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

August 1, 1985

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
TCO EXHIBIT NO. 3
CASE NO. 8262

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

Attention: Don Reed

RE: Florance 36
1850' FNL, 1990' FEL
Sec. 31, T30N, R8W
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: Donald R. Read Title: District Manager

Date: 8-9-85

RECEIVED
AUG 8 1985
MERIDIAN OIL
FARMINGTON

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

July 31, 1985

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

Attention: Gilbert Quintana

RE: Florance 36
1850' FNL, 1990' FEL
Sec. 31, T30N, R8W
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

Paul Doyle
Division Production Engineer

SMc:st

Enclosures

cc: Mr. Jerry Hertzler
Mr. Frank Weiss

Tenneco Oil
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A Tenneco Company

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Western Rocky Mountain Division

August 1, 1985

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Paul Doyle
Division Production Engineer

SMc:st

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Name: _____ Title: _____

Date: _____

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

August 1, 1985

Amoco Production Company
1670 Broadway
Denver, CO 80202

Attention: R. C. Burke, Jr.

RE: Florance 36
1850' FNL, 1990' FEL
Sec. 31, T30N, R8W
San Juan County, New Mexico

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Paul Doyle
Division Production Engineer

SMc:st

WAIVER

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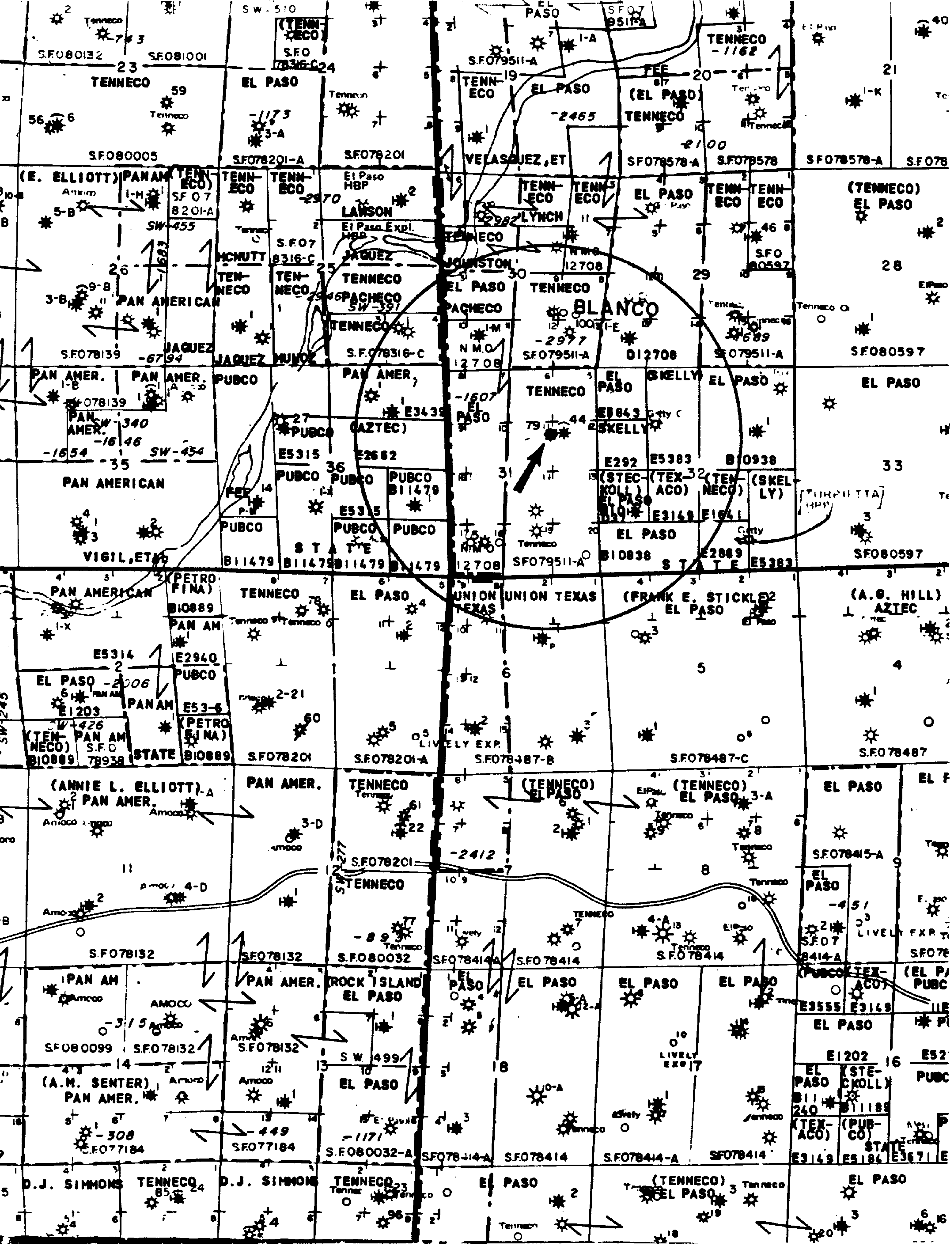
Name: _____ Title: _____

Date: _____



BLANCO
TENNECO
EL PASO
PAN AMERICAN
PAN AMER.
PUBCO
STATE
UNION TEXAS
(FRANK E. STICKLE)
(A.G. HILL)
AZTEC
VIGIL, ETAL
(ANNIE L. ELLIOTT)
(A.M. SENTER)
D.J. SIMMONS
ROCK ISLAND
LIVELY EXP.
VELASQUEZ, ET
LAWSON
LYNCH
JOHNSTON
PACHECO
JAQUEZ
MCNUTT
MUNOZ
SKELLY
(STEC-KOLL)
(TEX-ACO)
(PETRO FINA)
SF078201
SF078201-A
SF079511-A
SF078578-A
SF080597
SF078139
SF080005
SF078487-B
SF078487-C
SF078132
SF080032
SF078414
SF078414-A
SF077184
SF080099
SF078415-A
SW-510
SW-455
SW-391
SW-340
SW-454
SW-499
SW-277
E5315
E5383
E3149
E2869
B10938
B11479
B10889
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 36 was completed as a Mesaverde-Dakota dual in October 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 938 psig at 7495' after 8 days of shut in. This Dakota pressure corrected to a datum of 5000' was 895 psig. A pressure bomb could not be run for the Mesaverde since this zone produces up the annulus.

A dead weight surface pressure of 423 psig was recorded for the Mesaverde after 8 days of shut in. The fluid level could not be established. The bottom-hole pressure for the Mesaverde was then calculated to be 479 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 formation water from the Mesaverde and Dakota. 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 strict percentage basis with 88% assigned to the Mesaverde and 12% assigned to the Dakota.

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

Frank G. Weiss III JAH
Frank G. Weiss III
Senior Production Engineer - WRMD

MESAVERDE

FLORANCE 36 MV/DK
MESAVERDE DAKOTA COMMINGLING
2-3/8X4-1/2 ANNULUS

DATE: 7/10/85
FILE: FILE102
PROJ: 0

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	0.670	CRITICAL TEMPERATURE	380.
BOTTOM HOLE TEMPERATURE	150.	CRITICAL PRESSURE	667.
NITROGEN, MOL %	0.	CONDENSATE GRAVITY, DEG API	50.0
CARBON DIOXIDE, MOL %	0.	WATER GRAVITY	1.047
HYDROGEN SULFIDE, MOL %	0.	PIPE ROUGHNESS, INCHES	0.00060

GAS RATE M/D	WH TEMP DEG F	WELLHEAD PSIG	BOTTOMHOLE PSIG	P/Z PSIG	CONDENSATE STB/MMCF	WATER BW/MMCF
0.	60.	423	479 AT 5000 FEET		(MEAS)	FLUID LEVEL
			479 AT 5000 FEET		(MEAS)	(WTR)

0350

B & R SERVICE, INC.

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

Company TENNECO OIL COMPANY Lease FLORANCE Well 36

County SAN JUAN State NEW MEXICO Date 5-16-85

Shut-In _____ Zero Point G.L. Tbg. Pressure 794

Casing Pressure PACKER Tbg. Depth _____ Casing Perf. _____

Max. Temp. _____ Fluid Level _____

DEPTH	PSIG	GRADIENT
0	794	----
1000	818	.024
2000	839	.021
3000	858	.019
4000	876	.018
5000	895	.019
6000	912	.017
7000	929	.017
7395	936	.018
7495	938	.020

MESAVERDE

8 DAY SHUT IN PRESSURE TEST

DEAD WEIGHT SURFACE PRESSURE TEST 423 PSIG

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

Report No:
Date: 6-3-85
Company: TENNECO
Address:
County:
Field:
Formation: DAKOTA
Attention: FRANK WEISS
Lease: FLORANCE
Date Sampled:
Well: #36

WATER ANALYSIS

Specific Grav:	1.000	pH:	7.00
Chloride:	3,999 mg/l	Calcium:	60 mg/l
Bicarbonate:	183 mg/l	Magnesium:	146 mg/l
Sulfate:	0	Total Iron:	3 mg/l
Sulfide:	0	Sodium:	2,251 mg/l
Total Hardness (as CaCO3):	800 mg/l	Total Dslvd Solids:	6,702 mg/l
Resistivity:	1.50	Ohm Meters @:	60 F
Potassium:	0	Carbonate:	n d

Sample Source:

Remarks:

Analyst: LOREN L. DIEDE
Smith Representative:

Company: TENNECO
Address:

Attention: FRANK WEISS
Date Sampled:

Report No:
Date: 6-3-85
County:
Field:
Formation: MESA VERDE
Lease: FLORANCE
Well: #36

WATER ANALYSIS

Specific Grav:	1.000	pH:	7.00
Chlorides:	200 mg/l	Calcium:	40 mg/l
Bicarbonate:	61 mg/l	Magnesium:	24 mg/l
Sulfate:	0	Total Iron:	20
Sulfide:	0	Sodium:	61 mg/l
Total Hardness (as CaCO3):	200 mg/l	Total Dissolved Solids:	366 mg/l
Resistivity:	10.20	Ohm Meters @:	60 F
Potassium:	0	Carbonate:	n c

Sample Source:

Remarks:

Analyst: LOREN L. DIEDE
Smith Representative:

- TENNECO WELL HISTORY -

Well Name Florance 36 Unit H Sec 3 T 30 R 8
TD 7830 PBTD 7810 County San Juan State N.M. WI 50 RI 34.5
Drlg Cost _____ Comp Cost _____ Comp Date 9-2-54 Trn On Date _____
MV-52 IP --- BOPD 5160 MCFD --- BWPD 3 Hours 1094 SIWHP
DAK-65 IP --- BOPD 8418 MCFD --- BWPD 3 Hours 2525 SIWHP

- TUBULAR RECORD -

Size	Weight	Grade	Depth	Cement	Top Cement	Hole Size	Remarks
8-5/8	32	H-40	172	140	Surf.	12-1/4	
6-5/8	18.79		3260	78	1900	7-7/8	Good Circn.
4-1/2	9.5		4895	100	4085	5-7/8	Pulled!!
4-1/2	10.5&11.6	J-55	7830	275/225		5-7/8	DV @ 4504
2-3/8			7510				Seal-Lock

Packer? Yes X No ___ Type Model D Depth 7510
Anchor? Yes ___ No X Type _____ Depth _____
Pump Type _____

- COMPLETION & WORKOVER RECORD -

Zone #1 - Formation MV Date 8/54 Perfs w/JSPF D/O w/3-3/4" bit. Open hole 5066-4895.

Press Tstd _____ PSI, Spot Acid - Type _____ Gallons _____ BDISIP _____
Acid: Vol. & Type _____, # balls ___, Rate ___ BPM, Press. ___ PSI
Frac: Fluid Volume & Type 9918 gal oil, Sand: 4500 # _____ Mesh
Frac Rate 6.8 BPM Frac Pressure 2200 PSI ISIP _____ PSI
Comments _____

Zone # 2 - Formation MV Date 8/54 Perfs w/JSPF DO w/3-3/4" bit. Open hole 5428-5600. Pkr @ 5428.
Press Tstd _____ PSI, Spot Acid - Type _____ Gallons _____ BDISIP _____
Acid: Vol. & Type _____, # balls ___, Rate ___ BPM, Press. ___ PSI
Frac: Fluid Volume & Type 8100 gal oil, Sand: 5100 # _____ Mesh
Frac Rate 5-3/4 BPM Frac Pressure 2000 PSI ISIP _____ PSI
Comments CO to 5600'. Ran 1.9" tbg to 4916'.

Zone # 3 - Formation Dakota Date 10/65 Perfs w/JSPF 7722-23, 7724-25, 7736-38, 7743-46, 7751-54, 7720-24, 7742-50, 7674-80, 7687-88, 7693-96

Press Tstd 4000 PSI, Spot Acid - Type _____ Gallons _____ BDISIP _____
Acid: Vol. & Type 3600 - 15%, # balls ___, Rate ___ BPM, Press. ___ PSI
Frac: Fluid Volume & Type 92 M gal 1% KCl wtr, Sand: 57M # 40/60 Mesh
Frac Rate 34 BPM Frac Pressure 4000 PSI ISIP 3800 PSI
Comments Set BP @ 7650'

- CASING REPAIR RECORD -

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

Comments 1. 10/65 - Sqzd open hole w/200 sx. Cut & pulled 4-1/2" csg @ 3990' Set 50 sx plug @ stub. Sqzd leak in 6-5/8" @ 1050 w/150 sxs. Cut window in 6-5/8" csg.
2. MV produces up annulus.
3. Location - 1850' FNL, 990' FEL.
4. Cost to deepen & drill = $108,000
5. Dakota IBHP = 2961 psi.

Prepared By: PAD Date: 1/21/84 Verified By: _____ Date: _____
P. A. Doyle

Well Name Florance 36 Unit H Sec 3 T 30 R 8

- COMPLETION & WORKOVER RECORD -

Zone #4 - Formation Dakota Date 10-65 Perfs w/JSPF 2 JSPF: 7574-76, 7578-86, 7623-25, 24 holes

Press Tstd 4000 PSI, Spot Acid - Type _____ Gallons _____ BDISIP _____
Acid: Vol. & Type _____, # balls ___, Rate ___ BPM, Press. ___ PSI
Frac: Fluid Volume & Type 20 M gal 1% KCl wtr, Sand: 12 M # 40/60 Mesh
Frac Rate _____ BPM Frac Pressure 4000 PSI ISIP _____ PSI
Comments Screened out. Refrac'd w/16,000 gal 1% KCl & 12,000# 40/60 sd. Avg press = 4000 psi. Screened out.

Zone # 5 - Formation Dakota Date 10/65 Perfs w/JSPF Reperf w/ 2 JSPF 7568-72, 7588-92. Zone 4 perfs included in treatment.

Press Tstd _____ PSI, Spot Acid - Type _____ Gallons _____ BDISIP _____
Acid: Vol. & Type 500 - 15% , # balls ___, Rate ___ BPM, Press. ___ PSI
Frac: Fluid Volume & Type 28M gal 1% KCl wtr, Sand: 14M # 40/60 Mesh
Frac Rate 32 BPM Frac Pressure 4200 PSI ISIP _____ PSI
Comments Also acidized w/336 g 33%. Screened out. Set CIBP @ 5565.

Zone # 6 - Formation MV-PLO Date 10/65 Perfs w/JSPF 2 JSPF: 5236, 5247, 5249, 5250, 5307, 5309, 5311, 5355, 5369, 5371, 5373, 5383, 5384, 5389, 5470, 5507, 5508, 5509, 5516, 5517, 40 holes.
Press Tstd 4000 PSI, Spot Acid - Type _____ Gallons _____ BDISIP _____
Acid: Vol. & Type _____, # balls ___, Rate ___ BPM, Press. ___ PSI
Frac: Fluid Volume & Type 102 M gal wtr , Sand: 60 M # 20/40 Mesh
rac Rate 72 BPM Frac Pressure 2300 PSI ISIP -0- PSI
Comments Tailed in w/18,000 # 8/12 sd. Set CIBP @ 5200'.

Zone #7 - Formation MV-CH Date 10/65 Perfs w/JSPF 2 JSPF: 5021, 22, 32, 33, 34, 35, 56, 46, 57, 65, 71, 72, 73, 74, 5110; 12, 14, 19, 20, 21. (40 holes).
Press Tstd _____ PSI, Spot Acid - Type _____ Gallons _____ BDISIP _____
Acid: Vol. & Type _____, # balls ___, Rate ___ BPM, Press. ___ PSI
Frac: Fluid Volume & Type 82 M gal 1% KCl wtr, Sand: 60M # 20/40 Mesh
Frac Rate 75 BPM Frac Pressure 2600 PSI ISIP _____ PSI
Comments Tailed in w/ 20,000 # 8/12 sd. Screened out.

Comments _____

Prepared By: Date: Verified By: Date:

P. A. Doyle

C-116
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

Operator: Tenneco Oil Company
Pool: Dakota
County: San Juan
Address: P.O. Box 3249, Englewood, CO 80155

TYPE OF TEST - (X): Scheduled [X] Completion [ ] Special [ ]

LEASE NAME	WELL NO.	LOCATION U	LOCATION S	LOCATION T	LOCATION R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT./BBL
Florance	36	H	3	30	8	5/28/85	F	N/A			24	0.	35.2	0	51.57	0

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 information is true and complete to the best of my knowledge and belief.

Ursula Suzioele
(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	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	36	H	3	30	8	5/22/85	S	N/A	420							

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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 information is true and complete to the best of my knowledge and belief.

Vanessa Swigaard
(Signature)

Administrative Supervisor
(Title)

(Date)

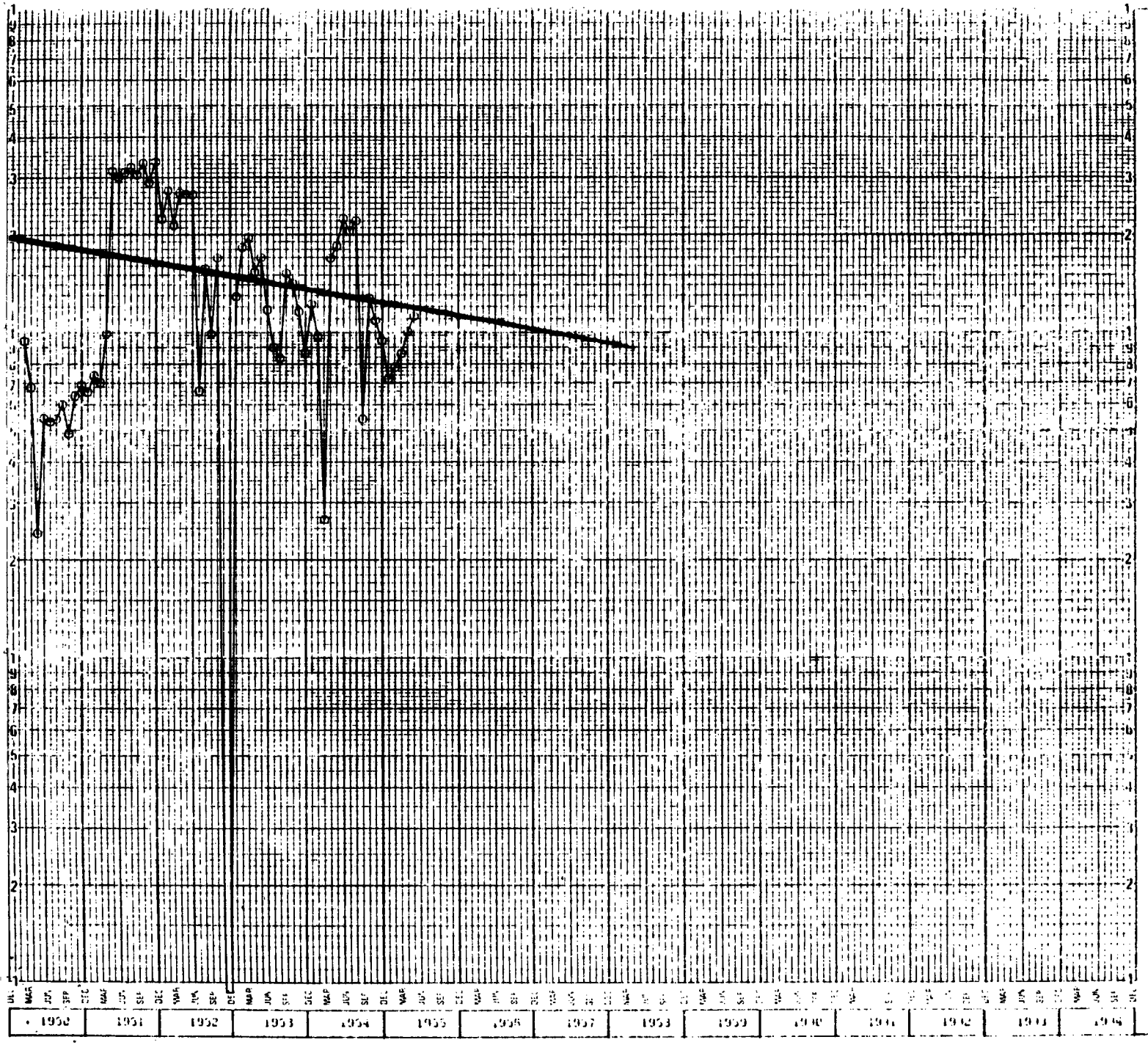
FLORANCE 36

DETERMINATION OF ALLOCATION PERCENTAGES

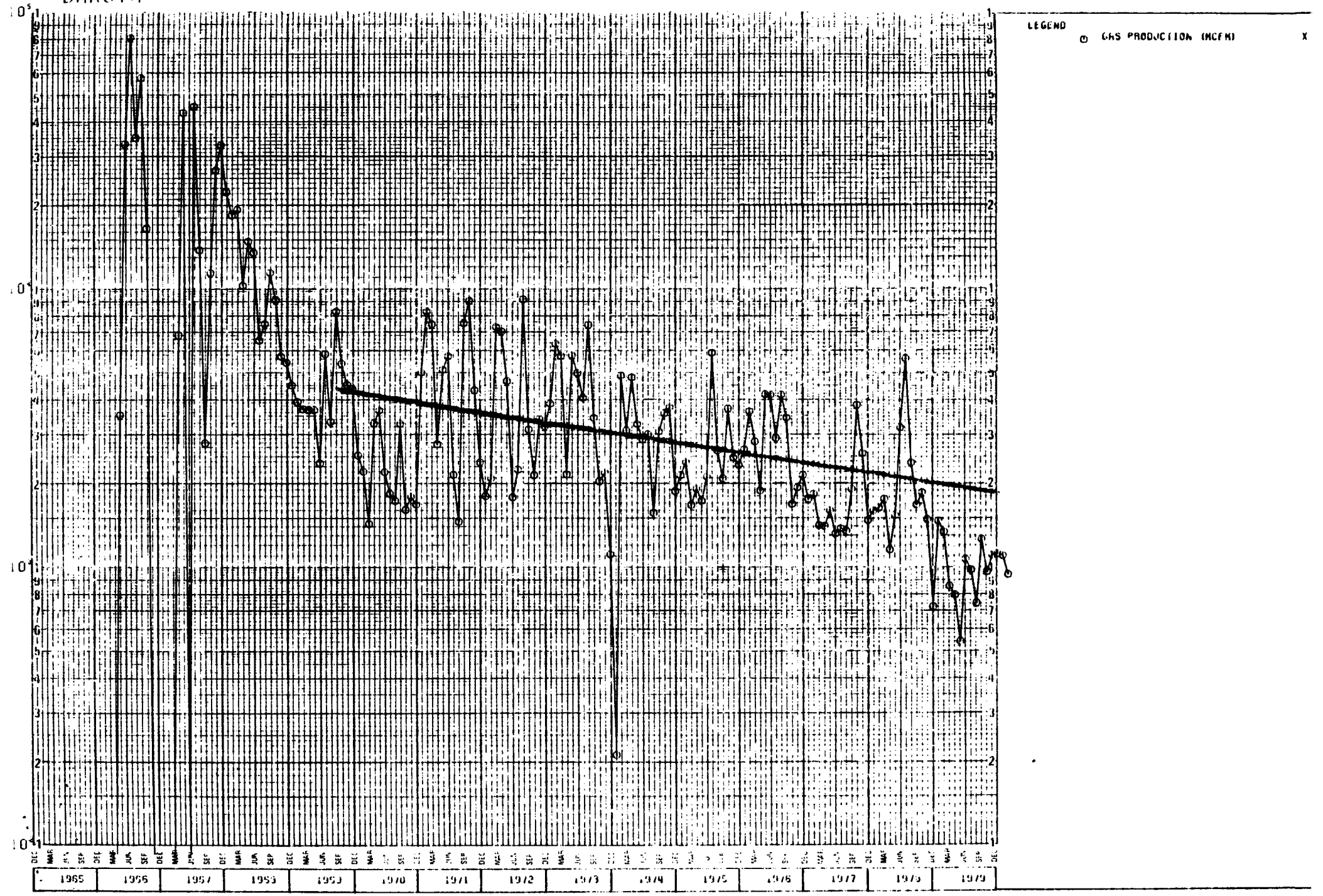
The decline rates and reserve estimate for the Mesaverde and Dakota are indicated below:

	DECLINE PERCENTAGE	REMAINING RESERVES
MESAVERDE	6%	987 MMCF
DAKOTA	9%	140 MMCF

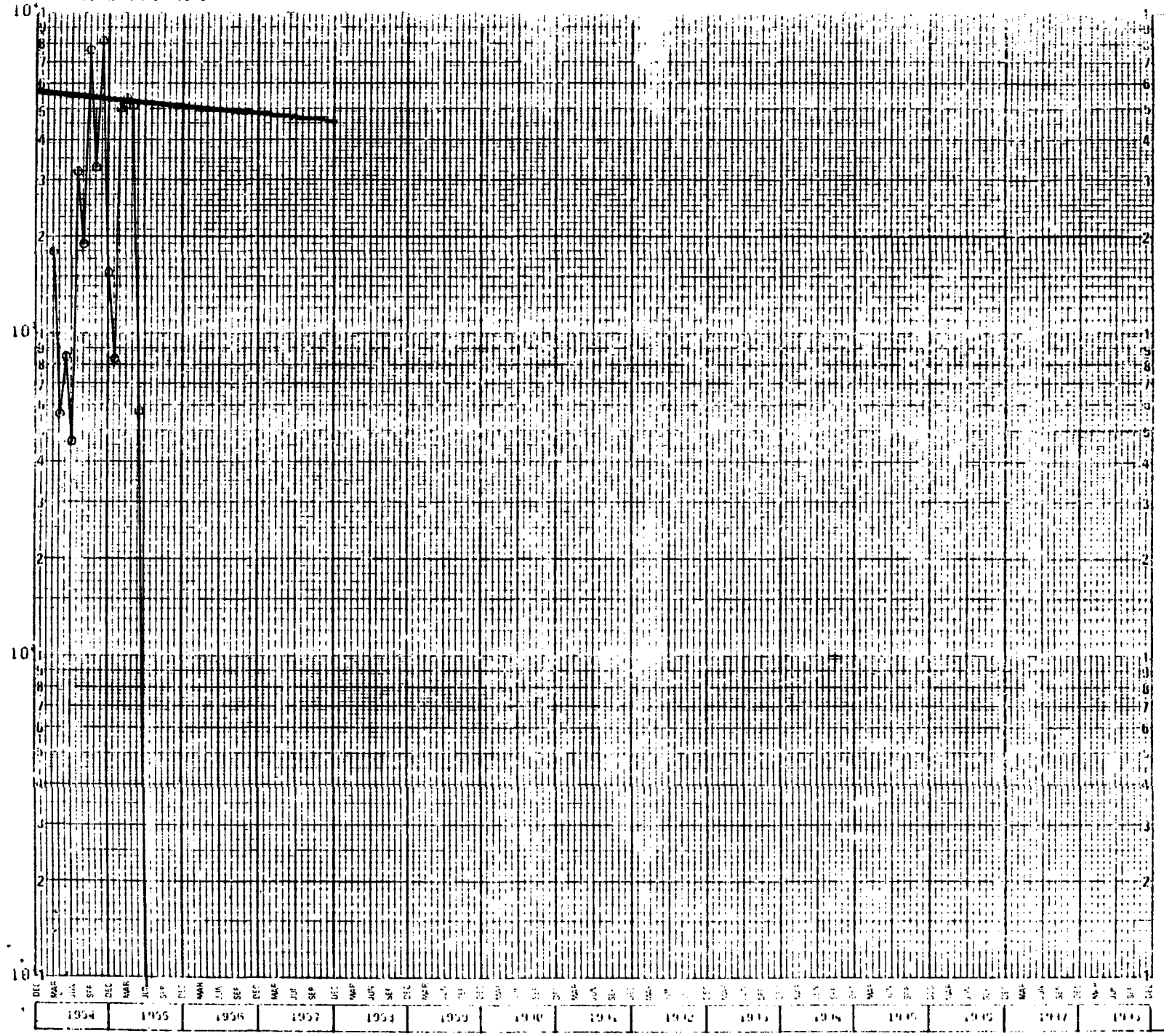
FLORANCE 36
030N008W03H
DAKOTA



FLORANCE 36
030N008W03H
DAKOTA



FLORANCE 36
030N008W03H
MESAVERDE



FLORANCE 36
030N008W03H
MESAVERDE