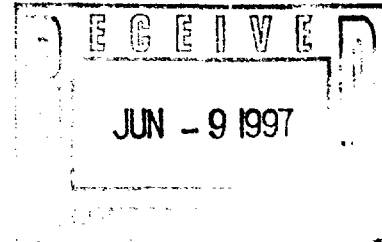


PETROLEUM, L. L. C.



May 9, 1997

David Catanach
NM Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

Re: U.D. Sawyer #11, Unit J, Sec. 27, T9S-R36E

Dear David,

Typographical errors were made in the legal notice and injection well schematic on Saga's pending C-108 on the U.D. Sawyer #11. I am enclosing corrected copies for attachment to the C-108 I sent you previously.

If you have any additional questions, or need any additional information, please call.

Sincerely,

Joe N. Clement
Area Engineer

Affidavit of Publication

STATE OF NEW MEXICO)

) ss.

COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Notice Of Produced

Water Disposal Well

and numbered in the

County of Lea

County, New Mexico, was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, once each week for

one (1) day

consecutive weeks, beginning with the issue of

June 1, 19 97

and ending with the issue of

June 1, 19 97

And that the cost of publishing said notice is the sum of \$ 16.56

which sum has been (Paid) (Assessed) as Court Costs

Joyce Clemens

Subscribed and sworn to before me this 3rd

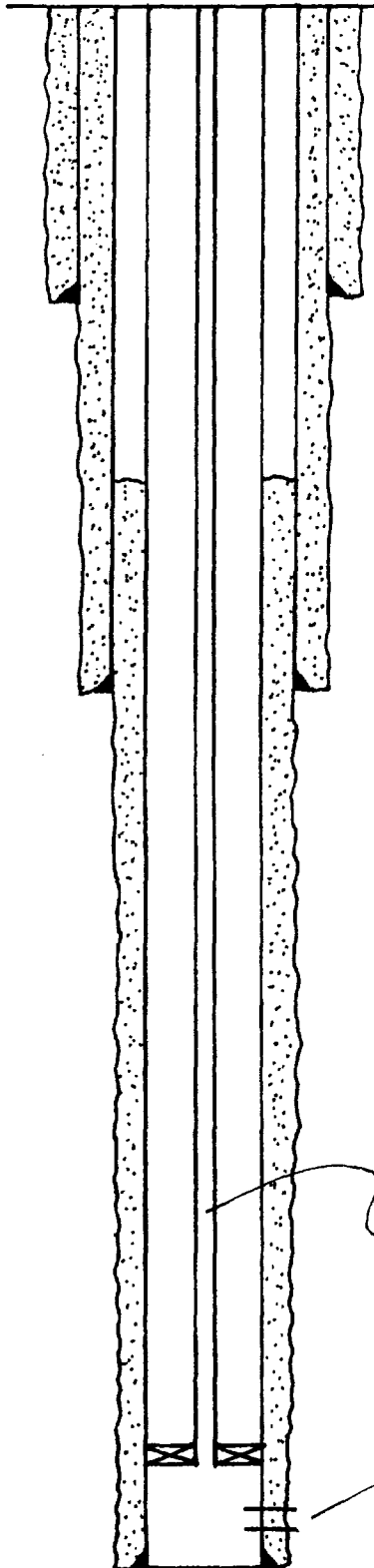
day of June, 19 97

Jean Senior
Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 19 98

LEGAL NOTICE
Notice of Produced
Water Disposal Well
Sage Petroleum Limited
Liability Co. of Colorado,
415 W. Wall, Suite 835,
Midland, Texas 79701,
915-684-4293, contact
Joe N. Clement, has
made application for a
produced water disposal
well with the New Mexico
Oil Conservation
Commission. The well,
known as the U.D.
Sawyer #11, is located
2561' FSL and 1610' FEL,
Sec. 27-T9S-R36E, Lea
County, New Mexico.
Disposal will be into the
Lower Devonian zone
through perforations from
12,616' - 12,683'.
Maximum rate and pres-
sure is anticipated to be
15,000 BWPD and 500
PSI. Interested parties
must file objections or
requests for hearing with
the New Mexico Oil
Conservation
Commission, P.O. Box
2088, Santa Fe, New
Mexico 87504 within fif-
teen (15) days of this
notice.
Published in the
Lovington Daily Leader
June 1, 1997.

OPERATOR: Saga Petroleum LLC of CO	LOCATION: Sec. 27, T9S, R36E, Lea County, NM
LEASE: U.D. Sawyer #11	Unit J, 2561' FSL & 1610' FEL



13-3/8" casing set at 356' with 350 sx of cement.

Hole Size: 17-1/2". TOC @ surface by circ.

9-5/8" casing set at 4500' with 2000 sx of cement.

Hole Size: 12-1/4". TOC @ surface by circ.

3-1/2" 9.3# 8rd EUE tubing w/ ceramic coating
Baker Model D Packer @ 12,566'

Perfs 12616-18', 12624-32', 12637-38',
12668-71', and 12677-83'

7" casing set at 12890' with 1650 sx of cement.

Total depth 12890' Hole Size: 7-7/8".

DV Tool @ 6012'

1st Stage: TOC @ 5650' by calc.

2nd Stage: TOC @ 1550' by Temp Survey

INJECTION WELL DATA SHEET

Tubing Size 3-1/2 " 9.3# 8rd EUE lined with ceramic set in a Baker Model D packer at
12,566'. 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.

2. Name of the injection formation Lower Devonian (Montoya).

3. Name of Field or Pool (if applicable) Crossroad Siluro Devonian.

4. 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. Perforated 12,120-154', squeezed w/ 60 sx, perforated 12074-84', squeezed w/ 100 sx, perforated 12007-17', squeezed w/ 150 sx.

5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area.

Penn - 11,400' - 450'

San Andres - 4,800' - 4,850'

No Zones Underlying

Saga Petroleum

JUN 20 1997

Field CROSSROADS (DEVONIAN) County LEA, N.M.
 Operator SAGA PETROLEUM
 Lease/Well UD SAWYER WELL NO. 2
 Location 1650' ENL & 1650' FEL, 34G, 9S, 36E
 Elevation: GL KB
 Completion Date & Test:

Surface Casing/Cement: 13 3/8" 48" / FT STEEL H-40 SET
AT 338', CMT W/ 400 SX "C" CIRC TO SURF
 Intermediate Casing/Cement: 9 5/8" 36" / FT STEEL H-125 AT
AT 4142'
 Production Casing/Cement: 5 1/2" 17" F20" LTRC N-80 CSG
AT 12182'
 Liner Cap/Cement: NONE
 Open Hole Interval: NONE
 Tubing: Depth 12168' Size 2 3/8"
 Packer Set at: Cored NO
 Type Logs: WELLEX GRIN SERIES 2000 F GUARD FORCE

Work History:

DST #1 From 9,645' to 9,820' 30 MISI - 3787, 28-MFSI-2618. Tool open 2 hrs test with good blow thru-out test. Recovered 5700' SW. IF-467, FF-2618, HI-5130, HO-5130, BHT-165. Job complete 1:30 P.M. 1-30-59.

DST #2 From 12,040' to 12,157'. Tool open with weak blow and died. In 1 min. recovered 3780' WB. No DM. 30-MISI-1971, 30-MFSI-1867, HI-6417, HO-6417, IF-1761, FF-1761, Job complete 12 noon 3-16-59.

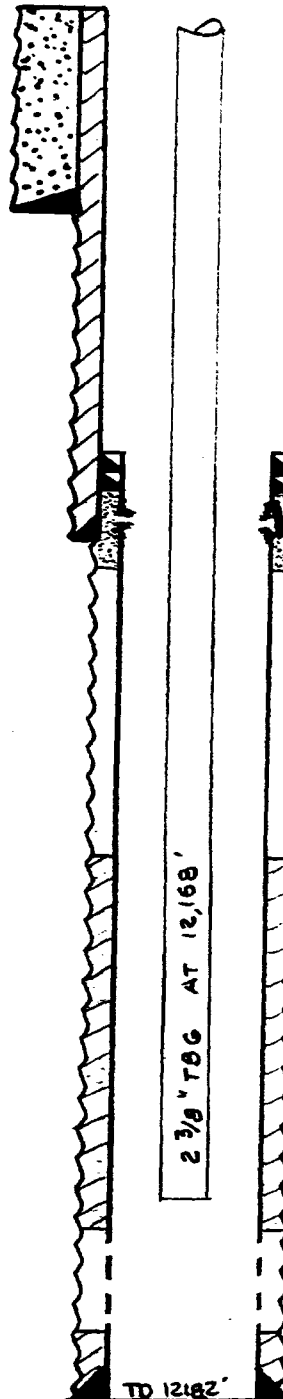
DST #3 From 12,145' to 12,182'. Tool open 2-1/2 hrs with fair blow thru-out test. Recovered 3870' WB and 3150' free oil, no water. 30 MISI-4715, IF-1905, FF-2745, 30-MFSI-4634, BHT-195, HI-6235, HO-6180, Job complete 1:30 P.M. 3-18-59.

COMPLETION AND REMEDIAL WORK RECORD

PRODUCTION TEST BEFORE					TREATMENT				PRODUCTION TEST AFTER				
DATE	DL	WTR	GOR	HRS	TYPE	AMOUNT	FROM	TO	DATE	DL	WTR	GOR	HRS
3/20/59	NEW WELL	---	---	---	10% ACID	500	12174	12180	3/20	250	0	242	150
5/27/59	28	0	---	24 (P)	20%	1000	---	---	5/27	220	---	---	24 (P)
10/27/59	120	247	---	24 (P)	20%	2000	---	---	10/27	220	---	---	24 (P)
2/15/75	184	474	---	24 (P)	20%	2000	---	---	2/15	200	400	---	24 (P)
4/28/75	134	114	---	24 (P)	7.5%	2000	---	---	4/28	180	84	---	24 (P)
7/10/75	183	84	---	24 (P)	Repeat Cpl test	---	---	---	7/10	207	284	---	24 (P)
3/18/76	80	275	---	24 (P)	10%	2000	---	---	3/18	180	250	---	24 (P)

Remarks:

Present Allow: Min. Allow 610 Amount Prod. 1,485,425 in of 1/1/75
 Present Test: Oil Water Gas GOR No Pump



13 3/8" "Csg @ 338'
CMT CIRC TO SURF 17 1/2'
 Formation Tops:
 Yates _____
 Seven Rivers _____
 Queen _____
 San Andres _____
 Glorieta _____
 Clearfork _____
9 5/8" "Csg @ 4142'
CMT CIRC TO SURF 12 1/4"
7-75: CUTE PULLED 5 1/2" CSG AT
4074' HUNG CSG W/ LINER HUNG
@ 4074' (BOT 5 1/2" x 9 5/8" W/ LEAD SEAL BOX)
7-75: CSG LEAK @ 4066' BA' W/ STEEL
BLOW OF GAS TO SURF SQ W/
200 SX CMT & DRILL OUT & TEST
TOC AT 10,670' BY TEMP SURVEY
12176'
PERF DEVONIAN (16 HOLES)
STIMULATION (SEE WORK RECORD)
12180'
5 1/2" "Csg @ 12182'
8 3/4" HOLE CMT W/ 500 SX "C"

Well Name & Number: UD SAWYER NO. 2

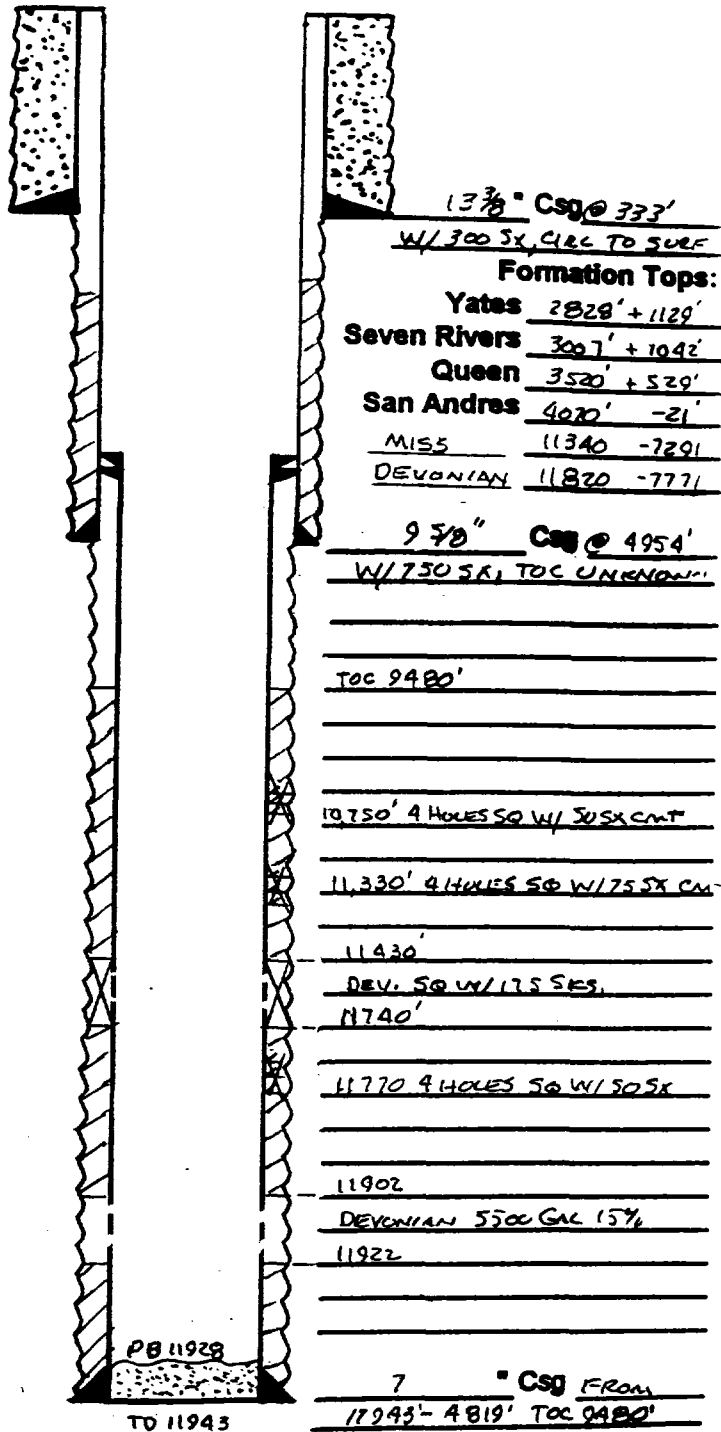
Saga Petroleum

Field CROSSROADS DEVONIAN County LEA, N.M.
 Operator SAGA PETROLEUM CORP
 Lease/Well SFPRR WELL 27-2Y
 Location 2310' ENL 2310 FWL 27-F, 95, 36E
 Elevation: GL 4030 KB 4049
 Completion Date & Test: 10.13.72 F 640130, 0.8WF
GAS TSTM FROM PERF 11902-11922

Surface Casing/Cement: 13 3/8" 48# H-40, STC @ 333'
CMT W/ 300 SX IN 17 1/2" HOLE; CIRC TO SURF
 Intermediate Casing/Cement: 9 5/8" 36# K-55 STC @ 4954'
CMT W/ 750 SX IN 12 1/4" HOLE; TOC UNKNOWN
 Production Casing/Cement: 7" 26# 229# N-80 LTCC @
11943; CMT W/ 250 SX IN 8 3/4" HOLE TOC 11370'
 Liner Csg/Cement: 7" 4819' TO 11943 SEE DRAWING
 Open Hole Interval:

Tubing: Depth _____ Size _____
 Packer Set at: _____ Cored _____
 Type Logs WIELEX GR/SNP SURF TO 11926'
GR/GUARD 8500-11921; CBL SELECTED INTERVALS; TEMP. LOG

Work History:
10.13.72: COMPLETED AFTER MULTIPLE CMT SQ WORK
SEE DRAWING. PERF PAY 11902-922. A/W 5500 GAL 15%
8.1.73 RAN REDA PMP
8.15.75 RAN LARGER SUB PMP INCREASED PMP
CAPACITY FROM 2300 GPD TO 4300 GPD
1.26.88 CSG COLLAPSE 3750'-3800'. PRODUCING
WELL ABOVE COLLAPSE. CSG.



Saga Petroleum

Field CROSSROADS (DEVONIAN) County LEA, NM
 Operator SAGA PETROLEUM CORP.
 Lease/Well SFPRR 27-3
 Location 990' FNL E 2310' FWL 27-C, 9S, 36E
 Elevation: GL 4033 KB 4052'
 Completion Date & Test: 6-72 P 190 BO, 14 BW, GAS
TSTM

Surface Casing/Cement: 13 3/8" 48# H-40 @ 315' W/
300 SX CMT IN 17 1/2" HOLE CMT CIRC.

Intermediate Casing/Cement: 8 5/8" 24.28# E-32# K-55
E-80 @ 5000' W/400 SX TOC @ 4200' IN 11" HOLE

Production Casing/Cement: 5 1/2" 17# E-20# N-80 @
11,987' W/350 SX IN 7 7/8" HOLE TOC 10,026'

Liner Cap/Cement: 5 1/2" From 4873' - 11,987'

Open Hole Interval: 4 5/8" 11,987' - 12,018'

Tubing: Depth Size

Packer Set at: Cored

Type Logs N/A

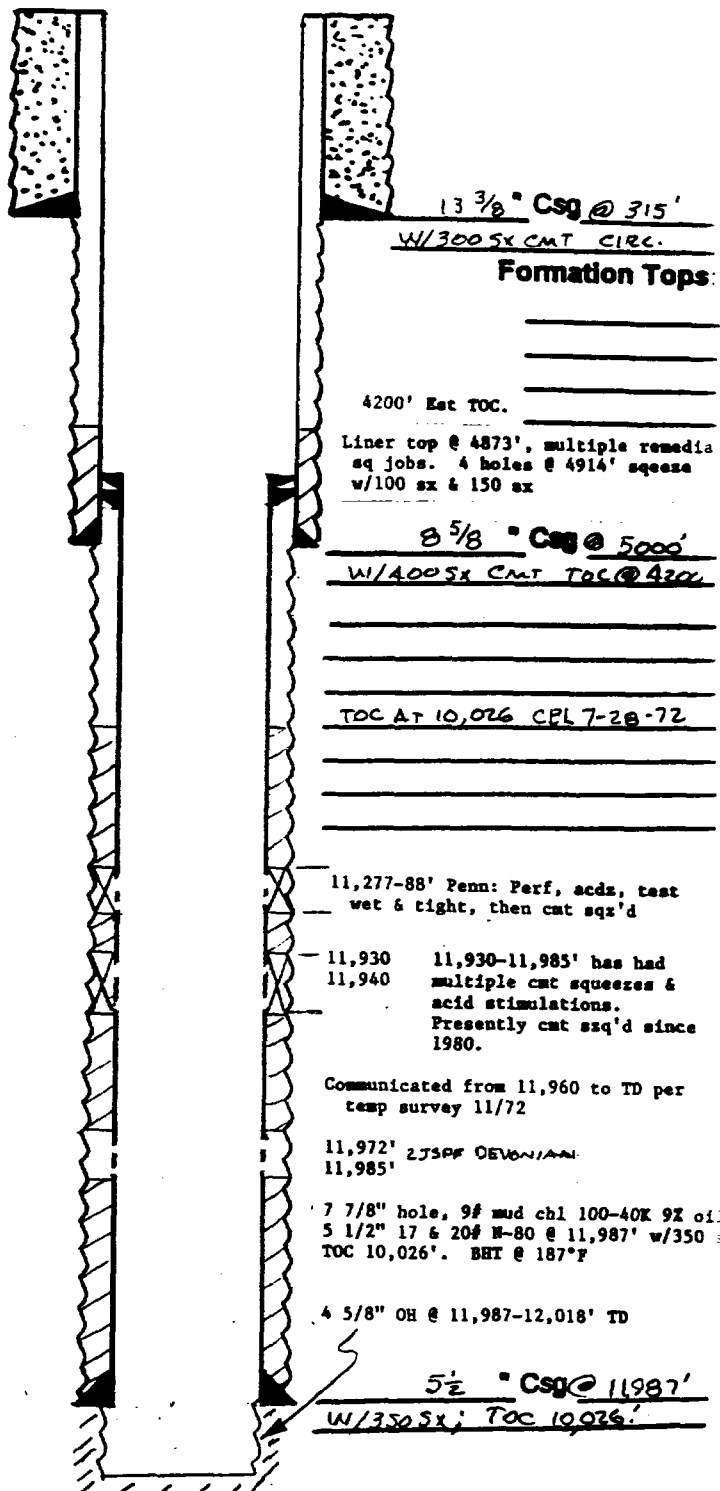
Work History:

40 acre spacing
 Spud 6/72
 Perf 1 SPF 11,971-85' & acdz
 w/112500 gals, comp'l 10/72
 IP 190 BO, 14 BW, gas TSTM,
 pumping from 1216' only

11/72 acdz w/5500 gals in 4 stgs
 w/3 BAF blks - ran prod tbg to
 5276', test @ 575 BO & 0 BW

1975 Lower pump to 7000' to increase
 207 BO & 138 BW to 253 BO & 168 BW
 7/77 C/O to TD acdz OH w/3500 gals
 Before: 109 BO, 163 BW
 After: 149 BO, 205 BW. Also press
 test csg from surface - 11,812' to
 1000 psi, ok

1/80 Attempt recompletion in Penn
 Sandstone @ 11,277-88'. Vann
 gunned & acdz w/2000 gals,
 re-acidize w/7000 gals + CO₂.
 Recov 10 BF 98Z wtr. Cmt sq
 w/40 sx.



Saga Petroleum

Field CROSSROADS (DEVONIAN) County LEA
 Operator SAGA PETROLEUM CORP
 Lease/Well SFPRR 27- #2
 Location 1980' EN E W 4 SEC 27-F, 9-S, 36-E
 Elevation: _____ GL N/A KB _____
 Completion Date & Test: _____

Surface Casing/Cement: 13 3/8" 48" H-40 STEEL @ 312.5'

W/ 350 SX CMT, CIRC TO SURF. HOLE DIA ?

Intermediate Casing/Cement: 9 5/8" 40" J-55 @ 4236' W/ 15'

STAGE 750 SX, DV TOOL @ 3204', 2ND STAGE 2100 SX, CMT CIRC TO SURF

Production Casing/Cement: 5 1/2" 17" P-20 N-80 @ 11775'

W/ 200 SX TO 10970', 2ND STAGE 1500 SX TO 4150' BY TEMP SURVEY

Liner Csg/Cement: 11595 TO 11879

Open Hole Interval:

Tubing: _____ Depth _____ Size _____

Packer Set at: _____ Cored 9553-9684

Type Logs _____ TEMP SURVEY; GEN 9500-11800';

GR LATERAL 4239-9553; CALIBER 317'-4135';

Work History:

6.9.50: SPUD WELL (POTENTIAL TEST NOT REPORTED)

COMPLETED OPEN HOLE 11755' TO 11800'. FLOW UNTIL 5-70

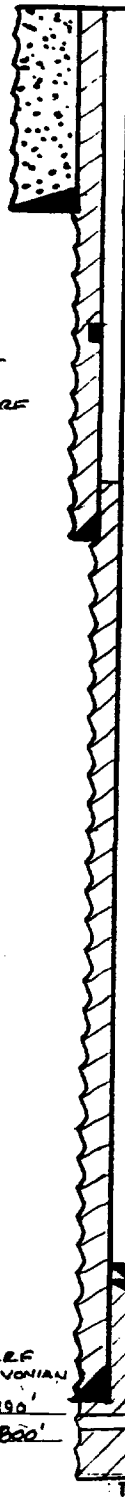
FEB 1972: RAN 4" FJ LINER FROM 11595-11879

PERF LINER 11790-11800 & TREAT W/ 500 GAL ACID

NO TEST REPORTED

WELL ST FROM 10-73 TO 11-74 WHILE LSE. ALLOW.

WAS PROD. FROM SFPRR WELL 27-24



PERF
DEVONIAN

11790'

11800'

PO 11840'

TO 11880'

13 3/8" Csg @ 313'

W/ 350 SX CMT, CIRC

Formation Tops:

DV TOOL AT 3204' Yates

Seven Rivers

Queen

San Andres

Glorieta

Clearfork

9 5/8" Csg @ 4236'

CMT W/ 200 SX CMT, CIRC

TOC @ 10970' PERF & CMT W/

1500 SX LOST CIRC WHILE PMP.

CMT.

4" FJ-40 HYDRAL LINER @ 11595' TO

11879, CMT W/ 50 SX

5 1/2" Csg @ 11775'

IN 8 3/4" HOLE

Well Name & Number: SFPRR 27- #2

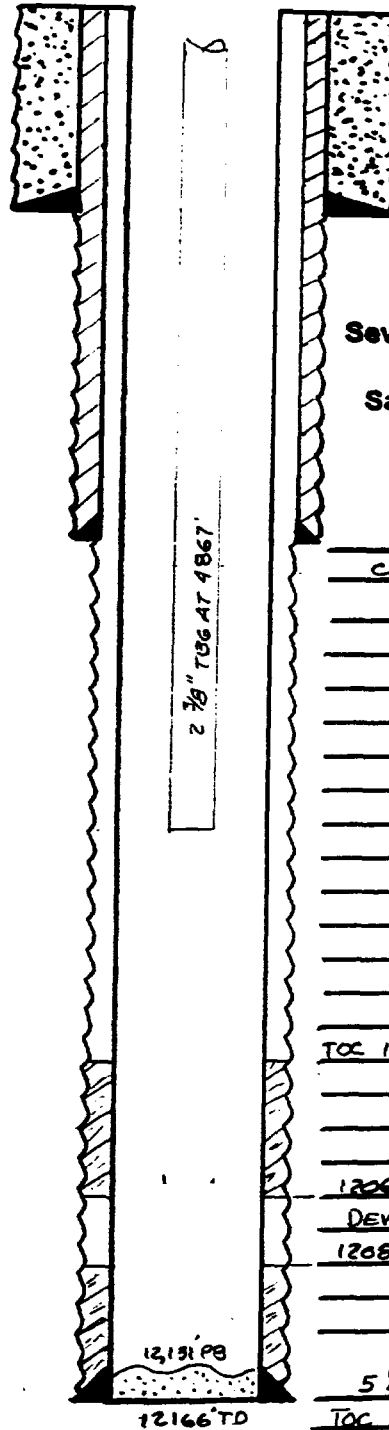
Saga Petroleum

Field CROSSROADS (DEVONIAN) County LEA NM
 Operator SAGA PETROLEUM CORP
 Lease/Well U.D. SAWYER WELL NO. 6
 Location 990 E36 & 1650 EEL SEC 270 T-9-S, R-36-E
 Elevation: 4038 OF GL 4022 KB 4040
 Completion Date & Test: 1-1-68 F-493 BO, 0 BW, GAS
TSTM, 1 7/8" CHK, FTP 225#, 44.1° API

Surface Casing/Cement: 13 3/8" 40# H-40 STEEL AT 240'
IN 17 1/2" HOLE CMT W/ 250 SX "C" W/ 2% GCL CIRC TO SURF
 Intermediate Casing/Cement: 8 3/8" 24# & 32# J-55 STEEL AT
4194' IN 11" HOLE, CMT W/ 1000 SX "C" CIRC TO SURF
 Production Casing/Cement: 5 1/2" 17# & 20# N-80, LTCC, AT
12164' IN 7 7/8" HOLE W/ 325 SX "C" CMT, TOC @ 10670'
 Liner Cap/Cement: NONE
 Open Hole Interval: NONE
 Tubing: Depth 4867' Size 2 3/8
 Packer Set at: Cored
 Type Logs WELEX GRIN & GR/GUARD LOGS

Work History:

1-1-68: PERF 12068'-12084' W/ 6 HOLES. ACIDIZE W/
 500 GAL 15% HCL. WELL FLOW 493° 0'W, GAS TSTM
 225# FTP, 1 7/8" CHK.
 6-12-75: PERF 12054'-12084' (27 HOLES), ACIDIZE W/
 1000 GAL 15% HCL. (27 HOLE) TO 4867' PUT WELL ON
 PRODUCTION.
 7-13-84: ACIDIZE PERF 12054'-12084' W/ 2000 GAL
 20% NEFF HCL. MAX PRESS 4000#. (27 HOLE) TO 4867' PUT WELL ON
 PRODUCTION.



13 3/8" " Csg @ 240'
 CMT CIRC. TO SURF.

Formation Tops:

Yates _____
 Seven Rivers _____
 Queen _____
 San Andres _____
 Glorieta _____
 Clearfork _____

8 3/8" " Csg @ 4194'
 CMT CIRCULATED TO SURF.

TOC 10670'

12068'
 DEVONIAN (6 HOLES)
 12084'

5 1/2" " Csg @ 12164'
 TOC 101670' TEMP SURVEY

Well Name & Number: UD SAWYER NO. 6

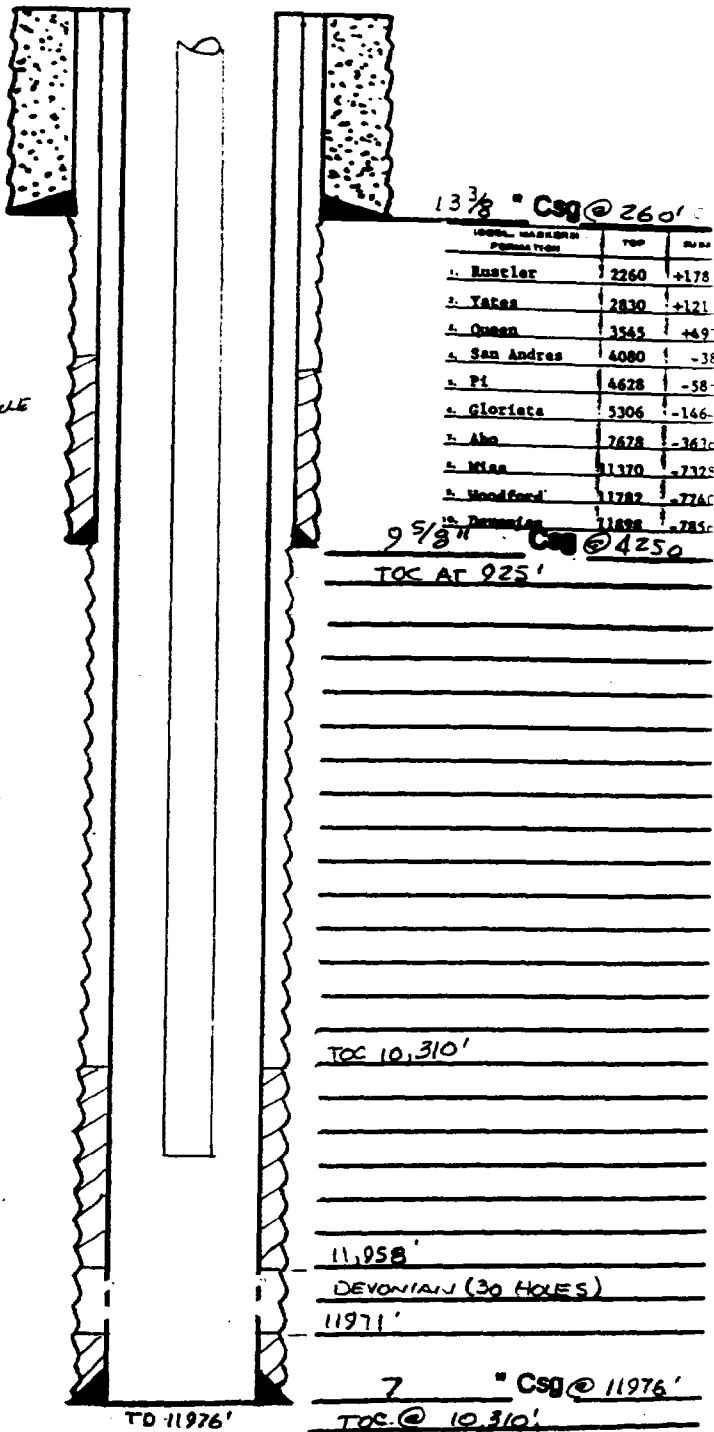
Saga Petroleum

Field CROSSROADS, DEVONIAN County LEA
 Operator SAGA PETROLEUM
 Lease/Well UO SAWYER NO.7
 Location 1980' E, 230' E, SEC 27 J, 9S, 36E
 Elevation: GL 4029 KB
 Completion Date & Test: 7-4-72: F-372 130, 1 BW, TSTM
GAS, FTP 20", 1"CHK, 44.2 API

Surface Casing/Cement: 13 3/8" 48# H-40, STEEL @ 260'
CIRC CMT TO SURF, USED 275 SKS "C" CMT, 1 7/8" HOLE
 Intermediate Casing/Cement: 9 5/8" 36# K&H, STEEL @
4250', TOC @ 925' USED TOTAL OF 1440 SK "C" CMT, 1 3/4" HOLE
 Production Casing/Cement: 7" 23# E26, N-80, LTCC
W/250 SK "C" CMT, TOC 10310' BY TEMP SURVEY, 1 3/4" HOLE
 Liner Csg/Cement: NONE
 Open Hole Interval: NONE
 Tubing: Depth Size
 Packer Set at: Cored NO
 Type Logs GR/N - SW/N

Work History:

7-1-72: SPOT 250 GAL 15% NEECE ACID PERF
11058-971 ACIDIZE W/500 GAL, BD 600' MAX 300'
7-4-72: FT. 372, 1" GAS TSTM, FLOW=1"CHK, FTP 20"
10-6-78: INSTALL LARGER SUBMERSIBLE PUMP
SET @ 6403'; PMP 285 BQ, 1080 BW, 16.5 MCF GAS
11-1-89: FOUND TIGHT SPOT IN CSS FROM 5736-6459'



Well Name & Number: UO SAWYER NO.7

Saga Petroleum

Field CROSSROADS (DEVONIAN) County LEA
 Operator SAGA PETROLEUM INC
 Lease/Well UD SAWYER NO.3
 Location 1980' ENE WL SEC 27, 9S, 36E
 Elevation: GL 4029' KB 4040'
 Completion Date & Test: 8.21.49 - FLOW G2SBOPD, 0 BWP
3/4" CHK, GOR 35, GRAVITY 42.6° NATURAL

Surface Casing/Cement: 13 3/8 36" SLIP JOINT SET @ 258'
IN 17" HOLE W/ 300 SK CMT, CIRC TO SURF.
 Intermediate Casing/Cement: 9 5/8 36" BRND, J, SET
SET @ 4651' IN 12 1/4" HOLE W/ 2125 SK CMT, DID NOT CIRC.
 Production Casing/Cement: 5 1/2 17" BRND, N, LTR
SET @ 12147', CMT W/ 1090 SK CMT, TOC 6550, 1 7/8" HOLE
 Liner Csg/Cement: NONE
 Open Hole Interval: NONE
 Tubing: Depth 5516 Size 2 3/8" REGD PUMP
 Packer Set at: CORED
 Type Logs SP/NORMAL-LATERAL LOG
HALLIBURTON DATED 8.13.49

Work History:

DST #1 PKR SET AT 9401'. TEST 9401'-9595', OPEN
 4 HRS STEADY BLOW OF AIR, REC 4050' DRY DRILL
 PIPE, 900' WB, 1645' SW,
 DST #2 PKR SET AT 9595'. TEST 9595'-9662', OP 2HR
 & 30 MIN, FAINT BLOW OF AIR, REC 900' WB, 1645'
 SW,
 DST #3 PKR SET AT 9662'. TEST 9662'-9780', OP 2HR,
 REC 900' WB, 8000' SULPHUR WTR.
 DST #4 PKR SET AT 12090'. TEST 12090'-12150',
 OP-1HR 10 MIN, SL BLOW OF AIR FOR 1 HR DIED.
 12EL 2340' DRY DRILL PIPE, 3000' WB, 6660' HOCM

8.21.49 WELL COMPLETED NATURAL

8.21.75 CHK FOR CSG LEAK, FOUND NO LEAK.

13 3/8" Csg @ 258'

CMT CIRC.

Formation Tops

Yates
 Seven Rivers
 Queen
 San Andres
 Glorieta

DEV 11930'

9 5/8" Csg @ 4651'

TOC - UNKNOWN FOR 9 5/8"

11.369 SIBHP 4492 013P

FOHP 4430 2325'

FOHP 4348 2250'

FOHP 4371 2300'

FOHP 4381 18500'

R = 45MD

O/W CONTACT - 8250'

TOC 6550'

OV TOOL AT 11130'

12000'

DEVONIAN PERM (200 HOLES)

12050'

5 1/2" Csg @ 12147'

TOC 6550'

13120 PBD
 12147 TD

Well Name & Number: UD SAWYER NO.3

COMPLETION DATA SHEET

Lease Santa Fe Pacific
 Well No. 1 Sec. 26 T. 9S R. 36E
Lea Co., NM

DIVISION

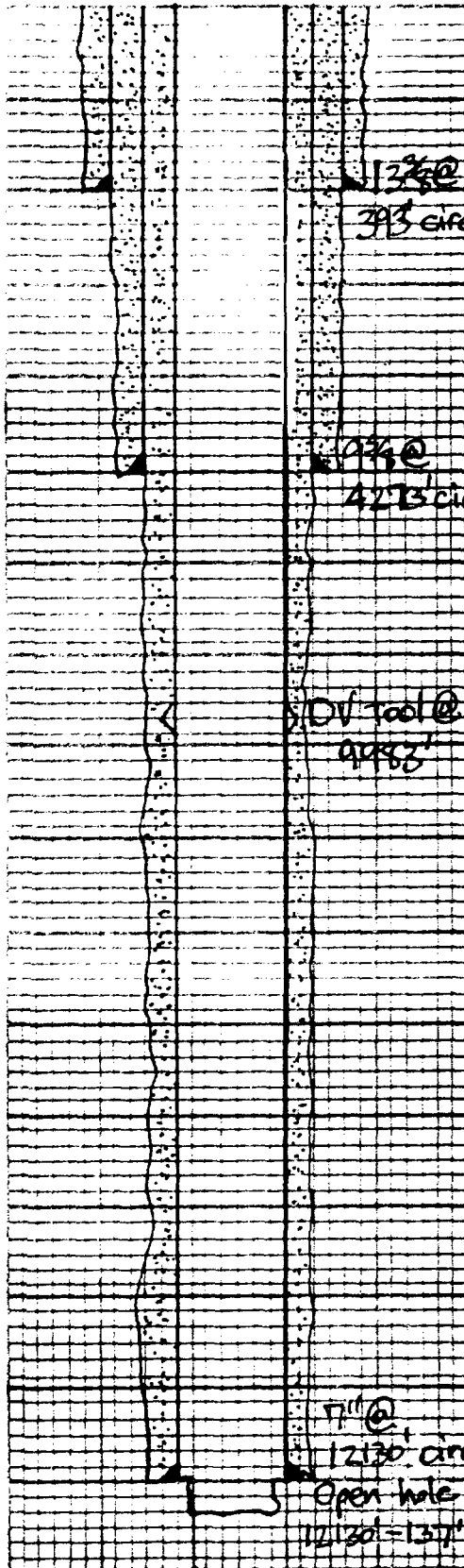
FIELD

Crossroads (Siluro) Devonian

LOCATION

Unit E, 1980' FNL + 660' FWL

WELL PROFILE



TD	DRILL PIPE 12137	LOG
PBTD	DRILL PIPE	GAMMA-RAY

ELEVATION

DATUM POINT (GRO-KB-DFI)

DATUM POINT ELEVATION

4035

CASING DESIGN

SIZE	WEIGHT	GRADE	THREAD	COUPLING	MAKE	NO. JTS.	FOOTAGE	SACKS
13 3/8	48				17 1/2" hole		393	400
9 5/8	36/40						4273	2300
7	26 1/2/32						12130	2310

PERFORATED INTERVAL	FORMATION	REMARKS
12130-137	Devonian	

COMMENTS:

Operated by Meteor Development

SUBMITTED BY

J N Clement

DATE

APPROVED BY

COMPLETION DATA SHEET

Lease Santa Fe Pacific
 Well No. 11 Sec. 26 T. 9S R. 36E
Lea Co., NM

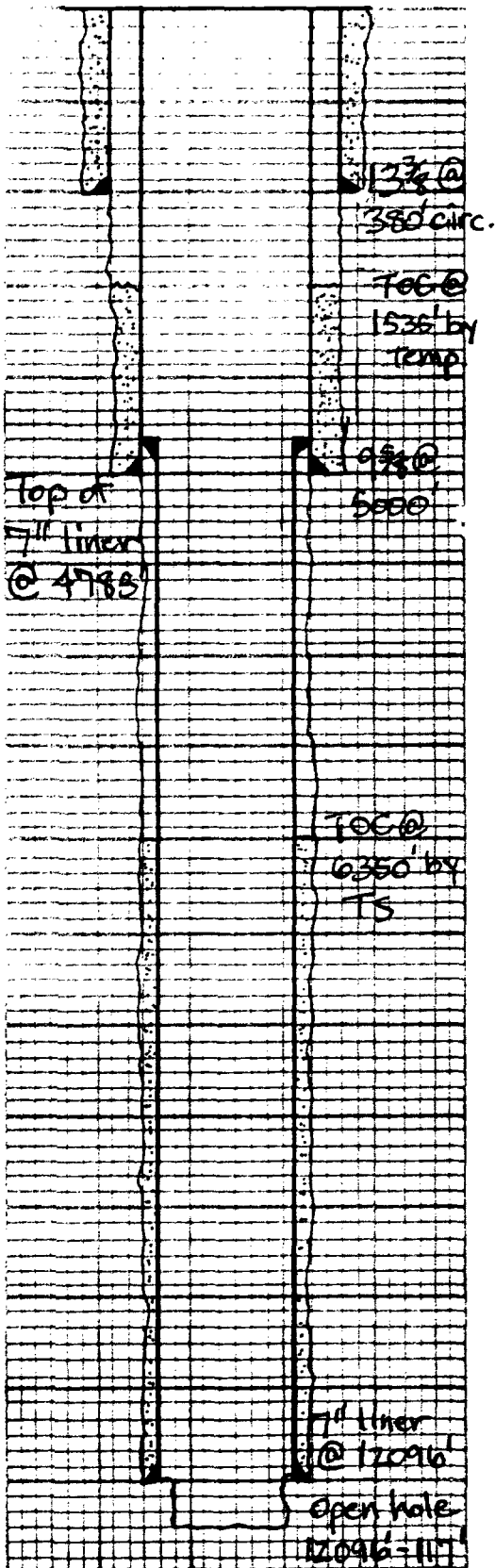
DIVISION

FIELD

LOCATION

Crossroads (Siluro) Devonian Unit D, 990' FNL + 380' FWL

WELL PROFILE



TD	DRILL PIPE	LOG
	12117	
PBTD	DRILL PIPE	GAMMA-RAY
	12117	

ELEVATION

DATUM POINT (GRD-KB-DF)

DATUM POINT ELEVATION

4033

CASING DESIGN

SIZE	WEIGHT	GRADE	THREAD	COUPLING	MAKE	NO. JTS.	FOOTAGE	SACKS
13 3/8	48				17 1/2" hole		380	400
9 5/8	40/36				12 1/4" hole		5000	200
7"	23/26				8 3/4" hole		7311	1800

PERFORATED INTERVAL	FORMATION	REMARKS
12096' - 117'	Devonian	Acidized w/ 5000 gal. 15% Open hole

COMMENTS: Cemented 7" liner w/ 1550 sx, squeezed liner
 Top w/ 250 sx. Top of cement @ 6350', prior to
 squeezing liner top.
 Operated by Meteor Development

SUBMITTED BY

Jan Clement

DATE

6/18/97

APPROVED BY

COMPLETION DATA SHEET

Lease Santa Fe Pacific
Well No. 12 Sec. 26 T. 9S R. 36E
Co., _____

DIVISION

FIELD

LOCATION

Crossroads (Siluro) Devonian 330' FWL + 2310 FSL, Unit L

WELL PROFILE

TD	DRILL PIPE <u>12120'</u>	LOG
PBTD	DRILL PIPE <u>12115'</u>	GAMMA-RAY

ELEVATION

DATUM POINT (GRD-KB-DF)

DATUM POINT ELEVATION

4029

CASING DESIGN

SIZE	WEIGHT	GRADE	THREAD	COUPLING	MAKE	NO. JTS.	FOOTAGE	SACKS
<u>13 3/8</u>	<u>48</u>				<u>17 1/2" hole</u>		<u>360</u>	<u>400</u>
<u>9 5/8</u>	<u>36/40</u>				<u>12 1/4" hole</u>		<u>5000</u>	<u>2600</u>
<u>7</u>					<u>8 3/4" hole</u>		<u>73</u>	<u>2050</u>

PERFORATED INTERVAL	FORMATION	REMARKS
<u>12076-102</u>	<u>Devonian</u>	<u>Acidized w/ 3500 gal. 15% NE</u>

COMMENTS: Cemented 7" liner w/ 1800 sx, squeezed liner top w/ 250 sxOperated by Meteor Development

SUBMITTED BY

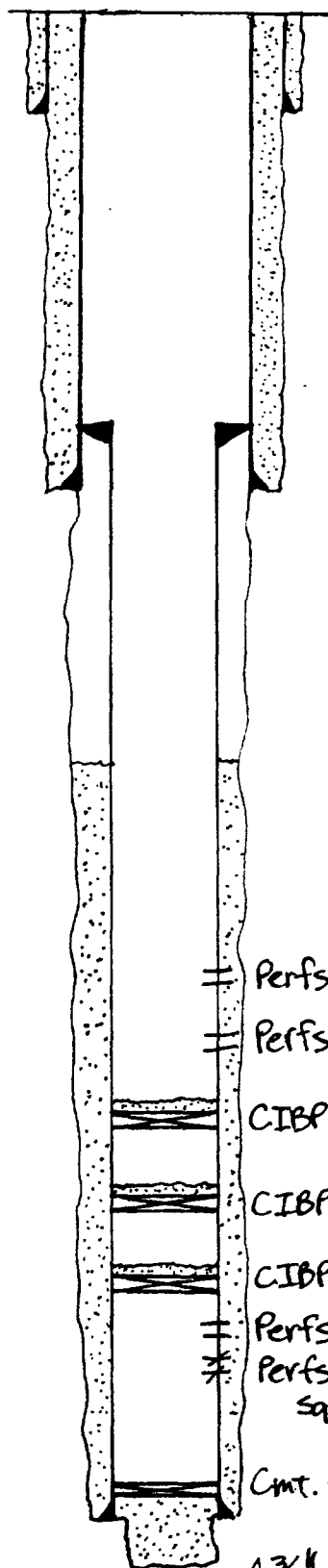
JCN Clement

DATE

6/18/97

APPROVED BY

OPERATOR: Saga Petroleum LLC of CO	LOCATION: Unit A, 660 FEL & 660' FNL
Lease: U.D. Sawyer #4	Sec. 27, T9S, R36E, Lea County, NM



1 3/8" casing set at 259' with 300 sx of cement.

Hole Size: 1 7/2". TOC @ surf. by circ.

9 5/8" casing set at 4668' with 2400 sx of cement.

Hole Size: 12 1/4". TOC @ surf. by circ.

5 1/2" casing cut and pulled at 4566'

Ran 5 1/2" csg. patch and hanger
Hung 5 1/2" csg. @ 4544'

= Perfs 11400'-413'

= Perfs 11442'-450'

CIBP @ 11490' w/ 2 sx. cmt.

CIBP @ 11850' w/ 45' cmt.

CIBP @ 12010 w/ 35' cmt.

= Perfs 12089'-95'

* Perfs 12085'-100'
Squeezed

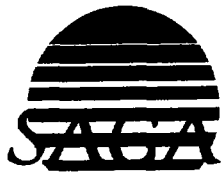
Cmt. rtn @ 12108'

4 3/4" open hole 12118'-32'
Squeezed w/ 290 SX

5 1/2" casing set at 12118' with 1175 sx of cement.

Hole Size: 7 7/8". 1st Stage: TOC @ 6020' by TS.
2nd Stage: TOC @ _____' by _____.

Total depth 12132' DV Tool @ 11636'



PETROLEUM, L. L. C.

May 9, 1997

David Catanach
NM Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

Dear David:

I reviewed Saga's pending C-108 on the U.D. Sawyer #11 with Jerry Sexton, and he requested schematics on the P&A'd wells in the area of review. The schematics were not included with the C-108 application as none of the wells penetrated the proposed injection zone. The schematics have been sent to the Hobbs office, and I am enclosing copies for attachment to the C-108 I sent you previously.

If you have any additional questions, or need any additional information, please call.

Sincerely,

Joe N. Clement
Area Engineer

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: SAGA PETROLEUM LLC
Address: 415 W. WALL, SUITE 835 MIDLAND, TX 79701
Contact party: JOE N CLEMENT Phone: 915-684-4293
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- * VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification

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

Name: JOE N. CLEMENT Title: AREA ENGINEER

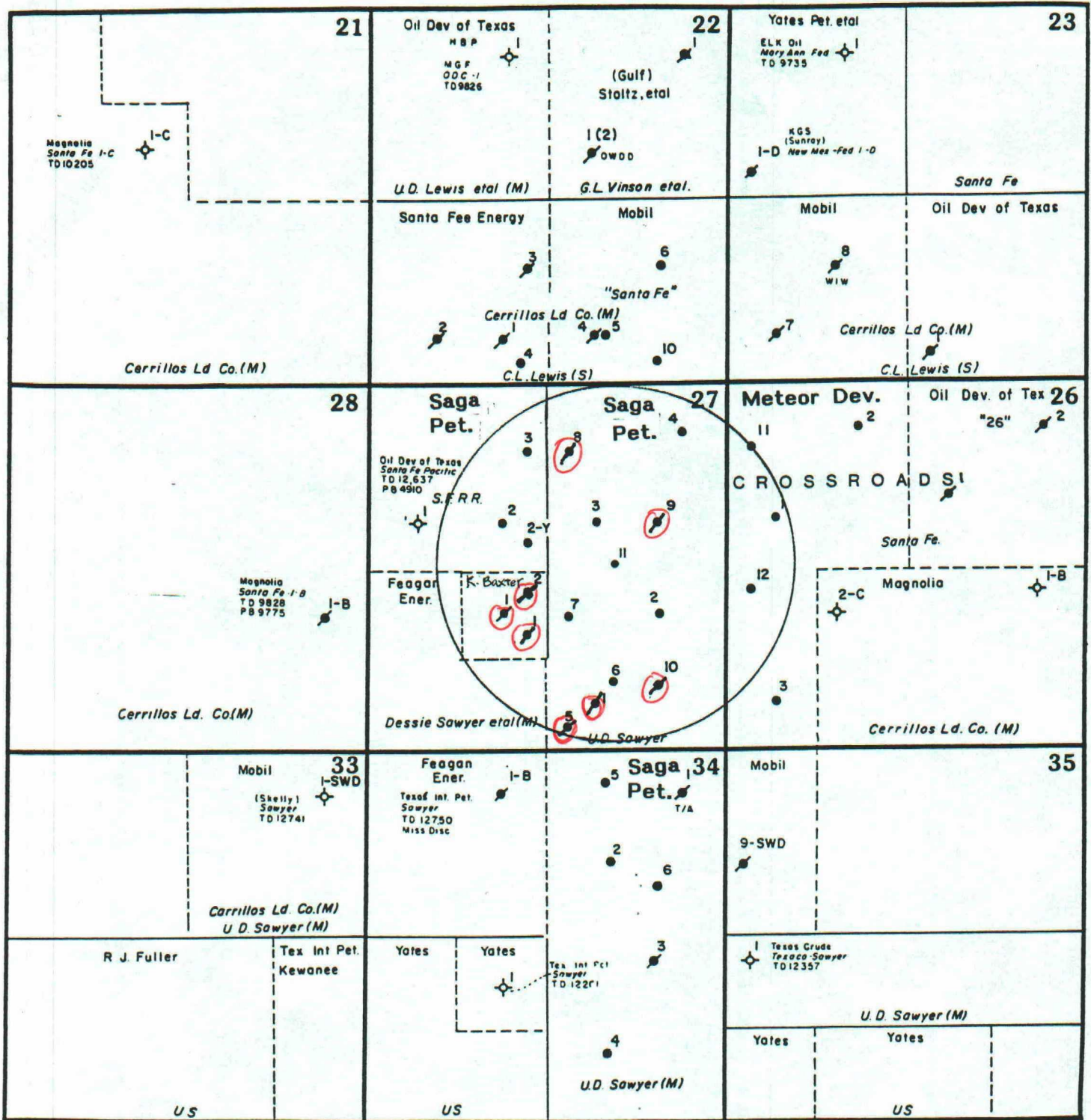
Signature: *J N Clement* Date: 5/5/97

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

Application for Authorization to Inject

- VI. Saga Petroleum LLC has checked all wells that fall within the $\frac{1}{2}$ mile radius of the proposed SWD well, the U.D. Sawyer #11, and has found that none of these wells penetrate the Devonian to a depth equal to or greater than the proposed SWD well. This investigation has further shown that all these wells have a good cement seal around their casing shoe and will therefore prevent the upward migration of the disposed water into any potable water zone.
- VII. The proposed average daily injection rate for the subject well is 10,000 BWPD; the maximum daily injection rate would be 15,000 BWPD. This will be a closed system with an average pressure of zero and a maximum pressure of 1000 psi. Attached is an analysis of produced Devonian water from the Santa Fe Pacific 27-2 (Unit F, Sec. 27-T9S-R36E). This should be representative of Devonian water in the field. Devonian water has been reinjected into the Lower Devonian (Montoya) in several disposal wells adjacent to the area of review with no indication of incompatibility.
- VIII. The injection zone is an Ordovician dolomite known as the Lower Devonian (Montoya). The top of the Lower Devonian (Montoya) in this well is at 12,375', and is 344' thick. The zone will be selectively perforated from 12,616' - 12,683'. The main source of drinking water in this area comes from the Cretaceous formation, the base of which is at 180'. The Ogallala overlies the Cretaceous, but pinches out in certain areas around the zone of interest. There are no known sources of drinking water underlying the injection interval.
- IX. After perforation, the well will be stimulated with 2000 gallons of 15% NEFE HCl and ball sealers.
- X. Log and test data is on file with the Division.
- XI. Attached is an analysis of the water from a water well approximately 1 mile northwest of the proposed disposal. This is the only well which could be located.
- XII. Saga Petroleum LLC has examined the available geologic and engineering data and can find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. The required "Proof of Notice" is attached.
-

R - 36 - E



Revised By	Date

SAGA PETROLEUM LLC

U.D. SAWYER LEASE

DATUM: _____

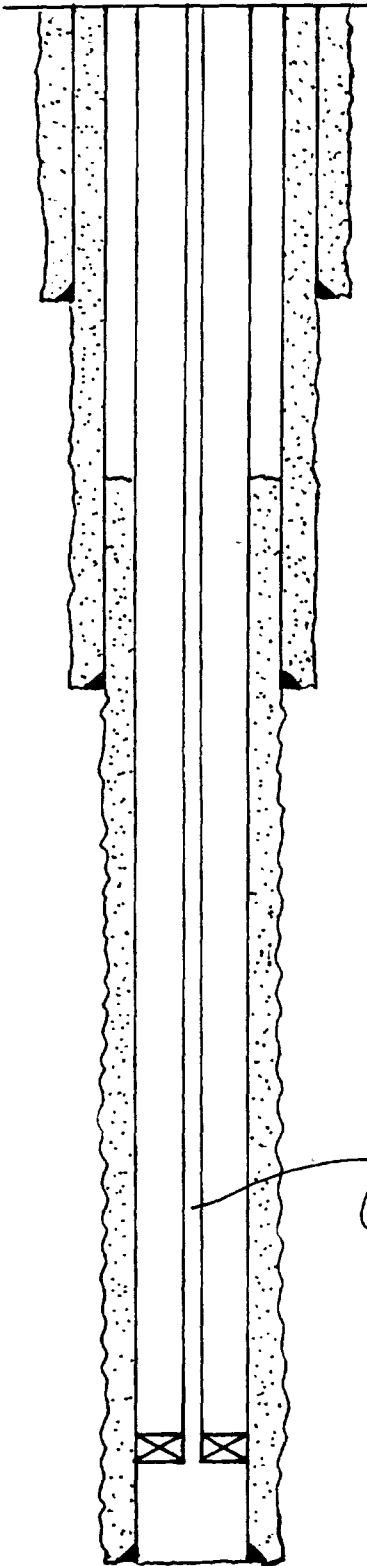
COUNTY: L.P.S. STATE: N.M. TYPE: _____

CONTOUR INTERVAL: _____ SCALE: _____

GEOLOGY BY: _____ DATE: _____

DRAFTING BY: _____ REVISED BY: _____ DATE: _____

OPERATOR: Saga Petroleum LLC of CO	LOCATION: Sec. 27, T9S, R36E, Lea County, NM
LEASE: U.D. Sawyer #1	Unit J, 2561' FSL & 1610' FEL



13-3/8" casing set at 356' with 350 sx of cement.

Hole Size: 17-1/2". TOC @ surface by circ.

9-5/8" casing set at 4500' with 2000 sx of cement.

Hole Size: 12-1/4". TOC @ surface by circ.

3-1/2" 9.3# 8rd EUE tubing w/ ceramic coating
Baker Model D Packer @ 12,566'

7" casing set at 12890' with 1650 sx of cement.

Total depth 12890' Hole Size: 7-7/8".

DV Tool @ 6012'

1st Stage: TOC @ 5650' by calc.

2nd Stage: TOC @ 1550' by Temp Survey

Permian Treating Chemicals

WATER ANALYSIS REPORT

SAMPLE

1. Co. : Penroc
 Lease :
 Well No. : 27-2
 Analysis:

Sample Loc. :
 Date Sampled : 04-November-1994
 Attention :

ANALYSIS

1. pH 5.900
2. Specific Gravity 60/60 F. 1.108
3. CaCO₃ Saturation Index @ 80 F. +0.006
 @ 140 F. +0.946

Dissolved Gases

MG/L EQ. WT. *MEQ/L

4. Hydrogen Sulfide Not Present
5. Carbon Dioxide Not Determined
6. Dissolved Oxygen Not Determined

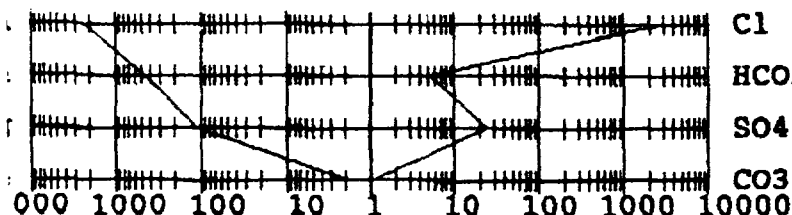
Cations

7. Calcium (Ca⁺⁺) 8,918 / 20.1 = 443.68
8. Magnesium (Mg⁺⁺) 1,337 / 12.2 = 109.59
9. Sodium (Na⁺) (Calculated) 52,734 / 23.0 = 2,292.78
10. Barium (Ba⁺⁺) Not Determined

Anions

11. Hydroxyl (OH⁻) 0 / 17.0 = 0.00
12. Carbonate (CO₃⁼) 0 / 30.0 = 0.00
13. Bicarbonate (HCO₃⁼) 298 / 61.1 = 4.88
14. Sulfate (SO₄⁼) 1,150 / 48.8 = 23.57
15. Chloride (Cl⁻) 99,977 / 35.5 = 2,816.25
16. Total Dissolved Solids 164,414
17. Total Iron (Fe) 32 / 18.2 = 1.76
18. Total Hardness As CaCO₃ 27,775
19. Resistivity @ 75 F. (Calculated) 0.026 /cm.

LOGARITHMIC WATER PATTERN *meq/L.



Calcium Sulfate Solubility Profile



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

Cl	Ca(HCO ₃) ₂	81.04	4.88	395
HCO ₃	CaSO ₄	68.07	23.57	1,604
SO ₄	CaCl ₂	55.50	415.24	23,046
CO ₃	Mg(HCO ₃) ₂	73.17	0.00	0
	MgSO ₄	60.19	0.00	0
	MgCl ₂	47.62	109.59	5,219
	NaHCO ₃	84.00	0.00	0
	NaSO ₄	71.03	0.00	0
	NaCl	58.46	2,291.42	133,957

*Milli Equivalents per Liter

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

**HALLIBURTON ENERGY SERVICES
WATER ANALYSIS REPORT
HOBBS NEW MEXICO**

COMPANY Saga Petroleum
Fax: 915-684-0829

REPORT 97-152
 DATE 5/2/97
 DISTRICT Hobbs

SUBMITTED BY _____

WELL Off set water well DEPTH _____ FORMATION _____
 COUNTY _____ FIELD _____ SOURCE _____

SAMPLE	<u>See below</u>		
RESISTIVITY	<u>11.0988 @ 72 °F</u>	<u> @ °F</u>	<u> @ °F</u>
SPECIFIC GR.	<u>0.988</u>		
pH	<u>7.46</u>		
CALCIUM	<u>150</u> mpl	<u> </u> mpl	<u> </u> mpl
MAGNESIUM	<u>75</u> mpl	<u> </u> mpl	<u> </u> mpl
CHLORIDE	<u>270</u> mpl	<u> </u> mpl	<u> </u> mpl
SULFATES	<u>100</u> mpl	<u> </u> mpl	<u> </u> mpl
BICARBONATES	<u>195</u> mpl	<u> </u> mpl	<u> </u> mpl
SOLUBLE IRON	<u>0</u> mpl	<u> </u> mpl	<u> </u> mpl
OIL GRAVITY	<u> </u> @ °F	<u> </u> @ °F	<u> </u> @ °F

REMARKS Water well located approximately 1 mile north west of disposal

ANALYST: *GLENN*

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management. It may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Co.

Resistivity measured in: Ohm/m2/m

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath
deposes and says that he is Adv. Director of
THE LOVINGTON DAILY LEADER, a daily newspaper
of general paid circulation published in the English
language at Lovington, Lea County, New Mexico; that
said newspaper has been so published in such county
continuously and uninterruptedly for a period in excess
of Twenty-six (26) consecutive weeks next prior to the
first publication of the notice hereto attached as here-
inafter shown; and that said newspaper is in all things
duly qualified to publish legal notices within the mean-
ing of Chapter 167 of the 1937 Session Laws of the
State of New Mexico.

That the notice which is hereto attached, entitled
Legal Notice

Notice Of Produced Water Disposal Well

County ~~NEW YORK~~ was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, once each week on the some day of the week for one (1) day

~~CONFIDENTIAL~~ beginning with the issue of May 6 19 97

and ending with the issue of

May 6 19 97

And that the cost of publishing said notice is the sum of \$ 17.83

which sum has been (Paid) (~~Assessed~~) as Court Costs

Subscribed and sworn to before me this 6th
day of May 19 97

day of May 19 97
Jean Senior
 Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28 1998

**LEGAL NOTICE
NOTICE OF
PRODUCED
WATER
DISPOSAL WELL**

Sage Petroleum Limited Liability Co. of Colorado, 415 W. Wall, Suite 835, Midland, Texas 79701, 915-684-4283, contact Joe H. Clement, has made application for a produced water disposal well with the New Mexico Oil Conservation Commission. The well, known as the U.D. Sawyer #11, is located 2561' FSL and 1610' FEL, Sec. 11-T9S-R36E, Lea County, New Mexico. Disposal will be into the Lower Devonian zone through perforations from 12,616' - 12,683'. Maximum rate and pressure is anticipated to be 15,000 BWPD and 500 PSI. Interested parties must file objections and requests for hearing with the New Mexico Oil Conservation Commission, P.O. Box 2088, Santa Fe, New Mexico 87504 within fifteen (15) days of this notice.

Published in
the Lovington Daily
Leader May 8, 1997.

Z 425 541 518



Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

PS Form 3800, March 1993

Sent to FEAGAN ENERGY	
Street and No. P. O. BOX 50307	
P. O., State and ZIP Code MIDLAND, TX 79710-0307	
Postage	\$ 55
Certified Fee	110
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	110
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 275
Postmark or Date	

Z 425 541 519



Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

PS Form 3800, March 1993

Sent to KELLY H. BAXTER	
Street and No. P. O. BOX 11193	
P. O., State and ZIP Code MIDLAND, TX 79702	
Postage	\$ 55
Certified Fee	110
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	110
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 275
Postmark or Date	

Z 425 541 517



Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

PS Form 3800, March 1993

Sent to METEOR DEVELOPMENT	
Street and No. 511 16TH, SUITE 400	
P. O., State and ZIP Code DENVER, CO 80202	
Postage	\$ 55
Certified Fee	110
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	110
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 275
Postmark or Date	

Z 425 541 520



Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

PS Form 3800, March 1993

Sent to BOBBY LEWIS	
Street and No.	
P. O., State and ZIP Code CROSSROADS, NM 88114	
Postage	\$ 55
Certified Fee	110
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	110
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 275
Postmark or Date	

CROSSROADS SILWING DEV. FIELD

LOCATION: 660' FSC E 1980' FEL (0)

SEC 27, T9S R36E LEA CO. N.M.



13 $\frac{3}{8}$ " (40#) casing set at 214' with 300 sx of cement.

13 $\frac{3}{8}$ @ 214'

Hole Size: 1 7/8 ". CIRC. CNIT. TO SURF.

PIER: 4 SQ HOLES @ 2220'
SQ W/ 50 SX IN & 20 SX OUT

PERF = 4 SQ HOLES @ 3710'
SO. W/50 SX CMT IN E 20 SX OUT

9 3/8 @ 3706'

9⁵/₈" (36") casing set at 3706' with 2800 sx of cement.

TOC 4570 TEMP SURVEY

PERIF SAN ANDRES 4820'-50'

Hole Size: $1\frac{1}{4}$ " CIRC CNT TO SURF

S1400T SQ PERF 4950'-51'(4 HOLES)
SQ W/ 220 SK CMT

TOC 8540' (TEMP SURVEY):

PENN PERF
11412-422

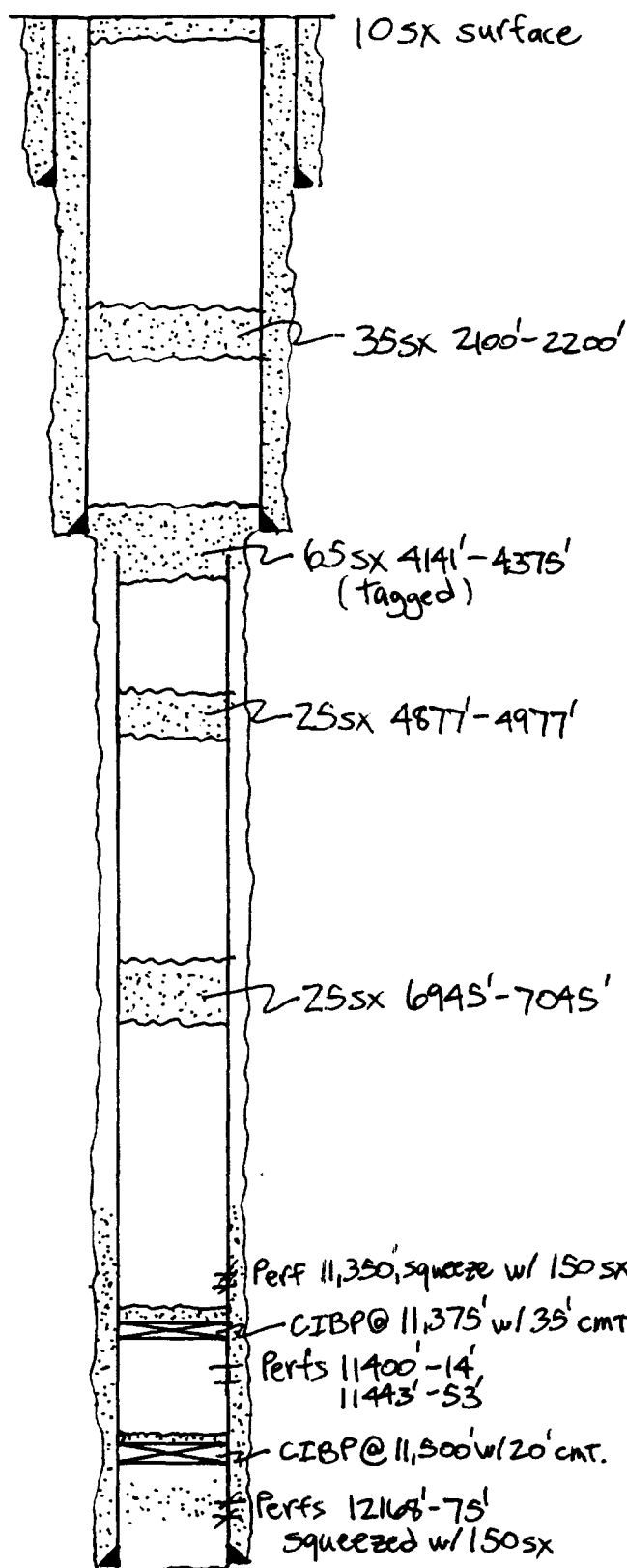
DEV PERF
12115-215 CMT SQ
12100-142 & 12152-182
REPERE

5½ (20") casing set at 12,225' with 700 sx of cement.

Total depth 12258 ' Hole Size: 7 $\frac{7}{8}$ "

5 1/2" AT 12255'

OPERATOR: Saga Petroleum LLC of CO	LOCATION: Sec. 27, T9S, R36E, Lea County, NM
Lease: U.D. Sawyer #5	Unit O, 330' FSL + 2310' FEL



1 3/8" casing set at 235' with 225 sx of cement.

Hole Size: 17 1/4". TOC @ surf by circ.

8 5/8" casing set at 4186' with 1035 sx of cement.

Hole Size: 11". TOC @ 102' by TS

5 1/2" casing cut and pulled at 4325'

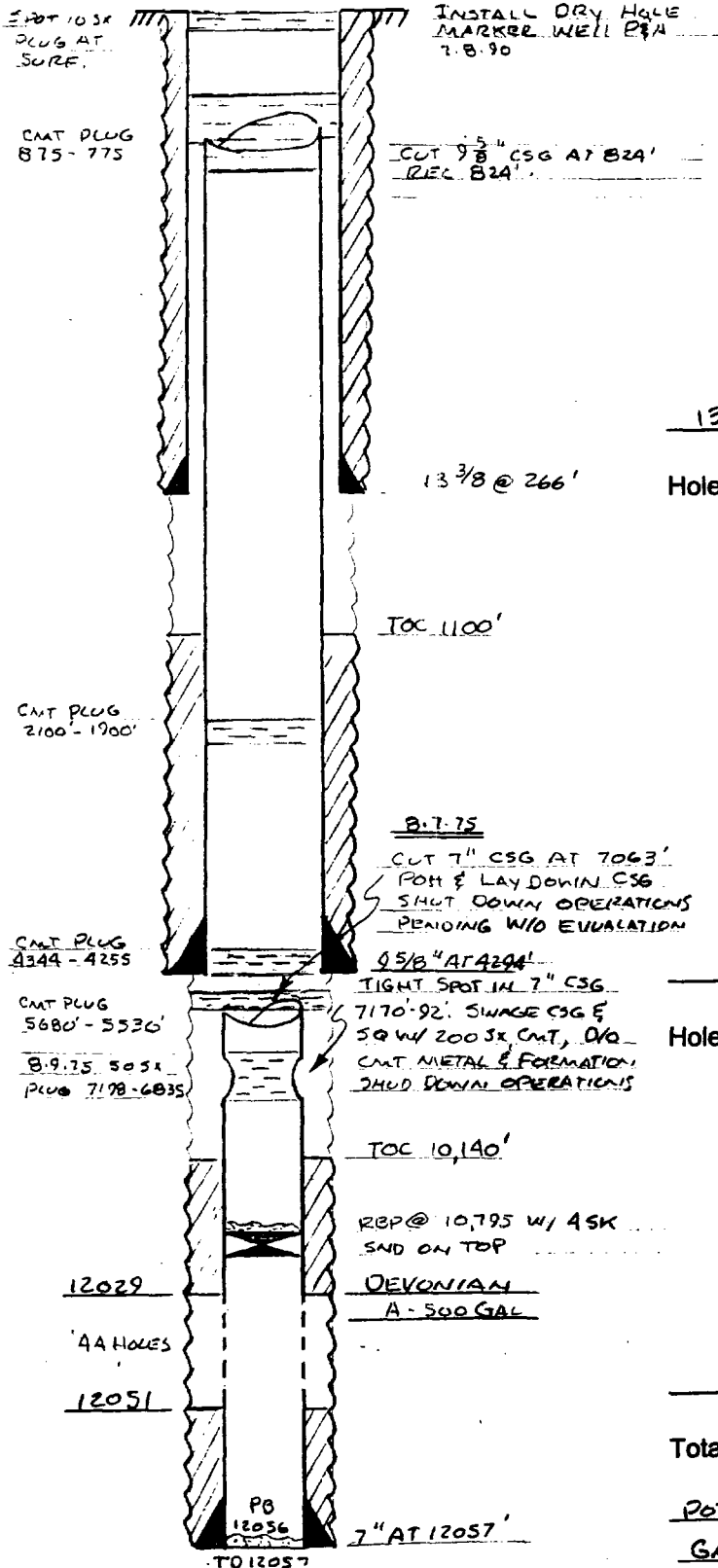
5 1/2" casing set at 12177' with 225 sx of cement.

Hole Size: 7 7/8". 1st Stage: TOC @ 11200' by calc.
2nd Stage: TOC @ _____' by _____

Total depth 12180 DV Tool @ N/A

ORyx ENERGY Co.

OPERATOR: Saga Petroleum LLC of CO	CROSSROADS SILVER DEVONIAN
LEASE: U.D. SAWYER NO.8	LOCATION: 2310' ELE 990' FNL (13)
SEC 27, 9S, 36E, LEA COUNTY, NEW MEXICO	



13 3/8 " casing set at 266 ' with 275 sx of cement.

Hole Size: 17 1/2 ". CMT CIRC TO SURF.

9 5/8 " casing set at 4294 ' with 1440 sx of cement.

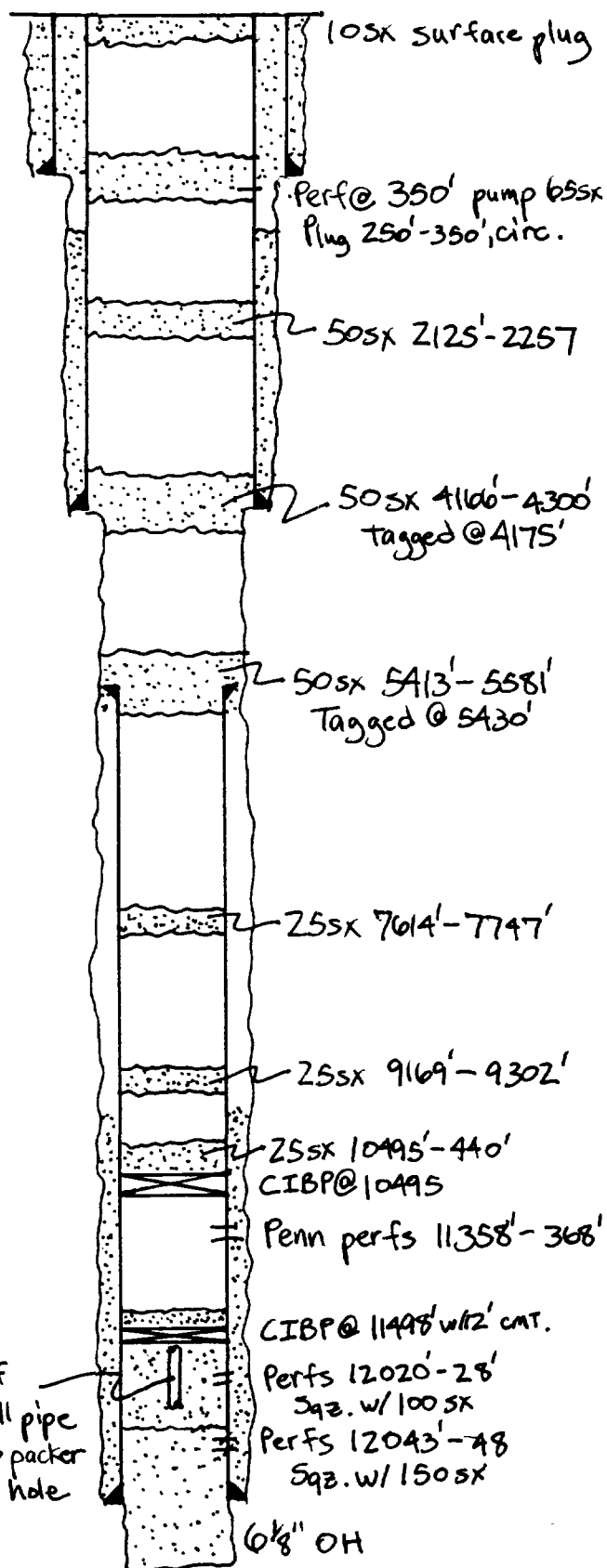
Hole Size: 12 1/4 ". TOC 1100'

7 " casing set at 12057 ' with 250 sx of cement.

Total depth 12057 ' Hole Size: 8 3/4 ". TOC 10140'

POTENTIAL TEST: F- 1 7/64" CNIC, 684 BBL @ 0.3W,
GAS TSTM, 44.2° API, FTP 360"

OPERATOR: Saga Petroleum LLC of CO	LOCATION: Sec. 27, T9S, R36E, Lea County, NM
Lease: U.D. Sawyer #9	Unit H, 1980' FNL + 990' FEL



13 3/8 " casing set at 273 ' with 275 sx of cement.

Hole Size: 17 1/2 ". TOC @ surf by circ.

9 5/8 " casing set at 4240 ' with 1440 sx of cement.

Hole Size: 12 1/4 ". TOC @ 1520' by TS.

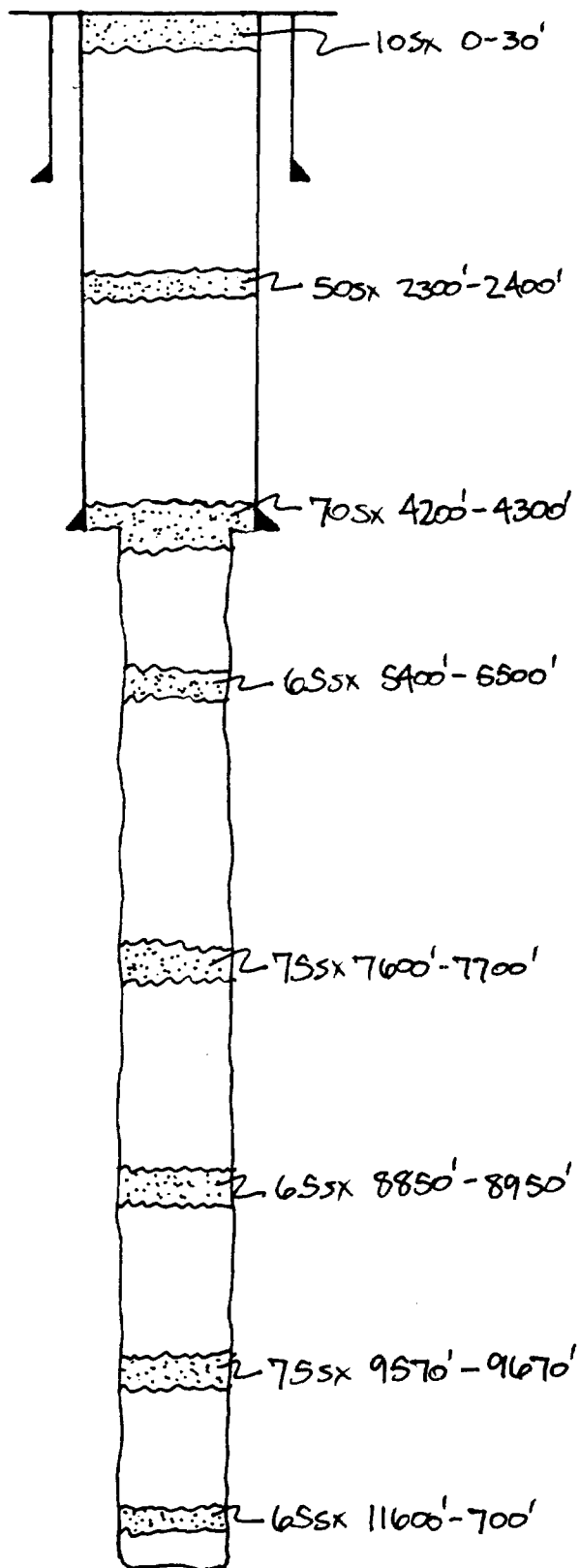
7 " casing cut and pulled at 5540'

7 " casing set at 12049 ' with 250 sx of cement.

Hole Size: 8 3/4 ". 1st Stage: TOC @ 9400 ' by TS.
2nd Stage: TOC @ _____ ' by _____.

Total depth 12068 ' DV Tool @ N/A '.

OPERATOR: Saga Petroleum LLC of CO	LOCATION: Sec. 27, T9S, R36E, Lea County, NM
Lease: U.D. Sawyer #10	Unit P, 1000.5' FEL + 986.1' FSL



13 3/8 " casing set at 260 ' with 365 sx of cement.

Hole Size: 17 1/2 ". TOC @ Surf. by Circ.

9 5/8 " casing set at 4250 ' with 1540 sx of cement.

Hole Size: 12 3/4 ". TOC @ Surf. by Circ.

N/A " casing set at _____ ' with _____ sx of cement.

Hole Size: 7 7/8 ". 1st Stage: TOC @ _____ ' by _____.
2nd Stage: TOC @ _____ ' by _____.

Total depth 12190 ' DV Tool @ N/A '.

OPERATOR: <u>Exeter F. Co. Inc.</u>	<u>CROSS ROADS SIKING DEVONIAN</u>
LEASE: <u>DESSIE SAWYER NO. 1</u>	LOCATION: <u>(K) 1980' ECL & 1980' FNL</u>
SEC 27, T9S, R36E, LEA Co. N.M.	

(5) JAN 81
 SPOT 105X PLUG AT SURF & INSTALL MARKER
 JAN-81: CUT-OFF WELL HEAD. PULL
 TOTAL OF 177 JTS 5 1/2" CSG. (± 5655')

13 3/8" (36#) casing set at 240' with 300 sx of cement.

Hole Size: 17" CMT CIRC TO SURF

4) JAN 81
 SPOT 35 SX CMT PLUG 2335'-2235'

(3) JAN 81
 SPOT 100 SX RUG FROM 4630'-4424' CHK TOC W/TBGS @ 4424

(2) JAN 81
 SPOT 35SX PLUG FROM 4900' TO 4800' DID NOT FALL BACK.

(1) JAN 81
 SPOT 200SX PLUG FROM TOP OF FISH TO 5000' CMT FELL BACK TO 5498'

9 5/8" (36#) casing set at 4617' with 4050 sx of cement.

Hole Size: 12 3/4" CMT CIRC TO SURF

MARCH "64": FOUND
 TIGHT SPOT IN CSG FROM 5768-70. SET 35SX CMT PLUG FROM 6100-6400. TRY TO CUT & PULL CSG. WOULD NOT PULL. MILL THRU TIGHT SPOTS TEST TO 3000'. DRILL & C/O TO TD & REPAIR. PUT WELL BACK ON PRODUCTION. (SEE BELOW)

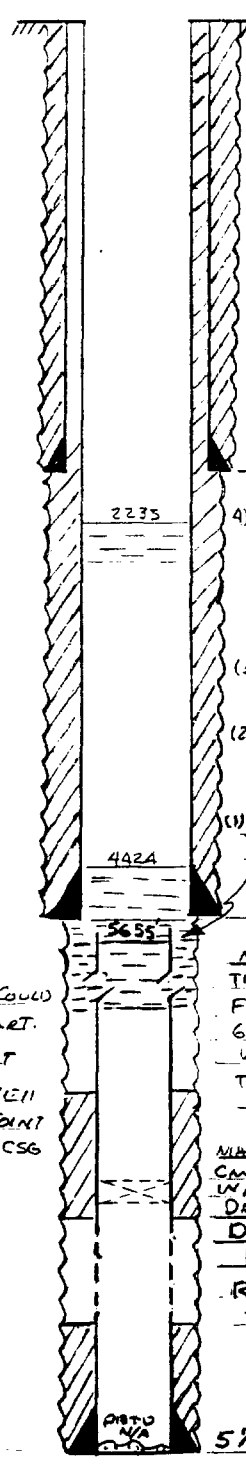
MARCH "64"
 CMT RETAINER AT 11701 SQ PERFS W/ 225 SX CMT IN TWO STAGES. DRILL OUT & REPERF 11740'-780'
 DEVONIAN ORIGINALLY PERF. 12740'-12840. 30 W CMT.

REPERF 11740'-780' 5 1/2" (17#) casing set at 12218' with 2000 sx of cement.
 TO TRY TO SHUT-OFF WTR.

Total depth 12218' Hole Size: 7 7/8"

TOP OF PRIM. CMT FOR 5 1/2" CSG NOT REPORTED.

JUNE 68
 FOUND 3 1/2" CSG
 PARTED AT 5746'. COULD NOT GET THRU PART. SQ W/ 200 SX CMT TEST TO 2000'. WELL I.A. SAFETY JOINT & PUL STUCK AT CSG PART.

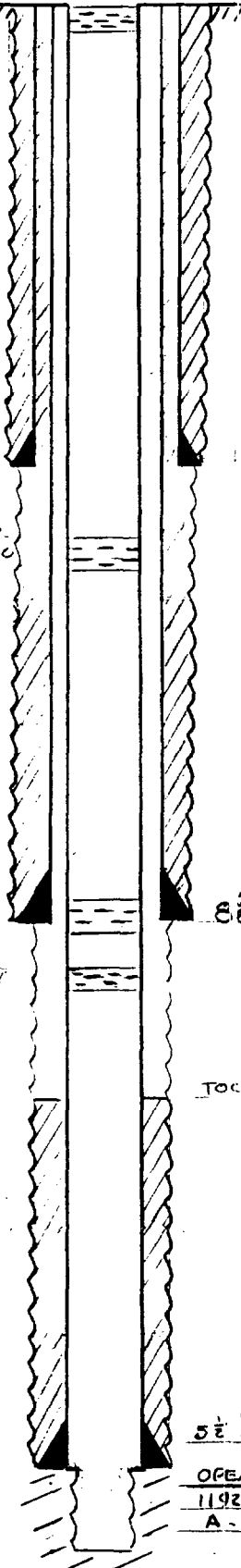


TO 12,218

BAXTER H. KELLEY

OPERATOR:	CROSSROADS SIKURO, DEVONIAN
LEASE: SAINIER WELL NO. 1	LOCATION: K 1650' E 34' 2310' FWL
SEC 27, 9S, 36E, LEA COUNTY, NEW MEXICO	

SPOT 15 SX
PLUG AT
SURE



2 3/4" @ 276'

12 3/4" casing set at 276' with 350 sx of cement.

Hole Size: 17 1/2" CMT CIRC TO SURF

CMT PLUG
1800-1650

CMT PLUG
4200-4074

8 5/8" @ 4125'

8 5/8" casing set at 4125' with 1650 sx of cement.

Hole Size: 11" CMT CIRC TO SURF

CMT PLUG
4589-4431

TOC 10,150' (CALC)

5 1/2" @ 11920'

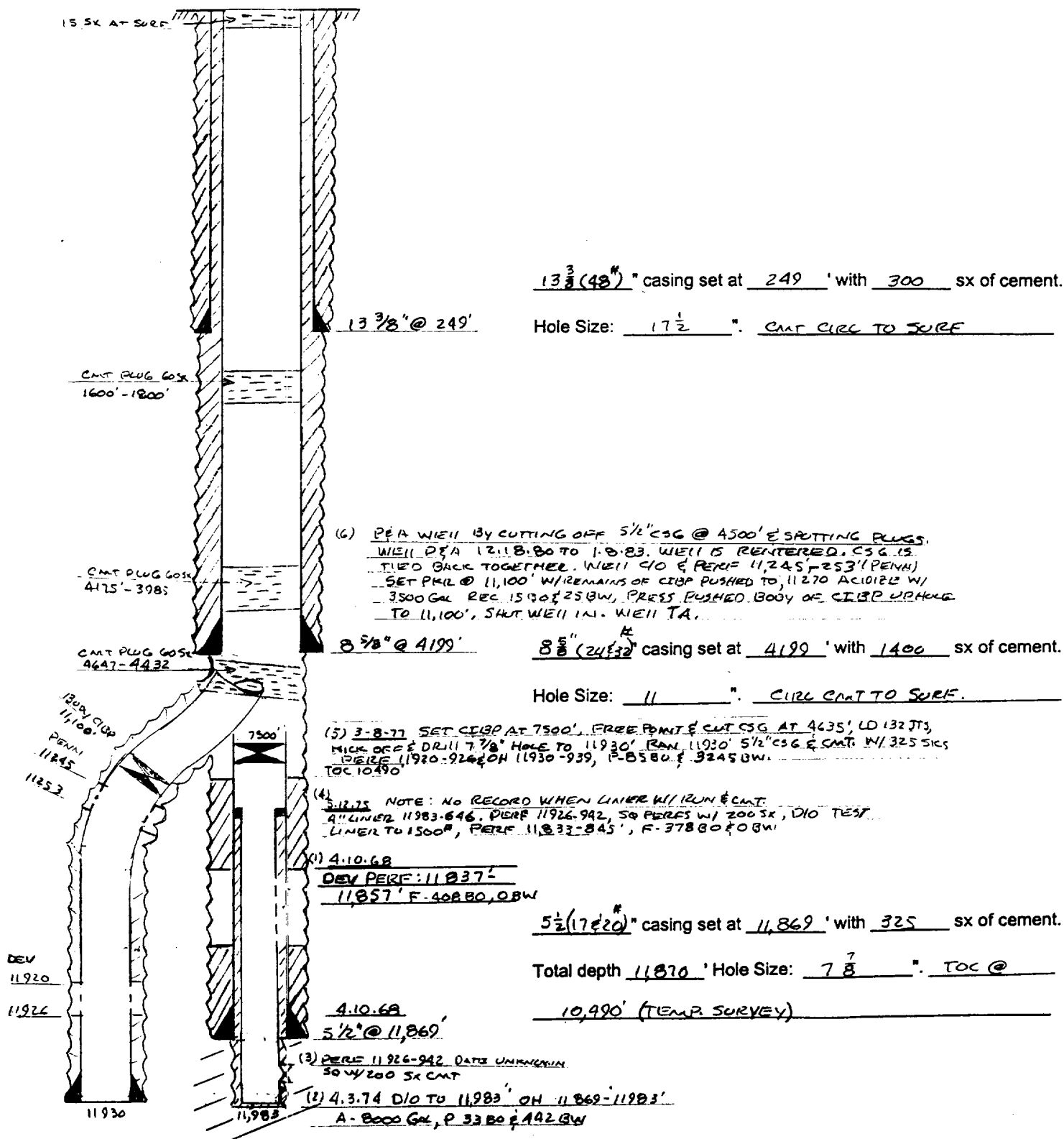
5 1/2" casing set at 11920' with 250 sx of cement.

Total depth 11949' Hole Size: 7 7/8" TOC 10,150'

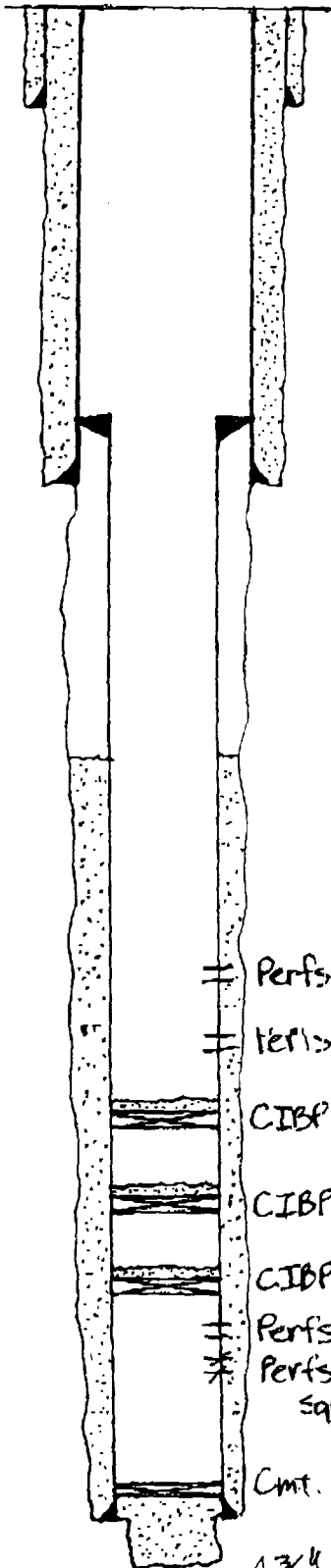
OPEN HOLE
11926-11949'
A - 500 GAL

POTENTIAL TEST: P-12880 @ 245 BW, GOR 161, 44° API

OPERATOR: Saga Petroleum LLC of CO	CROSSROADS SILVER DEVONIAN
LEASE: DESSIE SAWYER NO.2	LOCATION: (K) 2310' ESE & 2310'
FWL, SEC 27, T2S, R36E LEA CO NM	



OPERATOR: Saga Petroleum LLC of CO	LOCATION: Unit A, 660 FEL & 660' FNL
Lease: U.D. Sawyer #4	Sec. 27, T9S, R36E, Lea County, NM



13 $\frac{3}{8}$ " casing set at 259' with 300 sx of cement.

Hole Size: 17 $\frac{1}{2}$ ". TOC @ Surf. by Circ.

9 $\frac{5}{8}$ " casing set at 4668' with 2400 sx of cement.

Hole Size: 12 $\frac{1}{4}$ ". TOC @ Surf. by Circ.

5 $\frac{1}{2}$ " casing cut and pulled at 4566'

Ran 5 $\frac{1}{2}$ " csg. patch and hanger

Hung 5 $\frac{1}{2}$ " csg. @ 4544'

= Perfs 11400' - 413'

= Perfs 11412' - 420'

CIBP @ 11490' w/ 2 sx. cmt.

CIBP @ 11850' w/ 45' cmt.

CIBP @ 12010 w/ 35' cmt.

= Perfs 12089 - 95'

* Perfs 12085' - 100'
squeezed

Cmt. rtn @ 12108'

4 $\frac{3}{4}$ " open hole 12118' - 32'
squeezed w/ 290 sx

5 $\frac{1}{2}$ " casing set at 12118' with 1175 sx of cement.

Hole Size: 7 $\frac{7}{8}$ ". 1st Stage: TOC @ 6020' by TS.
2nd Stage: TOC @ _____' by _____.

Total depth 12132'. DV Tool @ 11636'

Saga Petroleum

Field CROSSROADS (DEVONIAN) County LEA, N.M.
 Operator SAGA PETROLEUM
 Lease/Well UD SAWYER NE11 NO.2
 Location 1630' ENL & 1650' FEL, 34G, 9S, 36E
 Elevation: GL KB
 Completion Date & Test:

Surface Casing/Cement: 13 3/8" 40#/FT STEEL H-40 SET
AT 338', CMT W/ 400 SX "C" CIRC TO SURF
 Intermediate Casing/Cement: 9 5/8" 36#/FT STEEL H-15 SET
AT 4142'
 Production Casing/Cement: 5 1/2" 17# E20 LTR N-80 CSG
AT 12182'
 Liner Cap/Cement: NONE
 Open Hole Interval: NONE
 Tubing: Depth 12168' Size 2 3/8"
 Packer Set at: CORED NO
 Type Logs WELLS GRIN SERIES 2000 & GUARD FORCO

Work History:

DST #1 From 9,645' to 9,820' 30 MIST - 1707, 20 MFSI-2618. Tool open 2 hrs test with good blow thru-out test. Recovered 5700' SW. IF-467, FF-2618, HI-5130, HO-5130, BHT-165. Job complete 1:30 P.M. 1-30-59.

DST #2 From 12,040' to 12,157'. Tool open with weak blow and died. In 1 min. recovered 3700' WB. No DM. 30 MFSI-1971, 30 MFSI-1867, HI-6417, HO-6417, IF-1761, FF-1761, Job complete 12 noon 3-16-59.

DST #3 From 12,145' to 12,182'. Tool open 2-1/2 hrs with fair blow thru-out test. Recovered 3870' WB and 3150' free oil, no water. 30 MFSI-4715, IF-1905, FF-2745, 30 MFSI-4630, BHT-195, HI-6134, HO-6100, Job complete 1:30 P.M. 3-18-59.

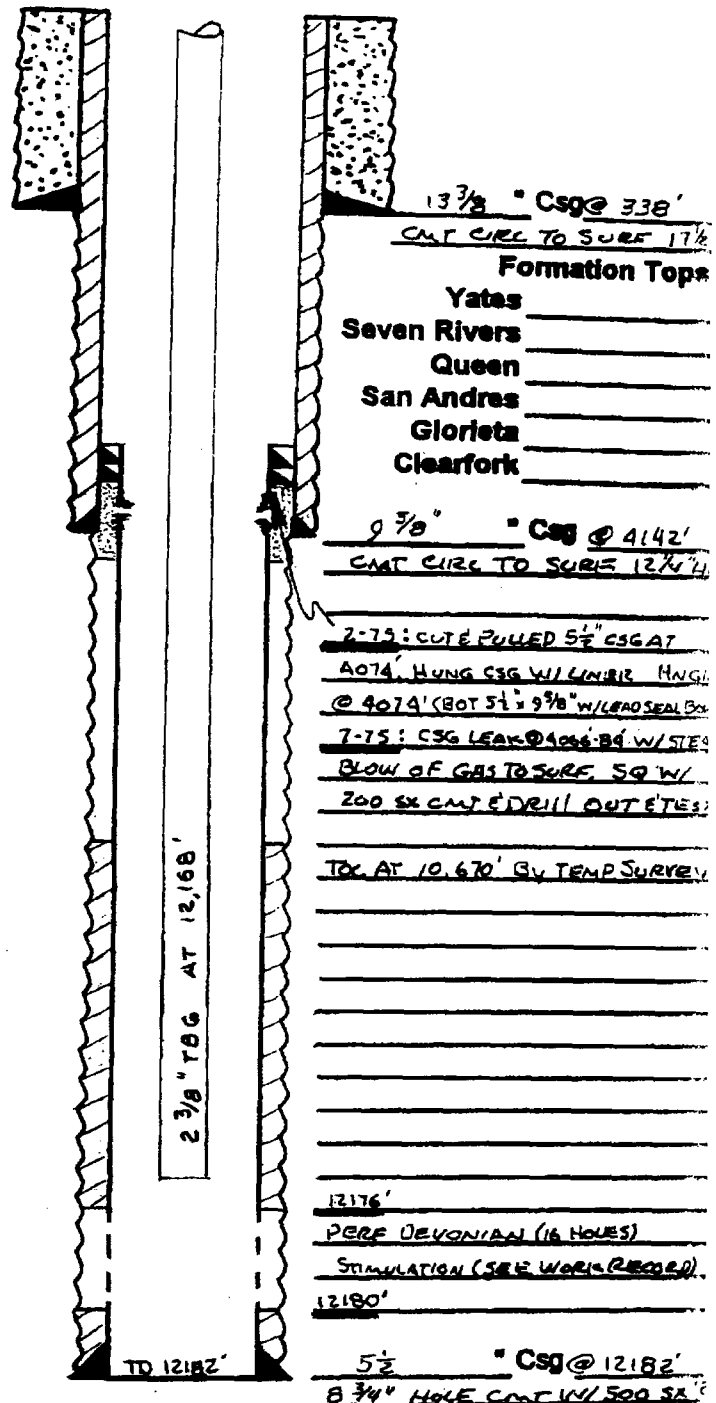
COMPLETION AND PERFORMAL WORK RECORD

PRODUCTION TEST BEFORE				TREATMENT				PRODUCTION TEST AFTER			
DATE	DE	WTR	GOR	HEI	TYPE	AMOUNT	PERCENT	DATE	DE	WTR	GOR
5/25/59	NEW WELL	---	---	24 (P)	10% AQUE	200	12.1%	5/25/59	280	0	243
6/9/59	24	15	---	24 (P)	20%	1000	---	6/9/59	280	0	243
7/23/59	24	0	---	24 (P)	20%	1000	---	7/23/59	280	0	243
10/27/59	120	247	---	24 (P)	20%	2000	---	10/27/59	280	0	243
2/13/60	154	474	---	24 (P)	20%	2000	---	2/13/60	280	0	243
4/28/60	154	114	---	24 (P)	7.5%	2000	---	4/28/60	280	0	243
7/7/60	100	60	---	24 (P)	Repair Cap test	---	---	7/7/60	280	0	243
9/18/60	80	275	---	24 (P)	10%	2000	---	9/18/60	280	0	243

Remarks:

Present Allow _____ Min. Allow 410 Actual Prod. 1,000,000 cu ft of 1/1/73

Present Test: Oil _____ Water _____ Gas _____ GOR _____ Hrs _____ Pump

Well Name & Number: UD SAWYER NO.2

Saga Petroleum

Field CROSSROADS DEVONIAN County LEA, N.M.
 Operator SAGA PETROLEUM CORP
 Lease/Well SFPRR WELL 27-2Y
 Location 2310' ENL E 2310' ENL 27-F, 95, 36E
 Elevation: GL 4030 KB 4049
 Completion Date & Test: 10.13.72 F 640130, 08WF
 GAS TEST FROM PERF 11902-11922

Surface Casing/Cement: 13 3/8" 48" H-40, STC @ 333'
 CMT W/ 300 SX IN 17 1/2" HOLE; CIRC TO SURF
 Intermediate Casing/Cement: 9 5/8" 36" K-55 STC @ 4954'
 CMT W/ 750 SX IN 12 1/4" HOLE; TOC UNKNOWN
 Production Casing/Cement: 7" 26" #29 N-80 LTCC @
11943'; CMT W/ 250 SX IN 8 3/4" HOLE TOC 11370'
 Liner Csg/Cement: 7" 4819' TO 11943' SEE DRAWING
 Open Hole Interval:

Tubing: Depth _____ Size _____
 Packer Set at: _____ Cored _____
 Type Logs WELLEX GR/SNP SURF TO 11926'
GR/GUARD 8300-11921; CBL SELECTED INTERVALS; TEMP LOG

Work History:

10.13.72: COMPLETED AFTER MULTIPLE CMT SQ WORK
 SEE DRAWING. PERF PAY 11902-932. HW 5500 GAL 15%
 8.1.73 RAN REDA PMP
 8.15.73 RAN LARGER SUB PMP INCREASED PMP
 CAPACITY FROM 2300 GPD TO 4300 GPD
 1.26.88 CSG COLLAPSE 3750'-3800'. PRODUCING
 WELL ABOVE COLLAPSE, CSG.



13 3/8" Csg @ 333'
W/ 300 SX CIRC TO SURF
 Formation Tops:
 Yates 2828' + 1129'
 Seven Rivers 3007' + 1042'
 Queen 3520' + 529'
 San Andres 4020' - 21'
 MISS 11340 - 729'
 DEVONIAN 11820 - 777'
9 5/8" Csg @ 4954'
W/ 750 SX, TOC UNKNOWN
TOC 9480'
10750' 4 HOLES SQ W/ 30 SX CMT
11,330' 4 HOLES SQ W/ 75 SX CMT
11430'
DEV. SQ W/ 175 SX.
11740'
11770 4 HOLES SQ W/ 50 SX
11902
DEVONIAN 5500 GAL 15%
11922
7" Csg From
11943' - 4819' TOC 9480'

PB 11922

TO 11943

Well Name & Number: SFPRR WELL 27-2Y

Saga Petroleum

Field CROSSROADS (DEVONIAN) County LEA, NM
 Operator SAGA PETROLEUM CORP.
 Lease/Well SFPRR 27-3
 Location 990' FNL E 2310' FNL 27-C, 9S, 36E
 Elevation: GL 4033 KB 4052'
 Completion Date & Test: 6-72 P 190 BO, 14 BW, GAS
TSTM

Surface Casing/Cement: 13 3/8" 48" H-40 @ 315' W/
300 SX CMT IN 17 1/2" HOLE CMT CIRC.

Intermediate Casing/Cement: 8 5/8" 24 1/2" E-32" K-55
E-S-80 @ 5000' W/400 SX TOC @ 4200' IN 11" HOLE

Production Casing/Cement: 5 1/2" 17 1/2" N-80 @
11,987' W/350 SX IN 7 7/8" HOLE TOC 10,026'

Liner Csg/Cement: 5 1/2" From 4873' - 11,987'

Open Hole Interval: 4 5/8" 11,987' - 12,018'

Tubing: Depth Size

Packer Set at: Cored

Type Logs N/A

Work History:

40 acre spacing
 Spud 6/72
 Perf 1 SPF 11,971-85' & acdz
 w/112500 gals, comp 1 10/72
 IP 190 BO, 14 BW, gas TSTM,
 pumping from 1216' only

11/72 acdz w/3500 gals in 4 stgs
 w/3 BAF blks - ran prod tbg to
 5276', test @ 575 BO & 0 BW

1975 Lower pump to 7000' to increase
 207 BO & 138 BW to 253 BO & 168 BW
 7/77 C/O to TD acdz OH w/3500 gals
 Before: 109 BO, 163 BW
 After: 149 BO, 205 BW. Also press
 test csg from surface - 11,812' to
 1000 psi, ok

1/80 Attempt recompletion in Penn
 Sandstone @ 11,277-88'. Vann
 gunned & acdz w/2000 gals,
 re-acidize w/7000 gals + CO₂.
 Recov 10 BF 98% wtr. Cmt sq
 w/40 sx.

13 3/8" Csg @ 315'

W/300 SX CMT CIRC.

Formation Tops

4200' Est TOC.

Liner top @ 4873', multiple remedial
 sq jobs. 4 holes @ 4914' squeeze
 w/100 sx & 150 sx

8 5/8" Csg @ 5000'

W/400 SX CMT TOC @ 4200'

TOC AT 10,026 CPL 7-28-72

11,277-88' Penn: Perf. acdz, test
 wet & tight, then cmt sqz'd

11,930 11,930-11,985' has had
 11,940 multiple cmt squeezes &
 acid stimulations.
 Presently cmt sqz'd since
 1980.

Communicated from 11,960 to TD per
 temp survey 11/72

11,972' 2TSPF DEVONIAN
 11,985'

7 7/8" hole, 9# mud chl 100-40K 9X of
 5 1/2" 17 & 20# N-80 @ 11,987' w/350
 TOC 10,026'. BHT @ 187°F

4 5/8" OH @ 11,987-12,018' TD

5 1/2" Csg @ 11,987'

W/350 SX TOC 10,026'

Well Name & Number: SFPRR 27-3

Saga Petroleum

Field CROSSROADS (DEVONIAN) County LEW
 Operator SAGA PETROLEUM CORP
 Lease/Well SFPRR 27-#2
 Location 1980' EN & W 4 SEC 27-F, 9-S, 36-E
 Elevation: GL N/A KB
 Completion Date & Test:

Surface Casing/Cement: 13 3/8" 48" H-40 STC @ 312.5'
W/ 350 SX CMT, CIRC TO SURF. HOLE DIA ?
 Intermediate Casing/Cement: 9 5/8" 40" J-55 @ 4236' W/ 15'
STAGE 750 SX, DV TOOL @ 3204', 2ND STAGE 2100 SX, CMT CIRC TO SURF
 Production Casing/Cement: 5 1/2" 17" #20" N-80 @ 11775'
W/ 200 SX TO 10970', 2ND STAGE 1500 SX TO 4150' BY TEMP SURVEY
 Liner Cap/Cement: 11595 TO 11879
 Open Hole Interval:
 Tubing: Depth _____ Size _____
 Packer Set at: _____ Cored 9553-9684
 Type Logs TEMP SURVEY; GEN 9500-11800';
GR LATERAL 9239-9553; CALIBER 312'-4135';

Work History:

6.9.50: SPUD WELL (POTENTIAL TEST NOT REPORTED)
COMPLETED OPEN HOLE 11755' TO 11800' FLOW UNTIL 5-70
FEB. 1972: RAN 4" FJ LINER FROM 11595-11879
PERF LINER 11790-11800 & TREAT W/ 500 GAL ACD
NO TEST REPORTED

WELL ST FROM 10-73 TO 11-74 WHILE LSE. ALLOW.
WAS PROD. FROM SFPRR WELL 27-24

PERF
DEVONIAN
11790'
11800'

PS 11,840'
TO 11,880'

13 3/8" Csg @ 313'
W/ 350 SX CMT, CIRC

Formation Tops:

DV TOOL AT 3204'
 Yates
 Seven Rivers
 Queen
 San Andres
 Glorieta
 Clearfork

9 5/8" Csg @ 4236'
CMT W/ 200 SX CMT, CIRC

TOC @ 10970' PERF & CMT W/
1500 SX LOST CIRC WHILE PMP.
CMT.

4" FJ-40 HYDRAL LINER @ 11595' TO
11879. CMT W/ 50 SX

5 1/2" Csg @ 11775'
IN 8 3/4" HOLE

Well Name & Number: SFPRR 27-#2

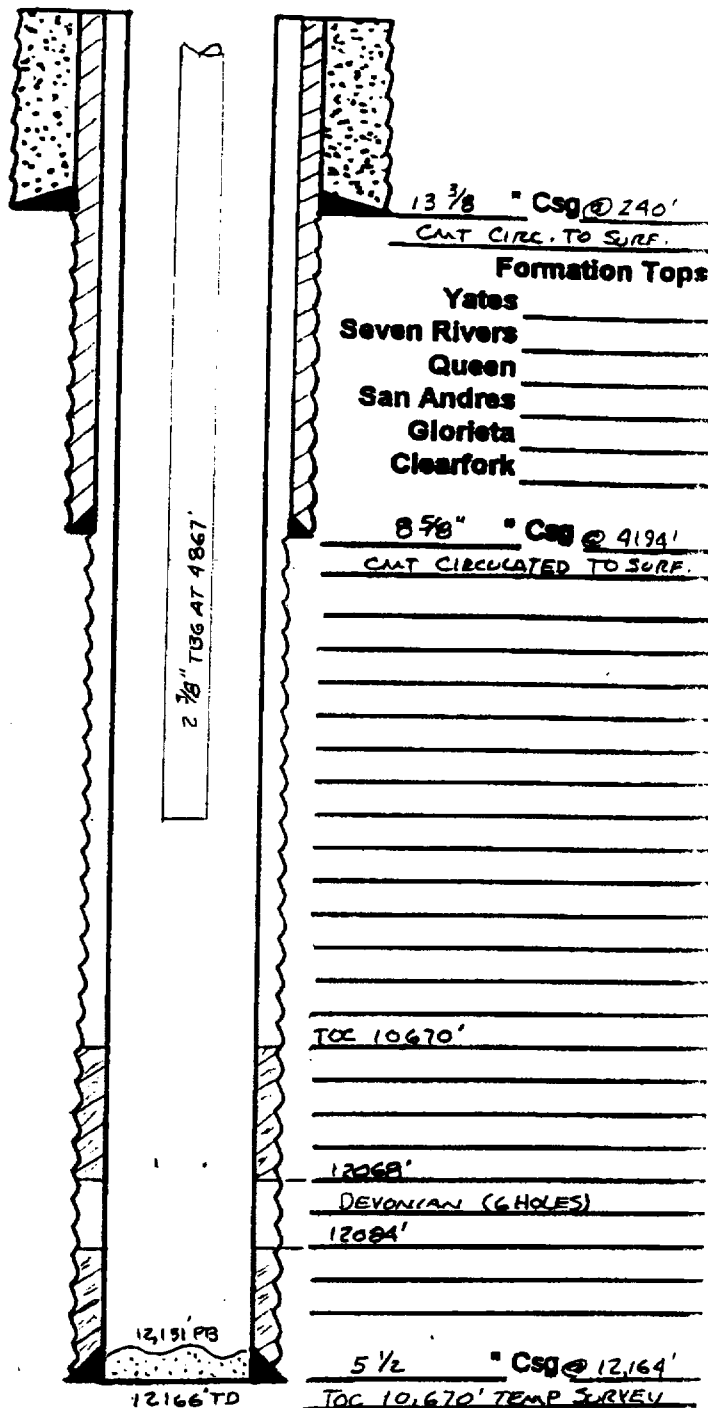
Saga Petroleum

Field CROSSROADS (DEVONIAN) County LEA NM
 Operator SAGA PETROLEUM CORP
 Lease/Well U.D. SAWYER WELL NO. 6
 Location 990' E 36° E 1630' EEL SEC 270, T-9-S, R-36-E
 Elevation: 4038 OF GL 4022 KB 4040
 Completion Date & Test: 1-1-68 F-49380, 0 BW, GAS
TSTM, 17/64" CHK, FTP 225#, 44.1° API

Surface Casing/Cement: 13 3/8" 48# H-40 STEEL AT 240'
IN 17 1/2" HOLE CMT W/ 250 SK "C" W/ 2% GCL CIRC TO SURF
 Intermediate Casing/Cement: 8 5/8" 24# & 32# J-55 STEEL AT
4194' IN 11" HOLE, CMT W/ 1000 SK "C", CIRC TO SURF
 Production Casing/Cement: 5 1/2" 17# & 20# N-80, LTEE, AT
12164' IN 7 7/8" HOLE W/ 325 SK "C" CMT, TOC @ 10670'
 Liner Csg/Cement: NONE
 Open Hole Interval: NONE
 Tubing: Depth 4867' Size 2 3/8"
 Packer Set at: Cored _____
 Type Logs WELER GR/N & GR/GUARD LOGS

Work History:

1-1-68: PERF 12068'-12084' W/ 6 HOLES. ACIDIZE W/
 500 GAL 05-30. WELL FLOW 493, 0" W GAS TSTM
 225# FTP, 17/64" CHK.
 6-12-75: PERF 12054'-12084' (27 HOLES), ACIDIZE W/
 1000 GAL 15% HCL (RAIN REDA TO 4867' PUT WELL ON
 PRODUCTION)
 7-13-84: ACIDIZE PERF 12054'-12084' W/ 2000 GAL
 20% NEEFER HCL MAX PRESS 4000#, (RUN REDA PMP)



Well Name & Number: U.D. SAWYER NO. 6

Saga Petroleum

Field CROSSROADS DEVONIAN County LEA
 Operator SAGA PETROLEUM
 Lease/Well UD SAWYER NO.7
 Location 1980' FSL E 2310' FEL SEC 27 J, 95, 36E
 Elevation: GL 4029 KB
 Completion Date & Test: 7.4.72: F-372 BO, 1 BW, TSTM
GAS, FTP 20", 1"CHK, 44.2 API

Surface Casing/Cement: 13 3/8" 48" H-40 STEEL @ 260'
CIRC CMT TO SURF, USED 275 SKS "C" CMT, 17 1/2" HOLE
 Intermediate Casing/Cement: 9 5/8" 36" K&H STEEL @
4250', TOC @ 925' USED TOTAL OF 1440 SK "C" CMT, 12 1/4" HOLE
 Production Casing/Cement: 7" 23" E26" N-80, LTFC
W/250 SK "C" CMT, TOC 10310' 13V TEMP SURVEY, 8 3/4" HOLE
 Liner Cap/Cement: NONE
 Open Hole Interval: NONE
 Tubing: Depth Size
 Packer Set at: Cored NO
 Type Logs GRIN - SW/N

Work History:

7-1-72: SPOT 250 GAL 15% NEEF ACID PERF
 11058-971 ACIDIZ VV/500 GAL, BD 600" MAX 500"
 7-4-72: PT- 372" 1" GAS TSTM, FLOW-1"CHK, FTP 20"
 10-6-78: INSTALL LARGER SUBMERSIBLE PUMP
SET @ 6403' PUMP 235 BQ 1000 BW, 16.5 MCF GAS
 11-1-89: FOUND TIGHT SPOT IN CSG FROM 5736'-6459'

13 3/8" Csg @ 260' C.

FORM. FORMATION	TOP	W. H.
1. Rustler	2260	+170
2. Yates	2830	+121
3. Ochoa	3543	+49
4. San Andres	4080	-3
5. Ft	4628	-58
6. Glorieta	5306	-166
7. Alva	7678	-363
8. Wian	8130	-232
9. Woodford	11782	-27A
10. Devonian	11898	-281

9 5/8" Csg @ 4250'

TOC AT 925'

TOC 10,310'

11,058'

DEVONIAN (30 HOLES)

11971'

7" Csg @ 11976'

TOC @ 10,310'

TD 11976'

Well Name & Number: U.O. SAWYER NO.7

Saga Petroleum

Field CROSSROADS (DEVONIAN) County LEA
 Operator SAGA PETROLEUM INC
 Lease/Well UD SAWYER NO.3
 Location 1980' ENE WL SEC 27, 9S, 36E
 Elevation: GL 4029' KB 4040'
 Completion Date & Test: 8.21.49 FLOW 625 BOPD, 0 BWPL
3/4" CMT, GOR 35, GRAVITY 42.6° NATURAL

Surface Casing/Cement: 13 3/8 36" SLIP JOINT SET @ 258'
IN 17" HOLE W/ 3005X CMT, CIRC TO SURF.
 Intermediate Casing/Cement: 9 7/8 36" BRND, J, STEEL
SET @ 4651' IN 12 1/4" HOLE W/ 2125 SX CMT, DID NOT CIRC.
 Production Casing/Cement: 5 1/2 17" 40" BRND, N, LTR
SET @ 12147', CMT W/ 1090 SX CMT, TOC 6550', 7 7/8" HOLE
 Liner Cap/Cement: NONE
 Open Hole Interval: NONE
 Tubing: Depth 5516 Size 2 3/8" REDA FLOW
 Packer Set at: Cored -
 Type Logs SP/NORMAL - LATERAL LOG
HALLIBURTON DATED 8.13.49

Work History:

DST #1 PKR SET AT 9401'. TEST 9401'-9595' OPEN
 4 HRS STEADY BLOW OF AIR, REC 4050' DRY DRILL
 PIPE, 900' WB, 4645' SW.
 DST #2 PKR SET AT 9595'. TEST 9595'-9662'. OP 2HR
 & 30 MIN. FAINT BLOW OF AIR, REC 900' WB, 4645'
 SW.
 DST #3 PKR SET AT 9662'. TEST 9662'-9780'. OP 2HR,
 REC 900' WB, 8000' SULPHUR WTR.
 DST #4 PKR SET AT 12090'. TEST 12090'-12150'.
 OP 1HR 10 MIN. SL BLOW OF AIR FOR 1 HRE DIED.
 REC 2340' DRY DRILL PIPE, 3000' WB, 6660' HOCM

8.21.49 WELL COMPLETED NATURAL

8.21.75 CHK FOR CSG LEAK, FOUND NO LEAK.

13 3/8" Csg @ 258'
CMT CIRC.
 Formation Tops
 Yates _____
 Seven Rivers _____
 Queen _____
 San Andres _____
 Glorieta _____
 DEV 11950'
9 7/8" Csg @ 4651'
TOC - UNKNOWN FOR 9 7/8"
11.3.69 SJ3HP 4492 013FL
FBHP 4430 2523'
FBHP 4348 2653'
FBHP 4371 2303'
FBHP 4381 18530'
R = 45MD
O/W CONTACT - 8250'
TOC 6550'
DEV TOPL AT 11130'
13000'
DEVONIAN PERM (200 HOLES)
12050'
5 1/2" Csg @ 12147'
TOC 6550'

Well Name & Number: UD SAWYER NO.3

COMPLETION DATA SHEET

Lease Santa Fe Pacific
 Well No. 1 Sec. 26 T. 9S R. 36
Lea Co. NM

DIVISION

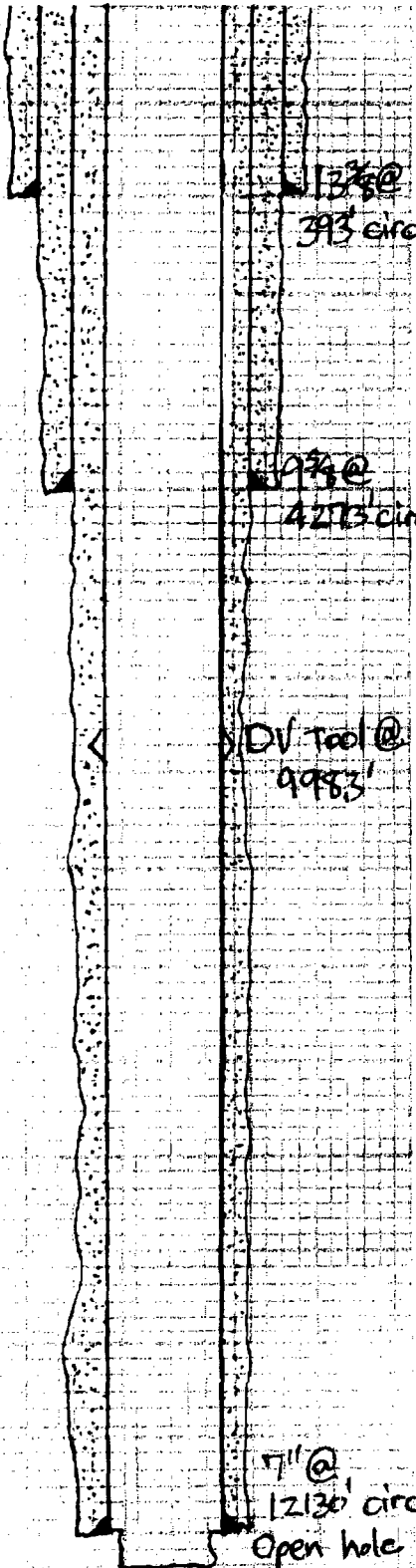
FIELD

Crossroads (Siluro) Devonian

LOCATION

Unit E, 1980' FNL + 660' FWL

WELL PROFILE



TD	DRILL PIPE	LOG
	12137	
PBTD	DRILL PIPE	GAMMA-RAY

ELEVATION

DATUM POINT (GRD-KB-DF)

DATUM POINT ELEVATION

4035

CASING DESIGN

SIZE	WEIGHT	GRADE	THREAD	COUPLING	MAKE	NO. JTS.	FOOTAGE	SACK
13 3/8	48				17 1/2" hole		393	40
9 5/8	36/40						4273	230
7	24/29/32						12130	2310

PERFORATED INTERVAL	FORMATION	REMARKS
12130-137	Devonian	

COMMENTS:

Operated by Meteor Development

SUBMITTED BY

N Clement

DATE

APPROVED BY

COMPLETION DATA SHEET

Lease Santa Fe Pacific
 Well No. 11 Sec. 26 T. 9S R. 36
Lea Co., NM

DIVISION

FIELD

LOCATION

Crossroads (Siluro) Devonian Unit D, 990' FNL + 380' FWL

WELL PROFILE

TD	DRILL PIPE <u>12 117</u>	LOG
PBTD	DRILL PIPE <u>12 117</u>	GAMMA-RAY

ELEVATION

DATUM POINT (GRD-KB-DF)

DATUM POINT ELEVATION

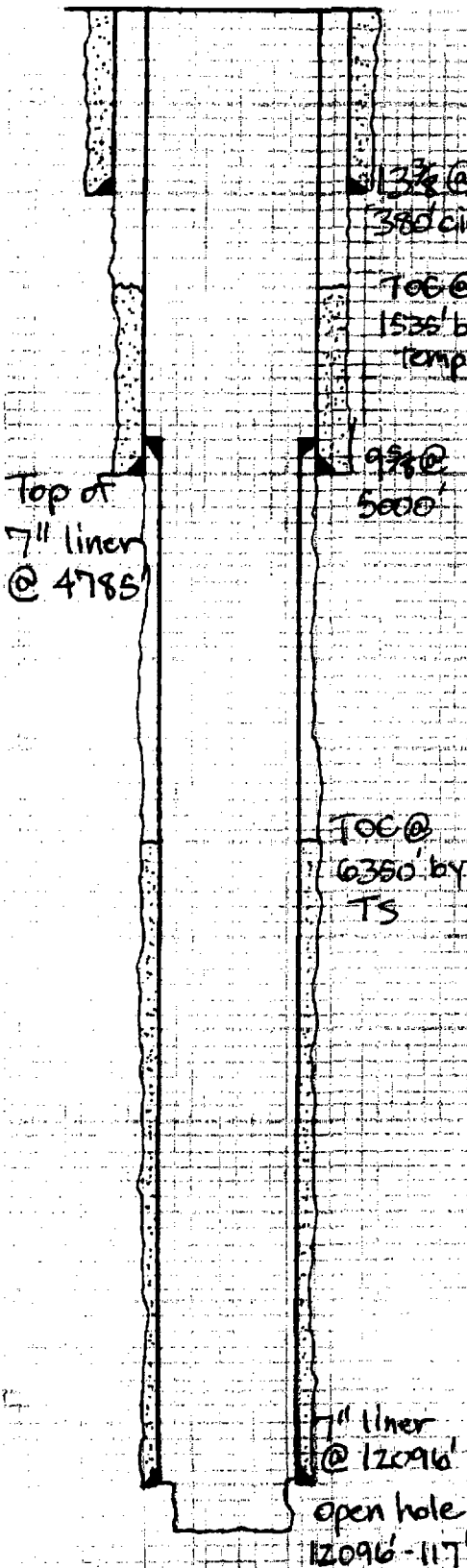
4033

CASING DESIGN

SIZE	WEIGHT	GRADE	THREAD	COUPLING	MAKE	NO. JTS.	FOOTAGE	SACKS
<u>13 3/8</u>	<u>48</u>				<u>17 1/2" hole</u>		<u>380</u>	<u>400</u>
<u>9 5/8</u>	<u>40/36</u>				<u>12 1/4" hole</u>		<u>5000</u>	<u>200</u>
<u>7"</u>	<u>23/26</u>				<u>8 3/4" hole</u>		<u>7311</u>	<u>1800</u>

PERFORATED INTERVAL	FORMATION	REMARKS
<u>12096'-117'</u>	<u>Devonian</u>	<u>Acidized w/ 5000 gal. 15% Open hole</u>

COMMENTS: Cemented 7" liner w/ 1550 sx, squeezed liner
top w/ 250 sx. Top of cement @ 6350', prior to
squeezing liner top.
Operated by Meteor Development



SUBMITTED BY

Jan Clement

DATE

6/18/97

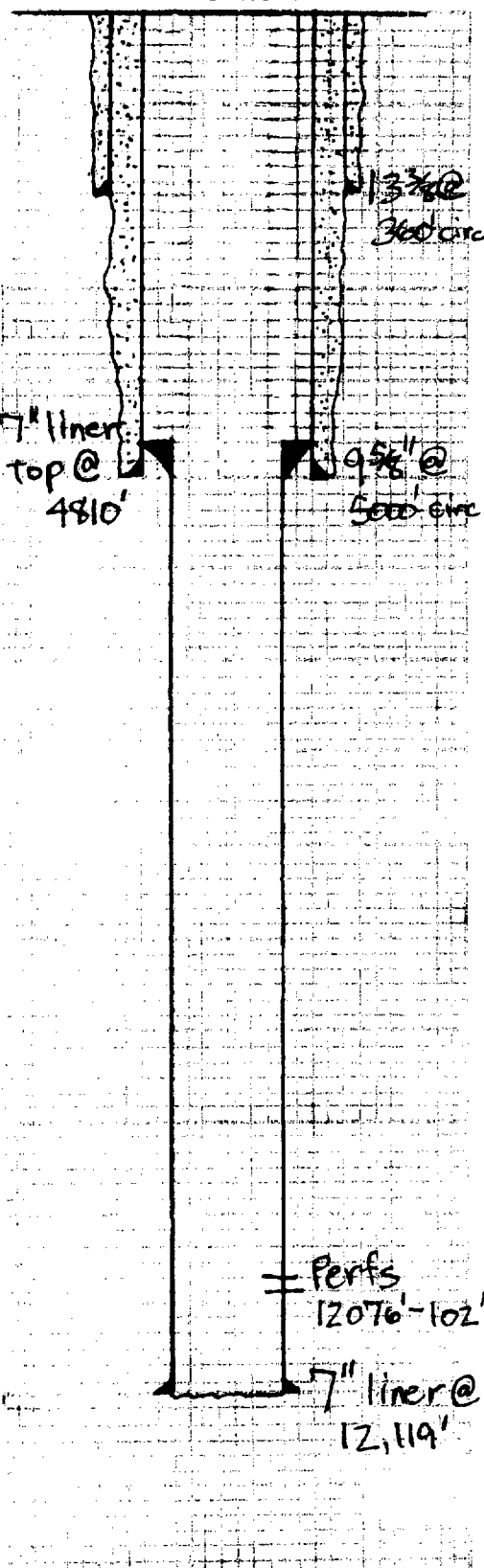
APPROVED BY

COMPLETION DATA SHEET

Lease Santa Fe Pacific
 Well No. 12 Sec. 26 T 9S R 36
 Co., _____

DIVISION _____ FIELD Crossroads (Siluro) Devonian LOCATION 330' FWL + 2310 FSL, Unit L

WELL PROFILE



TD	DRILL PIPE 12120'	LOG
PBTD	DRILL PIPE 12115'	GAMMA RAY

ELEVATION

DATUM POINT (GRD-KB-DF)

DATUM POINT ELEVATION

4029

CASING DESIGN

SIZE	WEIGHT	GRADE	THREAD	COUPLING	MAKE	NO. JTS.	FOOTAGE	SACK
13 3/8	48				17 1/2" hole		360	40
9 5/8	36/40				12 1/4" hole		5000	260
7					8 3/4" hole		73	200

PERFORATED INTERVAL	FORMATION	REMARKS
12076'-102'	Devonian	Acidized w/ 3500 gal. 15% NE

COMMENTS: Cemented 7" liner w/ 1800 SX, squeezed liner top w/ 250 SX

Operated by Meteor Development

Perfs
12076'-102'

7" liner @
12,119'

SUBMITTED BY John Clement

DATE 6/18/97

APPROVED BY _____



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

5/14/97

GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC	_____
DHC	_____
NSL	_____
NSP	_____
SWD	_____
WFX	_____
PMX	_____

Gentlemen:

I have examined the application for the:

Saga Petroleum LP Co UD Sawyer #11-J 27-9s-36e
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed

PENROC

Penroc Oil Corporation / P. C. Box 5970 / Hobbs, New Mexico 88241 / Telephone (505) 397-3596 / Telecopier (505) 393-7051

May 16, 1997

VIA FACSIMILE (505) 827-8177

Mr. David Catanach
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504

RE: Saga's SWD Application
U.D. Sawyer #11
Sec. 27, T-9-S,R-36-E
Lea County, New Mexico

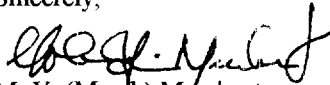
Dear David:

This letter is in response to the captioned well advertised in Lovington Daily Leader dated May 6, 1997. Since I was out of the country, I did not see it until yesterday, and was finally able to tract down a copy of the application at the Hobbs OCD. Before an approval can be granted by the NMOCD, PENROC OIL CORPORATION have following questions and comments:

1. The advertisement says section 11. I am sure it is just an oversight.
2. The zone of disposal is 12,616-12,683'. Even though it is 600-700 feet below the main Devonian pay, I fail to see what will keep these high volumes of water to flood out the producing zone in the offsetting wells. Well #11 is in the heart of the structure as shown in the structural contours (Roswell Geological Society Symposium-1960), and nothing here shows me that PENROC OIL CORPORATION's interest will be protected in the E/2 of the NW/4 of Section 27. Penroc is not only a 12.5% royalty owner in this E/2 NW/4, but also owns 4+% ORRI in all of E/2 of the said section. It is in Penroc's best interest to see all the wells produce to their economic limit and not water out prematurely.
3. In the recent past there has been other disposal wells in this field, but they always have been 200-300 feet in the lower part of the structure. May be the applicant can find some other well or put some safeguards in place like a scheduled injection survey to determine the movement of water on a regular basis. (I don't know how beneficial that will be due to large volumes of water and the fractured nature of the Devonian formation.)

David, these are just some of my thoughts. I am open for suggestions and or discussions.

Sincerely,



M. Y. (Merch) Merchant
President

CC: Royalty Owners