HUNT OIL COMPANY
415 W. Wall, Suite 1300
P.O. Box 1350
Midland, Texas 79702
Phone: (915) 684-8093
Fax: (915) 684-0652

August 9, 1994

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
SANTA FE, NEW MEXICO 87504

Attn: DIVISION DIRECTOR

Re: Application to Downhole Commingle
Supron Federal Com 14-1
Sec. 14, T23S, R34E
Lea County, New Mexico

Please find attached duplicate copies of an application from Hunt Oil Company for approval to downhole commingle the Antelope Ridge (Atoka) and the Antelope Ridge (Morrow) zones in the Supron Federal Com 14-1, located Unit K, Section 14, T23S, R34E Lea County, New Mexico. One copy of this application is being mailed to the OIL CONSERVATION DIVISION District I office in Hobbs, NM.

Please contact the undersigned at the letterhead address or (915) 684-0623.

Sincerely,

HUNT OIL COMPANY

Donald L. Yoder
Sr. Operation Engineer

DLY/ss

attachments

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.

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.

Submit 3 Copies to Appropriate Dist. Office

RECEIVED

DEC 20 1993

State of New Mexico
Energy, Minerals and Natural Resources Depa. nt

Revised 1-1-89

INSTRUCTIONS ON REVERSE SIDE

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

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

HUNT OIL COMPANY
Drilling & Production
Midland, Texas

SOUTHEAST NEW MEXICO PACKER LEAKAGE TEST

Operator			Lease		Well No.
HUNT OIL COMPANY			SUPRON FEDERAL 14 COM.		1
Location of Well	Unit K	Sec. 14	Twp 23	Rge 37	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

	Upper Completion	Lower Completion
Well opened at (hour, date): _____		
Indicate by (X) the zone producing		X
Pressure at beginning of test	400	550
Stabilized? (Yes or No)	yes	yes
Maximum pressure during test	400	550
Minimum pressure during test	400	90
Pressure at conclusion of test	400	90
Pressure change during test (Maximum minus Minimum)	-0-	-460
Was pressure change an increase or a decrease?	same	decrea

Well closed at (hour, date) _____ Total time on Production 24 hr.

Oil production During Test: _____ bbls; Grav. _____; Gas Production During Test 563 MCF; GOR _____

Remarks _____

OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the information contained herein is true and completed to the best of my knowledge

HUNT OIL COMPANY
Operator

Donald L. Yoder
Signature

DONALD L. YODER — Sr. Operation Engr.
Printed Name — Title

12/10/93 — 915-684-8093
Date — Telephone No.

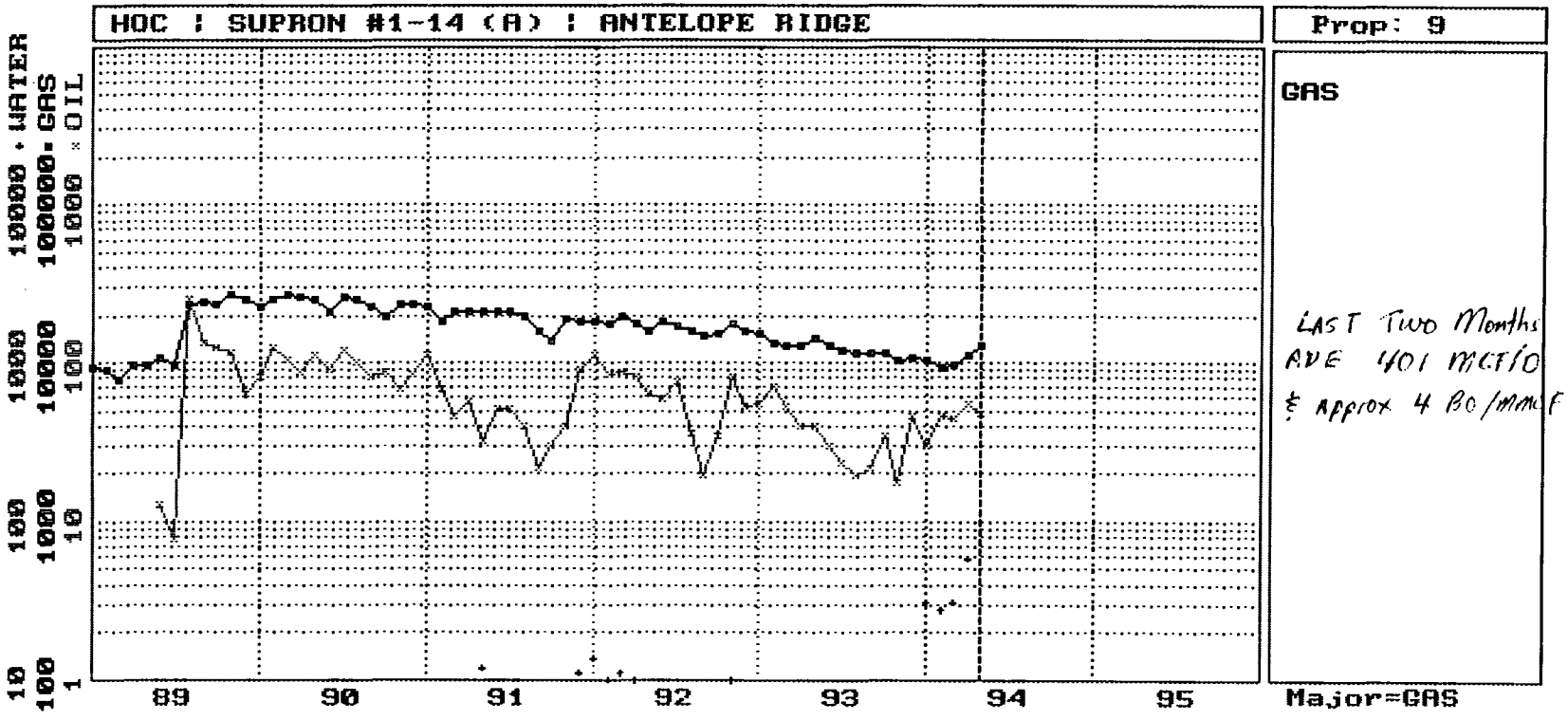
OIL CONSERVATION DIVISION

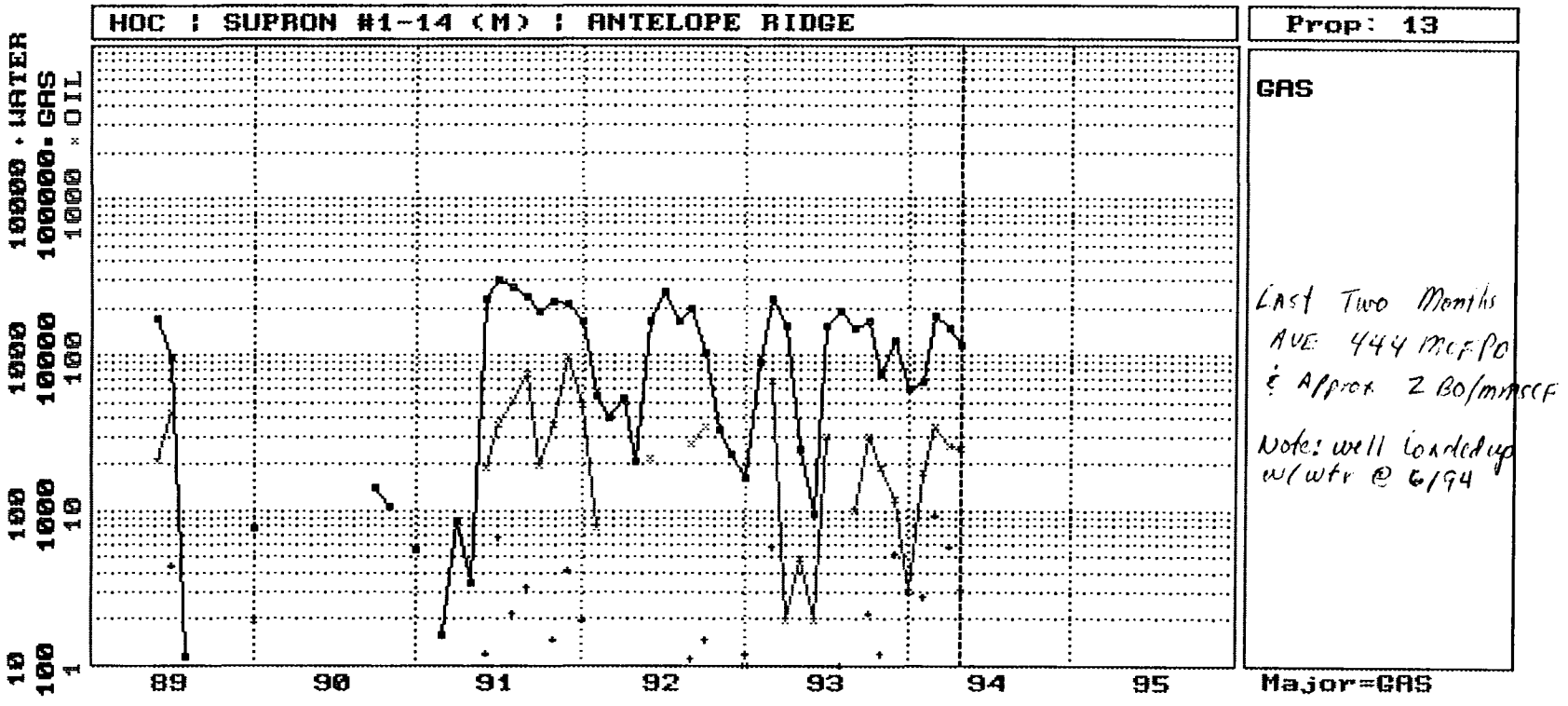
DEC 15 1993

Date Approved _____

By ORIGINAL SIGNED BY JERRY SEXTON
DISTRICT I SUPERVISOR

Title _____


HOC : SUPRON #1-14 (A) : ANTELOPE RIDGE
Prop: 9
GAS
LAST Two Months
AVE 401 MCF/D
& Approx 4 Bo/MMcf
Major=GAS
WATER
GAS
OIL
89
90
91
92
93
94
95


HOC : SUPRON #1-14 (M) : ANTELOPE RIDGE
Prop: 13
GAS
Last Two Months
AVE 444 MCF/D
& Approx 2 BO/mmscf
Note: well loaded up w/ wtr @ 6/94
WATER
GAS
OIL
89
90
91
92
93
94
95
Major=GAS

--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

OTIS ENGINEERING
WELL TESTING SERVICES
B.H.P. SURVEY REPORT

Customer: Hunt Oil
Date: 7-16-94
Field: Eunice
Instrument No.: 47722
Well Name: Superan Fed 14-1
Pressure Range: 0-5000
County, State: Lea NM
Calibration Date: 10-28-93
Type Survey: Static Gradient
Clock Range: 3 hr
Operator: Charlie Taylor
Technician: Charlie
Comments: Attn Dan Vasdal Fax 915 684 0652

Depth	Pressure Change	gradient	PRESSURE DEFLECTION Inches	PRESSURE READING P.S.I.
-0-			.341	863.8
2000	41.1	0.020	.357	904.9
4000	41.1	0.020	.373	946.0
6000	46.0	0.023	.391	992.3
8000	43.0	0.021	.408	1036.1
9000	7.7	0.007	.411	1043.8
10000	36.1	0.036	.425	1079.9
11000	23.2	0.023	.434	1103.1
12000	23.2	0.023	.443	1126.3
12900	183.0	0.203	.514	1309.3
13,238		0.3994		1,444 extrapolated mid-Perfs (MORROW)

P. O. BOX 1468
MONAHANS, 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
P. O. Box 1350, Midland, TX 79702

LABORATORY NO. 3948
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_3	63	549		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	36	1,750		
Calcium as Ca	10	608		
Magnesium as Mg	3	56		
Sodium and/or Potassium	28	11,036		
Sulfate as SO_4	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.

RECEIVED
MAR - 7 1994
HUNT OIL COMPANY
Drilling & Production
Midland, Texas

Form No. 3

By Waylan C. Martin, M.A.

***** 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.

	MOL. %	GPM (REAL)
CARBON DIOXIDE	0.20	
NITROGEN	0.98	
OXYGEN		
H2S		
METHANE	84.06	
ETHANE	8.25	2.201
PROPANE	3.64	1.001
ISO-BUTANE	0.64	0.209
N-BUTANE	0.96	0.302
ISO-PENTANE	0.31	0.113
N-PENTANE	0.30	0.108
HEXANES PLUS	0.66	0.286
TOTAL	100.00	4.221

CALC. SP.GR., (REAL)	
DRY BASIS	0.6878
SAT BASIS	0.6869
CALC SP.GR., (IDEAL)	
DRY BASIS	0.6856
SAT BASIS	0.6845
BTU/CU.FT., (REAL)	
DRY BASIS	1197
SAT BASIS	1177
BTU/CU.FT., (IDEAL)	
DRY BASIS	1193
SAT BASIS	1172

********* 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.

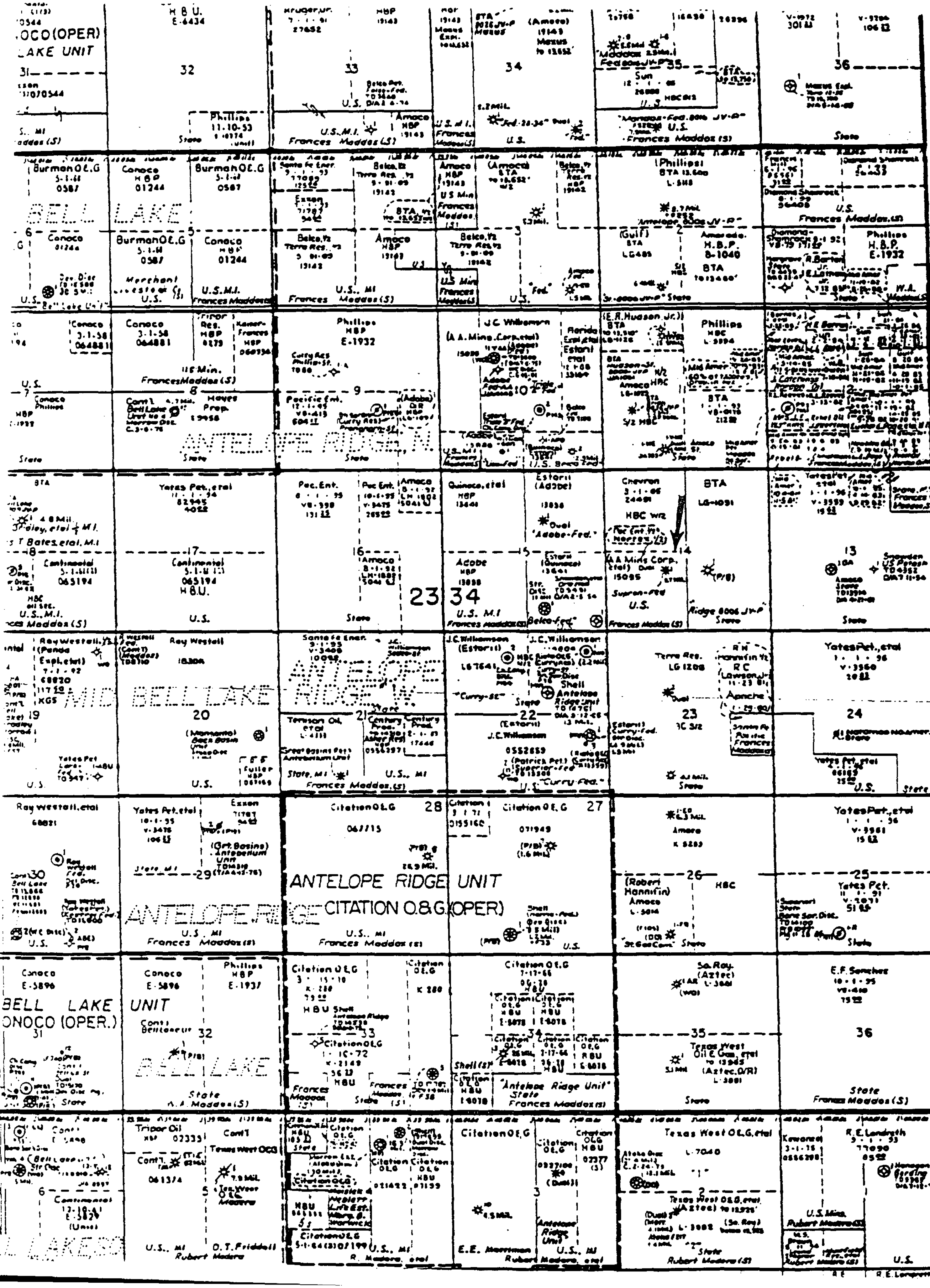
	MOL. %	GPM (REAL)
CARBON DIOXIDE	0.40	
NITROGEN	0.18	
OXYGEN		
H2S		
METHANE	94.30	
ETHANE	3.34	0.890
PROPANE	0.91	0.250
ISO-BUTANE	0.14	0.046
N-BUTANE	0.19	0.060
ISO-PENTANE	0.08	0.029
N-PENTANE	0.06	0.022
HEXANES PLUS	0.40	0.173
TOTAL	100.00	1.470

CALC. SP.GR., (REAL)	
DRY BASIS	0.6012
SAT BASIS	0.6018
CALC SP.GR., (IDEAL)	
DRY BASIS	0.5998
SAT BASIS	0.6001
BTU/CU.FT., (REAL)	
DRY BASIS	1070
SAT BASIS	1052
BTU/CU.FT., (IDEAL)	
DRY BASIS	1068
SAT BASIS	1049

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

Z (SAT) 0.997 Z (DRY) 0.998

COPIES TO: KEN FLETCHER-MIDLAND
REMARKS:



CONOCO (OPER)
LAKE UNIT
BELL LAKE
ANTELOPE RIDGE N.
MID BELL LAKE
ANTELOPE RIDGE W.
ANTELOPE RIDGE UNIT
CITATION O.& G.(OPER)
ANTELOPE RIDGE
BELL LAKE UNIT
CONOCO (OPER.)
BELL LAKE
23
34
Frances Maddox (S)
U.S.
State

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OIL CONSERVATION DIVISION
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STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

BRUCE KING
GOVERNOR

August 12, 1994

POST OFFICE BO
HOBBS, NEW MEXICO
(505) 393-61

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

RE: Proposed:
MC _____
DHC X
NSL _____
NSP _____
SWD _____
WFX _____
PMX _____

Gentlemen:

I have examined the application for the:

Hunt Oil Co. Supron Federal Com 14 #1-K-14-23-34
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly

Jerry Sexton
Supervisor, District 1

/ed