STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

OIL CONSERVATION DIVISION
BOX 2088
SANTA FE, NEW MEXICO 87501

DATE Sept. 24, 1985

RE: Proposed MC _____
Proposed DHC ✓
Proposed NSL _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated Sept. 6, 1985

for the Tennex Oil Co. (Operator) Florance 6 (Lease and Well No.) M-23-30N-9W (Unit, S-T-R)

and my recommendations are as follows:

Docket for hearing, does not qualify for administrative approval

Yours truly,

Frank T. Chavez

Tenneco Oil
Exploration and Production
A Tenneco Company

Western Rocky Mountain Division

6162 South Willow Drive
P.O. Box 3249
Englewood, Colorado 80155
(303) 740-4800

July 31, 1985

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Gilbert Quintana

RE: Florance 6
990' FSL, 990' FWL
Sec. 23, T30N, R9W
San Juan County, New Mexico

Gentlemen:

We have enclosed all necessary data for administrative approval to commingle production in the referenced well.

Questions concerning this request can be directed to Mr. Frank Weiss (303) 740-4836.

Very truly yours,

TENNECO OIL COMPANY

PAD

Paul Doyle
Division Production Engineer

SMc:st

Enclosures

cc: Mr. Jerry Hertzler
Mr. Frank Weiss

MV

MV

Tenneco Oil
Exploration and Production
A Tenneco Company

Western Rocky Mountain Division

6162 South Willow Drive
P.O. Box 3249
Englewood, Colorado 80155
(303) 740-4800

August 1, 1985

El Paso Natural Gas
Post Office Box 4990
Farmington, NM 87499

Attention: Don Reed

RE: Florance 6
990' FSL, 990' FWL
Sec. 23, T30N, R9W
San Juan County, New Mexico

Gentlemen:

Tenneco has applied for administrative approval to commingle production from the Mesaverde and Dakota zones in the above referenced well. If you as an offset operator have no objection to the proposed commingling, please sign the waiver at the bottom of this page and forward to:

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501
Attention: Gilbert Quintana

We would appreciate your returning one copy to the undersigned.

Very truly yours,

TENNECO OIL COMPANY

Paul Doyle
Division Production Engineer

SMc:st

WAIVER

We hereby waive any objections to Tenneco Oil Company's application to commingle production as set forth above.

Name: _____ Title: _____

Date: _____

Tenneco Oil
Exploration and Production
A Tenneco Company

Western Rocky Mountain Division

6162 South Willow Drive
P.O. Box 3249
Englewood, Colorado 80155
(303) 740-4800

August 1, 1985

Amoco Production Company
1670 Broadway
Denver, CO 80202

Attention: R. C. Burke, Jr.

RE: Florance 6
990' FSL, 990' FWL
Sec. 23, T30N, R9W
San Juan County, New Mexico

Gentlemen:

Tenneco has applied for administrative approval to commingle production from the Mesaverde and Dakota zones in the above referenced well. If you as an offset operator have no objection to the proposed commingling, please sign the waiver at the bottom of this page and forward to:

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501
Attention: Gilbert Quintana

We would appreciate your returning one copy to the undersigned.

Very truly yours,

TENNECO OIL COMPANY

Paul Doyle
Division Production Engineer

SMc:st

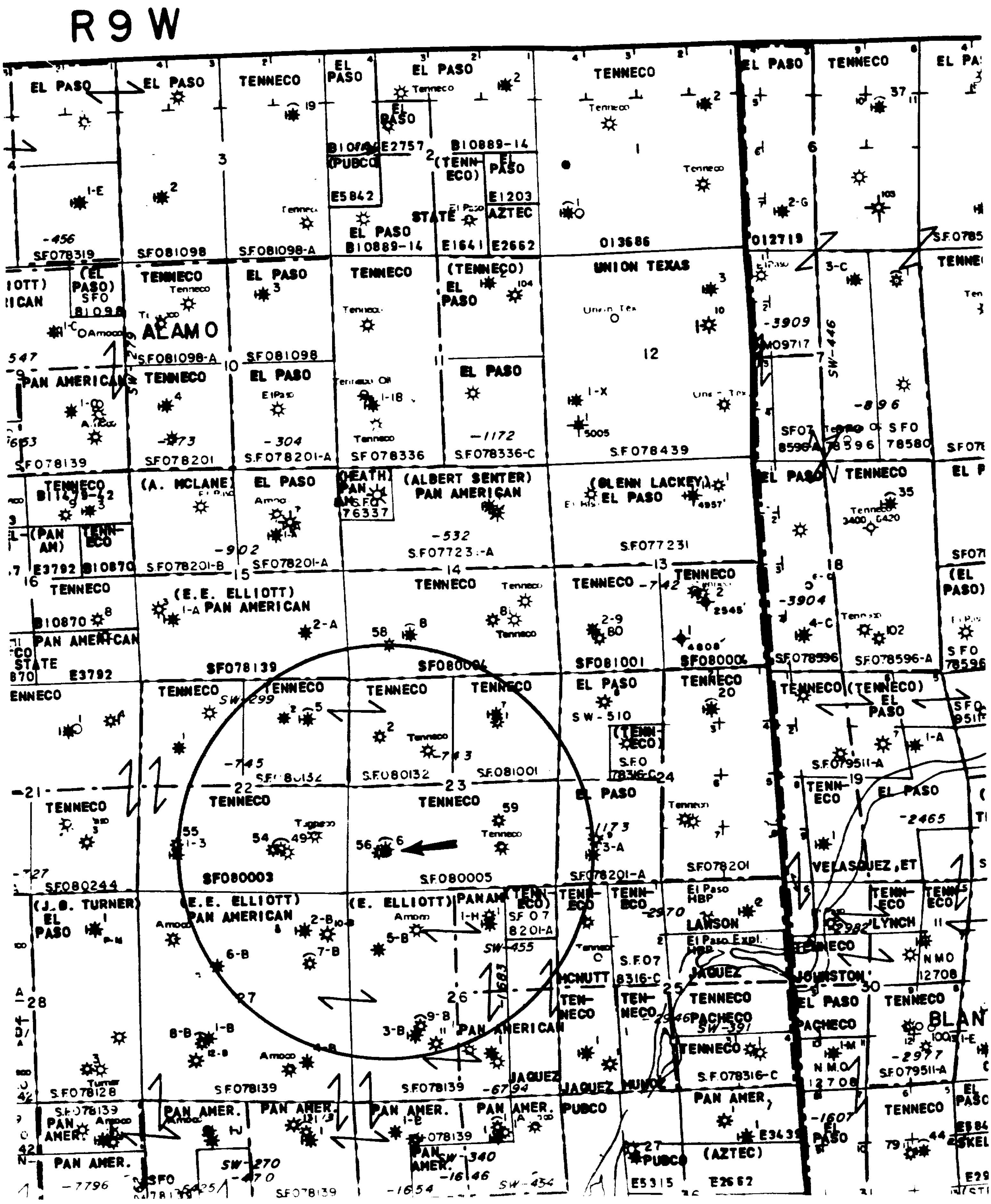
WAIVER

We hereby waive any objections to Tenneco Oil Company's application to commingle production as set forth above.

Name: _____ Title: _____

Date: _____

LTOEP 132A 1/84


R9W
EL PASO
TENNECO
ALAMO
PAN AMERICAN
UNION TEXAS
(ALBERT SENTER)
(GLENN LACKEY)
(E.E. ELLIOTT)
(J.B. TURNER)
VELASQUEZ, ET
LAWSON
LYNCH
JAQUEZ
JOHNSTON
PACHECO
MCNUTT
PUBCO
(AZTEC)
STATE
SF078139
SF080003
SF080005
SF080132
SF081001
SF081098
SF078201
SF078336
SF078439
013686
012719
N.M.O. 12708

Tenneco Oil
Exploration and Production
A Tenneco Company

6162 South Willow Drive
P.O. Box 3249
Englewood, Colorado 80155
(303) 740-4800

Western Rocky Mountain Division

The Florance 6 was completed as a Mesaverde-Dakota dual in June of 1965 with 4-1/2" casing and one string of 2-3/8" tubing. The Dakota produces up the tubing and the Mesaverde flows up the casing-tubing annulus. Because of the large flow area in the annulus, the Mesaverde is experiencing liquid loading problems which are restricting the production from that zone.

Enclosed are decline curves for both the Mesaverde and Dakota zones.

The bottom-hole pressure of the Dakota was measured with a pressure bomb and found to be 679 psig at 7100' after 8 days of shut in. This Dakota pressure corrected to a datum of 5000' was 651 psig. A pressure bomb could not be run for the Mesaverde since this zone produces up the annulus.

A dead weight surface pressure of 378 psig was recorded for the Mesaverde after 8 days of shut in. The fluid level was found at 4526'. The bottom-hole pressure for the Mesaverde was then calculated to be 640 psig at a datum of 5000'. The requirement that the lower pressured zone have a pressure that is greater than 50% of the pressure of the higher pressured zone corrected to a common datum is; therefore, satisfied.

Compatibility tests were conducted using Dakota formation water from the Florance 6 and Mesaverde water from the offset Florance 7A. The testing indicates that no scale or precipitate problems should result from the commingling of produced waters from these formations. In addition, the salinities of the two zones are similar enough that no formation damage should occur in either zone.

The intent of commingling these two zones is to increase the total production from the well. This will be accomplished by increasing the flow velocity by flowing both zones up the tubing. The cross-sectional area of the tubing is 3.13 square inches, as opposed to 11.27 square inches for the tubing and annulus. Even if no production increase were realized, a 3.6 fold increase in average flow velocity would result from commingling. This velocity increase will enable the well to unload produced fluids and will result in increased gas production from each zone. This greater production rate will increase the velocity in the tubing, yielding even more liquid lifting capacity.

Based upon the decline curves and reserve estimates for these zones, I recommend that the production be allocated on a strict percentage basis with 81% assigned to the Mesaverde and 19% assigned to the Dakota.

If you need any additional information, feel free to call me at (303) 740-4836.

Frank G. Weiss III
Senior Production Engineer - WRMD

0359

MESAVERDE

FLORANCE 6 MV/DK
MESAVERDE DAKOTA COMMINGLING
2-3/8X4-1/2 ANNULUS

DATE: 7/10/85
FILE: FILE102
PROJ: O

G A S W E L L P R E S S U R E S

MEASURED DEPTH, FEET	5000.	FLOW STREAM ID, INCHES	2.375
TRUE VERTICAL DEPTH, FEET	5000.	FLOW STREAM OD, INCHES	6.456
GAS GRAVITY	0.695	CRITICAL TEMPERATURE	388.
BOTTOM HOLE TEMPERATURE	150.	CRITICAL PRESSURE	666.
NITROGEN, MOL %	O.	CONDENSATE GRAVITY, DEG API	50.0
CARBON DIOXIDE, MOL %	O.	WATER GRAVITY	1.047
HYDROGEN SULFIDE, MOL %	O.	PIPE ROUGHNESS, INCHES	0.00060

GAS RATE M/D———	WH TEMP DEG F—	WELLHEAD PSIG———	BOTTOMHOLE P/Z PSIG———PSIG ——	CONDENSATE STB/MMCF—	WATER BW/MMCF—
O.	60.	378	425 AT 4526 FEET 640 AT 5000 FEET	(MEAS) (MEAS)	FLUID LEVEL (WTR)

0350

B & R SERVICE, INC.

P. O. Box 1048
Farmington, New Mexico 87401
(505) 325-2393

Company TENNECO OIL COMPANY Lease FLORANCE Well #6

County SAN JUAN State NEW MEXICO Date 5-15-85

Shut-In _____ Zero Point G.L. Tbg. Pressure 580

Casing Pressure PACKER Tbg. Depth _____ Casing Perf. _____

Max. Temp. _____ Fluid Level _____

DEPTH	PSIG	GRADIENT
0	580	----
1000	595	.015
2000	609	.014
3000	625	.016
4000	639	.014
5000	651	.012
6000	663	.012
7000	677	.014
7100	679	.020

MESAVERDE

8 DAY SHUT IN PRESSURE TEST

DEAD WEIGHT SURFACE PRESSURE TEST 378 PSIG

ANNULUS FLUID LEVEL 4526 FT

SOUTHERN UNION GATHERING COMPANY
REPORT OF BTU TEST RESULTS

TO: TENNECO OIL CO (846)

REF: FLORANCE 6
4065
NORTHWEST NEW MEXICO (70)

DATE OF THIS TEST: 6/28/83
DATE OF LAST TEST: 6/06/82
TEST FREQUENCY: 12

RESULTS: SPECIFIC GRAVITY: 0.6952
BTU/CF @ 14.73/60F/DRY: 1209.7

	MOL %	G.P.M.
CARBON DIOXIDE	0.895	0.0000
NITROGEN	0.117	0.0000
METHANE	84.320	0.0000
ETHANE	8.090	2.1650
PROPANE	3.548	0.9770
ISOBUTANE	0.672	0.2190
N-BUTANE	0.942	0.2970
ISOPENTANE	0.340	0.1240
N-PENTANE	0.260	0.0940
HEXANE +	0.843	0.3710
TOTAL	100.027	4.2470

SMITH ENERGY SERVICES
Divison of Smith International, Inc.

2198 East Bloomfield Highway
Farmington, New Mexico 87401
Phone (505) 327-7281

June 5, 1985

Tenneco Oil Co.
Western Rocky Mtn. Div.
P.O. Box 3249
Englewood, Co. 80155
ATTN: Frank Weiss

Dear Mr. Weiss:

Water analysis and compatibility studies were conducted using the following formation water samples:

1.	Dawson A#1	Mesa Verde formation water
	Dawson A#1	Dakota formation water
	(Mesa Verde sample may show scaling tendency, but no incompatibility was seen between the two samples.)	
2.	Florance #19A	Mesa Verde formation water
	Florance #19	Dakota formation water
3.	Riddle A #1	Mesa Verde formation water
	Riddle A #1	Dakota formation water
4.	Moore #1A	Mesa Verde formation water
	Moore #6E	Dakota formation water
5.	State Com #1A	Mesa Verde formation water
	State Com #1	Dakota formation water
6.	Florance #31	Mesa Verde formation water
	Florance #31	Dakota formation water
7.	Florance #7A	Mesa Verde formation water
	Florance #6	Dakota formation water
8.	Florance #36	Mesa Verde formation water
	Florance #36	Dakota formation water

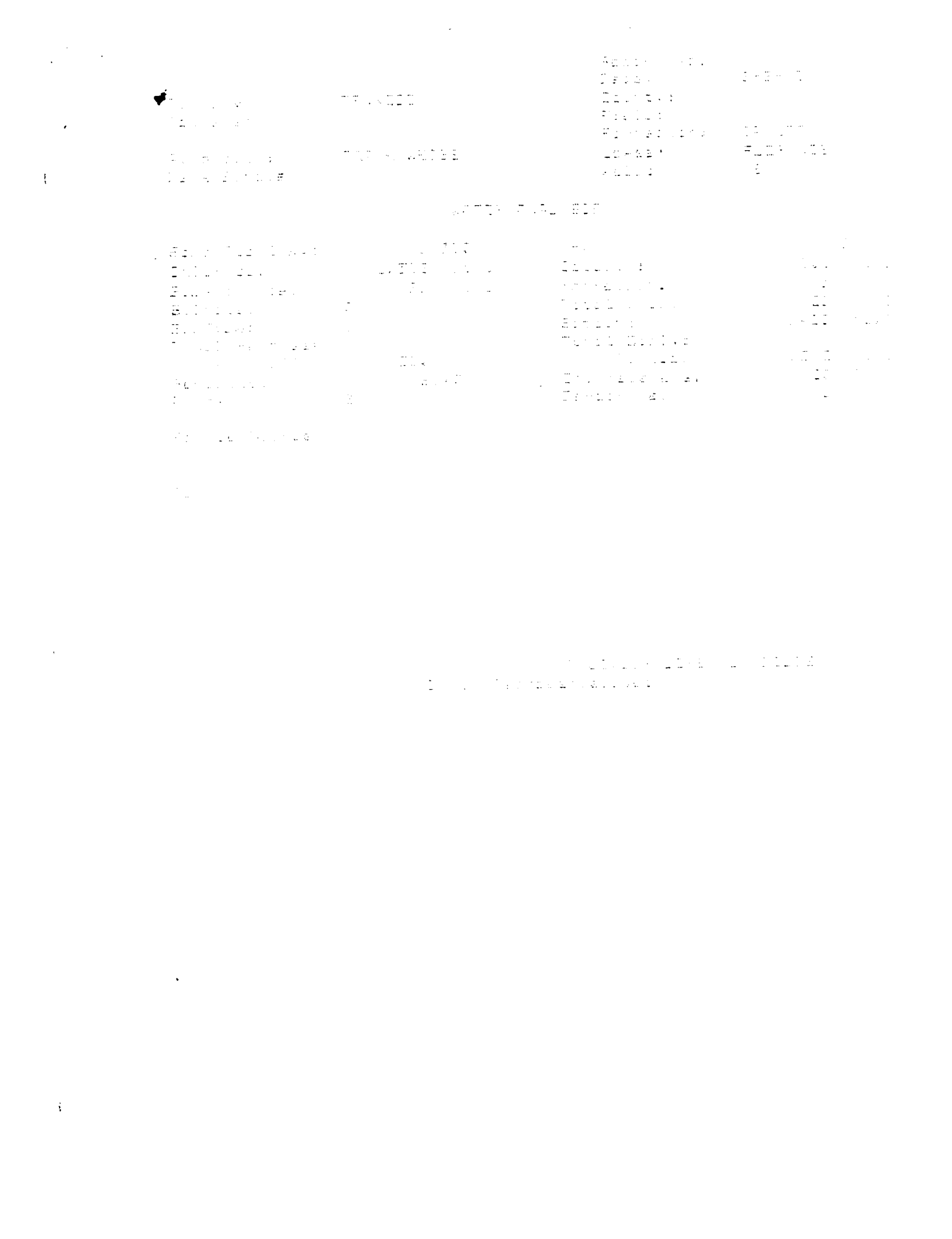
A small amount of reddish orange precipitate formed but this is to be expected when oxygen is admitted to a water sample containing even a trace of iron.

This precipitate should pose no problems in a closed system. No solid precipitates of any other types were noted and these samples should be considered to be compatible for mixing as per the listing above.

Sincerely,
SMITH ENERGY SERVICES

Loren L. Diede
District Engineer

LLD/kr



- TENNECO WELL HISTORY -

2504/25

Well Name Florance #6 Unit M Sec 23 T 30N R 9W
TD 7455 PBTD 7422 County San Juan State N.M. WI .50 RI .3275
Drlg Cost ____ Re-Comp Cost $69,612 Re-Comp Date 6-23-65 Trn On Date ____
Dakota-Recomp IP ___ BOPD 1304 MCFD ____ BWPD 3 Hours ____ SIWHP
MV-Recomp IP ___ BOPD 1107 MCFD ____ BWPD --- Hours ____ SIWHP

- TUBULAR RECORD -

Size	Weight	Grade	Depth	Cement	Top Cement	Hole Size	Remarks
13-3/8	48#	H-40	202'	220 sx	Surface	17-1/4"	
7"	20&23	K-55	4426	250 sx	---	8-3/4"	Lost circn
4-1/2	10.5&11.6	K-55	7455	400 sx/260	---	6-1/4"	DV @ 4111'
2-3/8	4.6#	J-55	7120				Circ. cmt to surf.on 1st stage.

Packer? Yes X No ___ Type Model D Depth 7120
Anchor? Yes ___ No X Type ____ Depth ____
Pump Type Flowing gas

- COMPLETION & WORKOVER RECORD -

Zone #1 - Formation MV Date 10-11-54 Perfs w/JSPF open hole: 4426-4650 1st stage, then open hole: 5037-5204 2nd stage
Press Tstd 2000 PSI, Spot Acid - Type ____ Gallons ____ BDISIP ____
Acid: Volume & Type ____ # balls ___, Rate ___ BPM, Press. ___ PSI
Frac: Fluid Volume & Type 8800 gal diesel #, Sand: 4100 # --- Mesh
Frac Rate 6.2 BPM Frac Pressure 2100 PSI ISIP ____ PSI
Comments *Above is 1st frac stage, 2nd stage: 10,000 gal diesel & 7200 # sand - no rate given, AIP: 2000 psi - IP = 17 MMCFPD

Zone # 2 - Formation Dakota Date 6-18-65 Perfs w/JSPF 7399-93, 4 HPF; 7380-74, 7372-68, 7357-55, 2 HPF; 7298-96,7289-85, 4 HPF (72 holes).
Press Tstd 4000 PSI, Spot Acid - Type 500 Gallons --- BDISIP ____
Volume & Type water, # balls ___, Rate 4 BPM, Press. 2200 PSI
Frac: Fluid Volume & Type 87,000 gal, then drop balls Sand: 65,000 # 20/40 Mesh
Sand: 2,500 # 20/40 Mesh
Frac Rate 50 BPM Frac Pressure 3000 PSI ISIP 1300, 2000 PSI
Comments 2nd Dak frac: Perf: 2 HPF, 7196-76, frac'd w/65,520 gals wtr & 45,000# 20/40 & 10/20. AIR: 45 BPM AIP: 3400 psi ISIP: 2000 psi

Zone # 3 - Formation MV-PLO Date 6-20-65 sqz Perfs w/JSPF 2 HPF: 5221,5193, 5184, 5173, 5159, 5150, 5136, 5122, 5109, 5104, 5080, 5070, 5056, 5048, 5041, 5035, 5026, 4892, 4888, 4858, 4855.
Press Tstd ____ PSI, Spot Acid - Type 500 Gallons ____ BDISIP ____
Acid: Volume & Type ____, # balls ___, Rate ___ BPM, Press. ____ PSI
Frac: Fluid Volume & Type 92,400 g/wtr (2 stgs) Sand: 60,000 # 10/20 Mesh
Sand: 20,000 # 8/12 Mesh
Frac Rate 75 BPM Frac Pressure 20 PSI ISIP -0- PSI
Comments 2nd MV frac - CH: perf'd : 2 HPF: 4813, 4807, 4802, 4792, 4786, 4618, 4610, 4606, 4596, 4594, 4580, 4578, 4572, 4566, 4560, 4548, 4546, 4464, 4461, 4454, 4453, 4447; frac w/80,000 # 10/20 & 8/12, 96,180 gal wtr. AIR = 62 BPM, AIP = 2500 psi. ISIP = 0 psi - 2 stages, dropped balls.

- CASING REPAIR RECORD -

Depth of Leak ____, # of squeezes required ___, # of sx used ____
Cathodic Protection? Yes ___ No ___ Date Installed ____

Comments Well drilled in 1950. Completed open hole in MV in 1954 and recompletion in 1965/w/4-1/2" csg through Dakota.

Prepared By: [signature] Date: 1-23-84 Verified By: ____ Date: ____

PAC

NEW MEXICO OIL CONSERVATION COMMISSION

GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator	Pool	County
Tenneco Oil Company	Mesaverde	San Juan

Address	TYPE OF TEST – (X)	Scheduled [X]	Completion [ ]	Special [ ]
P.O. Box 3249, Englewood, CO 80155				

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT/BBL
Florance	6	M	23.	30	9	5/28/85	S	N/A	370							

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above informatio is true and complete to the best of my knov ledge and belief.

(Signature)

Administrative Supervisor
(Title)

(Date)

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator	Pool	County
Tenneco Oil Company	Dakota	San Juan

Address	TYPE OF TEST - (X)			
P.O. Box 3249, Englewood, CO 80155	Scheduled [X]	Completion [ ]	Special [ ]	

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT/BBL.
Florance	6	M	23	30	9	5/28/85	F	N/A	580		24	0	45.5	0	50.90	0

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Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

Ursula Surface
(Signature)

Administrative Supervisor
(Title)

(Date)

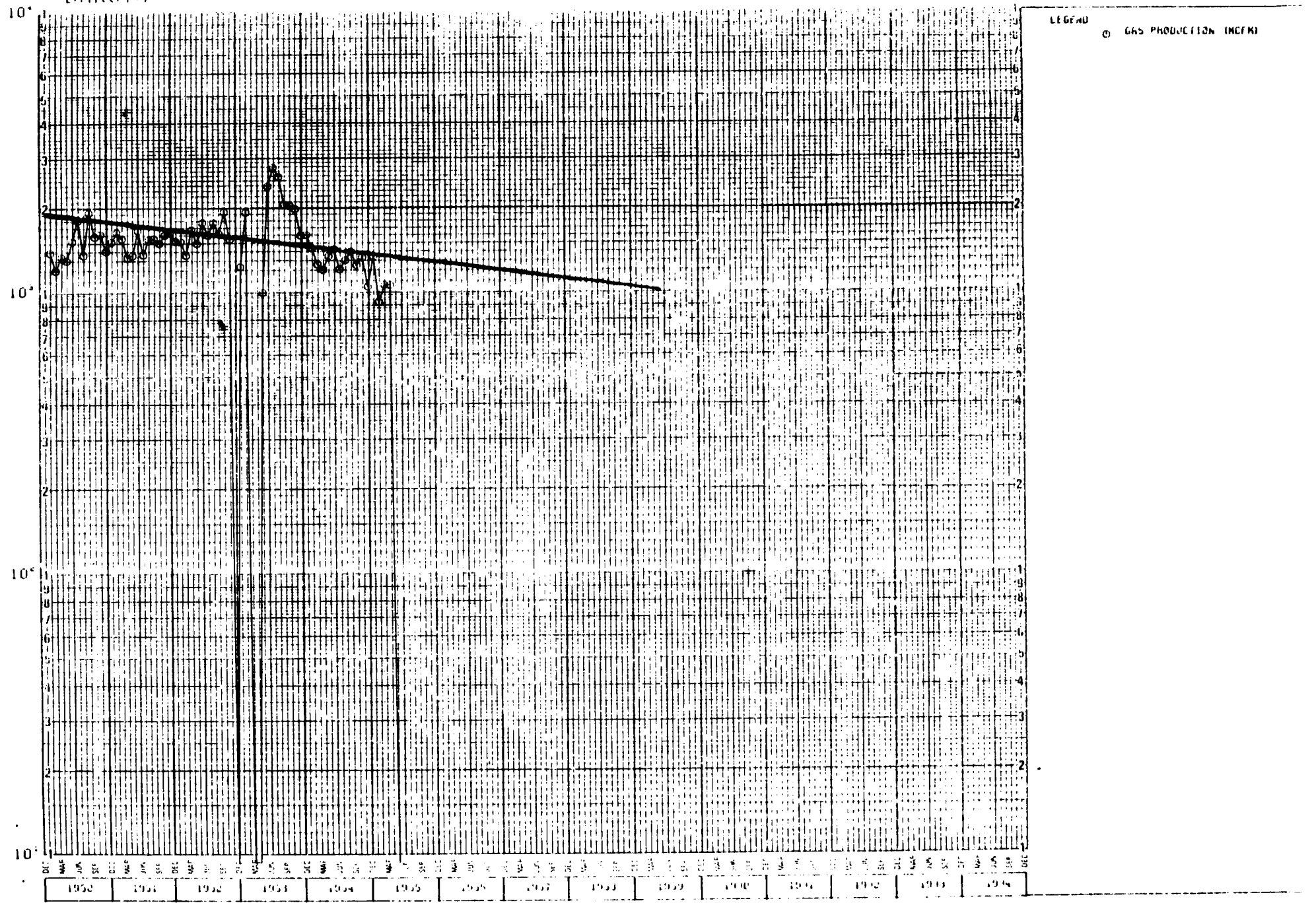
FLORANCE 6

DETERMINATION OF ALLOCATION PERCENTAGES

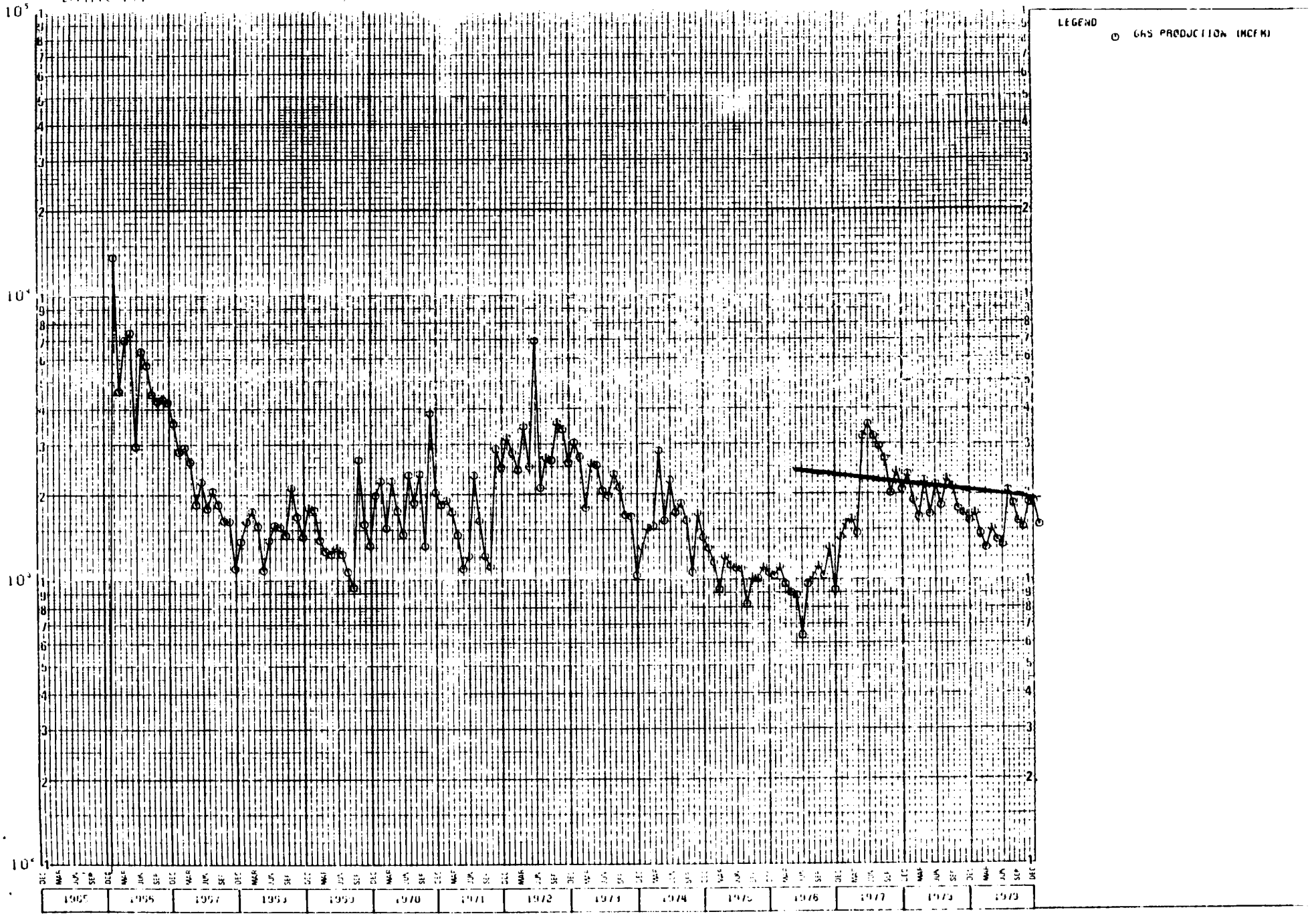
The decline rates and reserve estimate for the Mesaverde and Dakota are indicated below:

	DECLINE PERCENTAGE	REMAINING RESERVES
MESAVERDE	10%	754 MMCF
DAKOTA	8%	174 MMCF

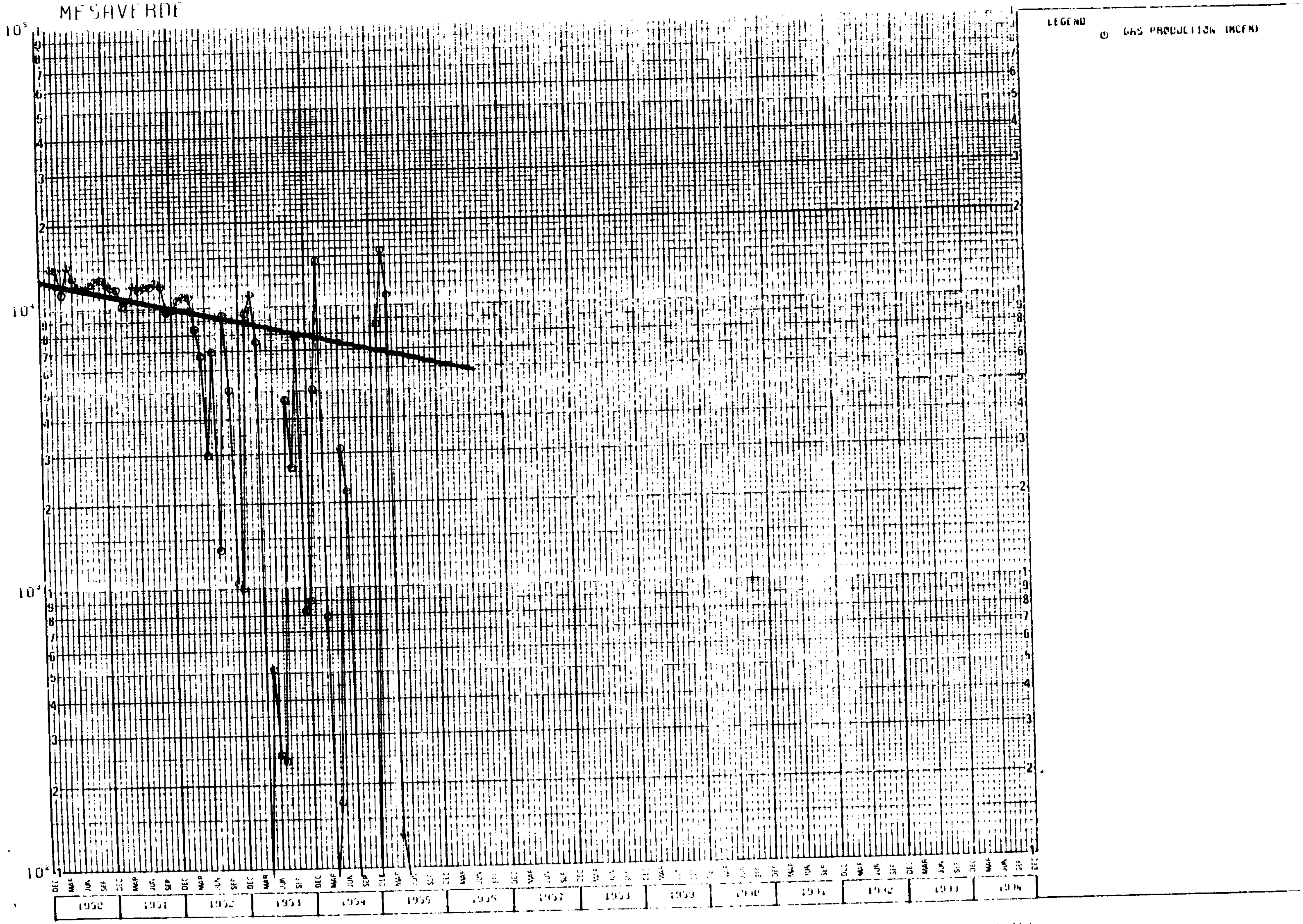
FLORANCE 6
030N009W23M
DAKOTA



FLORANCE 6
030N009W23M
DAKOTA



FLORANCE G
030N009W23M
MESAVERDE



PLOT-10 LM0001

FLORANCE 6
030N009W23M
MESAVERDE