

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
NATIONAL OIL CONSERVATION COMMISSION  
P.O. BOX 1980  
MORROW, NEW MEXICO 88240

Budget Bureau No. 1004-1  
Expires August 31, 1985  
LEASE DESIGNATION AND SERIAL NO.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Hunt Oil Company	7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR P. O. Box 1350, Midland, Texas 79702	8. FARM OR LEASE NAME Supron Federal
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface	9. WELL NO. 14-1
10. FIELD AND POOL OR WILDCAT Antelope Ridge (Morrow)	11. SEC. T., R., M., OR BLK. AND SURVEY OR AREA Sec. 14, T-23-S, R-34-E
12. COUNTY OR PARISH Lee	13. STATE NM

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	(Other) <input type="checkbox"/>

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) \*

Downhole Commingle

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

Application for approval to downhole commingle Sent Oil Conservation Division.

Procedure to commingle Atoka & Morrow as follows:

1. MIRU wireline on long string (Morrow) side of dual well.
2. RIH w/ Type "B" positioning tool on W/L to "XO" sliding sleeve @ 12,889'. Open sleeve by jarring down. POH w/ tool.
3. If unable to open sliding sleeve, RIH w/ 1-9/16" perforating gun and perforate 2-7/8" tubing at 12,887-12,888'.
4. Close-in short string (Atoka) side and produce well commingled through the Morrow side.

Subject to  
Like Approval  
by State

18. I hereby certify that the foregoing is true and correct

SIGNED Don L. Yoder Don L. Yoder TITLE Sr. Operation Engineer DATE 8-9-94

(This space for Federal or State office use)

APPROVED BY (ORIG. SGD.) JOE G. LARA TITLE PETROLEUM ENGINEER DATE 9/2/94

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

**APPLICATION FOR APPROVAL TO DOWNHOLE COMMINGLE**

**Operator:** Hunt Oil Company  
**Address:** P.O. Box 1350  
Midland, Tx 79702

**Lease Name:** Supron Federal 14 Com #1

**Location:** Unit K, Section 14, T23S, R34E NMPM Lea County, NM

**Pools:** Antelope Ridge (Atoka)  
Antelope Ridge (Morrow)

**Plat** Attached

**Packer Leakage Test:** Current Packer Leakage Test attached. The Antelope Ridge (Morrow) is incapable of sustained production due to water loading.

**Decline Curves:** Attached.

**Bottomhole Pressures:** Atoka - 1,403 PSIA @ 12,043'  
Morrow - 1,459 PSIA @ 13,238'

The Atoka bottomhole pressure was calculated from a 72 hour SITP.

The Morrow bottomhole pressure was measured from a static pressure gradient survey after a 72 hour SI.

**Fluid Characteristics:** Analyses attached. Precipitation is not expected from mixing of produced fluids.

**Combined Value:** Attached are copies of recent gas analysis for both the Morrow and Atoka zones. No decrease in value in the commingled stream from the Federal 14 Com #1 is anticipated.

**Allocation Formula:** Recommend that gas production from the commingled zones be allocated evenly between the two zones. When the Morrow was flowing, it would average approximately the same rate as the Atoka.

The Morrow formation produces condensate at the rate of 2.0 BBL per MMCF and the Atoka produces condensate at the rate of 4.0 BBL per MMCF. Thus, assign condensate production at 2/3 rd's to Atoka and 1/3 rd to the Morrow.

**Offset Operators Notification:** All operators offsetting the subject well have been notified by mail.

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AUG 11 11 23 AM '94

PAGE 2

**General:** Attempts to swab the Morrow zone have been unsuccessful. There are wireline tools left in the permanent packer above the Morrow that prevent further remedial efforts to unload the well.

Permission is requested to downhole commingle the Atoka and Morrow zones in this well by either pulling a downhole sliding sleeve above the packer or by perforating the tubing above the sliding sleeve at 12,890'. The additional gas volume from the Atoka will aid in keeping the long string of tubing from loading up with produced fluid.

Waste will be prevented by production of gas reserves now left in the ground.

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State of New Mexico  
Energy, Minerals and Natural Resources Dept.

Revised 1-1-89

INSTRUCTIONS ON REVERSE  
SIDE

This form is not to be used for  
reporting packer leakage tests in  
Northwest New Mexico

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88201

DEC 20 1993 OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

HUNT OIL COMPANY

Drilling & Production  
Midland, Texas

SOUTHEAST NEW MEXICO PACKER LEAKAGE TEST

Operator HUNT OIL COMPANY		Lease SUPRON FEDERAL 14 COM.			Well No. 1	
Location of Well	Unit K	Sec. 14	Twp 23	Rge 34	County LEA	
Name of Reservoir or Pool		Type of Prod. (Oil or Gas)	Method of Prod. Flow, Art Lift	Prod. Medium (Tbg. or Csg)	Choke Size	
Upper Compl	ATOKA	SIDE A	GAS	FLOW	TBG.	
Lower Compl	MORROW	SIDE B	GAS	FLOW	TBG.	

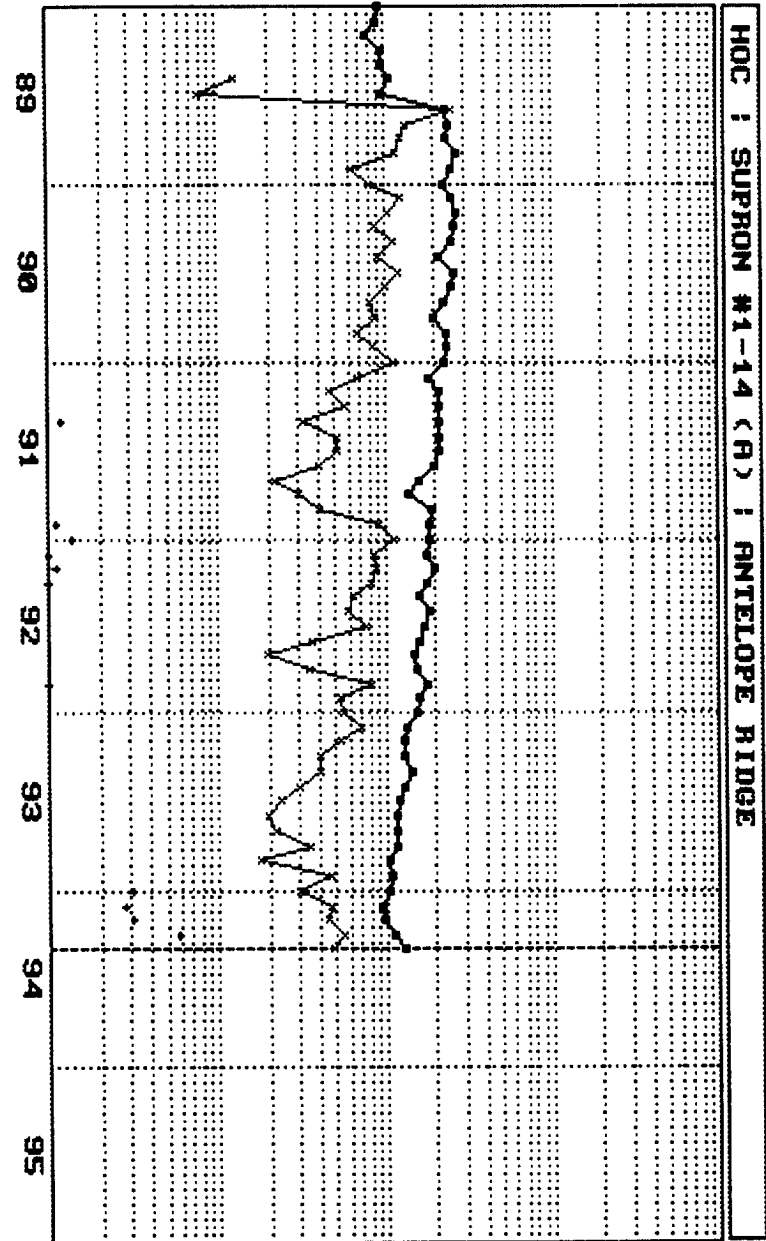
FLOW TEST NO. 1

Both zones shut-in at (hour, date):	12-1-93	10:00AM		
Well opened at (hour, date):	12-2-93	10:00AM	Upper Completion	Lower Completion
Indicate by ( X ) the zone producing.....			X	
Pressure at beginning of test.....			300	550
Stabilized? (Yes or No).....			yes	yes
Maximum pressure during test.....			300	550
Minimum pressure during test.....			125	550
Pressure at conclusion of test.....			125	550
Pressure change during test (Maximum minus Minimum).....			-175	-0-
Was pressure change an increase or a decrease?.....			decrease	same
Well closed at (hour, date):			Total Time On Production	24 hr.
Oil Production During Test:	bbls; Grav.	Gas Production During Test	554	MCF; GOR
Remarks				

FLOW TEST NO. 2

Well opened at (hour, date):	Upper Completion	Lower Completion
------------------------------	---------------------	---------------------

10            100            1000            10000 • WATER  
 100          1000          10000        100000 • GAS  
 1            10            100            1000 × OIL



HOC : SUPRON #1-14 (R) : ANTELOPE RIDGE

PROP : 9

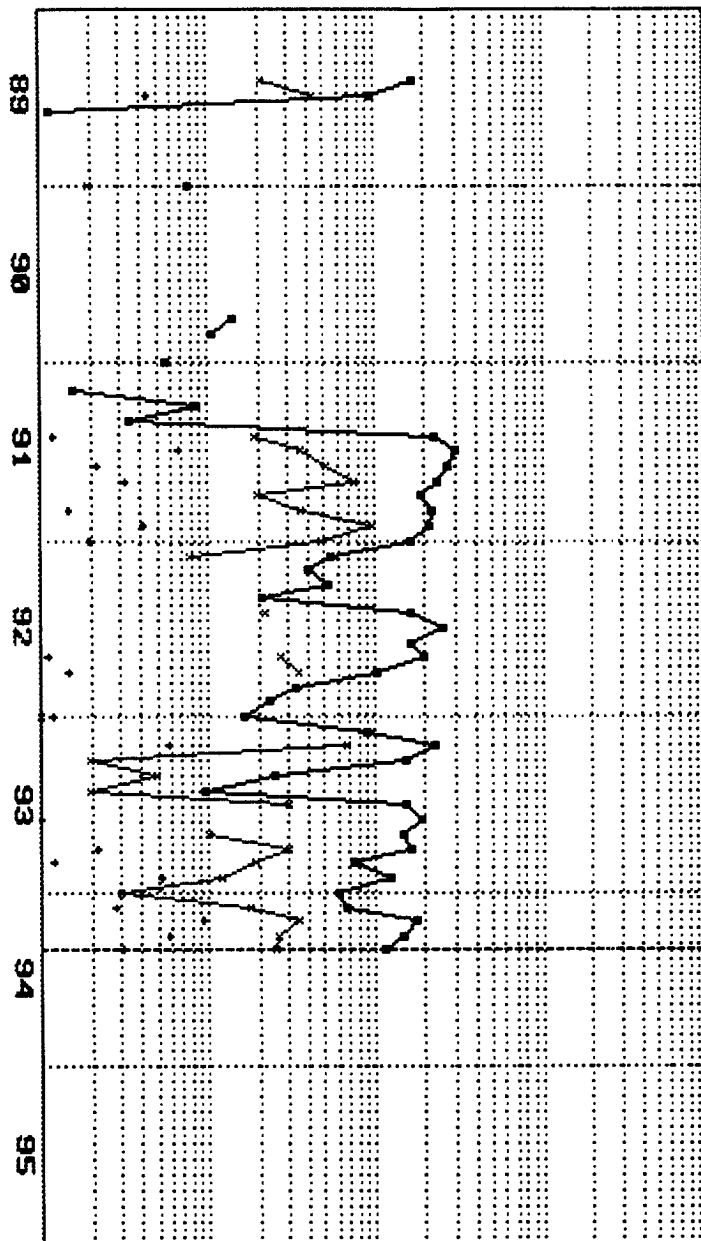
GRS

LAST TWO MONTHS  
 AVE 401 MCF/D  
 ± APPROX 4 B0/MONTH

Major=GRS

10                    100                    1000                    10000 • WATER  
 100                    1000                    10000                    100000 • GAS  
 1                        10                        100                        1000 • OIL

HOC : SUPRON #1-14 (M) : ANTELOPE RIDGE



Prop: 13

GRS

Last Two Months  
 AVE 444 McFPD  
 ± Approx 280/mmscf  
 Note: well loaded up  
 w/water @ 6/94

Major=GRS

--QUICK BHP--

Calculate BHP and Z-factor from surface shut-in pressure

08/08/94

WELL NAME :	Federal Supron 14 Com #1 (Atoka)		
GAS GRAVITY:	0.69	% N2	0.98
CONDENSATE (YES=1):	1	% CO2	0.20 %
RESERVOIR TEMP:	162 'F	% H2S	0.00 %
SURFACE TEMP:	60 'F	Pc =	664.46 %
DEPTH OF ZONE:	12,093 feet	Tc =	378.48

SURFACE PRES	BHP	Z	BHP/Z
psia	psia		psia
1,000	1,388	0.8715	1,593

Written by  
Doug Boone  
Version 1.0  
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P. O. BOX 1468  
MONAHAN, TEXAS 79756  
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA  
MIDLAND, TEXAS 79701  
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Stan Smith LABORATORY NO. 3948  
P. O. Box 1350, Midland, TX 79702 SAMPLE RECEIVED 3-2-94  
RESULTS REPORTED 3-4-94

COMPANY Hunt Oil Company LEASE Supron Federal #14-1  
FIELD OR POOL Antelope Ridge  
SECTION      BLOCK      SURVEY      COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced (Atoka) water - taken from Supron Federal #14-1.  
NO. 2 Produced (Morrow) water - taken from Supron Federal #14-1.  
NO. 3       
NO. 4     

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F	1.0012	1.0257		
pH When Sampled				
pH When Received	6.93	6.58		
Bicarbonate as HCO <sub>3</sub>	63	549		
Supersaturation as CaCO <sub>3</sub>				
Undersaturation as CaCO <sub>3</sub>				
Total Hardness as CaCO <sub>3</sub>	36	1,750		
Calcium as Ca	10	608		
Magnesium as Mg	3	56		
Sodium and/or Potassium	28	11,036		
Sulfate as SO <sub>4</sub>	11	246		
Chloride as Cl	24	17,755		
Iron as Fe	22.5	25.8		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	139	30,249		
Temperature °F				
Carbon Dioxide, Calculated				
Dissolved Oxygen				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F	52.50	0.250		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks It is apparent in the above results that the Atoka water is essentially all condensed water vapor whereas the Morrow water herein correlates well with what we would expect from natural Morrow in this field.

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MAR - 7 1994

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SEP - 7 1994

OFFICE

\*\*\*\*\* DAWSON NATURAL GAS SERVICES, INC. \*\*\*\*\*  
 1515 IDLEWILDE  
 P.O. BOX 7006 \* MIDLAND, TEXAS 79708-0006  
 PHONE 915/694-6000

RUN NO: 13121  
 DATE RUN: 01/11/94

STATION NAME: 58-369 - SUPRON 14 ATOKA  
 COMPANY NAME: HUNT OIL COMPANY  
 LOCATION: LEA CO., NM SECURED BY: EKF DATE: 01/06/94  
 SAMPLE CONDITIONS: PRESS: 104# TEMP: 63F TIME:

\*\*\*\*\* FRACTIONAL ANALYSIS \*\*\*\*\*  
 @ 14.65 PSIA & 60 DEG. F.

	<u>MOL. %</u>		<u>CALC. SP.GR., (REAL)</u>
CARBON			DRY BASIS 0.6878
DIOXIDE	0.20		SAT BASIS 0.6869
NITROGEN	0.98		<u>CALC SP.GR., (IDEAL)</u>
OXYGEN			DRY BASIS 0.6856
H2S			SAT BASIS 0.6845
METHANE	84.06	<u>GPM (REAL)</u>	
ETHANE	8.25	2.201	
PROPANE	3.64	1.001	<u>BTU/CU.FT., (REAL)</u>
ISO-BUTANE	0.64	0.209	DRY BASIS 1197
N-BUTANE	0.96	0.302	SAT BASIS 1177
ISO-PENTANE	0.31	0.113	<u>BTU/CU.FT., (IDEAL)</u>
N-PENTANE	0.30	0.108	DRY BASIS 1193
HEXANES PLUS	0.66	0.286	SAT BASIS 1172
TOTAL	<u>100.00</u>	<u>4.221</u>	

\*\*\*\*\* ADDITIONAL DATA AND REMARKS \*\*\*\*\*

Z (SAT) 0.996 Z (DRY) 0.997

COPIES TO: KEN FLETCHER-MIDLAND  
 REMARKS:

\*\*\*\*\* DAWSON NATURAL GAS SERVICES, INC. \*\*\*\*\*

1515 IDLEWILDE  
P.O. BOX 7006 \* MIDLAND, TEXAS 79708-0006  
PHONE 915/694-6000

RUN NO: 13122  
DATE RUN: 01/11/94

STATION NAME: 58-370 - SUPRON 14 MARROW  
COMPANY NAME: HUNT OIL COMPANY  
LOCATION: LEA CO., NM SECURED BY: EKF DATE: 01/06/94  
SAMPLE CONDITIONS: PRESS: 105# TEMP: 65F TIME:

\*\*\*\*\* FRACTIONAL ANALYSIS \*\*\*\*\*

@ 14.65 PSIA & 60 DEG. F.

	<u>MOL. %</u>		<u>CALC. SP.GR., (REAL)</u>	
CARBON			DRY BASIS	0.6012
DIOXIDE	0.40		SAT BASIS	0.6018
NITROGEN	0.18		<u>CALC SP.GR., (IDEAL)</u>	
OXYGEN			DRY BASIS	0.5998
H2S			SAT BASIS	0.6001
METHANE	94.30	<u>GPM (REAL)</u>		
ETHANE	3.34	0.890		
PROPANE	0.91	0.250	<u>BTU/CU.FT., (REAL)</u>	
ISO-BUTANE	0.14	0.046	DRY BASIS	1070
N-BUTANE	0.19	0.060	SAT BASIS	1052
ISO-PENTANE	0.08	0.029	<u>BTU/CU.FT., (IDEAL)</u>	
N-PENTANE	0.06	0.022	DRY BASIS	1068
HEXANES PLUS	0.40	0.173	SAT BASIS	1049
TOTAL	<u>100.00</u>	<u>1.470</u>		

\*\*\*\*\* ADDITIONAL DATA AND REMARKS \*\*\*\*\*

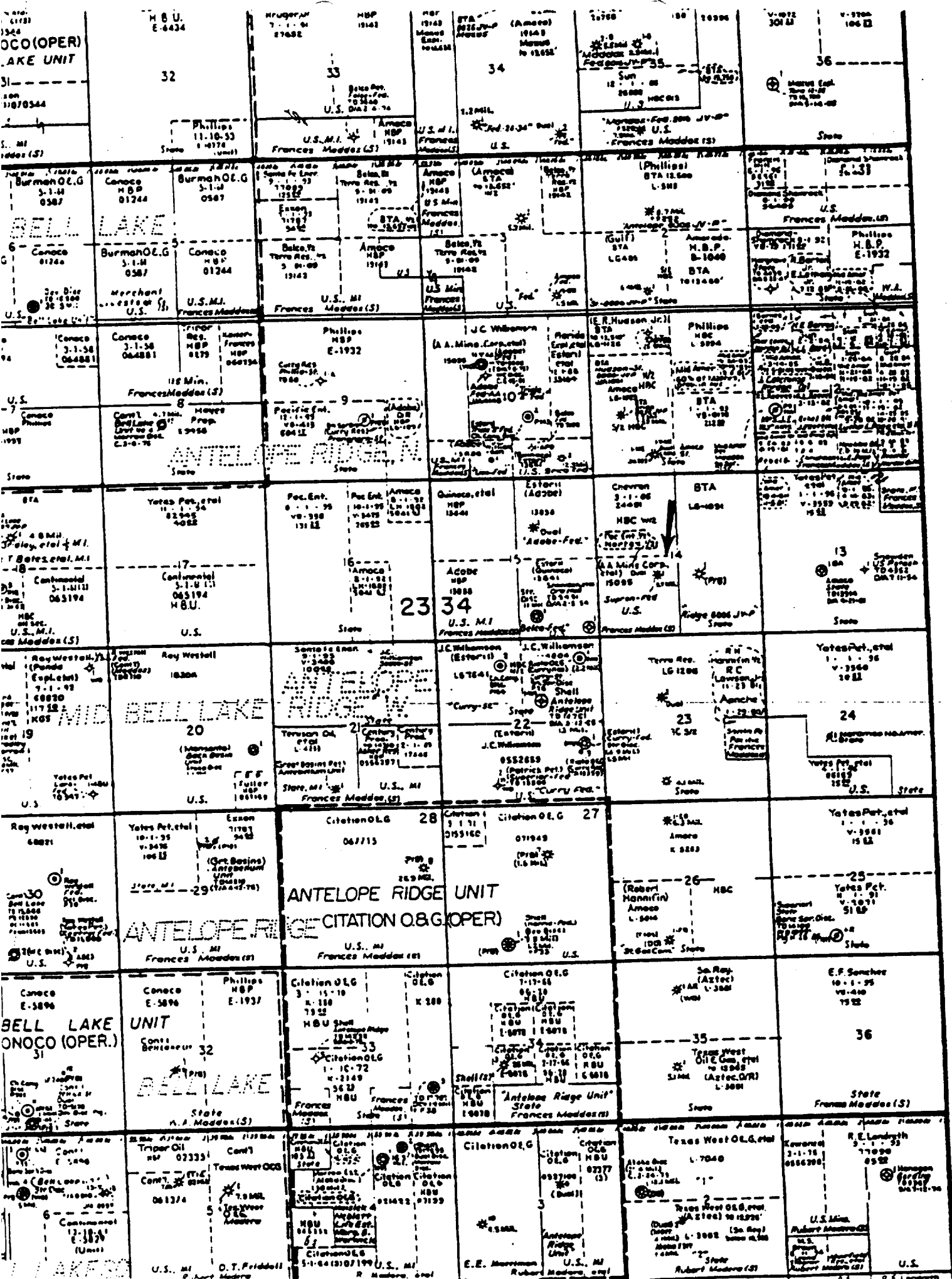
Z (SAT) 0.997                      Z (DRY) 0.998

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REMARKS:

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