STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

January 12, 1988

Chevron USA, Inc.
P.O. Box 7309
San Francisco, CA 94120-7309

Attention: Albert G. Garcia
Regulatory Assistant

RE: Administrative Order NFL-173

Dear Mr. Garcia:

Reference is made to your application for an Infill Well Finding and Well-Spacing Waiver made pursuant to Section 271.305(b) of the Federal Energy Regulatory Commission regulations, Natural Gas Policy Act of 1978, and the Oil Conservation Division Order No. R-6013, as amended, for the following described well:

Graham State (NCT-C) Com Well No. 9 located 990 feet from the North line and 1980 feet from the East line (Unit B) of Section 25, Township 19 South, Range 36 East, NMPM, Lea County, New Mexico.

THE DIVISION FINDS THAT:

(1) Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waiver of existing well-spacing requirements.

(2) By Division Order No. R-6013, as amended, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.

(3) The well for which a finding is sought is to be completed in the Eumont Gas Pool, and the standard spacing unit in said pool is 640-acres.

(4) A non-standard 320-acre gas proration unit comprising the E/2 of said Section 25, is currently dedicated to the Graham State (NCT-C) Well No. 8 located in Unit J of said Section 25.

(5) Said non-standard unit was previously approved by Administrative Order NSP-213, dated December 16, 1955.

(6) Said unit is not being effectively and efficiently drained by the existing well on the unit.

(7) The drilling and completion of the well for which a finding is sought should result in the production of an additional 245,000 MCF of gas from the proration unit which would not otherwise be recovered.

(8) All the requirements of Division Order No. R-6013, as amended, have been complied with, and the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.

(9) In order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well spacing requirements for the pool.

IT IS THEREFORE ORDERED THAT:

(1) The applicant is hereby authorized to drill the Graham State (NCT-C) Well No. 9, as described above, as an infill well on the existing 320-acre gas proration unit comprising the E/2 of Section 25, Township 19 South, Range 36 East, NMPM, Eumont Gas Pool, Lea County, New Mexico. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

(2) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

Sincerely,

Michael E. Stogner
Examiner

cc: Oil Conservation Division - Hobbs
New Mexico Oil and Gas Engineering Committee - Hobbs
State Land Office - Santa Fe

REMARKS: Division Order No. R-6921 dated March 15, 1982 authorized the subject well to be drilled at a non-standard gas well location and approved the E/2 of said Section 25 to be simultaneously dedicated to both aforementioned wells.

Chevron U.S.A. Inc.
P.O. Box 7309
San Francisco, California 94120-7309

Attention: Albert G. Garcia
Regulatory Assistant

RE: Administrative Order NFL-173

Dear Mr. Garcia:

Reference is made to your application for an Infill Well Finding and Well-Spacing Waiver made pursuant to Section 271.305(b) of the Federal Energy Regulatory Commission regulations, Natural Gas Policy Act of 1978, and the Oil Conservation Division Order No. R-6013, as amended, for the following described well:

Graham State (NCT-C) Com Well No. 9 located 990 feet from the North line and 1980 feet from the East line, of (Unit B)

Section 25, Township 19 South, Range 36 East, NMPM, Lea County, New Mexico.

THE DIVISION FINDS THAT:

(1) Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waiver of existing well-spacing requirements.

(2) By Division Order No. R-6013, as amended, ~~dated January 8, 1980~~, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.

(3) The well for which a finding is sought is to be completed in the Eumont Gas Pool, and the standard spacing unit in said pool is 640 acres.

(4) A non-standard 320-acre (gas) (oil) proration unit comprising the E/2 of said Section 25, ~~Township~~ _____, ~~Range~~ _____ is currently dedicated to the Graham State (NCT-C) Well No. 8 located in Unit J of said Section 25.

(_) Said non-standard unit was previously approved by Order ~~No.~~ NSP-213, dated December 16, 1955. Administrative

(_) Said unit is not being effectively and efficiently drained by the existing (well) (wells) on the unit.

(_) The drilling and completion of the well for which a finding is sought should result in the production of an additonal 245,000 MCF of gas from the proration unit which would not otherwise be recovered.

(_) All the requirements of Division Order No. R-6013, as amended, have been complied with, and the well for which a finding is sough is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.

(_) In order to permit effective and efficient drainage of said proration unit, the subject application should be approved as

an exception to the standard well spacing requirements for the pool.

IT IS THEREFORE ORDERED THAT:

(1) The applicant is hereby authorized to drill the Graham State (NCT-C) Com Well No. 9 as described above, as an infill well on the existing 320 -acre non-standard (oil) (gas) proration unit comprising the E/2 of Section 25, Township 19 South, Range 36 East, NMPM, Eumont Gas Pool, Lea County, New Mexico. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

(2) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

Sincerely,

Michael E. Stogner

Examiner

cc: Oil Conservation Division - Hobbs

NMOCC - Hobbs

State Land Office - Santa Fe

REMARKS: Division Order No. R-6921 dated March 15, 1982 authorized the subject well to be drilled at a non-standard ~~location and~~ gas well location and approved ~~the simultaneous dedication of~~ the E/2 of said Section 25 to be simultaneously dedicated to both ~~the~~ aforementioned wells.

Unitization

1. Compulsory unitization of all or part of a pool or common source of supply: Yes.

2. Minimum percentage of voluntary agreement before approval of compulsory unitization:

   (a) Working interest: 75%.

   (b) Royalty interest: 75%.

Chevron

Chevron U.S.A. Inc.
575 Market Street, San Francisco, California
Mail Address: P.O. Box 7309, San Francisco, CA 94120-7309

July 24, 1987

Supplemental Information For
Determination of Well Category
NGPA Section 103
Well Name: Graham State (NCT-C) No. 9
API No.: 30-025-27082
Field Name: Eumont Gas
Docket No.: Not Available
Chevron U.S.A. Inc. "SG-2015R" Key: 80

State of New Mexico
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Gentlemen:

Please refer to your letter dated January 5, 1987.

Attached is supportive evidence for an Effective and Efficient (E&E) finding on Graham State (NCT-C) Com. No. 9 pursuant to Section 271.305 of the final rules and regulations of Federal Energy Commission. This information proves that the subject well is necessary to effectively and efficiently drain that portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by the Graham State (NCT-C) No. 8.

We trust this information will suffice. However, if additional information is required, please let us know.

Please date stamp the enclosed copy of this letter and return it in the enclosed envelope.

Sincerely,

Albert G. Garcia
Regulatory Assistant

AGG:rr
Attachment

cc: Mr. J. D. Naylor, Houston

415 - 894-5726

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

CHEVRON USA INC.
P.O. BOX 7309
SAN FRANCISCO CALIFORNIA 74120-3709

Attn: [redacted]
Albert Garcia

RE: Well head price ceiling determination, NGPA of 1978

Gentlemen:

The New Mexico Oil Conservation Division has received your application for a wellhead price ceiling category determination under the sections(s) of the Natural Gas Policy Act of 1978 indicated below if your application is incomplete, forms are attached hereto, indicating the documents and further information which must be filed before your application can be considered. If your application is complete, it will be acted upon administratively unless written objection is received within 15 days of its filing.

WELL NAME AND LOCATION GRAIM STATE (NCT-C) 25-19S-36E #9-B

SECTION(S) APPLIED FOR 103

DATE APPLICATION RECEIVED January 27, 1986

APPLICATION INCOMPLETE Per our telephone conversation today, please file for an Infill Exception pursuant to R-6013-B, attached.

Sincerely,

DATE: January 5, 1987

NOTE:

THIS FORM LETTER MUST ACCOMPANY TWO COPIES OF THE SUPPLEMENTARY INFORMATION.

WELL LOCATION AND ACREAGE DEDICATION PLAT

Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
Gulf Oil Corporation	Graham State (NCT-C) Com	9

Letter	Section	Township	Range	County
B	25	19 South	36 East	Lea

Actual Footage Location of Well: 990 feet from the North line and 1980 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3663.4	Yates-Penrose	Eumont Gas	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

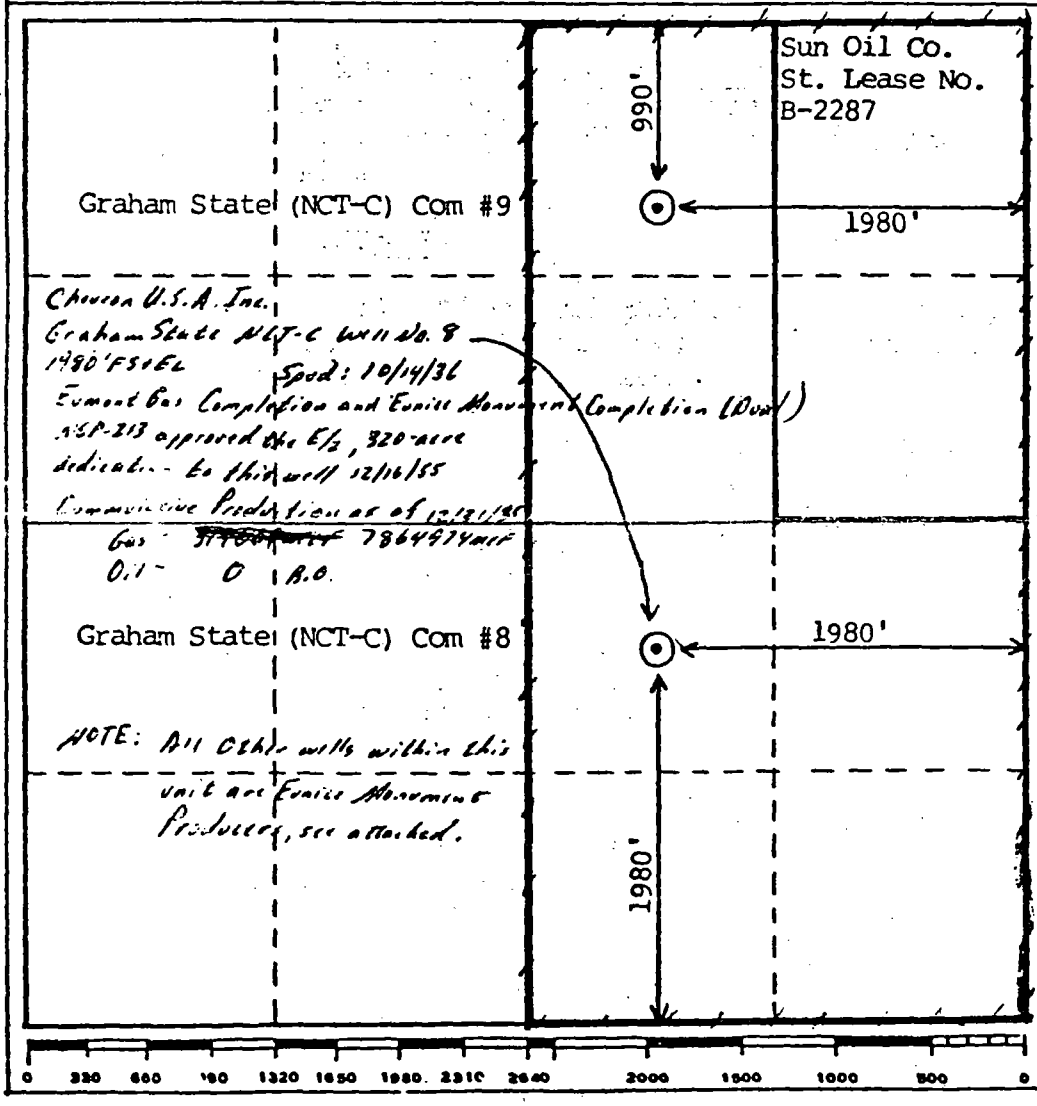
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Communitized

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

NSP-213



CERTIFICATION

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

R D Pitre

Name: R. D. Pitre

Position: Area Engineer

Company: Gulf Oil Corporation

Date: January 20, 1982

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

Engineering Data To Support Effective And Efficient Finding
Graham State (NCT-C) Com #9
Eumont Gas Pool
Lea County, New Mexico

The subject well was drilled as an infill well to the Graham State (NCT-C) Com #8 on a 320 acre non-standard proration unit comprised of the E/2 of Section 25, T19S, R36E, Lea County, New Mexico. The purpose of this report is to support the contention that the subject well is necessary to effectively and efficiently drain that portion of the reservoir contained within the proration unit.

The Chevron Graham State (NCT-C) Com #8, located 1980' FSL & 1980' FEL of Section 25, T19S, R36E, Lea County, New Mexico, was spudded on October 5, 1936, and drilled to a total depth of 3975'. The Eumont Gas Zone was dually completed with the original Eunice Monument oil zone completion on November 3, 1955. The current cumulative production from the Eumont Gas Zone is 8.0 BCF (2/87); current production is 914 MCFD (2/87).

Assuming an abandonment pressure of 75 psi bottom hole pressure (BHP), the P/Z vs. cumulative production plot for the #8 (attached) yields an ultimate recovery of 8.5 BCF. Approximately 500 MMCF of recoverable reserves currently remain.

The Chevron Graham State (NCT-C) Com #9 was spudded November 9, 1981 in the same 320 acre non-standard Eumont Gas proration unit. The subject well was completed December 15, 1981 and flowed 1083 MCFD on test. The current cumulative production from the Eumont Gas zone is 415 MMCF (2/87); current production is 501 MCFD (2/87).

The P/Z vs. cumulative production plot for the #9 well (attached) yields an ultimate recovery of 690 MMCF (using an abandonment pressure of 75 psi). Approximately 275 MMCF of recoverable reserves currently remain for the subject well.

Using reservoir data of 16% average porosity, 40% average water saturation, 90 net feet of thickness, and 93° F bottom-hole temperature, volumetric calculations were made for each of the wells on the proration unit. As illustrated on the attached ultimate drainage map, the Graham State (NCT-C) Com #9 will deplete 59 acres which will not be drained by the #8. This represents an additional recovery of 245 MMCF of gas from the Eumont Gas zone.

Based on the above information, it is our conclusion that the Graham State (NCT-C) Com #9 is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by the Graham State (NCT-C) Com #8.

2J50 PLOT SYMBOLS: WHSIP = O BHP/Z = Z COMMON = C PAGE NO. 1468

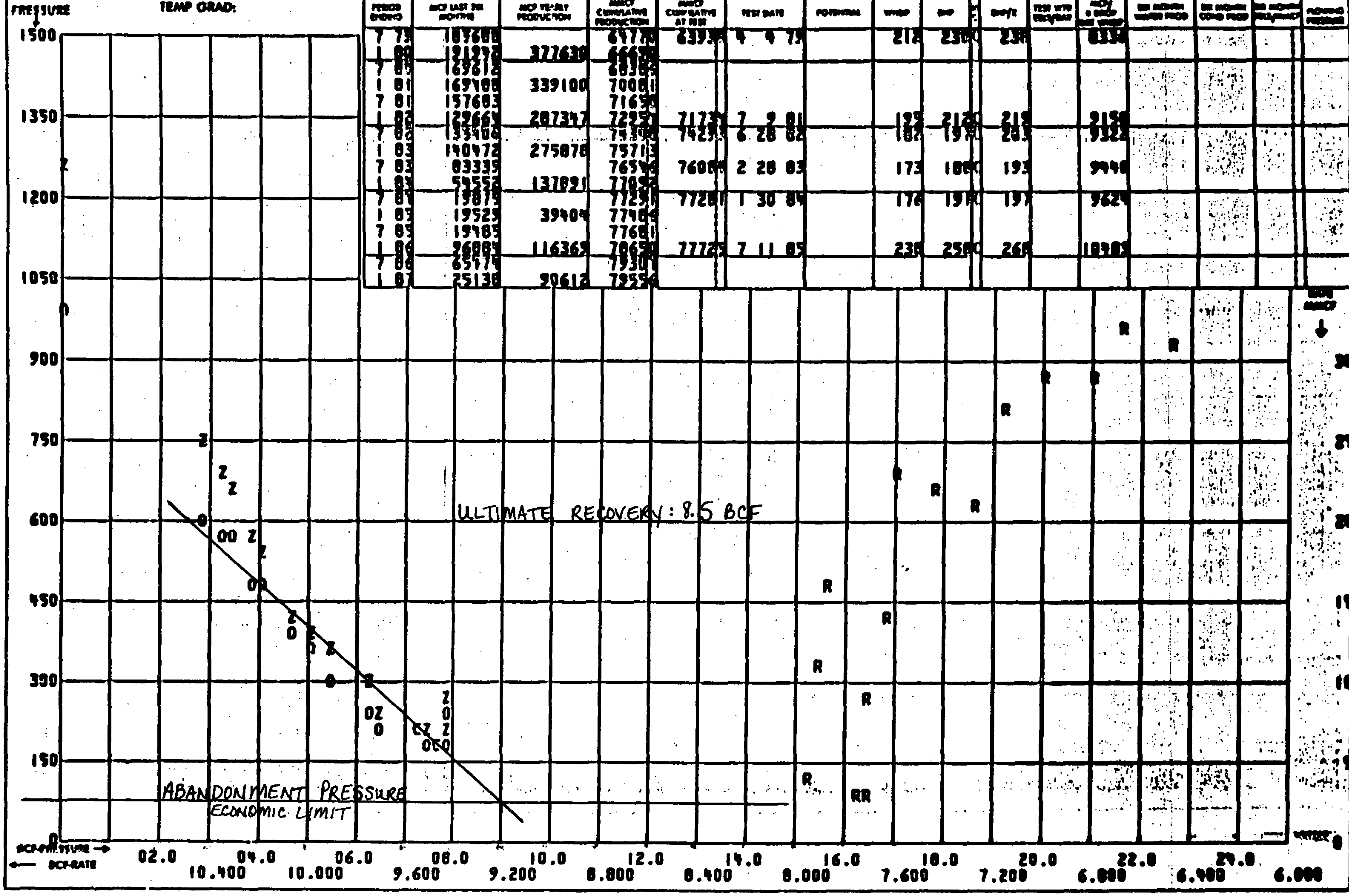
6 MOS TOTAL MMCF/4 = R
(RATE/CUM SCALE ON RIGHT SIDE) .897
TEMP GRAD:

IDENTIFYING NO.	LOCATION	OPERATOR	WELL NAME	WELL #
21953JE25J00AH	25J 19S 36E	CHEVRON USA INC	GRAHAM STATE NCT C COM	8

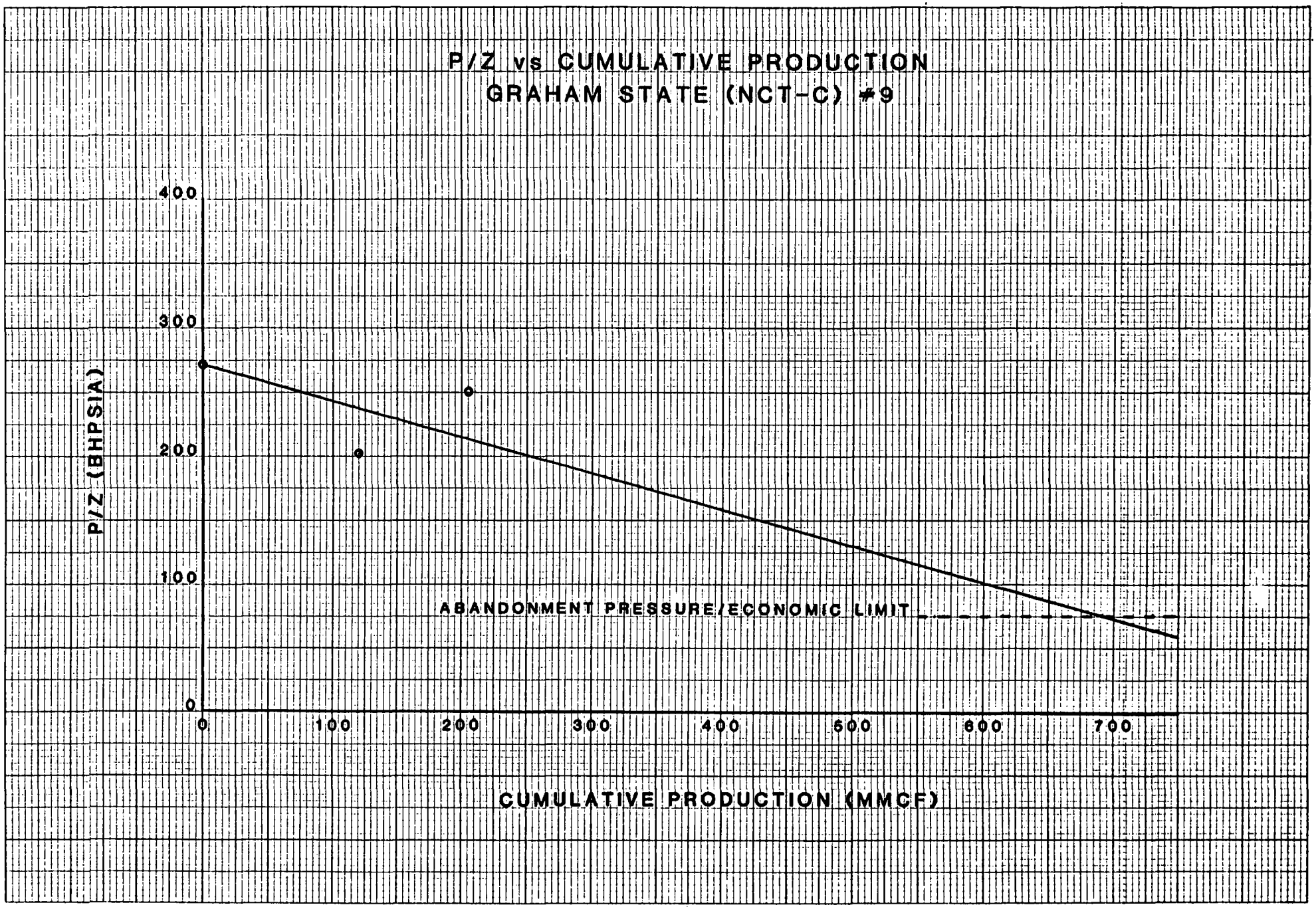
STATE	FIELD NO.	FIELD NAME	RESERVOIR	STA TUS	GATHERER GAS	GATHERER LIQUID	API NO.
NEWMEXICO	002731	EUMONT YATES 7 RVRS QN (PRO GAS) QN		ACT	NONAT		9861

DIST. NO.	COUNTY OR PARISH	DATE COMP	DATE 1ST PROD	GAS GRAVITY	INIT TEST DATE	INITIAL POTENTIAL	INIT WHSIP	LATEST N FACT	INIT. BHP/Z	C	TOTAL DEPTH	PERFORATIONS	LIQUID GRAVITY
2	LEA	110559		.67	061959	12200	975	.790	1260			3564 - 3597	

PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MMCF CUMULATIVE PRODUCTION	MMCF CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHSIP	BHP	BHP/Z	TEST WTR BBL/DAY	MCF @ BHP	SIX MONTH WATER PROD	SIX MONTH COND PROD	SIX MONTH YIELD	FLOWING PRESSURE
7 79	183680		64770	63936	4 4 79		212	2300	238		8336				
1 80	193950	377630	66698												
7 80	169612		68369												
1 81	169100	339100	70081												
7 81	157683		71658												
1 82	129664	287347	72253	71731	7 9 81		195	2120	219		9158				
7 82	133400		74390	74253	6 28 82		187	1970	203		9322				
1 83	140472	275878	75713												
7 83	83335		76546	76004	2 28 83		173	1800	193		9940				
1 84	54552	137891	77092												
7 84	19879		77251	77201	1 30 84		176	1910	197		9624				
1 85	19525	39404	77486												
7 85	19185		77681												
1 86	96885	116369	78650	77725	7 11 85		230	2500	268		10983				
7 86	65474		79305												
1 87	25138	90612	79556												



H 2



Calculations To Support E & E Finding

Equations Used:

$$Bg = \frac{35.35\ (P)}{(Z)\,(T)}\ \text{SCF/cu. ft} \qquad G = (A)\,(h)\,(\emptyset)\,(1-Sw)\,(Bg) \qquad A=\pi r^2$$

Reservoir Data:

Average Porosity ($\emptyset$) = 0.16
Average Net Height (h) = 90 ft.
Average Water Saturation (Sw) = 0.40
Bottomhole Temperature (T) = 93°F = 553°R
Abandonment Pressure = 75 psia

Drainage Radius Calculations:

Graham State (NCT-C) Com #8

Perfs: 3460-3596' Midperf = 3528'

$$Bg = \frac{(35.35)\,(573.8)}{(0.93)\,(553)} = 39.44 \text{ SCF/cu. ft.}$$

$$\text{Ultimate Drainage Area} = \frac{8{,}500{,}000{,}000}{(43560)\,(90)\,(0.16)\,(1-0.40)\,(39.44)} = 572.6 \text{ acres}$$

Ultimate Drainage Radius = 2818'

Graham State (NCT-C) Com #9

Perfs: 3517-3710' Midperf: 3614'

$$Bg = \frac{(35.35)\,(166.3)}{(0.961)\,(553)} = 11.06 \text{ SCF/cu. ft.}$$

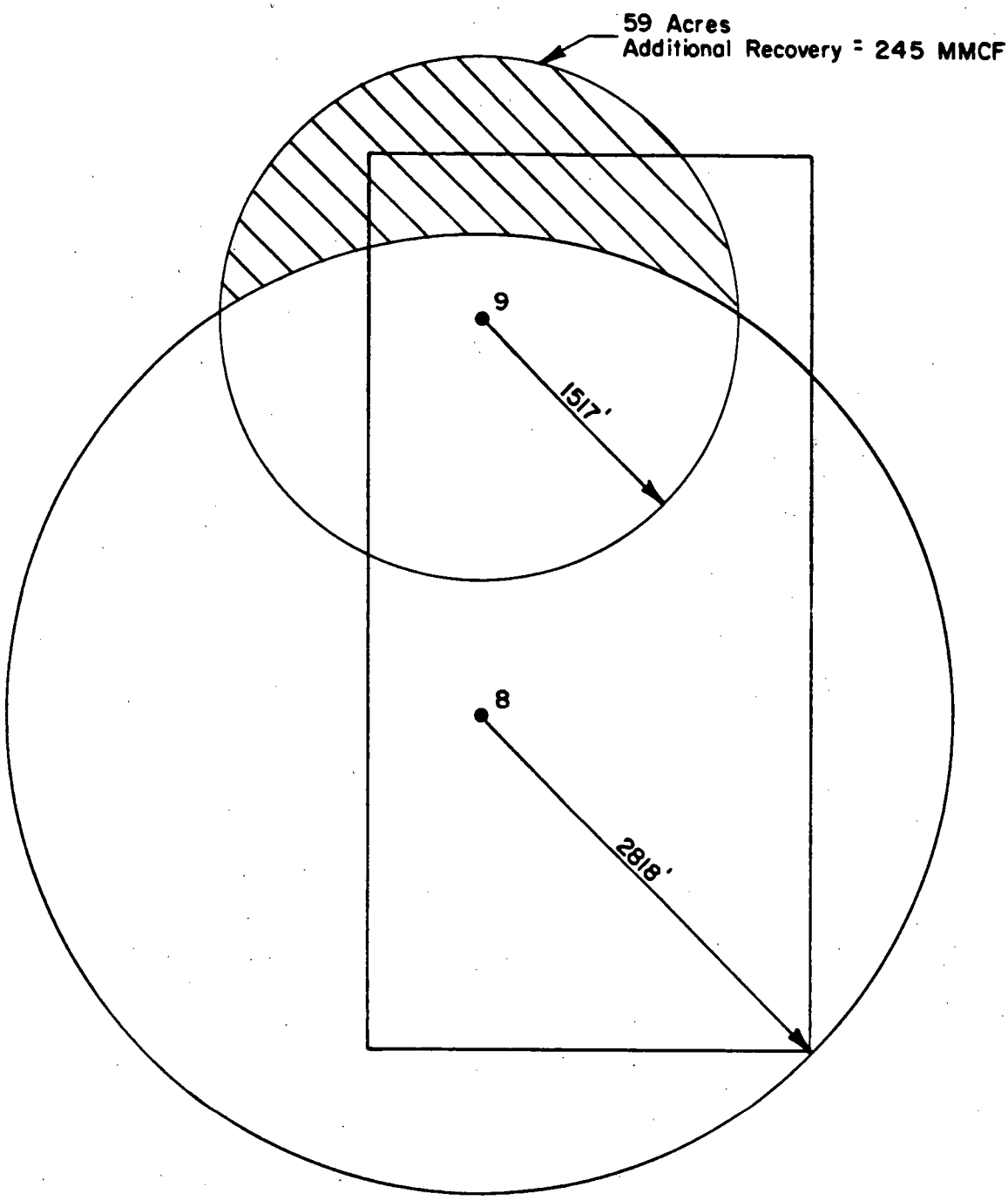
$$\text{Ultimate Drainage Area} = \frac{690{,}000{,}000}{(43560)\,(90)\,(0.16)\,(1-0.40)\,(11.06)} = 166 \text{ acres}$$

Ultimate Drainage Radius = 1517'

Additional Recovery = 59 acres* = 245 MMCF

*Planimeter Measurement = 59.12 acres

Eumont Gas Pool
Graham State (NCT-C) Lease
Ultimate Drainage Map
1" = 1000'



Chevron

Chevron U.S.A. Inc.
575 Market Street, San Francisco, California
Mail Address: P.O. Box 7309, San Francisco, CA 94120-7309

July 24, 1987

Supplemental Information For
Determination of Well Category
NGPA Section 103
Well Name: Graham State (NCT-C) No. 9
API No.: 30-025-27082
Field Name: Eumont Gas
Docket No.: Not Available
Chevron U.S.A. Inc. "SG-2015R" Key: 80

State of New Mexico
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Gentlemen:

Please refer to your letter dated January 5, 1987.

Attached is supportive evidence for an Effective and Efficient (E&E) finding on Graham State (NCT-C) Com. No. 9 pursuant to Section 271.305 of the final rules and regulations of Federal Energy Commission. This information proves that the subject well is necessary to effectively and efficiently drain that portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by the Graham State (NCT-C) No. 8.

We trust this information will suffice. However, if additional information is required, please let us know.

Please date stamp the enclosed copy of this letter and return it in the enclosed envelope.

Sincerely,

Albert G. Garcia
Regulatory Assistant

AGG:rr
Attachment

cc: Mr. J. D. Naylor, Houston

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

CHEVRON USA INC.
P.O. BOX 7309
SAN FRANCISCO CALIFORNIA 74120-3709

Attn: [redacted]
Albert Garcia

RE: Well head price ceiling determination, NGPA of 1978

Gentlemen:

The New Mexico Oil Conservation Division has received your application for a wellhead price ceiling category determination under the sections(s) of the Natural Gas Policy Act of 1978 indicated below if your application is incomplete, forms are attached hereto, indicating the documents and further information which must be filed before your application can be considered. If your application is complete, it will be acted upon administratively unless written objection is received within 15 days of its filing.

WELL NAME AND LOCATION GRAHM STATE (NCT-C) 25-19S-36E #9-B

SECTION(S) APPLIED FOR 103

DATE APPLICATION RECEIVED January 27, 1986

APPLICATION INCOMPLETE Per our telephone conversation today, please file for an Infill Exception pursuant to R-6013-B, attached.

Sincerely,

DATE: January 5, 1987

NOTE:

THIS FORM LETTER MUST ACCOMPANY TWO COPIES OF THE SUPPLEMENTARY INFORMATION.

WELL LOCATION AND ACREAGE DEDICATION PLAT

Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
Gulf Oil Corporation	Graham State (NCT-C) Com	9

Unit Letter	Section	Township	Range	County
B	25	19 South	36 East	Lea

Actual Footage Location of Well: 990 feet from the North line and 1980 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3663.4	Yates-Penrose	Eumont Gas	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

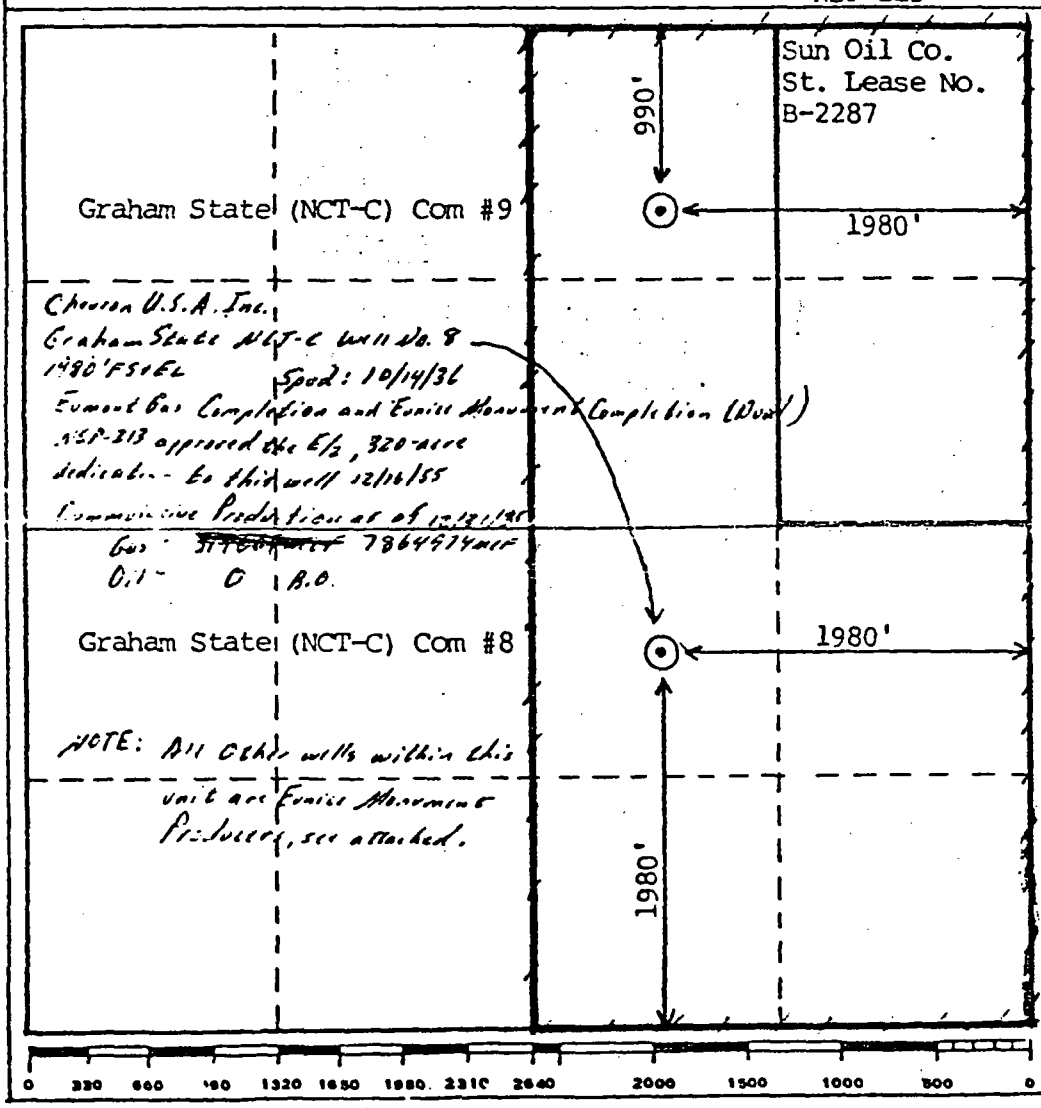
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Communitized

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

NSP-213



CERTIFICATION

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

R D Pitre

Name: R. D. Pitre

Position: Area Engineer

Company: Gulf Oil Corporation

Date: January 20, 1982

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

Engineering Data To Support Effective And Efficient Finding
Graham State (NCT-C) Com #9
Eumont Gas Pool
Lea County, New Mexico

The subject well was drilled as an infill well to the Graham State (NCT-C) Com #8 on a 320 acre non-standard proration unit comprised of the E/2 of Section 25, T19S, R36E, Lea County, New Mexico. The purpose of this report is to support the contention that the subject well is necessary to effectively and efficiently drain that portion of the reservoir contained within the proration unit.

The Chevron Graham State (NCT-C) Com #8, located 1980' FSL & 1980' FEL of Section 25, T19S, R36E, Lea County, New Mexico, was spudded on October 5, 1936, and drilled to a total depth of 3975'. The Eumont Gas Zone was dually completed with the original Eunice Monument oil zone completion on November 3, 1955. The current cumulative production from the Eumont Gas Zone is 8.0 BCF (2/87); current production is 914 MCFD (2/87).

Assuming an abandonment pressure of 75 psi bottom hole pressure (BHP), the P/Z vs. cumulative production plot for the #8 (attached) yields an ultimate recovery of 8.5 BCF. Approximately 500 MMCF of recoverable reserves currently remain.

The Chevron Graham State (NCT-C) Com #9 was spudded November 9, 1981 in the same 320 acre non-standard Eumont Gas proration unit. The subject well was completed December 15, 1981 and flowed 1083 MCFD on test. The current cumulative production from the Eumont Gas zone is 415 MMCF (2/87); current production is 501 MCFD (2/87).

The P/Z vs. cumulative production plot for the #9 well (attached) yields an ultimate recovery of 690 MMCF (using an abandonment pressure of 75 psi). Approximately 275 MMCF of recoverable reserves currently remain for the subject well.

Using reservoir data of 16% average porosity, 40% average water saturation, 90 net feet of thickness, and 93° F bottom-hole temperature, volumetric calculations were made for each of the wells on the proration unit. As illustrated on the attached ultimate drainage map, the Graham State (NCT-C) Com #9 will deplete 59 acres which will not be drained by the #8. This represents an additional recovery of 245 MMCF of gas from the Eumont Gas zone.

Based on the above information, it is our conclusion that the Graham State (NCT-C) Com #9 is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by the Graham State (NCT-C) Com #8.

2J50 PLOT SYMBOLS: WHSIP = O; BHP/Z = Z; COMMON = C

6 MOS TOTAL MMCF/4 = R (RATE/CUM SCALE ON RIGHT SIDE)

TEMP GRAD:

PAGE NO. 1468

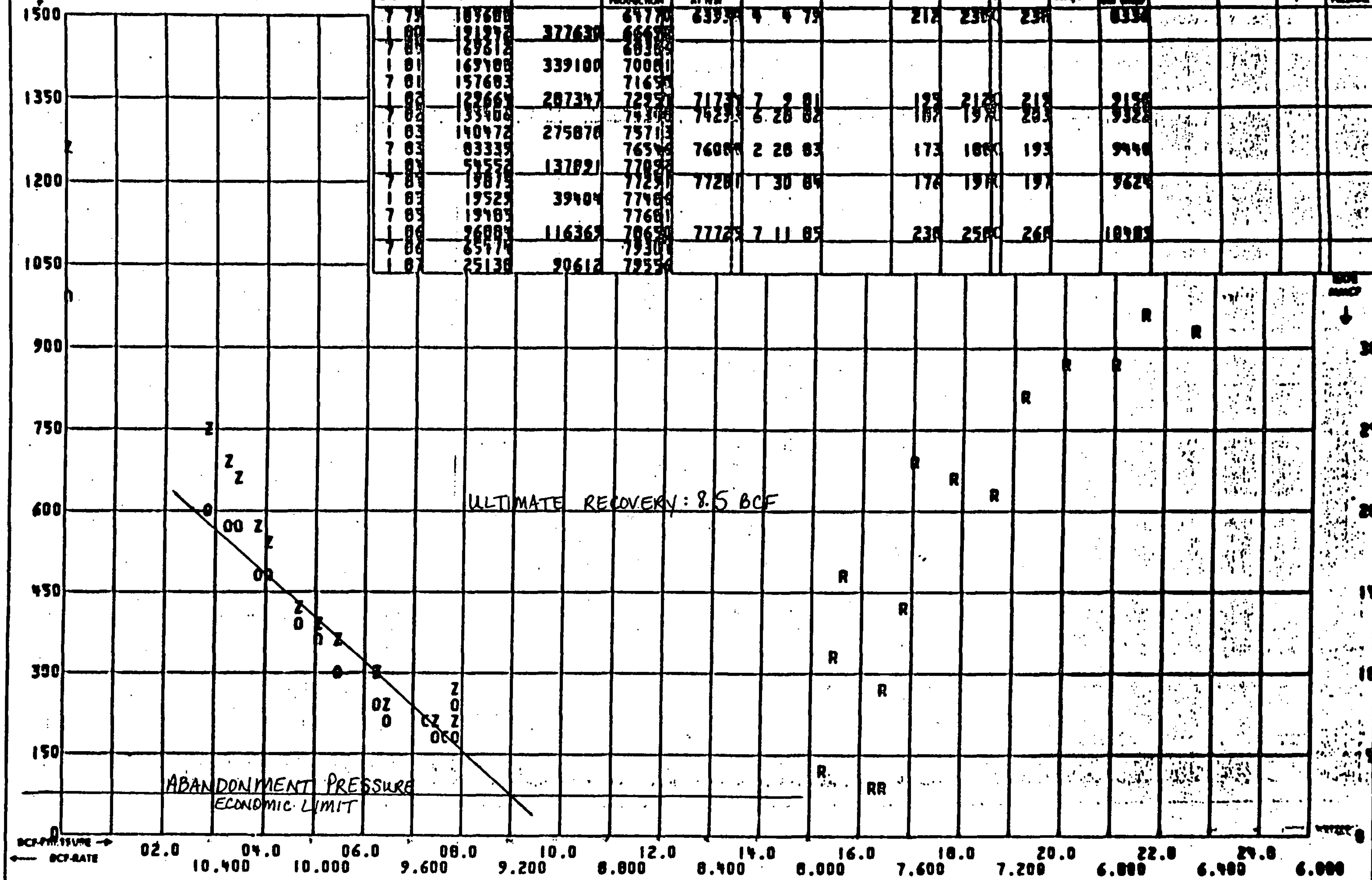
.897

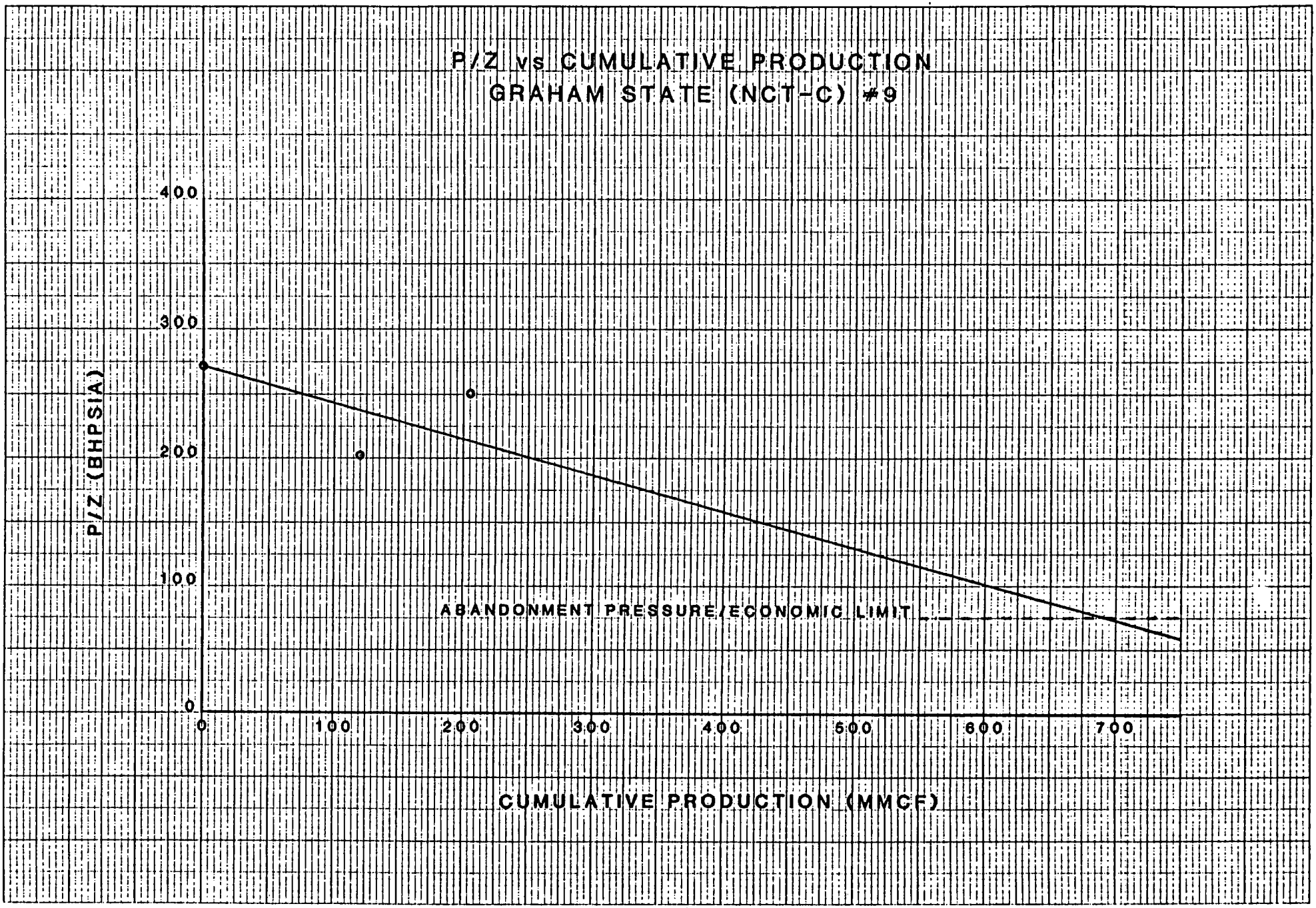
IDENTIFYING NO.	LOCATION	OPERATOR	WELL NAME	WELL #
21953E25J00AH	25J 19S 36E	CHEVRON USA INC	GRAHAM STATE NCT C COM	8

STATE	FIELD NO.	FIELD NAME	RESERVOIR	STA TUS	GATHERER GAS	GATHERER LIQUID	API NO.
NEWMEXICO	802731	EUMONT YATES 7 RVRS QN (PRO GAS) QN		NCT	NONAT		4861

DIST. NO.	COUNTY OR PARISH	DATE COMP	DATE 1ST PROD	GAS GRAVITY	INIT TEST DATE	INITIAL POTENTIAL	INIT WHSIP	LATEST IN FACT	INIT BHP/Z	TOTAL DEPTH	PERFORATIONS	LIQUID GRAVITY
2	LEA	110559		.67	061959	12200	919	.790	1260		3568- 3598	

PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MMCF CUMULATIVE PRODUCTION	MMCF CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHSIP	BHP	BHP/Z	TEST WTR BBL/DAY	MCF/ 0 DROP	SIX MONTH WATER PROD	SIX MONTH COND PROD	SIX MONTH	FLOWING PRESSURE
7 79	103688		64977	63359	4 4 79		212	230	238		8334				
1 80	121292	377630	66699												
7 80	169612		68369												
1 81	163108	339100	70081												
7 81	157603		71659												
1 82	129664	287347	72957	71737	7 9 81		195	2120	219		9150				
7 82	133906		74398	74275	6 28 82		187	1970	203		9322				
1 83	140472	275878	75713												
7 83	83335		76549	76089	2 28 83		173	1860	193		9440				
1 84	54552	137821	77092												
7 84	19875		77251	77281	1 30 84		176	1910	197		9624				
1 85	19529	39404	77484												
7 85	19485		77681												
1 86	96089	116369	78650	77725	7 11 85		238	2580	268		10909				
7 86	65979		79301												
1 87	25138	90612	79556												





Calculations To Support E & E Finding

Equations Used:

$$Bg = \frac{35.35\ (P)}{(Z)\ (T)} \quad SCF/cu.\ ft \qquad G = (A)\,(h)\,(\emptyset)\,(1-Sw)\,(Bg) \qquad A=TTr^2$$

Reservoir Data:

Average Porosity ($\emptyset$) = 0.16
Average Net Height (h) = 90 ft.
Average Water Saturation (Sw) = 0.40
Bottomhole Temperature (T) = 93°F = 553°R
Abandonment Pressure = 75 psia

Drainage Radius Calculations:

Graham State (NCT-C) Com #8

Perfs: 3460-3596' Midperf = 3528'

$$Bg = \frac{(35.35)\,(573.8)}{(0.93)\,(553)} = 39.44\ SCF/cu.\ ft.$$

$$\text{Ultimate Drainage Area} = \frac{8,500,000,000}{(43560)\,(90)\,(0.16)\,(1-0.40)\,(39.44)} = 572.6\ \text{acres}$$

Ultimate Drainage Radius = 2818'

Graham State (NCT-C) Com #9

Perfs: 3517-3710' Midperf: 3614'

$$Bg = \frac{(35.35)\,(166.3)}{(0.961)\,(553)} = 11.06\ SCF/cu.\ ft.$$

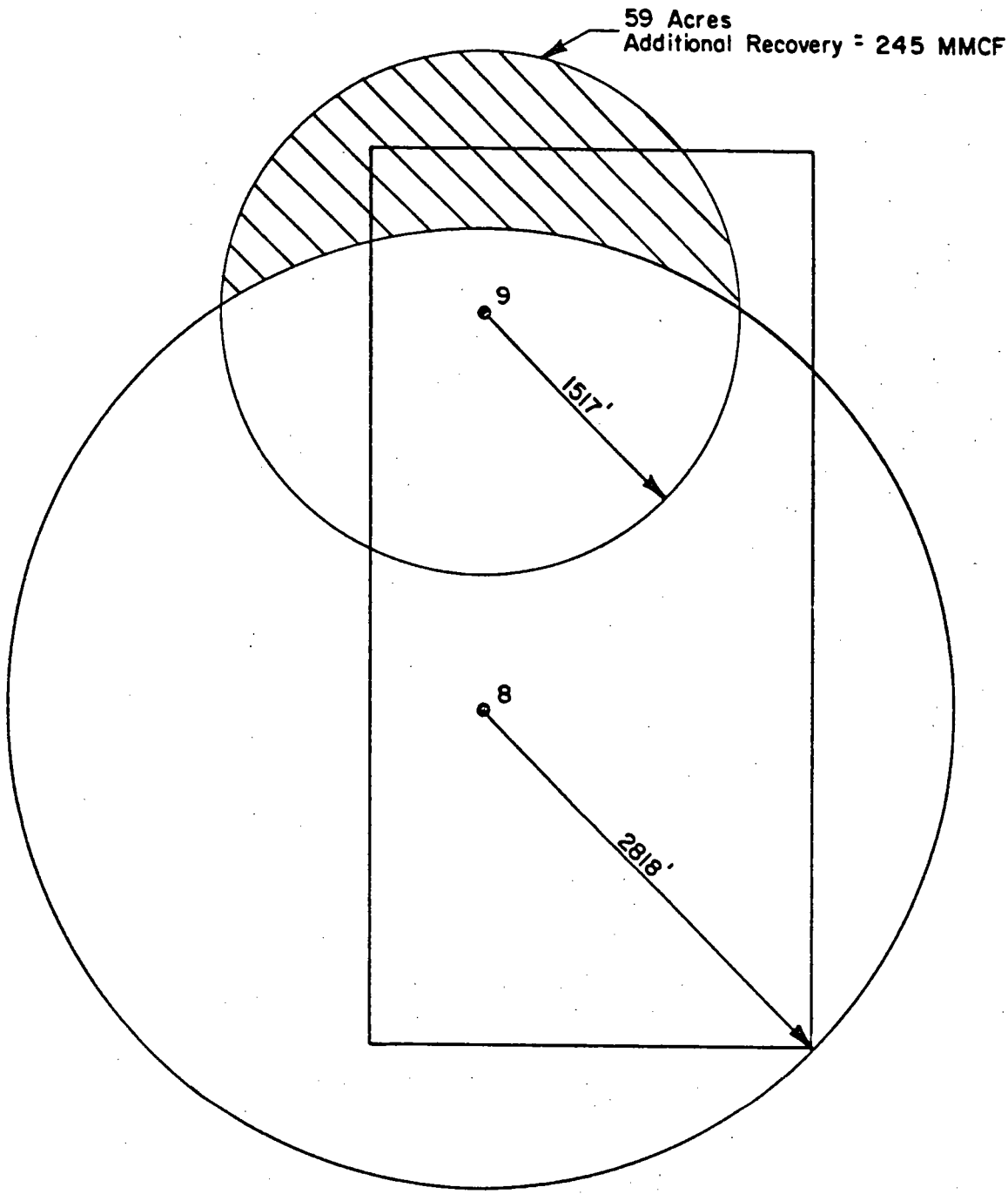
$$\text{Ultimate Drainage Area} = \frac{690,000,000}{(43560)\,(90)\,(0.16)\,(1-0.40)\,(11.06)} = 166\ \text{acres}$$

Ultimate Drainage Radius = 1517'

Additional Recovery = 59 acres* = 245 MMCF

*Planimeter Measurement = 59.12 acres

Eumont Gas Pool
Graham State (NCT-C) Lease
Ultimate Drainage Map
1" = 1000'



Chevron

Chevron U.S.A. Inc.
575 Market Street, San Francisco, California
Mail Address: P.O. Box 7309, San Francisco, CA 94120-7309

July 24, 1987

Supplemental Information For
Determination of Well Category
NGPA Section 103
Well Name: Graham State (NCT-C) No. 9
API No.: 30-025-27082
Field Name: Eumont Gas
Docket No.: Not Available
Chevron U.S.A. Inc. "SG-2015R" Key: 80

State of New Mexico
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Gentlemen:

Please refer to your letter dated January 5, 1987.

Attached is supportive evidence for an Effective and Efficient (E&E) finding on Graham State (NCT-C) Com. No. 9 pursuant to Section 271.305 of the final rules and regulations of Federal Energy Commission. This information proves that the subject well is necessary to effectively and efficiently drain that portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by the Graham State (NCT-C) No. 8.

We trust this information will suffice. However, if additional information is required, please let us know.

Please date stamp the enclosed copy of this letter and return it in the enclosed envelope.

Sincerely,

Albert G. Garcia
Regulatory Assistant

AGG:rr
Attachment

cc: Mr. J. D. Naylor, Houston

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

CHEVRON USA INC.
P.O. BOX 7309
SAN FRANCISCO CALIFORNIA 74120-3709

Attn: [redacted]
Albert Garcia

RE: Well head price ceiling determination, NGPA of 1978

Gentlemen:

The New Mexico Oil Conservation Division has received your application for a wellhead price ceiling category determination under the sections(s) of the Natural Gas Policy Act of 1978 indicated below if your application is incomplete, forms are attached hereto, indicating the documents and further information which must be filed before your application can be considered. If your application is complete, it will be acted upon administratively unless written objection is received within 15 days of its filing.

WELL NAME AND LOCATION GRAHM STATE (NCT-C) 25-19S-36E #9-B

SECTION(S) APPLIED FOR 103

DATE APPLICATION RECEIVED January 27, 1986

APPLICATION INCOMPLETE Per our telephone conversation today, please file for an Infill Exception pursuant to R-6013-A, attached.

Sincerely,

DATE: January 5, 1987

NOTE:

THIS FORM LETTER MUST ACCOMPANY TWO COPIES OF THE SUPPLEMENTARY INFORMATION.

WELL LOCATION AND ACREAGE DEDICATION PLAT

Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
Gulf Oil Corporation	Graham State (NCT-C) Com	9

Unit Letter	Section	Township	Range	County
B	25	19 South	36 East	Lea

Actual Footage Location of Well: 990 feet from the North line and 1980 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3663.4	Yates-Penrose	Eumont Gas	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

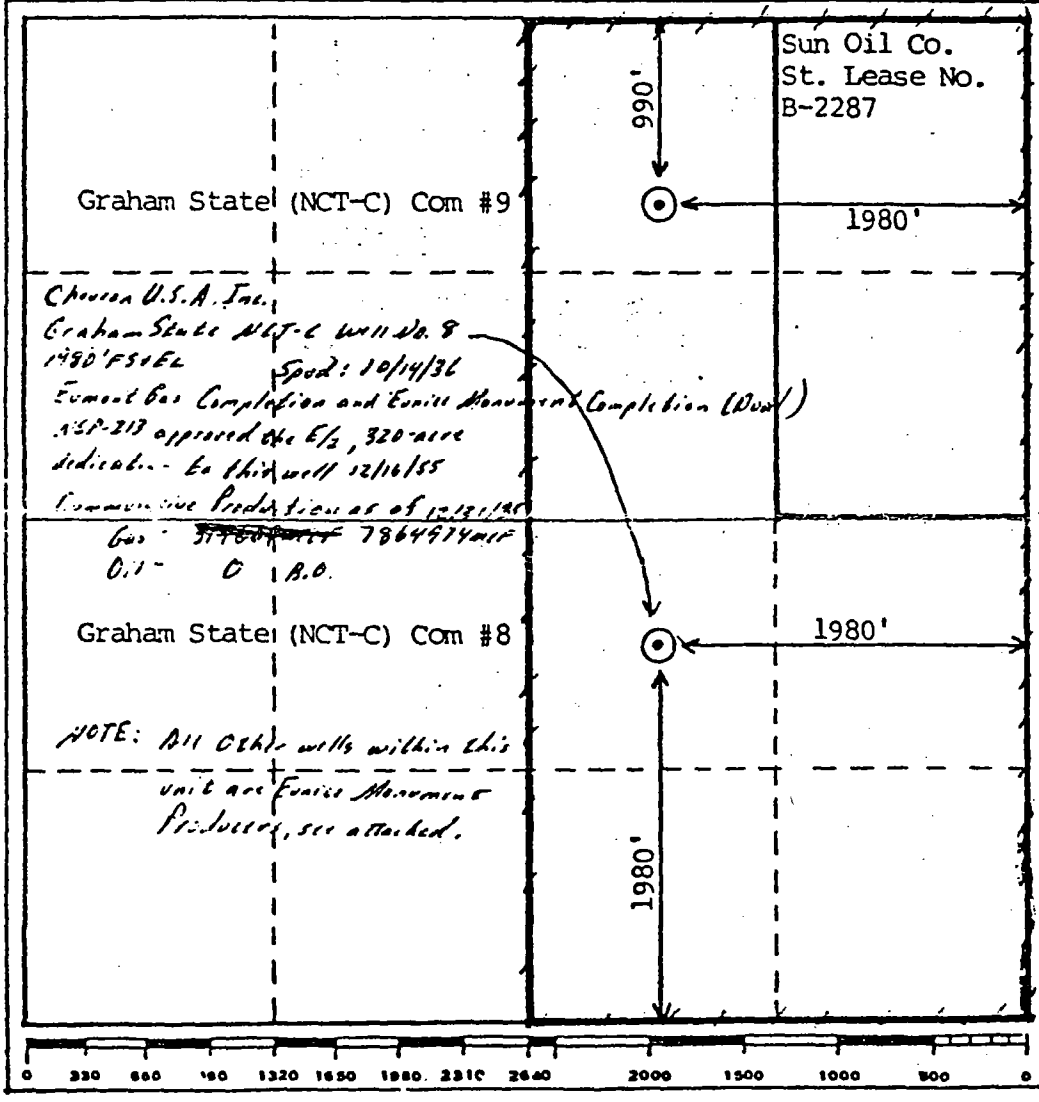
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Communitized

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

NSP-213



CERTIFICATION

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

R D Pitre

Name: R. D. Pitre

Position: Area Engineer

Company: Gulf Oil Corporation

Date: January 20, 1982

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

Engineering Data To Support Effective And Efficient Finding
Graham State (NCT-C) Com #9
Eumont Gas Pool
Lea County, New Mexico

The subject well was drilled as an infill well to the Graham State (NCT-C) Com #8 on a 320 acre non-standard proration unit comprised of the E/2 of Section 25, T19S, R36E, Lea County, New Mexico. The purpose of this report is to support the contention that the subject well is necessary to effectively and efficiently drain that portion of the reservoir contained within the proration unit.

The Chevron Graham State (NCT-C) Com #8, located 1980' FSL & 1980' FEL of Section 25, T19S, R36E, Lea County, New Mexico, was spudded on October 5, 1936, and drilled to a total depth of 3975'. The Eumont Gas Zone was dually completed with the original Eunice Monument oil zone completion on November 3, 1955. The current cumulative production from the Eumont Gas Zone is 8.0 BCF (2/87); current production is 914 MCFD (2/87).

Assuming an abandonment pressure of 75 psi bottom hole pressure (BHP), the P/Z vs. cumulative production plot for the #8 (attached) yields an ultimate recovery of 8.5 BCF. Approximately 500 MMCF of recoverable reserves currently remain.

The Chevron Graham State (NCT-C) Com #9 was spudded November 9, 1981 in the same 320 acre non-standard Eumont Gas proration unit. The subject well was completed December 15, 1981 and flowed 1083 MCFD on test. The current cumulative production from the Eumont Gas zone is 415 MMCF (2/87); current production is 501 MCFD (2/87).

The P/Z vs. cumulative production plot for the #9 well (attached) yields an ultimate recovery of 690 MMCF (using an abandonment pressure of 75 psi). Approximately 275 MMCF of recoverable reserves currently remain for the subject well.

Using reservoir data of 16% average porosity, 40% average water saturation, 90 net feet of thickness, and 93° F bottom-hole temperature, volumetric calculations were made for each of the wells on the proration unit. As illustrated on the attached ultimate drainage map, the Graham State (NCT-C) Com #9 will deplete 59 acres which will not be drained by the #8. This represents an additional recovery of 245 MMCF of gas from the Eumont Gas zone.

Based on the above information, it is our conclusion that the Graham State (NCT-C) Com #9 is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by the Graham State (NCT-C) Com #8.

2J50

PLOT SYMBOLS:
WHSIP = O
BHP/Z = Z
COMMON = C

6 MOS TOTAL MMCF/6 = R
(RATE/CUM SCALE ON RIGHT SIDE)

TEMP GRAD:

PAGE NO. 1468

.897

IDENTIFYING NO.	LOCATION	OPERATOR	WELL NAME	WELL #
219536E25J00AH	25.L 19S 36E	CHEVRON USA INC	GRAHAM STATE NCT C COM	8

STATE	FIELD NO.	FIELD NAME	RESERVOIR	STATUS	GATHERER GAS	GATHERER LIQUID	API NO.
NEWMEXICO	802731	EUMONT YATES 7 RVRS QN (PRO GAS) QN		ACT	NOMAT		4061

DIST. NO.	COUNTY OR PARISH	DATE COMP	DATE 1ST PROD	GAS GRAVITY	INIT TEST DATE	INITIAL POTENTIAL	INIT WHSIP	LATEST N FACT	INIT. BHP/Z	TOTAL DEPTH	PERFORATIONS	LIQUID GRAVITY
2	LEA	110559		.67	061954	12200	975	.790	1260		3568 - 3594	

PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MMCF CUMULATIVE PRODUCTION	MMCF CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHSIP	BHP	BHP/Z	TEST WTR BBL/DAY	MCF/ @ DROP ? WHSIP	SIX MONTH WATER PROD	SIX MONTH COND PROD	SIX MONTH BBL/MMCF	FLOWING PRESSURE
7 79	189688		64778	63393	4 4 79		212	2300	238		8338				
1 80	191972	377630	66658												
7 80	169618		68384												
1 81	169488	339100	70081												
7 81	157683		71659												
1 82	129664	287347	72957	71737	7 2 81		195	2120	219		9158				
7 82	133404		74308	74253	6 28 82		182	1970	203		9328				
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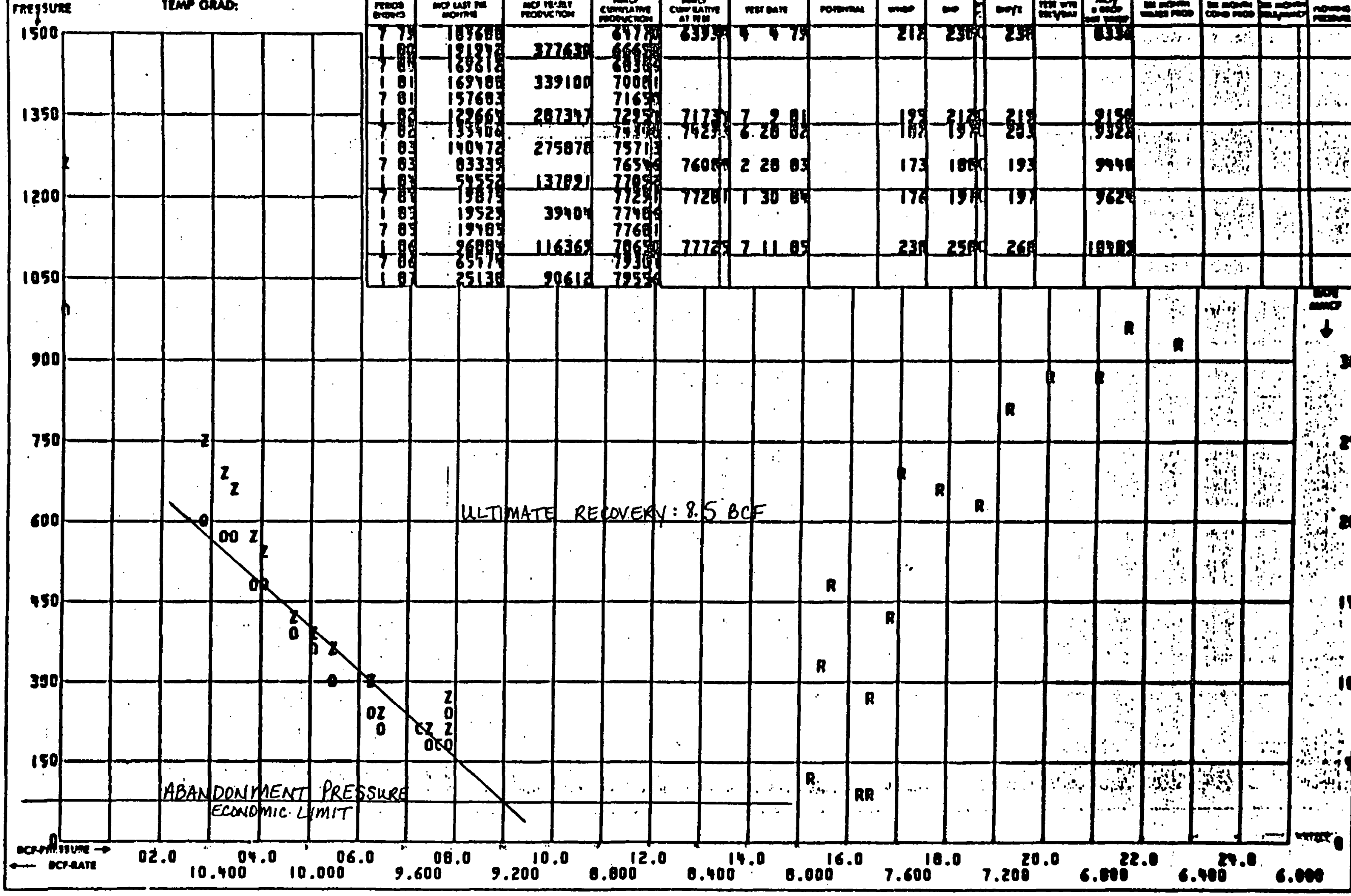

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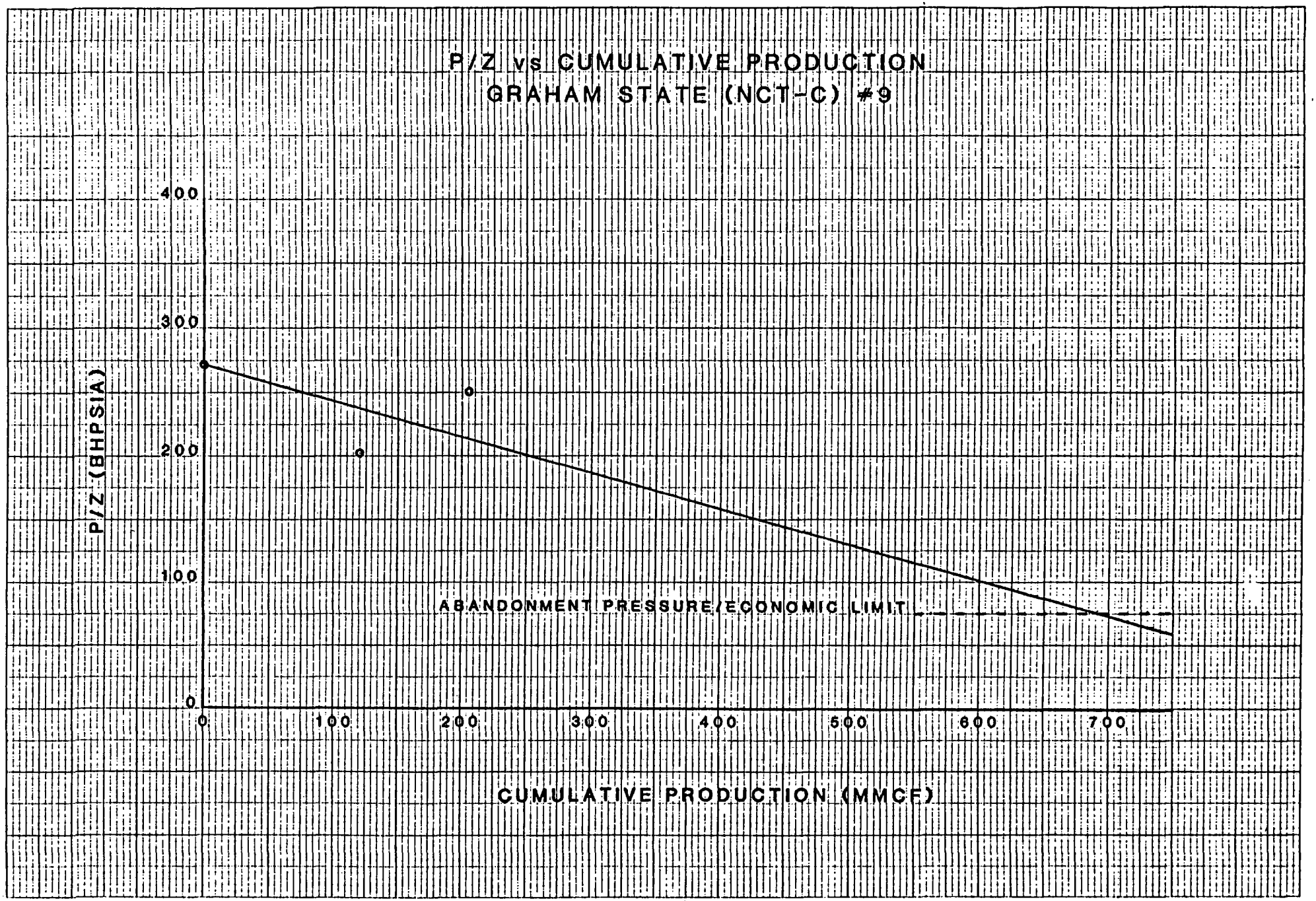

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