	O	4360'	15" 7 7/8"	10 3/4" 5 1/2"	176' 4359'	175 350	4143-56' 4195-4218' 4282-4305'	2 3/8" @ 4343'	TOC 3376' Temp Surv Pending WTW conversion WFX-694	BLM LC- 059152-B
CMU #62 fka Johns B DE #10	The Wiser Oil Co.	1980' FSL, 1980' FEL, Unit J	24	17S	32E	2-1-59	Ø WTW	4391'	15" 7 7/8"	10 3/4" 5 1/2"	176' 4390'	175 400	4150-60' 4164-70'	2 3/8" @ 4144'	Estimated TOC 2347' Converted to WTW 3-6-66	BLM LC- 059152-B
CMU #202 fka Johns B DE #13	The Wiser Oil Co.	1360' FSL, 2465' FEL, Unit J	24	17S	32E	3-23-80	O	4300'	11" 7 7/8"	8 5/8" 4 1/2"	409' 4300'	175 2073	4167-91' 4267-75'	2 3/8" @ 4021'	Estimated TOC 1635'	LC- 059152-B
CMU #61 fka Johns B DE #3	The Wiser Oil Co.	1980' FSL, 1980' FWL, Unit K	24	17S	32E	4-27-42	Ø P&A	4345'	11" 7 7/8"	8 5/8" 5 1/2"	129' 3840'	40 350	4130-35' 4185-4205' 4280-90'	3 1/2" @ 3710'	P&A 5-27-78 (See Attached)	BLM LC- 059152-B
CMU #186	The Wiser Oil Co.	2568' FSL, 1094' FWL, Unit L	24	17S	32E	Pending	O	4800'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	454' 4800'	325 250			Estimated TOC 3523'	BLM LC- 059152-B

CMU C-108 Half Mile Well Data

NAME	OPERATOR	LOCATION	SEC	TSHP	RG	COMPL DATE	TYPE	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CMT	PERFS	TURB/ PKR	COMMENTS	LEASE
Section 24 Continued																
CMU #60	The Wiser Oil Co.	1980' FSL, 620' FWL, Unit L	24	17S	32E	7-24-41	Ø	4307'	12 1/2" 9 1/2" 7 3/4"	10 3/4" 8 5/8" 7"	671' 1055' 3758'	Unk 100 100	3855-3922' 4015-59' 4070-75' 4089-92' 4097-4100' 4141-43' 4145-68' 4219-4307'	2 3/8" @ 3646'	Estimated TOC 2291' Converted to WTW 2-15-66 Order WFX-694	BLM I.C. 059152-B
CMU #73	The Wiser Oil Co.	660' FSL, 660' FWL, Unit M	24	17S	32E	10-30-41	Ø	4300'		10 3/4" 8 5/8" 7"	652' 1056' 3770'	Unk 100 100	3865-3910' 4045-56' 4110-75' 4188-4238' 4278-95'	2 3/8" @ 3750'	Estimated TOC 2303' Pending WTW conversion WFX-694	BLM I.C. 030437-A
CMU #201 fka Johns A 24 DE #6	The Wiser Oil Co.	1200' FSL, 1250' FWL, Unit M	24	17S	32E	9-10-74	Ø	4300'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	398' 4300'	325 500	4153-81' 4240-50'	2 3/8" @ 4195'	Estimated TOC 1746'	BLM I.C. 030437-A
CMU #74	The Wiser Oil Co.	660' FSL, 1980' FWL, Unit N	24	17S	32E	1-21-42	Ø	4318'	12 1/2" 9 1/2" 7 3/4"	10 3/4" 8 5/8" 7"	662' 1091' 3791'	0 100 100	OH 3787-4265' Perfs 4098-4105' 4115-27'	2" @ 4300'	Estimated TOC 2324' Converted to WTW	BLM I.C. 030437-A
CMU #75 fka Johns A-24 DE #3	The Wiser Oil Co.	660' FSL, 1980' FEL, Unit O	24	17S	32E	2-25-43	P&A	4300'	13 1/4" 8 3/4"	10 3/4" 7"	119' 3852'	70 350	3935-80' 4135-55' 4190-4295'	2" @ 3800'	P&A 5-10-78 (See Attached)	BLM I.C. 030437-A
Ruth Day Johns A-24 #4	Drilling & Exploration Co.	660' FSL, 660' FEL, Unit P	24	17S	32E	5-26-43	Ø	4350'	14" 8 3/4"	10 3/4" 7"	137' 3861'	70 350	4245-70' 4290-4350' 3575' 3440-3482'	2" @ 4262'	P&A 11-12-58 (See attached)	BLM I.C. 030437-A
CMU #76	The Wiser Oil Co.	330' FSL, 990' FEL, Unit P	24	17S	32E	2-21-59	Ø	4398'	15" 7 7/8"	10 3/4" 5 1/2"	180' 4397'	200 400	4180-4296'	2 3/8" @ 4071'	Estimated TOC 2354' Converted to WTW 3-3-66 SI WFX-694	BLM I.C. 030437-A
Section 25																
MCA Unit Bty 4 #132	Conoco Inc.	660' FNL, 660' FEL, Unit A	25	17S	32E	12-4-42	Ø	4232'		8 5/8" 5 1/2"	26' 3440'	12 200	4100-4210'		P&A 10-7-88 (See Attached)	BLM I.C. 058697-B
MCA Unit #131	Conoco Inc.	660' FNL, 1980' FEL, Unit B	25	17S	32E	9-20-42	Ø	4240'		8" 5 1/2"	30' 3900'	15 400	OH 4025-4310'	2 3/8" @ 3941'	Converted to WTW 3-8-68	BLM I.C. 058698-B
MCA Unit #313	Conoco Inc.	450' FNL, 1980' FWL, Unit C	25	17S	32E	7-27-72	Ø&G	4350'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	1100' 4350'	550 300	4037' 4117-23' 4204-99' 4308'	2 7/8" @ 4092'	Estimated TOC 2818'	BLM I.C. 058697-B
MCA Unit Bty 4 #129	Conoco Inc.	660' FNL, 1980' FWL, Unit C	25	17S	32E	4-29-42	Ø	4210'		8 5/8" 5 1/2"	28' 3950'	16 150	OH 4014-4230'		P&A 3-6-90 (See Attached)	BLM I.C. 058697-B
MCA Unit #344	Conoco Inc.	1345' FNL, 1345' FEL, Unit G	25	17S	32E	9-10-73	Ø&G	4404'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	1049' 4404'	500 380	4305-22' 4261-72' 4130-73'	2 7/8" @ 4260'	Estimated TOC 2463'	BLM I.C. 058697-B

CMU C-108 Half Mile Well Data

NAME	OPERATOR	LOCATION	SEC	TSHP	RG	COMPL DATE	TYPE	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CMT	PERFS	TUBG/ PKR	COMMENTS	LEASE
Section 25 Continued																
MCA Unit #130	Conoco Inc.	1345' FNL, 2615' FEL, Unit G	25	17S	32E	8-1-54	O&G	4200'		8 5/8" 7"	1238' 3890'	100 200	3400-3413' 3418-3426' 3433-3438'	2" @ 4196'		BLM LC- 058697-B
MCA Unit #138	Conoco Inc.	1980' FNL, 1980' FEL, Unit G	25	17S	32E	10-25-42	O&G	4410'		8" 5 1/2"	38' 3900'	40 200	4138-82' 4258-64' 4302-62'	2 7/8" @ 4073'	Well was recompleted 2-27-91.	BLM LC- 058697-B
Township 17 South, Range 33 East																
Section 18																
Malmar Unit Tr. 1 #5	Southland Royalty Co. 21 Desta Drive, Midland, TX 79705	1980' FNL, 660' FWL, Unit E	18	17S	33E	11-5-59	Ø P&A	4525'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	304' 4511'	250 300	4218-4287' 4365-4376'	2" @ 4407'	TOC 2998' P&A 6-2 85 (See Attached)	State B-2229
Malmar Unit Tr. 1 #6	Petroc Oil Corp. P. O. Box 5970 Hobbs NM 88241	1980' FNL, 1980' FWL, Unit F	18	17S	33E	10-4-59	Ø WTW	4571'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	281' 4552'	250 300	4211-14' 4242-44' 4264-68' 4273-82' 4289-4301' 4303-4379' 4438-55'		Estimated TOC 3020' Converted to WTW 7-30-62	State B-2229
CMU #17	The Wiser Oil Co.	1980' FSL, 1980' FEL, Unit J	18	17S	33E	12-11-58	Ø WTW	4573'	12 1/4" 7 7/8"	9 5/8" 5 1/2"	316' 4573'	150 150	4197-4207' 4265-87' 4305-11' 4332-42' 4447-55' 4530-40'	2 3/8" plastic coated tbg @ 4027'	TOC 2917' Temp Surv Converted to WTW 8-27-62 WFX-670	State B-2148
CMU #16	The Wiser Oil Co.	1980' FSL, 2047' FWL, Unit K	18	17S	33E	3-23-59	Ø	4561'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	318' 4559'	150 150	4203-13' 4253-61' 4282-98' 4318-57' 4420-46'		TOC 2900' Temp Surv To be converted to WTW WFX-670	State B-2148
CMU #149	The Wiser Oil Co.	1339' FSL, 2685' FWL, Unit K	18	17S	33E	2-29-96	Ø	4950'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	500' 4950'	300 1850	4683-4738' 4203-4371'	2 7/8" @ 4393'		State B-2148
CMU #15	The Wiser Oil Co.	1980' FSL, 694' FWL, Unit L	18	17S	33E	4-10-59	Ø WTW P&A	4479'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	190' 4468'	150 150	4129-4268' 4364-4380'	2 3/8" @ 4140'	Converted to WTW 9-13-63 P&A 4-17-89 (See Attached)	State B-2148
CMU #25	The Wiser Oil Co.	660' FSL, 694' FWL, Unit M	18	17S	33E	10-15-58	Ø P&A WTW	4515'	12 1/4" 7 7/8"	9 5/8" 5 1/2"	331' 4515'	125 150	4092-4106' 4158-80' 4194-4216' 4258-66' 4343-75' 4420-30'	2 3/8" @ 4119'	TOC 2780' Temp Surv Converted to WTW WFX-670	State B-2148
CMU #160	The Wiser Oil Co.	48' FSL, 157' FWL, Unit M	18	17S	33E	1-22-96	Ø	4850'	12 1/4" 7 7/8"	7 7/8" 5 1/2"	1250' 4850'	300 1450	4583-4633' 4067-4234'	2 7/8" @ 4464'		State B-2148

CMU C-108 Half Mile Well Data

NAME	OPERATOR	LOCATION	SEC	TSHP	RG	COMPL DATE	TYPE	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CMT	PERFS	TUBG/ PKR	COMMENTS	LEASE
Section 18 Continued																
CMU #26	The Wiser Oil Co.	660' FSL, 2047' FWL, Unit N	18	17S	33E	9-23-58	Ø	4525'	12 1/4" 7 7/8"	9 5/8" 5 1/2"	323' 4521'	150 150	4126-40' 4186-96' 4218-54' 4266-76' 4290-4304' 4376-86' 4398-4414'	2 3/8" plastic coated tbg @ 4013'	Estimated TOC 3755' Converted to WIW 9-11-63 in Grayburg-San Andres	State B-2148
CMU #148	The Wiser Oil Co.	1295' FSL, 1411' FWL, Unit N	18	17S	33E	10-19-72	Ø	4498'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	367' 4410'	300 500	4197-4201' 4261-4305' 4327-61'	2 3/8" @ 4193'	Estimated TOC 1856'	State B-2148
CMU #161	The Wiser Oil Co.	50' FSL, 1369' FWL, Unit M	18	17S	33E	8-16-96	Ø	4850'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	500' 4850'	325 1100	4086-4249' 4322-28'	2 7/8" @ 4318'		State B-2148
CMU #162	The Wiser Oil Co.	56' FSL, 2595' FEL, Unit O	18	17S	33E	6-2-95	Ø	5550'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	1280' 5550'	600 2000	4076-4279' 4353-4443' 4610-64'	2 7/8" @ 4693'		State B-2148
CMU #261	The Wiser Oil Co.	760' FSL, 2080' FEL, Unit O	18	17S	33E	Pending	WIW	4700'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	365' 4700'	300 250	4202-98' 4302-70' 4388-94' 4400-86' 4506-15'		Estimated TOC 3423'	State B-2148

Section 19

CMU #37	The Wiser Oil Co.	694' FWL, 660' FNL, Unit D	19	17S	33E	8-21-58	Ø	4390'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	361' 4390'	175 100	4054-60' 4108-18' 4143-50' 4154-63' 4172-76' 4187-97' 4203-14' 4218-35' 4302-19'	2" @ 4003'	Estimated TOC 3879' Converted to WIW 1-30-64	State B-2149
Phillips B State #2	Pennzoil Exploration and Production Co.	1980' FSL, 660' FEL, Unit I	19	17S	33E	1-16-58	Ø	4416'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	350' 4500'	150 150	4324-48' 4020-32' 4084-94' 4234-60'	2" @ 4318'	Estimated TOC 3734' P&A 11-22-91 (See Attached)	State B-2148
CMU #67	The Wiser Oil Co.	1945' FSL, 734' FEL, Unit I	19	17S	33E	12-8-94	Ø	5550'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	1237' 5550'	600 1700	4340-46' 4417-87' 4510-91' 4605-07' 4024-89' 4122-97' 4211-51'	2 7/8" @ 4637'	Converted to WIW WO SRT	State B-2149
CMU #77	The Wiser Oil Co.	660' FSL, 660' FWL, Unit M	19	17S	33E	7-12-42	Ø	4316'	11" 7 7/8"	8 5/8" 5 1/2"	1163' 4016'	400 300	4016-4316'		P&A 5-18-71 (See Attached)	State B-2148
CMU #207	The Wiser Oil Co.	1234' FSL, 1404' FEL, Unit O	19	17S	33E	5-14-96	Ø	4750'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	494' 4749'	300 250	4572-82' 4495-4529' 4333-53' 4059-4265'		Estimated TOC 3472'	State B-2148

CMU C-108 Half Mile Well Data

NAME	OPERATOR	LOCATION	SEC	TSHP	RG	COMPL DATE	TYPE	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CMT	PERFS	TUBG/ PKR	COMMENTS	LEASE
Section 19 Continued																
CMU #80	The Wiser Oil Co.	660' FSL, 660' FEL, Unit P	19	17S	33E	1-31-58	Ø WTW	4360'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	349' 4359'	175 100	4034-48' 4076-94' 4157-67' 4228-40'	2 3/8" coated tubing @ 3979'	Estimated TOC 3848' Converted to WTW 6-8-65	State B-2149
Section 20																
CMU #193	The Wiser Oil Co.	2516' FNL, 62' FWL, Unit E	20	17S	33E	9-16-94	O&G	5580'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	1335' 5580'	700 2035	4141'-88' 4303'-63'	2 7/8" @ 4666'		State B-2148
Phillips State #1	Western Oilfields Inc.	1980' FNL, 1980' FEL, Unit G	20	17S	33E	6-14-52	Ø P&A	4765'	10 3/4" 6 3/4"	8 5/8" 5 1/2"	1550' 4500'	50 150			P&A 8-80 (See Attached)	State B-2148
CMU #56	The Wiser Oil Co.	1880' FNL, 1980' FEL, Unit G	20	17S	33E	5-25-55	Ø&G WTW	4450'	12 1/4" 8 3/4"	10 3/4" 7"	276' 4440'	230 500	4068-4380'	2 3/8" @ 3954'	Estimated TOC 1496' Converted to WTW 7-24-95	State B-2148
CMU #195	The Wiser Oil Co.	2614' FNL, 2618' FEL, Unit G	20	17S	33E	5-17-95	O	5550'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	1324' 5552'	675 1790	5421-5445' 5239-5337' 4328-4495' 4641'	2 7/8" @ 4641'		State B-2148
CMU #196	The Wiser Oil Co.	2473' FNL, 1259' FEL, Unit H	20	17S	33E	6-14-95	O	5550'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	1325' 5550'	750 1450	4711-4719' 4481-4555' 4196-4415'	2 7/8" @ 4750'		State B-2148
CMU #71	The Wiser Oil Co.	1980' FSL, 660' FEL, Unit I	20	17S	33E	1-30-55	Ø&G WTW	4382'	11" 7 7/8"	8 5/8" 5 1/2"	300' 4100'	200 100	4242-4382'	2 3/8" @ 4142'	Estimated TOC 3589' Converted to WTW 7-24-95 WFX-670	State B-2148
CMU #211	The Wiser Oil Co.	1330' FSL, 1305' FEL, Unit I	20	17S	33E	3-22-96	O	4850'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	495' 4850'	300 1450	4527-35' 4442-55' 4460-65'	2 7/8" @ 4550'		State B-2148
CMU #70	The Wiser Oil Co.	1980' FSL, 1980' FEL, Unit J	20	17S	33E	6-2-54	Ø&G WTW	4506'	11" 8 1/4"	8 5/8" 7"	1400' 4100'	100 150	4147-4253'	@ 4074'	Estimated TOC 2823' Converted to WTW 5-1-65	State B-2148
CMU #69	The Wiser Oil Co.	1650' FSL, 2310' FWL, Unit K	20	17S	33E	2-11-56	Ø WTW	4535'	11" 7 7/8"	8 5/8" 5 1/2"	300' 4100'	225 200	4181-93'	2 3/8" @ 4278'	Estimated TOC 3078' Converted to WTW 9-11-96 WFX 670	State B-2148
CMU #194	The Wiser Oil Co.	2478' FSL, 1481' FWL, Unit K	20	17S	33E	4-26-95	O&G	5550'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	1324' 5550'	700 1560	4672-4713' 4397-4497' 4122-4334'	2 7/8" @ 4755'		State B-2148
CMU #68	The Wiser Oil Co.	1650' FSL, 990' FWL, Unit L	20	17S	33E	9-17-56	O	4355'	11" 7 7/8"	8 5/8" 5 1/2"	31' 4190'	225 250	OH 4190-4451'	2 3/8" @ 4269'	Estimated TOC 2913' Pending Conversion R-10094	State B-2148
CMU #208	The Wiser Oil Co.	1175' FSL, 175' FWL, Unit M	20	17S	33E	5-4-96	O	4850'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	493' 4850'	300 310	4369-4465' 4107-4324'		Estimated TOC 3266'	State B-2148
Mal Gra Unit B #6	Crown Central Petroleum Corp. 4000 N. Big Spring Suite 213 Midland 79705	330' FSL, 990' FWL, Unit M	20	17S	33E	5-19-56	Ø P&A	4364'	11" 7 7/8"	8 5/8" 5 1/2"	307' 4202'	225 200	None	1/2"	P&A 6-24-85 (See Attached)	State B-2229

CMU C-108 Half Mile Well Data

NAME	OPERATOR	LOCATION	SEC	TSHP	RG	COMPL DATE	TYPE	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CMT	PERFS	TUBG/ PKR	COMMENTS	LEASE
Section 20 Continued																
CMU #81	The Wiser Oil Co.	330' FSL, 930' FWL, Unit M	20	17S	33E		O	4350'	11" 7/8"	8 5/8" 5 1/2"	304' 4209'	225 200	4105'-4202' 4218'-4350'	2 3/8" @ 4289'	Pending APD Being Replaced Estimated TOC 3187' Pending WTW conversion WFX-694	State B-2148
CMU #82	The Wiser Oil Co.	330' FSL, 2310' FWL, Unit N	20	17S	33E	9-10-55	O									State B-2148
CMU #209	The Wiser Oil Co.	949' FSL, 1700' FWL, Unit N	20	17S	33E	1-26-96	O	4900'	12 1/4" 7/8"	8 5/8" 5 1/2"	1280' 4900'	550 2100	4639-4651' 4454-4495'	2 7/8" @ 4691'		State B-2148
CMU #210	The Wiser Oil Co.	1141' FSL, 2472' FEL, Unit O	20	17S	33E	6-1-96	O	4800'	12 1/4" 7/8"	8 5/8" 5 1/2"	500' 5525'	350 1000			Estimated TOC 417' Completion in progress	State B-2148
CMU #84	The Wiser Oil Co.	660' FSL, 660' FEL, Unit P	20	17S	33E	7-24-55	W	4440'	11" 7/8"	8 5/8" 5 1/2"	303' 4234'	250 200	OH 4234-4409'	@ 4220'	Estimated TOC 3212' Converted to WTW 6-12-65 SI	State B-2148
Section 21																
CMU #85	The Wiser Oil Co.	660' FSL, 660' FWL, Unit M	21	17S	33E	11-1-55	O	4443'	12" 7/8"	8 5/8" 5 1/2"	305' 4249'	200 200	4254-4443' OH		Estimated TOC 3227' SI Pending WTW conversion WFX-694 Drilling is Pending	State B-2148
CMU #212	The Wiser Oil Co.	1308' FSL, 10' FWL, Unit M	21	17S	33E		O									State B-2148
Section 27																
Philmex #22	Phillips Petroleum Co.	1980' FNL, 810' FWL, Unit E	27	17S	33E	8-7-87	O	4800'	12 1/4" 7/8"	8 5/8" 5 1/2"	1498' 4800'	800 1550	4248-4574'	2 3/8" @ 4590'		State B-2229
Philmex #6	Phillips Petroleum Co.	660' FSL, 660' FWL, Unit M	27	17S	33E	6-13-56	W	4555'	11" 7/8"	8 5/8" 5 1/2"	1490' 4460'	1085 460	4250-4420'	2 1/16" @ 4100'	Estimated TOC 2110' Converted to WTW 2-18-77	State B-2229
CMU #97	The Wiser Oil Co.	1650' FSL, 330' FWL, Unit L	27	17S	33E	2-17-58	W	4610'	12 1/4" 7/8"	8 5/8" 5 1/2"	351' 4427'	175 100	4427-55' OH	2 3/8" @ 4406'	TOC 3900' Temp Surv Converted to WTW 12-17-68 SI	State B-2229
Section 28																
CMU #88	The Wiser Oil Co.	330' FNL, 330' FWL, Unit D	28	17S	33E	12-14-57	W	4565'	11" 7/8"	8 5/8" 5 1/2"	359' 4564'	125 150	4278-4476'	2 1/16" @ 4214'	TOC 2865' Temp Surv Converted to WTW 4-19-67 TA	State B-2229
CMU #90	The Wiser Oil Co.	1980' FNL, 660' FWL, Unit E	28	17S	33E	12-15-57	O	4765'	11" 7/8"	8 5/8" 5 1/2"	1407' 4525'	500 225	4531-4631' 4707-43'	2" @ 4467'	Estimated TOC 3376'	State B-2229
CMU #91	The Wiser Oil Co.	2310' FNL, 1990' FWL, Unit F	28	17S	33E	1-7-58	W	4512'	12 1/4" 7/8"	8 5/8" 5 1/2"	347' 4511'	175 500	4232-48' 4286-4303' 4368-78' 4408-16' 4433-48' 4454-68'	2" @ 4475'	Estimated TOC 1957' Converted to WTW 4-19-67.	State B-2229

CMU C-108 Half Mile Well Data

NAME	OPERATOR	LOCATION	SEC	TSHP	RG	COMPL DATE	TYPE	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CMT	PERFS	TUBG/ PKR	COMMENTS	LEASE
Section 28 Continued																
CMU #92	The Wiser Oil Co.	1980' FNL, 1980' FEL, Unit G	28	17S	33E	12-8-57	O	4627'	11" 7 7/8"	8 5/8" 5 1/2"	355' 4260'	150 100	OH 4260-4480'	2" @ 4461'	TOC 3865' Temp Surv SI Pending WIW conversion WFX-694	State B-2229
Philmex #32	Phillips Petroleum Co.	1980' FNL, 660' FEL, Unit H	28	17S	33E	7-21-88	O	4800'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	1489' 4800'	1000 1825	4524-4532' 4541-4546' 4561-4565' 4275-4280' 4333-4335' 4391-4397' 4426-4430' 4459-4463'	2 7/8" @ 4568"		State B-2229
CMU #95	The Wiser Oil Co.	1650' FSL, 1650' FEL, Unit J	28	17S	33E	12-27-57	Q WIW	4548'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	345' 4547'	175 300	4404-4428'	2" @ 4440'	Estimated TOC 3015' Converted to WIW 5-1-67	State B-2229
CMU #243	The Wiser Oil Co.	1384' FSL, 2453' FEL, Unit J	28	17S	33E	2-29-96	O	4950'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	1285' 4950'	550 1550	4750-55' 4666-95' 4615-54'	2 7/8" @ 4508"		State B-2148
CMU #94	The Wiser Oil Co.	1980' FSL, 1980' FWL, Unit K	28	17S	33E	12-15-57	O	4450'	11" 7 7/8"	8 5/8" 5 1/2"	346' 4450'	150 100	4194-4384'	2 3/8" 2 3/8"	TOC 3740' Temp Surv Pending WIW conversion WFX-694	State B-2229
CMU #99	The Wiser Oil Co.	660' FSL, 1980' FWL, Unit N	28	17S	33E	11-28-57	Q WIW	4450'	11" 7 7/8"	8 5/8" 5 1/2"	357' 4449'	125 450	4281-84' 4316-25' 4324-33'	2" @ 4333'	Estimated TOC 2150' Converted to WIW 4-19-67.	State B-2229
CMU #100	The Wiser Oil Co.	330' FSL, 2310' FEL, Unit O	28	17S	33E	3-31-58	O	4480'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	375' 4400'	175 100	OH 4228-46' 4274-90' 4350-79' 4400-50' 4468-80'	2 3/8" @ 4433'	TOC 3723' Temp Surv Pending WIW conversion WFX-694	State B-2229
CMU #244	The Wiser Oil Co.	682' FSL, 1475' FEL, Unit O	28	17S	33E	Pending	O		12 1/4" 7 7/8"	8 5/8" 5 1/2"	1350' 5525'	650 650			Estimated TOC 2205' Drilling is still underway as of 4-23-96.	State B-2148
Phillips State #9	Zapata Petroleum Corp.	660' FSL, 1980' FEL, Unit O	28	17S	33E	12-23-57	Q P&A	4542'	11" 7 7/8"	8 5/8" 5 1/2"	350' 4500'	150 250	4468-4480'	2" @ 4495'	Estimated TOC 3223' P&A 1-20-59 (See attached)	State B-2148
CMU #101	The Wiser Oil Co.	660' FSL, 660' FEL, Unit P	28	17S	33E	12-22-57	Q WIW	4540'	11" 7 7/8"	8 5/8" 5 1/2"	325' 4359'	150 450	4218-40' 4341-53' 4420-40'	2" @ 4375'	Estimated TOC 2060' Converted to WIW 5-1-67	State B-2229
CMU #250	The Wiser Oil Co.	105' FSL, 991' FEL, Unit P	28	17S	33E	4-13-96	O	4950'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	499' 4950'	375 1300	4716-52' 4676-97'	2 7/8" @ 4810'		State B-2148
Section 29																
CMU #87	The Wiser Oil Co.	330' FNL, 660' FEL, Unit A	29	17S	33E	1-22-58	O	4450'	11 1/4" 7 7/8"	8 5/8" 5 1/2"	320' 4449'	275 200	4249-72' 4318-96' 4408-22'		Estimated TOC 3427' SI	State B-2229

CMU C-108 Half Mile Well Data

NAME	OPERATOR	LOCATION	SEC	TSHP	RG	COMPL DATE	TYPE	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CNT	PERFS	TUBG/ PKR	COMMENTS	LEASE
Section 29 Continued																
SMGSAU Tr. 5 #6	Cities Service Oil & Gas Corp.	990' FNL, 2310' FEL, Unit B	29	17S	33E	5-2-59	Ø P&A	4499'	11" 7 7/8"	8 5/8" 5 1/2"	320' 4500'	250 150	4404-4440' 4294-4326' 4226-4252' 4154-62' 4110-20'	2 3/8" @ 4170'	P&A 6-15-83 (See attached)	State B-2229
SMGSAU Tr. 4 #8	Cities Service Oil and Gas Corp.	660' FNL, 1980' FWL, Unit C	29	17S	33E	10-12-60	Ø P&A	4565'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	320' 4564'	350 250	4022-4528'		P&A 1-9-87 (See Attached)	State B-2229
SMGSAU Tr. 4 #7	Cities Service Oil and Gas Corp.	660' FNL, 660' FWL, Unit D	29	17S	33E	9-29-60	Ø WTW P&A	4560'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	320' 4559'	325 250	3968-4472'		P&A 1-9-87 (See attached)	State B-2229
SMGSAU Tr. 4 #12	Cross Timbers Operating Co.	1295' FNL, 1295' FWL, Unit D	29	17S	33E	2-3-82	Ø	4425'	12 1/4" 7 7/8" 4 3/4"	8 5/8" 5 1/2" 4" Liner	1305' 3900' 3654-4424'	800 1200 275	4081-4086' 4188'	2 3/8" @ 3983'		State B-2229
SMGSAU Tr. 4 #2	Cross Timbers Operating Co. P. O. Box 52070 Midland TX 79710-2070	1980' FNL, 660' FWL, Unit E	29	17S	33E	8-4-43	Ø	4320'	17 1/4" 12" 8 1/4" 6 1/4"	13" 9 5/8" 7" 6 1/4"	16' 5" 1122" 4007"	25 650 250 36	4144-4240'	2" @ 4153'	Estimated TOC 1879' Converted to WIW 3-14-79 Converted to production 6-20-88.	State B-2229
SMGSAU Tr. 4 #11	Cities Service Oil & Gas Corp.	1345' FNL, 100' FWL, Unit E	29	17S	33E	2-20-82	Ø P&A	4073'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	1299' 3900'	900 1200	3900-4073'	2" @ 3860'	P&A 5-23-83 (See Attached)	State B-2229
SMGSAU Tr. 4 #3	Cross Timbers Operating Co.	1980' FNL, 1980' FWL, Unit F	29	17S	33E	5-30-44	Ø WTW	4300'	11" 7 7/8"	8 5/8" 5 1/2"	1225' 4018'	550 300	4160-4285'	2 3/8" @ 3912'	Estimated TOC 2486' Converted to WIW	State B-2229
SMGSAU Tr. 4 #13	Cross Timbers Operating Co.	1485' FNL, 2400' FWL, Unit F	29	17S	33E	2-2-82	Ø	4450'	12 1/4" 7 1/8" 4 3/4"	8 5/8" 5 1/2" 4" Liner	1312' 3907' 3678-4449'	800 1000 50	4118-4122' 4136-4138' 4230-4236'			State B-2229
SMGSAU Tr. 5 #4	Cities Service Oil and Gas Co.	1980' FNL, 1980' FEL, Unit G	29	17S	33E	9-25-44	Ø WTW P&A	4440'	12" 9 5/8"	9 5/8" 7"	1300 4025'	700 250	4002-94' 4108-90' 4200-4290' 4300-16'		P&A (See Attached)	State B-2229
Section 30																
SMGSAU Tr. 2 #4	Cities Service Oil & Gas Corp.	660' FNL, 660' FEL, Unit A	30	17S	33E	12-12-56	Ø P&A	4292'		8 5/8" 5 1/2"	1241' 4039'	50 100			P&A 6-15-83 (See Attached)	BLM LC-062004
Section 33																
CMU #103	The Wiser Oil Co.	660' FNL, 660' FEL, Unit A	33	17S	33E	12-6-57	Ø	4570'		8 5/8" 5 1/2"	352' 4569'	150 1117	4420-30' 4440-64'	2" @ 4495'	Estimated TOC 1730'	BLM NM-801
CMU #102	The Wiser Oil Co.	330' FNL, 1650' FEL, Unit B	33	17S	33E	12-26-57	Ø WTW	4560'		8 5/8" 5 1/2"	328' 4559'	175 1204	4416-26' 4434-60'	2" @ 4451'	Estimated TOC 2010' Converted to WIW 4-27-67	BLM LC-060967
Phillips Federal #2	Zapata Petroleum Corp.	660' FNL, 1980' FEL, Unit B	33	17S	33E	11-25-57	Ø P&A			8 5/8"	334'	175			P&A 12-11-57 (See Attached)	BLM LC-060967

OPERATOR	Kewanee Oil Company		DATE	P+A 7-4-62
LEASE	LC-061842 / Miller BX Deep	WELL No	1	LOCATION
		410' FSL, 6'60' FEL, Unit P		
Sec. 14, T17S-R32E				

10' Cement Plug with 10 sx.

13 3/8" casing set at 301' with 425 sx of _____ cemen
Hole size _____"

5000'
4900' Cement Plug - 38 sx

6525'
6425' Cement Plug - 38 sx

7850'
7750' Cement Plug - 38 sx

9435'
9335' Cement Plug - 38 sx

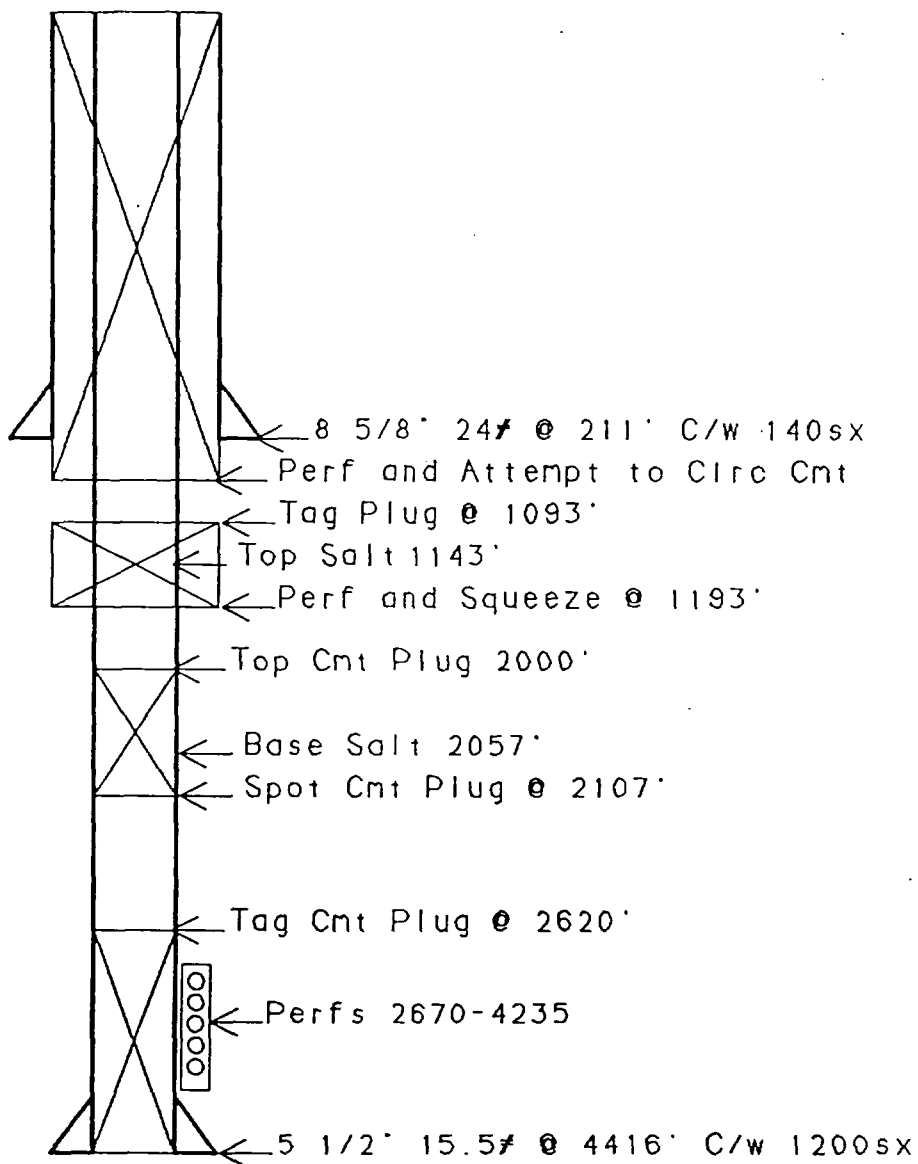
10,440'
10,340' Cement Plug - 38 sx

12308'
12208' Cement Plug - 38 sx

9 5/8" casing set at 4960' with 3623 sx of _____ ce

Total Depth 14,015' Hole size _____"

Miller BX Federal #1



MACK ENERGY CORPORATION

WELL DIAGRAM

MILLER BX FEDERAL #1

SEC 14 T17S R32E

660FSL 660FEL

WELL DIAGRAM AFTER
PREPARE BY
ROBERT CHASE

OPERATOR	Kewanee Oil Company (Barney Cockburn)		DATE	P+A 5-21-56
LEASE	LC-058698-B	Miller B Fed.	WELL NO	5
		LOCATION 1980' FNL, 660' FEL, Unit H		
Sec. 23, 17S-32E				

Bull Plug screwed into top of casing.
 Mud 38' Cement Plug - 3 sx

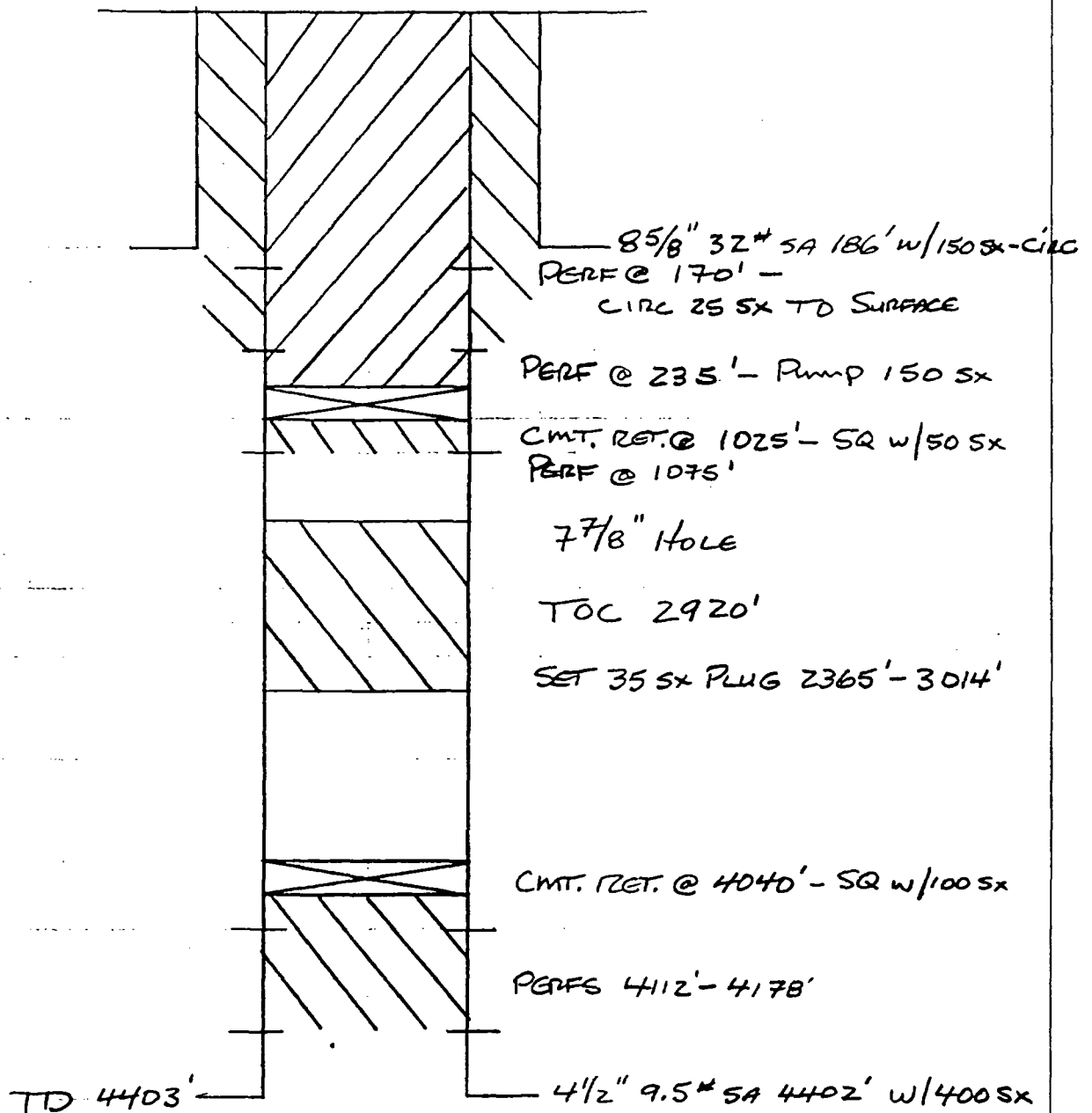
7" casing set at 560' with 54P sx of _____ cemer
 Hole size 11 3/4"

1425'
 1481' Cement Plug - 7 sx.

3714'
 4000' Cement Plug - 40 sx

5 1/2" casing set at 1025' with 100 sx of _____ cer
 Total Depth 4235' Hole size 8 1/4"

9/12/59



$P \in A$ 1/79

6/30/94

11/27/57

12 1/4" HOLE

8 5/8" 28# SA 168' w/150 SX - Circ

CMT RET. @ 1114' - SQ w/75 SX

PERF. @ 1150'

TOC 2310'

7 7/8" HOLE

SET 35 SX PLUG 2071' - 2514'

SET RET. @ 4009' - SQ w/80 SX

PERFS 4109 - 4311'

BP @ 4262'

TD 4324'

5 1/2" 15.5# SA 4323' w/400 SX

P.E.A 12/78

H 6/30/94

$$3/5/42$$

11" HOLE

85° 28' SA 129' W / 405x
Perf @ 200'. Pump 2005x - CIRE

CMT. RET. @ 1029'. SQ w/500 SX

7 7/8" HOLE

CMT. RET. @ 2056'. SQ W/500 SX

23/8" TBG & ROD FISH W/TOP @ 2978'

5'1/2" 14# SA 3840' w/350 SX

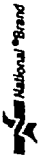
TD 4345'

PSA 5/78

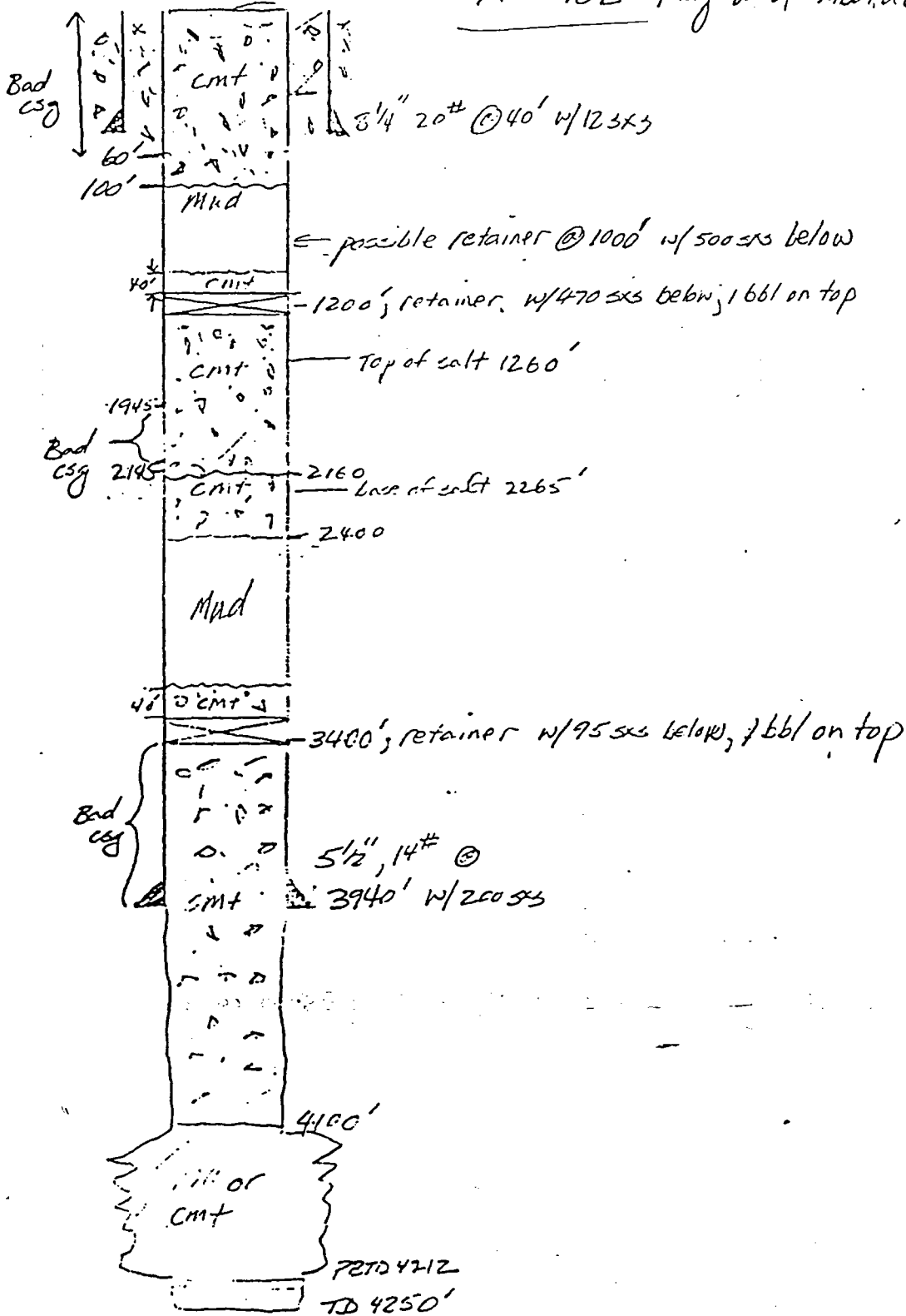
At 6/29/94

13-762	500 SHEETS, FILTH	5 SQUARE
42-361	50 SHEETS EYE-EASE®	5 SQUARE
42-362	100 SHEETS EYE-EASE®	5 SQUARE
42-369	200 SHEETS EYE-EASE®	5 SQUARE
42-362	100 RECYCLED WHITE	5 SQUARE
42-369	200 RECYCLED WHITE	5 SQUARE

MADE IN U.S.A.



MCA 132: Plug and Abandon

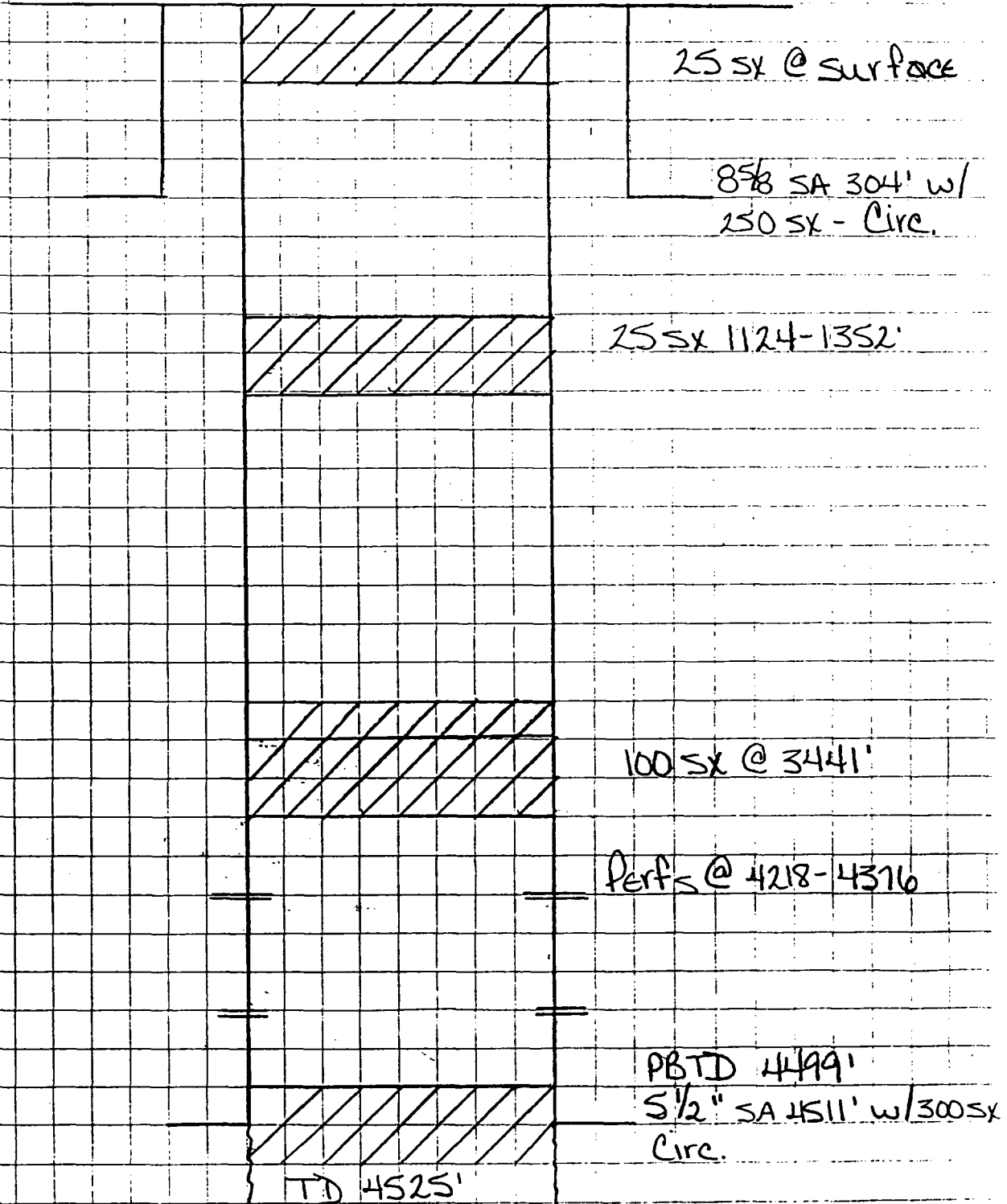


JP
6/24/98

Sou' hland Royalty Con. any

Malmar Unit Tract 1 #5

1980' FWL & 660' FWL, Unit E, Section 18-17S-33E



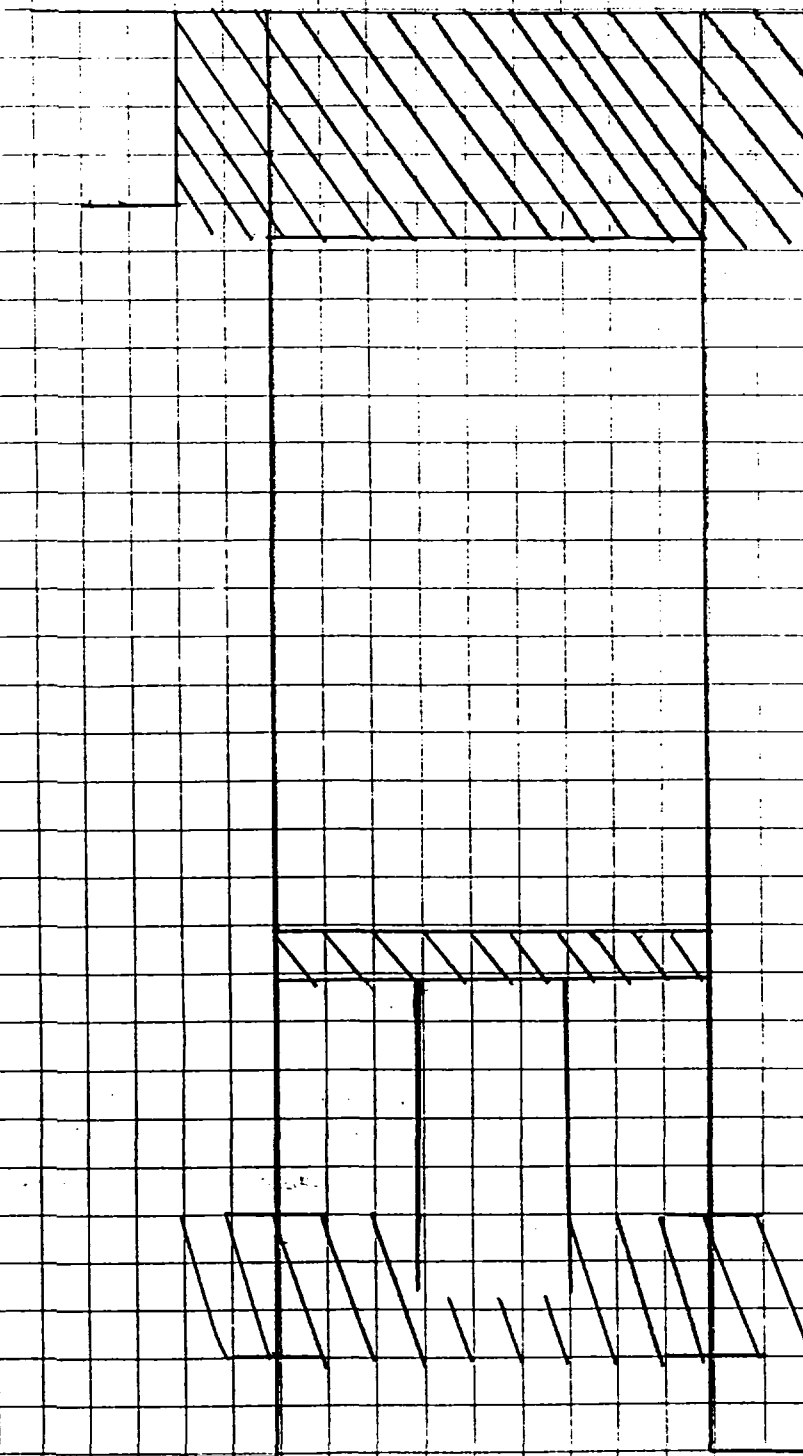
P&A 06/02/85

CMU #15
Murphy H. Baxter

State 18-13 # 2

(CMU #15)

1980' FSL + 693.65' FWL, Unit L, Section 18-175-33E



8 5/8 SA 201 w/
150 sx / Circ.

Circ 90 sx cmt
to surface

25 sx @ 3350'
Cut + bg @ 3350'

Perfs 4129-4380

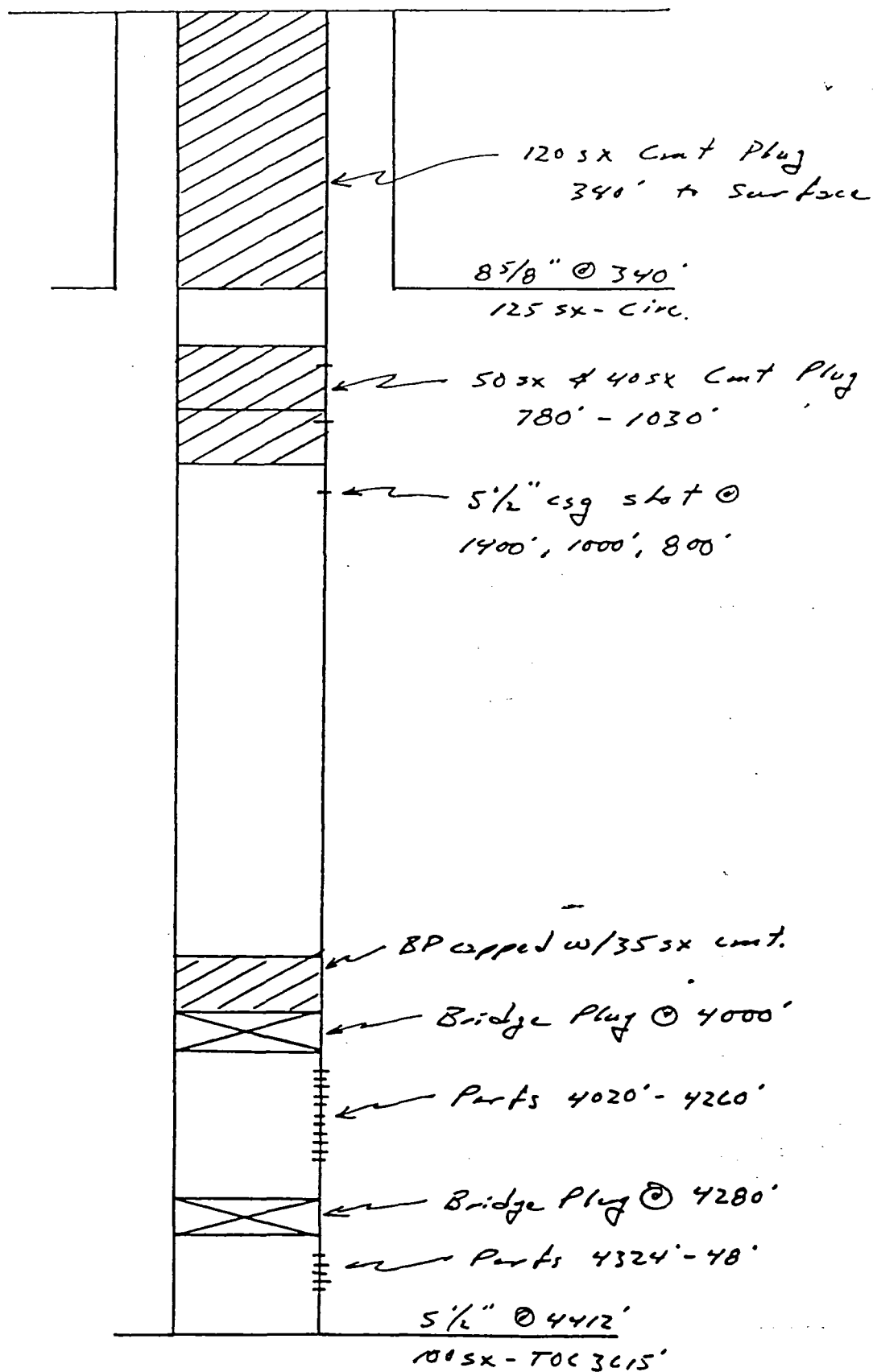
Squeeze w/100 sx

5 1/2 SA 4477 w/150 sx

TD 4479'
P + A 4-17-89

Well Name: PENN201L Phillips B State #2

Date P & A: Jan 1992



TD 4412'

Ph 11. ps Petroleum Comp 24

Leamex #1

660' FSL & 660' FML, Unit M. Section 19-175-33E

105x 30'-Surface

405x 1100-1210'

505x 1724-1832'

8 5/8" SA 1163'
w/ 4005x - Circ.

Cut & pulled 5 1/2"
@ 1782'

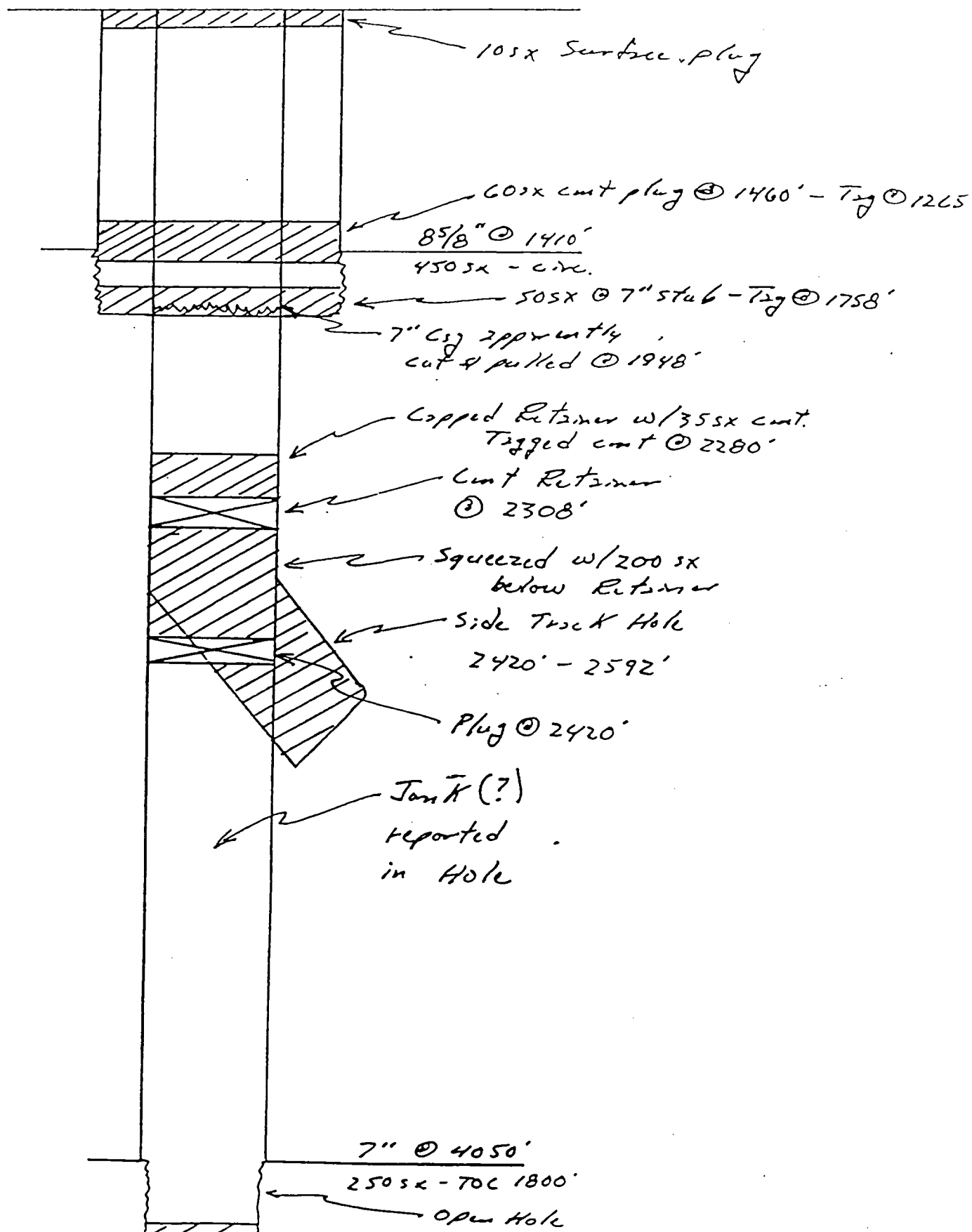
Retainer @ 4002'
Rd 1005x cmt

5 1/2" SA 4016' w/ 3005x

TD 4316'
P: A 5/18/71

Well Name: WESTERN OIL FIELDS Phillips State #1

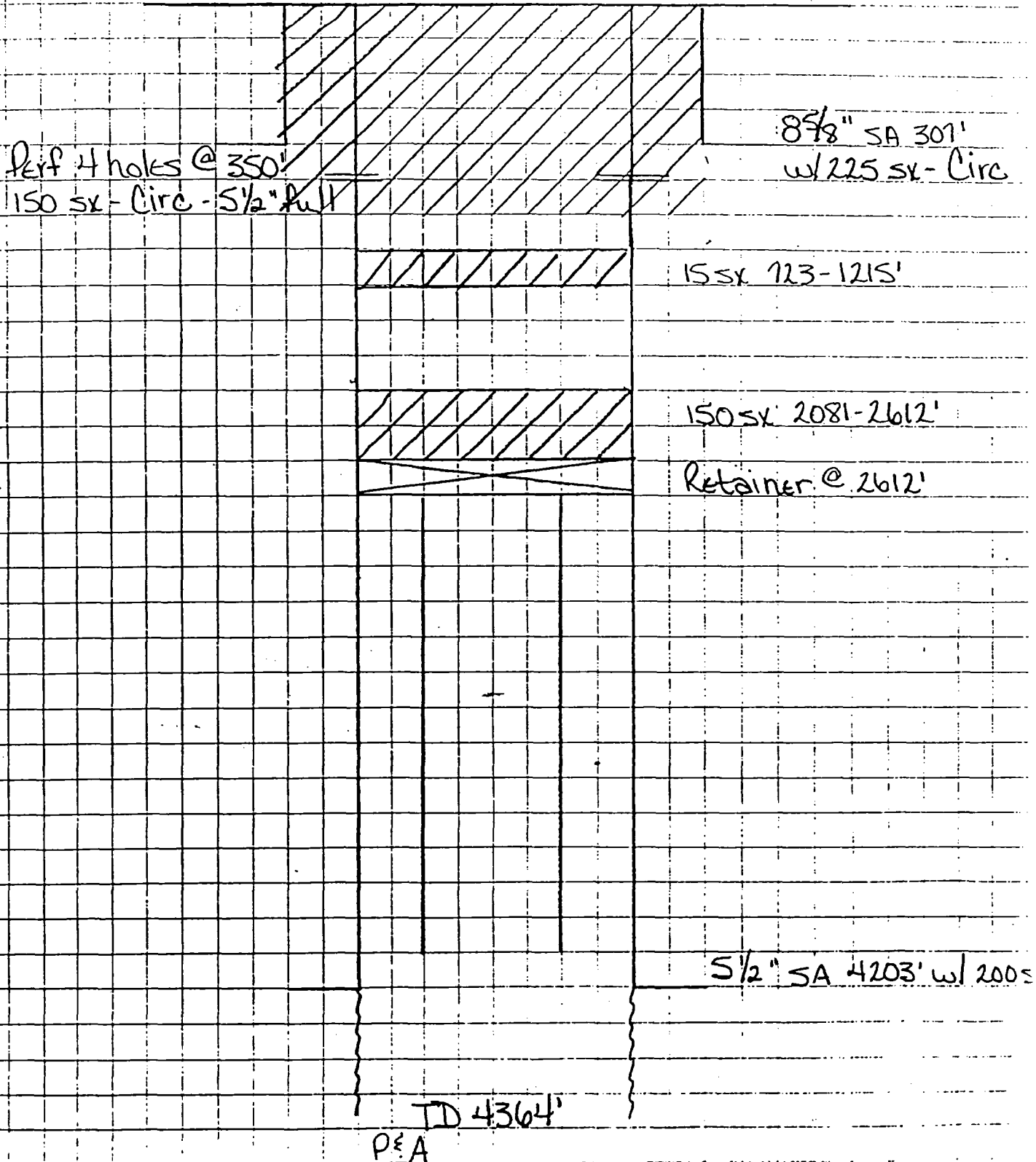
Date P & A: Aug 1980



Crown Central Petroleum Corporation

Mal Gra Unit B #6

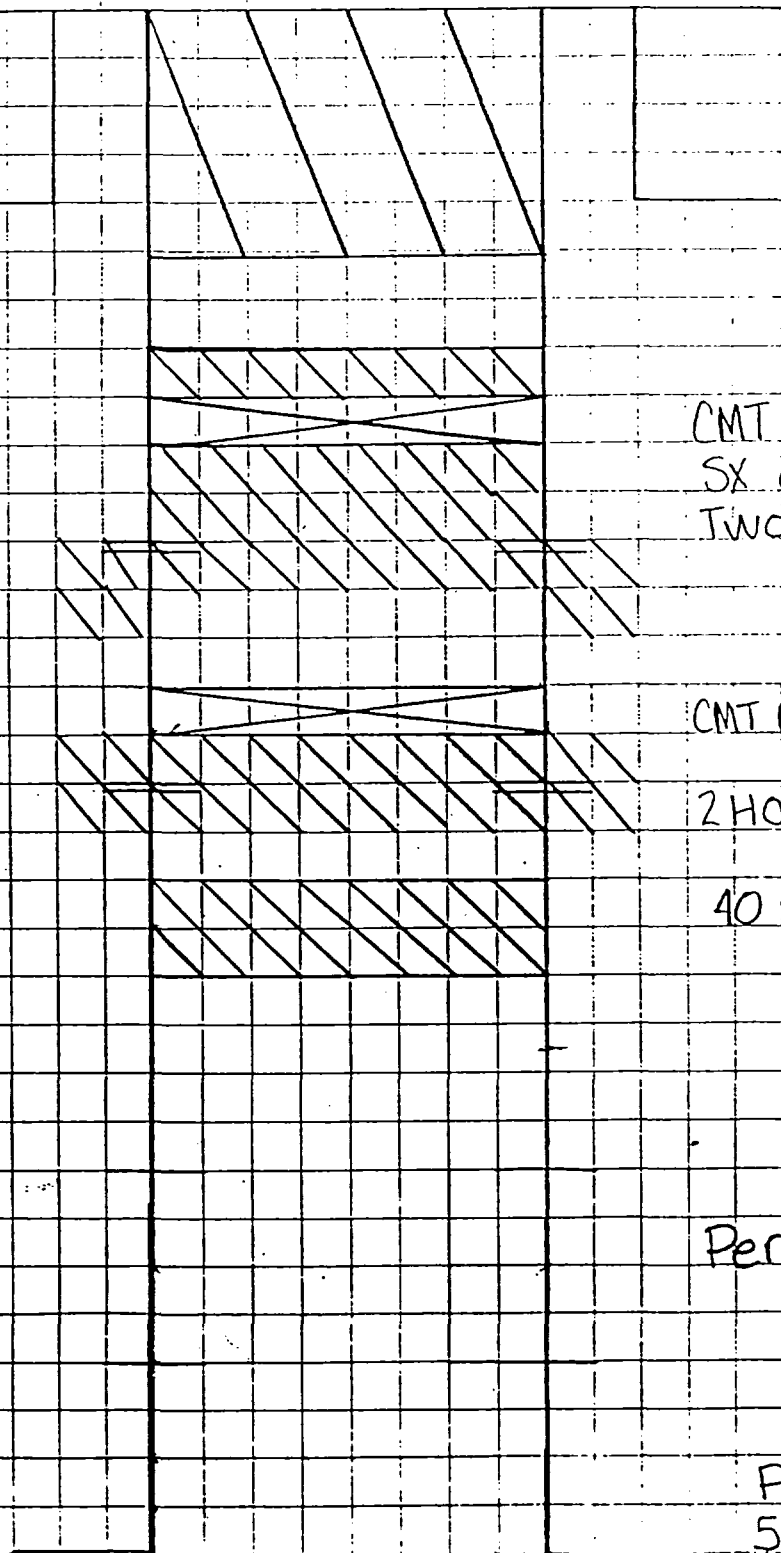
990' FWL & 330' FSL, Unit M, Section 20-17S-33E



Cities Service Oil + Gas Corp.

SMGSAU Tract 5 # Lo

990' FNL + 2310' FEL, Unit B, Section 29-17S-33E



8 5/8" SA 289'
w/200 SX - CIRC.
38 SX 376' - surface

CMT Retainer @ 1127' w/20
SX on top
Two holes @ 1250'

CMT RETAINER @ 2568'

2 HOLES @ 2685'

40 SX 3202' - 2802'

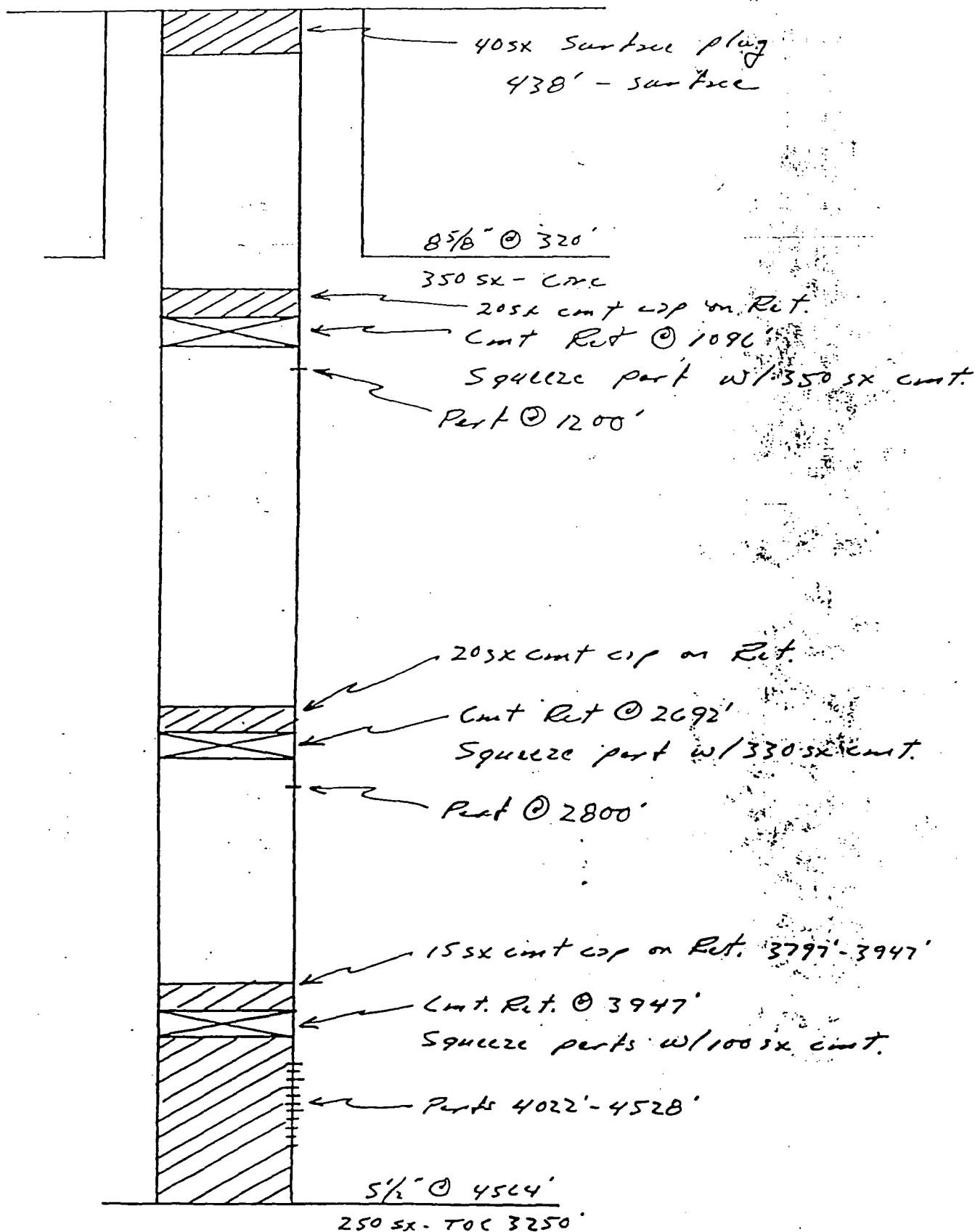
Perf 4110-4440

PBTD 4482'
5 1/2 SA 4497 w/250 SX

TD 4499'
P + A 6-15-83

Well Name: CITIES SERVICE SINGAPORE ^{Tr 4} 8

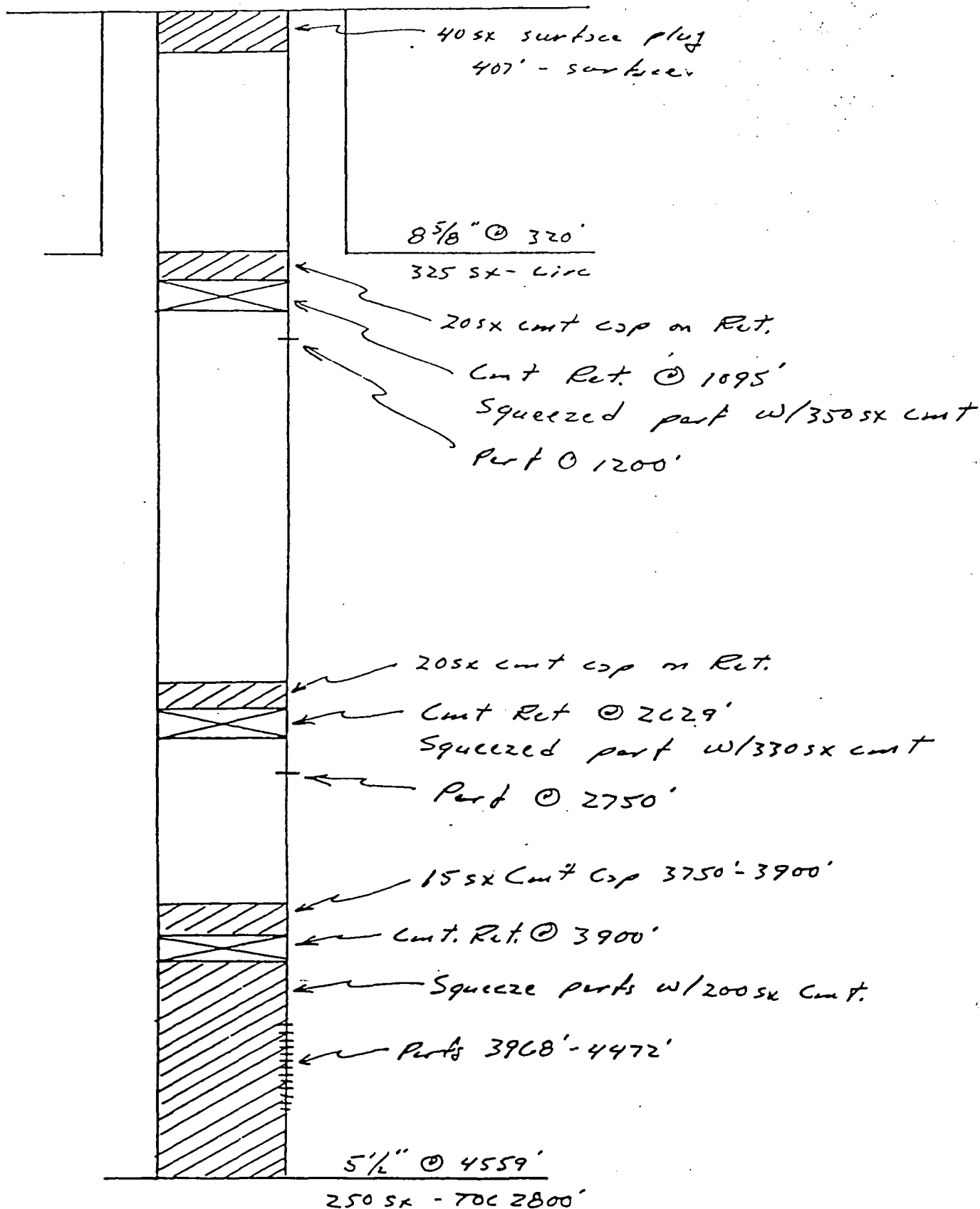
Date P & A: Apr 1983



TD 4565'

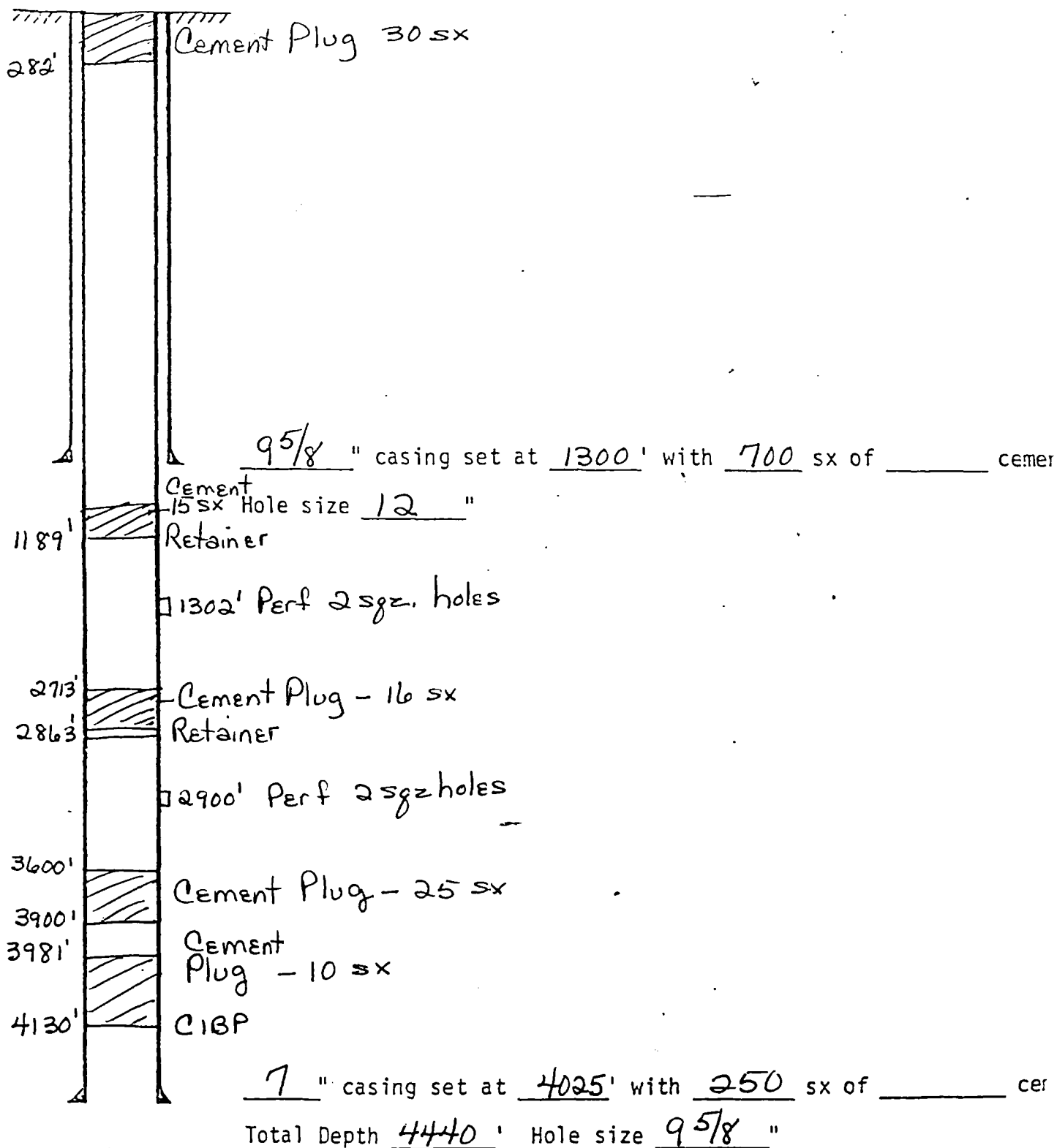
Well Name: CITIES SERVICE SMGSAU ^{Tr 4} # 7

Date P & A: Apr 1983



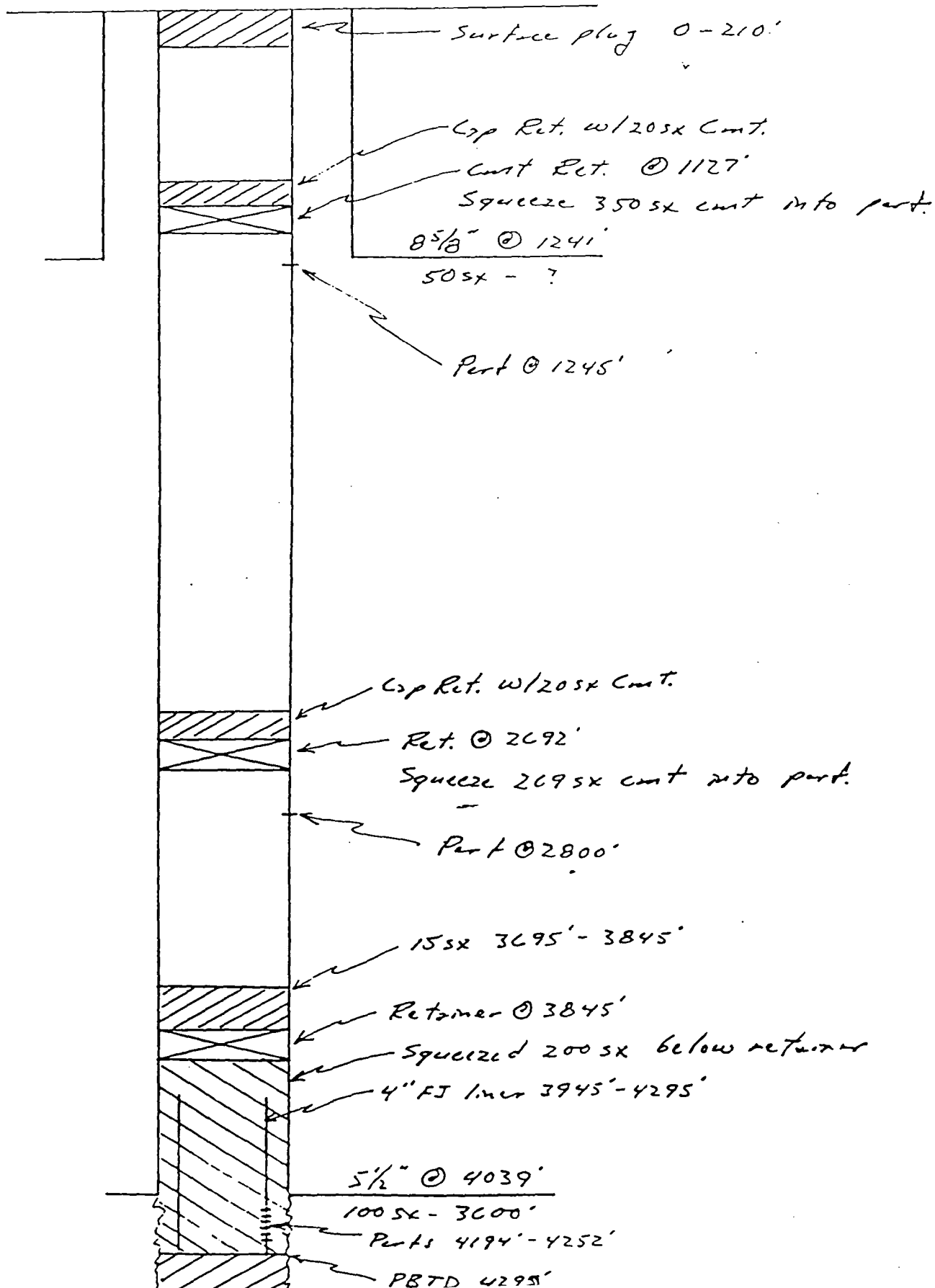
TD 4560'

OPERATOR Cities Service Oil & Gas Corp.		DATE P+A	
LEASE B-2229	SMGSAU Tr 5	WELL NO. 4	LOCATION 1980' ENL, 1980' FEL, Unit G Sec. 29, 17S-33E

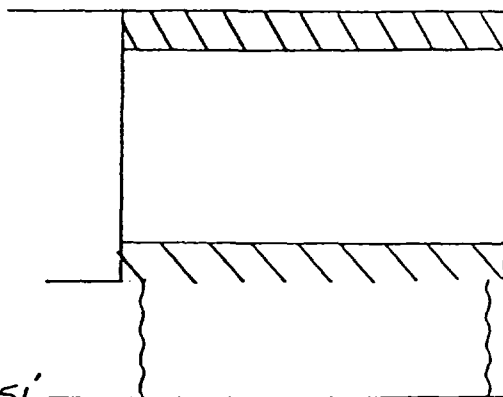


Well Name: CITIES SERVICE SINGSAU #4

Date P & A: Jun 1983



33" B" - 175 - 33E



SET 55x-15'-0'

11" HOLE

PLUG NOT DRILLED OUT

85/8 24[#] 5A 335' W/

1505x - Circ

TD 351'

$P \in A$ 1/20/58

7/15/94

C-108
APPLICATION FOR AUTHORIZATION TO INJECT
CAPROCK MALJAMAR UNIT

VII. PROPOSED OPERATION

1. Average Daily Rate of Fluids to be Injected: 175 BWPD
 Maximum Daily Rate of Fluids to be Injected: 250 BWPD
2. This is to be a closed injection system.
3. Average Injection Pressure: 2450 psi
 Maximum Injection Pressure; 2700 psi
4. Injection fluid will be obtained from the following sources:

Produced water: Water Analysis Reports on water produced from Batteries A & B of the Caprock Maljamar Unit, as prepared by Joe Hughes of Permian Treating Chemicals, are attached as Exhibit VII-A. The data contained therein is representative of water produced across the entire unit.

Extraneous Water: A Water Analysis Report on extraneous water to be obtained from Double Eagle (City of Carlsbad), as prepared by Joe Hughes of Permian Treating Chemicals, is attached as Exhibit VII-B.

The Wiser Oil Company will use water from Double Eagle temporarily until water from Conoco has been secured and tied in. At that time, The Wiser Oil Company will provide a Conoco water analysis.

Permian Treating Chemicals WATER ANALYSIS REPORT

SAMPLE

Oil Co. : Wiser Oil Co.
Lease : CMU Battery 'A'
Well No.: Water Transfer Pump
Salesman:

Sample Loc. :
Date Reported: 30-May-1996
Date Sampled : 30-May-1996

ANALYSIS

1. pH 6.900
2. Specific Gravity 60/60 F. 1.092
3. CaCO₃ Saturation Index @ 80 F. +0.459
@ 140 F. +1.339

Dissolved Gasses

	MG/L	EQ. WT.	*MEQ/L
4. Hydrogen Sulfide	60		
5. Carbon Dioxide	130		
6. Dissolved Oxygen	0.4		

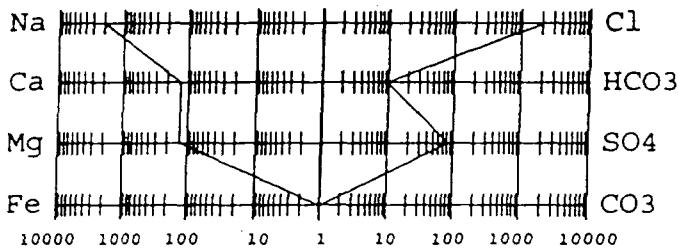
Cations

7. Calcium	{Ca ⁺⁺ }	2,505	/ 20.1 =	124.63
8. Magnesium	{Mg ⁺⁺ }	1,520	/ 12.2 =	124.59
9. Sodium	{Na ⁺ }	44,953	/ 23.0 =	1,954.48
10. Barium	{Ba ⁺⁺ }	Not Determined		

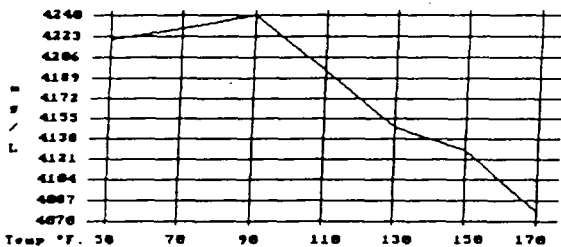
Anions

11. Hydroxyl	{OH ⁻ }	0	/ 17.0 =	0.00
12. Carbonate	{CO ₃ ⁼ }	0	/ 30.0 =	0.00
13. Bicarbonate	{HCO ₃ ⁻ }	561	/ 61.1 =	9.18
14. Sulfate	{SO ₄ ⁼ }	3,900	/ 48.8 =	79.92
15. Chloride	{Cl ⁻ }	74,983	/ 35.5 =	2,112.20
16. Total Dissolved Solids		128,422		
17. Total Iron (Fe)		1	/ 18.2 =	0.05
18. Total Hardness As CaCO ₃		12,511		
19. Resistivity @ 75 F. (Calculated)		0.060 /cm.		

LOGARITHMIC WATER PATTERN *meq/L.



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION COMPOUND EQ. WT. X *meq/L = mg/L.

Ca(HCO ₃) ₂	81.04	9.18	744
CaSO ₄	68.07	79.92	5,440
CaCl ₂	55.50	35.53	1,972
Mg(HCO ₃) ₂	73.17	0.00	0
MgSO ₄	60.19	0.00	0
MgCl ₂	47.62	124.59	5,933
NaHCO ₃	84.00	0.00	0
NaSO ₄	71.03	0.00	0
NaCl	58.46	1,952.08	114,119

*Milli Equivalents per Liter

This water is slightly corrosive due to the pH observed on analysis. The corrosivity is increased by the content of mineral salts, and the presence of H₂S, CO₂, Oxygen in solution.

Permian Treating Chemicals WATER ANALYSIS REPORT

SAMPLE

Oil Co. : Wiser Oil Co.
Lease : CMU Battery 'B'
Well No.: Water Transfer Pump
Salesman:

Sample Loc. :
Date Reported: 30-May-1996
Date Sampled : 30-May-1996

ANALYSIS

1. pH 6.500
2. Specific Gravity 60/60 F. 1.091
3. CaCO₃ Saturation Index @ 80 F. +0.095
@ 140 F. +0.975

Dissolved Gasses

	MG/L	EQ. WT.	*MEQ/L
4. Hydrogen Sulfide	60		
5. Carbon Dioxide	150		
6. Dissolved Oxygen	0.6		

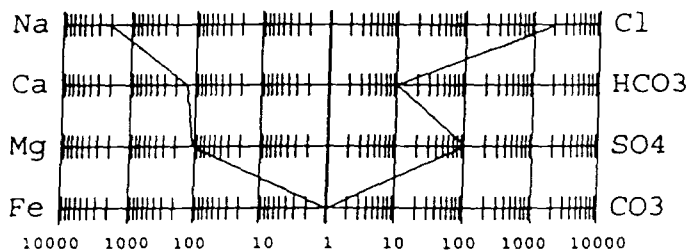
Cations

7. Calcium (Ca ⁺⁺)	2,605	/ 20.1 =	129.60
8. Magnesium (Mg ⁺⁺)	1,276	/ 12.2 =	104.59
9. Sodium (Na ⁺)	45,740	/ 23.0 =	1,988.70
10. Barium (Ba ⁺⁺)	Not Determined		

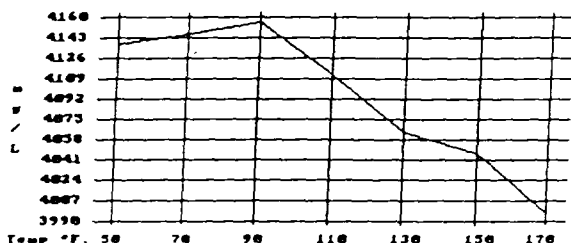
Anions

11. Hydroxyl (OH ⁻)	0	/ 17.0 =	0.00
12. Carbonate (CO ₃ ⁼)	0	/ 30.0 =	0.00
13. Bicarbonate (HCO ₃ ⁻)	586	/ 61.1 =	9.59
14. Sulfate (SO ₄ ⁼)	4,800	/ 48.8 =	98.36
15. Chloride (Cl ⁻)	74,983	/ 35.5 =	2,112.20
16. Total Dissolved Solids	129,990		
17. Total Iron (Fe)	2	/ 18.2 =	0.08
18. Total Hardness As CaCO ₃	11,760		
19. Resistivity @ 75 F. (Calculated)	0.059 /cm.		

LOGARITHMIC WATER PATTERN *meq/L.



Calcium Sulfate Solubility Profile



COMPOUND	EQ. WT.	X	*meq/L = mg/L
Ca(HCO ₃) ₂	81.04	9.59	77
CaSO ₄	68.07	98.36	6,69
CaCl ₂	55.50	21.65	1,20
Mg(HCO ₃) ₂	73.17	0.00	
MgSO ₄	60.19	0.00	
MgCL ₂	47.62	104.59	4,98
NaHCO ₃	84.00	0.00	
NaSO ₄	71.03	0.00	
NaCl	58.46	1,985.96	116,09

*Milli Equivalents per Liter

This water is slightly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts, and the presence
of H₂S, CO₂, Oxygen in solution.

1) PURK EAGLE FRESH (CYRANTAS) WATER

Exhibit
VII-B

Permian Treating Chemicals WATER ANALYSIS REPORT

SAMPLE

Oil Co. : Wiser Oil Co.
Lease : North Plant
Well No.: Fresh Water
Salesman:

Sample Loc. :
Formation : 06-June-1996
Date Analyzed: 06-June-1996

ANALYSIS

1. pH 7.760
2. Specific Gravity 60/60 F. 1.008
3. CaCO₃ Saturation Index @ 80 F. +0.429
@ 140 F. +1.029

Dissolved Gasses

- | | MG/L | EQ. WT. | *MEQ/L |
|---------------------|----------------|---------|--------|
| 4. Hydrogen Sulfide | Not Present | | |
| 5. Carbon Dioxide | Not Determined | | |
| 6. Dissolved Oxygen | Not Determined | | |

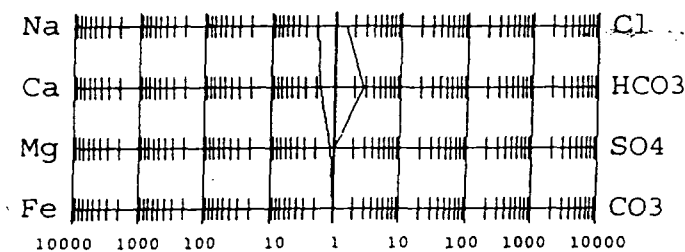
Cations

- | | | | |
|----------------------------------|--------------|----------|------|
| 7. Calcium (Ca ⁺⁺) | 33 | / 20.1 = | 1.64 |
| 8. Magnesium (Mg ⁺⁺) | 13 | / 12.2 = | 1.07 |
| 9. Sodium (Na ⁺) | 42 | / 23.0 = | 1.83 |
| 10. Barium (Ba ⁺⁺) | Below 10 (1) | | |

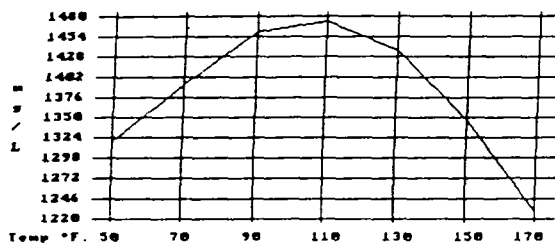
Anions

- | | | | |
|--|------------|----------|------|
| 11. Hydroxyl (OH ⁻) | 0 | / 17.0 = | 0.00 |
| 12. Carbonate (CO ₃ ⁼) | 0 | / 30.0 = | 0.00 |
| 13. Bicarbonate (HCO ₃ ⁻) | 161 | / 61.1 = | 2.64 |
| 14. Sulfate (SO ₄ ⁼) | 23 | / 48.8 = | 0.47 |
| 15. Chloride (Cl ⁻) | 50 | / 35.5 = | 1.41 |
| 16. Total Dissolved Solids | 322 | | |
| 17. Total Iron (Fe) | 1 | / 18.2 = | 0.05 |
| 18. Total Hardness As CaCO ₃ | 138 | | |
| 19. Resistivity @ 75 F. (Calculated) | 2.310 /cm. | | |

LOGARITHMIC WATER PATTERN *meq/L.



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION COMPOUND EQ. WT. X *meq/L = mg/L.

Ca (HCO ₃) ₂	81.04	1.64	133
CaSO ₄	68.07	0.00	0
CaCl ₂	55.50	0.00	0
Mg (HCO ₃) ₂	73.17	0.99	73
MgSO ₄	60.19	0.07	4
MgCl ₂	47.62	0.00	0
NaHCO ₃	84.00	0.00	0
NaSO ₄	71.03	0.40	28
NaCl	58.46	1.41	82

*Milli Equivalents per Liter

This water is mildly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

C-108
APPLICATION FOR AUTHORIZATION TO INJECT
CAPROCK MALJAMAR UNIT

VIII. GEOLOGICAL DATA

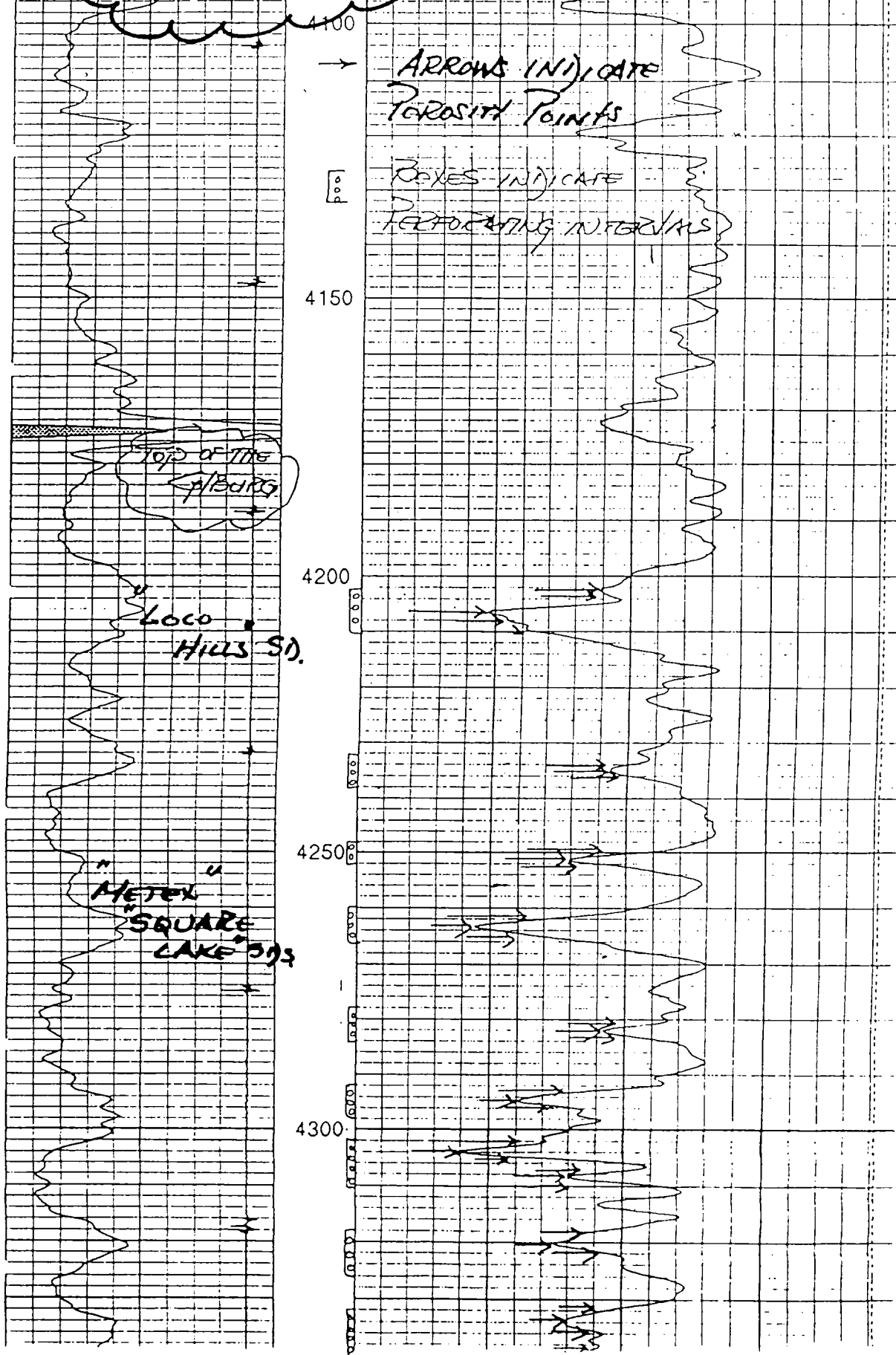
The proposed injection interval is in the Grayburg-San Andres formations at depths of 3900 to 5500 feet. The Grayburg formation primarily consists of quartz sands with dolomitic cementation; while, the San Andres formation primarily consists of dolomite with intermingled stringers of quartz sand with dolomitic cementation. The surface formation is Cretaceous and has no known sources of drinking water. The Ogallala aquifer and the Caprock overlies the northeastern portion of the Unit Area; while there are no known sources of drinking water underlying the injection interval.

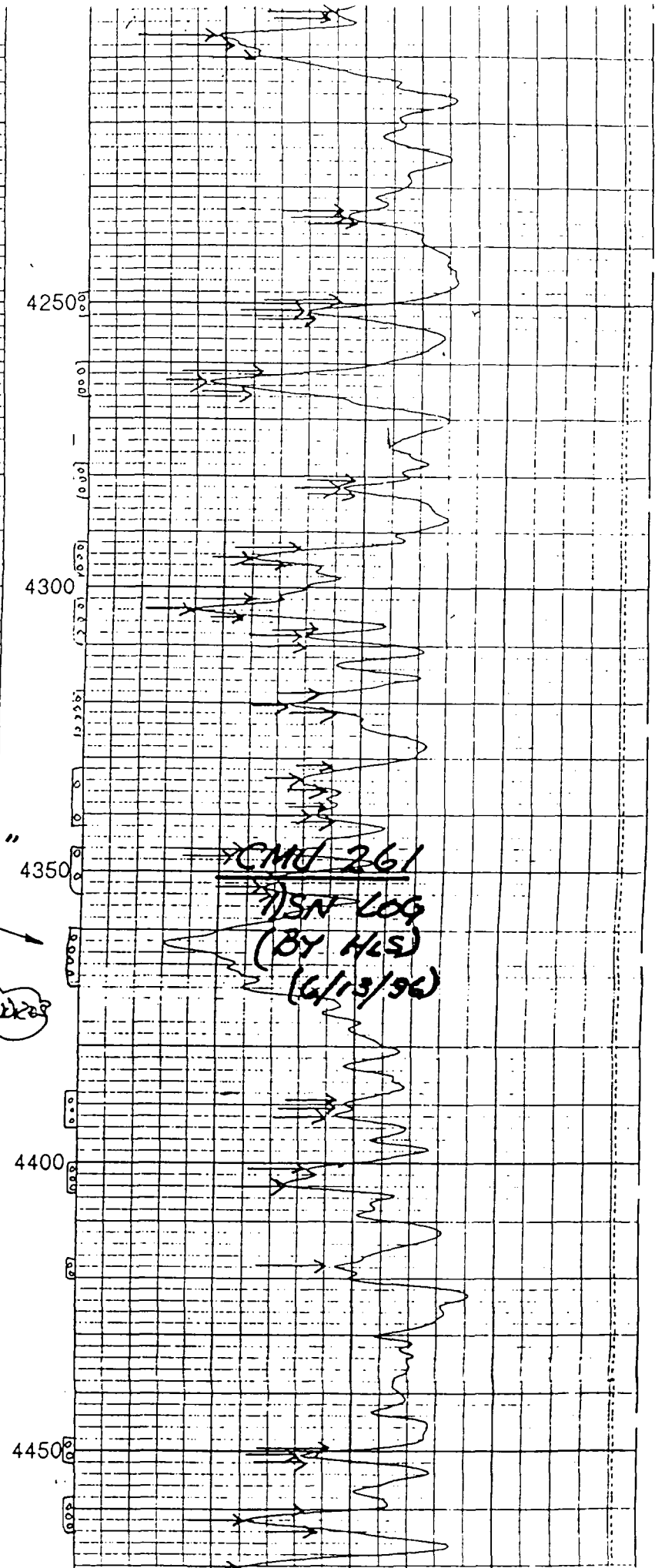
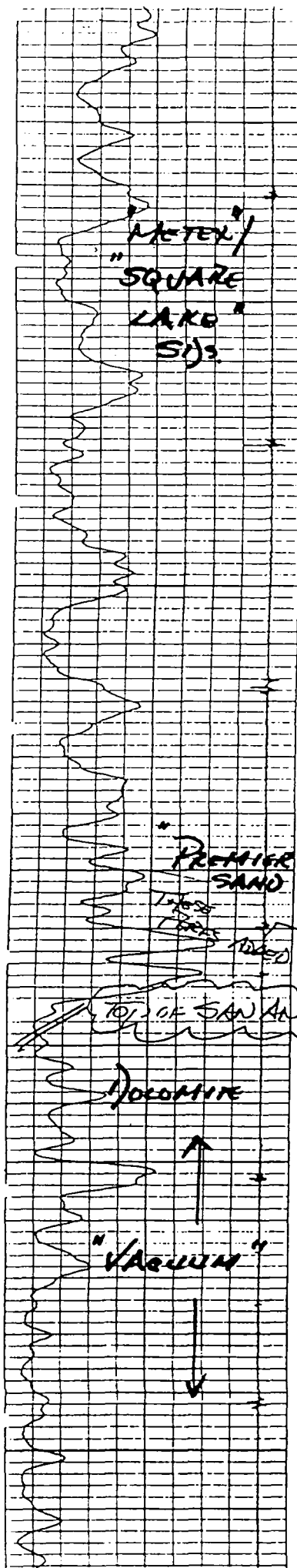
Attached, as Exhibits VIII-A and VIII-B, are two Type Logs illustrating geology, lithology, thickness, and depths.

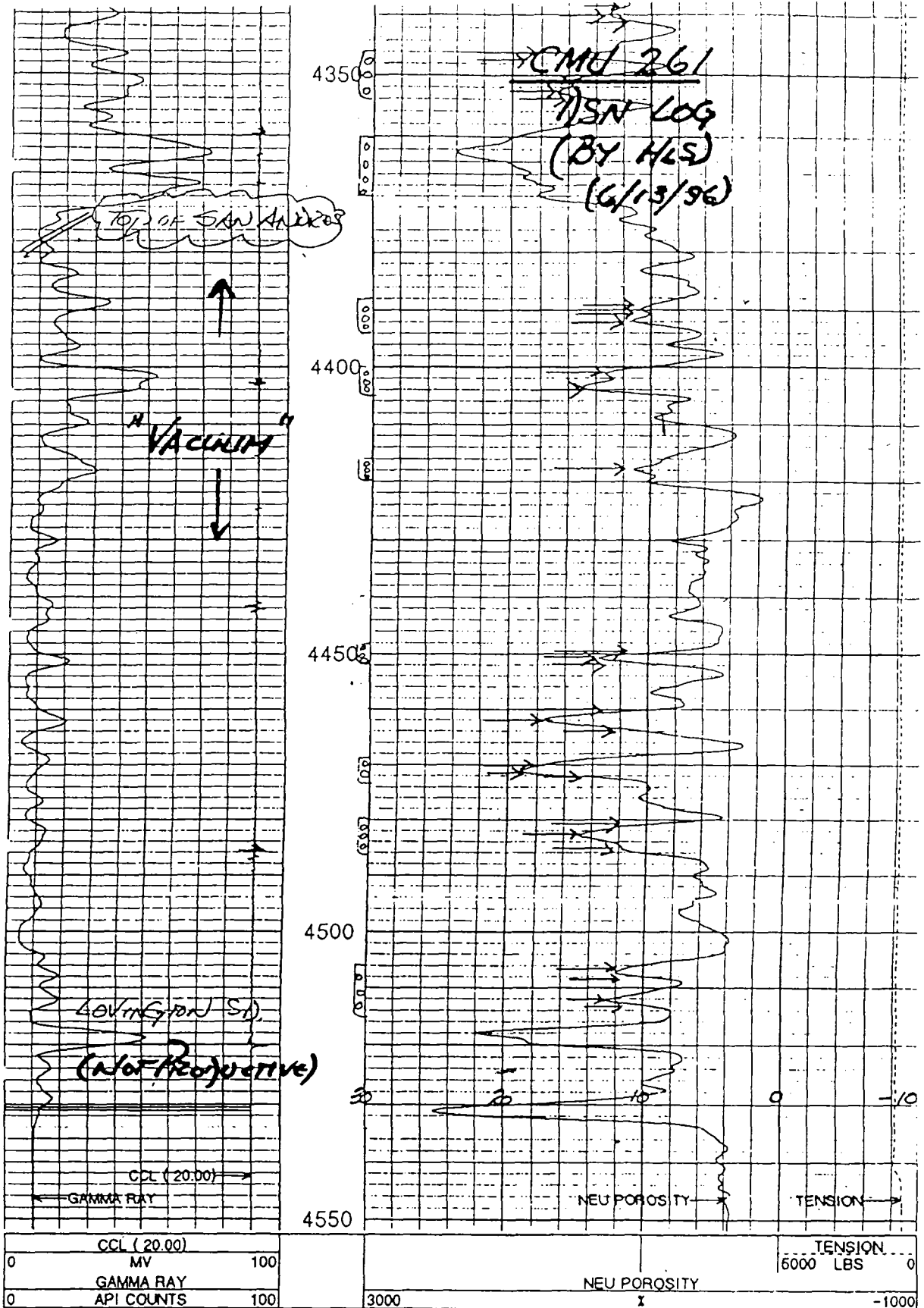
TYPE LOG FOR
GMI PRODUCING
INTERVALS

CMU NO. 1
1) SN LOG
(BY NLS)
(6/13/56)

Exhibit
VIII-A







Version No: 2.00 | hc2.0

Data File: 0613_1554_r0411.5.xls

Control File: plot_01_1.apc

Reader File: 0613_1554_r0411.plot_01_1

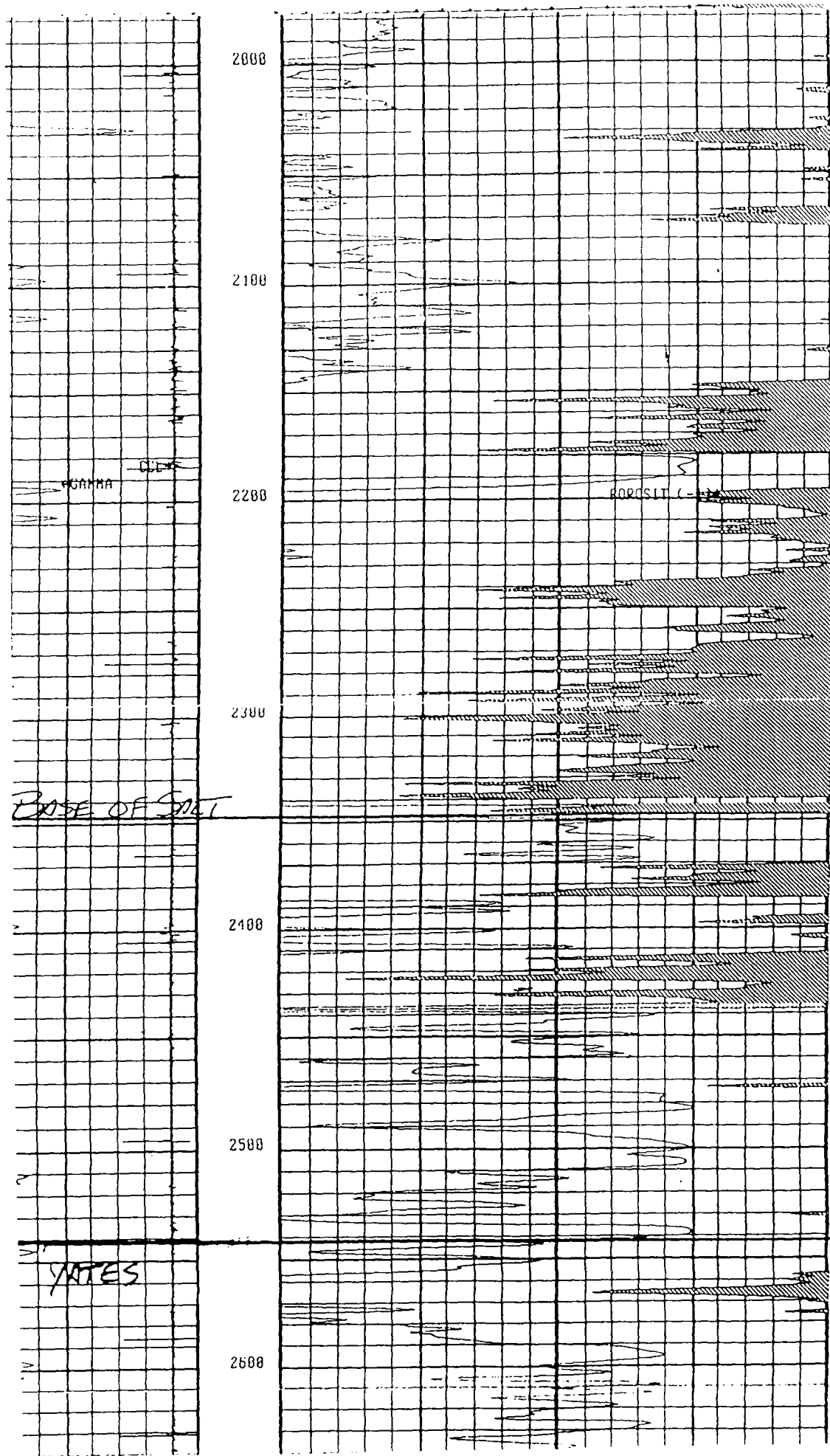
Top Depth: —

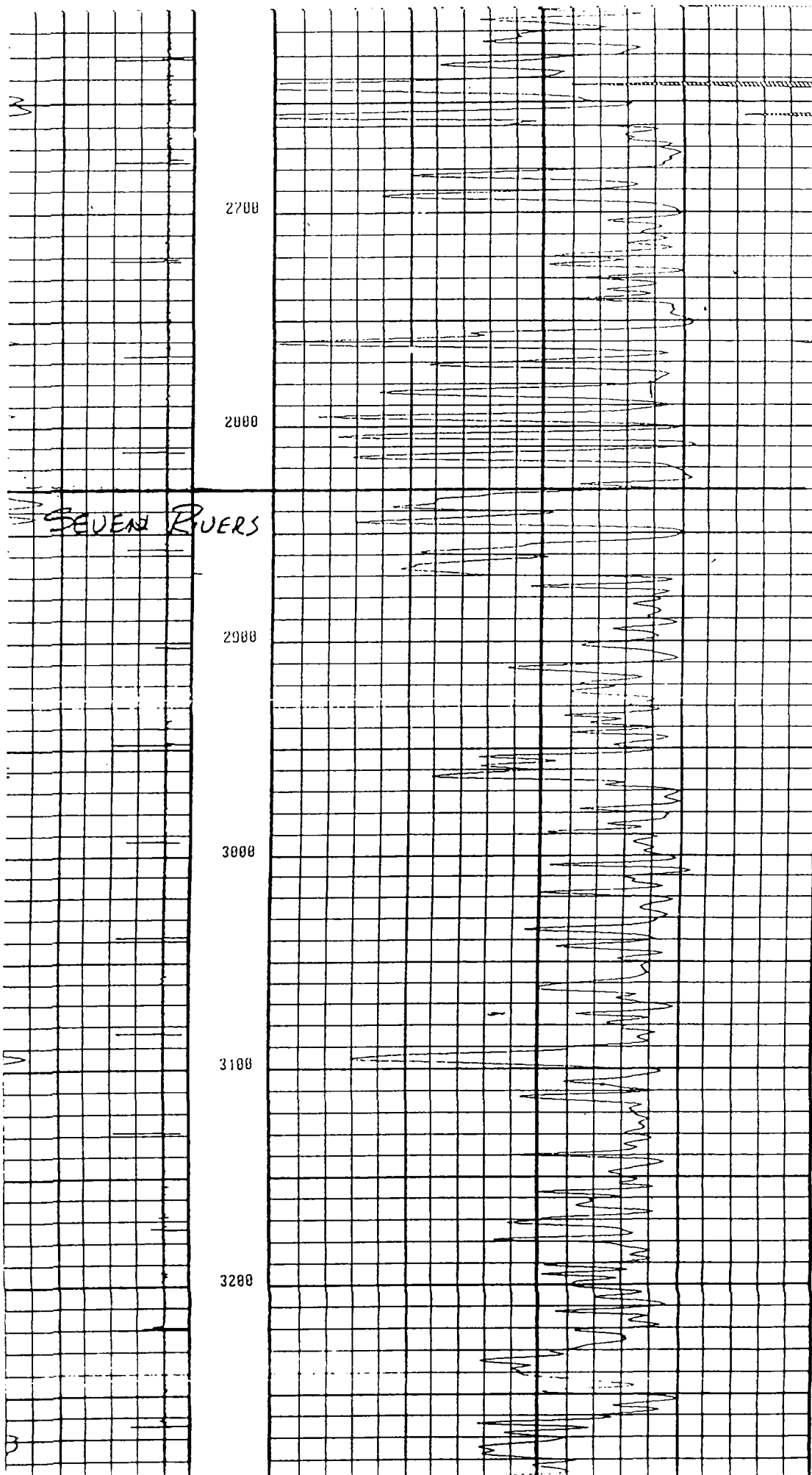
Bottom Depth: 4551.75

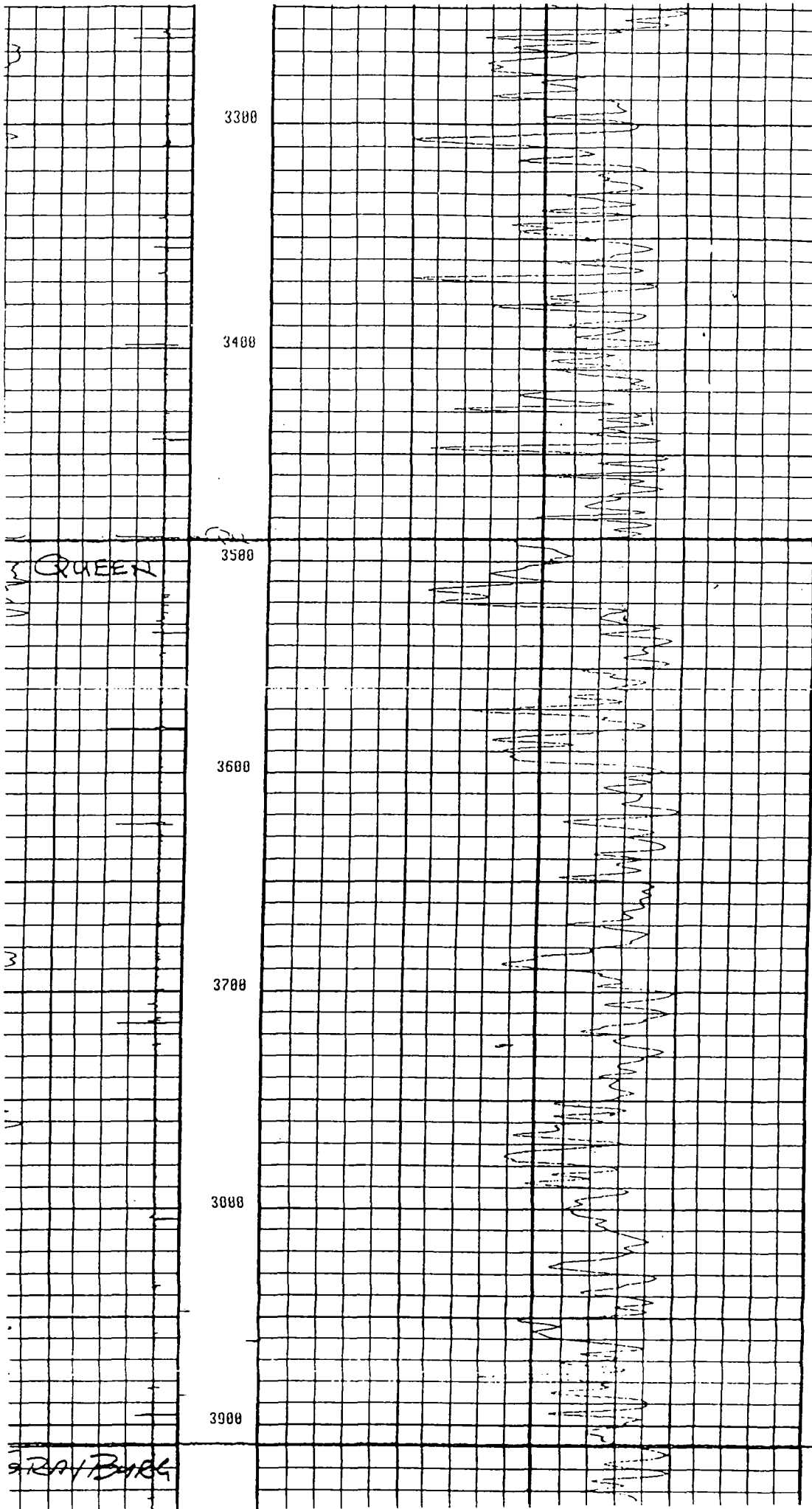
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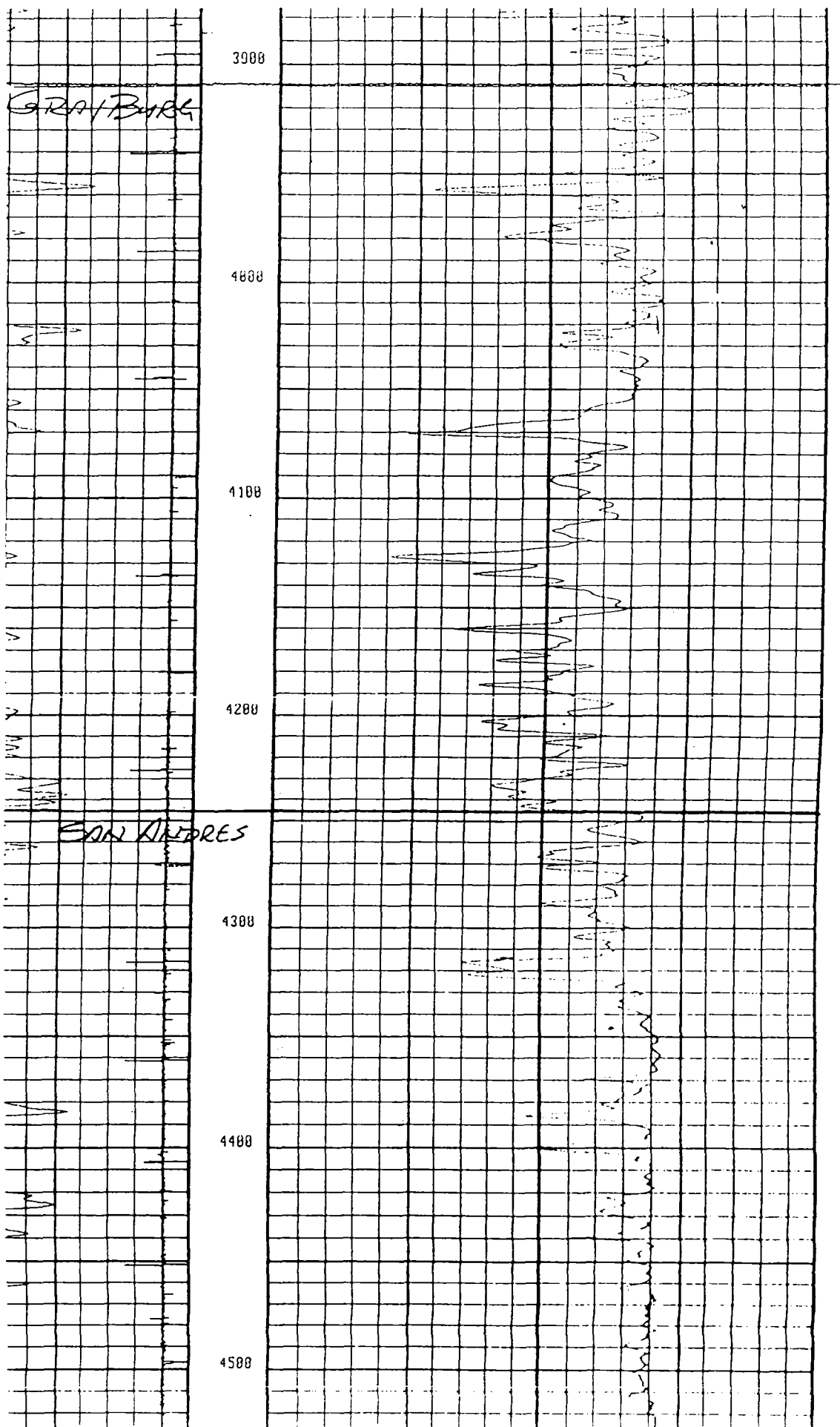
TYPE LOG

[illegible]









C-108
APPLICATION FOR AUTHORIZATION TO INJECT
CAPROCK MALJAMAR UNIT

IX. PROPOSED STIMULATION PROGRAM

Acid breakdown jobs will be done if new perforations are added. When treating old perforations, acid "wash" treatment will be done to remove scales and flow-back solids at formation face.

X. LOGGING DATA

The available logs are those on file with the Oil Conservation Division from the original oprators of the wells.

XI. FRESH WATER WELLS

Information on fresh water wells in the area as recorded in the office of the State Engineer was previously submitted. None of these wells are still active or productive.

XII. Not applicable

C-108
APPLICATION FOR AUTHORIZATION TO INJECT
CAPROCK MALJAMAR UNIT

XIII. PROOF OF NOTICE

Copies of this C-108 Application have been mailed to the surface owners and to each leasehold operator within one-half mile of the proposed injection wells as identified on the mailing list attached as Exhibit XIII-A. An Affidavit of such notice is attached as Exhibit XIII-B. Copies of the certified receipts will be furnished upon request. The notice attached as Exhibit XIII-C is being published in the Hobbs Daily News-Sun. An Affidavit of Publication will be forwarded as soon as available.

**EXHIBIT XIII-A
MAILING LIST**

SURFACE OWNERS:

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

**Bureau of Land
Management**
2901 West 2nd Street
Roswell, New Mexico 88201

GRAZING LEASE OWNERS:

Mr. Olane Caswell
1702 Gilham
Brownfield, Texas 79316

Mr. Hershel Caviness
General Delivery
Causey, New Mexico 88113

Mrs. Janice Caviness
P. O. Box 25
Maljamar, New Mexico 88264

OFFSET WELL OPERATORS:

Mack Energy Corp.
P. O. Box 276
Artesia, New Mexico 88210

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

Cross Timbers Oil Co., LP
P. O. Box 52070
Midland, Texas 79710

Penroc Oil Corporation
P. O. Box 5970
Hobbs, New Mexico 88241-5970

Phillips Petroleum Co.
P. O. Box 4001
Odessa, Texas 79762

OFFSET LEASEHOLD OWNERS:

Amoco Production Company
P. O. Box 3092
Houston, Texas 77253

Chase Oil Corp.
P. O. Box 276
Artesia, New Mexico 88210

Chevron USA Inc.
P. O. Box 1150
Midland, Texas 79702

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

Cross Timbers Oil Co., LP
P. O. Box 52070
Midland, Texas 79710

Devon Energy Corp. (Nevada)
20 North Broadway, Suite 1500
Oklahoma City, Oklahoma 73102

Mesa, Inc.
5205 North O'Connor, Suite 1400
Irving, Texas 75039-3746

OXY USA Inc.
P. O. Box 50250
Midland, Texas 79710

Pennzoil Petroleum Co.
P. O. Box 2967
Houston, Texas 77252

Phillips Petroleum Co.
P. O. Box 4001
Odessa, Texas 79762

**Southwest Developmental
Drilling Fund 1993 LP**
P. O. Box 11390
Midland, Texas 79702

Zapata Petroleum Corporation
P. O. Box 4240
Houston, Texas 77210

Mr. C. W. Chancellor
Address Unknown

Mr. Parker C. Fielder, Tr.
Address Unknown

Floos Inc.
Address Unknown

Wolffson Oil Company
Address Unknown

EXHIBIT XIII-B

AFFIDAVIT OF MAILING

STATE OF NEW MEXICO

COUNTY OF CHAVES

SS.

I, Bonita L. Limpus Jones, do solemnly swear that a copy of this Application has been mailed by certified mail, to each of the interested parties listed on Exhibit XIII-A.


Bonita L. Limpus Jones
Consulting Landman with J. O. Easley, Inc.
on behalf of The Wiser Oil Company

SWORN AND SUBSCRIBED TO before me this 30 day of October, 1996.

My Commibision Expires:

August 27, 2000

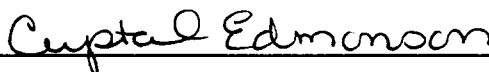

Crystal Edmonson
Notary Public

EXHIBIT XIII-C

NOTICE TO BE PUBLISHED IN THE HOBBS DAILY NEWS-SUN
ON THURSDAY, OCTOBER 31, 1996

PROPOSED INJECTION WELLS

The Wiser Oil Company proposes to expand its Caprock Maljamar Unit and inject water into 10 additional wells: 6 wells in Section 24, T17S-R32E, 1 well in Section 18, 2 wells in Section 20, and 1 well in Section 28, all in T17S R33E, Lea County, New Mexico, to provide additional injection service for the existing Caprock Maljamar Unit Waterflood, Order No. R-10094. The zones to be injected into are Grayburg and San Andres from 3900' to 5500' with a maximum injection rate of 250 BWPD/well at a maximum pressure of 2700 psi. Any interested parties with objection or request for hearing should notify the Oil Conservation Division at P. O. Box 2088, Santa Fe, New Mexico 87501, within 15 days of this notice. Any questions should be directed to Tom Cook with The Wiser Oil Company, at P. O. Box 2568, Hobbs, New Mexico 88241, 505-392-9797.