

FORM C-108, APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: DISPOSAL.
- II. Operator: KENDALL AND ASSOCIATES, INC.
Address: 719 West Apache, Farmington, New Mexico 87401
Contact party: A. R. Kendrick Phone: (505) 334-2555
- III. See attachment.
- IV. Is this an expansion of an existing project? No.
- V. See attachment.
- VI. See attachments.
- VII. Proposed Operations:
 1. Injection rate: Maximum 10 barrels per day; Average 5 barrels per day.
 2. The system is open.
 3. Injection pressure: Gravity to 140 psi maximum.
 4. Re-injection of produced water to original source formation.
 5. Injection is into an oil producible zone within one mile.
- VIII. The only known sources of drinking water in the area is from the unconsolidated Recent, valley fill material; or, from the domestic water system from Bloomfield, New Mexico. The disposal formation is the Farmington sandstone, deltaic deposits of sands and shales in the Kirtland-Fruitland section of the upper Cretaceous interval. There are no known aquifers below the Farmington formation.
- IX. Proposed stimulation: None, possible periodic acid cleanouts.
- X. No logging or test data available. (Proposed injection well was drilled in 1939.)
- XI. No water analyses available from drinking water wells within one mile.
- XII. I have examined the geologic and engineering data of the area and find no evidence of any fault or other hydrologic connection between the proposed zone and any underground source of drinking water.
- XIII. WELL DATA:
 - A. 1) Injection well: Kendall and Associates, Inc. Hare #1, 1980' FNL 1650' FEL Section 23, T29N, R11W.
 - 2) Casing and cementing information is not of record.
 - 3) Proposed tubingless completion. The produced water is noncorrosive.
 - 4) Packer: None planned.

XIII. WELL DATA (Continued)

- B. 1) Injection formation: Farmington sandstone, Bloomfield Farmington Oil Pool.
- 2) Injection interval: open hole from 710 feet to 755 feet.
- 3) The well was drilled as an oil well attempt in 1939 and completed as an oil well in 1958.
- 4) No other known perforations.
- 5) Other oil and gas zones: Shallower: None; Next-Deeper: Fruitland, 1780' (gas).

XIV. PROOF OF NOTICE

A copy of the application for hearing was furnished by certified mail to the owner of the surface of the land on which the injection well is located and to each offset operator within one-half mile of the well.

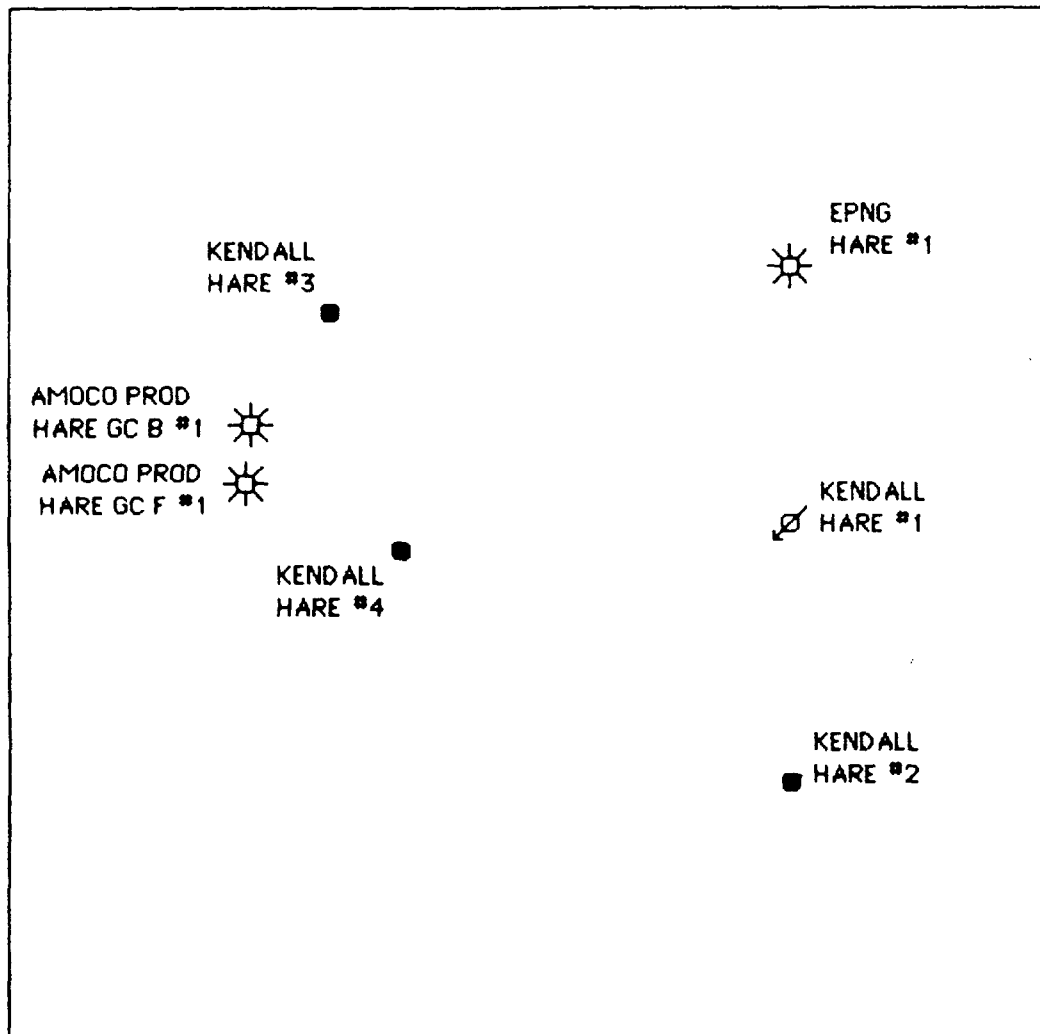
XV. CERTIFICATION:

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

NAME: A. R. Kendrick TITLE: Agent

SIGNATURE: *A. R. Kendrick* DATE: 2/9/87

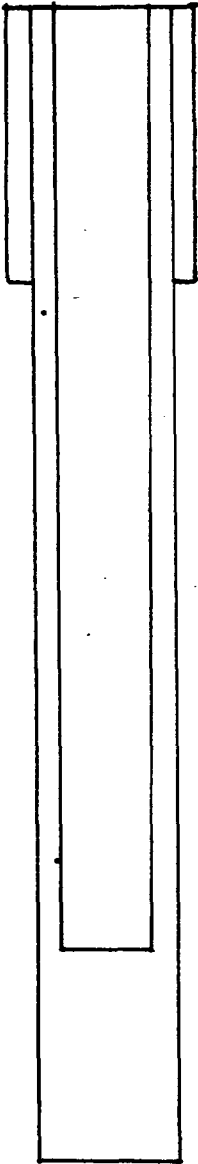
G-23-T29N-R11W



INJECTION WELL DATA SHEET

Kendall & Associates, Inc.		Hare	
OPERATOR	LEASE		
1	1980 fml 1650 fel	23	T29N R11W
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP RANGE

Schematic



Tubular Data

Surface Casing

Size _____" Cemented with _____sx.
 TOC _____ feet determined by _____
 Hole size _____

Intermediate Casing

Size _____" Cemented with _____sx.
 TOC _____ feet determined by _____
 Hole size _____

Long string

Size 6 5/8" Cemented with _____sx.
 TOC _____ feet determined by _____
 Hole size _____

Total depth 755

Injection interval

710 feet to 735 feet
 (~~perforated~~ or open-hole, indicate which)

Tubing size None lined with _____ set in a
 (material)
None packer at _____ feet.
 (brand and model)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Farmington
2. Name of field or Pool (if applicable) Bloomfield Farmington Oil Pool
3. Is this a new well drilled for injection? ☐ Yes ☒ No
 If no, for what purpose was the well originally drilled? Oil Well
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) No other perforations
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Shallower: None; Next deeper: Fruitland 1780

WELLS WITHIN ONE-HALF MILE

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OPERATOR	WELL	LOCATION			WELL DATE	DEPTH	ZONE	SURFACE CASING	RECORD OF COMPLETION AND CONSTRUCTION		REMARKS	
		U	S	T					PROD. CASING	PERFORATIONS		
AMOCO PRODUCTION CO	PEARCE GAS COM #1E	J	23	29	11	GAS	1980	6365	DAKOTA 9 5/8 @ 331 W/300	4 1/2 @ 6272 W/1800	6078-6263	
GEORGE GOODRUM	FEE #1	J	23	29	11	DRY	1938	945	FARM NO RECORDS	NO RECORDS		P&A
AMOCO PRODUCTION CO	PEARCE GAS COM #1	K	23	29	11	GAS	1965	6274	DAKOTA 8 5/8 @ 505 W/400	4 1/2 @ 6274 W/1500	6090-6182	
AMOCO PRODUCTION CO	STATE GAS COM BS #1	K	23	29	11	GAS	1980	2954	CHACRA 8 5/8 @ 300 W/300	4 1/2 @ 2954 W/810	2746-2761	
ROY L. COOK ESTATE	PAN AMERICAN STATE #1	K	23	29	11	GAS	1962	1523	FRUIT 8 5/8 @ 97 W/75	4 1/2 @ 1507 W/180	1396-1475	P&A 1980
FRANCIS L. HARVEY	GALE #1	E	24	29	11	GAS	1953	1800	FRUIT 10 3/4 @ 120 W/125	4 1/2 @ 1726 W/100	1511-1533	
OTTO V. REYNOLDS	GALE #1	E	24	29	11	DRY	1960	865	FARM 7 @ 52 W/40	2 7/8 @ 865 W/80		P&A 1961
TEXACO, INC	MAE GALE COM #1	E	24	29	11	GAS	1961	6427	DAKOTA 8 5/8 @ 322 W/410	4 1/2 @ 6427 W/400	6148-6288	
TEXACO, INC	MAE GALE A #1	E	24	29	11	GAS	1978	2939	CHACRA 8 5/8 @ 274 W/275	4 1/2 @ 2939 W/650	2823-2839	
MANANA GAS, INC	DAVIE #1	L	24	29	11	GAS	1956	1725	FRUIT 8 5/8 @ 100 W/75	5 1/2 @ 1725 W/250	1475-1495	P&A 1978
TEXACO, INC	MAE GALE COM #1E	M	24	29	11	GAS	1981	6426	DAKOTA 8 5/8 @ 283 W/300	5 1/2 @ 6425 W/2500	6086-6220	
MANANA GAS, INC	GIGI #1	M	24	29	11	GAS	1978	2857	FRUIT 8 5/8 @ 169 W/100	5 1/2 @ 1757 W/281	1460-1486	
(UNKNOWN)	(UNKNOWN)	M	24	29	11	DRY	?	?	NO RECORDS	NO RECORDS		STATE>>>WATER
MANANA GAS, INC	PHYLLIS HARTMAN #1	N	24	29	11	GAS	1981	2992	CHACRA 8 5/8 @ 284 W/300	5 1/2 @ 2979 W/660	2316-2756	

DATA SHEET

INJECTION WELL:

Kendall and Associates, Inc.
Hare #1
1980' FNL 1650' FEL, 0-23-T29N-R11W
San Juan County
Bloomfield Farmington Pool

WELL DATA:

Spud: November 16, 1938
Completed: April, 1939
Elevation: 5485' O.L.
Total Depth: 755'

OPERATORS WITHIN ONE-HALF MILE, by formation and location:

FARMINGTON FORMATION:

Mitchell Construction Company	0-14-T29N-R11W
Orion Allen	H-23-T29N-R11W

FRUITLAND FORMATION:

El Paso Natural Gas Company	N-14-T29N-R11W
El Paso Natural Gas Company	0-23-T29N-R11W
Helen Loraine Harvey	P-14-T29N-R11W
Helen Loraine Harvey	E-24-T29N-R11W
Manana Gas, Inc.	M-13-T29N-R11W
Manana Gas, Inc.	M-24-T29N-R11W

PICTURED CLIFFS FORMATION:

Helen Loraine Hedrick	F-24-T29N-R11W
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CHACRA FORMATION:

Amoco Production Company	J-14-T29N-R11W
Amoco Production Company	L-14-T29N-R11W
Amoco Production Company	E-23-T29N-R11W
Amoco Production Company	0-23-T29N-R11W
Amoco Production Company	I-23-T29N-R11W
Amoco Production Company	K-23-T29N-R11W
Manana Gas, Inc.	N-24-T29N-R11W
Texaco, Inc.	L-13-T29N-R11W
Texaco, Inc.	E-24-T29N-R11W

DAKOTA FORMATION:

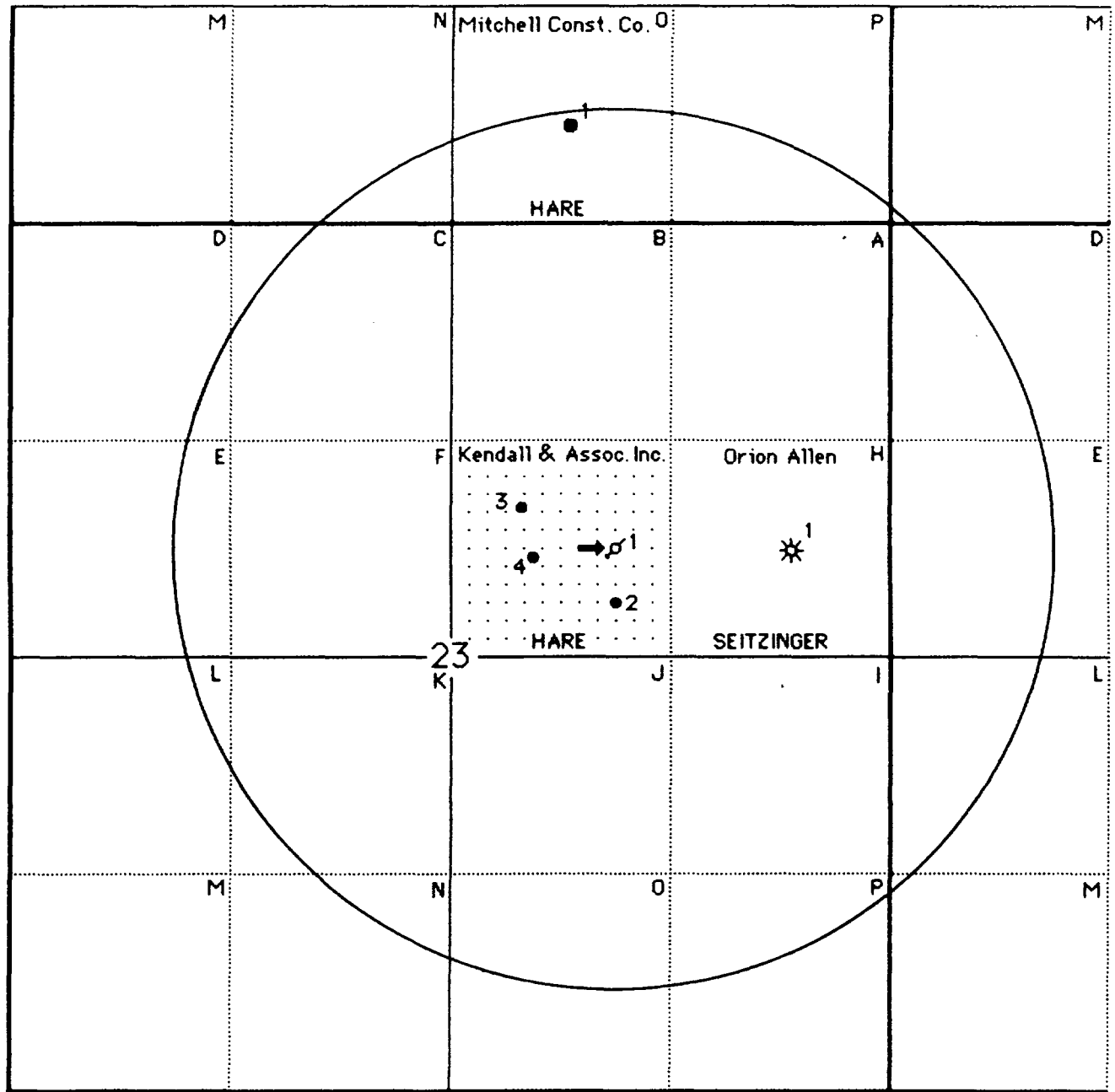
Amoco Production Company	I-14-T29N-R11W
Amoco Production Company	L-14-T29N-R11W
Amoco Production Company	E-23-T29N-R11W
Amoco Production Company	0-23-T29N-R11W
Amoco Production Company	J-23-T29N-R11W
Amoco Production Company	K-23-T29N-R11W
Texaco, Inc.	M-13-T29N-R11W
Texaco, Inc.	E-24-T29N-R11W
Texaco, Inc.	M-24-T29N-R11W

FARMINGTON WELLS WITHIN ONE-HALF MILE

Township 29 North, Range 11 West

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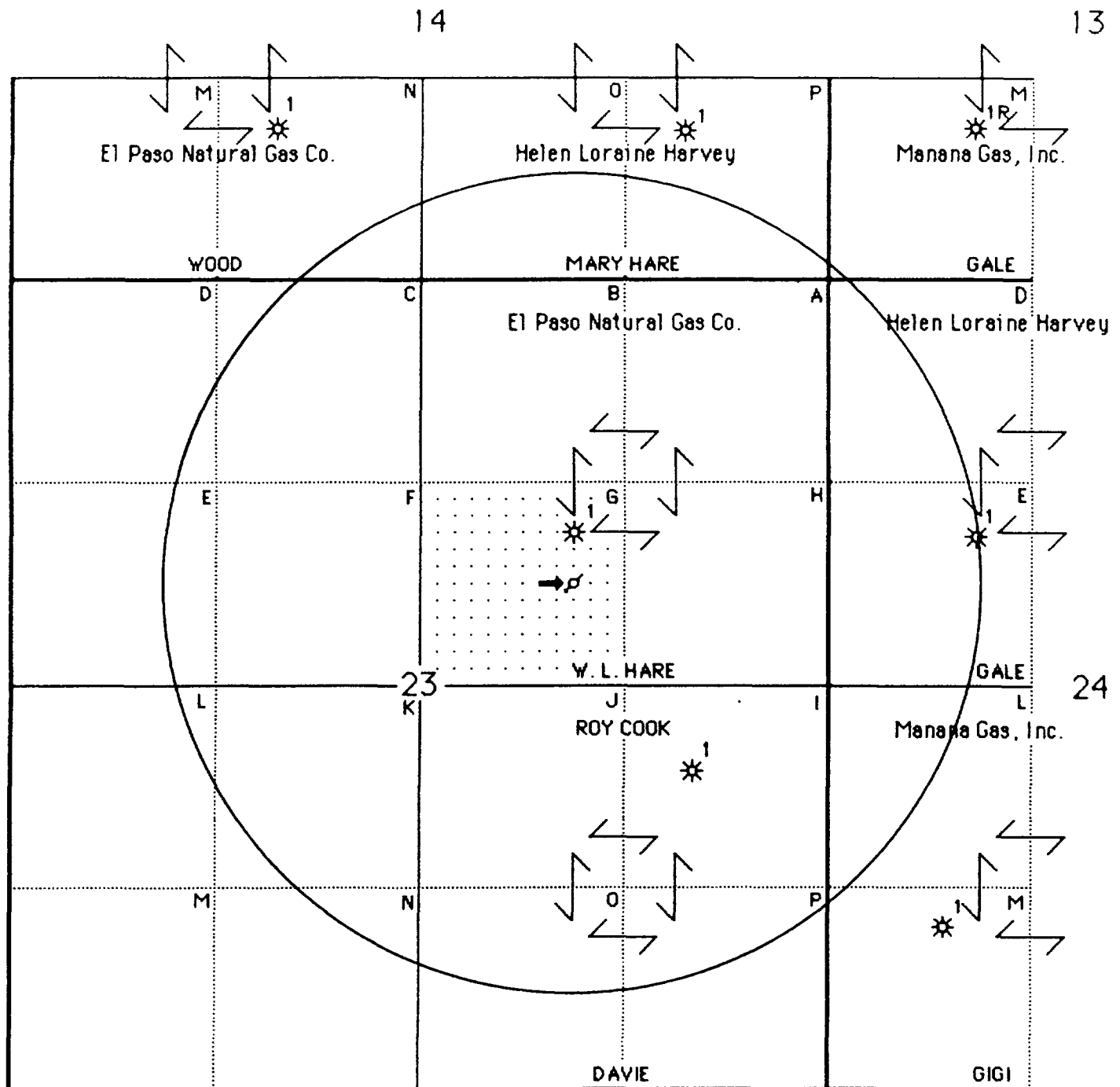
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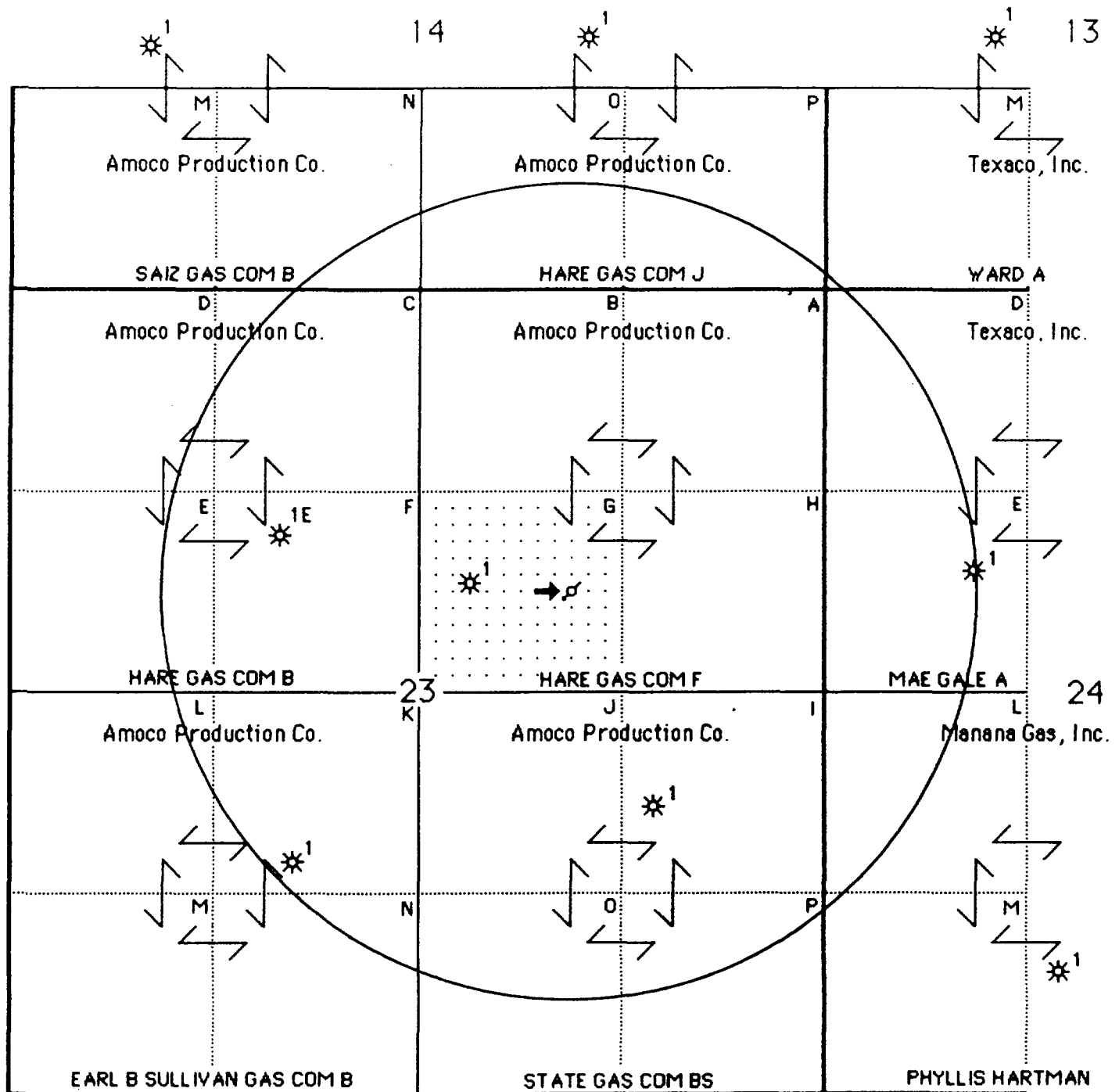
FRUITLAND WELLS WITHIN ONE-HALF MILE

Township 29 North, Range 11 West



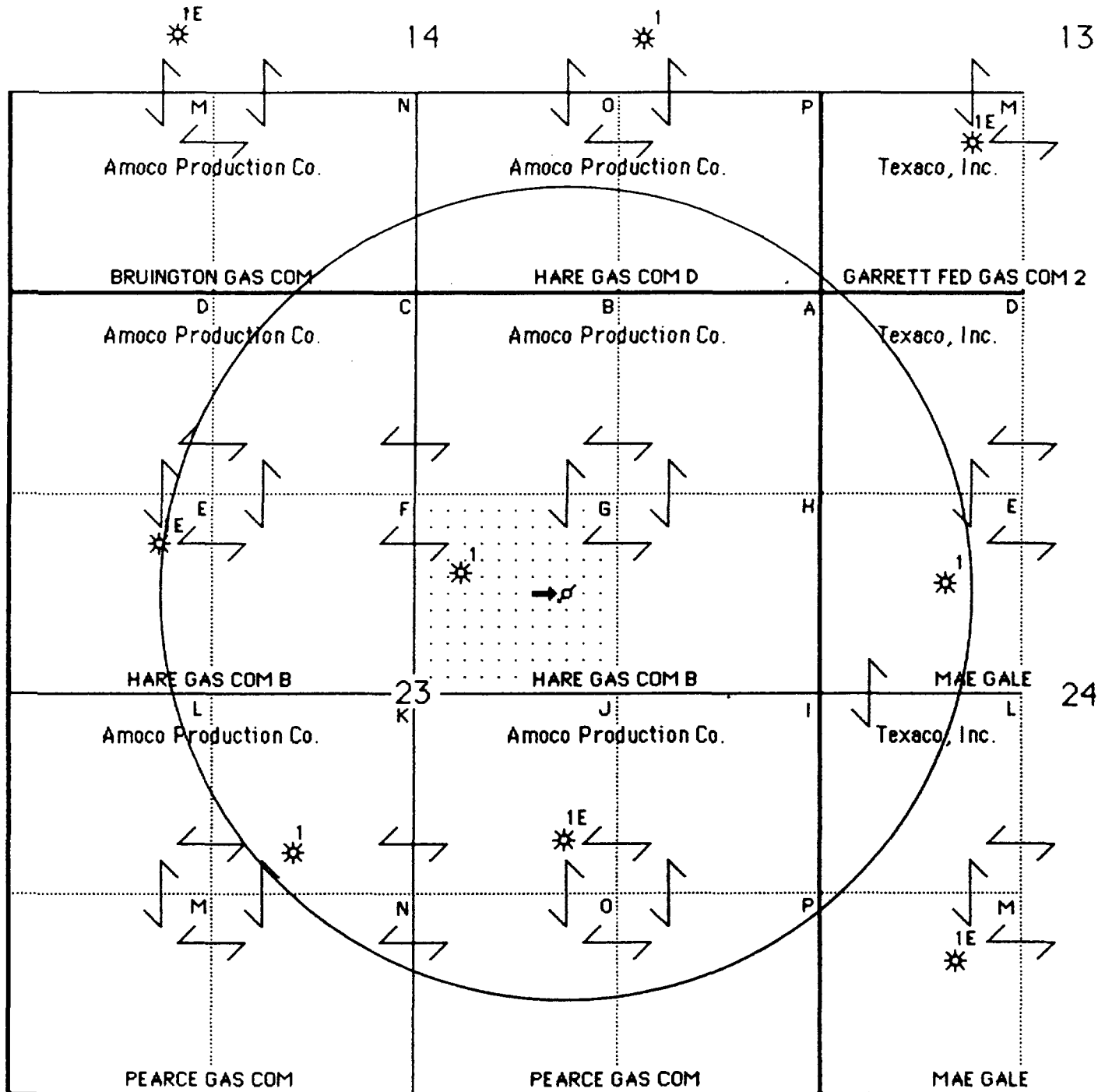
CHACRA WELLS WITHIN ONE-HALF MILE

Township 29 North, Range 11 West

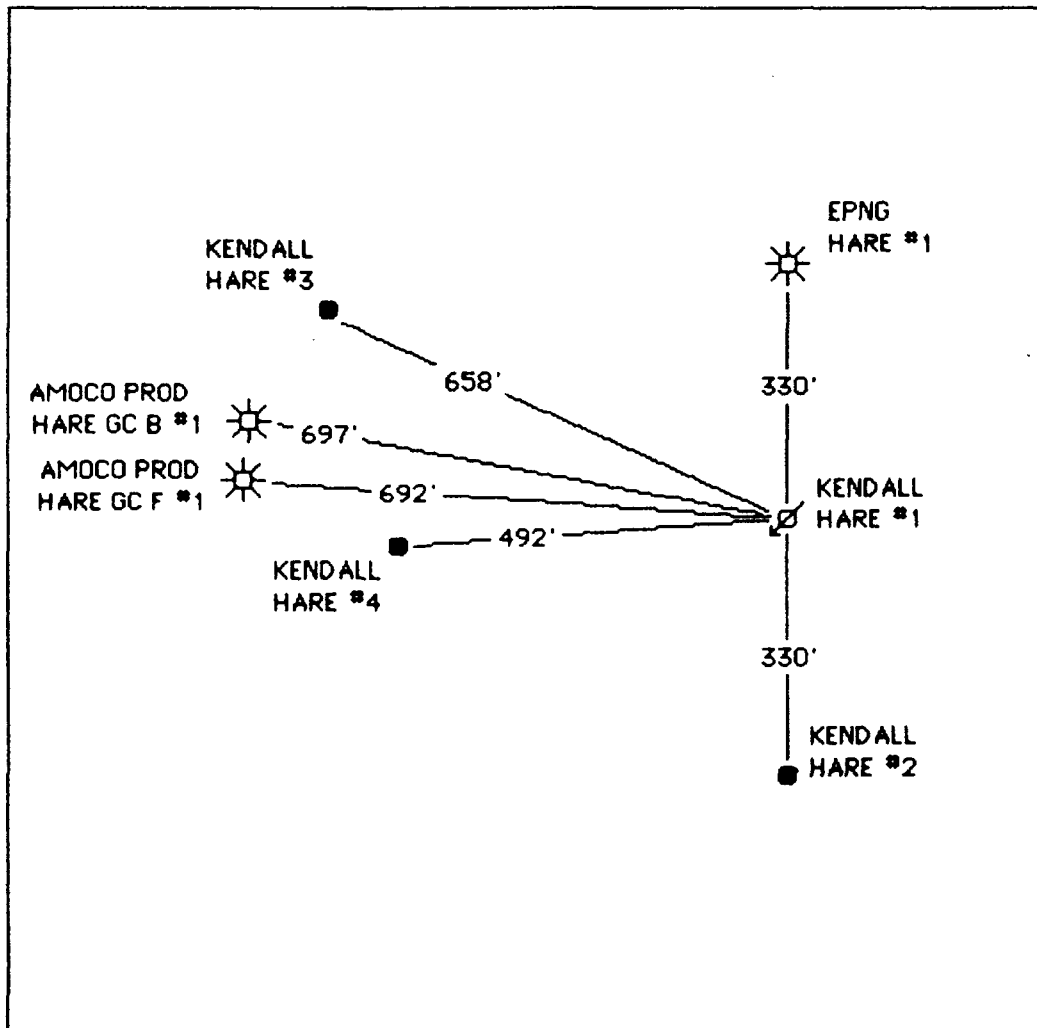


DAKOTA WELLS WITHIN ONE-HALF MILE

Township 29 North, Range 11 West



G-23-T29N-R11W



UNICHEM INTERNATIONAL

707 NORTH LEECH

P.O.BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : KENDAL & ASSOCIATES

DATE : 12/27/85 *Have*FIELD, LEASEWELL : ~~WIR~~ WELLS UNIT G-23 SEC/29 N11W

SAMPLING POINT: SEPARATOR DISCHARGE

DATE SAMPLED : 12/20/85

SPECIFIC GRAVITY = 1.009

TOTAL DISSOLVED SOLIDS = 13624

PH = 8.05

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	20.8	416.
MAGNESIUM	(MG)+2	.40	4.8
SODIUM	(NA), CALC.	211.	4857.

		ME/L	MG/L
ANIONS			
BICARBONATE	(HCO3)-1	2.4	148.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	4.1	196.
CHLORIDES	(CL)-1	226	8000

		ME/L	MG/L
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	

		ME/L	MG/L
IRON(TOTAL)	(FE)		8.9
BARIUM	(BA)+2	.02	1.6
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = .248

SCALING INDEX	TEMP	
	30C	48.8C
	86F	120F
CARBONATE INDEX	.593	.994
CALCIUM CARBONATE SCALING	LIKELY	LIKELY
CALCIUM SULFATE INDEX	-34.	-34.
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

||
ILLEGIBLE

Texaco, Inc.
Garrett Federal Com 2 #1E
1040' FSL 1000' FWL, M-13-29N-11W
Basin Dakota Pool

___ TOP OF CEMENT	0	(Calculated)
___ HOLE SIZE	12 1/4	"
___ SURFACE CASING	8 5/8	" @ 325' w/ 300 SX.
___ TOP OF CEMENT	0	(Calculated)
___ PERFORATIONS	6252	TO 6416
___ HOLE SIZE	7 1/8	"
___ PRODUCTION CASING	5 1/2	" @ 6589' w/ 1095 SX.
___ TOTAL DEPTH	6590	'

— Cut casing and 2 3/8" tubing at surface. Ran 1" to 100'.
 Cemented w/25 sx, 100' to surface.
 — TOP OF CEMENT _____)
 — HOLE SIZE _____ 10 1/2 "
 — SURFACE CASING _____ 8 5/8 " @ _____ 55 ' w/ _____ 50 SX.
 — Perforated 8 holes 750-754'. Cemented w/60 sx to 2000 psi.
 — TOP OF CEMENT _____ 0 '
 — PERFORATIONS _____ ' TO _____ '
 Cemented Fruitland w/ 25 sx. Calculated fill to 1521'.
 — HOLE SIZE _____ 7 7/8 "
 — PRODUCTION CASING _____ 5 1/2 " @ _____ 1615 ' w/ _____ 275 SX.
 — TOTAL DEPTH _____ 1647 '

Manana Gas, Inc.
Gale #1R
790' FSL 1000' FWL, M-13-29N-11W
Aztec Fruitland Pool

___ TOP OF CEMENT	<u>0</u>	· (Calculated)
___ HOLE SIZE	<u>8 3/4</u>	..
___ SURFACE CASING	<u>7</u>	" @ <u>110</u> · W/ <u>50</u> SX.
___ TOP OF CEMENT	<u>98</u>	·
___ PERFORATIONS	<u>1600</u>	· TO <u>1628</u> ·
___ HOLE SIZE	<u>5 1/4</u>	"
___ PRODUCTION CASING	<u>2 7/8</u>	" @ <u>1780</u> · W/ <u>150</u> SX.
___ TOTAL DEPTH	<u>1800</u>	·

Bloomfield Oil & Gas Co.
Sheetz #1
SW/SW, M-14-29N-11W
Farmington Test

P&A by State of New Mexico, 1980

Drilled in 1925.

XXXXXXXXXX XXXXXXXXXX	___	Set surface plug w/ 10 sx. Top to be 3 feet below ground.
	___	TOP OF CEMENT _____'
	___	HOLE SIZE _____"
	___	SURFACE CASING _____" @ _____' w/ _____ SX.
XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX	___	Set cement plug 50' to 150' w/ 30 sx.
XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX	___	Set cement plug 600' to 700' w/ 25 sx.
	___	HOLE SIZE _____"
	___	TOTAL DEPTH <u>700</u> '

Bloomfield Oil & Gas Co.
Sheetz #6
SE/SW/SW, M-14-29N-11W
Farmington, Test

Drilled & P&A, 1936

	___ TOP OF CEMENT	_____	'
	___ HOLE SIZE	_____	"
	___ SURFACE CASING	_____	" @ _____' W/ _____ SX.
	___ HOLE SIZE	_____	"
___ TOTAL DEPTH	722	_____	'

Otto V. Reynolds
Wood #1
SE/SW, N-14-29N-11W
Farmington Test

P&A 1960

___	TOP OF CEMENT	_____	.
___	HOLE SIZE	_____	"
___	SURFACE CASING	7	" @ 80' W/ _____ SX.
: :			
___	PLUGGED AND ABANDONED - NO REPORTS IN FILE.		
: :			
___	TOP OF CEMENT	0	. (Circulated)
: :			
___	PERFORATIONS	735	. TO 768 .
: :			
___	HOLE SIZE	4 3/4	"
___	PRODUCTION CASING	2 7/8	" @ 773' W/ 80 SX.
: :			
___	TOTAL DEPTH	771	.

Sierra Del Oro
Wood #1
330' FSL 2310' FWL, N-14-29N-11W
Farmington Test

P&A, 1959

XXXXXXXXXX	_____	Surface plug w/ 25 sx.
XXXXXXXXXX		
XXXXXXXXXX		
XXXXXXXXXX		
	_____	TOP OF CEMENT _____'
	_____	HOLE SIZE _____ 12 _____"
XXXXXXXXXX		
XXXXXXXXXX		
XXXXXXXXXX	_____	SURFACE CASING _____ 10 _____" @ _____ 107 _____' W/ _____ 70 _____ SX.
XXXXXXXXXX		
	_____	Plug at base of surface casing w/ 10 sx.
XXXXXXXXXX		
XXXXXXXXXX	_____	Plug 570 to 605' w/ 25 sx.
XXXXXXXXXX		
	_____	HOLE SIZE _____ 8 _____"
	_____	TOTAL DEPTH _____ 1060 _____'

El Paso Natural Gas Co
Wood #1
990' FSL 1650' FWL, N-14-29N-11W
Aztec Fruitland Pool

___ TOP OF CEMENT	0	(Calculated)
___ HOLE SIZE	10 1/2	"
___ SURFACE CASING	8 5/8	" @ 80' W/ 22 SX.
___ TOP OF CEMENT	290'	(Calculated)
___ Open hole PERFORATIONS	1515	' TO 1548'
___ HOLE SIZE	8 5/8	"
___ PRODUCTION CASING	5 1/2	" @ 1515' W/ 250 SX.
___ TOTAL DEPTH		'

Spence, Stow & Heely
Ransom #1
550' FSL 1520' FWL, N-14-29N-11W
Farmington, Test

P&A by State of New Mexico. Details not available.

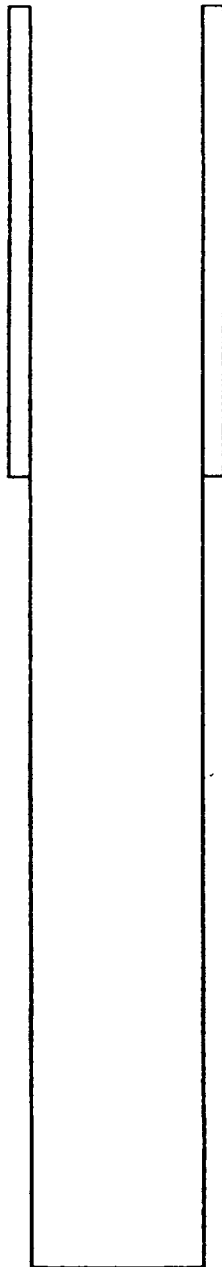
Drilled, 1934

	___ TOP OF CEMENT	_____'
	___ HOLE SIZE	_____"
	___ SURFACE CASING	_____ " @ _____' W/ _____ SX.
	___ HOLE SIZE	_____"
	___ TOTAL DEPTH	800'

E. J. Miley
Hare (Ransom) #1
200' FSL 1520' FWL, N-14-29N-11W
Farmington Test

Drilled, 1927

Abandoned - Details not available.

	___ TOP OF CEMENT	_____	.
	___ HOLE SIZE	_____	"
	___ SURFACE CASING	_____	" @ _____' W/ _____ SX.
	___ HOLE SIZE	_____	"
	___ TOTAL DEPTH	1021	.

[illegible]

 TOTAL DEPTH 901

Mitchell Construction Company
Hare #1
SW/SE, 0-14-29N-11W
Bloomfield Farmington Pool

Drilled in 1926

___ TOP OF CEMENT	_____
___ HOLE SIZE	_____ "
___ SURFACE CASING	No records @ _____ W/ _____ SX.
___ TOP OF CEMENT	Unknown _____
___ PERFORATIONS	691 TO 743
___ HOLE SIZE	_____ "
___ PRODUCTION CASING	4 1/2 " @ 940 W/ 410 SX.
___ TOTAL DEPTH	950

Miley & Smith
Ransom (Hare) #1
200' FSL 1520' FEL, 0-14-29N-11W
Farmington, Test

Drilled 1926.

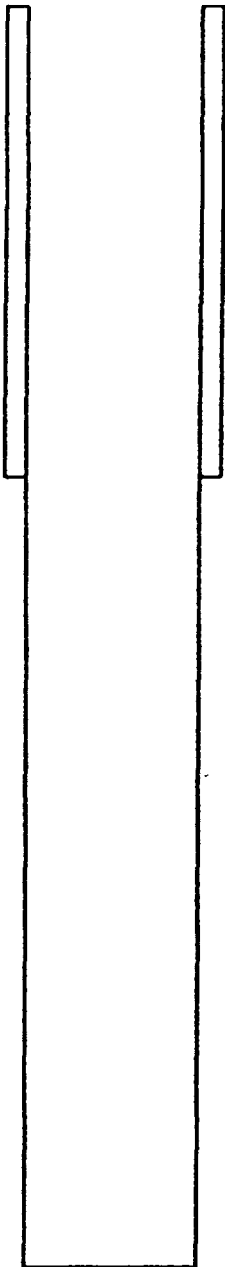
Details Not Available

	___ TOP OF CEMENT	_____	'
	___ HOLE SIZE	_____	"
	___ SURFACE CASING	_____	" @ _____' W/ _____ SX.
	___ HOLE SIZE	_____	"
	___ TOTAL DEPTH	770	'

Haney & Smith
Hare #1
200' FSL 300' FEL, P-14-29N-11W
Farmington, Test

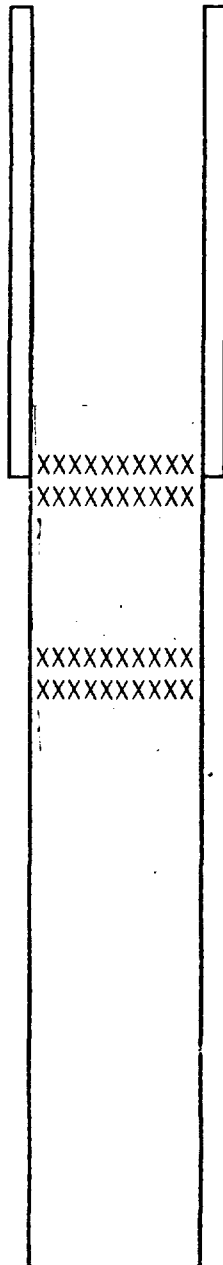
Drilled, 1934, Completed as water well.

Details Not Available

	___ TOP OF CEMENT	_____	'
	___ HOLE SIZE	_____	"
	___ SURFACE CASING	_____	" @ _____' W/ _____ SX.
	___ HOLE SIZE	_____	"
	___ TOTAL DEPTH	770	. PBTD <u>600'</u> .

Burger Drilling Company
W. L. Hare #4
990' FNL 1650' FEL, B-23-T29N-R11W
Farmington Test

P&A



___ TOP OF CEMENT _____'

___ HOLE SIZE _____"

___ SURFACE CASING 7" @ 75' W/ _____ SX.

Plug 25 feet in and 25 feet below surface casing shoe.

50 foot plug on top of the Ojo Alamo formation

___ HOLE SIZE _____"

___ TOTAL DEPTH 800'

Goodrum & Vincent
Hare #1
NW/4 NE/4, B-23-T29N-R11W
Farmington Test

Drilled 1937-38

P&A

	___ TOP OF CEMENT	___	'
	___ HOLE SIZE	___	"
	___ SURFACE CASING	___	" @ ___' W/ ___ SX.
	___ HOLE SIZE	___	"
	___ TOTAL DEPTH	823	'

A. R. Goodale
Goodale #1
NW/4 NE/4, B-23-T29N-R11W
Farmington Test

Drilled 1934

_____	TOP OF CEMENT	_____	'
_____	HOLE SIZE	_____	"
_____	SURFACE CASING	10	" @ 60' W/ _____ SX.
_____	Long String	6 5/8	" @ 644'
_____	HOLE SIZE	_____	"
_____	TOTAL DEPTH	904	'

W. L. Hare
Hare #1
200' FNL 1680' FEL, B-23-T29N-R11W
Farmington, Test

Drilled, 1936.

P&A, 1938

___ TOP OF CEMENT	___	'
___ HOLE SIZE	___	"
___ SURFACE CASING	8 1/4"	@ 112' w/ Set SX.
___ TOP OF CEMENT	___	'
___ PERFORATIONS	___	' TO ___
___ HOLE SIZE	___	"
___ PRODUCTION CASING	6 5/8"	@ 685' w/ Set SX.
___ TOTAL DEPTH	900	'

B

P&A by State of New Mexico in 1980.

[illegible]

____ TOP OF CEMENT _____

_____ HOLE SIZE _____"

____ SURFACE CASING 10" @ _____' W/ _____ SX.

Cut casing off @ 150'

 TOP OF CEMENT 623

BOTTOM @ 802'

PERFORATIONS _____ ' TO _____

_____ HOLE SIZE _____"

___ PRODUCTION CASING _____ " © _____ ' W/ _____ SX.

TOTAL DEPTH 802.

El Paso Natural Gas Company
Jordan #1
990' FNL 1650' FWL, C-23-T29N-R11W
Aztec Fruitland Pool

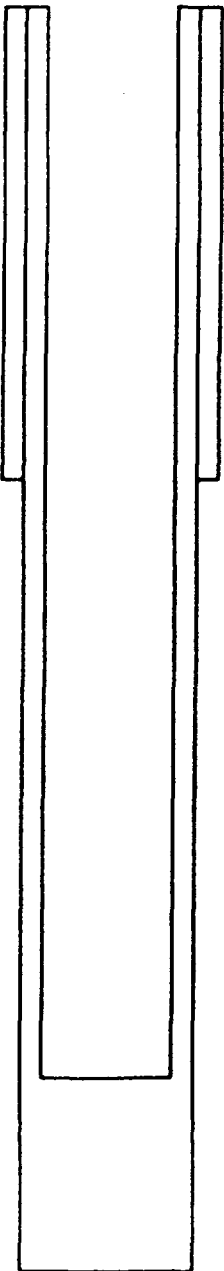
P&A, 1981

XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX	10" Conductor set @ 60'.
	___ TOP OF CEMENT _____'
	___ HOLE SIZE _____"
	___ SURFACE CASING <u>8 5/8</u> " @ <u>85</u> ' W/ _____ SX.
	Set B.P. @ 1458"
	Perforated one hole @ 650'.
	Circulated cement to surface behind casing & filled casing.
	___ TOP OF CEMENT <u>272</u> ' (Calculated)
	___ PERFORATIONS _____ ' TO _____ '
	___ HOLE SIZE <u>7 7/8</u> "
	___ PRODUCTION CASING <u>5 1/2</u> " @ <u>1464</u> ' W/ <u>175</u> SX.
	___ TOTAL DEPTH <u>1490</u> .
	XXXXXX XXXXXX

Bloomfield Oil & Gas
James #3
200' FNL 720' FWL, D-23-T29N-R11W
Farmington Test

Drilled 1925 Re-entered 1931

P&A 1936.

	___ TOP OF CEMENT	_____	'
	___ HOLE SIZE	_____	"
	___ SURFACE CASING	8 1/4	" @ 100' W/ _____ SX.
	___ TOP OF CEMENT	_____	'
	___ PERFORATIONS	_____	' TO _____
	___ HOLE SIZE	_____	"
	___ PRODUCTION CASING	6 1/4	" @ 614' W/ _____ SX.
	___ TOTAL DEPTH	_____	'

C. O. Rockelmann
Hare #1
990' FNL 990' FWL, D-23-T29N-R11W
Farmington Test

Dry hole.

	___ TOP OF CEMENT	_____	'	
	___ HOLE SIZE	_____	"	
	___ SURFACE CASING	<u>8 5/8</u>	" @ <u>70</u>	' W/ _____ SX.
	___ HOLE SIZE	_____	"	
	___ TOTAL DEPTH	<u>1130</u>	'	

Amoco Production Company
Hare Gas Com I #1
1450' FNL 1135' FWL, E-23-29N-11W
Otero Chacra Pool

___ TOP OF CEMENT	0	(Calculated)
___ HOLE SIZE	12 1/4	..
___ SURFACE CASING	8 5/8	" @ 328 . w/ 372 Cu. Ft. SX.
___ TOP OF CEMENT	0	(Calculated)
___ PERFORATIONS	2714	TO 2823 .
___ HOLE SIZE	7 7/8	..
___ PRODUCTION CASING	4 1/2	" @ 2941 . w/ 1042 Cu. Ft. SX.
___ TOTAL DEPTH	2945	.

Bloomfield Oil & Gas
H. D. Abrams #5
1620' FNL 300' FWL, E-23-T29N-R11W
Farmington, Test

P&A by State of New Mexico

XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX	Perforate @ 150'
	Cement plug from 50' to 150' inside and outside of casing.
	___ TOP OF CEMENT XXXXXXXXXXXXXXXXXXXX
	___ HOLE SIZE XXXXXXXXXXXXXXXXXXXX
	___ SURFACE CASING 10 " @ 55 ' w/ set SX.
	___ TOP OF CEMENT '
	Cement plug 550' to 670'
	___ PERFORATIONS XXXXXXXXXXXXXXXXXXXX TO XXXXXXXXXXXX
	___ HOLE SIZE XXXXXXXXXXXXXXXXXXXX
	___ PRODUCTION CASING 6 5/8 " @ 647 ' w/ set SX.
___ TOTAL DEPTH 740 ' PBTD: 670'	

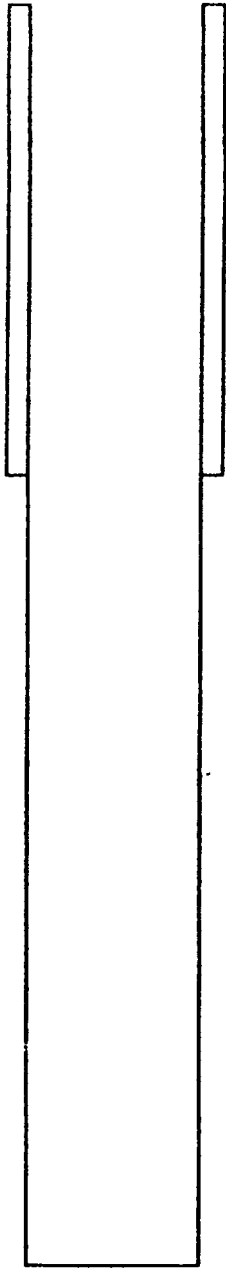
Amoco Production Company
Hare Gas Com B #1E
1060' FNL 1600' FWL, E-23-29N-11W
Basin Dakota Pool

___ TOP OF CEMENT	0	·	(Calculated)
___ HOLE SIZE	12 1/4	..	
___ SURFACE CASING	9 5/8	" @ 295	· W/ 300 SX.
:			
___ TOP OF CEMENT	0	·	(Calculated)
:			
___ PERFORATIONS	6133	· TO 6314	·
___ HOLE SIZE	7 7/8	..	
___ PRODUCTION CASING	4 1/2	" @ 6388	· W/ 1430 SX.
___ TOTAL DEPTH	6391	·	

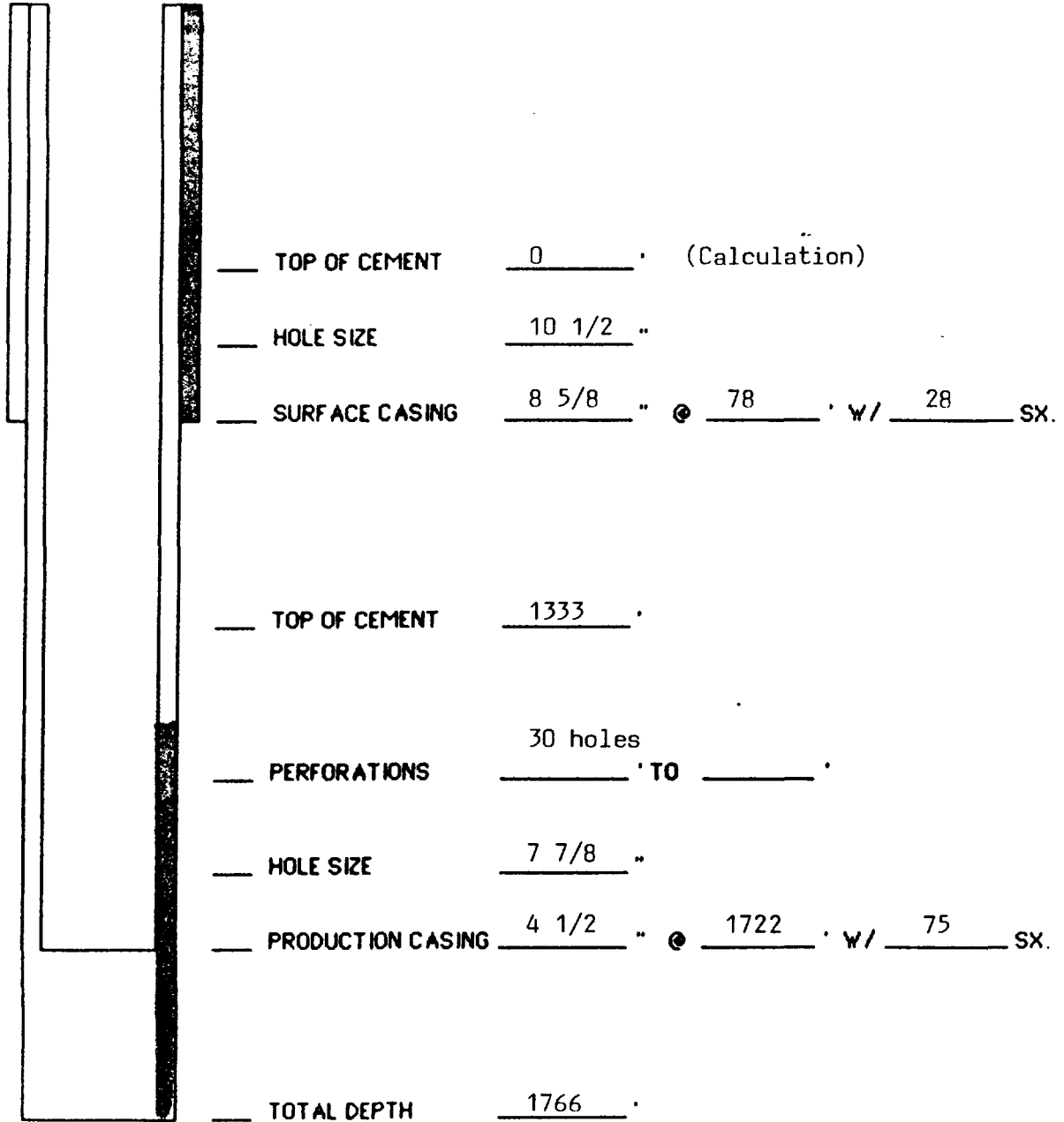
R. M. Smith
Abrams #2
1570' FNL 1570' FWL, F-23-T29N-R11W
Farmington Test

Drilled in 1927

Abandoned

	___ TOP OF CEMENT	___	'
	___ HOLE SIZE	___	"
	___ SURFACE CASING	___	" @ ___' W/ ___ SX.
	___ HOLE SIZE	___	"
	___ TOTAL DEPTH	<u>602</u>	'

Meridian Oil, Inc.
W. L. Hare #1
1650' FNL 1650' FEL, G-23-T29N-R11W
Aztec Fruitland Pool



Kendall & Associates, Inc.
Hare #1
1980' FNL 1650' FEL, G-23-T29N-R11W
Bloomfield Farmington, Pool

Drilled as:
Goodrum
W. L. Hare #3
Spud 11/16/38; Completed 4/ 39; P&A

Cleaned out in 1958:
James V. and Otto V. Reynolds
W. L. Hare #1

___ TOP OF CEMENT	_____	'
___ HOLE SIZE	_____	"
___ SURFACE CASING	_____ "	⊗ _____ ' W/ _____ SX.
___ TOP OF CEMENT	_____	'
Open Hole	710	735
___ PERFORATIONS XX	_____ ' TO	_____ '
___ HOLE SIZE	_____	"
___ PRODUCTION CASING	6 5/8 "	⊗ 710 ' W/ _____ SX.
___ TOTAL DEPTH	755	'

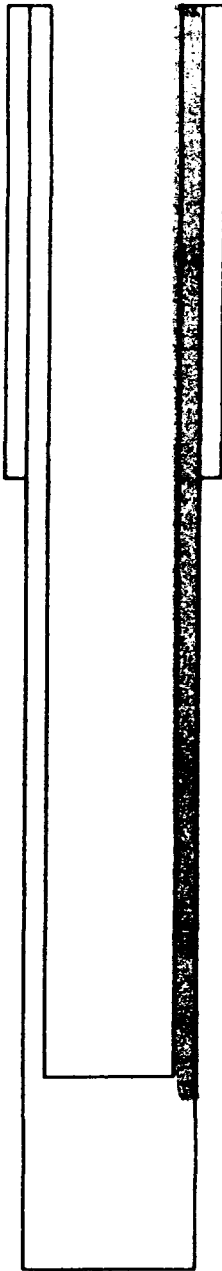
Kendall & Associates, Inc.
Hare #2
G-23-T29N-R11W
Bloomfield Farmington Pool

Drilled as: (1939)
Hare & Vincent
Hare #2

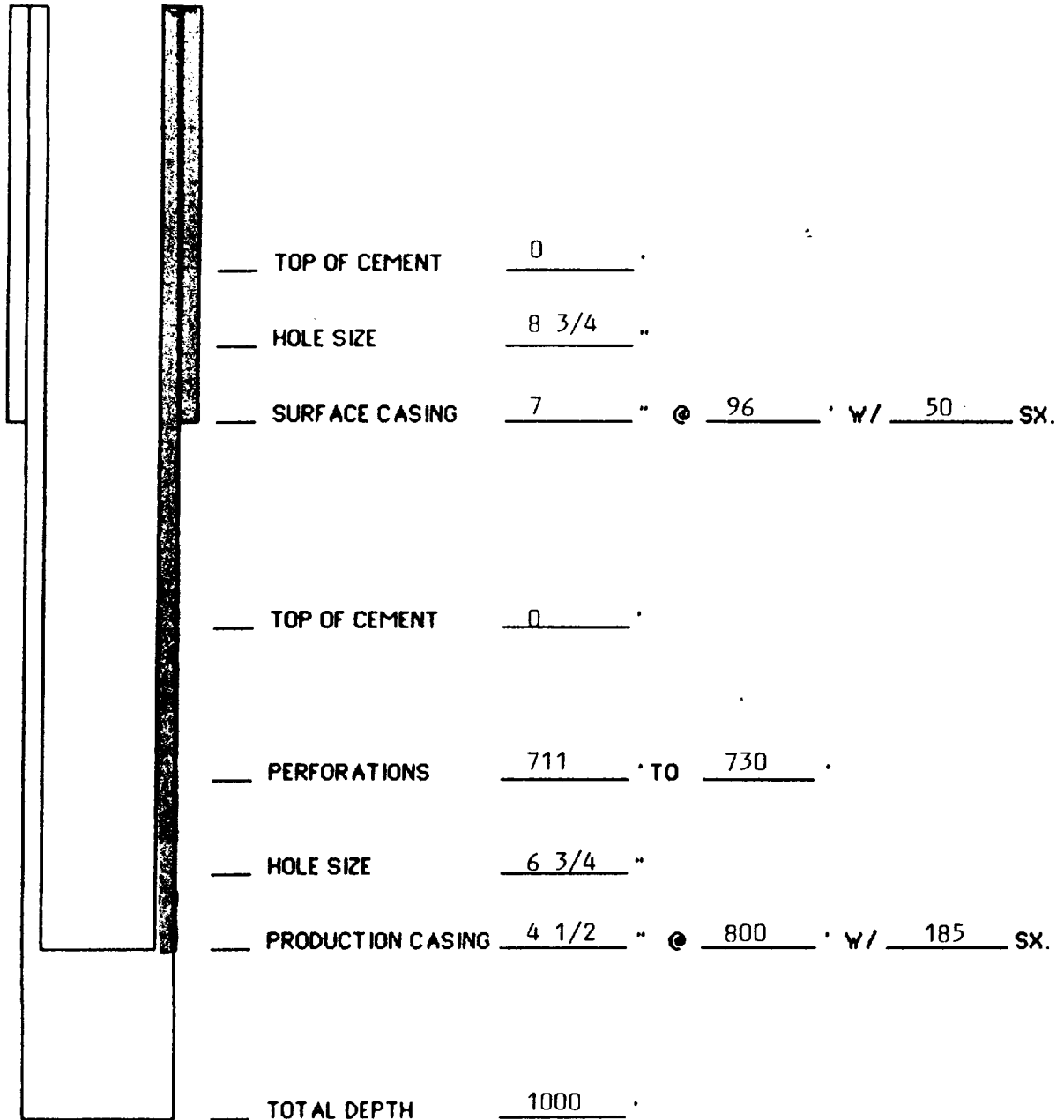
Cleaned out in 1958 as:
James V. & Otto V. Reynolds
W. L. Hare #2
Respu'd 7/12/58; Recompleted 7/15/58

___ TOP OF CEMENT	_____	.
___ HOLE SIZE	_____	"
___ SURFACE CASING	_____	" @ _____' W/ _____ SX.
___ TOP OF CEMENT	_____	.
___ Open Hole PERFORATIONS	710	TO 735
___ HOLE SIZE	_____	"
___ PRODUCTION CASING	8 5/8	" @ 710' W/ _____ SX.
___ TOTAL DEPTH	735	.

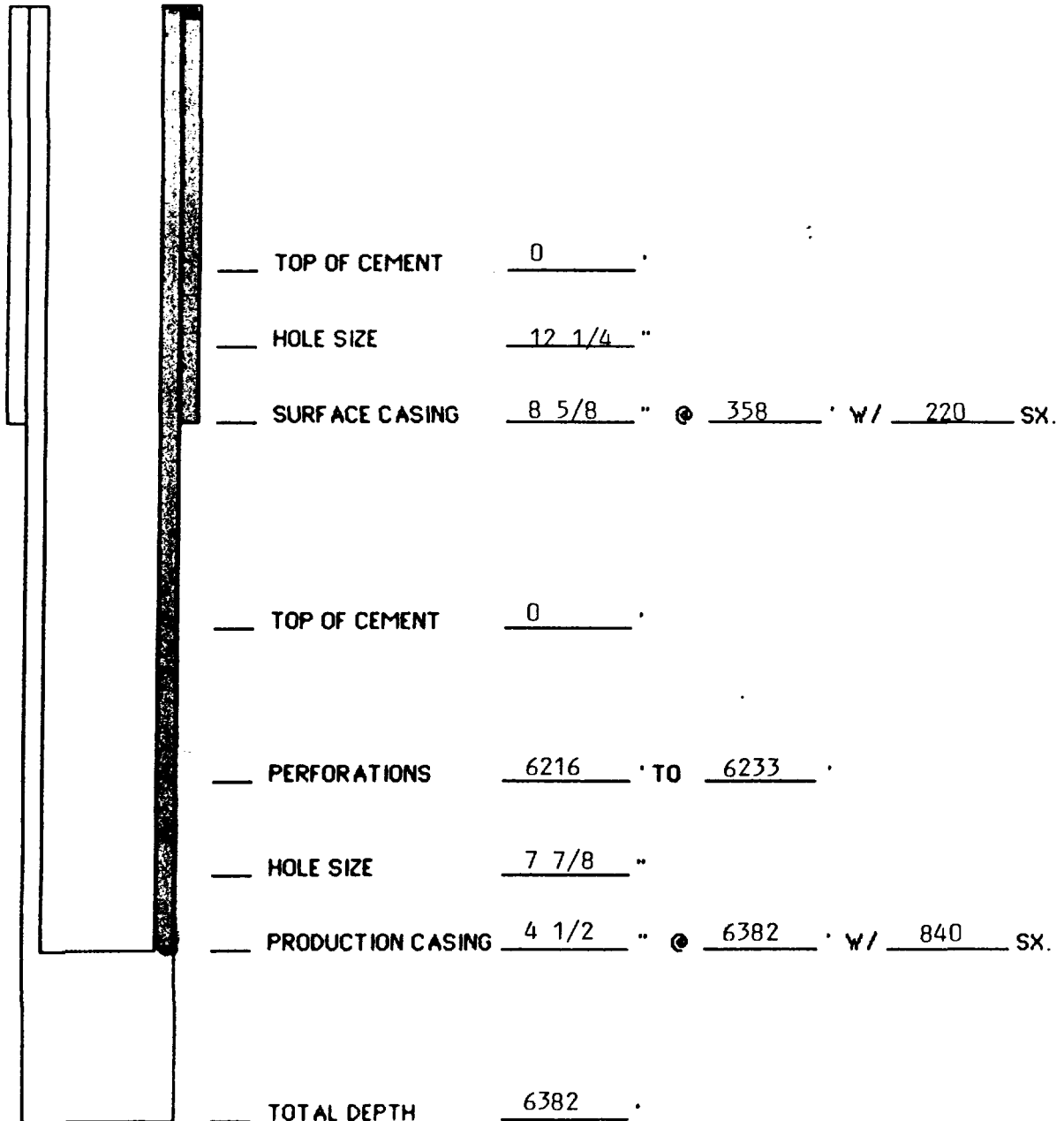
Kendall & Associates, Inc.
Hare #3
1686' FNL 2239' FEL, G-23-T29N-R11W
Bloomfield Farmington, Pool

	___ TOP OF CEMENT	_____	'
	___ HOLE SIZE	_____	"
	___ SURFACE CASING	<u>7</u>	" @ <u>74</u> ' W/ _____ SX.
	___ TOP OF CEMENT	<u>0</u>	'
	___ PERFORATIONS	<u>705</u>	' TO <u>715</u> '
	___ HOLE SIZE	<u>4 1/2</u>	"
	___ PRODUCTION CASING	<u>2 7/8</u>	" @ <u>735</u> ' W/ <u>80</u> SX.
___ TOTAL DEPTH	<u>735</u>	'	

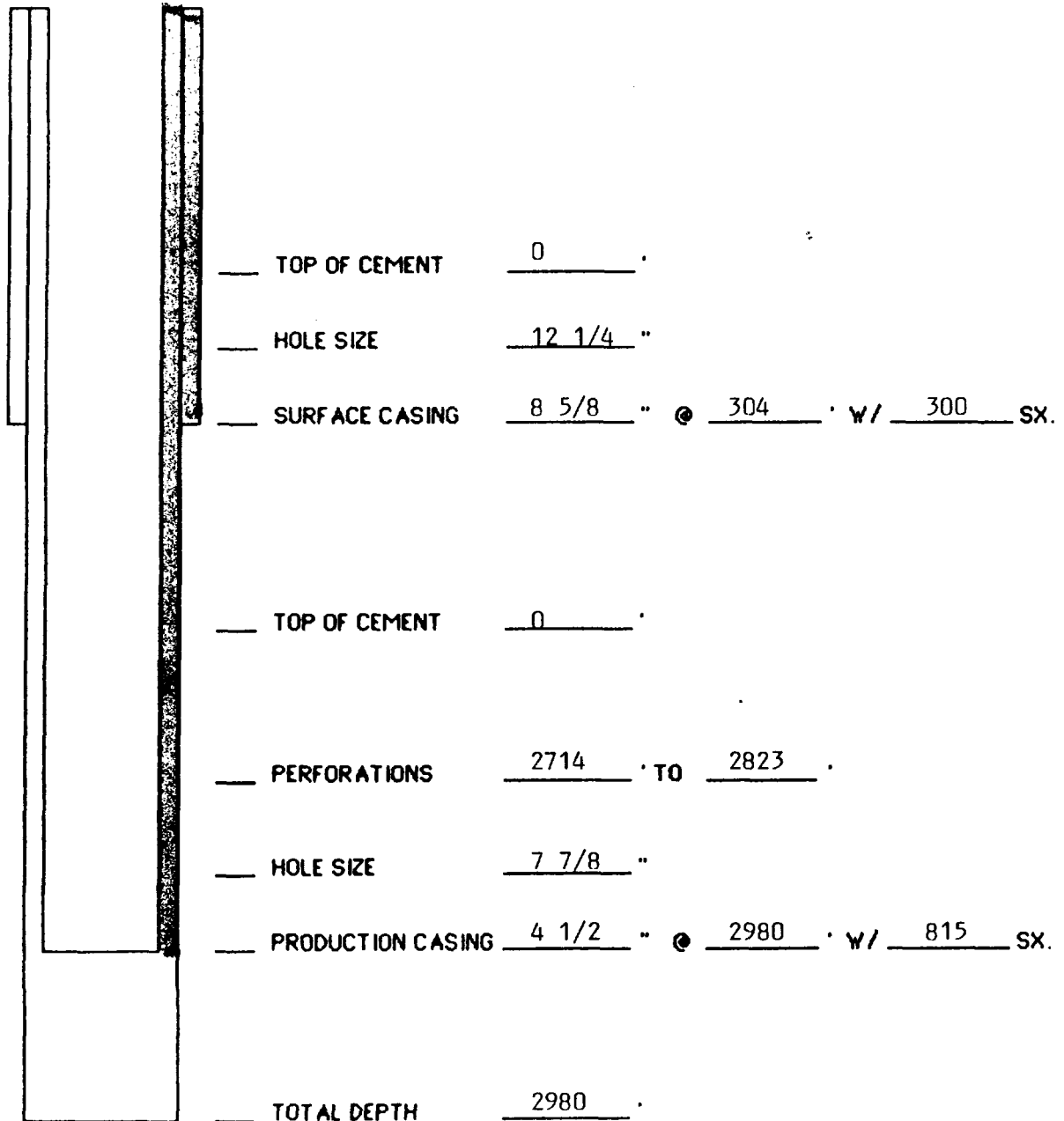
Kendall & Associates, Inc.
Hare #4
2020' FNL 2140' FWL, G-23-T29N-R11W
Bloomfield Farmington, Pool



Amoco Production Company
Hare Gas Com B #1
1825' FNL 2330' FEL, G-23-T29N-R11W
Basin Dakota Pool



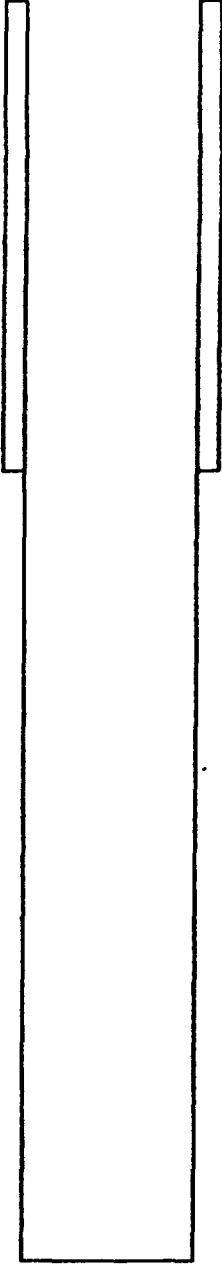
Amoco Production Company
Hare Gas Com F #1
1930' FNL 2340' FEL, G-23-T29N, R11W
Otero Chacra Pool



George Goodrum
L. D. Seitzinger #1
2290' FNL 1220' FEL, H-23-T29N-R11W
Farmington Test

Drilled 1938-39

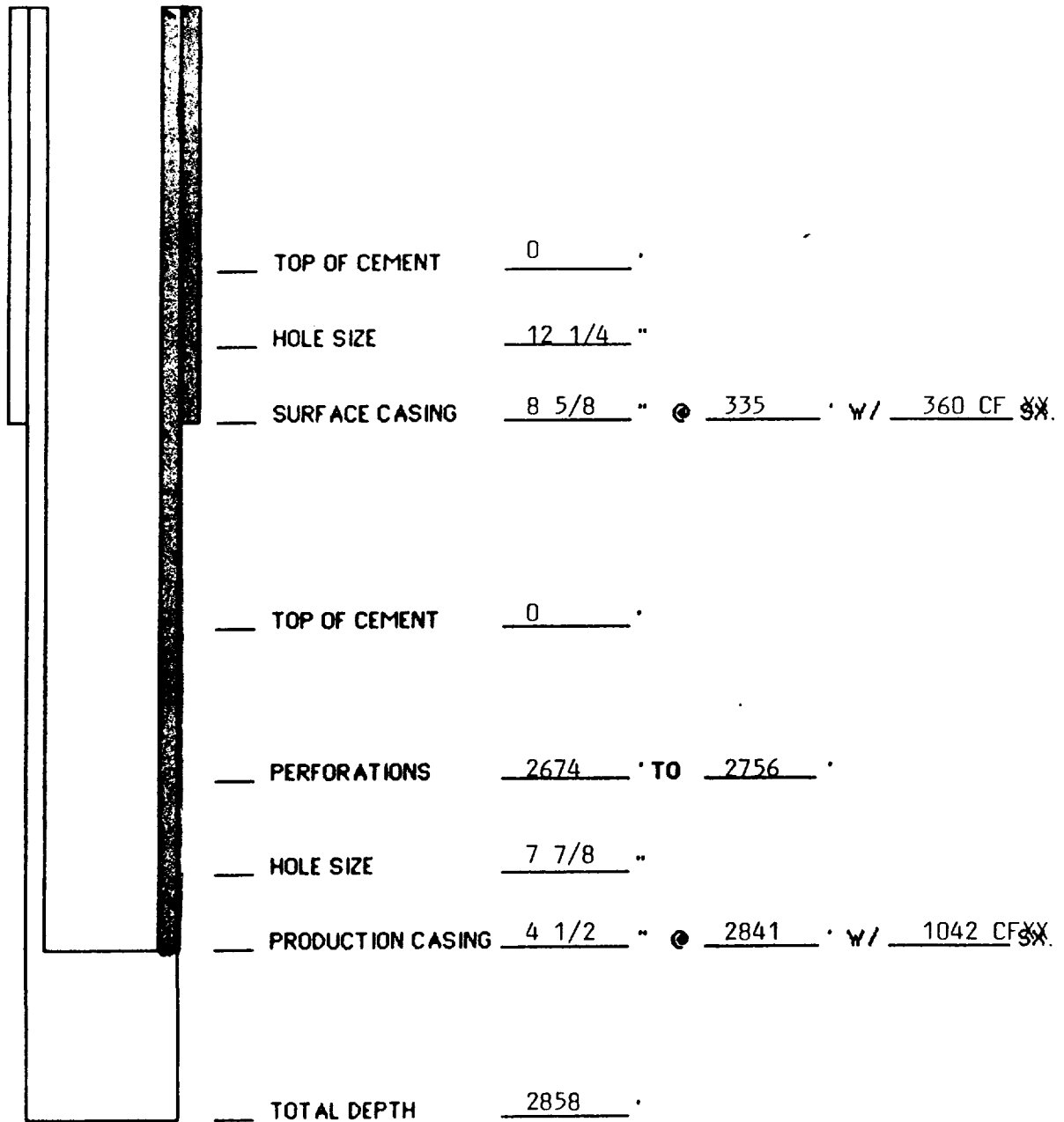
P&A

	___ TOP OF CEMENT	_____	'
	___ HOLE SIZE	_____	"
	___ SURFACE CASING	_____	" @ _____' W/ _____ SX.
	___ HOLE SIZE	_____	"
	___ TOTAL DEPTH	980	'

Orion Allen
Seitzinger #1
H-23-T29N-R11W
Bloomfield Farmington Pool

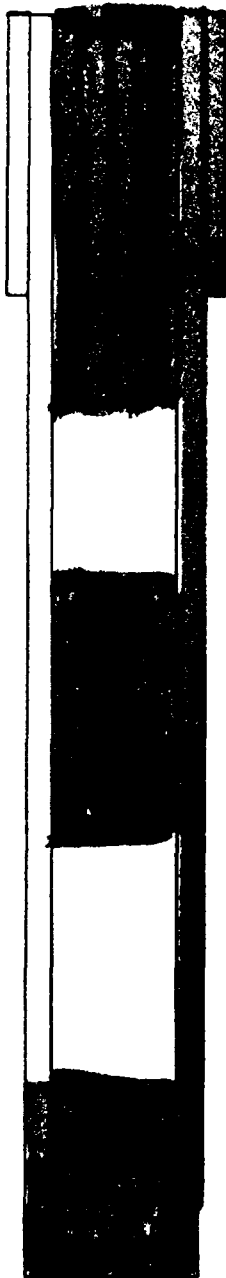
___ TOP OF CEMENT	<u>0</u>	• (Calculation)
___ HOLE SIZE	<u>8</u>	"
___ SURFACE CASING	<u>7</u>	" @ <u>63</u> ' W/ <u>30</u> SX.
___ TOP OF CEMENT	<u>0</u>	•
___ PERFORATIONS	<u>840</u>	• TO <u>847</u> •
___ HOLE SIZE	<u>4 1/2</u>	"
___ PRODUCTION CASING	<u>2 7/8</u>	" @ <u>886</u> ' W/ <u>78</u> SX.
___ TOTAL DEPTH	<u>886</u>	•

Amoco Production Company
Earl B. Sullivan Gas Com B #1
1850' FSL 1190' FEL, I-23-T29N-R11W
Otero Chacra Pool



Estate of Roy Cook
Davie #1
2275' FSL 685' FEL, I-23-29N-11W
Aztec Fruitland Pool

P&A 1980



___ TOP OF CEMENT 0 .

___ HOLE SIZE 10 3/4 ..

___ SURFACE CASING 8 5/8 " @ 45' w/ 10 SX.

___ Perforated @ 100'. Squeezed w/ 35 sx. Top of Cement 0'.

___ Perforated @ 600'. Squeezed w/ 35 sx. Top of Cement 394'.

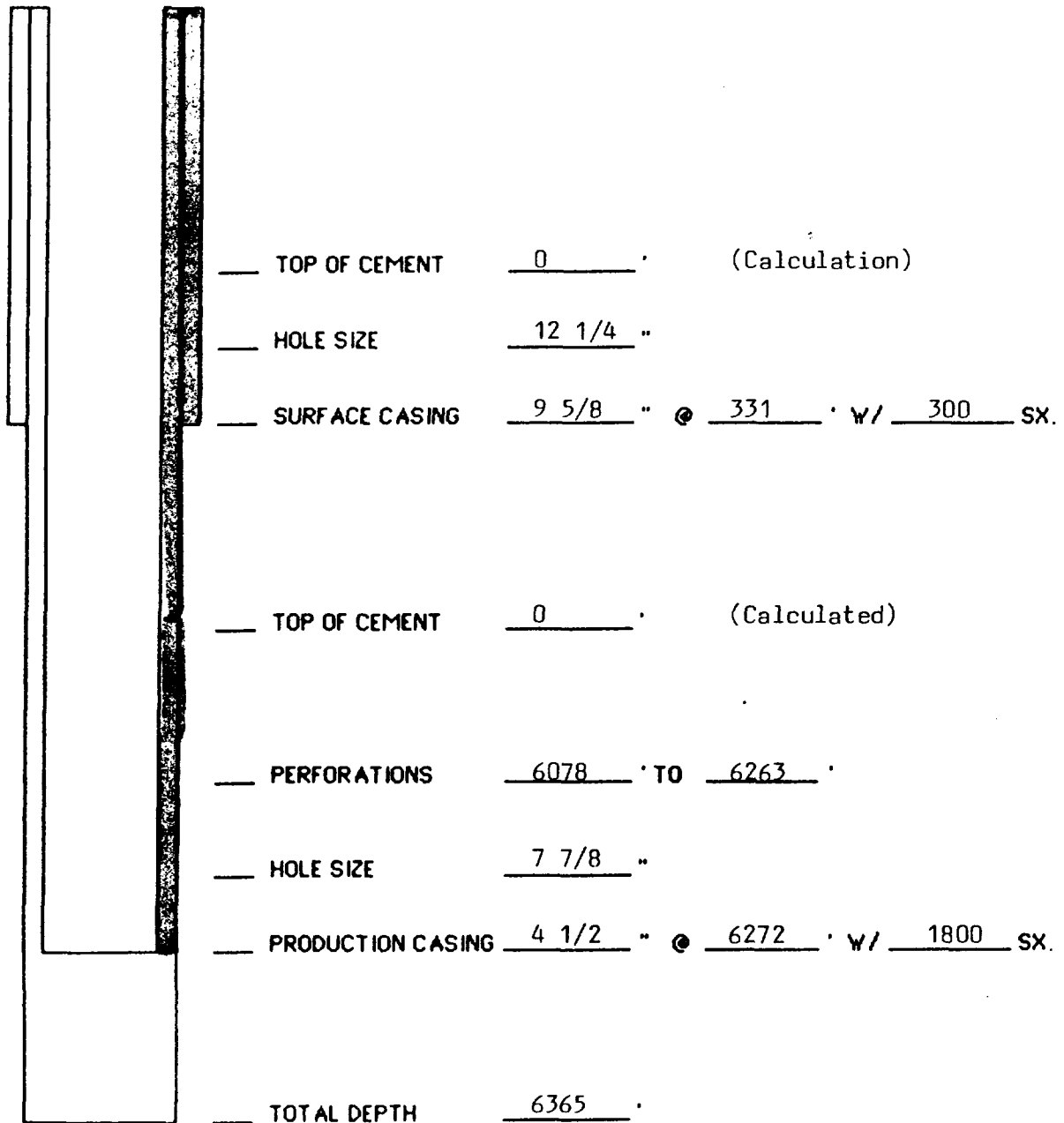
___ Spot plug from 1478 to 1400'.

___ PRODUCTION CASING 5 1/2" @ 1444' w/ 325 SX.

___ HOLE SIZE 8 3/4 "

___ TOTAL DEPTH 1478 .

Amoco Production Company
Pearce Gas Com #1E
1495' FSL 1515' FEL, J-23-T29N-R11W
Basin Dakota Pool

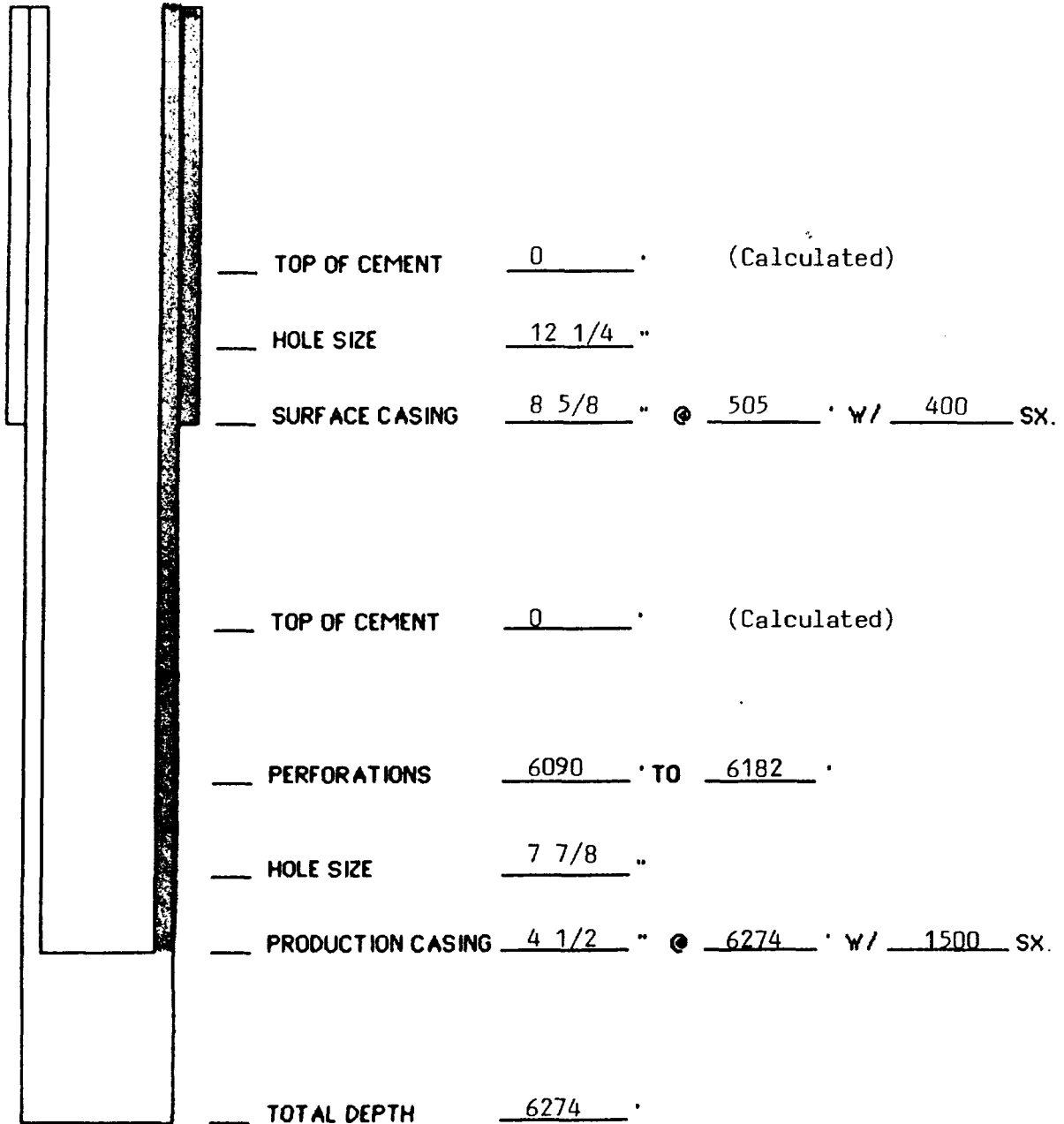


George Goodrum
Fee #1
NE/NW/SE, J-23-29N-11W
Farmington Test

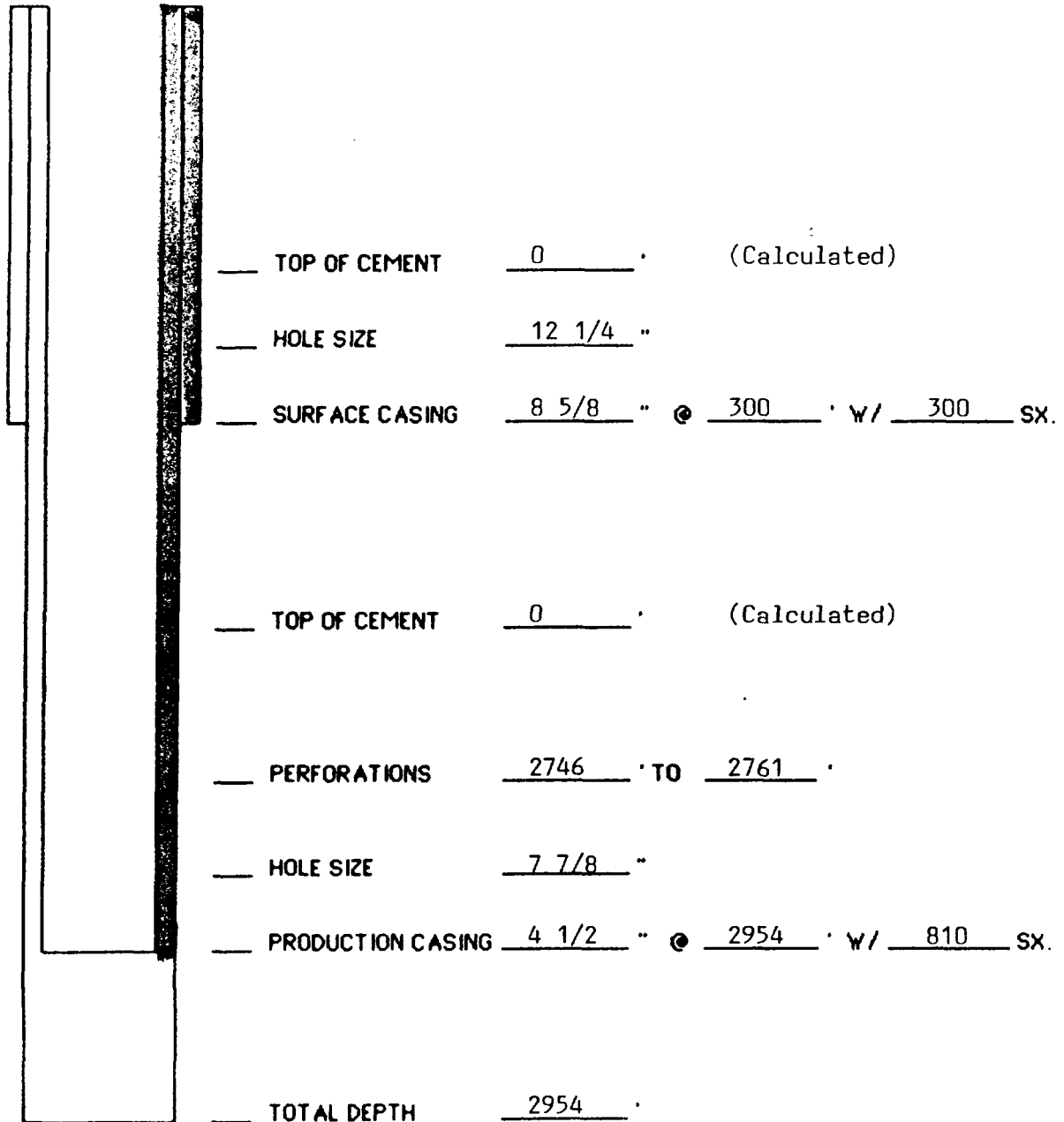
Drilled, 1938, P&A Details Not Available

	___ TOP OF CEMENT	___	'
	___ HOLE SIZE	___	"
	___ SURFACE CASING	___	" @ ___' W/ ___ SX.
	___ HOLE SIZE	___	"
	___ TOTAL DEPTH	945	'

Amoco Production Company
Pearce Gas Com #1
1470' FSL 1775' FWL, K-23-T29N-R11W
Basin Dakota Pool

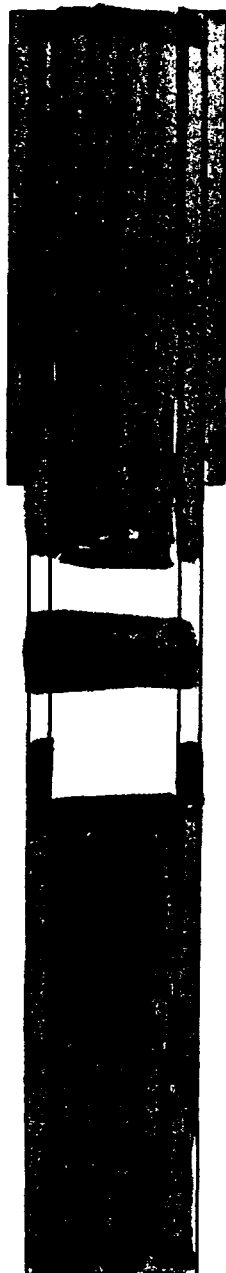


Amoco Production Company
State Gas Com BS #1
1450' FSL 1755' FWL, K-23-T29N-R11W
Otero Chacra Pool



Roy L. Cook
Pan American State #1
2210' FSL 1660' FWL, K-23-29N-11W
Aztec Fruitland Pool

P&A, 1980



___ TOP OF CEMENT	_____ 0 .	(Calculated)
___ HOLE SIZE	_____ 12 1/4 .	
___ SURFACE CASING	_____ 8 5/8 .	@ _____ 97 . w/ _____ 75 SX.
___	Perforated 2 holes @ 150'. Circulated to surface w/35 sx.	
___	Perforated 2 holes @ 600'. Spotted 35 sx to fill to 450'.	
___ TOP OF CEMENT	_____ 575 .	(Calculated)
___	Bottom Plug from TD to 1250'	
___ PERFORATIONS	_____ 1396 .	TO _____ 1475 .
___ HOLE SIZE	_____ 7 7/8 .	
___ PRODUCTION CASING	_____ 4 1/2 .	@ _____ 1507 . w/ _____ 180 SX.
___ TOTAL DEPTH	_____ 1523 .	

Francis L. Harvey
Gale #1
1650' FNL 990' FWL, E-24-29N-11W
Aztec Fruitland Pool

___ TOP OF CEMENT	<u>0</u>	· (Observation)
___ HOLE SIZE	<u>13 3/8</u>	"
___ SURFACE CASING	<u>10 3/4</u>	" @ <u>120</u> · W/ <u>125</u> SX.
___ TOP OF CEMENT	<u>1208</u>	· (Calculation)
___ PERFORATIONS	<u>1511</u>	· TO <u>1533</u> ·
___ HOLE SIZE	<u>7 7/8</u>	"
___ PRODUCTION CASING	<u>4 1/2</u>	" @ <u>1726</u> · W/ <u>100</u> SX.
___ TOTAL DEPTH	<u>1800</u>	·

Otto V. Reynolds
Gale #1
2310' FNL 990' FWL, E-24-29N-11W
Farmington Test

Converted to water well

___ TOP OF CEMENT	___ 0 ___	(Calculated)
___ HOLE SIZE	___ 12 1/4 ___	..
___ SURFACE CASING	___ 7 ___	@ ___ 52 ___ w/ ___ 40 ___ SX.
___ TOP OF CEMENT	___ 303 ___	(Calculated)
___ PERFORATIONS	___ Unknown ___	TO ___
___ HOLE SIZE	___ 6 1/4 ___	..
___ PRODUCTION CASING	___ 2 7/8 ___	@ ___ 865 ___ w/ ___ 80 ___ SX.
___ TOTAL DEPTH	___ 865 ___	

Texaco, Inc.
Mae Gale Com #1
2050' FNL 790' FWL, E-24-29N-11W
Basin Dakota Pool

___ TOP OF CEMENT	<u>0</u>	(Calculated)
___ HOLE SIZE	<u>12 1/4</u>	..
___ SURFACE CASING	<u>8 5/8</u>	.. @ <u>322</u> . W/ <u>410</u> SX.
___ DV TOOL @ 2007'. 2nd CEMENT STAGE: 200 SX. Top of CEMENT 971'.		
___ TOP OF CEMENT	<u>5391</u>	(Calculated) (1st STAGE)
___ PERFORATIONS	<u>6148</u>	TO <u>6288</u> .
___ HOLE SIZE	<u>7 7/8</u>	..
___ PRODUCTION CASING	<u>4 1/2</u>	.. @ <u>6427</u> . W/ <u>400</u> SX.
___ TOTAL DEPTH	<u>6427</u>	.

Texaco, Inc.
Mae Gale A #1
1820' FNL 1020' FWL, E-24-29N-11W
Otero Chacra Pool

___ TOP OF CEMENT	0	(Calculated)
___ HOLE SIZE	12 1/4	"
___ SURFACE CASING	8 5/8	" @ 274' W/ 275 SX.
___ TOP OF CEMENT	0	(Calculated)
___ PERFORATIONS	2823	TO 2839
___ HOLE SIZE	7 7/8	"
___ PRODUCTION CASING	4 1/2	" @ 2939' W/ 650 SX.
___ TOTAL DEPTH	2939	'

Manana Gas, Inc.
Davie #1
1500' FSL 1100' FWL, L-24-29N-11W
AztecFruitland Pool

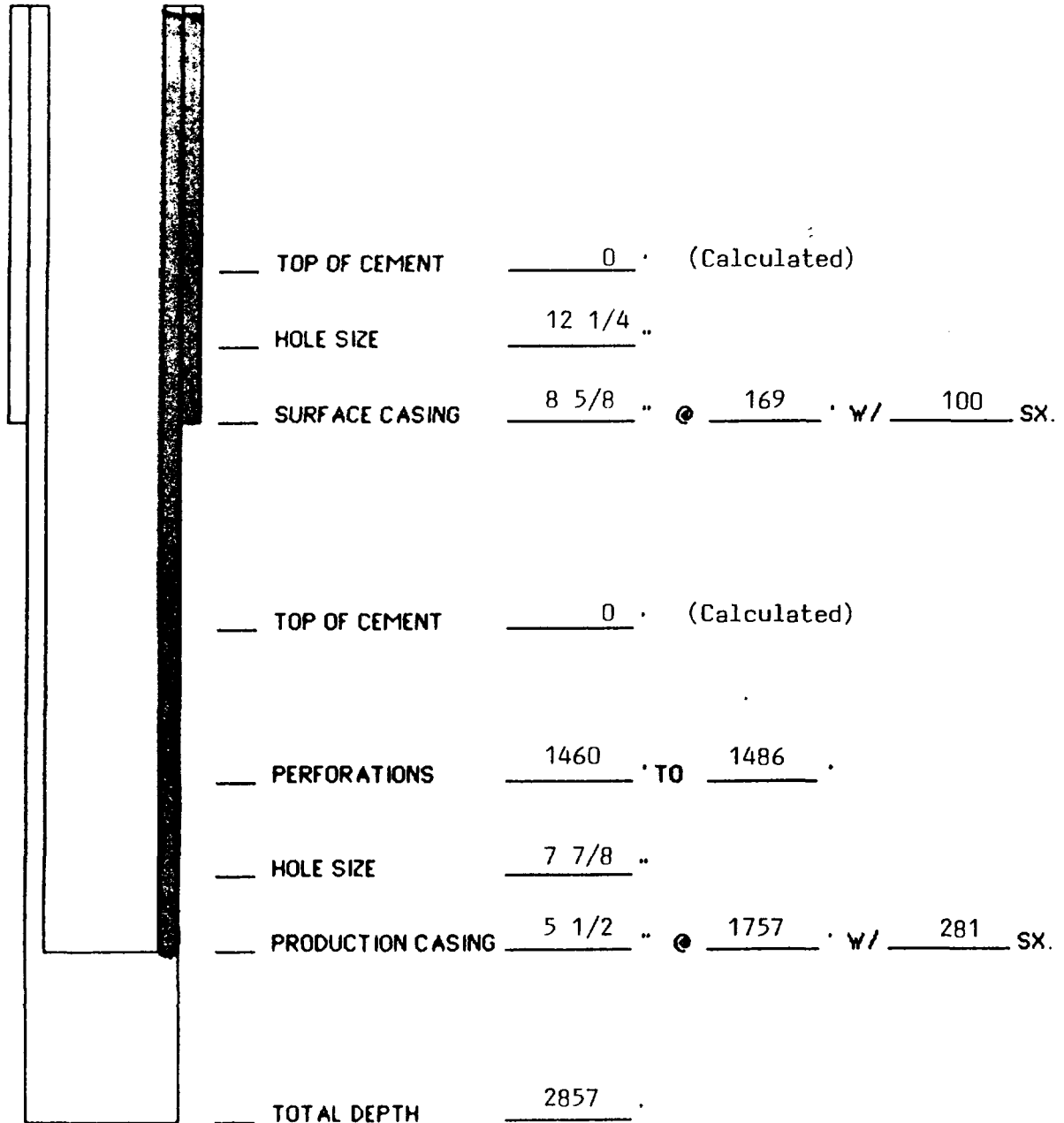
P&A 1978

	___ RERAN 20' 5 1/2" casing CEMENTED W? 30 sx.
	___ TOP OF CEMENT 0 . (Calculated)
	___ HOLE SIZE 10 "
	___ SURFACE CASING 8 5/8 " @ 100 . W/ 75 SX.
	___ SPOTTED 60 SX PLUG @ 322'.
	___ CUT CASING @ 504'
	___ SPOTTED 20 SX PLUG @ 570'.
	___ SPOTTED 70 SX @ 757'.
	___ TOP OF CEMENT 22 . (Calculated)
	___ SET PLUG FROM 1350' TO 1500'.
___ PERFORATIONS 1475 . TO 1495 .	
___ HOLE SIZE 7 7/8 "	
___ PRODUCTION CASING 5 1/2 " @ 1725 . W/ 250 SX.	
___ TOTAL DEPTH 1725 .	

Texaco, Inc.
Mae Gale Com #1E
790' FSL 790' FWL, M-24-29N-11W
Basin Dakota Pool

___ TOP OF CEMENT	<u>0</u> . (Calculated)
___ HOLE SIZE	<u>12 1/4</u> ..
___ SURFACE CASING	<u>8 5/8</u> " @ <u>283</u> . W/ <u>300</u> SX.
___ TOP OF CEMENT	<u>0</u> . (Calculated)
___ PERFORATIONS	<u>6086</u> . TO <u>6220</u> .
___ HOLE SIZE	<u>7 7/8</u> "
___ PRODUCTION CASING	<u>5 1/2</u> " @ <u>6425</u> . W/ <u>2500</u> SX.
___ TOTAL DEPTH	<u>6426</u> .

Manana Gas, Inc.
Gigi #1
990' FSL 790' FWL, M-24-29N-11W
Aztec Fruitland Pool

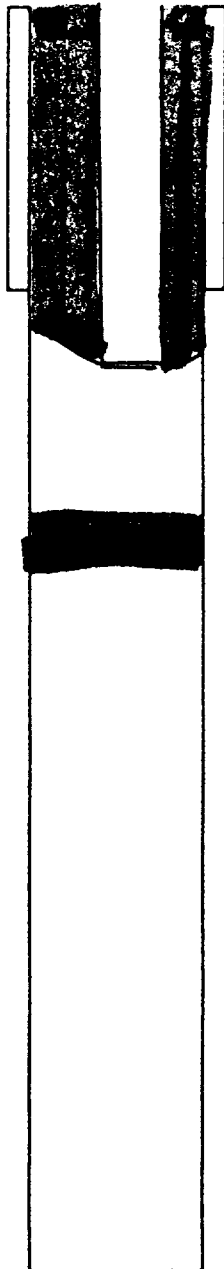


Unknown

Unknown

660' FSL 660' FWL, M-24-29N-11W

P&A, 1980, by State of New Mexico
Converted to water well.



___ TOP OF CEMENT _____

___ HOLE SIZE _____"

___ SURFACE CASING Unknown " @ _____' w/ _____ SX.

___ Ran 2 3/8" to 120' w/ metal petal basket. Cemented annulus
w/ 55 sx.

___ Cleaned out to 660'. Set 25 sx plug from 660 to 600'.

___ HOLE SIZE _____"

___ TOTAL DEPTH unknown ,

Manana Gas, Inc.
Phyllis Hartman #1
790' FSL 1510' FWL, N-24-29N-11W
Otero Chacra Pool

___ TOP OF CEMENT	0	·	(Calculated)
___ HOLE SIZE	12 1/4	..	
___ SURFACE CASING	8 5/8	" @ 284	· W/ 300 SX.
___ TOP OF CEMENT	0	·	(Calculated)
___ PERFORATIONS	2316	· TO 2756	·
___ HOLE SIZE	7 7/8	"	
___ PRODUCTION CASING	5 1/2	" @ 2979	· W/ 660 SX.
___ TOTAL DEPTH	2992	·	