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, 1984

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 Jerome Dawson A #1 N-4-27N-8W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Docket for hearing

Yours truly,

Frank T. Chavez

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

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

Attention: Gilbert Quintana

RE: Dawson A 1
790' FSL, 1450' FWL
Sec. 4, T27N, 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

MV & D/C liquids

MV NM

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

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

Attention: Don Reed

RE: Dawson A 1
790' FSL, 1450' FWL
Sec. 4, T27N, 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

PAD

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

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

Western Rocky Mountain Division

August 1, 1985

Great Lakes Chemical
Post Office Box 2200
West Lafayette, IN 47906

RE: Dawson A 1
790' FSL, 1450' FWL
Sec. 4, T27N, 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

PAD/4

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

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

Western Rocky Mountain Division

August 1, 1985

Mesa Petroleum Company
1660 Lincoln Street, Suite 2800
Denver, CO 80264

RE: Dawson A 1
790' FSL, 1450' FWL
Sec. 4, T27N, 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: _____ 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

Arco Oil & Gas Company
707 - 17 Street, Arco Tower
Post Office Box 5540
Denver, CO 80217

RE: Dawson A 1
790' FSL, 1450' FWL
Sec. 4, T27N, 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

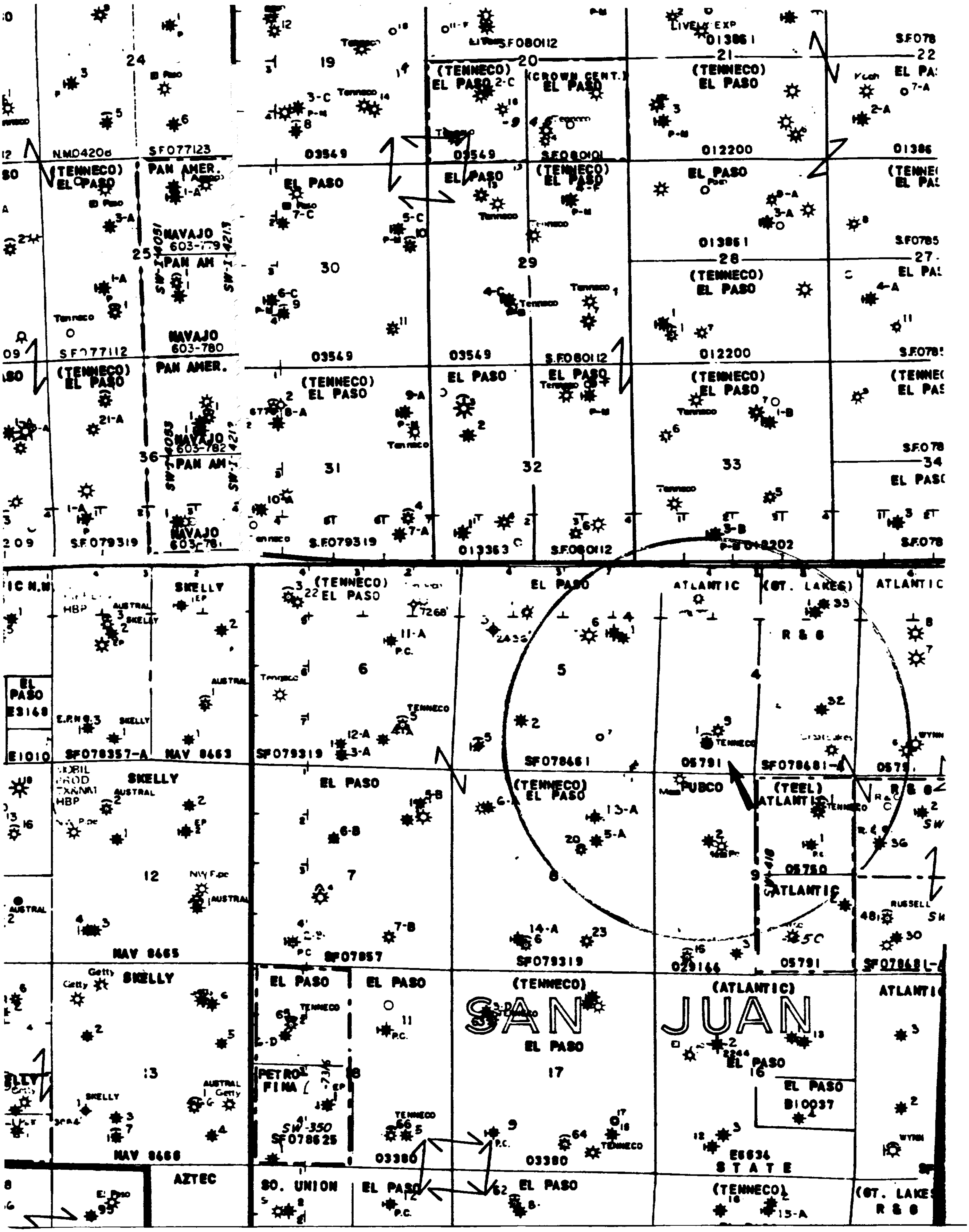
SMc:st

WAIVER

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

Name: _____ Title: _____

Date: _____



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(TENNECO) EL PASO
(CROWN CENT.) EL PASO
(TENNECO) EL PASO
EL PASO
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SF080101
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01386
(TENNECO) EL PASO
PAN AMER.
EL PASO
(TENNECO) EL PASO
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NAVAJO 603-779
PAN AM
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STATE
AZTEC
SO. UNION
EL PASO
EL PASO
(TENNECO)
(GT. LAKES R & G

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 Dawson A #1 was completed as a Mesaverde-Dakota dual in June of 1967 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 1180 PSIG at 7200' after 8 days of shut in. This Dakota pressure corrected to a datum of 5000' was 1109 PSIG. A pressure bomb could not be run for the Mesaverde since this zone produces up the annulus.

A dead weight surface pressure of 535 PSIG was recorded for the Mesaverde after 8 days of shut in. A fluid level could not be established. The bottom-hole pressure for the Mesaverde was then calculated to be 617 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 the produced water from the Dakota and Mesaverde formations. The Mesaverde sample showed some scaling tendency, however, no incompatibility problems exist between the two samples. 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 this 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 48% assigned to the Mesaverde and 52% 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

FGW/dw:0349

MESAVERDE

DAWSON A#1 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	0.743	CRITICAL TEMPERATURE	403.
BOTTOM HOLE TEMPERATURE	150.	CRITICAL PRESSURE	665.
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 P/Z PSIG———PSIG ——	CONDENSATE STB/MMCF—	WATER BW/MMCF—
0.	60.	535	617 AT 5000 FEET	(MEAS)	FLUID LEVEL
			617 AT 5000 FEET	(MEAS)	(WTR)

0350

B & R SERVICE, INC.

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

Company TENNECO OIL CO. Lease DAWSON Well A-1

County SAN JUAN State NEW MEXICO Date 6-12-85

Shut-In _____ Zero Point G.L. Tbg. Pressure 947

Casing Pressure PACKER Tbg. Depth _____ Casing Perf. DAKOTA

Max. Temp. _____ Fluid Level _____

DEPTH	PSIG	GRADIENT
0	947	----
1000	979	.032
2000	1012	.033
3000	1044	.032
4000	1077	.033
5000	1109	.032
6000	1141	.032
7100	1177	.033
7200	1180	.030

MESAVERDE

8 DAY SHUT-IN PRESSURE TEST
DEAD WEIGHT SURFACE PRESSURE 535 PSIG

03/22/85

EL PASO NATURAL GAS COMPANY
MEASUREMENT DEPARTMENT
POST OFFICE BOX 1492
EL PASO, TEXAS 79999

CHROMATOGRAPHIC GAS ANALYSIS REPORTS

TENNECO OIL COMPANY
ATTN: URSULA SULCBACH
P. O. BOX 3249
ENGLEWOOD, CO 80155

METER STA 75656

ANAL DATE 03 18 85 METER STATION NAME DAWSON A #1 OPER 8720

TYPE CODE	SAMPLE DATE	EFF. DATE	USE MOS.	SCALE	H2S GRAINS	LOCATION
00 ***	03 18 85	03 25 85	06			4 F 02

	NORMAL MOL%	GPM
C O 2	.60	.000
H 2 S	.00	.000
N2	.55	.000
METHANE	77.09	.000
ETHANE	12.13	3.242
PROPANE	5.97	1.642
ISO-BUTANE	.95	.311
NORM-BUTANE	1.55	.488
ISO-PENTANE	.44	.161
NORM-PENTANE	.34	.123
HEXANE PLUS	.38	.166
TOTALS	100.00	6.133

SPECIFIC GRAVITY .743

MIXTURE HEATING VALUE
(BTU/CF AT 14.73 PSIA, 60 DEGREES, DRY) 1,285

RATIO OF SPECIFIC HEATS 1.277

NO TEST SECURED FOR H2S CONTENT

*** TYPE CODE EXPLANATION: SINGLE METER ANALYSIS

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. Biede
District Engineer

LLD/kr

- TENNECO WELL HISTORY -

Well Name Dawson A 1 Unit N Sec 4 T 27N R 8W
TD 7464' PBTD 7452' County San Juan State New Mex WI 1.00 RI .70
Drlg Cost $60,711 Comp Cost $35,000 Comp Date 6-1-67 Trn On Date
Dakota IP --- BOPD 2348 MCFD --- BWPD 3 Hours 2001 SIWHP
Mesaverde IP --- BOPD 5337 MCFD --- BWPD 3 Hours 929 SIWHP

- TUBULAR RECORD -

Size	Weight	Grade	Depth	Cement	Top Cement	Hole Size	Remarks
10-3/4	32.75#	H-40	511	400 sxs	Surface	15"	Circ cmt.
7-5/8"	24#	H-40	3143	375 sxs		9-7/8"	
4-1/2"	10.5&11.6	J-55	7464	145/225	4800'	6-1/4"	Stage tool
							@ 5508
2-3/8"	4.7	J-55	7248	W/Model D pkr set @ 7250'			

Packer? Yes X No__ Type 4-1/2" Mod"D" Depth 7250
Anchor? Yes __ No X Type _____ Depth_____
Pump Type _____

- COMPLETION & WORKOVER RECORD -

Zone #1 - Formation Dakota Date 4-28-67 Perfs w/JSPF 2 JSPF 13'-26 holes 7294-96', 7304-06', 7345', 7357', 7373', 7383', 7394', 7411', 7416-18', 7433'
Press Tstd 4000 PSI, Spot Acid - Type 7-1/2% HCl Gallons 250 BDISIP _____
Acid: Volume & Type 5 stages 250g 15% HCl, # balls 104 Rate 5 BPM, Press__ PSI
Frac: Fluid Volume & Type 60,000 gal Sl.Wtr., Sand: 42,500 # 20/40 Mesh
8000 12/20 Mesh
Frac Rate 47 BPM Frac Pressure 4000 PSI ISIP 2000 PSI
Comments 80,000# 12/20 glass beads is a typo @ 2#/gal. Should be 1/4# pad or 8,000# 12/20 glass beads

Zone # 2 - Formation MV Date 4-29-67 Perfs w/JSPF 17',24 holes, 5365,5337, 5274, 2 JSPF, 5246-52, 1 JSPF, 5225 2 JSPF, 5172-76, 1 JSPF, 5155, 5138-40 2 JSPF.
Press Tstd _____ PSI, Spot Acid - Type _____ Gallons_____ BDISIP _____
Volume & Type KCl wtr, # balls 36, Rate ____ BPM, Press. 9000 PSI
Frac: Fluid Volume & Type slick water, Sand: 30,000 #20/40 Mesh
40,000 #10/20 Mesh
Frac Rate 57 BPM BPM Frac Pressure 3800 PSI ISIP Vacuum PSI
Comments Did not give volume of frac fluid. Flowing up annulus.

Zone # 3 - Formation _____ Date _____ Perfs w/JSPF _____

Press Tstd _____ PSI, Spot Acid - Type _____ Gallons_____ BDISIP _____
Acid: Volume & Type _____, # balls ___, Rate ____ BPM, Press. _____ PSI
Frac: Fluid Volume & Type _____, Sand: _____ # _____ Mesh
Frac Rate _____ BPM Frac Pressure _____ PSI ISIP _____ PSI
Comments _____

- CASING REPAIR RECORD -

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

Comments Mesaverde flowing up the 4-1/2" - 2-3/8" annulus. Repaired pkr leak and retested Dakota 6-7-67.

Prepared By: [signature] Date: 1/13/84 Verified By: 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)			
P.O. Box 3249, Englewood, CO 80155	Scheduled [X]	Completion [ ]	Special [ ]	

LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU.FT/BBL.
		U	S	T	R							WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	
Dawson	A1	N	4	27	8	5/28/85	F	N/A	540		24	1.	64.9	.4	85	212,500

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 Sugrue
(Signature)

Administrative Supervisor
(Title)

(Date)

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 [XX] 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
Dawson	A1	N	4	27	8	5/28/85	F	N/A	980		24	1	64.9	.3	47.74	159,133

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.

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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.

(Signature)

Administrative Supervisor
(Title)

(Date)

DAWSON A1

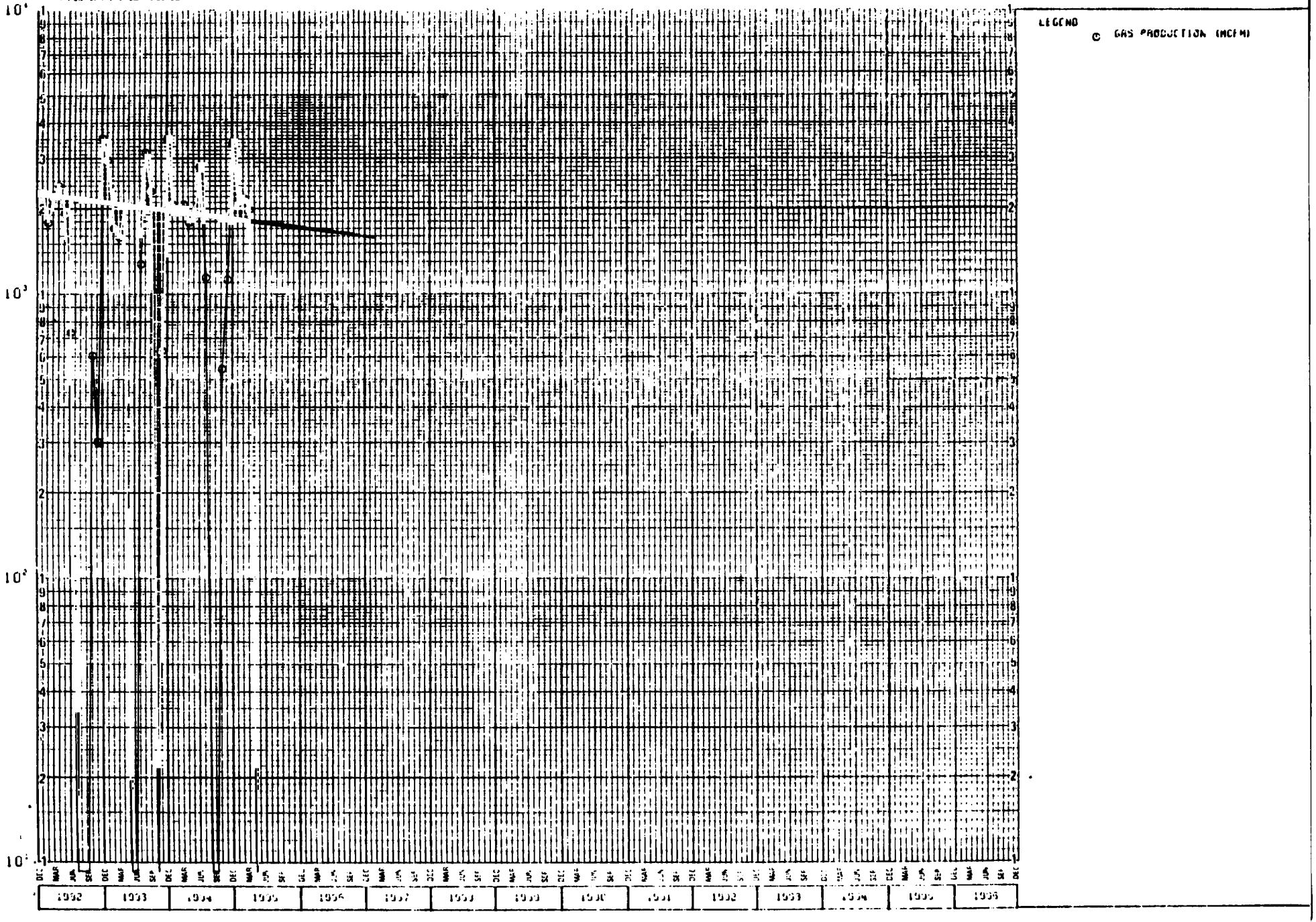
DETERMINATION OF ALLOCATION PERCENTAGES

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

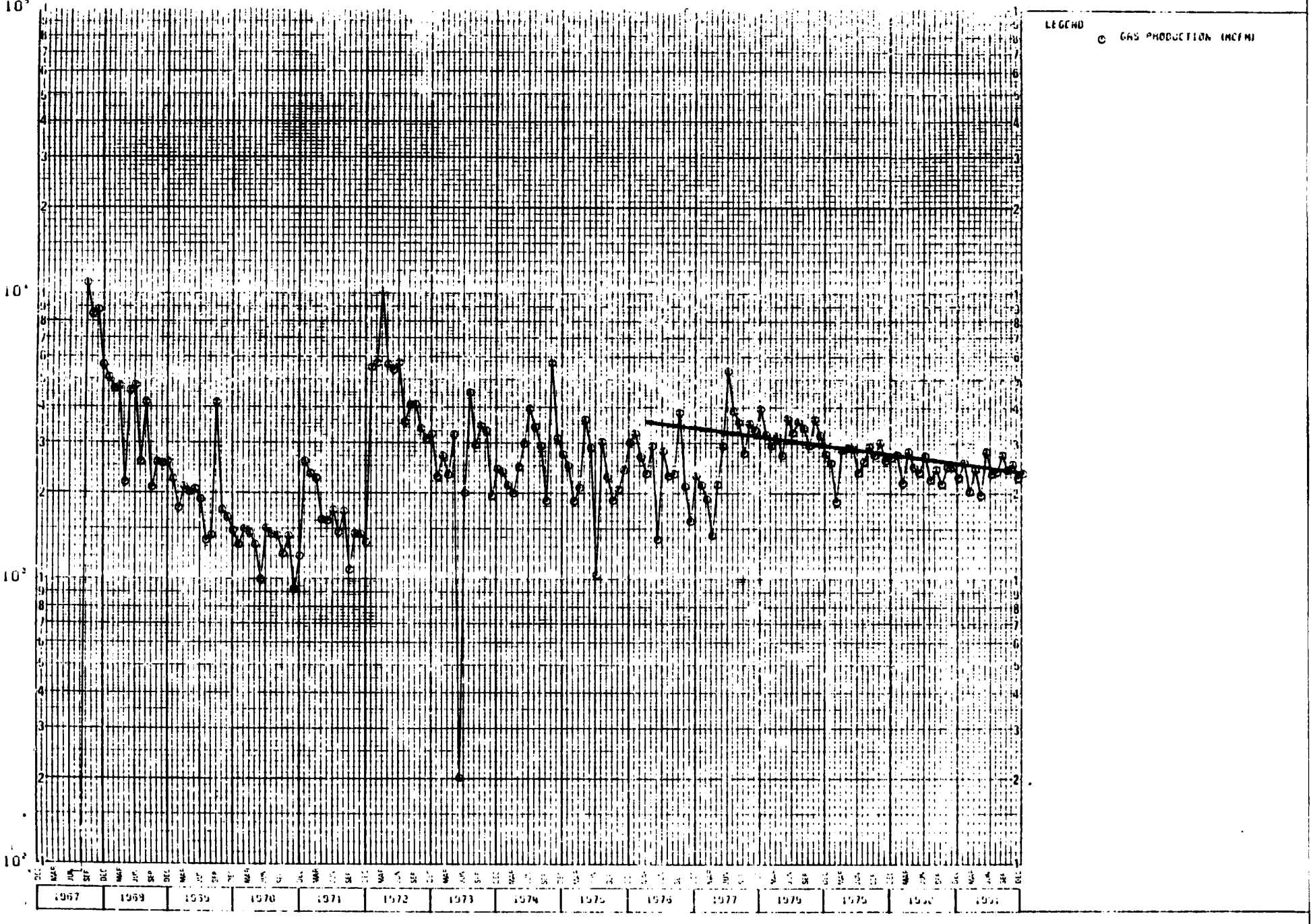
	DECLINE PERCENTAGE	REMAINING RESERVES
MESAVERDE	8%	246 MMCF
DAKOTA	6%	271 MMCF

0350

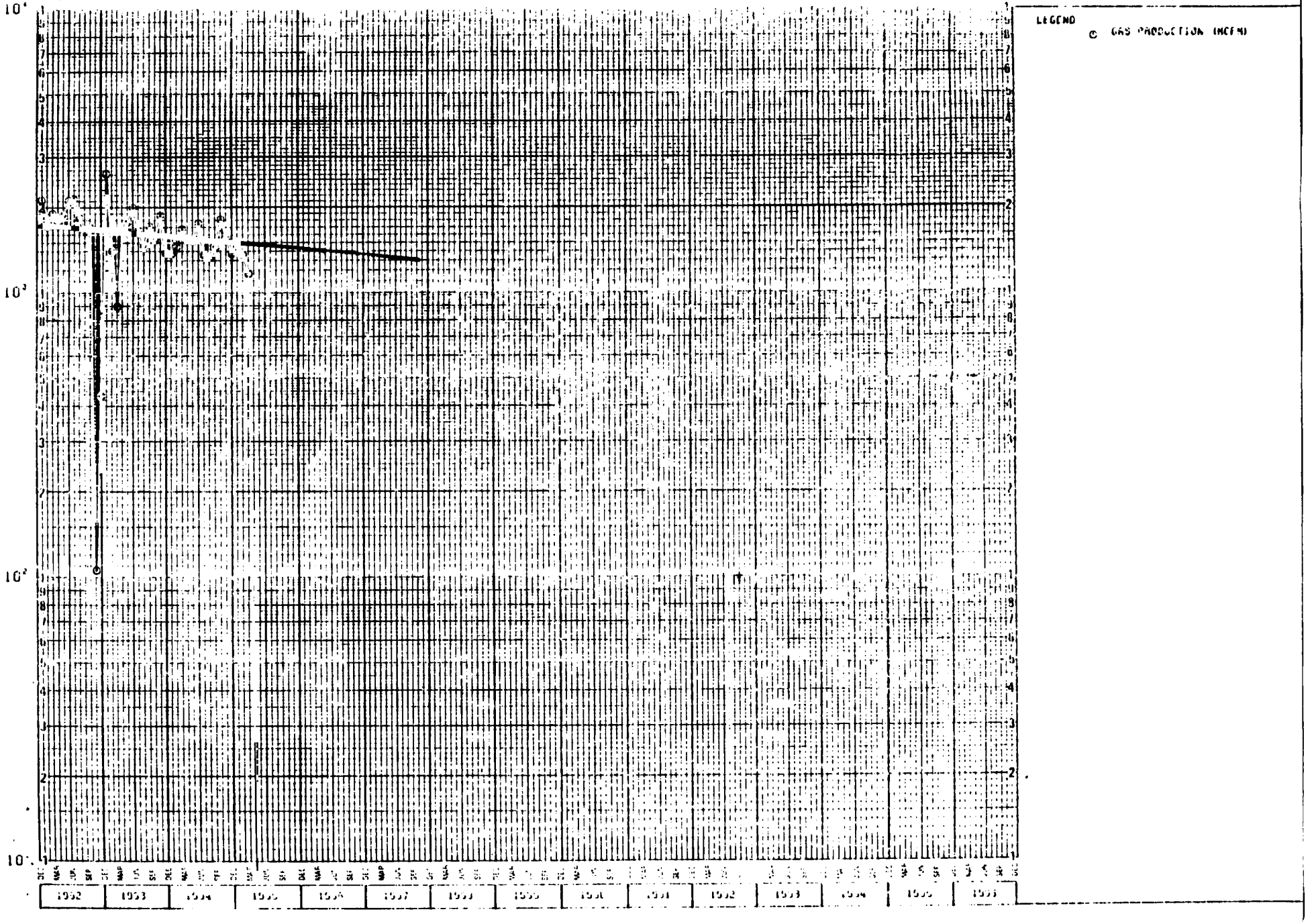
DAWSON A 1
027N008W04N
MESAVERDE



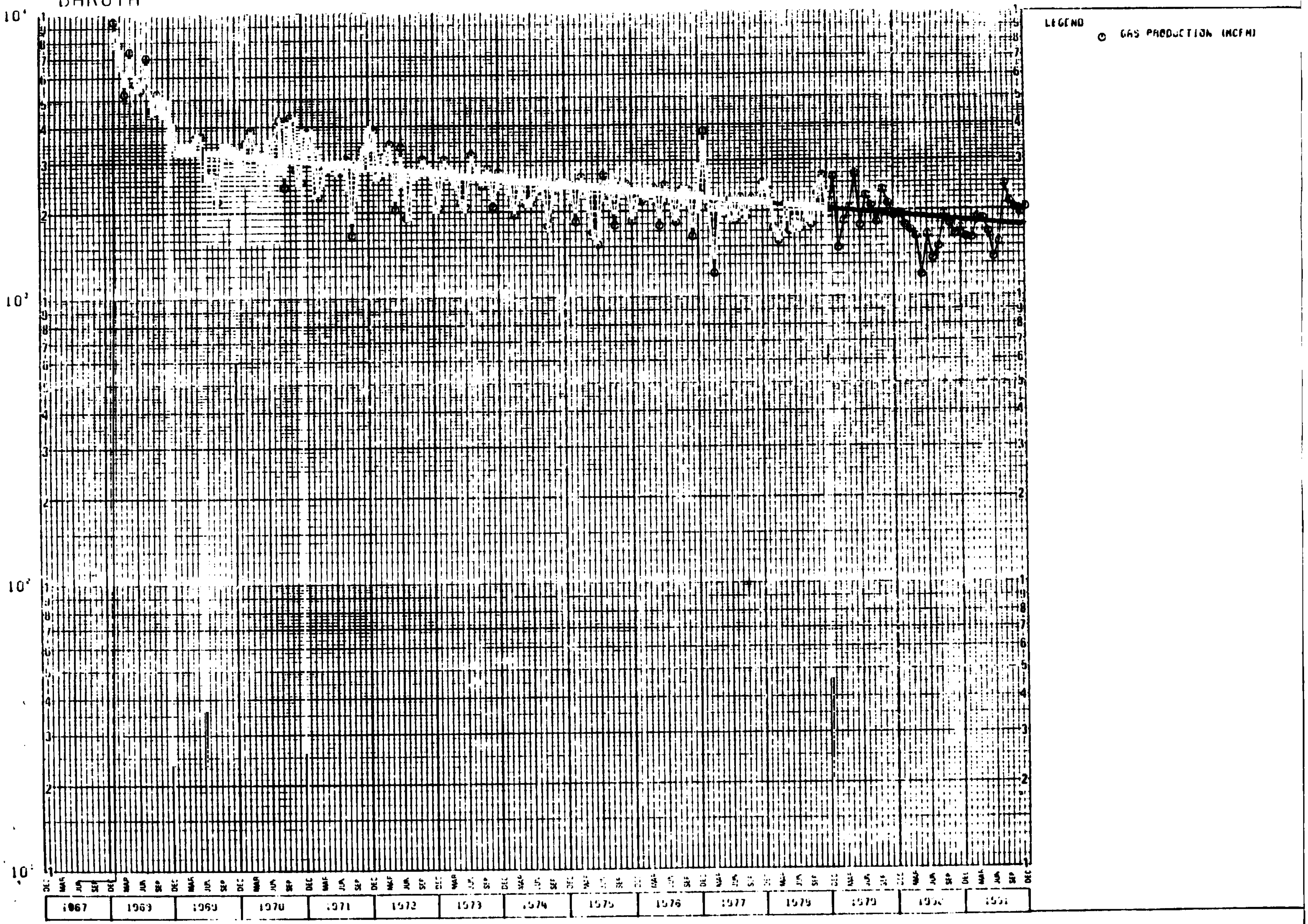
LAWSON A 1
C27NC08W04N
MESAVERDE



DAWSON A 1
027N008W04N
DAKOTA



DAWSON A 1
027N008W04N
DAKOTA



PLOT-III FGWAOI